

CHAPTER 4: Summary of Public Comments and Service Responses, Changes to Maps, and Updates to Mapping Protocols

Section 3(c)(3) of the 2006 CBRRA requires that this final report contain a summary of the comments received from Governors, other government officials, and the public regarding the digital maps. Section 3(c)(4) of the 2006 CBRRA requires that this report contain a summary and update of the protocols of the initial pilot project report required under Section 6(d) of the 2000 CBRRA.

This chapter contains: (1) a summary of the substantive overarching comments received during the pilot project public comment period and the Service’s responses to those comments; (2) a summary of any changes to pilot project maps as a result of public comments; and (3) a summary of significant mapping protocols that were either updated or clarified by

the Service through the pilot project. Table 1 below provides summary information regarding these issues. Comments that are specific to individual pilot project units are addressed in Appendix E. Copies of the comments received during the public review period have not been reproduced in this report but will be made available by the Service’s Headquarters Office upon request.

Table 1. Summary of Substantive Overarching Comments and Responses

<i>Number</i>	<i>Issue</i>	<i>Changes to Pilot Project Maps</i>	<i>Update or Clarification to Protocol</i>	<i>Page Number</i>
1	Authority of the Service to Recommend Additions to the CBRS	No	No	16
2	Effectiveness of the CBRA	No	No	16
3	Long-Term Preservation of the CBRS	No	Yes	17
4	Modernizing CBRS Maps Using Digital Technology	No	Yes	17
5	Public Disclosure of CBRS Designation	No	No	17
6	Multiple Layers of Protection on Properties in the CBRS	No	No	18
7	Amend the CBRA to Add Exemptions for Projects Deemed to be of Public Benefit	No	No	18
8	Effective Dates for Areas Added to or Reclassified within the CBRS	No	Yes	18
9	Delineation of CBRS Boundaries Based on Legal Descriptions Instead of Maps	No	No	19
10	Age and Quality of Aerial Imagery Used for CBRS Base Maps	Yes	Yes	19
11	System Unit versus OPA Classification and Reclassification	No	Yes	19
12	Mapping Channels within the CBRS	No	Yes	21
13	Mapping Landward CBRS Boundaries Using Easy-to-Map Features	No	No	22
14	Addition of Associated Aquatic Habitat behind a Developed Barrier to the CBRS	Yes	Yes	23
15	Inclusion of Docks, Piers, Marinas, and Other Shoreline Structures within the CBRS	No	No	24
16	Shoreline and Development Feature Buffering	Yes	Yes	24
17	Roads and Road Rights-of-Way in OPAs	No	No	27
18	Mapping Seaward Boundaries of Excluded Areas in the CBRS	Yes	No	27
19	Seaward Limits of CBRS Units	Yes	Yes	27

(1) Authority of the Service to Recommend Additions to the CBRS

Comments Received: The Service received comments from individuals, a homeowners association, and State and local officials in North Carolina questioning the authority of the Service to recommend the creation of new units and the expansion of existing units within the CBRS. The State and local officials also commented that the CBRA authorizes the Service to modify the CBRS boundaries under only three limited circumstances: voluntary additions to the CBRS, additions of excess Federal property, and modifications to the CBRS as a result of natural forces. These officials believe that the Service went beyond what is authorized by proposing modifications that did not fit under one of these circumstances.

Service Response: Section 4(c)(3)(D) of the 2006 CBRRA directs the Secretary to make recommendations for additions when carrying out digital mapping for the remainder of the CBRS. The Service applied this directive to the pilot project maps because:

- (1) the pilot project maps were still being drafted at the time of enactment of the CBRRA in May of 2006;
- (2) it was more efficient and cost effective to identify proposed additions at the time that the pilot project maps were drafted than to revisit those areas at a future date; and
- (3) this approach is consistent with the comprehensive mapping approach the Service and Congress have followed for most revisions to the CBRS in recent years.

The Service is authorized to make boundary changes administratively only under the three circumstances mentioned by the commenters. However, we may make recommendations to Congress for other boundary changes. In carrying out the pilot project, the Service found areas that are appropriate for removal from the CBRS, addition to the CBRS, and

reclassification from one type of unit to another (OPA to System Unit and vice versa). The Service’s final recommended changes to the pilot project units are depicted on the maps included in Appendix C of this report. However, the revised maps will only become effective if they are adopted by Congress through legislation.

Changes to Pilot Project Maps:

There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

(2) Effectiveness of the CBRA

Comments Received: The Service received comments from individuals stating that the CBRA has failed to discourage development in certain areas and that those areas should therefore be removed from the CBRS or the law should be repealed.

Service Response: When considering modifications to add areas to or remove areas from the CBRS, the Service considers the purposes of the CBRA as stated in the statute:

The Congress declares that it is the purpose of this Act to minimize the loss of human life, wasteful expenditure of Federal revenues, and the damage to fish, wildlife, and other natural resources associated with the coastal barriers along the Atlantic and Gulf coasts by restricting future Federal expenditures and financial assistance which have the effect of encouraging development of coastal barriers, by establishing a Coastal Barrier Resources System, and by considering the means and measures by which the long-term conservation of these fish, wildlife, and other natural resources may be achieved.¹

On December 5, 1983, the Department published a notice in the *Federal Register* outlining the

process for how the Department would implement Section 10 of the CBRA of 1982, which required a report to Congress that included, among other things, recommendations for additions, deletions, or other modifications to the CBRS. The notice states the following regarding boundary changes:

The legislative history provides little guidance on the subject of boundary changes except to state explicitly that development of a unit subsequent to the CBRA is not grounds for removal from the System. The fundamental guide for the Department in recommending changes to the System will be derived from the purposes of the CBRA, i.e., Section 2(b)“...to minimize the loss of human life, wasteful expenditure of Federal revenues, and damage to fish, wildlife, and other natural resources associated with the coastal barriers along the Atlantic and Gulf coasts...” It is our opinion that reducing or eliminating units of the System will generally violate the purposes of the CBRA unless there are mistakes in the original designation or mapping process.²

The Service continues to apply the purposes of the CBRA as a fundamental guide in recommending changes to the CBRS. While some areas within the CBRS have developed since their inclusion, the CBRA has been successful in preventing the Federal taxpayer from assuming the risk of building there. The Service does not recommend removing areas simply because development occurred after they were added to the CBRS, and does not support the repeal of the CBRA.

Changes to Pilot Project Maps:

There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

(3) Long-Term Preservation of the CBRS

Comments Received: The Service received comments from conservation organizations and individuals urging the Service to protect the integrity of the CBRS. The common concern from commenters was that interested parties with development interests would use the pilot project as an opportunity to remove areas from the CBRS.

Service Response: The Service receives numerous requests from interested parties who seek to remove areas from the CBRS. We recognize that the pilot project, along with other comprehensive remapping projects, provides an opportunity for stakeholders to seek removals from the CBRS. The Service endeavors to protect the integrity of the CBRS and generally does not recommend removals in cases where there is not clear and compelling evidence that a mistake was made as a result of incorrect, outdated, or incomplete information (often stemming from inaccuracies on the original base maps). We carefully review all proposals to remove areas from the CBRS. Changes to the CBRS that are recommended through the pilot project and other comprehensive map modernization projects are still only recommendations, and the final decision as to whether or not areas should be removed from (or added to) the CBRS rests with Congress.

Changes to Pilot Project Maps: There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

Update to Protocol: The Service has developed guiding principles and criteria for assessing modifications to the CBRS based on lessons learned through the pilot project and other comprehensive remapping projects over the past several years (see Chapter 6). These guiding principles are consistent with the intent of the CBRA and ensure that the Service's recommendations to Congress for removals from the CBRS are based

on clear and compelling evidence that a mistake was made, and will be applied to future requests for removals from the CBRS.

