




# Cumulative Impacts of Seismic Surveys in the Atlantic OCS


An aerial photograph of a coastal landscape. In the foreground, there is a grassy, slightly elevated area with a dirt path leading towards a lighthouse. The lighthouse is a tall, cylindrical tower with alternating black and white diagonal stripes. It sits on a small, circular, grassy island. To the left of the lighthouse, a long, low pier or breakwater extends into the ocean. The ocean is a deep blue-green color with white waves breaking against the shore. The sky is a pale, hazy blue.

May 2015  
Sierra Weaver  
Southern Environmental Law Center

**2017–2022 Oil and Gas Leasing  
Draft Proposed Program  
Mid-Atlantic and South Atlantic  
Program Area**

-  Planning Area Boundary
-  Program Area
-  50-Mile Buffer

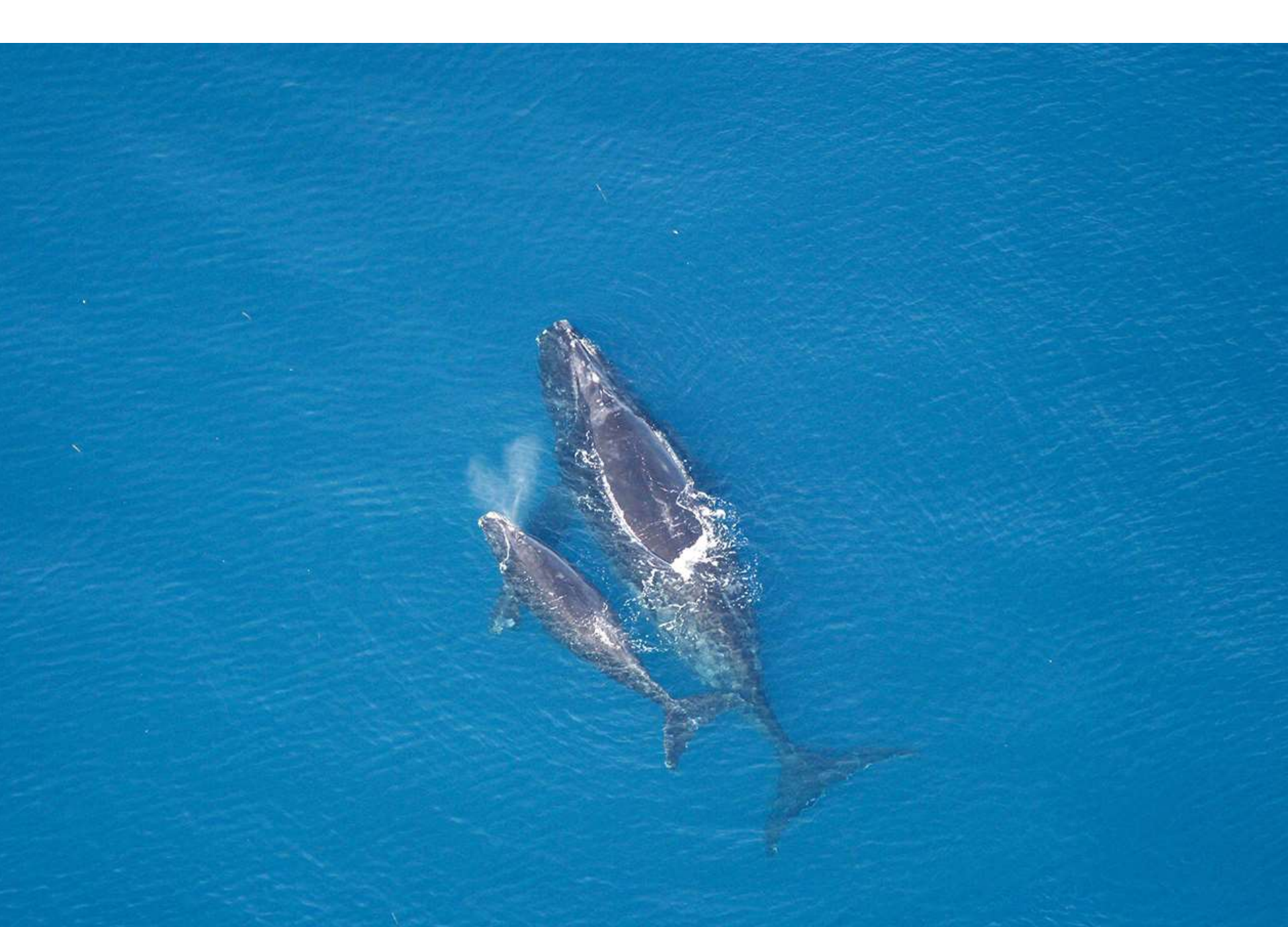




“Our strategy calls for developing new areas offshore, exploring frontier areas, and **protecting places that are too special to drill.**”

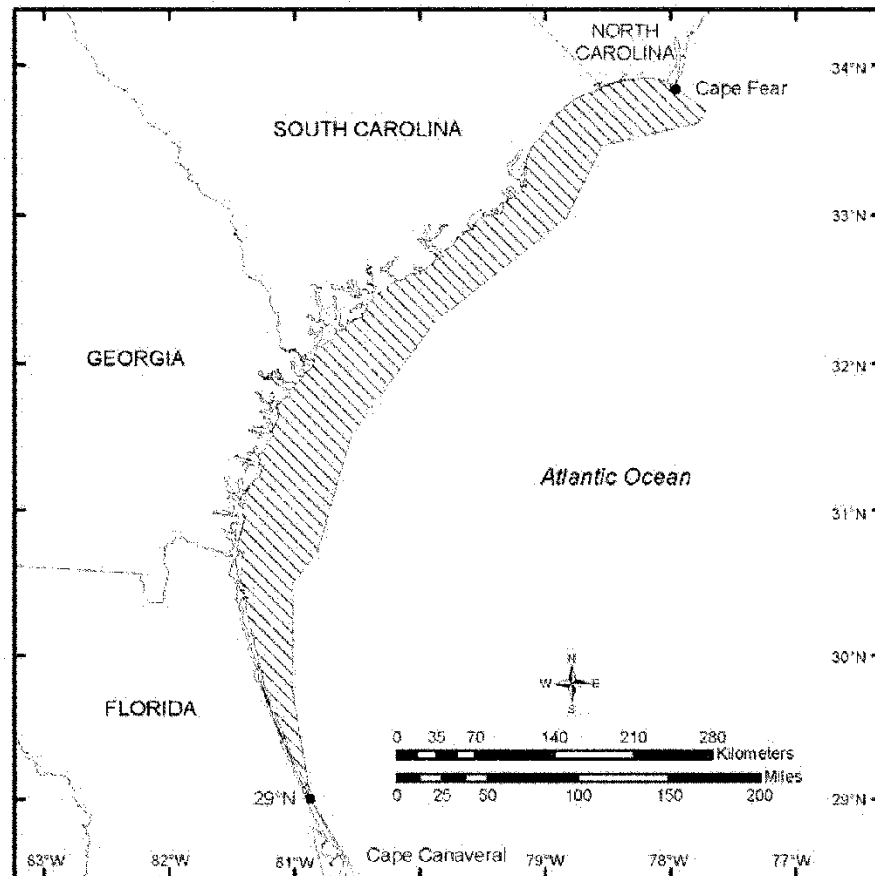
- Secretary of the Interior Sally Jewell



