

DECISION AND FINDINGS  
IN THE  
DRILLING DISCHARGE  
CONSISTENCY APPEAL OF  
MOBIL OIL EXPLORATION & PRODUCING SOUTHEAST, INC.  
FROM AN OBJECTION BY THE  
STATE OF NORTH CAROLINA  
SEPTEMBER 2, 1994

DECISION

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## Executive Summary

### Introduction

Mobil Oil Exploration & Producing Southeast, Inc. (Mobil) has requested the Secretary of Commerce to override the State of North Carolina's (State's) objection to its proposal to discharge drilling wastes associated with Mobil's planned exploration of the outer continental shelf (OCS). Mobil proposes to drill an exploratory well in OCS Manteo Area Block 467 in order to evaluate its hydrocarbon potential. As explained in more detail below, the Secretary declines to override North Carolina's objection.

Mobil has also filed a separate appeal from the State's objection to its proposed Plan of Exploration at the drill site. A Secretarial decision in that appeal is being issued concurrently with the decision in this appeal. In that companion decision, the Secretary also declines to override North Carolina's objection to Mobil's proposed exploration of Manteo Area Block 467. Accordingly, North Carolina's objection under the CZMA prevents any federal agency from granting necessary permits for Mobil's proposed discharge of drilling wastes or Mobil's proposed Plan of Exploration.

Mobil's appeal arises under the Coastal Zone Management Act (CZMA), an act administered by the National Oceanic and Atmospheric Administration (NOAA), an agency within the Department of Commerce. Section 307 of the CZMA provides that any applicant for a required federal license or permit to conduct an activity affecting any land or water use or natural resource of the coastal zone, shall provide to the permitting agency a certification that the proposed activity complies with the enforceable policies of a state's coastal management program.

Mobil has requested a permit from the U.S. Environmental Protection Agency (EPA) for its proposed discharge of drilling wastes. Because North Carolina has objected to the project, EPA may not grant a permit for the activity, unless the Secretary of Commerce finds that the activity is consistent with the objectives of the CZMA or is otherwise necessary in the interest of national security.

### Background

About 39 miles off North Carolina's coast lies OCS Lease A-0236, also known as Manteo Area Block 467, for which Mobil is the operator. Mobil proposes to drill one exploratory well in search of natural gas at this site, discharge drilling wastes in accordance with a National Pollutant Discharge Elimination System (NPDES) permit, and conduct support activities primarily out of

Morehead City, North Carolina. Mobil's proposed drilling site is located near "The Point," a biologically unique area defined by the convergence of the Gulf Stream, slope, and shelf waters, containing significant natural resources. Moreover, fish resources found near The Point are harvested by North Carolina fishermen. Mobil applied to the EPA for an NPDES permit, and certified that the drilling discharges covered by the permit were consistent with North Carolina's coastal management program.

In part because a significant food source would be exposed to Mobil's proposed wastes, on July 17, 1990, the State objected to Mobil's proposed discharge activities on the basis of a lack of necessary site-specific data and information. Specifically, the State contends that there is insufficient information to make a consistency determination on the impacts arising from Mobil's activity, without the completion of a four-part fisheries study. The State also identified informational concerns relating to other coastal resources potentially affected by Mobil's proposed activity.

Under § 307(c)(3)(A) of the CZMA, 16 U.S.C. § 1456(C)(3)(A), and the implementing regulations, the State's consistency objection precludes EPA from issuing the NPDES permit unless the Secretary finds that the activity is either consistent with the objectives or purposes of the CZMA (Ground I), or otherwise necessary in the interests of national security (Ground II).

In accordance with CZMA § 307(c)(3)(A) and 15 C.F.R. Part 930, Subpart H, Mobil filed with the Secretary an appeal from the State's objection to Mobil's consistency certification for the proposed NPDES permit activities. Mobil appealed pursuant to Ground I and Ground II. Additionally, three threshold issues were raised during the course of the appeal.

#### Threshold Issues

Upon consideration of the information submitted by Mobil, the State, the public, and several Federal agencies, the Secretary made the following findings on the threshold issues:

##### A. Request for a Dismissal

The State requested that the Secretary dismiss the appeal for good cause, arguing that Mobil failed to provide data and information necessary to the Ground I and Ground II tests, and that Mobil failed to base its appeal on its proposed discharge activity. The Secretary declined to dismiss Mobil's appeal for good cause. The Secretary found that in this case if there is insufficient data and information in the record to make the findings necessary for an override, rather than dismiss the appeal as the State has requested, the Secretary will issue a decision which will

reflect an inability to make these findings. The Secretary also found that Mobil has based arguments for the two grounds for a Secretarial override on its proposed drilling discharges.

B. Burden of Proof and Adequacy of Information

The parties raised an issue as to the burden of proof and the adequacy of information. The State argued that Mobil has failed to provide adequate information to assess the impacts of its proposed activity, let alone prove that the grounds for an override have been met. Mobil asserted that the State failed to establish any impact of Mobil's proposed discharges on North Carolina's coastal resources. The Secretary found that the burden is on Mobil to prove the grounds for an override of the State's objection, and that in examining the information in the record of the appeal, the Secretary will necessarily determine the adequacy of information.