(4) Modernizing CBRS Maps Using Digital Technology

Comments Received: The Service received comments from individuals, homeowners associations, conservation organizations, Federal officials, State officials in Delaware and North Carolina, and local officials in North Carolina and Florida commending the Service for modernizing the CBRS maps using digital technology. One commenter stated that determining whether a property is located within the CBRS will be more accurate using the updated CBRS maps. Although supportive of map modernization in general, many of these same commenters had objections to specific boundary changes.

Service Response: The Service concurs that modernizing the CBRS maps using digital technology has many benefits. Chapter 2 explains the benefits and successes of our efforts to modernize the maps. The commenters' objections to specific boundary changes are addressed in Appendix E. The Service endeavors to protect the integrity of the CBRS and generally does not recommend removals in cases where there is not clear and compelling evidence that a mistake was made as a result of incorrect, outdated, or incomplete information (often stemming from inaccuracies on the original base maps). We carefully review all proposals to remove areas from the CBRS. Changes to the CBRS that are recommended through the pilot project and other comprehensive map modernization projects are still only recommendations, and the final decision as to whether or not areas should be removed from (or added to) the CBRS rests with Congress.

Changes to Pilot Project Maps: There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

Update to Protocol: The Service has developed updated protocols

for preparing digital maps as well as guiding principles and criteria for assessing modifications to the CBRS, based on lessons learned through the pilot project and other comprehensive remapping projects over the past several years (updated mapping protocols are included in this chapter and guiding principles and criteria are in Chapter 6). The Service's guiding principles and criteria are consistent with the intent of the CBRA and ensure that the Service's recommendations to Congress for removals from the CBRS are based on clear and compelling evidence that a mistake was made, and will be applied to future requests for removals from the CBRS.

(5) Public Disclosure of CBRS Designation

Comments Received: The Service received comments from an individual and a conservation organization concerning the need for public disclosure of CBRS designations during real estate transactions.

Service Response: The Service agrees that there should be greater disclosure of CBRS designations within communities. The Service is regularly contacted by property owners who purchased property without any prior knowledge of the CBRS designation affecting the property. If the structure on a property is located in a FEMA Special Flood Hazard Area (SFHA),³ which is often the case for areas within the CBRS, flood insurance is usually required as a condition of a mortgage. In CBRS areas, Federal flood insurance is generally not available for structures constructed after the area was included within the CBRS, which leaves the homeowner with very few options aside from purchasing significantly more expensive flood insurance on the private market, paying off the loan, or selling the home.

The Federal Government currently has no mechanism to mandate CBRS disclosure when land is bought or sold. However, States and local authorities can implement their own mandates requiring the disclosure

of a CBRS designation before the ratification of a contract for the sale of real property. Federal, State, and local authorities can now integrate CBRS data into their GIS platforms and other information systems so that CBRS information is readily available to community officials, developers, property owners, prospective buyers, and others. Additionally, public authorities can include CBRS information in outreach materials, on building permit forms, and in planning documents. These actions could help to increase awareness of the CBRS and the associated prohibitions on Federal expenditures and financial assistance.

Changes to Pilot Project Maps:

There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

(6) Multiple Layers of Protection on Properties in the CBRS

Comments Received: The Service received comments from individuals and local officials in North Carolina questioning the need for a CBRS designation in areas that are already regulated at the Federal, State, or local level through various laws and/or zoning designations.

Service Response: When the CBRA was enacted, Congress listed among its findings that “certain actions and programs of the Federal Government have subsidized and permitted development on coastal barriers and the result has been the loss of barrier resources, threats to human life, health, and property, and the expenditure of millions of tax dollars each year,” and that “a program of coordinated action by Federal, State, and local governments is critical to the more appropriate use and conservation of coastal barriers.”⁴ The Service agrees with these findings and believes that the inclusion of areas within the CBRS gives them an additional layer of protection from future development.

Areas established under Federal, State, or local law, or held by a qualified organization, primarily

for wildlife refuge, sanctuary, recreational, or natural resource conservation purposes, are typically included within OPAs of the CBRS.⁵ All other areas, including those subject to certain regulations and/or zoning designations (which may be subject to change), are typically included within System Units rather than OPAs. This is consistent with guidance developed by the Department’s Coastal Barriers Task Force in 1982:

*Areas held as undeveloped open space, for which the purpose of protection has not been established, should not be considered protected. Similarly, local zoning districts and other areas regulated by state or local governments for the purpose of restricting the nature or density of development, such as dune districts, floodplains, beaches, inlet hazard areas, setback zones, and areas of special environmental concern, should not be considered protected. Such regulation does not necessarily reflect the present intent of property owners in the regulated areas to protect the areas for conservation, wildlife management, public recreation, or scientific purposes.*⁶

The Service will continue to recommend that areas such as those described above (e.g., areas subject to certain regulations and/or zoning designations) continue to be included within System Units of the CBRS.

Changes to Pilot Project Maps:

There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

(7) Amend the CBRA to Add Exemptions for Projects Deemed to be of Public Benefit

Comments Received: The Service received comments from an advocacy organization and State officials in North Carolina

expressing concern that the CBRA does not contain an exemption for projects deemed to be of public benefit, such as maintenance dredging for navigation channels, and requesting that the CBRA be amended to add such exemptions for infrastructure projects within the CBRS on a case by case basis. These commenters are concerned that Federal funding could be delayed or denied within areas that are newly added to the CBRS.

Service Response: The CBRA provides a public benefit in minimizing the loss of human life; damage to fish, wildlife and other natural resources; and wasteful expenditures of Federal revenues. The Service does not recommend amending the CBRA to add exemptions for projects deemed to be of public benefit. The CBRA already contains more than a dozen exceptions⁷ that could potentially be used for such projects (following consultation with the Service), including a specific exception for the maintenance and construction of improvements to existing Federal navigation channels.

Changes to Pilot Project Maps:

There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

(8) Effective Dates for Areas Added to or Reclassified within the CBRS

Comments Received: The Service received comments from State officials in Delaware questioning what effective date would be used for the CBRA prohibitions in areas proposed for reclassification from OPA to System Unit status, such as Unit DE-07.

Service Response: The Service recognizes that the effective date for additions to and reclassifications within the CBRS is significant because it determines whether Federal expenditures and financial assistance are allowable under the CBRA for certain projects and structures. There are two different types of effective dates within the CBRS: (1) the “flood insurance prohibition date,” which is the date

when the prohibition on Federal flood insurance first took effect and (2) the “CBRA prohibition date,” which is the date when all other prohibitions on Federal expenditures and financial assistance (e.g., beach nourishment, dredging, and disaster assistance) first took effect. In many cases, these two dates are the same; however, the dates are different when a unit is reclassified from OPA to System Unit status because the prohibitions within OPAs and System Units are different (OPAs only carry a prohibition on Federal flood insurance whereas System Units carry a prohibition on Federal flood insurance as well as prohibitions on other Federal expenditures and financial assistance).

Changes to Pilot Project Maps: There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

Clarification to Protocol: The Service recognizes the need to clarify the protocol for the effective date(s) for the prohibition of Federal expenditures and financial assistance. The flood insurance prohibition date for areas added to the CBRS by Congressionally-adopted maps is either the date of the law that first included the area within the CBRS or another date that was specified in the law.⁸ The flood insurance prohibition date for areas added through the Service’s administrative authorities is the date of the *Federal Register* notice that announced the modification to the CBRS map(s).

In the case of units reclassified from OPA to System Unit status, the flood insurance prohibition date remains the same as it was prior to the reclassification, but the CBRA prohibition date (for all Federally funded activities other than flood insurance) is the date upon which the area became part of a System Unit (i.e., the date upon which the reclassification became effective via a law or *Federal Register* notice). Therefore, the CBRA prohibition date for areas that are reclassified from OPA to System Unit through the pilot project will be the date of the legislation that adopts them.

