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UNITED STATES SECRETARY OF COMMERCE

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**Appeal from North Carolina Division of  
Coastal Management's Consistency Objection**

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**PRINCIPAL BRIEF OF APPELLANT**

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## I. INTRODUCTION

WesternGeco is one of several geophysical companies that applied to the Bureau of Ocean Energy Management (BOEM) for a permit to conduct a seismic survey in the Atlantic Ocean Outer Continental Shelf (OCS). As part of that application process and consistent with the requirements of the Coastal Zone Management Act (CZMA), WesternGeco certified to the State of North Carolina that its proposed survey is consistent with the enforceable policies of North Carolina's Coastal Zone Management Program (NCCZMP). North Carolina objected to WesternGeco's consistency certification based on unfounded speculative "concerns" over the effects of seismic surveys on North Carolina's commercial and recreational fisheries, despite having issued consistency certifications for four virtually identical seismic surveys in 2015. North Carolina has failed to articulate how WesternGeco's proposed survey is inconsistent with its coastal management program. Instead, North Carolina's consistency objection is premised on a few deeply flawed studies and ignores over seven decades of coexistence between marine life, vibrant fisheries, and seismic exploration. Because the national interests served by WesternGeco's survey outweigh any adverse coastal effects, the Secretary should override North Carolina's consistency objection.

## II. BACKGROUND

In April 2014, WesternGeco applied to BOEM for a geological and geophysical (G&G) survey permit.<sup>1</sup> WesternGeco proposes to conduct a two-dimensional (2D) seismic survey in the

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<sup>1</sup> See Common Record (CR) No. 8. The Consolidated Record provided by BOEM consists of documents common to the South Carolina and North Carolina appeals (denoted by "CR" followed by the document number and applicable page), as well as documents specific to the North Carolina appeal (denoted by "NCR" followed by the document number and applicable page). Accompanying this brief is WesternGeco's Motion to Supplement the Consolidated Record and the supplemental documents. The supplemental documents are referred to as the Supplemental Record ("SR") followed by the document letter and applicable page.

Mid- and South-Atlantic OCS. The proposed survey would take place in federal waters in an area that extends from 19 miles offshore of the southeast coast of Maryland to 50 miles offshore of Florida.<sup>2</sup>

Seismic surveys are critical to obtaining geophysical data that can be used to characterize geological features below the seafloor.<sup>3</sup> Surveys are conducted by vessels that send acoustic waves into the rock layers beneath the seafloor and tow receivers that record the time it takes for each wave to bounce back while measuring the characteristics of each returning wave.<sup>4</sup> The return signals are then analyzed to create an image of the geologic layers underlying the seafloor.<sup>5</sup> A seismic survey vessel typically travels at three to five knots along a set survey track line, acquiring seismic data along the way.<sup>6</sup>

Sections 307(c)(3) and (d) of the CZMA require an applicant for a federal license or permit activity that has reasonably foreseeable effects on any coastal use or resource to certify that the proposed activities are consistent with the enforceable policies of any applicable state coastal management programs.<sup>7</sup> Each state's coastal management program lists federal license and permit activities that are expected to impact the state's coastal zone. For unlisted activities, a state can request approval to review the activity for consistency with the state coastal management program.

North Carolina requested review of nine separate applications to BOEM to conduct G&G surveys off the North Carolina coast.<sup>8</sup> The National Oceanic and Atmospheric Administration's

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<sup>2</sup> *Id.*; NCR No. 3 at 1.

<sup>3</sup> CR No. 1 at 2.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> *Id.* at 3.

<sup>7</sup> 16 U.S.C. § 1456(c)(3)(A).

<sup>8</sup> *See* NCR No. 1.

(NOAA) Office for Coastal Management determined that the proposed survey activities would have reasonably foreseeable effects on North Carolina’s commercial and recreational fisheries and granted review of six applications, including WesternGeco’s, as an unlisted activity pursuant to CZMA § 307(c)(3)(A) (16 U.S.C. § 1456(c)(3)(A)) and 15 C.F.R. Part 930, Subpart D.<sup>9</sup>

WesternGeco’s survey is substantially similar to the seismic surveys proposed by CGG Services, Spectrum Geo Inc., GX Technology Corp., and TGS-NOPEC Geophysical Company. The North Carolina Division of Coastal Management (DCM) determined in 2015 that each of these other proposed surveys is consistent with the enforceable policies of the NCCZMP.<sup>10</sup>

On March 12, 2019, WesternGeco certified to DCM that its proposed survey would be consistent with the NCCZMP.<sup>11</sup> In April 2019, DCM found WesternGeco’s submission incomplete and requested additional information “to address . . . new research” regarding potential impacts to fish from seismic surveys.<sup>12</sup> NOAA determined that WesternGeco’s certification was complete and DCM withdrew its request.<sup>13</sup> Nevertheless, WesternGeco provided additional information in response to DCM’s request, including detailed analyses of the new studies North Carolina referenced.<sup>14</sup>

North Carolina objected to WesternGeco’s consistency certification on June 11, 2019.<sup>15</sup> After NOAA determined that WesternGeco’s proposed survey was an “energy project” for

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<sup>9</sup> See NCR No. 2.

<sup>10</sup> See SR A–D, North Carolina Consistency Concurrence Letters to Spectrum Geo (Apr. 22, 2015), GX Technology Corp. (Apr. 23, 2015), CGG Services (May 22, 2015), and TGS-NOPEC (June 16, 2015).

<sup>11</sup> NCR No. 3.

<sup>12</sup> See SR G, North Carolina Incomplete Submission Letter (Apr. 11, 2019).

<sup>13</sup> See SR H, North Carolina Stay Request Letter, (Apr. 15, 2019).

