

**Smith, Holly E.**

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**From:** Hassell, Kevin <Kevin.Hassell@dep.nj.gov>  
**Sent:** Tuesday, May 20, 2014 2:26 PM  
**To:** Smith, Holly E.; kerry.kehoe@noaa.gov; Blanco, Caroline M; David Kaiser - NOAA Federal; Gregory Mountain (gmtn@rci.rutgers.edu); margaret.davidson@noaa.gov  
**Cc:** Glynnis Roberts - NOAA Affiliate; Randall Schneider - NOAA Federal; Gray, John; Fanz, Dave; Siekerka, Michele; Rosen, Martin; Kopkash, Ginger; Jackie Rolleri - NOAA Federal (jackie.rolleri@noaa.gov)  
**Subject:** NSF funded seismic survey  
**Attachments:** NSFRutgersSeismic.pdf

To Whom It May Concern:

Please find attached an electronic copy of the federal consistency notice of intent to review letter submitted on May 16, 2014 by the New Jersey Coastal Management Program, within the N.J. Department of Environmental Protection, with respect to the proposed National Science Foundation funded 3-d Seismic survey offshore New Jersey.

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## State of New Jersey

### DEPARTMENT OF ENVIRONMENTAL PROTECTION

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CHRIS CHRISTIE  
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KIM GUADAGNO  
*Lt. Governor*

BOB MARTIN  
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May 16, 2014

Ms. Margaret Davidson  
Acting Director  
Office of Ocean and Coastal Resource Management  
NOAA Ocean Service  
1305 East-West Highway  
SSMC4 N/ORM3 Rm. 11211  
Silver Spring, MD 20910

RE: Federal Funding by National Science Foundation to Rutgers University, for  
conducting 3-D seismic surveys in the Atlantic Ocean

Dear Ms. Davidson:

The New Jersey Coastal Management Program (NJCMP), within the New Jersey Department of Environmental Protection, is notifying the Office of Ocean and Coastal Resource Management (OCRM), the National Science Foundation (NSF), and Rutgers University (Applicant) of its intent to review the above-referenced activity (project) for consistency with the enforceable policies of the NJCMP. Since the activity discussed below is an unlisted activity under the NJCMP, the NJCMP is providing this notice to discuss: the NJCMP's authority under applicable Federal Coastal Zone Management Act (CZMA) rules; the timely submission of this request; and facts supporting the need for a consistency determination. NJCMP believes that the proposed seismic surveys will have both direct and indirect reasonably foreseeable effects on the uses and resources of New Jersey's coastal zone relating to commercial fishing, recreational fishing and boating; marine fish, sea turtles and marine mammals; and, shipwrecks and historic and archaeological resources.

#### 1.0 - Project Background

On March 17, 2014, the National Marine Fisheries Service (NMFS) published a Federal Register Notice (79 FR 14779, March 17, 2014) announcing the proposed issuance of an Incidental Harassment Authorization to the Lamont Doherty Earth Observatory in collaboration with the National Science Foundation (NSF) to take marine mammals by

harassment incidental to conducting a marine geophysical (seismic) survey in the northwest Atlantic Ocean from May through August 2014. The project involves conducting high-energy, 3-dimensional (3-D) seismic surveys on the R/V Langseth in the northwest Atlantic Ocean approximately 25 to 85 kilometers (km) (15.5 to 52.8 miles (mi)) off the New Jersey coast for approximately 32 days from June 3 to July 9, 2014. The proposed study (e.g., equipment testing, startup, line changes, repeat coverage of any areas, and equipment recovery) would include approximately 720 hours of airgun operations. The proposed survey would cover approximately 4,900 km (3,045 mi) of transect lines within a 12 by 50 km (7.5 by 31 mi) area. Each transect line would have a spacing interval of 150 m (492 ft) in two 6-m (19.7-ft) wide race-track patterns. The operation of high energy surveys for approximately 30 contiguous days may have a profound impact on New Jersey's fisheries.