(9) Delineation of CBRS Boundaries Based on Legal Descriptions Instead of Maps

Comments Received: The Service received comments from an individual, a homeowners association, an advocacy organization, and State and local officials in North Carolina recommending that CBRS unit boundaries be established by definition and legal description and that CBRS maps be used as approximations of those more accurately known boundaries.

Service Response: Establishing a legal description for all CBRS boundaries is impractical for many reasons, primarily because such an effort would be extremely resource intensive. If boundaries were set by legal description, every CBRS unit would need to be surveyed on-the-ground, which would be difficult and costly. The CBRS consists of about 3.3 million acres and more than 7,500 boundary miles, and many of the boundaries are located in open water or inaccessible areas. In addition, Congress intended the CBRS boundaries to have a relationship with the underlying geomorphic, development, and cultural features on-the-ground. The boundaries drawn on the maps allow the user to see the boundaries of the CBRS as they relate to features on the underlying base map.

Changes to Pilot Project Maps: There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

(10) Age and Quality of Aerial Imagery Used for CBRS Base Maps

Comments Received: The Service received comments from individuals and a homeowners association recommending that the aerial imagery used as the underlying base maps for the pilot project units be replaced with more current aerial imagery.

Service Response: The Service’s original pilot project protocol for the age of the base map imagery was that it must not be more than two years old; however, most of the base

map imagery used for the proposed maps published in the Service’s 2008 pilot project report is dated 1998 and 1999. The Service agrees that the imagery used for the proposed maps was not recent enough. However, we decided to not update the imagery prior to publication of the 2008 report (which would have delayed the release of the report), planning instead to update it following the public comment period.

Changes to Pilot Project Maps: The Service has replaced the base map imagery for the final recommended maps with newer (dated between 2013 and 2015)⁹ and better quality imagery. The source and date of the base map(s) for each unit are included in the unit summaries in Appendix C and are printed on the title block of each map.

Update to Protocol: The Service’s updated protocol for selecting aerial imagery to serve as the CBRS base maps is that the imagery should be: (1) recent (less than five years old); (2) high resolution (preferably one meter per pixel resolution or better); (3) orthorectified (i.e., adjusted to ensure the proper perspective of features relative to their true position on the Earth’s surface); and (4) available free of charge. This protocol is consistent with the base map selection criteria identified in a notice published in the *Federal Register* by the Service in 2013¹⁰ for the digital conversion project and the 2008 pilot project report (except that the two year maximum age of imagery recommended in the earlier pilot report has since been determined to be impractical and has therefore been changed to a five year maximum age).

(11) System Unit versus OPA Classification and Reclassification

Comments Received: The Service received comments from local officials in North Carolina and Florida that opposed the reclassification of certain areas of associated aquatic habitat from OPA to System Unit status.

Service Response: The CBRS contains two types of units, System Units and OPAs. System Units are

generally comprised of privately held areas. OPAs are generally comprised of areas held for wildlife refuge, sanctuary, recreational, or natural resource conservation purposes. However, there are cases throughout the CBRS where areas held for conservation and/or recreation are located within System Units, as well as cases where privately held areas are located within OPAs. Through the pilot project, the history of the areas within the units was evaluated to determine whether they were appropriately classified as System Unit or OPA at the time of inclusion. The Service generally recommended reclassification of areas from System Unit to an OPA, or vice versa, depending on when the particular area was included within the CBRS and whether the area was held for conservation and/or recreation according to the definition of an OPA¹¹ at the time it was included. Additionally, the Service sought to identify new qualifying areas adjacent to existing pilot project units as either System Unit or OPA depending on the ownership and land use at the time the map was prepared (e.g., Units DE-07, FL-67P).

One of the significant lessons learned through the course of the pilot project and other comprehensive remapping efforts over the past several years is that the level of effort necessary to research and reclassify discrete segments of land and associated aquatic habitat based on ownership and use at the time of inclusion within the CBRS is extremely time and resource intensive. Precise park boundaries can be difficult to acquire, concurrence on such boundaries by land owners/managers is cumbersome and not always attainable, and the reclassification or creation of new units with mixed ownership is more costly and time intensive than larger units of a single type. In cases where there is a combination of conserved and non-conserved areas within a coastal barrier system, the resulting map is a complex and error prone patchwork of OPA/System Unit classification that is difficult for stakeholders to interpret and the Service to administer (see Figure 11).

Minor qualifying areas along the fringes of the units may be left out of the CBRS under the existing System Unit/OPA classification protocol, simply because their ownership and use does not match the adjacent unit type and they are too small to warrant the creation of a new unit. For example, a small privately owned undeveloped area that would otherwise qualify for inclusion within the CBRS might be left out of the CBRS if the

adjacent unit is an OPA, and the private parcel is too small to be a new System Unit on its own. The Service believes that the protocol for CBRS unit classification should be simplified so that all qualifying undeveloped coastal barrier areas and associated aquatic habitat may be included within the CBRS, with the classification of System Unit versus OPA generally determined based on the predominant ownership of the area at the time of inclusion.

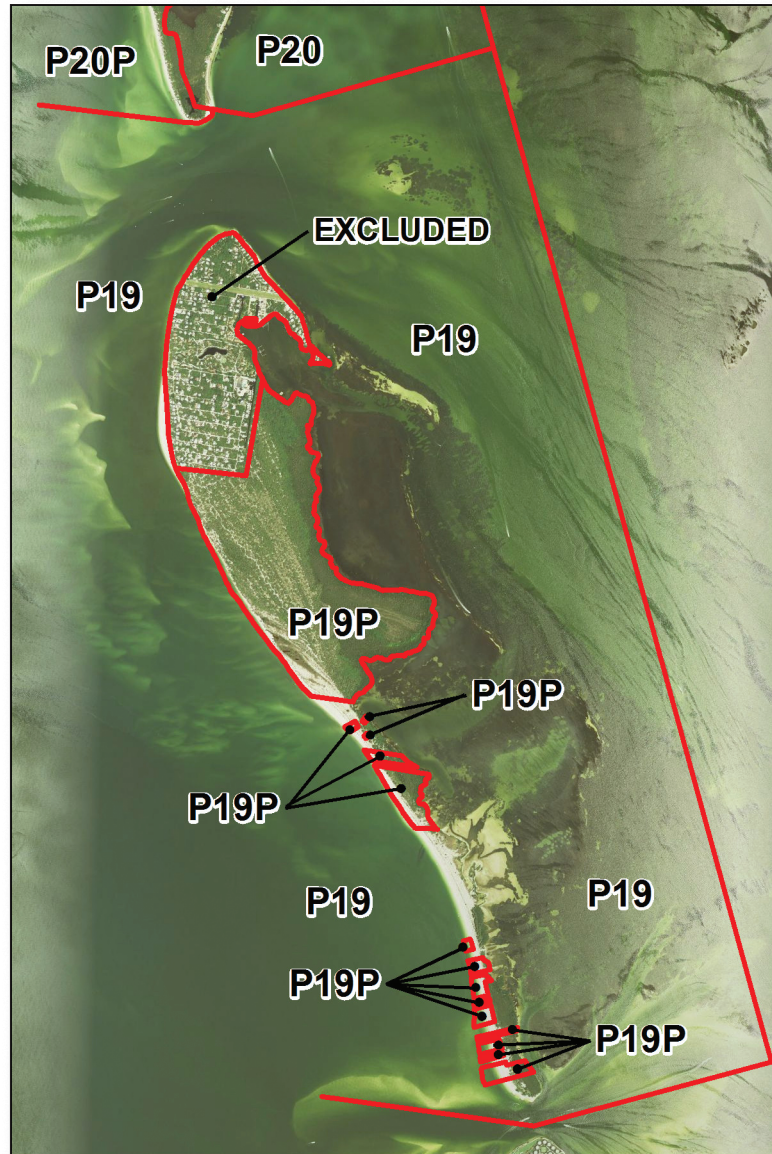


Figure 11. The map for Florida Units P19/P19P, which was modified in 2000 in an attempt to map OPA Unit P19P to mirror the underlying conservation area, resulted in a complex patchwork of OPA/System Unit classification. Although the best available data was used to establish the location of the underlying conservation area, we now know that some of the areas that were mapped within the OPA are privately-owned parcels that are not held for conservation/recreation and some of the areas that were mapped within the System Unit are conservation areas.