<sup>14</sup> See SR I, WesternGeco Response to Request for Additional Information, May 23, 2019, Response Letter and Attachment B.

<sup>15</sup> NCR No. 4.

purposes of the CZMA, on September 20, 2019, WesternGeco timely submitted a notice of appeal together with the Consolidated Record furnished by BOEM.<sup>16</sup>

### III. STANDARD OF REVIEW

The Secretary may override a state’s objection on procedural or substantive grounds. As a “threshold matter,” the Secretary shall override any state objection that does not comply with the procedural requirements of CZMA § 307 or its implementing regulations.<sup>17</sup> Even if the Secretary determines that the state’s objection is procedurally sound, he may override the objection based on substance if the activity is “consistent with the objectives of [the CZMA] or is otherwise necessary in the interest of national security.”<sup>18</sup> Secretarial review of appeals under the CZMA is *de novo* and is based on the preponderance of the evidence in the record.<sup>19</sup>

### IV. ARGUMENT

#### 1. North Carolina has not met the requirements for a consistency objection.

WesternGeco incorporates and reasserts its argument from its notice of appeal and respectfully requests that the Secretary override North Carolina’s objection as a threshold matter on procedural grounds because North Carolina has failed to comply with the requirements of 15 C.F.R. § 930.63(b) to explain how WesternGeco’s survey is inconsistent with the enforceable policies of the NCCZMP.

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<sup>16</sup> WesternGeco initially filed its timely notice of appeal on July 10, 2019. NOAA determined that the proposed survey constitutes an energy project under 15 C.F.R. § 930.123(c) and, therefore, ordered WesternGeco to resubmit its notice of appeal, after obtaining the consolidated record maintained by BOEM, by Sept. 20, 2019. *See* Orders issued by NOAA, Oceans and Coasts Section, dated Aug. 5, 2019 and September 6, 2019.

<sup>17</sup> 15 C.F.R. § 930.129(b).

<sup>18</sup> 16 U.S.C. § 1456(c)(3)(A); 15 C.F.R. §§ 930.121, 930.122.

<sup>19</sup> *Amoco Production Company Appeal Decision* at 13 (July 20, 1990); *Chevron (Destin-Dome Exploration) Appeal Decision* at 6 (Jan. 8, 1993) (“In order to rule for appellant, I must find preponderance of the evidence that the grounds for an override of the state’s objection have been met.”).

***A. North Carolina failed to describe how the project is inconsistent with the enforceable policies of its coastal management program.***

15 C.F.R. § 930.63(b) requires North Carolina’s objection to “describe how the proposed activity is inconsistent with specific enforceable policies of the management program.” North Carolina’s objection identifies five applicable enforceable policies but fails to describe how WesternGeco’s proposed survey is inconsistent with any of them. North Carolina identifies several “concerns” but does not attempt to describe how the concerns create an inconsistency with any specific enforceable policy. Because North Carolina does not do so, the Secretary must override the state’s objection.

Identifying enforceable policies and listing concerns regarding potential impacts does not satisfy the requirement to “*describe how* the proposed activity is inconsistent with specific enforceable policies of the management program.”<sup>20</sup> The plain reading of this regulatory language dictates that, at a minimum, North Carolina describe a nexus linking its concerns regarding impacts of the proposed activity to its enforceable policies.

***B. North Carolina previously found nearly identical seismic survey activities to be consistent with the state’s coastal zone management program.***

North Carolina has already found other 2D seismic surveys to be consistent with its coastal management plan. In 2015, North Carolina found that four other surveys off North Carolina’s coast were consistent, recommending certain measures to mitigate potential impacts.

The consistency concurrence letters state:

DCM reviewed the information you provided and find that the proposed project is consistent with the relevant enforceable policies of North Carolina’s approved coastal management program, specifically 15A NCAC 07H and 15A NCAC 07M, when performed in accordance with the conditions outlined below.

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<sup>20</sup> 15 C.F.R. § 930.63(b) (emphasis added).

Numerous comments were received concerning the potential impacts of seismic surveys on marine organisms and habitats . . . . Many of these concerns were magnified by the potential for cumulative impacts to fisheries, if as many as nine seismic surveys were to be independently conducted within the same geographic area over a relatively short time frame. Given the possibility that multiple surveys may be conducted offshore of North Carolina, we recognize that disturbances could impact local fish abundance by deterring foraging, refuge, and spawning activities, possibly affecting economically valuable commercial and recreational fisheries operations throughout the proposed survey area. Therefore, given uncertainty over the precise survey timing and transect locations, and the potential for overlapping surveys by multiple companies, as well as limited species-specific data and research regarding possible impacts of seismic surveys in the South Atlantic region, we strongly recommend the following:

- Where practical, relocate proposed survey transects to avoid South Atlantic Fishery Management Council-designated Habitat Areas of Particular Concern, and important foraging, spawning and refuge areas;
- 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 . . . .<sup>[21]</sup> and
- Follow the mitigation measures outlined in the Final Atlantic Geological and Geophysical (G&G) Activities Programmatic Environmental Impact State (PEIS) that [BOEM] established in 2014 for offshore oil and gas exploration.

To ensure adequate communication between [the applicant] and the State, our agreement that the proposed project is consistent with North Carolina’s certified coastal management program is contingent on your adherence to the following Condition:

- 1) We require a pre-survey meeting with representatives of the 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.<sup>[22]</sup>

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<sup>21</sup> Two of North Carolina’s concurrence letters, SR A and B, omit “commercial fishing efforts” from this bullet point. WesternGeco has committed to implement this timing restriction with the language set forth above.

<sup>22</sup> SR A–D.