On April 22, 2014, a conference call was held between NJCMP, OCRM and NSF staff to discuss the proposed activity. During that conference call, it was determined that Rutgers University will be the recipient of the NSF funding as the Principal Investigator for the scientific research related to the surveys that require the proposed incidental harassment authorization. On May 7, 2014 another conference call was held between NJCMP, OCRM, and NSF to discuss alternate arrangements to assuage the NJCMP's concerns over potential impacts to New Jersey's resources. On this call, OCRM also provided NJCMP with the details necessary to submit this request. While the conference call was beneficial to lay the foundation for an alternative resolution to this matter, the NJCMP made clear that the State of New Jersey would pursue this request since a final resolution was not agreed upon and the NJCMP is required to timely submit this request.

## 2.0 – Timely Submission of this Request

As discussed on the May 7, 2014 conference call, OCRM informed NJCMP that a threshold matter to resolve is the NJCMP's "timely submission" of this request. NJCMP requested clarification on the definition of timely submission and OCRM directed NJCMP to evaluate the applicability of several sources of information: Federal Executive Order (EO) 12372 (1982); and other intergovernmental agreements.

EO 12372 (1982) does not apply to this NJCMP request. Section 1 states the purpose of the EO 12372 (1982) is to "provide opportunities for consultation by elected officials of those State and local governments...directly affected by, proposed Federal financial assistance or direct Federal development." Section 4 further states that the Office of Management and Budget (OMB) will maintain a list of official state entities to review and coordinate Federal financial assistance or direct Federal development. A review of OMB's published state entities reveals that New Jersey is not listed with a coordinating entity. OMB's publication states that "States that are not listed on this page have chosen not to participate in the intergovernmental review process." [http://www.whitehouse.gov/omb/grants\\_spoc](http://www.whitehouse.gov/omb/grants_spoc). Since New Jersey is not a party to this agreement, EO 12372 (1982) is inapplicable to this request.

NJCMP conducted a survey among several New Jersey Department of Environmental Protection (NJDEP) programs to ascertain the applicability of other intergovernmental agreements. The conclusion reached is that agreements exist primarily between the NJDEP and U.S. Environmental Protection Agency (USEPA), typically in the form of our Performance Partnership Agreements (PPAs) for various delegated, authorized, or assumed programs. These PPAs do not specify or define what timely submission is for NJDEP requests to USEPA. Because no other agreements are dispositive on this issue, the NJCMP cannot define timely submission based on other intergovernmental agreements.

Since EO 12372 (1982) and other intergovernmental agreements are inapplicable to determining timely submission, the NJCMP believes a reasonable standard is appropriate in defining timely submission. The NJCMP has reasonably submitted this request in a timely fashion primarily because the NJCMP has made good faith efforts to work with NSF to modify the study to alleviate the NJCMP's concerns over the potential impacts to New Jersey's resources. From March 2014 to the May 7, 2014 conference call, the NJCMP conducted the following activities: researched the potential impacts of the proposed activities with NJDEP experts; conferred with stakeholders including the environmental, marine mammal, and recreational and commercial fishing advocates; and worked with NSF on alternative study arrangements. Within 9 calendar days from the last conference call with NJCMP, NSF, and OCRM, the NJCMP is submitting this request. The NJCMP believes that based on the NJCMP's diligence in organizing information and working with interested parties, the NJCMP has demonstrated a timely submission for this request.

### 3.0 - Applicable Authority to Request Federal Consistency

Under Section 307(c)(1)(A) of the CZMA at 16 USC 1456(c)(1)(A), each Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent, to the maximum extent practicable, with the enforceable policies of the approved State Coastal Management Programs. Subpart C of the Federal Consistency Regulations at 15 CFR 930 address consistency for Federal Agency Activities. Under the Federal Consistency Regulations at 15 CFR 930.31(c), Federal actions that include any federal agency activity functions performed by or on behalf of a federal agency in exercise of its statutory responsibilities may be subject to the federal consistency requirements and to the regulations promulgated by the National Oceanic and Atmospheric Administration (NOAA) that implement that statutory provision. In addition, any assistance provided under a federal program to a State or local government or any related public entity through grant or contractual arrangements, loans, subsidies, guarantees, insurance, or other form of financial aid may also be subject to the federal consistency requirements.

