



10001 Richmond Avenue
Houston, Texas 77042

March 12, 2019

Mr. Braxton Davis
Director, North Carolina Division of Coastal Management
Department of Environmental and Natural Resources
400 Commerce Avenue
Morehead, NC 28557-3421

Re: Certification that activity under Bureau of Ocean Energy Management Geological and Geophysical Survey permit E14-004 will be conducted consistent with federally approved enforceable policies of the North Carolina coastal management program

Dear Mr. Davis,

WesternGeco submitted an application for a Geological and Geophysical (G&G) Survey permit (permit application E14-004) to the Bureau of Ocean Energy Management (BOEM), which was received by BOEM April 7, 2014. WesternGeco has requested to conduct a two-dimensional (2D) seismic survey in the Mid- and South Atlantic Ocean regions. The data from this survey will be used to understand the geophysical composition of the substrate and subsurface in the survey area. This survey is not materially different than those of CGG Services, Inc., Spectrum Geo, Inc., Ion GeoVentures, and TGS-NOPEC Geophysical Company, which have all been found to be consistent with the enforceable laws and policies of the South Carolina Coastal Zone Management Program.

The National Oceanic and Atmospheric Administration (NOAA) has determined that the proposed action will have reasonable and foreseeable effects on commercial and recreational fisheries as an unlisted activity pursuant to the Coastal Zone Management Act § 307(c)(3)(A) (16 United States Code § 1456(c)(3)(A)) and NOAA's regulations at 15 Code of Federal Regulations (CFR) Part 930 Subpart D. WesternGeco's permit is contingent on consistency review by North Carolina with respect to fisheries effects. The enforceable policy associated with fishing in the North Carolina is 15A North Carolina Administrative Code (NCAC) 07M .0801 Declaration of General Policies.

The proposed survey complies with the enforceable policies of North Carolina's approved management program and will be conducted in a manner consistent with that program. Data and information included in this certification are a description of the proposed activity, effects on North Carolina's commercial and recreational fisheries, and evaluation of the proposed activity with respect to applicable enforceable policies. WesternGeco's permit application E14-004 is also attached.

WesternGeco is requesting concurrence with this consistency certification. Thank you for your time and effort in reviewing our certification.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Gary Poole".

Gary Poole
Multiclient New Ventures Lead, WesternGeco

Necessary Data and Information

Project Description

WesternGeco proposes to conduct two-dimensional (2D) seismic exploration activities in the Mid- and South Atlantic Outer Continental Shelf (OCS) Area of Interest (AOI) managed by the Bureau of Ocean Energy Management (BOEM). Details of WesternGeco's proposed 2D seismic survey are provided in Attachment 1, permit application E14-004. Based on the Incidental Harassment Authorization (IHA) for this project from National Marine Fisheries Service (NMFS) (Attachment 2), the map of the survey area provided to BOEM for application E14-004 is not reflective of closures to seismic activities. Figure 1 shows the survey overlaid on the closure areas. Closures in Areas 1 through 3 are year-round, and closure in Area 4 is in effect from January 1 to March 31.

WesternGeco's proposed seismic survey area extends from approximately 30 kilometers (km) (~19 miles [mi]) offshore of the southeast coast of Maryland south to 80 km (~50 mi) offshore of St. Augustine, Florida. Survey lines extend northwest to southeast from approximately 300 to 500 km (~186 to 311 mi) offshore over water depths ranging approximately from 20 to 4,700 meters (~11 to 2,570 fathoms). Seismic operations are proposed to cover up to approximately 26,641 km (~16,554 mi) of trackline with an additional 2,734 km (~1,700 mi) of turns and transits. Ninety-seven percent of the 29,375 km (~18,253 mi) distance that includes tracklines, run-out, and ramp-up/run-in would occur within the 200 nautical mile United States (U.S.) Exclusive Economic Zone. Seismic operations are estimated to occur during 208 days over a period of about one year (allowing for inclement weather days, potential equipment maintenance/repair, and other contingencies).

Seismic lines are arranged in a crosshatch pattern running generally northeast to southwest and northwest to southeast, comprising two survey grids with differently spaced lines in the southwestern study area (Figure 2). The widest-spaced lines (25 km spacing [~15.5 mi]) in the southwestern area represent approximately one-third of the project area. The closest spaced lines (6 km spacing [~4.5 mi]) are in the northern and southeastern study area. The proposed seismic survey would comprise 85 individual seismic lines ranging in length from 121 to 752 km (~75 to 470 mi) (mean line length 303 km [~188 mi]).