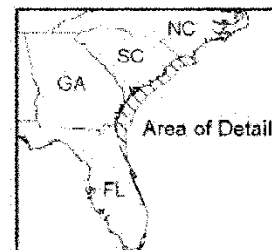


North Atlantic Right Whale Critical Habitat  
Southeastern U.S. Calving Area

Unit 2

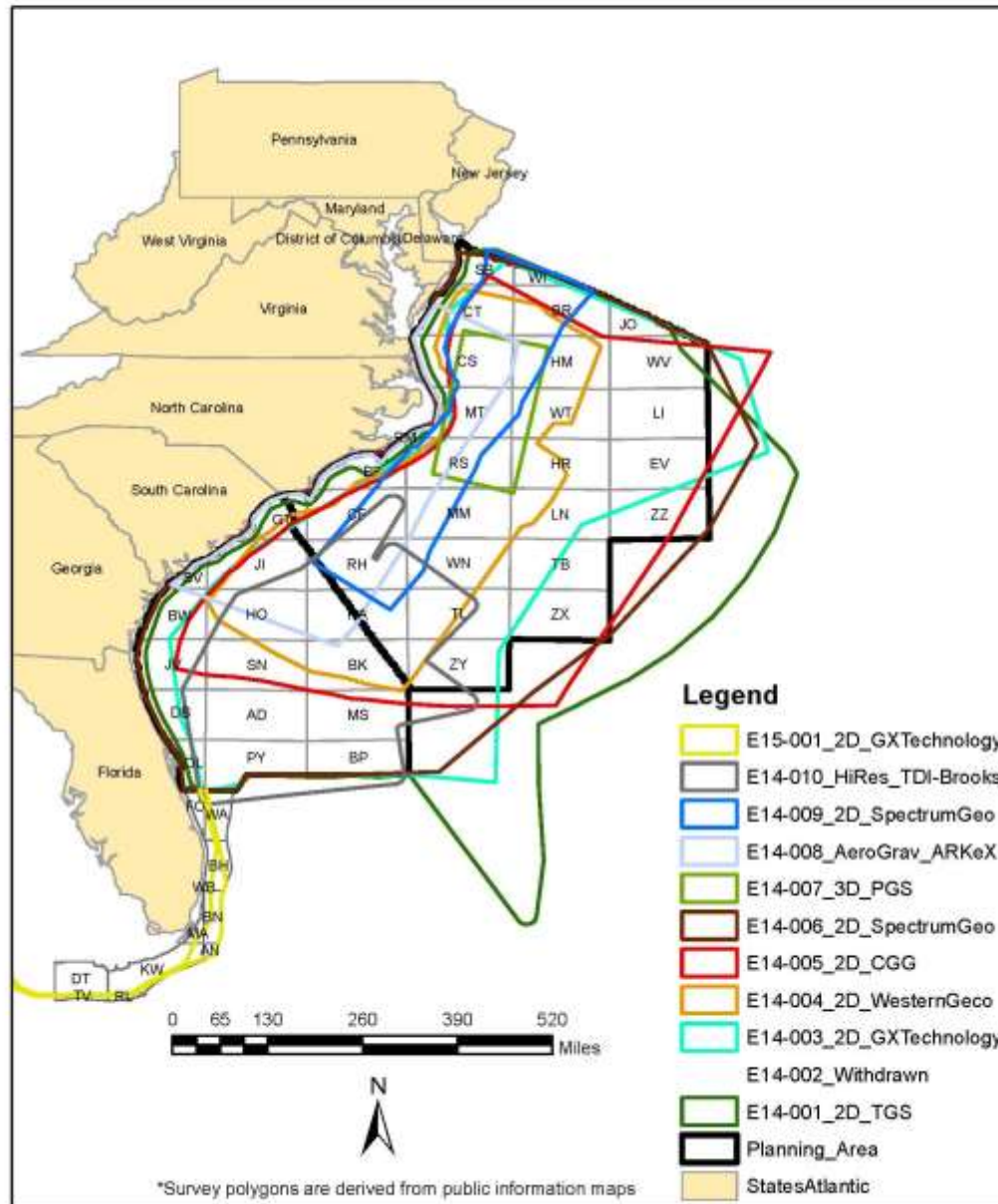


 Critical Habitat



This map is provided for illustrative purposes only of North Atlantic right whale critical habitat. For the precise legal definition of critical habitat, please refer to the narrative description.

