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April 16, 2015

Jolie Harrison, Supervisor
Incidental Take Program
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Re: 0648-XD773, Proposed Incidental Harassment Authorization; Proposal to issue an Authorization to Lamont-Doherty, Rutgers University and the University of Texas to incidentally take, by Level B harassment, 32 species of marine mammals during specified activity.

Dear Supervisor Harrison:

I am writing as the representative of the officers, staff and membership of NY4Whales, the New York Whale and Dolphin Action League (ny4whales.org), a 501c-3 non-profit cetacean advocacy organization, and the NY project of Cetacean Society International, who stand opposed to granting authorization for level B harassment take of marine mammals during the proposed seismic mapping project off the New Jersey shore.

Recently, the outer continental shelf of the western Atlantic Ocean adjacent to the New Jersey coastline has become an area of controversy. The waters support a rich and important fishing industry, both commercial and recreational, and a host of other ocean-related businesses. The public has responded adamantly to threats to the marine region which are considered priority issues of highest concern; threats that should be minimized at all costs and with all urgency.

A history of the region reveals that there have been numerous previous seismic activities in the very location of this NSF/Rutgers U, et al project. The project's team admittedly has repeated this project 4 times! The fact the work was done 4 times in the past and is being repeated yet again, for the fifth time, leads to speculation that either there is gross incompetency on the part of the research team or the technology being used is inadequate! Once mapped, the ocean floor will not have changed, especially given the little natural seismic activity the area is known for. Simply put, new mapping is

not required. In either case this project is unnecessarily repetitive and must not be approved.

NY4Whales objects to the lack of an Environmental Impact Statement in compliance with NEPA, the MMPA, ESA, CZMA. NY4Whales believes this project has a commercial component as the seismic information will be available to the oil and gas industries. We believe this project's commercial components have been disguised as a "climate impact project" while the work duplicates previous seismic mapping activities done by both the applicants and the oil industry. No new equipment or techniques will be used that will yield data that is already available for public use. In fact, not only has the proposed project area been mapped 4 times previously, it has been drilled 313 times! This work involves 30 days of intense airgun assaults on the seafloor in a large swath of ocean that is roughly the size of Barnegat Bay. No less than 32 species of cetaceans are in this area (many of them endangered and all are protected), making this project even more unacceptable. The region is the basis for a thriving and vital fishing industry that includes flounder, bluefish, scallops, lobster, crabs, clams. Benthic (non-swimming) species including lobster, crabs, clams, mussels are unable to flee airgun arrays and the fisheries will be destroyed here. This unnecessary project is a really bad idea.

A number of mitigation measures have been proposed by the team; these mitigations ignore common sense reasoning and simple facts of cetacean behavior and the marine environment. The airgun arrays will rip into the seabed non-stop for 24 hours a day, 7 days a week, at intervals of 5-6 seconds, creating a relentless assault with well over 240 dB of low frequency acoustic energy.

The team touts they conduct visual monitoring, and will carry Protected Species Observers on board, to "watch for whales". Yet the team forgets that most of the time, whales are completely invisible! Whales spend over 90% of their time underwater, where they can't be detected. Plus, at night, while airguns will continue to operate, there is at most 0-1 meter visibility at sea. It doesn't matter whether observers are on deck or in a 70-tall tower looking for whales. Whales will not be seen! The same thing applies in fog, rain or stormy conditions. Observers will simply not see them. This is an astonishing yet simple fact ignored by this team. On top of all this, whales may remain submerged for as long as 90 minutes (sperm whales) at a time, further eluding observers in their fruitless endeavor to locate them. How is it that the applicants either do not know these simple broadly-known facts? Do they choose to ignore this most fundamental marine mammal and marine science?

The team also states they will be using passive monitoring, which involves "listening" devices that will detect the sounds of whales underwater. This blatantly absurd mitigation is yet again, simply meaningless. Whales are very often silent underwater, especially under stress, which was proven in recent marine mammal science studies. (<http://www.telegraph.co.uk/news/science/science-news/9068202/Shipping-noise-causes-major-stress-in-whales.html>) Not only this, the noise from the airgun arrays - reaching a brain and lung-shattering 240+ dB is comparable to the noise from the explosion of one kiloton of TNT, effectively masking any vocalizations or cries of

whales in the area. This deadly noise will be projected every 5-6 seconds and will deflect out into the marine environment not allowing the sound of a whale close by or far away to be heard, even if a whale were so inclined to make noise under such a grave acoustic assault. Without whale vocalizations on the vessel's passive acoustic monitoring equipment, researchers can claim there are/were "no whales in the area," a statement that can never be accurately verified. The airguns will easily block out any vocalizations from whales while Rutgers, et al, can claim there were no marine mammals in the vicinity. This simple reasoning reveals the lack of responsible thought that is going into the project in the first place. The impossible use of passive acoustic monitoring to "protect whales" screams of illogic and reckless negligence in the team's attitude toward whales and the marine environment.