Revising the protocol for CBRS unit classification means that some areas that are not held for conservation/recreation will be included within OPAs and therefore will only have a prohibition on Federal flood insurance, while some conservation/recreation areas will be included within System Units and therefore will have the full suite of prohibitions on Federal expenditures and financial assistance (though most land management activities associated with conservation or passive recreation (e.g., bird watching) would fall under one of the CBRA's exceptions following consultation with the Service).¹² This is consistent with the Service's 1985 approach for delineating conservation/recreation areas within the CBRS.¹³ However, this approach is a notable departure from the Service's protocol, established in 1999,¹⁴ of mapping OPA boundaries as closely as possible to an underlying conservation/recreation area. Continuing to attempt to classify every discrete area within the CBRS as System Unit or OPA based on land ownership and use at the time it was included is impractical, complicated, and cost prohibitive.

Changes to Pilot Project Maps: There are no changes between the proposed and final recommended pilot project maps as a result of the comments received. The updated protocol below will be applied to future comprehensively revised maps.

Update to Protocol: The Service is updating its protocol for classifying areas within the CBRS as follows.

CBRS boundaries should generally be drawn to correspond with underlying geomorphic, development, and cultural features. Areas that qualified as undeveloped coastal barriers at the time of their inclusion within the CBRS should generally be classified as System Unit or OPA based on the predominant ownership of the coastal barrier system at the time of inclusion within the CBRS. OPAs will generally be mapped using the same criteria and protocols as

those applied to System Units. The following considerations apply:

Non-Conserved Areas within OPAs

Areas that are not held for conservation/recreation, but are (1) interspersed with and/or adjacent to a larger conservation/recreation area and (2) were undeveloped at the time they were included within the CBRS (or are currently undeveloped in the case of proposed additions), may be included within OPAs.

Conserved Areas within System Units

Conserved Prior to CBRS Designation

Areas that are held for conservation/recreation and are (1) interspersed with and/or adjacent to a larger non-conserved area and (2) were undeveloped¹⁵ at the time they were included within the CBRS (or are currently undeveloped in the case of proposed additions), may be included within System Units.

During the course of preparing proposed maps, the Service will coordinate with the conservation/recreation area owners (or managers) to seek their concurrence on inclusion of their area within the System Unit. If the owners do not concur with System Unit status, the Service will classify such areas as OPA to the extent practicable. Such coordination will generally not occur for areas smaller than ten acres or certain areas of open water where it is impractical from a mapping perspective to delineate them separately as an OPA (i.e., small islands or other features that are too small to carve out from the surrounding area). In such cases, portions of the conserved areas may still be included in the System Unit and the stakeholder will receive notification of the public review period.

An exception is made for certain conservation/recreation areas that were intentionally added to the CBRS as System Units through maps adopted by Congress.¹⁶ The Service generally will not seek concurrence from owners when there is evidence that their conservation/recreation area was intentionally added to a System Unit. Additionally, the Service will accommodate requests from landowners for voluntary additions or reclassifications of conserved areas within System Units rather than OPAs.

Conserved Post CBRS Designation

If the areas were not predominantly held for conservation/recreation at the time they were included within the CBRS, they are generally classified as System Unit.

Due to the diversity of the geography and land ownership along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts, there may be special cases that are not addressed by this protocol. Additionally, the Service may weigh coastal barrier fastland more than associated aquatic habitat when determining whether or not a coastal barrier area is "predominately" held for conservation/recreation.

This updated protocol was applied to comprehensively revised maps that were adopted by Congress in 2016 for Florida Units P15/P15P, P16/P16P, and FL-63P,¹⁷ and will be applied to future comprehensively revised maps.

(12) Mapping Channels within the CBRS

Comments Received: The Service received comments from local officials in North Carolina and Florida asserting that some channels within the associated aquatic habitat of the units should be considered "developed" due to ongoing dredging projects and therefore excluded from the CBRS.

Service Response: The Service understands the importance of navigation channels and recommended in its 1988 Report to Congress that they be excluded from the CBRS in many cases.¹⁸ However, Congress determined that it would be sufficient to exempt existing Federal navigation channels from the CBRA's prohibitions on Federal expenditures rather than exclude or remove them from the CBRS.¹⁹ Channels are part of the associated aquatic habitat of coastal barriers²⁰ and have been included as such throughout the CBRS.

In 1982 and 1988 the Department published guidance for delineating CBRS boundaries located along channels and other water bodies.²¹ In carrying out the pilot project, the Service noted that this guidance has not been consistently applied to the CBRS maps created in the past. CBRS boundaries generally follow the center of the channel, but sometimes include all or none of the channel within the unit (see Figures 12 and 13). The 2008 pilot project report proposed standardizing the channel mapping protocol to include the entire channel within System Units, but to include only half of the channel within OPAs. The Service has since recognized that it would simplify CBRS mapping to use the same protocol for both OPA and System Unit boundaries in channels and has updated the protocol below. This updated protocol for OPA channel mapping will not affect Federally funded activities within channels because the CBRA's only Federal funding prohibition within OPAs applies to flood insurance.

Changes to Pilot Project Maps:

There are no changes between the proposed and final recommended pilot project maps as a result of the comments received. The updated protocol below will be applied to future comprehensively revised maps.

Update to Protocol: Where CBRS boundaries are intended to follow channels, both System Units and OPAs will be mapped to include the entire channel within the unit. In cases where a System Unit and an OPA share a coincident boundary that follows a channel, the entire channel will generally be included within the System Unit.

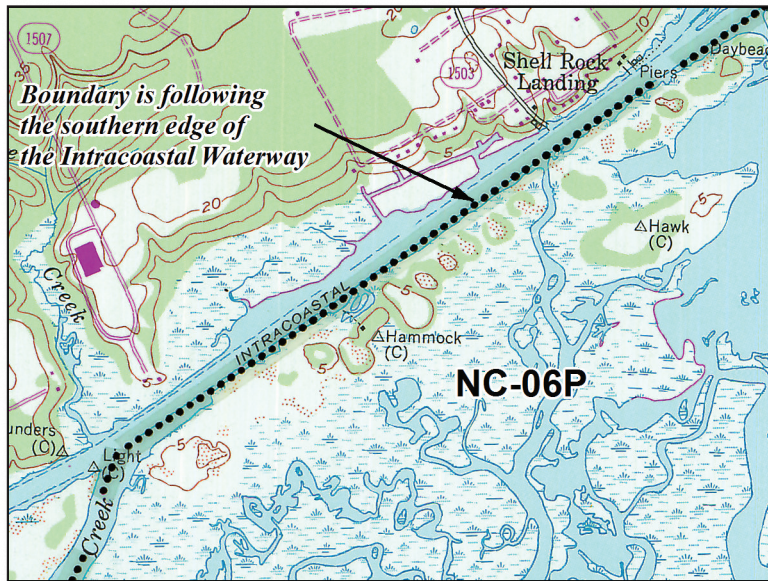


Figure 12. Some CBRS boundaries follow the edge of a channel. The 1990 map for North Carolina Unit NC-06P shows the boundary following the southern edge of the Intracoastal Waterway.