The NJCMP believes that the proposed project may reasonably be expected to affect the uses and resources of New Jersey's coastal zone. 15 CFR § 930.33(c) states that Federal agency activities outside of the coastal zone are subject to Federal Agency review to determine whether they affect any coastal use or resource. 15 CFR § 930.33(d) states that

Federal agencies shall broadly construe the effects test to provide State agencies with consistency determinations, while 15 CFR § 930.34(c) further clarifies that State agency notification is neither a substitute for, nor does it eliminate Federal agency responsibility to comply with the consistency requirement, and provide State agencies with consistency determinations. The NJCMP believes that NSF, as a Federal Agency in ownership of the research vessel R/V Langseth conducting the work and with Lamont Doherty Earth Observatory acting on NSF's behalf in operation of its vessel, is subject to Subpart C of the federal consistency regulations and therefore, NSF should have provided a consistency determination to the NJCMP.

In addition, Rutgers University, as a recipient of the NSF funding to conduct the research, and subject to concurrence by OCRM with this determination, under Section 307(d)-Federal Assistance and its implementing regulations, is required, as the Applicant, to prepare and submit to the NJCMP a consistency certification analyzing the consistency of the proposed project with the enforceable policies of the NJCMP based on reasonably foreseeable effects on New Jersey's coastal uses and resources. Reasonably foreseeable effects are discussed in Section 4 of this request.

A "foreseeable effect" pursuant to 15 CFR 930.11(g) includes "both direct effects which result from the activity and occur at the same time and place as the activity, and indirect (cumulative and secondary) effects which result from the activity and are later in time or farther removed in distance, but are still reasonably foreseeable." In accordance with this definition, the proposed seismic survey has reasonably foreseeable effects on the uses and resources of New Jersey's coastal zone. Based on information available to the NJCMP, the NJCMP believes that the proposed survey would have reasonably foreseeable direct effects on New Jersey's coastal zone since the study area is directly used by New Jersey's commercial and recreational fishermen. Further, for the reasons described below, the NJCMP believes that the proposed seismic surveys will have both direct and indirect reasonably foreseeable effects on the uses and resources of New Jersey's coastal zone relating to commercial fishing, recreational fishing and boating; marine fish, sea turtles and marine mammals; and, shipwrecks and historic and archaeological resources.

#### 4.0 - Foreseeable effects on Coastal Uses and Resources

The regulatory standard for OCRM's approval of the NJCMP request is that the proposed activity has reasonably foreseeable effects on uses or resources of the State's coastal zone pursuant to 15 CFR 930.95(d). Based on the initial information provided by the applicant, the NJCMP concludes that the activity satisfies this requirement.

Although federal assistance for research activities beyond New Jersey's coastal zone is not specifically listed under New Jersey's Federal Consistency jurisdiction, the proposed testing does represent an unlisted activity requiring federal assistance that the NJCMP believes may have a reasonably foreseeable effect on uses or resources of New Jersey's coastal zone. In such cases, the regulations implementing the CZMA require OCRM's approval of the NJCMP's request to review the activity pursuant to 15 CFR § 930.95(d). If OCRM grants review approval, the CZMA and its implementing regulations delay the

NSF from approving assistance for the activity until either the NJCMP concurs with a consistency certification or the NJCMP review period expires, whichever occurs first. If OCRM denies the NJCMP's request for review, the NSF may proceed to authorize the activity without NJCMP concurrence pursuant to 15 CFR § 930.54(c).

