

Coastal Barrier Resources Act

Frequently Asked Questions for Nonstructural Shoreline Stabilization Projects

Background

The Coastal Barrier Resources Act (CBRA) prohibits most new federal expenditures and financial assistance within the John H. Chafee Coastal Barrier Resources System (CBRS or System), including projects to prevent the erosion of or to otherwise stabilize any inlet, shoreline, or inshore area. Notwithstanding these prohibitions, federal agencies, after consultation with the U.S. Fish and Wildlife Service, may make expenditures for activities that meet one of the exceptions under CBRA. Each affected agency is independently responsible for complying with the law and certifying annually to the Secretary of the Interior that they are in compliance with CBRA.¹ CBRA does not restrict the use of private, state, or local funds or limit the issuance of federal permits (including any related environmental studies or planning).

Summary of Action

The Department of the Interior has reinstated its long-standing legal interpretation that federal funding for dredging within the CBRS to nourish beaches outside of the CBRS does not fall within the CBRA exception at 16 U.S.C. § 3505(a)(6)(G). The Department's decision is based on a July 14, 2021 legal interpretation of the statutory language and legislative history. The updated legal interpretation supersedes the October 31, 2019 legal interpretation that was adopted by then-Secretary Bernhardt as the Department's position in November 2019.

Pursuant to a legal memorandum from the Deputy Solicitor for Parks and Wildlife, the Service is once again advising federal agencies that the CBRA exception under 16 U.S.C. § 3505(a)(6)(G) for "nonstructural projects for shoreline stabilization that are designed to mimic, enhance, or restore a natural stabilization system" cannot be applied to removal of sand from within the CBRS to support beach nourishment projects that occur outside of the CBRS.



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Sand dunes and beach at Bon Secour National Wildlife Refuge

The Questions and Answers below provide information about the Department's interpretation of the 16 U.S.C. § 3505(a)(6)(G) CBRA exception and considerations for federal agencies planning shoreline stabilization projects that may affect the CBRS. The final determination regarding whether a particular project or activity is allowable under CBRA rests with the funding agency.

What is the justification for the reinstatement of the 1994 interpretation?

The Department's legal interpretation (in effect from 1994-2019 and reinstated in 2021) is based on the language in the CBRA statute and its legislative history. CBRA expressly prohibits most new federal expenditures and financial assistance for any purpose within the CBRS, including "the carrying out of any project to prevent the erosion of, or to otherwise stabilize, any inlet, shoreline, or inshore area."² The legislative history further emphasizes that the CBRA was intended to reduce federal involvement in activities that are detrimental to coastal barrier ecosystems included within the CBRS, including dredging activities and the construction of hurricane and erosion control projects. House Report 97-841 Part 1 states:

Intense development and human use of coastal barriers have also caused diminished productivity in

these important natural resource areas. Disposing sewage effluents, dredging canals and channels, filling wetlands, leveling dunes, clearing vegetation, constructing hurricane and erosion control projects, stabilizing inlets, and other activities often spell trouble for the coastal barrier ecosystems that protect and sustain natural resources of immense aesthetic and economic value.... The intent of the legislation is that all forms of direct Federal assistance for projects... be precluded. Federal assistance for erosion control would also be prohibited, except where an emergency threatens life, land or property immediately adjacent to a System unit.

Section 3505(a) of the statute imposes the conditions that (1) the Federal officer must consult with the Secretary, and (2) federal expenditures or financial assistance must be made "within the System." The second condition restricts federal expenditures or financial assistance for all of the activities listed in that section, including those excepted under section 3505(a)(6)(G). The most natural reading of Section 6(a) is that each of the projects and actions described in subparts (1)-(6), including nonstructural projects for shoreline stabilization, must occur "within the System" in order to meet the exception. This interpretation of the statutory language was originally rendered by

the Department's Office of the Solicitor in 1994, was reviewed and affirmed by the Department's senior policy officials in 1995, was the basis for the Service's advice to other federal agencies for 25 years and was once again reaffirmed by the Department's Office of the Solicitor and senior policy officials in July 2021. Moreover, this interpretation of the CBRA is consistent with the purpose and spirit of the legislation, as evidenced by the statutory language and legislative history cited above.

Are the Department's legal memos on this issue available to the public?