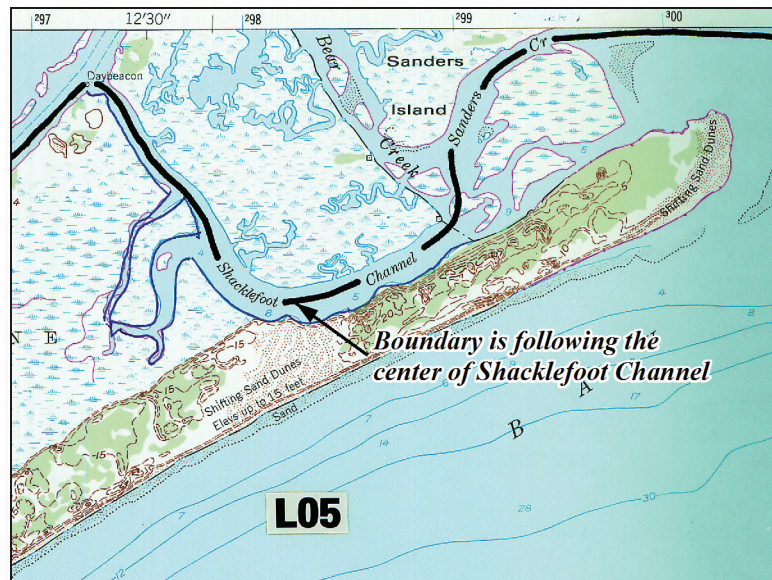


Figure 13. Some CBRS boundaries follow the center of a channel. The 1990 map for North Carolina Unit L05 shows the boundary following the center of Shacklefoot Channel.

(13) Mapping Landward CBRS Boundaries Using Easy-to-Map Features

Comments Received: The Service received comments from an advocacy organization and local officials in North Carolina recommending that the landward limits and side boundaries of CBRS units be based on easy-to-map, well-

established geographic features, such as the centerline of the Atlantic Intracoastal Waterway, and not the more difficult-to-map marsh and mean high tide lines.

Service Response: The associated aquatic habitat of coastal barriers encompasses the adjacent wetlands, marshes, estuaries, inlets, and nearshore waters. The Service will

continue to include the associated aquatic habitat within the CBRS, even in cases where the features are dynamic. The CBRA includes a provision that allows for the Service to make such minor and technical modifications to the boundaries of the CBRS units as are necessary to reflect changes in the size or location of the units as a result of natural forces. Such revisions are being made for most of the CBRS through the digital conversion effort (see Chapter 2 for additional information about digital conversion).

Changes to Pilot Project Maps:

There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

(14) Addition of Associated Aquatic Habitat behind a Developed Barrier to the CBRS

Comments Received: The Service received comments from State and local officials in North Carolina that opposed the addition of associated aquatic habitat that is located behind developed barriers, such as Emerald Isle, North Carolina (Unit NC-06).

Service Response: In carrying out the pilot project, the Service noted that there are inconsistencies in how the associated aquatic habitat situated behind development was mapped in 1982, 1990, and when areas were added to the CBRS through subsequent legislative amendments. A notice published by the Department in the *Federal Register* on March 4, 1985,²² provided guidance on the delineation of landward boundaries, which generally follow the interface between the aquatic habitat and the mainland. The guidance stated that associated aquatic habitat behind a barrier should be included in cases where the coastal barrier is 50 percent or more undeveloped. However, the Department’s 1988 Report to Congress states that “Only that associated aquatic habitat that is behind the undeveloped portion of the coastal barrier is included in cases where the coastal barrier is partially developed.”²³ Some units

include the entire associated aquatic habitat, regardless of the level of development on the barrier in front of it, while others do not include the full extent of the associated aquatic habitat.

The Service recognizes that aquatic habitat located between the coastal barrier and the mainland is an inseparable part of the coastal barrier ecosystem and serves a valuable function in protecting mainland communities such as the ability of wetlands to absorb storm surge. Wetlands also provide important habitat for fish and wildlife species, and there is value in including them within the CBRS.²⁴ Through the initial pilot project report, the Service established a consistent protocol for including associated aquatic habitat behind developed barriers. However, the Service agrees that there should be a limit as to how far these additions of associated aquatic habitat may extend behind a developed barrier (perpendicular to the shoreline), and we believe these changes are consistent with Congress’ intent to include such areas within the CBRS. The updated protocol for adding

associated aquatic habitat behind a developed coastal barrier to the CBRS is described below.

Changes to Pilot Project Maps:

There are changes between the proposed and final recommended pilot project maps as a result of the comments received. The final recommended maps add associated aquatic habitat located behind developed coastal barriers consistent with the updated protocol below.

Update to Protocol: In cases where aquatic habitat associated with an undeveloped coastal barrier continues behind an adjacent developed barrier (perpendicular to the shoreline) that is outside of the CBRS, some of the associated aquatic habitat may be added to the unit. The boundary is generally drawn along the outside edge of a channel that exists in the associated aquatic habitat within one mile of the undeveloped portion of the coastal barrier (see Figure 14). This protocol is applied to the final recommended pilot project maps contained in this report and will be applied to future comprehensively revised maps.

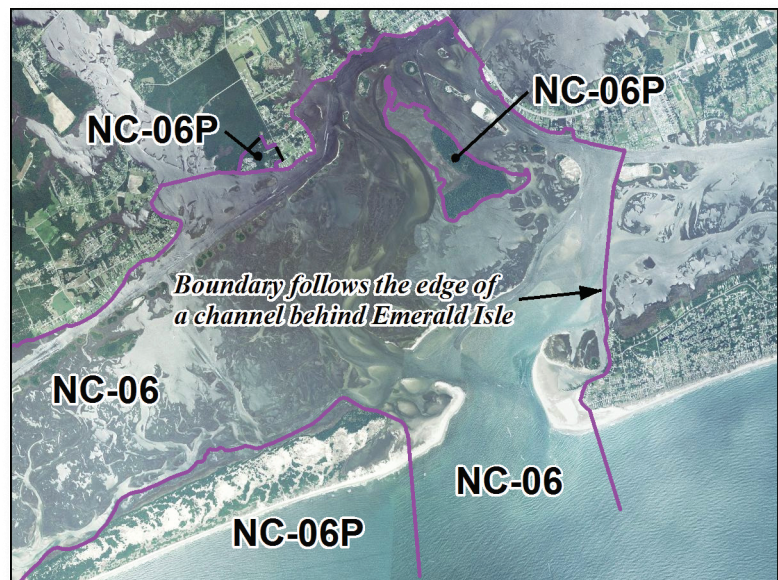


Figure 14. Some CBRS units include portions of associated aquatic habitat behind developed coastal barriers. An area behind development on Emerald Isle, North Carolina, is recommended for addition to Unit NC-06, and the boundary is drawn at the first natural break within one mile of the undeveloped portion of the barrier.

(15) Inclusion of Docks, Piers, Marinas, and Other Shoreline Structures within the CBRS

Comments Received: The Service received comments from an advocacy organization and State and local officials in Florida and North Carolina seeking to have the CBRS boundaries drawn to exclude any docks, piers, marinas, and other structures located along the shoreline. The comments expressed concern regarding: (1) maintenance and development of structures in waterfront areas that are included within the CBRS, and (2) obtaining permits for docks, piers, and marinas within the CBRS.

Service Response: As described in the 2008 pilot project report and under Issue 12 above, the guidance for delineating CBRS boundaries located along channels and other water bodies has not been consistently applied on the CBRS maps created in the past. Through the pilot project, the Service has developed a consistent protocol for mapping CBRS boundaries within channels, taking into consideration the CBRA definition of an undeveloped coastal barrier and its associated aquatic habitat. The boundaries of pilot project System Units are modified where appropriate to consistently include the entire extent of the channel within the unit. As a result of this channel mapping protocol, additional docks, piers, marinas, and other shoreline structures are included within the CBRS. However, such structures are already prevalent within the CBRS.

When comprehensively remapping CBRS units, the Service generally applies a 20 foot buffer (i.e., leaving space between the boundary and the feature it is intended to follow) along developed shorelines to ensure that structures and/or infrastructure (e.g., walled and roofed structures, roads, and bulkheads) located along the shoreline are not inadvertently included within the CBRS. The Service also generally recommends the exclusion of large marinas from the CBRS. However, because docks, piers, and other similar structures are located throughout

the waterways that are part of the associated aquatic habitat of the CBRS, and these structures frequently change in size and shape over time, it would be impractical to map CBRS units to exclude them.