Because WesternGeco’s application was submitted after North Carolina found the other seismic surveys to be consistent, WesternGeco proactively committed to implement the same measures that North Carolina recommended for the other surveys. Nonetheless, North Carolina found WesternGeco’s survey inconsistent.

North Carolina does not assert that WesternGeco’s survey is different from the other surveys that the state has already determined to be consistent. Nor does North Carolina assert that cumulative effects create inconsistency. The state seems to have simply changed its mind after a new administration took office. On July 20, 2017, newly elected Governor Roy Cooper announced his “strong opposition to oil and gas drilling and exploration off the coast of North Carolina.”<sup>23</sup>

North Carolina asserts that “new research” justifies its change in position. But North Carolina fails to explain how the allegedly new information creates inconsistencies with the enforceable policies. In 2018, after North Carolina requested supplemental consistency review based on this same research, WesternGeco explained the deficiencies and lack of new findings in this research.<sup>24</sup> As there is nothing new in the additional research cited by North Carolina, the state’s objection to WesternGeco’s survey after approving the same survey activities proposed by others is arbitrary and capricious.

As a threshold matter, WesternGeco respectfully requests that the Secretary find that North Carolina has failed to satisfy its burden under 15 C.F.R. § 930.63(b) and override North Carolina’s objection pursuant to 15 C.F.R. § 930.129(b).

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<sup>23</sup> See SR E, Letter from North Carolina Governor Roy Cooper to Secretary Ross and NMFS (July 21, 2017).

<sup>24</sup> See discussion *infra* in Part IV.2.B.

**2. WesternGeco’s Survey is consistent with the objectives and purposes of the CZMA because it substantially and significantly furthers the national interest and outweighs any potential adverse effects to North Carolina’s coastal zone.**

Even if North Carolina did describe how the proposed seismic survey is inconsistent, the Secretary should override North Carolina’s objection because the proposed survey is consistent with the CZMA’s objectives and purposes.<sup>25</sup> A federal license or permit activity is consistent with the objectives or purposes of the CZMA when it satisfies each of the following:

- (a) The activity furthers the national interest as articulated in § 302 or § 303 of the Act, in a significant or substantial manner.
- (b) The national interest furthered by the activity outweighs the activity’s adverse coastal effects, when those effects are considered separately or cumulatively.
- (c) There is no reasonable alternative available which would permit the activity to be conducted in a manner consistent with the enforceable policies of the management program.<sup>[26]</sup>

As described below, WesternGeco’s proposed survey satisfies each of these criteria.

Accordingly, the Secretary should override North Carolina’s misguided consistency objection.

***A. WesternGeco’s proposed survey will significantly and substantially further the national interest as articulated in the CZMA.***

The first criterion for demonstrating consistency with the objectives or purposes of the CZMA requires that the activity further the national interest, as set forth in §§ 302 or 303 of the CZMA, in a significant or substantial manner. Both the plain text of the CZMA as well as prior Secretarial decisions establish that the development of the nation’s OCS energy resources is in the national interest.

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<sup>25</sup> 16 U.S.C. § 1456(c)(3)(A); 15 C.F.R. § 930.120.

<sup>26</sup> 15 C.F.R. § 930.121.

The first sentence of the CZMA recognizes the inherent tension between protection and development of coastal resources: “There is a national interest in the effective management, beneficial use, protection, and development<sup>[27]</sup> of the coastal zone.”<sup>28</sup> When read as a whole, the CZMA’s findings and policies provide that it is in the national interest to effectively manage and balance the competing demands on coastal resources. As stated by one court, “it is well-established that, although initially aimed at conservation, the [CZMA] is a balancing statute—that is, it balances conservation with commercial development.”<sup>29</sup> The national interest is in managing for each of the beneficial uses identified in the policies, not for some to the exclusion of others.

The Congressional findings set forth in the CZMA recognize the national objective of energy self-sufficiency:

- to advance the national objective of energy self-sufficiency, states require federal assistance to meet needs resulting from new or expanded energy activity in or affecting the coastal zone;<sup>[30]</sup>

and the need to balance competing demands to achieve this objective:

- increasing and competing demands on the coastal zone, including extraction of mineral resources and fossil fuels as well as harvesting of fish and other living marine resources have resulted in certain impacts;<sup>[31]</sup> and
- new and expanding demands for food, energy, minerals, recreation, and other uses of the exclusive economic zone and OCS create the need to resolve serious conflicts among important and competing uses.<sup>[32]</sup>

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<sup>27</sup> As used in the CZMA, the term “develop” has been defined to “encompass a wide variety of activities, such as . . . oil and gas exploration, development, and production activities,” *AES Sparrows Point LNG Appeal Decision* at 12 (June 26, 2008), or even more broadly, the “use” of a coastal resource, *Islander East Pipeline Company, L.L.C. Appeal Decision* at 5 (May 5, 2004).

<sup>28</sup> CZMA § 302(a); 16 U.S.C. § 1451(a).

<sup>29</sup> *Connecticut v. U.S. Dep’t of Commerce*, No. 3:04cv1271, 2007 WL 2349894, at \*5 (D. Conn. Aug. 15, 2007).

<sup>30</sup> CZMA § 302(j); 16 U.S.C. § 1451(j).

<sup>31</sup> CZMA § 302(c); 16 U.S.C. § 1451(c).

WesternGeco's proposed G&G survey furthers the national interest by providing valuable data for government and industry to assess the resource development potential of the Atlantic OCS with minimal physical impact on the coastal zone.<sup>33</sup> Scientific studies demonstrate that when proper mitigating measures are implemented, seismic surveys have minimal impact on coastal resources.<sup>34</sup> Modern survey techniques provide a non-intrusive way to map the Atlantic's subsurface for prospective oil and gas reservoirs. The detailed images provided by seismic surveys allow for more targeted exploration, avoiding non-prospective areas altogether and significantly reducing the number of exploratory wells needed to locate and delineate an oil and gas reservoir.<sup>35</sup> WesternGeco's survey balances the competing policies of the national interest.