# Atlantic Pending Surveys





[illegible] Southern  
Environmental  
Law Center



Administrative Boundary Virginia - North Carolina

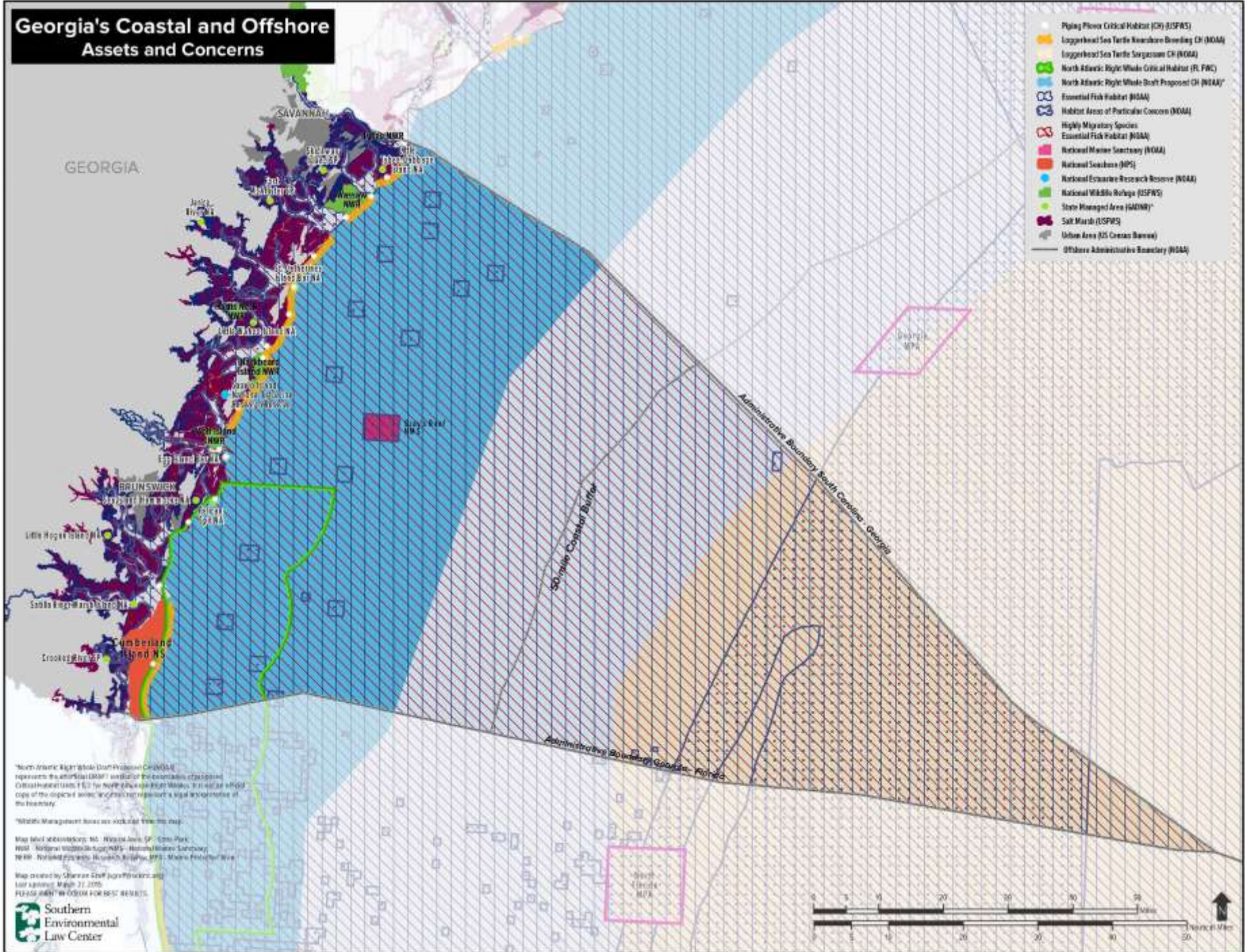




## SOUTH CAROLINA



## Georgia's Coastal and Offshore Assets and Concerns





# Consideration of cumulative impacts under federal law

- Under National Environmental Policy Act, a federal agency must consider “cumulative impacts” when evaluating a proposed federal action.
  - “Cumulative impacts” are those impacts “on the environment which result[] from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” 40 C.F.R. § 1508.7.

# Consideration of cumulative impacts under federal law

- Under the Endangered Species Act NMFS must evaluate the cumulative impacts of federal actions on listed species and critical habitat and formulate its “biological opinion as to whether the action, taken together with *cumulative impacts*, is likely to jeopardize the continued existence of the listed species” or result the destruction of adverse modification of critical habitat. 50 C.F.R. § 402.14(g).