It is important to note that although the CBRA restricts most Federal expenditures and financial assistance within the CBRS, it does not prohibit Federal agencies from issuing permits for activities within or adjacent to CBRS units. Federal agencies may issue permits within the CBRS, including those for the construction of docks and marinas.²⁵

Changes to Pilot Project Maps:

There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

(16) Shoreline and Development Feature Buffering

Comments Received: The Service received comments from local officials in Florida concerning the pilot project protocol of buffering the CBRS boundaries along developed shorelines. The question is whether the Service considers only the presence of structures when determining whether a shoreline is developed, or whether we also consider the presence of existing infrastructure such as bulkheads and roads that closely follow the shoreline.

Service Response: The draft maps published in the Service's 2008 pilot project report applied approximately 50 foot buffers between the CBRS boundaries and developed shorelines in order to avoid the inadvertent inclusion of existing development within the CBRS, but only considered the presence of walled and roofed structures and not the presence of other development features such as bulkheads or roads. However, after consideration of the comments, the Service believes that a reasonable definition of a developed shoreline would include bulkheads and roads that run parallel to and closely follow (or are coincident with) the shoreline. In addition, the Service believes that it is appropriate to buffer the CBRS

boundaries along the wetland/fastland interface (in areas where the structures on-the-ground at the time the area is or was included within the CBRS are very close to the wetlands) and along visible bridge infrastructure. Applying a buffer between the CBRS boundaries and certain features will reduce the administrative burden for those seeking Federal funding or financial assistance for projects or structures that are located close to (but outside of) the CBRS, because it will in many cases eliminate the need for a CBRS in/out property determination and/or CBRA consistency consultation.

Changes to Pilot Project Maps:

There are changes between the proposed and final recommended pilot project maps as a result of the comments received. In particular, CBRS boundaries are buffered along shorelines where existing infrastructure such as bulkheads and roads run parallel to and closely follow (or are coincident with) the shoreline. Buffers are also added between CBRS boundaries and bridges, and in certain cases, between CBRS boundaries and a developed wetland/fastland interface. In preparing the final recommended maps (using higher quality aerial imagery that is now available), the Service determined that applying an approximately 20 foot buffer between CBRS boundaries and developed shorelines is sufficient to avoid the inadvertent inclusion of existing structures and infrastructure, while still maintaining the relationship between the CBRS boundaries and the underlying shoreline feature.

Update to Protocol: Through the pilot project, the Service has developed protocols for buffering CBRS boundaries along developed shorelines and other features to ensure that it is clear whether existing structures and/or infrastructure are within the CBRS. The final recommended pilot project maps contained in this report (and future comprehensively revised maps) will apply buffers to CBRS boundaries along developed shorelines and other development features as follows:

- Developed shorelines – In cases where the CBRS boundaries follow a shoreline where structures and/or infrastructure (e.g., bulkheads and roads) are close to the water, an appropriate buffer (about 20 feet) is applied between the shoreline and the CBRS boundaries (see Figure 15). Buffers are not applied along shorelines that are only sparsely developed or along the seaward boundaries of excluded areas.
- Developed shorelines with development set-back – No buffer is applied in cases where the CBRS boundaries follow a shoreline that is developed, but the development is set back far enough from the shore that the structures and/or infrastructure are clearly outside of the CBRS (see Figure 16).
- Bridges – In cases where the CBRS boundaries follow a bridge, an appropriate buffer (about 20 feet) is applied between the bridge and the boundaries. Additional visible bridge infrastructure (e.g., fenders) is generally excluded but not buffered (see Figures 17 and 18). This protocol is not intended to allow for existing bridges (which are currently not within the CBRS) to be expanded, but rather to ensure that the structure as it existed at the time of inclusion within the CBRS is clearly outside of the unit.
- Wetland/Fastland Interface – In cases where the CBRS boundaries follow a wetland/fastland interface and development is situated within a few feet of the wetlands, an appropriate buffer (about 20 feet) is applied (see Figure 19). This protocol is only applied in limited cases; the general protocol is for the CBRS boundaries to follow the wetland/fastland interface without a buffer.
- Structures along CBRS boundaries at the break-in-development – In all other cases where the CBRS boundaries fall very close to existing structures or infrastructure that is intended to be outside of the unit, an appropriate buffer (generally at least 5 feet) is applied between the boundaries and the structures or infrastructure.

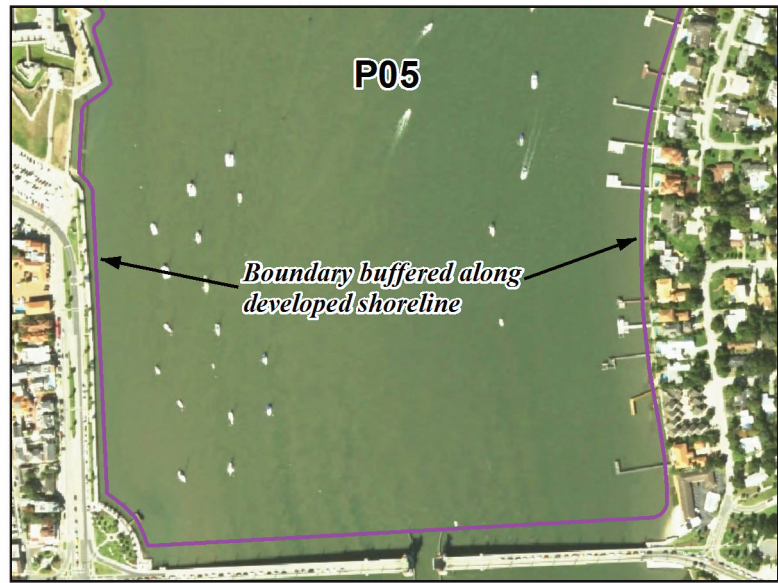


Figure 15. The area within the purple boundary is recommended for addition to Florida Unit P05. An approximately 20 foot buffer has been applied to the eastern and western boundaries to ensure that it is clear that the existing structures and infrastructure are not within the CBRS.



Figure 16. No buffer is necessary when the development is set back from the shoreline. The existing boundary of North Carolina Unit L09 (comprehensively revised in 2014), shown in red, follows the shoreline. Adjacent development is clearly not within the CBRS.



Figure 17. When a CBRS boundary follows a bridge, an appropriate buffer is applied between the bridge and the boundary. The area within the purple boundary is recommended for addition to Florida Unit P21. An approximately 20 foot buffer has been applied to the segment of boundary along the bridge.



Figure 18. In some cases, additional accommodations are made to ensure that infrastructure associated with an existing bridge is outside of the CBRS. The area within the purple boundary is recommended for addition to Florida Unit P21. This boundary was placed to exclude the visible bridge fenders.

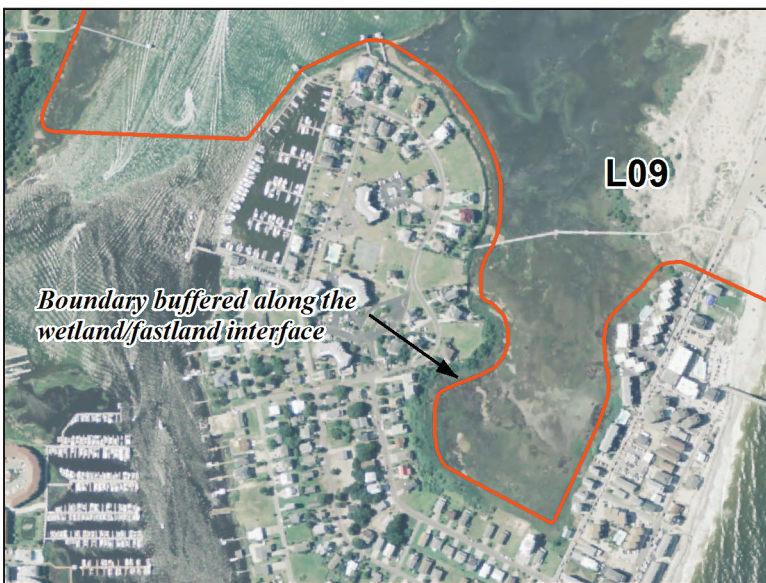


Figure 19. In cases where the CBRS boundaries follow a wetland/fastland interface and development is situated within a few feet of the wetlands, the boundary is buffered by approximately 20 feet. The existing boundary of North Carolina Unit L09 (comprehensively revised in 2014), shown in red, is buffered to clarify that the existing development is not within the CBRS.