With respect to energy resources, the national policy is that a state's coastal management program "should at least provide for . . . priority consideration being given to . . . orderly processes for siting major facilities<sup>[36]</sup> related to . . . energy."<sup>37</sup> Collection of seismic data is one of the first steps in such siting processes.

Congress has articulated in the CZMA that energy-related activities are of particular national interest. As prior Secretarial appeal decisions explain:

Stated broadly, Congress has defined the national interest in coastal zone management to include both protection and development of coastal resources. A wide variety of activities has been found to meet the competing goals of resource protection and development, and past decisions have held that . . . coastal-dependent energy facilities further[] the national interest sufficiently for CZMA purposes. Additionally, in interpretive guidance in the preamble to the Department's 2000 CZMA regulatory amendments, NOAA identified . . . coastal

<sup>32</sup> CZMA § 302(f); 16 U.S.C. § 1451(f).

<sup>33</sup> CR No. 1 at 2.

<sup>34</sup> CR No. 27 at 38-45.

<sup>35</sup> *Id.*

<sup>36</sup> WesternGeco's proposed seismic survey is an "energy facility" under the CZMA definition, which includes "equipment . . . which is or will be used primarily . . . in the exploration for . . . any energy resource." CZMA § 304(6)(A); 16 U.S.C. § 1453(6)(A); *AES Sparrows Point LNG Appeal Decision* at 11.

<sup>37</sup> 16 U.S.C. § 1452(2)(D).

dependent energy facilities as an example of an activity that furthers the national interest in a significant or substantial manner.<sup>[38]</sup>

In the preamble to the 2000 CZMA regulatory amendments, NOAA uses the siting of energy facilities or OCS oil and gas development as an “example of an activity that significantly or substantially furthers the national interest.”<sup>39</sup> NOAA further explains that “[s]uch activities are coastal dependent industries with economic implications beyond the immediate locality in which they are located.”<sup>40</sup>

WesternGeco’s seismic survey is an energy project that substantially furthers the national interests set out in the CZMA. Prior appeal decisions have made clear that the objectives and purposes of the CZMA apply equally to oil and gas *exploration* activities and to development activities.<sup>41</sup> The Secretary has found that proposed oil and gas exploratory activities have furthered the national interests as articulated in Sections 302 and 303 in every<sup>42</sup> CZMA appeal involving such activities to date.<sup>43</sup>

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<sup>38</sup> *AES Sparrows Point LNG Appeal Decision* at 10 (overriding a state’s consistency objection to an energy facility and citing the Secretary’s prior CZMA appeal decisions in *Virginia Electric and Power Company Appeal Decision* at 19 (May 19, 1994); *Islander East Pipeline Appeal Decision* at 8–10; *Mobil Oil Exploration and Producing U.S. Inc. Appeal Decision* at 11–12 (June 20, 1995); 65 Fed. Reg. 77124, 77150 (Dec. 8, 2000)).

<sup>39</sup> 65 Fed. Reg. at 77,150.

<sup>40</sup> *Id.*

<sup>41</sup> *Chevron (Destin) Appeal Decision* at 7 (joining in the “finding” of other “previous appeals involving oil and gas exploration or development, . . . that OCS exploration, development and production activities in the coastal zone are encompassed by the objectives and purposes of the CZMA.” (citing *Texaco Inc. Appeal Decision* at 6 (May 19, 1989); *Amoco Appeal Decision* at 16 (July 20, 1990)); *see also Mobil Pensacola Appeal Decision* (June 20, 1995) (*Mobil III*) (holding drilling for offshore gas resources exploration served the CZMA objective of energy self-sufficiency, overriding state objection); *Texaco Appeal Decision* at 30-31 (“Texaco’s proposed project will further the national interest in attaining energy self-sufficiency by ascertaining information concerning the oil and gas reserves actually available for production.”))

<sup>42</sup> With the exception of one appeal dismissed for unrelated procedural reasons, which did not reach this question. *See Mobil Oil Appeal Decision* (Dec. 8, 1999).

<sup>43</sup> *See Mobil III* at 12; *Mobil Oil Exploration & Producing Southeast, Inc. Appeal Decision* at 11-12 (Sept. 2, 1994) (*Mobil II*); *Chevron (Destin) Appeal Decision* at 7-8 (Jan. 8, 1993); *Union Exploration Partners, LTD Appeal Decision* at 11 (Jan. 7, 1993); *Mobil Exploration and Producing U.S. Inc. Appeal Decision* at 13 (Jan. 7, 1993) (*Mobil I*); *Chevron U.S.A. Appeal Decision* at 23 (Oct. 29, 1990); *Amoco Appeal Decision* at 16 (July 20, 1990); *Texaco Appeal Decision* at 6; *The Korea Drilling Company, LTD. Appeal Decision* at 9 (Jan. 19, 1989); *Gulf Oil Corporation Appeal Decision* at 4 (Dec. 23, 1985); *Exxon Company, U.S.A. Appeal Decision* at 6 (Nov. 14, 1984); *Union Oil Co. of California Appeal Decision* at 8 (Nov. 9, 1984).