#### 4.1 - Reasonably Foreseeable Effects to Commercial Fishing, Recreational Fishing, and Boating

The proposed area for seismic testing off the coast of NJ extends from Barnegat Ridge to the 35 fathom line and runs in a northwest to southeast direction intersecting fathom curves at a general perpendicular nature along its extent. The entire reach of the survey area is utilized by commercial and recreational fishermen from New Jersey and will detrimentally impact the marine harvest and economy of the State of New Jersey.

A portion of the proposed survey area is a recognized productive and historical fishing area known as "The Fingers" under NJDEP's Prime Fisheries Area Mapping. Contrary to the portrayal in the Draft Environmental Assessment in support of the IHA, areas beyond State waters are also heavily utilized by New Jersey's commercial and recreational fishing industry. Marine fish and fisheries are protected under the NJCMP, and public access to and use of natural resources are major components of the CZMA and the NJCMP. Based on previous studies examining seismic surveys and fisheries disturbances, it is reasonably foreseeable that the proposed surveys will have an impact from fisheries distribution, movement, migration and spawning perspectives that will lead to direct and indirect negative consequences to NJ's fishing industries. Svein Løkkeborg, et al.) highlighted that "reduced catches on fishing grounds exposed to seismic survey activities have been demonstrated."<sup>1</sup> The conclusions reached by the Løkkeborg study are further supported by other recent studies concluding that catch rates reduced in the presence of seismic studies.<sup>2</sup>

Based on NMFS data, New Jersey's fisheries, both commercial and recreational, are some of the most productive, highest grossing and employ more people than other states in the Mid-Atlantic and along the Atlantic Coast. The proposed time frame for the work, late May to August, is the time of peak abundance and fisheries activity off New Jersey. These activities will take place offshore from some of New Jersey's important fishing ports, including Barnegat Light, Atlantic City, and Point Pleasant. Based on the response of fish to high energy sound and the distance an impact is observable, this survey work may further preclude fisheries from a substantial area during peak operations key to the financial viability of our fisheries. Thus, the proposed survey would have a foreseeable effect on public access to and utilization of offshore areas, and would likely alter commercial and recreational fishing catch rates and patterns.

Data analysis of commercial and recreational landings from 1996 – 2013 indicate that this entire area is not only used by multiple commercial fisheries including gillnetters,

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<sup>1</sup> Løkkeborg, S.; Ona, E.; Vold, A.; & Salthaug, A., 2012. Effects of Sounds from Seismic Air Guns on Fish Behavior and Catch Rates. *Advances in Experimental Medicine and Biology*, 730, 415-419.

<sup>2</sup> Fewtrell, J.L. & McCauley R.D., 2012, Impact of Air Gun Noise on Behavior of Marine Fish and Squid. *Marine Pollution Bulletin*, 64, 984-993.

otter trawl vessels, scallop boats, and long liners, but also an area heavily utilized by recreational fishermen. Both sectors in combination pursue over 35 species of fish in this area including but not limited to; albacore, bluefish, big eye tuna, Bluefin tuna, bonita, black sea bass, butter fish, cobia, cod, smooth dogfish, spiny dogfish, summer flounder, Atlantic menhaden, monkfish, red hake, skate, tilefish, swordfish, yellow fin tuna, and skipjack tuna. Considering just two of the several species harvested during 2013; summer flounder and black sea bass, May through August represents 20 percent of the commercial black sea bass harvest, and 22 percent of the commercial summer flounder harvest. This represents \$250,000 worth of black sea bass and \$1,360,000 of potential loss of summer flounder. This period generates 21% of commercial harvest revenue for New Jersey fishermen and represents 60 to 100% of the entire recreational season for the species listed above. Recreationally, 67% of the annual black sea bass are harvested during this period while 89% for summer flounder is represented during this time frame. Local businesses including restaurants, hotels, bait and tackle shops, and other coastal related trades are dependent on this time period generating income.