The Department's 1994 legal memo on this issue is available at: [https://www.fws.gov/cbra/documents/1994-Interpretation-CBRA-Section-6\(a\)\(6\)\(G\)-and-1995-AS-FWP-Letter.pdf](https://www.fws.gov/cbra/documents/1994-Interpretation-CBRA-Section-6(a)(6)(G)-and-1995-AS-FWP-Letter.pdf). The 2019 legal memo is available at: <https://www.fws.gov/cbra/documents/20191030-CBRA-Memo-SOL-to-FWS.pdf>. The 2021 legal memo is available at: <https://www.fws.gov/cbra/documents/20210714-CBRA-Nonstructural-Shoreline-Stabilization-Legal-Memo.pdf>.

What is the effect of the rescission of the 2019 interpretation on existing projects?

To date, CBRA consultation with the Service has only been completed under the 2019 interpretation for two planned Corps renourishment projects in North Carolina (Coastal Storm Risk Management for Wrightsville Beach and Carolina Beach) that seek to dredge sand from within the CBRS for use outside of the System. It is our understanding that those renourishment projects have

not yet been carried out on the ground, and that no federal funds have yet been committed. Effective immediately, federally-funded actions and projects that seek to dredge sand from within the CBRS for nonstructural shoreline stabilization outside of the CBRS will no longer be eligible for consideration under the 16 U.S.C. § 3505(a)(6)(G) exception for "nonstructural projects for shoreline stabilization that are designed to mimic, enhance, or restore a natural stabilization system." Federal agencies may consider alternative borrow sites outside of the CBRS or alternative funding sources (i.e., state, local, or private) for affected projects. Questions regarding specific projects that may be affected by the rescission of the 2019 interpretation should be directed to the U.S. Fish and Wildlife Service Ecological Services field offices: <https://www.fws.gov/cbra/consultations/contacts.html>.

What factors should be considered for nonstructural shoreline stabilization projects under 16 U.S.C. § 3505(a)(6)(G)?

When assessing whether a particular project or action qualifies under the exception at 16 U.S.C. § 3505(a)(6)(G), the following factors should be considered through the consultation process between the federal funding agency and the Service:

1) Is the shoreline that is being stabilized located within the CBRS?

The exception is specifically intended for the nonstructural stabilization of shorelines located within the CBRS. The dredging of sand from within the CBRS to stabilize a shoreline

that is located outside of the CBRS is not an excepted activity.

2) Is the shoreline stabilization project "nonstructural"?

There are both structural and nonstructural methods of shoreline stabilization. The exception allows for only those projects that are nonstructural. Disqualifying factors include the construction, maintenance, or expansion of structural elements in the project (e.g., jetties, groins, seawalls, geotubes, and bulkheads) either inside or outside of the CBRS. However, the mere presence of pre-existing structures on the ground in a project area that are not being constructed, maintained, or expanded as part of the project under consultation does not disqualify it from being considered "nonstructural." Nonstructural measures include activities such as the planting of vegetation and beach nourishment.

3) Is the project designed to "mimic, enhance, or restore a natural stabilization system"?

Natural features are created through the action of physical, biological, geologic, and chemical processes operating in nature, and include marshes, beaches, and dunes. Nature-based features are created by human design, engineering, and construction to mimic as closely as possible conditions which would occur in the area absent human changes to the landscape or hydrology. Natural and nature-based shoreline stabilization measures may be considered under 16 U.S.C. § 3505(a)(6)(G), however determinations regarding whether such projects meet the exception are made on a case-by-case basis during the consultation process.

Examples of issues to address through a consultation may include, but are not limited to:

- Whether the sand will refill the borrow site over time through natural littoral drift, and if so, how long it is expected to take.
- Whether dredging sand from an inlet or nearshore area will affect the shoreline laterally up and down the coast from the project, and to what extent.
- Whether littoral drift will be impeded by existing hard structures such as groins and jetties.
- Whether the project includes the removal of sand from an



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Beach erosion at Pea Island National Wildlife Refuge

inlet or nearshore area, where the volume of sand removed is substantial enough to interfere with the natural function of the coastal barrier system.

- Whether the project includes the construction of artificial dunes designed to prevent natural processes, such as overwash and erosion.
- Whether the sediment to be used in beach nourishment exhibits the appropriate characteristics (e.g., color and grain size) present in the natural system, thereby promoting the integrity of restored beaches for seabirds, shorebirds, sea turtles, and other flora and fauna.