# Consideration of cumulative impacts under federal law

- The Marine Mammal Protection Act prohibits the take of marine mammals except in limited circumstances, including the incidental take of “small numbers” of marine mammals, where the “*total of such taking* during each five-year (or less period) will have a negligible impact on such species or stock.” 16 U.S.C. § 1371(a)(5)(A)(i)(I) (emphasis added).

# Consideration of cumulative impacts under federal law

- The Outer Continental Shelf Lands Act allows geological and geophysical surveys “which are not unduly harmful to aquatic life in such area.” 16 U.S.C. § 1340(a).
  - Activities must be carried out in a “safe and environmentally sound manner so as to prevent harm or damage to, or waste of, any natural resources[], any life (including fish and other aquatic life), property, or the marine, coastal, or human environment.” 30 C.F.R. § 551.2.



# Consideration of cumulative impacts under state law

- South Carolina's Office of Coastal and Resource Management must consider "[t]he possible *long-range, cumulative effects* of the project, when reviewed in the context of other possible development and the general character of the area" when making a consistency determination. S.C. Code Ann. § 48-39-80(B)(11).

## Opposition mounts to seismic testing for Atlantic oil and gas reserves



Posted by: Sue Surgis  
Friday April 18th, 2014

This Sunday, April 20 marks four years since BP's Deepwater Horizon disaster began unfolding in the Gulf of Mexico, killing 11 workers and setting off an 87-day gusher that dumped an estimated 200 million gallons of oil into the coastal ecosystem.

Though fishermen [say catches are still down](#) due to the environmental damage caused by the spill, BP is back in action in the Gulf. Last month it reached an agreement with the U.S. Environmental Protection Agency lifting the ban that kept it from signing new drilling deals. Less than a week later, the company [announced as the highest bidder](#) for 24 of the Gulf blocks on sale.

With a return to business as usual for Big Oil in the Gulf of Mexico, the industry is now pressing to open up the southeastern Atlantic Coast to exploration – but it's meeting growing resistance from local communities that would be most directly affected by expanded drilling.



With the fourth anniversary of the BP disaster approaching, the conservation group Oceana teamed up with The Broomer to send a message against oil and gas drilling along the Atlantic coast. (Photo by Oceana/Melissa Forsyth.)

5/4/2015

Print - Local

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THE DAILY NEWS - JACKSONVILLE, NC

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## Opponents voice concern

By Jennifer Pippin

Published: Thursday, April 3, 2014 at 10:40 AM

MOREHEAD CITY — The concerns were aired at a proposed seismic testing off the North Carolina coast. Impacts would be minimal and short-term.

The public hearing held by the North Carolina Division of Coastal Management in Morehead City on Monday was the first of a series of public hearings on proposed seismic testing off the coast for oil and gas exploration.

After the first hour and half of the hearing, nearly 50 people showed up to voice their concerns about seismic activities off the coast.

Kendra Decker, a Texas native who now lives in Atlanta, said she's not sure what she wants to see on the oil industry and it's not what she wants to see on the coast.

She said any jobs created would be filled by employees from other states.

Decker cautioned that allowing the proposed seismic and potential drilling for oil off the coast.

"There's no turning back," she said.

That's not necessarily so, said representative who was

Ken Wells, president of the International Association of Seismic Engineers, said that any seismic testing would be done in a way that would not harm the environment.

"The value of this type of hearing is that we are able to

The Division of Coastal Management has received federal approval for federal permits to conduct seismic testing.

While the surveys would take place entirely in federal waters, the project, it does have the authority to review and approve the state's certified coastal management.

Due to the widespread interest in the topic, the division will allow as much opportunity of public input as possible.