C. Scope of the Activity

The parties raised an issue as to the scope of the activity under consideration in this appeal. The activity at issue is Mobil's proposed discharges of drilling wastes. Mobil's proposed plan of exploration for Manteo Area Block 467 is not the subject of this appeal. However, since Mobil's proposed discharges are a part of Mobil's proposed exploration, there will be some overlap of issues making Mobil's plan of exploration relevant to the grounds for reviewing this appeal.

D. Conclusions Regarding Threshold Issues

The Secretary determined that threshold issues raised by Mobil and the State of North Carolina did not preclude him from considering the merits of this case.

Ground I: Consistent with the Objectives or Purposes of the CZMA

To find that the proposed activity satisfies Ground I, the Secretary must determine that the project satisfies all four of the elements specified in the regulations implementing the CZMA (15 C.F.R. § 930.121). If the project fails to satisfy any one of the four elements, it is not consistent with the objectives or purposes of the CZMA and federal licenses or permits may not be granted. The four elements of Ground I are:

1. The proposed activity promotes one or more of the competing national objectives or purposes contained in the CZMA.

2. The proposed activity's individual and cumulative adverse effects on the coastal zone are outweighed by its contribution to the national interest.
3. The proposed activity will not violate any requirements of the Clean Water Act or the Clean Air Act.
4. There is no reasonable alternative available that would allow Mobil to discharge its drilling wastes in a manner consistent with the State's coastal management program.

The Secretary made the following findings with regard to Ground I:

1. Mobil's proposed discharge activity furthers the exploration of offshore gas resources, and thus, indirectly furthers one of the objectives or purposes of the CZMA.
2. The information in the record is inadequate to determine whether the national interest benefits of Mobil's proposed activity outweigh the proposed activity's adverse effects on the State's coastal resources and uses.
3. Mobil's proposed discharge activity will not violate the Clean Air Act, as amended, or the Federal Water Pollution Control Act, as amended.
4. There is no reasonable alternative available to Mobil that would allow its proposed discharge activity to be carried out in a manner consistent with the State's coastal management program.

Ground II: Necessary in the Interest of National Security

There will be no significant impairment to a national defense or other national security interest if Mobil's proposed discharge activity is not allowed to go forward as proposed.

Conclusion

Because Mobil's proposed discharge activity does not meet the requirements of either Ground I or Ground II, the activity may not proceed as proposed.

## LIST OF ABBREVIATIONS AND DEFINED TERMS

CAA - Clean Air Act  
CMP - Coastal Management Program  
COE - Corps of Engineers  
CSA - Continental Shelf Associates, Inc.  
CWA - Clean Water Act  
CZMA - Coastal Zone Management Act  
DEM - Division of Environmental Management  
DER - Draft Environmental Report  
DOD - Department of Defense  
EA - Environmental Assessment  
EPA - Environmental Protection Agency  
ESRP - Environmental Sciences Review Panel  
DOE - Department of Energy  
DOI - Department of the Interior  
FER - Final Environmental Report  
FWS - Fish and Wildlife Service  
MMS - Minerals Management Service  
MOEPSI - Mobil Exploration & Producing Southeast, Inc.  
NAAQS - National Ambient Air Quality Standards  
NCDMF - North Carolina Division of Marine Fisheries  
NMFS - National Marine Fisheries Service  
NOAA - National Oceanic and Atmospheric Administration  
NPDES - National Pollutant Discharge Elimination System  
NRC - National Research Council  
NSC - National Security Council  
OCRM - Office of Ocean and Coastal Resource Management  
OCS - Outer Continental Shelf  
OOC - Offshore Operators Committee  
State - State of North Carolina

## DECISION

### I. FACTUAL BACKGROUND

In Federal waters, about 39 miles off North Carolina's coast, lies Outer Continental Shelf (OCS) Lease OCS A-0236, also known as Manteo Area Block 467. See Figure 1. This area was leased in September 1981 by Mobil<sup>1</sup> and its partners in OCS Lease Sale 56, and is a frontier area for oil and gas exploration. Mobil is the operator of the lease. Mobil's Statement in Support of a Secretarial Override (Mobil's Initial Brief), at 2-3. The lease block lies at the crest of a buried reef complex which runs in a general north-south direction along the edge of the Mid-Atlantic OCS.<sup>2</sup> Mobil's Initial Brief at 7.

The activity at issue in this case is the proposed marine discharge of drilling wastes by Mobil as described in its application for a National Pollutant Discharge Elimination System (NPDES) permit<sup>3</sup> for Lease OCS A-0236. Mobil submitted its application for an NPDES permit to the U.S. Environmental Protection Agency (EPA) on August 18, 1989. A delay of several months ensued.<sup>4</sup> Finally, on April 17, 1990, Mobil certified