The purpose of the proposed survey, as described by NOAA, is to explore energy resources.<sup>44</sup> The survey represents just the type of energy-related coastal use contemplated and prioritized in §§ 302 and 303 of the CZMA: activities that further the national interest by providing valuable data for oil and gas exploration while minimizing impact on the coastal zone. Seismic surveys generate images from tens of thousands of feet below the earth's surface, providing detailed imaging of the geologic structures and preventing the need for random drilling of exploratory wells to divine what might be under the surface.<sup>45</sup> Enhanced seismic data significantly reduces the number of wells needed to locate and delineate an oil and gas reservoir. Thus, using seismic technology not only minimizes exploratory drilling; it also helps to optimize subsequent production wells to reduce safety risks and lessen resulting environmental impact.<sup>46</sup> Reducing the number of wells lessens the impact on and competition for coastal resources. With proper mitigating measures, as proposed by WesternGeco, seismic surveys have only minimal impact on coastal resources.<sup>47</sup> The proposed survey furthers the national interest, striking the Congressionally-mandated balance between conservation and development of coastal resources.

WesternGeco's proposed survey will further the national interest in both a significant and substantial manner. To be "substantial," for purposes of 15 C.F.R. § 930.121(a), an activity "must contribute to the national achievement of those objectives in an important way or to a degree that has a value or impact on a national scale."<sup>48</sup> To be "significant," an activity must be "important, notable, valuable."<sup>49</sup> Even a relatively small or minor project can be significant. As

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<sup>44</sup> See NOAA August 5, 2019 Order at 3.

<sup>45</sup> See CR No. 27 at 47-49, 53.

<sup>46</sup> *Id.*

<sup>47</sup> *Id.*; see also discussion *infra* at Part IV.2.B.

<sup>48</sup> 65 Fed. Reg. at 77150.

<sup>49</sup> *Id.*

NOAA stated in promulgating these rules, “a project can be of national import without being quantifiably large in scale or impact on the national economy.”<sup>50</sup>

Here, the survey would contribute to energy self-sufficiency and security, and environmental conservation, in an important, notable, and valuable way. It has the potential to increase domestic resources on a national scale and to obviate any further exploration activities where resources are absent. As discussed above, WesternGeco’s survey represents a critical step to uncover data that will inform potential oil and gas exploration activities. Without it, time and energy is spent on policy debates without the benefit of scientific data to reveal the resource potential. The survey has the potential to benefit the entire country by locating substantial energy resources that, if developed, would help to secure a more self-sufficient energy future. Or, it could show that further time and investment are not warranted because such resources are not present. Either way, the scientific information to be gathered furthers the national interest in both a significant and substantial manner.

Finally, Executive Order No. 13,795 finds that “[t]he energy and minerals produced from lands and waters under Federal management are important to a vibrant economy and to our national security” and that “[i]ncreased domestic energy production on Federal lands and waters strengthens the Nation’s security and reduces reliance on imported energy.”<sup>51</sup> WesternGeco’s survey is an important step in energy resource exploration and development, significantly and substantially furthering the national interests established in the CZMA.

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<sup>50</sup> *Id.*; see, e.g., *Connecticut*, 2007 WL 2349894, at \*7 (affirming Secretary’s conclusion that an activity would “develop” the coastal zone in a significant or substantial way because it “spanned two states, would affect hundreds of thousands of people in major metropolitan areas, and would develop the nation’s energy infrastructure”); *Islander East Appeal Decision* at 5, 6 (explaining a “project may also satisfy the standard . . . by providing a valuable or important contribution to a national interest . . . without necessarily being large in scale or having a large impact on the national economy” and ultimately concluding the standard was met where the activity would “enable” energy development that would “provid[e] benefits to hundreds of thousands of people.”); *Mobil III Appeal Decision* at 12 (finding just one exploration well sufficiently furthered the national interest).

<sup>51</sup> Executive Order 13795 (Apr. 28, 2017), published in 82 Fed. Reg. 20815.

***B. The national interests furthered by WesternGeco’s proposed survey outweigh any adverse coastal effects.***

The second prong to assess consistency with the CZMA’s objectives and purposes requires the Secretary to determine if the national interests furthered by a proposed activity outweigh any adverse coastal impacts.<sup>52</sup> The Secretary first considers the direct or “separate” impacts from the activity, and second the potential cumulative effects of the activity “in combination with other past, present, or reasonable foreseeable future activities affecting the coastal zone.”<sup>53</sup> In making such a finding, the Secretary examines the record and determines by a preponderance of the evidence whether the national interests in an energy project outweigh the adverse coastal effects.<sup>54</sup>

The record demonstrates that national interests advanced by WesternGeco’s proposed survey far outweigh any speculative effects on North Carolina’s coastal zone. Relying on two deeply flawed studies, North Carolina’s consistency objection suggests that WesternGeco’s survey will adversely impact the state’s fisheries. But the “new” studies cited by North Carolina have been widely criticized for methodological shortcomings and do not support North Carolina’s concerns over potential impacts to fisheries.

The fact that thousands of marine seismic surveys have occurred since the 1950s demonstrate that fisheries and seismic activities can and do coexist.<sup>55</sup> In the long history of offshore seismic testing, there has been no observation of direct physical injury or death to free-ranging fish caused by seismic survey activity nor is there conclusive evidence showing long-

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<sup>52</sup> 15 C.F.R. § 930.121(b).

<sup>53</sup> *Chevron (Destin) Appeal Decision* at 8.

<sup>54</sup> See *AES Sparrows Point LNG Appeal Decision* at 16, 41; *Islander East Appeal Decision* at 35; *Mobil III Appeal Decision* at 41.