(17) Roads and Road Rights-of-Way in OPAs

Comments Received: The Service received comments from local officials in Florida regarding publicly owned roads and road rights-of-way that are located within the proposed boundaries of OPAs, but are not held for conservation or recreation purposes, such as Unit FL-13P (see Figure 20). The local officials objected to the inclusion of these public lands within the OPAs because they are not part of the underlying conservation areas.

Service Response: Roads and road rights-of-way are included within OPAs throughout the CBRS. The only Federal funding prohibition within OPAs is on flood insurance. There are no CBRA prohibitions affecting Federal funding or financial assistance for road construction and/or maintenance within OPAs. Remapping OPAs to exclude all roads and road rights-of-way would be resource intensive, impractical, and unnecessary.

Changes to Pilot Project Maps: There are no changes between the proposed and final recommended pilot project maps as a result of the comments received.

(18) Mapping Seaward Boundaries of Excluded Areas in the CBRS

Comments Received: The Service received inquiries from local officials in Florida concerning the delineation of the seaward boundaries of CBRS excluded areas. In particular, the local officials believe that the seaward boundaries of excluded areas should be open at the shoreline so that the open water in front of the excluded development is not within the CBRS. Although these inquiries were not submitted as official comments, the Service determined that this is an important issue to address.

Service Response: The seaward boundaries of excluded areas are not delineated consistently throughout the CBRS. In most cases, the seaward boundaries of the excluded areas are closed at the shoreline; however, there are some cases where



Figure 20. Roads and road rights-of-way are included within OPAs throughout the CBRS, even though they are not held for conservation or recreation purposes. Florida Unit FL-13P includes portions of Highway A1A.

they are left open at the shoreline (see Figures 21 and 22). To address this inconsistency, in carrying out the pilot project, the Service closed the seaward boundaries of the excluded areas along the shoreline (i.e., along the wet/dry sand line as interpreted on the base map imagery) (see Figure 23). The wet/dry sand line was chosen because it is a feature that is usually visible on the base map imagery and approximates the mean high tide line. This clarifies that only the developed area (and not the adjacent nearshore area) is excluded from the CBRS unit.

Beach nourishment and dredging projects in System Units along the shoreline of such excluded areas are subject to the CBRA and may only be conducted with Federal funds if they meet one of the exceptions under the CBRA.²⁶

Changes to Pilot Project Maps: In preparing the final recommended maps, the Service noted that the proposed maps for a few units included in the 2008 pilot project report did not close the excluded areas at the shoreline according to the protocol. This is corrected on the final recommended maps in Appendix C.

(19) Seaward Limits of CBRS Units

Comments Received: The Service received a comment from local officials in Florida, requesting that the seaward limits of the CBRS units be clearly delineated on the maps or described in the report because of projects such as channel dredging or beach nourishment that might occur in the nearshore or offshore areas of the units.

Service Response: CBRS units are generally left open on the ocean (i.e., seaward) side and are intended to contain the entire sand-sharing system, including the beach, shoreface, and offshore bars (see Figure 24). The sand sharing system of coastal barriers is normally defined by the 30-foot bathymetric contour, and is not delineated on the CBRS maps due to the dynamics of the systems, which cause variability from site-to-site and time-to-time. In the Great Lakes and in large coastal embayments (e.g., Chesapeake Bay, Delaware Bay, and Narragansett Bay), the sand-sharing system is more limited in extent and is defined by the 20-foot bathymetric contour or a line approximately one mile seaward of the shoreline, whichever is nearer the coastal barrier.²⁷ The

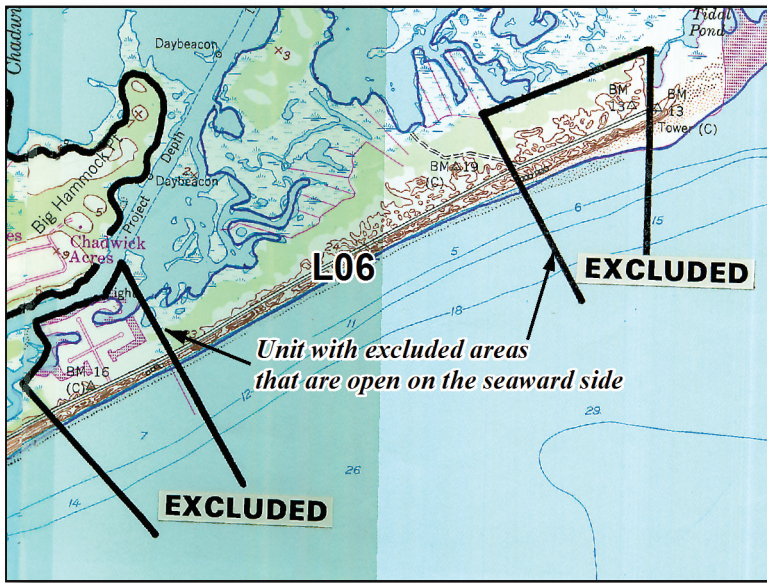


Figure 21. The seaward boundaries of excluded areas are not delineated consistently throughout the CBRS. The seaward boundaries of some excluded areas are left open at the shoreline. This 1990 map for North Carolina Unit L06 shows the excluded areas open on the seaward side.

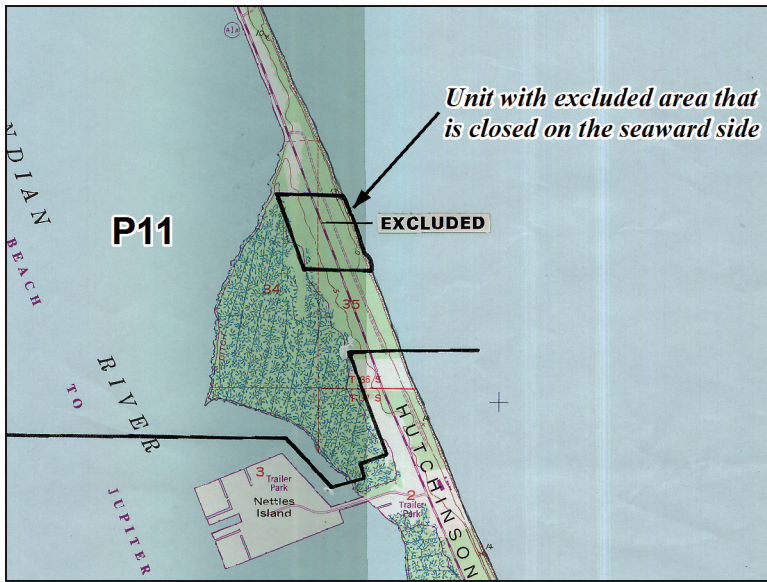


Figure 22. This 1990 map for Florida Unit P11 shows an excluded area that is closed on the seaward side along the shoreline.