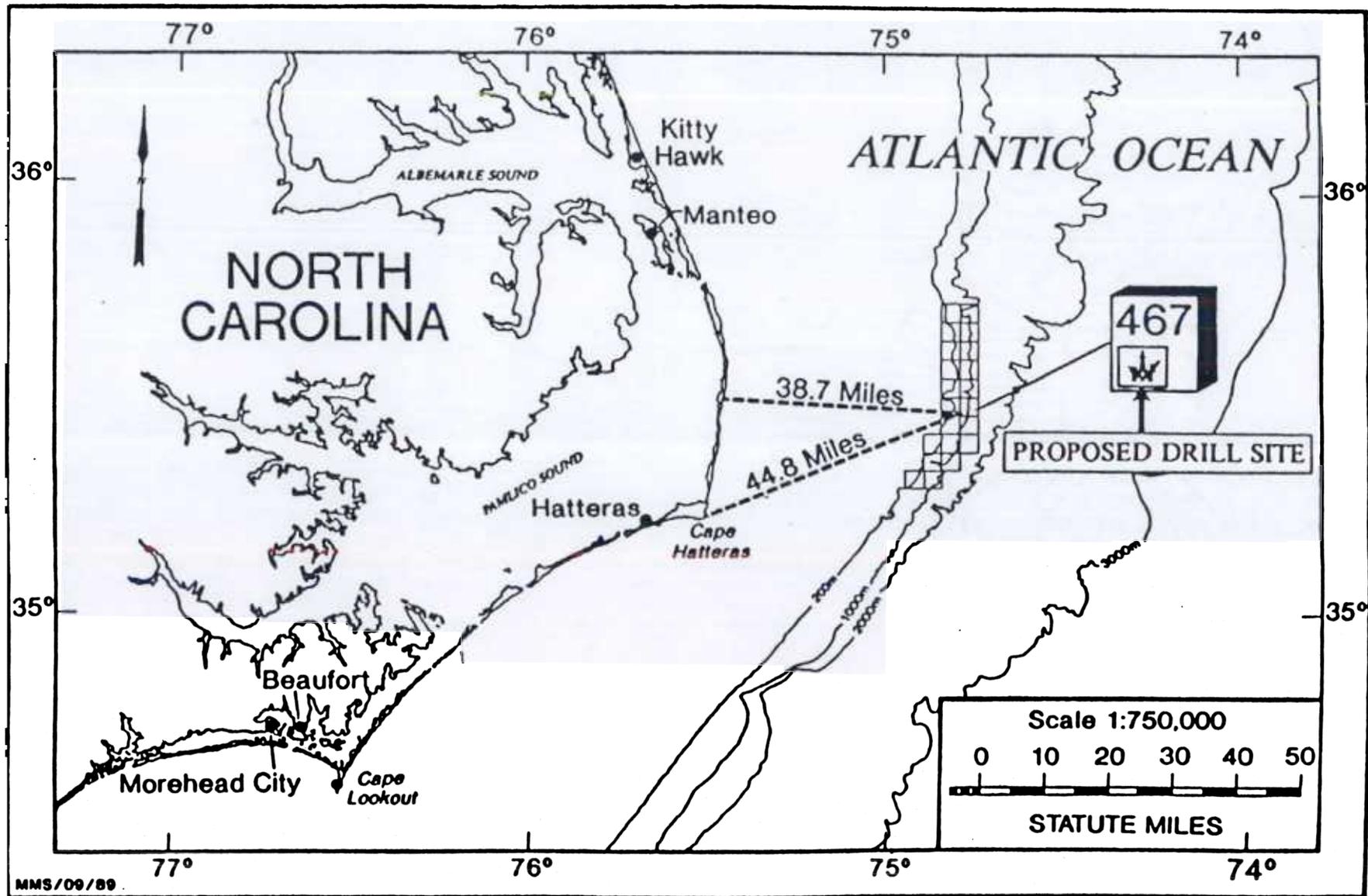
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<sup>1</sup> Mobil Oil Exploration & Producing Southeast, Inc., a subsidiary of Mobil Exploration & Producing U.S. Inc., is the proposed operator. For the purposes of description in this decision, both entities will be referred to as "Mobil."

<sup>2</sup> The Minerals Management Service (MMS) estimates that there is a 90 percent chance that no hydrocarbons will be discovered in the area of which Block 467 is a part. If a discovery is made, however, the discovery is likely to be gas rather than oil, based on geochemical analyses of previous wells drilled on the Atlantic OCS. Final Environmental Report on Proposed Exploratory Drilling Offshore North Carolina, MMS, August 1990, (FER), at III-5. The potential size of a discovery could be more than five trillion cubic feet of natural gas. Letter from David C. O'Neal, Assistant Secretary, Land and Minerals Management, Department of the Interior, to Gray Castle, Deputy Under Secretary for Oceans and Atmosphere, Department of Commerce, January 22, 1991. If such a discovery is made, the MMS estimates that approximately 103 wells would be required to recover this amount of gas. FER at IV-13.

<sup>3</sup> See Federal Water Pollution Control Act § 402(a), 33 U.S.C. § 1342(a).

<sup>4</sup> On October 11, 1989, the National Oceanic and Atmospheric Administration's (NOAA's) Office of Ocean and Coastal Resource Management (OCRM) granted the State of North Carolina's (State's) request to review Mobil's proposed discharges for consistency. Letter from Donald E. Critchfield, Acting Director, OCRM, NOAA,



Source: Adapted from MOBP/SL 1989

Figure 1. Location of the proposed drill site

that the drilling discharges covered by the permit were consistent with North Carolina's Coastal Management Program (CMP). Mobil proposes to drill one exploratory well in a water depth of 2,690 feet and estimates the drilling schedule to be approximately 114 days, sometime between May and October. Mobil's Initial Brief at 8-9. Mobil will support the drilling operation with a facility in Morehead City, North Carolina. Mobil's Initial Brief at 9. The proposed drilling site is located, however, near an area known as "The Point."