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# Environment: Georgia groups come together to oppose offshore drilling

## Of concern is damage the noise could do to North Atlantic right whales

By Jessica Leigh Lebos

@connectsavannah.com

@typeitloud

click to enlarge



To learn more, go to [oceana.org](http://oceana.org) or [onehundredmiles.org](http://onehundredmiles.org).

shots show up in opposition to seismic testing in Kure Beach - Live5News.com | Charleston, SC | News, Weather, Sports

65 Current 65 Fahrenheit



70°

in One Charleston

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5/5/2015

'We're not for sale': Coastal leaders at odds with S.C., federal officials on offshore drilling | The State The State

Local (<http://www.thestate.com/news/local/>)  
(<http://www.thestate.com/>)

SUBSCRIBE (+PLUS)

MARCH 27, 2015

## 'We're not for sale': Coastal leaders at odds with S.C., federal officials on offshore drilling



Beaufort Mayor Billy Keyserling, left, discusses the threats that offshore oil and gas development will have on South Carolina's healthy ocean ecosystems, fisheries and tourism, while highlighting the benefits of offshore wind, including its ability to produce more jobs and energy while at the pavilion at Waterfront Park in January. (THEOPHIL SYSLO - The (Hilton Head) Island Packet)

## Hundreds show up in opposition to seismic testing in Kure Beach

KURE BEACH, NC (WECT) - After hours of public comments about seismic testing in the Atlantic Ocean, town leaders in Kure Beach let a crowd of hundreds of people know that they do not have an official stance on the issue.

The large show of opposition against the issue was prompted by an earlier letter of support for seismic testing signed by Kure Beach Mayor Dean Lambeth. The letter, as Town Commissioner David Heglar explained to the crowd, was not an official letterhead and simply the opinion of an individual citizen.

Heglar said he was glad to see so much interest in local government, but the outcry against the issue was exactly why he told his fellow commissioners last month that the town should not take a stance on a federal issue.

"Just like abortion or voting rights," Heglar told a crowded council room.

Some in the crowd said they would prefer town leaders to take a stance on the issue, specifically one of opposition. Judy Larrick, a resident of the town for 18 years, said last year's elections might have been more contentious if the opinions on seismic testing were known.

"We need to know who we're electing and what their opinions, values and policies stand for," she said.

Larrick said she will remember this debate when she votes in the next municipal election.

Bradley Brashaw, with Island Friendly Action, said Monday night that he would like to see leaders in Kure Beach adopt a resolution similar to one passed in Beaufort last year that opposes any off-shore testing and drilling.

"I would love to see that happen in Kure Beach," said Brashaw. "I think the citizen support is here, but I don't believe the support is there on the town council."

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## RECOMMENDED

Beaufort, GA: Aerials Showing How "Threat"

Beaufort, GA

Police: Charleston man charged in Wednesday night shooting

# Science community concerns about seismic testing

The Cornell Lab of Ornithology  
Bioacoustics Research Program

Duke  
NICHOLAS SCHOOL OF THE ENVIRONMENT  
DUKE UNIVERSITY MARINE LAB

New England  
Aquarium  
Protecting the blue planet

March 5, 2015

President Barack Obama  
The White House  
1600 Pennsylvania Avenue  
Washington, D.C. 20500

Dear Mr. President:

On behalf of 75 marine scientists, we are writing to convey the attached letter of concern over the introduction of seismic oil and gas surveys off the U.S. east coast. The letter is signed by colleagues representing such institutions as Cornell, Duke, the New England Aquarium, Stanford, the University of North Carolina, and Woods Hole Oceanographic Institution, and includes leading experts in marine biology and bioacoustics.

Last July, the Interior Department issued a "framework" for opening its mid- and southeast Atlantic regions to high-energy seismic airgun surveys. As the letter states, however, we believe that the Department has substantially underestimated the impact of this disruptive activity on marine life and has prescribed mitigation that is inadequate to address its significant cumulative effects.

Fundamentally, the ocean is a world of sound. Whales, fish, and other marine species have evolved to use sound as their primary sense, for foraging, breeding and other activities essential to their survival. The high-volume airgun arrays used by the seismic industry are known to disrupt these vital behaviors in a wide range of marine species on extraordinarily large spatial scales.

It is our expert assessment that the activity proposed by the Interior Department "is likely to have significant, long-lasting, and widespread impacts on the reproduction and survival of fish and marine mammal populations in the region." On behalf of ourselves and our colleagues, we therefore respectfully urge you to reconsider the Interior Department's analysis. To proceed otherwise, as the letter states, "is simply not sustainable."