4) Does the project meet the purposes of CBRA?

The purposes of CBRA are “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 and along the shore areas of the Great Lakes by restricting future Federal expenditures and financial assistance which have the effect of encouraging development of coastal barriers, by establishing the [CBRS], and by considering the means and measures by which the long-term conservation of these fish, wildlife, and other natural resources may be achieved.”³ Projects or actions must be consistent with the purposes of CBRA in order to meet the requirements of the exception.

(a) Does the project minimize the loss of human life, wasteful federal expenditures, and damage to fish, wildlife, and other natural resources?

Many species depend upon natural, dynamic sediment exchanges amongst barrier island environments. Dredging of inlets for sand changes the shape of the seafloor, which may alter sediment exchanges through the inlet and to nearby barrier islands. Sand removal may alter the benthic community possibly reducing the system’s ability to support a full suite of inlet habitats. Additionally, beach nourishment used to protect existing structures and communities may attract further development in vulnerable areas, thus requiring greater need for future sand replenishment,⁴ or more drastic stabilization measures.⁵



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Piping plover with chick hatchlings at Rachel Carson National Wildlife Refuge

It is the Service’s opinion that federal agencies need not demonstrate that projects specifically reduce the loss of human life in order to meet the requirements of the exception. The intent of the legislation is to minimize loss of human life by restricting future expenditures and financial assistance that have the effect of encouraging development of coastal barriers. If it can be shown that the project is not likely to result in increased development of coastal barriers, and therefore there is no additional risk to human life resulting from the project, then it may satisfy the “minimize loss of human life” condition under the exception.

Examples of issues to address through a consultation may include, but are not limited to:

- Whether the project will result in the degradation or loss of coastal-dependent species and/or their habitat.
- Whether the project may encourage development on coastal barriers, thus resulting in higher populations in hazard-prone areas.
- Whether the project will likely need repair or repeated nourishment and what the expected frequency and costs may be.
- Whether the project is designed to protect structures that were constructed within the CBRS after designation.

(b) Does the project consider the means and measures by which the long-term conservation of the fish, wildlife, and other natural resources may be achieved?

Shoreline stabilization activities along coastal areas may negatively impact coastal-dependent species, many of which are at-risk or federally protected, further exacerbating their vulnerability and endangerment. Furthermore, shoreline alteration may result in desired short-term stability, however, the long-term resiliency of the coastal barrier system may be compromised.⁶ Examples of issues to address through a consultation may include, but are not limited to:

- Whether appropriate pre- and post-project data collection and monitoring is in place to ensure that the project does not threaten the long-term conservation of the fish, wildlife, and other natural resources.
- Whether the project incorporates reasonable and prudent conservation measures and Best Management Practices to ensure the long-term conservation of the fish, wildlife, and other natural resources.

Beach renourishment activities also have the potential for positive impacts. For example, expansion or restoration of degraded or damaged



Sea oats by the Gulf of Mexico at Bon Scour National Wildlife Refuge

beaches can provide habitat for threatened and endangered species, such as birds and sea turtles, when it otherwise might not exist. Benefits of shoreline stabilization measures should also be considered as part of the consultation process.

What are some examples of nonstructural shoreline stabilization activities or projects that may qualify under 16 U.S.C. § 3505(a)(6)(G)?

Examples of nonstructural shoreline stabilization activities or projects that may be eligible under this exception (following consultation with the Service) include:

- Planting of vegetation (e.g., native plants to stabilize dunes) under certain circumstances.
- Nonstructural beach nourishment in undeveloped areas within the CBRS (for purposes other than protecting development that occurred after the CBRS designation).
- Nonstructural beach nourishment within the CBRS for “excluded areas” in the CBRS units (generally pre-existing pockets of development that were mapped out of, but surrounded by, CBRS units).
- Living shorelines⁷ that are comprised of vegetation, sediment, and other nonstructural materials. Given that this exception specifies that the projects must be “nonstructural,” the use of hard structures is not allowable under the exception.

Living shorelines using structural materials should be considered under another exception that does not specify that the projects be “nonstructural.”⁸

Are there circumstances where sand can be removed from the CBRS for use outside of the CBRS under any of the other exceptions under 16 U.S.C. § 3505(a)?