The Point is an area characterized by unique physical and biological qualities. Physically, The Point is a mobile, transitional ocean area defined by the convergence of the Gulf Stream, continental slope, and shelf waters. The Point is not a fixed location, rather its position fluctuates with changes in the location of the western boundary of the Gulf Stream. Water mass convergences at The Point concentrate nutrients, plankton and floating materials near the sea surface, resulting in weedlines. Biologically, The Point is a highly productive and ecologically unique area essential to the State's coastal zone. Fish resources found near The Point such as yellowfin, bluefin, blackfin, and bigeye tuna, white and blue marlin, sailfish, swordfish, wahoo, and dolphin are harvested by North Carolina fishermen. Scientists view the area as one of anomalously high biomass for the continental slope.<sup>5</sup> In addition to the significant fishery resources and the unusually abundant benthic community, marine bird populations are extensive, and turtles, whales and dolphins have regularly been observed at the site. Id. Many species of turtles, birds and mammals that frequent The

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to George T. Everett, Director, Department of Natural Resources and Community Development, North Carolina Division of Coastal Management, October 11, 1989. Mobil then withdrew its application for consistency certification. Letter from James C. Martin, Manager, Environmental, Regulatory & Loss Prevention North America, Mobil, to George T. Everett, November 16, 1989. On January 5, 1990, the State renewed its request that Mobil withdraw its NPDES permit application due to the State's informational concerns. Letter from George T. Everett to James C. Martin, January 5, 1990. On February 2, 1990, the State requested a determination from NOAA that the State would not lose its consistency objection rights by waiting beyond the February 21, 1990 deadline. Letter from I. Clark Wright, Jr., North Carolina Associate Attorney General, to Margo E. Jackson, Attorney, NOAA, February 2, 1990. On February 9, 1990, NOAA informed the State that a presumption of concurrence would not occur. Letter from Margo E. Jackson, Acting Assistant General Counsel for Ocean Services, NOAA, to I. Clark Wright, Jr., February 9, 1990.

<sup>5</sup> Testimony of Dr. Alan Hulbert before the Committee on Interior and Insular Affairs (Mobil Exhibit 28).

Point are endangered and vulnerable to adverse environmental effects. The National Marine Fisheries Service (NMFS) has identified the area as extremely important to NMFS and NOAA trust resources. Memorandum from William W. Fox, Jr., Director, NMFS, to Margo Jackson, Assistant General Counsel for Ocean Services, November 27, 1990 (NMFS Comments).

While drilling its exploratory well, Mobil proposes to discharge much of its wastes into the Atlantic Ocean. Mobil's wastes will include drill cuttings, drilling fluids, and other wastes, such as deck drainage and sanitary wastes. The chemical composition of Mobil's wastes will likely include hydrocarbons, paraformaldehyde, and metals such as barium, cadmium, mercury and lead. Mobil states that compliance with the proposed cadmium and mercury limits cannot be consistently achieved because of varying concentrations of barite in drilling fluids and because of metal contributions from the formation into which it will be drilling.<sup>6</sup> Some wastes will be shunted at least 25 feet below the surface of the water. Other wastes will be discharged near the seafloor.

In part because a significant food source would be exposed to Mobil's proposed wastes, on July 17, 1990, the State of North Carolina (State) objected to Mobil's proposed discharge activity on the basis of a lack of necessary site-specific data and information.<sup>7</sup> See 15 C.F.R. § 930.64(d). Specifically, the State contends that there is insufficient information to make a consistency determination on the impacts arising from Mobil's activity, without the completion of a four-part fisheries study.<sup>8</sup> State Objection Letter. The State claims that the information is necessary to determine the biological importance

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<sup>6</sup> Mobil's Comments and Responses to Issues of Concern for Draft NPDES Permit for Manteo Block 467 Exploratory Well Discharges (Mobil Exhibit 18), May 1990, at 58.

<sup>7</sup> See Letter from Roger N. Schecter, Director, North Carolina Division of Coastal Management, to William C. Whittemore, Senior Counsel, Mobil, July 17, 1990 (State Objection Letter).

<sup>8</sup> The first portion of the proposed study is an investigation of larval and juvenile abundance and distribution in the vicinity of the Mobil project. The second part of the State's proposal is to gather additional information centered on the Sargassum community known to occur in the area of the proposed activity. The third portion of the proposed study is to measure the effects of drilling waste deposition on bottom organisms. The fourth section of the State's proposal is documentation of the commercial and recreational fishing in the vicinity of the drill site and The Point.

of the proposed drill site area to the State's fisheries, the importance of the area to marine resources, and the economic importance of the proposed drill site area to the State's fishermen. Id. In addition to explaining the basis of its objection the State notified Mobil of its right to appeal the State's decision to the Department of Commerce (Department) as provided under § 307(c)(3)(A) of the Coastal Zone Management Act, as amended (CZMA), 16 U.S.C. § 1456(C)(3)(A), and the implementing regulations, 15 C.F.R. Part 930, Subpart H.