The proposed 2D survey area within the scope of the North Carolina consistency review is geographically located from approximately 34°N to 36.5°N and from 72.5°W to 77°W. North Carolina has identified the following areas as South Atlantic Fishery Management Council designated HAPCs: The Point; Ten Fathom Ledge; Big Rock; and the shoals of Cape Lookout, Cape Fear, and Cape Hatteras. North Carolina also notes fishing activity primarily from north of Oregon Inlet to the South Carolina state line. The proposed survey will not include most of the 10 Fathom Ledge HAPC, but will include the other North Carolina HAPCs (Figure 1). The shelf break off Cape Hatteras and about two thirds of The Point HAPC are within the seasonal closure area (closed January 1 to March 31) designated by NMFS (Figure 1). Year-round closure areas



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designated by NMFS include areas surrounding Hatteras Transverse Canyon, Hatteras Canyon, and the deepwater valley system in the northern area of proposed operations (Figure 1).

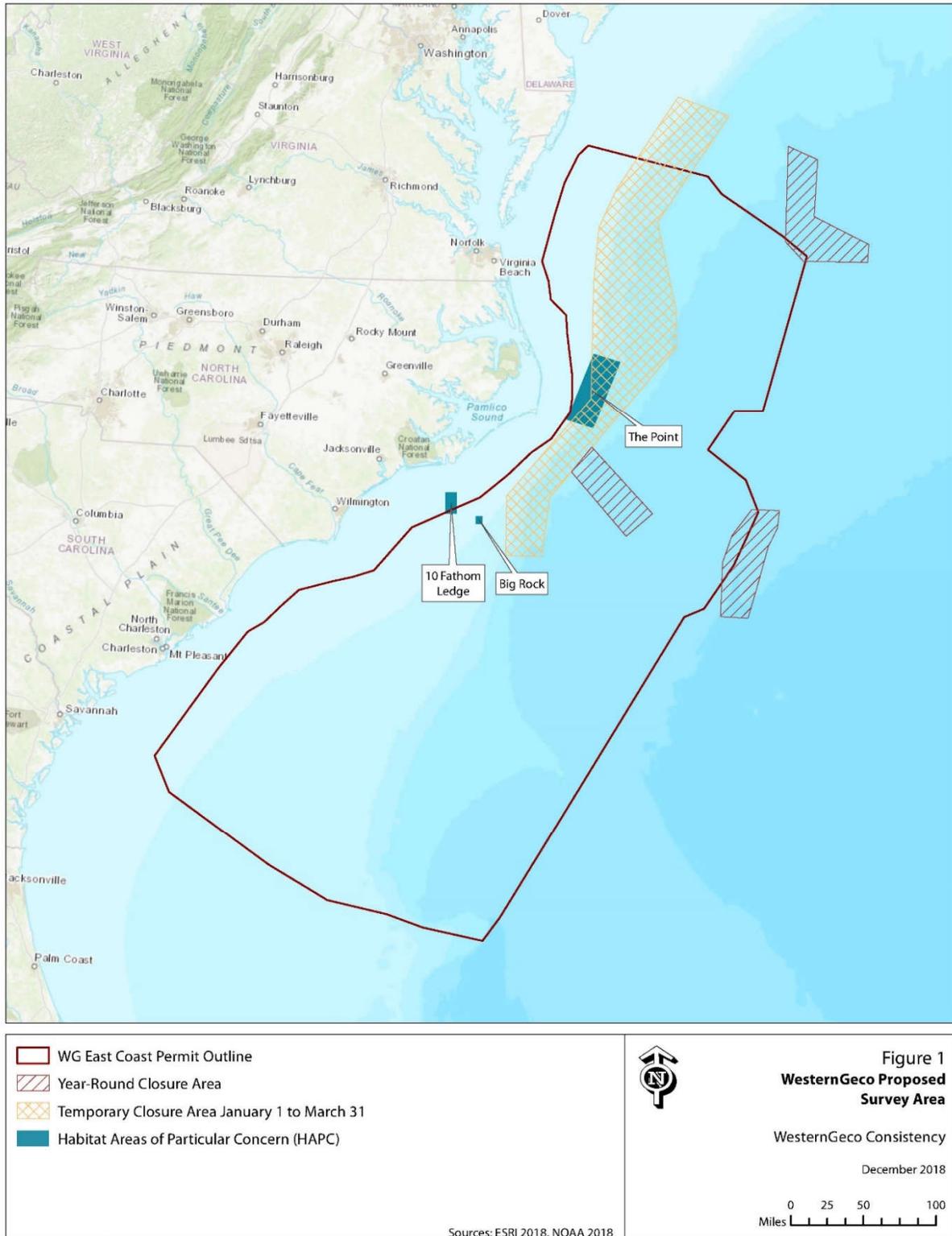
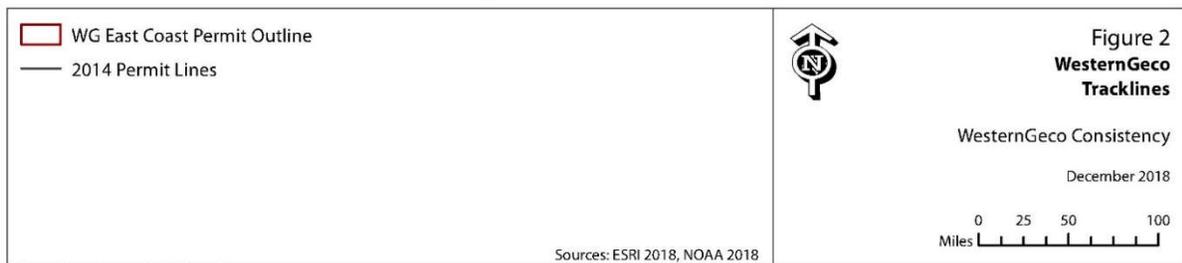
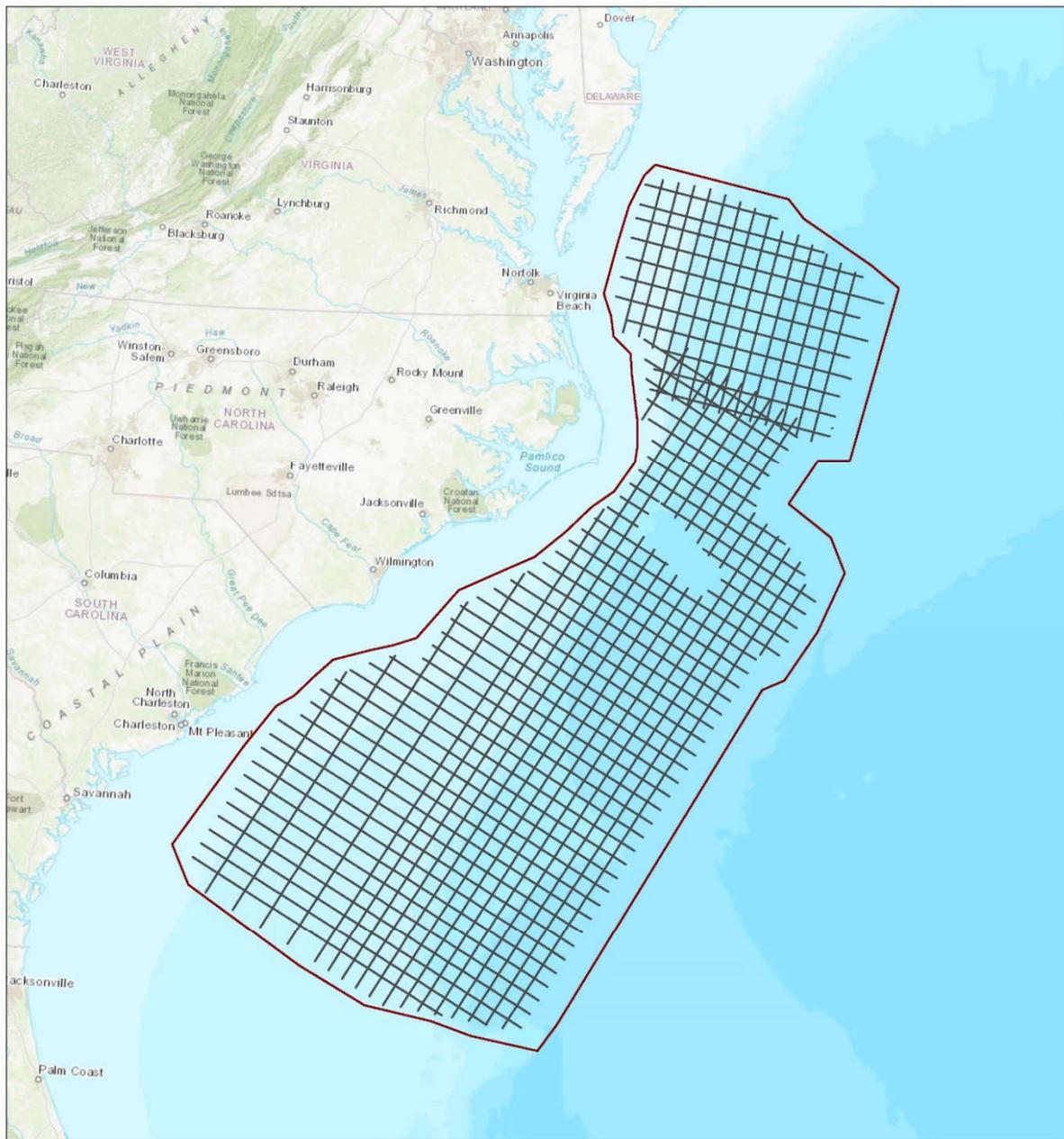