Federally-funded dredging within the CBRS for use outside of the CBRS is generally inconsistent with the purpose and spirit of CBRA, and is precluded by the statute with limited exceptions. The legislative history of CBRA states “the fact that a project may be designed to benefit a non-coastal barrier is not significant.”⁹ However, under CBRA there are limited circumstances in which sand can be taken from a CBRS unit for use outside of the CBRS. These are: (1) dredging of existing (i.e., pre-CBRS designation) federal navigation channels, including the disposal of dredge materials related to such maintenance; and (2) actions essential to the saving of lives and the protection of property and the public health and safety that are also necessary to alleviate an emergency in a presidentially-declared disaster. These circumstances are described in further detail below.

Dredging of Federal Navigation Channels and Disposal of Dredge Materials

There is an exception under CBRA

(following consultation with the Service) for “[t]he 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.”¹⁰ The legislative history of CBRA states that “[t]he use of disposal sites for dredge materials is not precluded by this legislation so long as they are related to, and necessary for, the maintenance of an existing project.”¹¹ Beneficial use of dredge material from such channel maintenance activities for beach nourishment is possible, but dredging that exceeds what is necessary for true maintenance of the channel is not permitted with federal funds. The Corps or other federal agencies may choose how to prioritize the disposal of dredge material so long as the disposal action meets the requirements of the CBRA exception. Agencies need not conduct a CBRA consultation for the disposal portion of a channel maintenance project when the disposal does not affect the CBRS.

Emergency Actions under the Stafford Act

There is an exception under CBRA for “Assistance for emergency actions essential to the saving of lives and the protection of property and the public health and safety, if such actions are performed pursuant to sections 5170a, 5170b, and 5192 of title 42...and are limited to actions that are necessary to alleviate the emergency.”¹² Federally-funded projects under this exception are also required to be consistent with the purposes of the CBRA and are limited to presidentially-declared disasters. The legislative history of CBRA makes it clear that this exception should “not be used as a justification for any projects that exceed the scope and needs of the true immediate emergency.”¹³ An example of an activity that may meet this exception is the use of federal funds to clear debris that causes a hazard to navigation, which may include the removal of beach quality sand from a waterway. Federal funds may be used to remove sand obtained in this manner from the CBRS (following consultation with the Service), and the Service’s concerns would be limited to whether the removal of the

sand meets the requirements of the exception (the portion of the project involving placement of the sand outside of the CBRs does not require CBRA consultation).

Is there a provision under CBRA for emergency actions immediately adjacent to the CBRs?

CBRA prohibits a wide variety of federal expenditures including “the carrying out of any project to prevent the erosion of, or to otherwise stabilize, any inlet, shoreline, or inshore area, except that such assistance and expenditures may be made available...in all units, in cases where an emergency threatens life, land, and property immediately adjacent to that unit.”¹² There may be limited cases where it is appropriate for federal agencies to carry out projects within the CBRs in accordance with this emergency provision. However, CBRA’s legislative history makes it clear that the emergency provisions were intended for action against immediate emergencies.¹³ It is the responsibility of the federal funding agency to determine what constitutes an emergency that threatens life, land, and property immediately adjacent to a unit. In making this determination the funding agency should consider whether the project or activity is truly

necessary to alleviate an immediate emergency. Unlike most of CBRA’s exceptions, there is no requirement for federal agencies to consult with the Service under this provision in CBRA. However, the Service does appreciate a notification when this provision is exercised. Federal expenditures that are deemed appropriate under this provision of CBRA do not have to be consistent with the purposes of CBRA.

Are there any other CBRA exceptions under which shoreline stabilization may be conducted?

There is an exception under CBRA (following consultation with the Service) for “Projects for the study, management, protection, and enhancement of fish and wildlife resources and habitats...stabilization projects for fish and wildlife habitats, and recreational projects.”¹⁴ Federal expenditures that meet this exception must also be consistent with the purposes of CBRA. Examples of beach nourishment and shoreline stabilization projects that may meet this exception include:

- Beach nourishment projects designed specifically for the benefit of fish and wildlife resources and habitats.
- Nature-based measures for shoreline stabilization such as living

shorelines that protect and/or enhance habitat, which may include sand fill, vegetation, and other soft components. In some cases, structural components such as oyster/mussel reefs may be used.

Where can I get information on the effects of sediment removal and placement on coastal barriers?