Pursuant to CZMA § 307(c)(3)(A) and 15 C.F.R. § 930.131, the State's consistency objection precludes EPA from issuing the NPDES permit unless the Secretary of Commerce (Secretary) finds that the activity, notwithstanding the State's objection, is either consistent with the objectives or purposes of the CZMA (Ground I), or otherwise necessary in the interests of national security (Ground II).<sup>9</sup>

## II. APPEAL TO THE SECRETARY OF COMMERCE

On July 31, 1990, in accordance with CZMA § 307(c)(3)(A) and 15 C.F.R. Part 930, Subpart H, Mobil filed with this Department a notice of appeal from the State's objection to Mobil's consistency certification for the proposed NPDES permit activities.<sup>10</sup> Mobil's notice of appeal requested an extension of time to submit its full supporting statement, data and other information. By letter of September 25, 1990, the Department set an initial briefing schedule for the parties.<sup>11</sup> Mobil perfected its appeal by filing a brief with supporting information and data on September 27, 1990. The State filed an initial brief with the Department on November 23, 1990.

Mobil has also filed a separate appeal from the State's objection to its proposed Plan of Exploration (POE) at the drill site. A

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<sup>9</sup> There are references in the record to the Deputy Secretary as the decisionmaker in this case because on May 19, 1989, then Secretary of Commerce Robert Mosbacher recused himself from issuing decisions in appeals involving oil and gas issues and delegated that authority to the Deputy Secretary. I have not recused myself from issuing this decision.

<sup>10</sup> Letter from William C. Whittemore, Senior Counsel, Mobil, to Hon. Robert A. Mosbacher, Secretary of Commerce, July 27, 1990 (notice of appeal).

<sup>11</sup> Mobil's initial brief was due on September 28, 1990, and the State's initial brief was due on November 12, 1990. The State's initial briefing deadline was extended to November 21, 1990.

Secretarial decision in that appeal is being issued concurrently with the decision in this appeal.<sup>12</sup>

The administrative record of this appeal also contains comments submitted by the public and Federal agencies. By way of notices in the Federal Register and local newspapers,<sup>13</sup> the Department requested public comments and announced the date of a public hearing.<sup>14</sup> Public comments were received and incorporated as part of the record of this appeal. The Department held a public hearing on December 13, 1990, in Manteo, North Carolina, addressing issues raised in the appeal. Oral and written comments were received from Mobil, the State, local public officials, the public and various interest groups. On December 27, 1990, the record closed for public comments. The Department also solicited the views of fourteen Federal agencies,<sup>15</sup> and the National Security Council (NSC) regarding the two grounds for a Secretarial override of the State's objection. With the exception of the Department of State, all of the agencies and the NSC responded with comments.

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<sup>12</sup> Since Mobil's NPDES permit appeal and POE appeal for the Manteo Area Block 467 drill site have not been consolidated, they contain distinct administrative records upon which I will base my decisions in the two appeals. However, much of the information concerning Mobil's activities is common to the record of the two appeals. I also note that much of the discussion of issues is similar in the decision documents for these two appeals.

<sup>13</sup> See 55 Fed. Reg. 45629 (October 30, 1990), and notices in the Coastland Times (October 23, 25, 28, 1990) the Virginian Pilot (November 5, 6, 7, 1990).

<sup>14</sup> On August 23, 1990, pursuant to 15 C.F.R. § 930.129, the State requested that the Secretary hold a public hearing concerning the issues raised in Mobil's appeal. Letter from Robin W. Smith, North Carolina Assistant Attorney General, to Margo Jackson, Assistant General Counsel, NOAA, August 23, 1990. On September 13, 1990, the Department granted the State's public hearing request. Letter from Thomas A. Campbell, General Counsel, NOAA, to Robin W. Smith, North Carolina Assistant Attorney General, September 13, 1990.

<sup>15</sup> Comments were solicited from the Department of Defense, Department of the Treasury, Department of State, Department of Transportation, Department of Energy, Department of the Interior, Fish and Wildlife Service, National Park Service, Minerals Management Service, Environmental Protection Agency, Federal Energy Regulatory Commission, National Marine Fisheries Service, Army Corps of Engineers and the Coast Guard.

As with other aspects of this appeal, the final briefing schedule and the closure of the administrative record were the subject of discussion between Mobil and the State. The parties concurrently filed their final briefs on June 18, 1991.<sup>16</sup> The administrative record of the appeal was reopened on April 29, 1992, to accept a report from the Environmental Sciences Review Panel (ESRP),<sup>17</sup> entitled Report to the Secretary of the Interior from the North Carolina Environmental Sciences Review Panel as Mandated by the Oil Pollution Act of 1990, January 22, 1990 (ESRP Report). Finally, Mobil and the State were provided an opportunity to file responses to any issues raised by the ESRP Report.

Although all materials received have been included in the record, I have considered them only as they are within my scope of review. After examining the State's objection, I have determined that the State has complied with the requirements of the CZMA and its implementing regulations for properly lodging an objection.<sup>18</sup> See CZMA § 307(c)(3)(A); 15 C.F.R. §§ 930.64(a), (d). Based on all relevant information in the administrative record, I will now examine threshold issues raised in the appeal prior to my determination of whether the grounds for a Secretarial override have been satisfied.<sup>19</sup>

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<sup>16</sup> Mobil's Final Statement in Support of a Secretarial Override, June 17, 1991 (Mobil's Final Brief); North Carolina's Response to the Secretary's Final Briefing Request, June 17, 1991 (State's Final Brief).