<sup>55</sup> CR No. 27 at 35.

term or permanent displacement of fish.<sup>56</sup> The scientific consensus is that any impacts to fish from seismic surveys are short-term, localized, and not expected to lead to significant impacts on a population scale.<sup>57</sup>

The Secretary has repeatedly and consistently found that the important national interests furthered by oil and gas exploration in the coastal zone outweigh any adverse effects.<sup>58</sup> These decisions emphasize that the temporary effects of short-term exploratory activities, even if those activities pose some likelihood of harm to protected species or habitat, are slight compared to the long-term benefits to be gleaned from the resulting data.<sup>59</sup>

Moreover, all of those decisions involved exploratory *drilling* — a far more invasive process that yields less accurate data. Exploratory drilling poses a significantly higher risk of adverse effects to the coastal zone, including a potential for oil spills caused by blowouts during the drilling operations and toxic discharges.<sup>60</sup> In contrast, the seismic technology to be employed here obviates the need for exploratory drilling and, consequently, the inherent environmental risk associated with it.

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<sup>56</sup> *Id.*

<sup>57</sup> *See id.*; *see also* CR No. 26 at 12.

<sup>58</sup> *See Mobil III* at 42 (concluding national interests furthered outweighed adverse effects); *Chevron (Destin)* at 23-24 (Jan. 8, 1993) (same); *Chevron U.S.A., Inc. Appeal Decision* at 56 (same); *Amoco Appeal Decision* at 45-46 (July 20, 1990) (same); *Texaco Appeal Decision* at 31 (same); *The Korea Drilling Company Appeal Decision* at 20 (Jan. 19, 1989) (same); *Gulf Oil Appeal Decision* at 18 (Dec. 23, 1985) (same); *Exxon Appeal Decision* at 11 (Nov. 14, 1984) (same); *Union Oil Appeal Decision* at 20 (Nov. 9, 1984) (same).

<sup>59</sup> *Chevron (Destin) Appeal Decision* at 13 (finding that although potential adverse effects on endangered or threatened species “would be significant, the likelihood of that occurring is low”); *Union Oil Appeal Decision* at 13 (finding adverse effects did not outweigh interests where despite that proposed drilling could “threaten injury to the endangered California Brown Pelican and to its breeding, nesting and feeding grounds, . . . the risk . . . [wa]s very low, . . . even without considering the mitigation measures to be employed by the appellant”).

<sup>60</sup> *See Mobil III* at 21, 28 (discussing risk of discharges of drilling fluids and cuttings and oil spill from blowouts, citing similar discussions in *Texaco Decision* at 17-18 and *Amoco Decision* at 30).

- i. WesternGeco’s proposed survey will not adversely impact North Carolina’s commercial or recreational fisheries by reducing zooplankton or fish species abundance or by creating unmitigable space use conflicts.

North Carolina’s objection asserts several iterations of the same primary concern—that “sound associated with the array of airguns used in the proposed survey activities imped[e] the ability of fishes to hear biologically relevant sounds”<sup>61</sup> and “impact[] zooplankton diversity and mortality.”<sup>62</sup> North Carolina points to “recently-published research . . . show[ing] that sound produced from the proposed G&G surveys activities has a direct impact on fishes by masking biologically relevant sounds and altering normal behaviors, and can possibly affect the survival of individuals or populations.”<sup>63</sup> North Carolina further posits that “[s]ound-related disturbances in areas of concentrated fish and sensitive fish habitat, could impact local fish abundance by deterring foraging, refuge, and spawning activities.”<sup>64</sup>

North Carolina’s newfound concerns are conjured from unsound studies (McCauley et al. (2017) (McCauley) and Paxton et al. (2017) (Paxton)), and not actual evidence of adverse effects to commercial or recreational fishing. NMFS has considered and explained why these studies are not representative of the best available science. The shortcomings of each study are addressed in turn.<sup>65</sup>

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<sup>61</sup> NCR No. 4 at 5.

<sup>62</sup> *Id.* at 7

<sup>63</sup> *Id.* at 6.

<sup>64</sup> *Id.*.

<sup>65</sup> Several of these studies were scrutinized during litigation related to the Incidental Harassment Authorizations (IHAs) for the OCS surveys. WesternGeco has moved to supplement the Consolidated Record with an expert declaration submitted in that case to clarify the results of these studies. *See* SR E.

- a) *McCauley had numerous design flaws and the authors' conclusions are inconsistent with the large body of research on seismic impacts on zooplankton.*

North Carolina cites to McCauley to suggest that WesternGeco's survey may reduce zooplankton abundance, which could have "cascading impacts on the food web."<sup>66</sup>

McCauley conducted a two-day study which purported to find that zooplankton may experience mortality and/or displacement when exposed to 3-D seismic survey activity. McCauley's results diverged dramatically from the previously documented effects of seismic surveys, leading several independent plankton ecologists from well-respected scientific institutions to conduct peer reviews.<sup>67</sup> These expert reviewers determined that McCauley's brief experiment suffered from several serious deficiencies, including (1) inadequate sample size; (2) insufficient water column movement data; (3) disagreement between the towed net and acoustic survey data; (4) failure to account for avoidance response in zooplankton; (5) failure to conduct bottom sampling; (6) improper towing of inappropriately sized nets; and (7) statistical error in the net tow data.<sup>68</sup> These significant errors belie the dubious conclusions reached by McCauley's authors regarding the impacts of seismic surveys on plankton.

Given the numerous shortcomings in McCauley's methodology, it is unsurprising that a subsequent study by Richardson et al. (2017), utilizing simulations based on the results of McCauley, suggested that ocean circulation greatly reduces the impact of seismic surveys on zooplankton at the population level, effectively calling into question the ecological significance of McCauley's findings.<sup>69</sup> NMFS similarly acknowledged McCauley's shortcomings and cautioned against drawing the conclusions that North Carolina now asserts in its consistency

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<sup>66</sup> NCR No. 4 at 5, 7.

<sup>67</sup> SR J at 54; *see also* SR I, Drs. Courbis and Snover Letter at 2; IAGC Letter to BOEM at 2-4.