On June 2, 2021, the U.S. Geological Survey (USGS) and the Service released a joint report on the impacts of sediment removal from and placement in coastal barrier systems. The report contains a comprehensive summary of the available scientific literature on the impacts of sediment management actions (e.g., dredging and beach nourishment) within coastal barrier systems. The report provides resource managers with valuable information they can use to evaluate sediment management practices and the effects they might have on coastal barrier systems, including: impacts to coastal sediment supply, sea bottom habitats, beach habitats, fish and other marine species, and long-term coastal resilience along the U.S. coasts. The report identifies the physical and biological data required for assessing and monitoring impacts of sediment management actions in coastal barrier



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Shoreline with beach vegetation including sea oats at Ten Thousand Island National Wildlife Refuge

island systems and provides a table of existing USGS data resources for the following five CBRS areas of interest: Hereford Inlet, NJ, Carolina Beach, NC, Masonboro Inlet, NC, New River Inlet, NC, and Folly Beach, SC. The report can be accessed at: <https://doi.org/10.3133/ofr20211062>.

Does a change in project scope or funding require a new CBRA consultation?

Any new commitment of federal funds associated with a project following the initial CBRA consultation (e.g., future

beach renourishment), or change in the project design and/or scope, is subject to CBRA's consultation requirement. Information about the consultation process is available on our website at: <https://www.fws.gov/cbra/consultations.html>.

Where can I get more information about the CBRA consultation process?

Determinations regarding whether specific projects or actions are consistent with CBRA are highly site specific and are made on a case-by-case basis

following consultation between the federal funding agency and the Service's Ecological Services field office in the area of jurisdiction. Federal agencies and other stakeholders are encouraged to contact the appropriate field office for assistance with CBRA compliance. Further information, including field office contact information and numerous consultation tools and resources, is available at: <https://www.fws.gov/cbra/consultations.html>.

¹ 16 U.S.C. § 3506(b).

² 16 U.S.C. § 3504(a)(3).

³ 16 U.S.C. § 3501(b).

⁴ "In a comprehensive, parcel-scale analysis of all shorefront single-family homes in the state of Florida, we find that houses in nourishing zones are significantly larger and more numerous than in non-nourishing zones. The predominance of larger homes in nourishing zones suggests a positive feedback between nourishment and development that is compounding coastal risk in zones already characterized by high vulnerability." Armstrong, S. B., E. D. Lazarus, P. W. Limber, E. B. Goldstein, C. Thorpe, and R. C. Ballinger. 2016. Indications of a positive feedback between coastal development and beach nourishment, *Earth's Future*, 4, 626–635. <https://doi.org/10.1002/2016EF000425>.

⁵ Pilkey, O.H. and K.L. Dixon. 1996. *The Corps and the shore*. Island Press; Washington, D.C.

⁶ A 2017 U.S. Geological Survey study found that: "The longer humans intervene in the coastal system by fixing the barrier in place laterally and vertically, the faster drowning occurs, even if natural barrier island morphodynamics are restored after human intervention. This suggests that coastal management techniques that seek to maintain barrier positions and redistribute overwash deposits may result in more resilient coastlines initially but that increased vulnerability resulting from human alterations may not be reversible over longer time scales." Miselis, J. L., & Lorenzo-Trueba, J. 2017. Natural and human-induced variability in barrier-island response to sea level rise. *Geophysical Research Letters*, 44, 11, 922–11, 931. <https://doi.org/10.1002/2017GL074811>.

⁷ The National Oceanic and Atmospheric Administration describes living shorelines as: "a green infrastructure technique using native vegetation alone or in combination with low sills to stabilize the shoreline. Living shorelines provide a natural alternative to 'hard' shoreline stabilization methods like rip rap or bulkheads, and provide numerous benefits including nutrient pollution remediation, essential fish habitat structure, and buffering of shoreline from waves and storms. Research indicates that living shorelines are more resilient than bulkheads in protecting against the effects of hurricanes." <https://oceanservice.noaa.gov/facts/living-shoreline.html>.

⁸ See exceptions 16 U.S.C § 3505(a)(6)(A) and (C).

⁹ Conference Report 97-928.

¹⁰ 16 U.S.C. § 3505(a)(2).

¹¹ House Report 97-841 Part 1.

¹² 16 U.S.C. § 3505(a)(6)(E).

¹³ Senate Report 97-419.

¹⁴ 16 U.S.C. 3505(a)(6)(A).

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