<sup>17</sup> The ESRP was created under § 6003 of the Oil Pollution Act of 1990, 33 U.S.C. § 2753, to assess whether the available physical oceanographic, ecological and socioeconomic information relating to the North Carolina OCS was adequate to enable the Secretary of the Interior to carry out his responsibilities under the Outer Continental Shelf Lands Act. The Department determined that while the purpose of the ESRP report differs from the purpose of this appeal, its findings may be relevant to the issues raised in this appeal. Letters from Gray Castle, Deputy Under Secretary, Department of Commerce, to William C. Whittemore, Senior Counsel, Mobil, and Roger N. Schecter, Director, North Carolina Division of Coastal Management, February 25, 1991.

<sup>18</sup> See Decision and Findings in the Consistency Appeal of Shickrey Anton, (Anton Decision), May 21, 1991, at 3; Decision and Findings in the Consistency Appeal of Chevron U.S.A., Inc., (Chevron Decision), October 29, 1990, at 5.

<sup>19</sup> Both Mobil and the State have raised the issue of bias. Mobil asserts that the State's consistency position is tainted. Mobil's Final Brief at 5. The State asserts that the MMS has an energy production bias. State's Final Brief at 13, 34. I will

### **III. THRESHOLD ISSUES**

#### **A. Request for a Dismissal**

The State has requested that I dismiss the appeal for good cause. See 15 C.F.R. § 930.128. The State argues: "Good cause exists in that ... [Mobil] has failed to provide data and information to the Secretary's proper determination of the issues raised in the Ground I and Ground II tests." North Carolina's Response to the Secretary's Briefing Request and to Mobil's Statement of Reasons and Brief, November 21, 1990, (State's Initial Brief), at vi. The State also argues that dismissal is also appropriate under 15 C.F.R. § 930.128(d) because Mobil has "failed to base its appeal on Ground I or Ground II as applied to the proposed activity." State's Initial Brief at vi. The State asserts that Mobil's argument for a Secretarial override is based on its overall drilling activities rather than on its proposed discharge of drilling wastes into the Atlantic Ocean. See State's Initial Brief at vi-vii.

The regulations at 15 C.F.R. § 930.128 provide a non-inclusive list of good causes that are grounds for dismissal. Good cause includes "[f]ailure of the appellant to base the appeal on grounds that the proposed activity either (1) is consistent with the objectives or purposes of the [CZMA] or (2) is necessary in the interest of national security." 15 C.F.R. § 930.128(d).

Based upon a review of the record of this appeal, I decline to dismiss Mobil's appeal for good cause. First, as I will discuss in the section on burden of proof, in this case if I determine that there is insufficient data and information in the record for me to make the findings necessary for an override, rather than dismiss the appeal as the State has requested, I will issue a decision which will reflect my inability to make the findings. Second, I decline to dismiss the appeal based on § 930.128(d). Rather, I find that there is sufficient evidence that Mobil has also based its arguments on the two grounds for a Secretarial override as applied to the proposed activity. Therefore, I decline to dismiss the appeal as requested by the State.

#### **B. Burden of Proof and Adequacy of Information**

The parties have raised an issue as to the burden of proof and the adequacy of information in this appeal. The State argues that Mobil has failed to provide adequate information to assess the impacts of its proposed activity, let alone prove that the grounds for an override have been met. On the other hand, Mobil asserts that the State has failed to establish any "real impact

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accord, however, what I determine to be the appropriate weight to comments received in this appeal.

of these distant offshore discharges on North Carolina's coastal resources." Mobil's Final Brief at 1. Mobil also argues that there is adequate information on the affects of the proposed drilling discharges, and that any effects are minor. See Mobil's Initial Brief at 26.

Aside from the requirements imposed on the State for properly lodging an objection, the Appellant bears the burden of proof and the burden of persuasion. See Anton Decision at 4; Chevron Decision at 4-5. As stated in the Anton Decision:

The regulations provide that the Secretary shall find that a proposed activity satisfies either of the two statutory grounds "when the information submitted supports this conclusion." 15 C.F.R. § 930.130(a) (emphasis added). Thus, without sufficient evidence the Secretary will decide in favor of the State.

Anton Decision at 4 (emphasis in original). Therefore, for me to find for Mobil I must make the findings specified in the regulations at 15 C.F.R. §§ 930.121 or 930.122. An absence of adequate information in the record inures to the State's benefit because such an absence would prevent me from making the required findings.<sup>20</sup>

I will make my decision in this appeal based on the evidence in the record before me. The record contains much non-site-specific information as well as information collected for other purposes, raising the issue of the relevance of this information to this case. C.f. National Research Council, "Drilling Discharges in the Marine Environment" (1983) (NRC 1983 Report) at 6. I note this statement of the National Research Council (NRC):

Marine ecosystems on the OCS clearly vary in their sensitivities to anthropogenic stress, and caution is therefore advisable in extrapolating observations from one region to another. On the other hand, to dismiss all research results not obtained directly from the environment analyzed may amount to ignoring valuable data.

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<sup>20</sup> The State objection in the Decision and Findings in the Consistency Appeal of Long Island Lighting Company, (LILCO Decision), February 26, 1988, was based on lack of information. In that case, the Secretary found that the record contained sufficient information, in particular comments from Federal agencies, for him to make a finding that the Appellant's project would have no adverse effects on the natural resources of the state's coastal zone. See LILCO Decision at 12-13.