Figure 1. WesternGeco proposed survey area. Closures to survey activity required by NMFS and Habitat Areas of Particular Concern (HAPCs) to North Carolina are shown.



Sources: ESRI 2018, NOAA 2018

Figure 2. Map of WesternGeco proposed survey tracklines with year-round closures removed.

One seismic vessel is proposed for this 2D survey. This vessel will tow a seismic source array and a single 10.5 km long streamer. The seismic vessel will be accompanied by two smaller chase vessels and a supply vessel. The purpose of the chase vessels is to keep vigil and ensure the safety of the streamer, by warning and keeping nearby vessels away from the vicinity of the streamer. The two chase vessels may also help to transport field personnel to and from shore, and to tow the seismic vessel in case of emergency due to engine power loss. The chase and supply vessels will make periodic port calls. The exact port(s) used will be determined in coordination with East Coast state authorities. Exact survey timing is unknown due to regulatory review processes and market interest.

Potential Effects on North Carolina's Fisheries

BOEM published a Programmatic Environmental Impact Statement with respect to geological and geophysical (G&G) activities in the Mid- and South Atlantic regions (BOEM 2014a¹). BOEM is required to conduct a National Environmental Protection Act analysis specific to WesternGeco's proposed activity prior to approving permit E14-004. This analysis may result in different mitigation requirements than the BOEM Record of Decision (BOEM 2014b²).

All activities will be conducted in accordance with BOEM, Bureau of Safety and Environment Enforcement, NMFS, and U.S. Environmental Protection Agency regulations and permit conditions and relevant Notices to Lessees. The proposed survey will occur over the Areas of Concern specified in North Carolina's request for consistency review, though very little of 10 Fathom Ledge is included in the survey area and areas along Cape Hatteras and much of The Point are included in a seasonal closure area (Figure 1). Further, year-round closures are designated in two additional areas off the coast of North Carolina (Figure 1). The surveys will not be concentrated in the Areas of Concern, and most the survey activity will be outside of the Areas of Concern (Figure 1). International regulations including Marine Pollution 73/78 regulations of the International Maritime Organization (IMO), Convention on the International Regulations for Preventing Collisions at Sea 1972, and Safety Of Life at Sea (SOLAS) of the IMO will be strictly adhered to on the vessel. BOEM will require mitigation, including site-specific guidance for vessel strike avoidance, avoiding disturbance of special areas in surveys within the AOI, and prevention of discharge of marine debris. Mitigation measures will also include all requirements included in the IHA issued by NMFS (Attachment 2). These mitigations, including closures, are aimed at reducing impacts on marine mammals, but fish and

¹ Bureau of Ocean Energy Management (BOEM). 2014a. Atlantic OCS Proposed Geological and Geophysical Activities Mid-Atlantic and South Atlantic Planning Areas Final Programmatic Environmental Impact Statement. OCS EIS/EA BOEM 2014-001.