The proposed vessel speed reduction and minor course alteration mitigations represent ignorance of simple whale behavior. Cetaceans do not follow a predictable route that can be avoided with any accuracy. Cetaceans are 90+% underwater. They and their vertical or horizontal "course" are both simply invisible to those on board. Directing a moving vessel to change its course to avoid cetaceans, or even slow down, is for the most part impossible. How many times has anyone seen a whale submerge during a whale watch excursion, then guess where it will appear next, only to be stumped every time! We never have our cameras in the location where the whales resurface - as it is impossible to know! The elusive course direction of the whale under water is an example of simple normal whale behavior. Either there is incompetence on the part of the applicants as to how elusive overall whale movement is, or they believe the project's application reviewers are equally ignorant. Perhaps the applicants simply don't care and are hoping the application reviewers are equally apathetic.

Based on the unsound, illogical and ineffective proposed mitigation measures for this project the application should be rejected. Mitigations measure such as these reveal overwhelming incompetence, recklessness and negligence.

Further enhancing this reckless attitude toward the marine environment, the team grossly underestimated the expected impacts to whales and marine life. The Marine Mammal Commission stated that the numbers provided by these scientists are flatly incorrect.

ENUMERATING TAKES FOR SURVEYS IN A SMALL AREA

To determine the numbers of marine mammals that could be taken incidental to the proposed geophysical survey, LDEO multiplied the total ensonified area of 2,502 km² (which includes a 25 percent contingency) by the applicable densities. However, LDEO would be conducting the survey, consisting of 4,900 km of tracklines (spaced 150 m apart), in an area of 12 by 50 km. The survey would occur in that small area for approximately 30 days, 24 hours per day. At the March 2013 meeting, the Commission discussed with NMFS and the other relevant entities the fact that a simple area*density method is not appropriate in

such circumstances. Rather, the applicant should be determining the total ensonified area in a given day, which then should be multiplied by the number of survey days (30) and the applicable densities. Otherwise, the method LDEO used in the current request (and has [been] used in the past) very likely underestimated the numbers of marine mammals that could be taken. Therefore, the Commission recommends that NMFS require LDEO to estimate the numbers of marine mammals that could be taken based on the total ensonified area in any given day multiplied by 30 and the applicable densities.” (Marine Mammal Commission, Letter to NMFS/Ms. Jolie Harrison, Appendix G, Page 6, 31 March 2014.) <https://www.nsf.gov/geo/oce/envcomp/nj-seismic-research/appendix-g-nmfs-iha-public-comments.pdf>

Despite the devastating impacts of 240+ dB of acoustic low frequency airgun blasts every 5-6 seconds 24 hours a day, 7 days a week, the team attempts to deceive its application reviewers by asserting that there little or no impact at all to the marine environment. Their failure to consider the basic science of seismic projects, or include the impacts and cumulative effects to marine life after repeated exposures over time is yet another reason to deny the team’s application.

This seismic project has garnered negative attention and opposition from critics both near and far. Elected officials, local industries and the public, even government agencies stand opposed to this project. The NJ EPA even filed a lawsuit to stop Rutgers, etal, from proceeding. Many believe the oil industry is behind the project. As research, the project warranted an Environmental Assessment, not a full Environmental Impact Statement, with its concomitant public hearings and comment periods. This project had no Environmental Impact Statement, despite the serious impacts this kind of activity generates.

So here we are less than two years later and the oil industry has figured out that if they can disguise their seismic testing for oil as some other scientific research that can benefit humanity then because this is scientific research and not private/ industrial, they can do it without the public’s knowledge or input. There are no public hearings, and no notice for the public to comment on this proposal. [sic] (James Lovgren. Press Release. Jersey Coast Anglers Association. <http://jcaa.org/JCNL1406/1406SeismicTesting.htm>)

How can we be fairly certain the oil industry will use this data for commercial endeavors?

“NSF will launch a Public Access Initiative that will make the results of NSF-funded research broadly available with minimal barriers. NSF’s public access policy will accelerate progress in scientific research, encourage citizens to become scientifically literate, and foster creative partnerships with the private sector.” https://www.nsf.gov/about/budget/fy2014/pdf/45_fy2014.pdf

Widespread opposition to this project throughout the state and along the coast exposes the public's real concern for the inevitable effects of this work. In a press release from June, 2014, the Jersey Coast Angler's Association blasted Rutgers, et al, and the project, as they recount the reality of marine species the fishing industry depends on in the area of impact.