NRC 1983 Report at 137. In evaluating the information in the record, I will necessarily determine the adequacy of the information for determining whether Mobil has satisfied the two grounds for a Secretarial override,<sup>21</sup> recognizing that some information and conclusions contained in the record may not be directly applicable to the facts of this case.<sup>22</sup> The two parameters for adequacy which I will use are completeness of information and scientific quality of information.

In its 1989 report, the NRC recognized that the quantity and types of ecological information needed generally varied with the stage of the overall project, with less site-specific information needed for leasing decisions, more site-specific information needed for exploration decisions, and still more information needed for a decision to develop and produce hydrocarbon resources. See National Research Council, "The Adequacy of Environmental Information for Outer Continental Shelf Oil and Gas Decisions: Florida and California" (1989) (NRC 1989 Report) at 42-43. Moreover, the NRC generally identified the information necessary for leasing, exploration, development and production decisions. See NRC 1989 Report at 43. I agree with the conclusions of the NRC on this point.<sup>23</sup> Therefore, I find that for me to adequately identify the impacts of the proposed project, the record should disclose, at a minimum, a characterization of the environment, an identification of the biological resources at risk, and an identification of basic ecological relationships. See NRC 1989 Report at 5.

The NRC provides further guidance, which I adopt in this case, as to the nature of the information necessary to make an informed decision. This necessary information would include (1) a characterization of major habitat types; (2) a catalog of representative species (or major species groups) present in the lease area; and (3) seasonal patterns of distribution and

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<sup>21</sup> The Secretarial override process is a separate and independent decision-making function from the State's consistency review process. See Anton Decision at 3; Chevron Decision at 5. Since the State's consistency review and the Secretarial override process are based on different evaluative criteria, the adequacy of information for these two determinations may differ. In addition, the administrative records for these two determinations may differ.

<sup>22</sup> See, e.g., Mobil's Supplemental Final Statement in Support of a Secretarial Override (Mobil's Supplemental Final Brief), May 28, 1992, at 5.

<sup>23</sup> Mobil also agrees that the 1989 National Research Council Report provides important guidance. See Mobil's Initial Brief at 27.

abundance. NRC 1989 Report at 43. Furthermore, in addition to this information which the NRC states is generally necessary to make an informed leasing decision, the record should generally disclose (1) basic ecological information (e.g., habitat, feeding behavior and reproduction); (2) basic information on factors determining vulnerability of various species; and (3) information on the potential effects of various agents of impact. NRC 1989 Report at 43.

The adequacy of information will also depend on the likelihood<sup>24</sup> of an impact as well as on the potential extent or severity of an impact. C.f. Chevron Decision at 44; Decision and Findings in the Consistency Appeal of Exxon Company, U.S.A., (Exxon SRU Decision), November 14, 1984, at 15; NRC 1989 Report at 54, 59-60. As stated by the NRC, where unique habitats or endangered and rare species exist, more extensive characterization of the sensitivity of biota to OCS activities, recovery rates, and identification of mitigating measures may be required before leasing. NRC 1989 Report at 43. Generally, less information is necessary where the likelihood or the extent of impacts may be low, and more information is necessary where the likelihood or the extent of impacts may be high.<sup>25</sup>

### C. Scope of the Activity

The parties have raised an issue as to the scope of activity under consideration in this appeal. The sole effect of overriding a State objection is to authorize the Federal agency from whom the license or permit in question is sought to issue

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<sup>24</sup> The North Carolina Environmental Sciences Review Panel states:

Risk assessment clearly and appropriately requires application of probability theory to permit proper evaluation of proposed OCS activities, but the use of probability in determining standards of completeness of environmental information gathering should be largely limited to exclusion of exceedingly improbable events from extensive evaluation.

ESRP Report at 81.

<sup>25</sup> The extent of the adverse effects will depend on several factors including the nature of the affected habitats and species, the toxicity of the discharges, the exposure concentration over time, the potential for bioaccumulation and the chemical/physical properties of the receiving waters. See Bowler and Petrazzuolo, Draft Ocean Discharge Criteria Evaluation, NPDES Permit No. NC0052523, (Mobil Exhibit 27) at 10-1; NRC 1989 Report at 5.

the license or permit notwithstanding the State's consistency objection. Decision and Findings in the Consistency Appeal of Korea Drilling Company, Ltd., (Korea Drilling Decision), January 19, 1989, at 4-5. The activity that the EPA is authorized to permit in this case is the one that the State reviewed, as modified by commitments by the Appellant during the course of this appeal. See Korea Drilling Decision at 5. Accordingly, the activity I am considering here on appeal consists of Mobil's proposed drilling discharges, as described in its NPDES permit application, and Mobil's statements during the course of the appeal, which I view as commitments, as to the inclusion of 19 additional measures to further protect the State's coastal resources, including in part:

Pre-discharge dilution of drilling discharges with sea water in a 10:1 ratio;

A maximum 30-barrel-per-hour discharge rate limitation for drilling fluids and cuttings once the riser has been set;

- Collection of fish eggs and larvae in the drill site vicinity to monitor the effects of the drilling activity;
- Use of a static-sheen test in place of the normally-used visual sheen test for free oil in discharges;
- Placement of the rig cooling water intake 25 feet below sea surface to minimize possible entrainment of fish eggs and larvae;
- Sampling and photodocumentation to monitor the fate and effect of discharges on the benthos; and
- Collection of data regarding the presence of, and impacts from proposed activities on, marine mammals, sea turtles, and birds.