Offshore waters also serve as essential habitat for invertebrate species during various stages of their lifecycles. Studies have provided “evidence that noise exposure during larval development produces body malformations in marine invertebrates. Scallop larvae exposed to playbacks of seismic pulses showed significant developmental delays and 46% developed body abnormalities. Similar effects were observed in all independent samples exposed to noise while no malformations were found in the control groups.”<sup>3</sup> A reduction in harvestable stock would result in further impacts to our commercial fisheries.

Consequently, the NJCMP has concluded that there are reasonably foreseeable effects on New Jersey’s commercial fishing industry and recreational boating and fishing industries, which are based in ports, marinas and other upland facilities located throughout New Jersey’s coastal zone.

#### 4.2 - Reasonably Foreseeable Effects to Marine Mammals and Sea Turtles

According to NJ coastal policies, critical wildlife and endangered or threatened wildlife habitats are areas that serve an essential role in maintaining wildlife throughout their lifecycle. New Jersey’s CZM rules discourage development that would affect critical wildlife habitats.

Several species of sea turtles and four species of whale, as well as other marine mammals, frequent this region. New Jersey has numerous vessels operating marine mammal boat tours that operate predominately during the summer tourism season, which this study period overlaps. New Jersey’s ecotourism is a burgeoning industry that has received positive attention from environmental advocacy groups, as well as national and local media outlets. Harassment of marine mammals and a reduction in sighting potential

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<sup>3</sup> de Soto, N.; Delorme, N.; Atkins, J.; Howard, S.; Williams, J. & Johnson, M. 2013. Anthropogenic noise causes body malformations and delays development in marine larvae. Scientific Reports. 3. Article No. 2831.

may have a negative impact on the economic viability of this industry. In addition, when the number of dead and dying dolphins increased in 2013 due to infections, the State of New Jersey via its Animal Health Diagnostic Laboratory within the Department of Agriculture began providing and funding laboratory services for pathology testing of marine mammals. The increased mortality was largely due to morbillivirus infections. This effort has been conducted in coordination with the Marine Mammal Stranding Center, a not-for-profit entity that was not financially equipped to afford the increased amount of testing needed. Should the proposed seismic testing result in increased marine mammal strandings in New Jersey, the impact to state financial resources will be felt both from any on-site state response needed and from any state laboratory services provided. It is reasonably foreseeable that this project is likely to affect these species and have a direct negative impact on State resources.

#### 4.3 - Reasonably Foreseeable Effects to Shipwrecks and Historic and Archaeological Resources.

Shipwrecks and artificial reefs are recognized by the NJCMP as special areas. Under the CZM rules, this special area includes all permanently submerged or abandoned remains of vessels, and other features including, among other things, artificial reefs, anchors, quarry rocks or lost cargo, that serve as a special marine habitat or are historic and cultural resources. These offshore features are the frequent destination of New Jersey's recreational fishermen, as well as the state's sports divers. The proposed project is reasonably likely to affect the accessibility of shipwrecks and historic and archaeological resources during the survey period.

#### 5.0 - Conclusion

The federal agency activities and federal assistance that are the subject of the application to the NMFS for an IHA are reasonably likely to also affect the land and water uses and natural resources of New Jersey's coastal zone and thus the activities are subject to the consistency review requirements of Section 307(a) and Section 307(d) of the CZMA. By this letter, and pursuant to the regulations implementing the CZMA at 15 CFR § 930.33(c) and 15 CFR § 930.95(d), the NJCMP requests that OCRM concur with our assessment that NSF is responsible to provide New Jersey with a consistency determination and also approve review of this proposed activity based on federal assistance to a public institution. In addition, by this letter, the NJCMP is informing the Applicant (Rutgers) of its right to submit to OCRM within 15 days from the Applicant's receipt of this letter, comments on New Jersey's request to review this activity.

If you have any questions concerning this letter, please contact John Gray at (609) 292-6877.

Sincerely,

A handwritten signature in cursive script that reads "Virginia KopKash". The signature is written in black ink and is positioned above the printed name.

Virginia KopKash  
Assistant Commissioner  
Land Use Management

CC List:

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