Very truly yours,

Christopher Clark, Ph.D.  
Senior Scientist  
Bioacoustics Research Program  
Cornell University

Scott Kraus, Ph.D.  
Vice President of Research  
John H. Prescott Marine Laboratory  
New England Aquarium

President Barack Obama  
March 5, 2015  
Page 2

Doug Nowacek, Ph.D.  
Regius-Rodgers Chair of Marine  
Conservation Technology  
Nicholas School of the Environment  
and Pratt School of Engineering  
Duke University

Aaron Rice, Ph.D.  
Science Director  
Bioacoustics Research Program  
Cornell University

Andrew J. Read, Ph.D.  
Stephen Toth Professor of Marine Biology  
Division of Marine Science and  
Conservation  
Nicholas School of the Environment  
Duke University



# Local government opposition to seismic testing

- South Carolina
  - Charleston, Columbia, Beaufort, Edisto Beach, Folly Beach, Georgetown, Isle of Palms, James Island, Port Royal, Rockville, and Sullivan's Island
- Georgia
  - Savannah, Tybee Island and St. Mary's
- North Carolina
  - Carolina Beach, Caswell Beach, Manteo, Nags Head, Oak Island, Southport, St. James, Sunset Beach, and Topsail Beach

# Charleston passes resolution opposing seismic testing and offshore drilling

2015-02



## A RESOLUTION

TO EXPRESS THE CITY OF CHARLESTON'S OPPOSITION TO SEISMIC TESTING AND OFFSHORE DRILLING ACTIVITIES.

WHEREAS, the U.S. Bureau of Ocean Energy Management (BOEM) is currently in the process of trying to open the mid and south Atlantic planning areas to exploration and development of offshore oil and gas which will include the utilization of methods, such as seismic blasting; and,

WHEREAS, the seismic data collected during any exploration activities will be proprietary and will not be available for review by the State of South Carolina, the City of Charleston, or members of the public; and,

WHEREAS, it will be impossible for the City of Charleston to give adequate consideration to the costs, benefits, and risks of BOEM's offshore oil and gas proposal due to the lack of transparency of this process; and,

WHEREAS, the City of Charleston cannot fully participate in the BOEM planning process without appropriate access to the resource studies conducted off our coast; and,

WHEREAS, the full impacts of seismic testing and offshore drilling in the Atlantic Ocean are not yet fully understood by scientists, or the Federal Government, and lower-impact alternative technologies may be available for exploration in the near future; and,

WHEREAS, exploratory and commercial drilling, extraction, and transportation of offshore oil and gas resources pose a risk of a spill; and,

WHEREAS, eventual offshore drilling may require onshore infrastructure, such as pipelines or refineries, which may compromise the character of our coast; and,

WHEREAS, the City of Charleston is concerned about the potential impacts of offshore drilling activities on our coast; and,

WHEREAS, the City of Charleston is a South Carolina municipality where a major economic force is tourism related to the appreciation of our natural coastal and historical environment, which are also the primary factors contributing to the high quality of life the City's residents enjoy, enabling business recruitment, economic growth, and attracting new residents; and

WHEREAS, the City of Charleston endeavors to be a good steward of its coastal environment and its resources; and,

WHEREAS, the City of Charleston believes that more research should be done to fully understand and to better address the impacts of seismic testing, and any testing should be done in a transparent manner and the options for mitigating those impacts explored before exploration begins.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF CHARLESTON, IN COUNCIL ASSEMBLED, THAT THE CITY IS OPPOSED TO THE CURRENT BOEM PROPOSAL FOR SEISMIC TESTING AND OFFSHORE OIL AND GAS DEVELOPMENT OFF OF THE SOUTH CAROLINA COAST.

Done this 2<sup>nd</sup> day of February 2015.

# National opposition to seismic testing

- Sen. Bill Nelson (D-FL) introduced legislation last week to block seismic testing off Florida's coast, calling drilling for oil and seismic testing in the Atlantic OCS "unwise and impractical."
- Rep. Mark Sanford (R-SC) announced his opposition to seismic testing and offshore drilling, citing the substantial risk to unique coastal resources and intense local opposition in his coastal district.