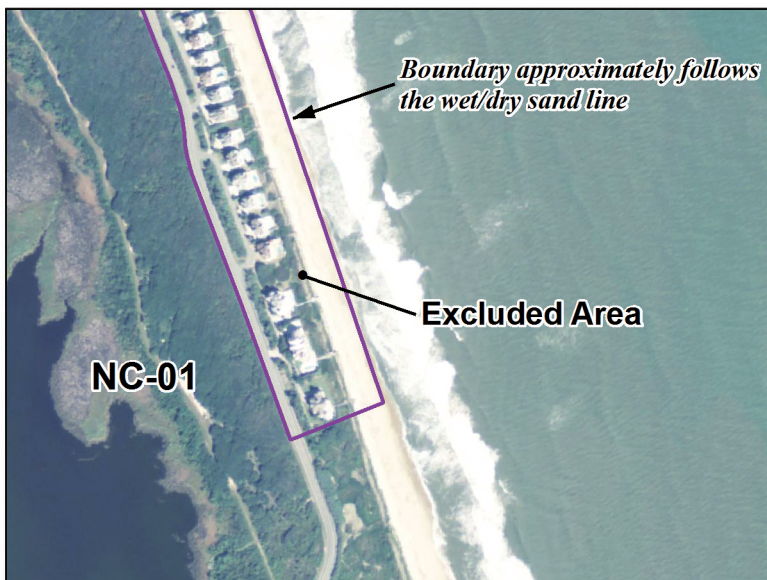


Figure 23. In carrying out the pilot project, the Service closed the seaward boundaries of excluded areas along the shoreline. The final recommended boundary for North Carolina Unit NC-01, shown in purple, generally follows the wet/dry sand line as depicted on the base map imagery.



Figure 24. CBRS units are generally left open on the seaward side and are intended to contain the entire sand-sharing system, including the beach, shoreface, and offshore bars. The offshore extent of the units is generally not delineated on the CBRS maps.



Figure 25. The Service is updating the mapping protocol for delineating the seaward limits of the CBRS units. In the future, an additional boundary segment may be added to close off CBRS units, such as Massachusetts Unit C34A, in order to clarify that the land opposite the unit is not within the CBRS.

Service agrees that information about the seaward limits of CBRS units should be more accessible, and this information is now included in the title block of the final recommended pilot project maps.

The Service notes that there are areas, mainly in embayments (although they were not encountered in the pilot project), where a unit would extend up onto the land opposite the barrier because the intervening water does not reach the necessary depth or the land opposite the barrier is closer than one mile (see Figure 25). Due to these factors, the Service is updating the protocol for defining and delineating the seaward limits of the CBRS units.

Changes to Pilot Project Maps: The title blocks of the final recommended maps contained in Appendix C include a note describing the seaward limits of the CBRS units. There are no changes between the proposed and final recommended pilot project boundaries as a result of the comments received.

Update to Protocol: The Service will generally leave the offshore side of the CBRS units open with the understanding that the offshore limits of the units are as follows.

In CBRS units located along the Atlantic Ocean, Gulf of Mexico, and Puerto Rico and the U.S. Virgin Islands coasts, the offshore extent of the units is generally defined by the 30-foot bathymetric contour. In large coastal embayments and the Great Lakes, the offshore extent of the units is generally defined by the 20-foot bathymetric contour or a line approximately one mile seaward of the shoreline, whichever is nearer the coastal barrier. However, in cases where this would result in the unit extending up onto land that is obviously not intended to be within the CBRS, the offshore extent of the unit will be delineated on the map.

In some cases where the extent of the CBRS unit is not obvious, the Service may extend lateral boundaries (i.e., boundaries that are perpendicular to the shoreline) or add offshore segments of boundary to the map for clarification purposes.

¹ 16 U.S.C. 3501(b)

² 48 FR 54542

³ The land area covered by the floodwaters of the base flood is the SFHA on the NFIP's maps. The SFHA is the area where the NFIP's floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The SFHA includes Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, VI-30, VE, and V. <http://www.fema.gov/special-flood-hazard-area>

⁴ 16 U.S.C. 3501(a)(4) and (5)

⁵ 16 U.S.C. 3503 note

⁶ DOI, Coastal Barriers Study Group. 1982. Preliminary Draft Criteria for Defining and Delineating Protected Coastal Barriers. Washington, D.C.

⁷ 16 U.S.C. 3505

⁸ Section 11 of Pub. L. 97-348 and Section 9 of Pub. L. 101-591

⁹ There is one exception. The final recommended maps for Unit L06 and the southern portion of Unit L05 use base map imagery dated 2010 and 2012 because these particular maps were transmitted to Congress as part of an April 8, 2014, hearing before the House Natural Resources Committee, Subcommittee on Fisheries, Wildlife, Oceans and Insular Affairs.

¹⁰ See endnote 2 in Chapter 2.

¹¹ See endnote 5 above.

¹² 16 U.S.C. 3505(a)(6)(A) is an exception for "Projects for the study, management, protection, and enhancement of fish and wildlife resources and habitats, including acquisition of fish and wildlife habitats and related lands, stabilization projects for fish and wildlife habitats, and recreational projects" that are consistent with the purposes of the CBRA. Federal expenditures for such projects and activities that meet this exception may be made following consultation with the Service.

¹³ 50 FR 8698

¹⁴ Frazer, Gary. 1999. USFWS-DOI, Testimony of Gary Frazer, Acting Assistant Director for Ecological Services, Fish and Wildlife Service, Department of the Interior, before the House Committee on Resources, Subcommittee on Fisheries Conservation, Wildlife and Oceans, Oversight Hearing on the Coastal Barrier Resources System. May 6, 1999.

¹⁵ 16 U.S.C. 3503(g)(1)

¹⁶ The Service's records include copies of the majority of the maps from the 1988 Report to Congress: Coastal Barrier Resources System, recommending modifications to the CBRS that were reviewed by Congress in 1990, just prior to enactment of the CBIA. Many of these maps contain evidence of areas that were identified as protected on the draft maps, but were intentionally added to the CBRS as System Unit rather than OPA (e.g., Units CT-04, CT-05, CT-07, FL-15, and FL-89).

¹⁷ Pub. L. 114-128

¹⁸ Pages 115-116 in: DOI, Coastal Barriers Study Group. 1988. Report to Congress: Coastal Barrier Resources System with recommendations as required by Section 10 of the Public Law 97-348, the Coastal Barrier Resources Act of 1982. Volume 1 in Report to Congress: Coastal Barrier Resources System. U.S. Department of the Interior, Washington D.C. 265 pp.

¹⁹ H. Rept. 101-657, Part 1. "The section 10 report recommended exclusion of the channels from the System, based on concerns that the recommended inclusion of large areas of associated aquatic habitat might interfere with plans to study, widen, or deepen Federal navigation channels. We believe the amendment to section 6(2) will be sufficient however, to allow for construction and maintenance of improvements authorized by Congress." This amendment modified the exception to the CBRA found at 16 U.S.C. 3505(a)(2): "The maintenance or construction of improvements of existing Federal navigation channels (including the Intracoastal Waterway) and related structures (such as jetties), including the disposal of dredge materials related to such maintenance or construction." According to 16 U.S.C. 3505(b), "a Federal navigation channel or a related structure is an existing channel or structure, respectively, if it was authorized before the date on which the relevant System Unit or portion of the System Unit was included within the CBRS."

²⁰ See endnote 2 in Chapter 1.

²¹ 47 FR 35707 and DOI, Coastal Barriers Study Group. 1988. Report to Congress: Coastal Barrier Resources System with recommendations as required by Section 10 of the Public Law 97-348, the Coastal Barrier Resources Act of 1982. Volume 1 in Report to Congress: Coastal Barrier Resources System. U.S. Department of the Interior, Washington, D.C. 265 pp.

²² See endnote 13 above.

²³ Page II-10 of the 1988. Report to Congress: Coastal Barrier Resources System. Final Supplemental Legislative. Environmental Impact Statement on the Proposed Changes to the Coastal Barrier Resources System. Washington, D.C.

²⁴ See endnote 11 in Chapter 2.

²⁵ 16 U.S.C. 3502(3)(C)

²⁶ 16 U.S.C. 3505(a)

²⁷ See endnote 13 above.