² Bureau of Ocean Energy Management (BOEM). 2014b. Record of Decision Atlantic OCS Proposed Geological and Geophysical Activities Mid-Atlantic and South Atlantic Planning Areas, Final Programmatic Environmental Impact Statement PEIS. Retrieved from <http://www.boem.gov/Atlantic-G-G-PEIS/> on December 26, 2018.

fisheries are also present in these areas, and areas where many marine mammals are likely to concentrate and trigger mitigation are areas where fish prey are likely in higher availability.

Activity planning and timing in specific areas will be based on coordination with the North Carolina Division of Coastal Management (DCM) and other relevant parties to ensure minimal impact on recreational and commercial fisheries events, activities, and fish populations. Operational activity can be planned around local events and periods of high fishing activity. During the survey, one of the supporting vessels will communicate a mariner's notice to ensure vessels in the area maintain a safe distance from the deployed seismic equipment. Pursuant to Regulation 19 of SOLAS Chapter V, all vessels will have an Automatic Identification System onboard.

As per the conditions of consistency concurrence that North Carolina has granted for other companies proposing seismic 2D surveys in this region, WesternGeco will do the following:

- Where practical, relocate proposed survey transects to avoid HAPCs and important foraging, spawning, and refuge areas; and
- Time surveys in a manner that avoids potential use conflicts with commercial fishing efforts, offshore fishing tournaments, major recreational fishing areas, and seasonally focused fishing efforts (including a list of the saltwater fishing tournaments planned off North Carolina's coast in fall).

Also, WesternGeco will have a pre-survey meeting with representatives of the Division of Marine Fisheries (DMF) and DCM so that precise survey transects and timing can be reviewed and discussed in advance to avoid, minimize, and mitigate any possible impacts or conflicts with the above-referenced resources.

Therefore, the impacts on recreational and commercial fisheries are expected to be minimal because of (1) the relatively small amount of effort in the main areas of concern: The Point, Ten Fathom Ledge, Big Rock, and the shoals of Cape Lookout, Cape Fear, and Cape Hatteras; (2) the project's focus on distances from shore beyond 30 km (~19 mi); (3) the mitigations and conditions that will be included in the operational plan; (4) and the communication and engagement with the DMF and DCM.

Consistency Analysis

The North Carolina Coastal Management Program (NCCMP) goals are achieved through enforcement of polices codified in Chapter 07 of Title 15A of the North Carolina Administrative Code (T15A.07). WesternGeco has identified the following enforceable policy of the NCCMP that is applicable to consistency certification under the proposed unlisted federal activity:

15A NCAC 07M .0801 DECLARATION OF GENERAL POLICIES

- (a) The waters of the coastal area are a valuable natural and economic resource of statewide significance. Traditionally these waters have been used for such activities as commercial



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and recreational fishing, swimming, hunting, recreational boating, and commerce. These activities depend upon the quality of the waters. Due to the importance of these activities to the quality of life and the economic well-being of the coastal area, it is important to ensure a level of water quality which will allow these activities to continue and prevent further deterioration of water quality. It is hereby declared that no land or water use shall cause the degradation of water quality so as to impair traditional uses of the coastal waters. To the extent that statutory authority permits, the Coastal Resources Commission will take a lead role in coordinating these activities

The proposed survey will operate in accordance with the regulations indicated in the approved G&G permit. Additional protection measures and coordination efforts addressed in this consistency certification will also be carried out. Therefore, the survey will be consistent with 15A NCAC 07M .0801.

Consistency Conclusion

This letter and supporting documents, in accordance with 15 Code of Federal Regulations (CFR) 930.58, provide the data necessary to determine that the project is consistent with the Coastal Zone Management Act and the enforceable policies of the NCCMP. We request that the DCM concur with this consistency certification that the proposed activity complies with enforceable policies of NCCMP and will be conducted in a manner consistent with this program, as was determined for other similar surveys under conditions as proposed above.

Pursuant to 15 CFR Section 930.54(e), North Carolina is notified that it has three months from the receipt of this letter and accompanying information in which to concur with or object to WesternGeco's certification. The State's concurrence, objection, or notification of review status shall be sent to:

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