<sup>68</sup> *See* SR I, Nov. 17, 2017 IAGC Letter to BOEM at 2-3; SR J at 55-56.

<sup>69</sup> CR No. 7 at 70; CR No. 26 at 13.

objection.<sup>70</sup> NMFS' Biological Opinion further distinguished the type of 2-D seismic survey that WesternGeco proposes from the 3-D survey used by McCauley:

[I]n contrast to the intensive 3-D seismic surveys discussed in McCauley et al. (2017), the proposed seismic surveys are 2-D, and are designed as exploratory surveys, covering a large area in a relatively short amount of time. Such surveys are less likely to have significant effects on zooplankton given the high turnover rate of zooplankton and the currents in the North Atlantic gyre and the Gulf Stream[.]<sup>[71]</sup>

Ultimately, NMFS concluded that the results of McCauley are unvalidated and “are inconsistent with a large body of research that generally finds limited spatial and temporal impacts to zooplankton as a result of exposure to airgun noise (e.g., Dalen and Knutsen, 1987; Payne, 2004; Stanley *et al.*, 2011).”<sup>72</sup> In short, North Carolina’s reliance on the McCauley study undermines any assertion that WesternGeco’s survey will adversely impact zooplankton populations.

b) *Paxton’s flawed experiment produced questionable results which do not support North Carolina’s claims of adverse effects to commercial or recreational fishing.*

North Carolina further claims that a 2017 study by Paxton demonstrates that “during exposure to seismic noise, the prevailing pattern of heavy fish use of reefs” may be “suppressed.”<sup>73</sup> Citing the Paxton study, North Carolina contends that WesternGeco’s proposed survey could elicit a “multi-species response to airgun noise . . . .”<sup>74</sup> But as was the case with the McCauley study, Paxton’s study was plagued by several design flaws and equipment failures,

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<sup>70</sup> See CR No. 4 at 69 (“While we recognize that these studies show impacts to potential prey species for marine mammals, or in the case of McCauley et al. (2017), support food chains, it is difficult to draw direct conclusions from these studies regarding how the five surveys will directly and indirectly affect prey. These studies were conducted over varied geographic areas, time periods, environmental conditions, and survey dynamics, and indicate the need for further study regarding these issues.”).

<sup>71</sup> CR No. 7 at 70.

<sup>72</sup> CR. No. 26 at 13.

<sup>73</sup> NCR No. 5 at 7.

<sup>74</sup> *Id.*

undermining the value of study's findings and discrediting the sweeping generalizations of alleged harm to fish species.

The authors of Paxton sought to evaluate the effects of seismic surveys on fish behavior by outfitting three sites with hydrophones and Go-Pro cameras.<sup>75</sup> The study attempted to assess the abundance of fish via 10-second video recordings for three days prior to a seismic survey, and *in the evening of the day* seismic surveys took place.<sup>76</sup> Among the study's many problems were failed cameras at two of the three sites and, at the one site with the functioning camera, the failure of the hydrophone.<sup>77</sup> Thus, the study's reported 78% decrease in fish abundance is based upon a single site (viewed with the one working camera) over which it is unknown when the seismic vessel passed because there was no hydrophone available to record the sound.<sup>78</sup> There is no way to know whether the fish were in fact present during the study, were just outside the view of the camera, or had been startled by a passing predator. And even if the fish did leave the reef, the alleged 78% decrease was within (and in fact on the low end of) the ordinary range of fish abundance variance observed on the other evenings.<sup>79</sup> Finally, because it is unclear if the data were recorded during or directly *after* the seismic vessel had passed over the reef, peer review of Paxton concluded that the study "do[es] not provide additional information beyond what has been reported in the previous literature and there is no evidence to suggest long-term reductions in fish abundance from seismic surveys."<sup>80</sup> Accordingly, Paxton does not provide data that can be used to infer that fish are displaced or are harmed by seismic surveys.

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<sup>75</sup> See SR I, Drs. Courbis and Snover Letter at 1; SR J at 52-53.

<sup>76</sup> SR I at 1.

<sup>77</sup> SR J at 52.

<sup>78</sup> *Id.* at 52-53.

<sup>79</sup> *Id.* at 53.

<sup>80</sup> SR I, Drs. Courbis and Snover Letter at 1; *see also* SR J at 53.

Based on the experiment’s limited data and questionable results, NMFS dismissed Paxton as an outlier, explaining “some studies have demonstrated that airgun sounds might affect the distribution and behavior of some fishes . . .[;] other studies have shown no or slight reaction to airgun sounds” and that “[m]ost commonly, . . . the impacts of noise on fish are temporary.”<sup>81</sup>

ii. North Carolina’s claim related to space and use conflicts impacting recreational and commercial fisheries is disingenuous.

North Carolina also asserts potential space and use conflicts as justification for its consistency objection.<sup>82</sup> According to North Carolina, WesternGeco’s survey operations could “affect access to fishing/diving grounds and fishing/diving times.” North Carolina further objected that the vessel exclusion zone could affect “commercial fishing operations, and disrupt recreational fishing activities and tournaments.”<sup>83</sup> North Carolina conveniently omits that in issuing consistency certification concurrences for four other seismic surveys, DCM included a condition to mitigate any potential space and use conflicts through communication and coordination with state agencies “to avoid, minimize and mitigate any possible impacts or conflicts” with “commercial fishing efforts, offshore fishing tournaments, major recreational fishing areas, and seasonally focused fishing efforts . . . .”<sup>84</sup> WesternGeco has proactively agreed to do the same.<sup>85</sup> North Carolina offers no explanation for why such communication and coordination is suddenly insufficient to mitigate any potential space and use conflicts when the same measures were considered adequate for other seismic surveys.