What about the fisheries in the NY Bight that Rutgers has cooperatively worked with industry to our common benefit? This seismic testing starts at the Barnegat Ridge area in waters about 60 feet deep, a historically important fishing ground for centuries, from there it runs southeast in a 20 mile wide strip out off the continental shelf over a 1,000 feet deep. The fisheries that will be impacted by this study include Loligo Squid, inshore, and Illex squid on the offshore end, excellent Scallop grounds occur through 120 to 240 feet depths, along with Quahog clams. Tilefish live in adobe type burrows in the 350 to 700 feet depths, while Lobsters and red crabs are important fisheries on the deep edge of the continental shelf. Summer and Winter Flounder are present on the inshore ends of the study, and many other commercially and recreationally important demersal fish are present in the summer, including Bluefish, Weakfish, Bonito, Spanish Mackerel, a few different species of Tuna, and many different types of sharks. Many of these fish will swim away as fast as they can from the testing area, they are not stupid, when a bomb goes off everybody runs, fish do the same. When the bombs continue for a period of weeks the fish will totally leave or be killed. Either way, the fishing industry will suffer from no fish to catch, and the scientists will say it wasn't them, prove it. If Rutgers wants to be involved in seismic testing then they should grow a pair [of fins] and do research that will document what really happens to marine life when seismic testing takes place. Good luck finding funding for that. (ibid)

Should this application be approved, the lives and livelihoods of the millions of people dependent on the marine environment along the Atlantic Coast will be shattered.

A recent study in Spain regarding seismic testing found that it had serious to lethal effects on squid; New Jersey's squid industry is always among the largest on the East Coast. June and July are some of the best months for the offshore Illex fishery, while the loligo fishery is at full speed inshore throughout the summer. Seismic testing off Australia a few years ago was blamed for totally destroying a rich scallop bed, and clams have suffered documented negative effects from seismic testing. Tilefish will not swim away from this testing; they will seek sanctuary in their burrows and probably die. The coast off of Jersey will be barren for the summer season and Rutgers will pocket a few hundred thousand in blood money. Is it worth the risk? Will they reimburse the fishing industry for the damage they cause? Do they think that our industry will ever cooperate in any more joint projects with them again? Rutgers can stop this sham, the only reason they are needed is because the oil industry needs them involved so they can check our offshore area for reserves. No Rutgers, No study. (ibid.)

As for the whales, endangered and protected, the fish, the organisms that survive in these 230 square miles: we know well of the impacts of seismic activity such as this, how devastating seismic projects are. In a letter to President Obama, a coalition of 75 scientists led by the NRDC, presented their concerns about seismic surveys and the use of airgun arrays:

Airgun surveys have an enormous environmental footprint. For blue and other endangered great whales, for example, such surveys have been shown to disrupt activities essential to foraging and reproduction over vast ocean areas. Additionally, surveys could increase the risk of calves being separated from their mothers, the effects of which can be lethal, and, over time, cause chronic behavioral and physiological stress, suppressing reproduction and increasing mortality and morbidity...

The impacts of airguns extend beyond marine mammals to all marine life. Many other marine animals respond to sound, and their ability to hear other animals and acoustic cues in their environment are critical to survival. Seismic surveys have been shown to displace commercial species of fish, with the effect in some fisheries of dramatically depressing catch rates. Airguns can also cause mortality in fish eggs and larvae, induce hearing loss and physiological stress, interfere with adult breeding calls, and degrade anti-predator response: raising concerns about potentially massive impacts on fish populations. In some species of invertebrates, such as scallops, airgun shots and other low-frequency noises have been shown to interfere with larval or embryonic development. And threatened and endangered sea turtles, although almost completely unstudied for their vulnerability to noise impacts, have their most sensitive hearing in the same low frequencies in which most airgun energy is concentrated." Letter to President Obama. http://docs.nrdc.org/wildlife/files/wil_15030401a.pdf

If this project is approved, consequences for marine life, fisheries and the economy of the Jersey shore and far beyond, will be dire. Marine mammals protected under the MMPA and ESA will be severely harmed. The livelihoods of millions of people will be negatively and severely impacted. This project will bring no viable, new data to science, in fact the risks far outweigh the benefits. As the project's team has demonstrated a reckless, irresponsible, even ignorant approach to the basic science of the marine environment, whales and fisheries, the applicant's request for a Letter of Authorization for Level B Harassment Take of Marine Mammals during this seismic mapping project should be denied.

Thank you,

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