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<sup>81</sup> CR No. 26 at 12 (citing Pena et al. (2013); Wardle et al. (2001); Jorgenson and Gyselman (2009); Cott et al. (2012)); *see also id.* at 59 (“[O]ur review shows that the bulk of studies indicate no or slight reaction to noise . . . and that, most commonly, while there are likely to be impacts to fish as a result of noise from nearby airguns, such effects will be temporary.”).

<sup>82</sup> NCR No. 4 at 5, 9.

<sup>83</sup> *Id.* at 5.

<sup>84</sup> *See, e.g.*, SR I at 2-3.

<sup>85</sup> NCR No. 3 at 7.

The Secretary repeatedly has found that minor impacts related to vessel displacement are insufficient to outweigh the national interest in energy exploration.<sup>86</sup>

- iii. North Carolina does not identify any adverse cumulative effects on the state's coastal zone.

NEPA defines cumulative effects as “the impact on the environment which results 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.”<sup>87</sup> North Carolina complains that the “potential effects from multiple, overlapping seismic survey activities may be detrimental to eggs and larvae dependent on reef and shelf habitats,”<sup>88</sup> and expresses “concerns about the number of repetitive surveys planned throughout North Carolina State Waters.”<sup>89</sup> However, North Carolina does not assert that WesternGeco’s survey, in combination with other past, present, or reasonably foreseeable future activities, results in significant adverse impacts. Nor could North Carolina credibly make such an argument. NMFS and BOEM have carefully analyzed the cumulative effects in the Environmental Assessment,<sup>90</sup> Biological Opinion,<sup>91</sup> and Programmatic EIS<sup>92</sup> and have determined that the proposed survey activities will not result in significant cumulative effects to

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<sup>86</sup> See *Mobil III* at 37 (“the proposed exploration activity represent[ed] a negligible impact to commercial fishing gear, time and catch”); *Chevron (Destin) Appeal Decision* at 13 (1993) (concluding the proposed activity would “cause minor, temporary displacement of some commercial fishing activities . . . [but] would not cause significant disruption”); *Chevron U.S.A. Appeal Decision* at 28 (1990) (because the activity was temporary it “will not cause any significant adverse effects on commercial fishing [from] “vessel traffic” in the coastal zone”).

<sup>87</sup> 40 C.F.R. § 1508.7.

<sup>88</sup> NCR No. 4 at 6.

<sup>89</sup> *Id.* at 7.

<sup>90</sup> See CR No. 4 at 78 (“NMFS, having reviewed the potential cumulative impacts of the issuance of IHAs in association with five surveys . . . finds that the effects of issuing the five IHAs independently and collectively will not result in significant cumulative effects to marine mammals and their habitat. Therefore, NMFS does not anticipate these activities resulting in significant impacts on the environment, either individually, or incrementally when considered in addition to other activities.”).

<sup>91</sup> CR No. 7 at 201 (Biological Opinion’s discussion of cumulative effects).

<sup>92</sup> CR No. 23 § 4.2, § 4.3 (Evaluating Cumulative Impacts to Sea Turtles, Fisheries Resources, and Coastal Marine Protected Areas).

marine mammals or their habitat. There are no significant cumulative effects from WesternGeco's proposed survey that outweigh the national interest.

***C. North Carolina has not submitted any alternative that would permit the survey to be conducted in a manner consistent with North Carolina's enforceable policies.***

The final criterion for a Secretarial override requires that there be "no reasonable alternative available which would permit the activity to be conducted in a manner consistent with the enforceable policies of the management program."<sup>93</sup> To make that determination, "[t]he Secretary shall not consider an alternative unless the State agency submits a statement, in a brief or other supporting material, to the Secretary that the alternative would permit the activity to be conducted in a manner consistent with the enforceable policies of the management program."<sup>94</sup> A state objection may include alternative measures to make the project consistent.<sup>95</sup> Such alternative measures must be sufficiently described to allow the applicant to determine whether to adopt the alternative, abandon the project, or file an appeal.<sup>96</sup>

North Carolina's objection did not describe any alternative measures that would make WesternGeco's proposed survey consistent with North Carolina's enforceable policies.<sup>97</sup> Because North Carolina has failed to describe any reasonable alternative that would achieve consistency, 15 C.F.R. § 930.121(c) is satisfied.

For all of the reasons stated above, WesternGeco's proposed project is consistent with the objectives and purposes of the CZMA and should be federally approved pursuant to 15 C.F.R. § 930.120.

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<sup>93</sup> 15 C.F.R. § 930.121(c).

<sup>94</sup> *Id.*

<sup>95</sup> 15 C.F.R. § 930.63(b), (c).

<sup>96</sup> 15 C.F.R. § 930.63(d).

<sup>97</sup> *See* NCR No. 4.

## V. CONCLUSION

For all of the reasons above, WesternGeco respectfully requests that the Secretary override North Carolina's consistency objection as a threshold matter pursuant to 15 C.F.R. § 930.129(b), or alternatively, determine that WesternGeco's project is consistent with the objectives and purposes of the CZMA and override North Carolina's objection pursuant to 15 C.F.R. § 930.120.

Dated: October 21, 2019.



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CERTIFICATE OF SERVICE

I, Ariel Stavitsky, certify and declare:

On October 21, 2019, I served a true and correct copy of the document to which this certificate is attached on the following via electronic mail, per agreement of the parties:

***North Carolina Department of Environmental Quality, Division of Coastal Management***

Braxton Davis, Braxton.Davis@ncdenr.gov  
Marc Bernstein, MBernstein@ncdoj.gov  
Mary Lucasse, MLucasse@ncdoj.gov

I certify under penalty of perjury pursuant to the laws of the State of Oregon that the foregoing is true and correct.

SIGNED on October 21, 2019 at Portland, Oregon.



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