Mobil's Final Brief at 36-37; see also Letter from Bruce G. Weetman, Regional Director, Minerals Management Service, to Margo E. Jackson, Assistant General Counsel, NOAA, December 27, 1990 (MMS Comments) at 41-43. Mobil estimates that the waste volumes to be covered by the NPDES permit include: drilling fluids<sup>26</sup>

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(13,300 barrels), drill cuttings (2,775 bbl), sanitary wastes (176,700 gallons), and domestic wastes (885,000 gallons). Other discharges to be covered by this permit include deck drainage,<sup>27</sup> produced water,<sup>28</sup> produced sand and other wastes.

I will also consider the cumulative effects of Mobil's activity, and so I will consider the adverse effects of other reasonably foreseeable activities. In particular, I find that Mobil's activities described in detail in its proposed POE are reasonably foreseeable and will be relevant to my consideration of cumulative effects in this case. I note, however, that since the consistency of NPDES permit activities is an issue distinct from the consistency of plan of exploration activities,<sup>29</sup> Mobil has filed a separate appeal to the State's objection to its proposed POE.

#### IV. GROUND FOR OVERRIDING A STATE OBJECTION

Pursuant to CZMA § 307(c)(3)(A) and 15 C.F.R. § 930.131, Federal licenses or permits required for a proposed activity may be granted despite a consistency objection if I find that the activity is (1) consistent with the objectives or purposes of the CZMA (Ground I), or (2) otherwise necessary in the interest of national security (Ground II). See also 15 C.F.R. § 930.130(a). The Appellant has pleaded both grounds. The Department's regulations interpreting these two statutory grounds are codified at 15 C.F.R. §§ 930.121 and 930.122.

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proposed permit limits the cadmium and mercury content. Id. Acute toxicity tests of whole drilling fluids have generally produced low toxicity. Id. Toxicity varies with the organism and with the life cycle, with larval stages generally more sensitive. Id.

<sup>27</sup> Deck drainage can contain oil, detergents, and acids, which are generally neutralized prior to disposal. See Mobil Exhibit 27 at 3-7 - 3-8.

<sup>28</sup> Produced water is the water brought up from the well and constitutes a major waste stream from OCS activities. Produced water can contain hydrocarbons, biocides, coagulants, corrosion inhibitors, cleaners, dispersants, salts, benzene, cyanides, toluene, and trace metals such as cadmium, chromium, lead and mercury. See Mobil Exhibit 27 at 3-8.

<sup>29</sup> See Decision and Findings in the Consistency Appeal of Texaco, Inc., (Texaco Decision), May 19, 1989, at 4; Chevron Decision at 7; Korea Drilling Decision at 14.

A. Ground I: Consistent with the Objectives or Purposes of the CZMA

The first statutory ground (Ground I) for overriding the State's objection to the proposed project is that the activity is consistent with the objectives or purposes of the CZMA. To make a finding on this ground I must determine that the proposed activity satisfies all four of the elements specified in 15 C.F.R. § 930.121.

1. Element 1: Activity Furthers One or More Objectives of the CZMA

To satisfy Element 1 of Ground I, I must find that the activity furthers one or more of the competing national objectives or purposes contained in the CZMA. 15 C.F.R. § 930.121(a). I find that the proposed project fosters one or more of the objectives of the CZMA, and therefore Element 1 is satisfied.

Congress has broadly defined the national interest in coastal zone management to include both the protection and development of coastal resources. Consequently, as stated in previous decisions, this Element normally will be satisfied on appeal. Decision and Findings in the Consistency Appeal of Amoco Production Company, (Amoco Decision), July 20, 1990, at 14. The State, however, has questioned whether the proposed drilling discharges, a subset of Mobil's overall exploration efforts at the Manteo site, further one or more of the competing national objectives or purposes of the CZMA. Mobil's proposed discharges will satisfy this Element even if they only indirectly further the objectives or purposes of the CZMA.<sup>30</sup>

The State argues that Mobil's proposed drilling discharges do not contribute to the larger cause of offshore oil and gas exploration. State's Initial Brief at 23. Mobil's OCS exploration, however, includes exploratory drilling. The wastes from this drilling are what Mobil proposes to discharge into the ocean. Upon reviewing the record before me, I find that Mobil's proposed drilling discharges are directly associated with and further its proposed OCS exploration.<sup>31</sup>

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<sup>30</sup> See, e.g., Decision in the Consistency Appeal of Ford S. Worthy, Jr., May 9, 1984.

<sup>31</sup> The State argues that to share in the contribution of OCS exploration to the objectives or purposes of the CZMA, the discharges must be a necessary part of Mobil's proposed exploration. State's Initial Brief at 21, 24. Mobil first argues that the proposed activity is necessary to OCS exploration. Mobil's Initial Brief at 19. Mobil later argues that the proposed activity need only be associated with OCS

Therefore, if Mobil's larger exploration activity at the site furthers the objectives or purposes of the CZMA, then Mobil's proposed discharges will indirectly further the objectives or purposes of the CZMA.<sup>32</sup> OCS exploration, development and production activities are included within the objectives and purposes of the CZMA. See, e.g., Korea Drilling Decision at 7; Decision and Findings in the Consistency Appeal of Texaco, Inc., (Texaco Decision), May 19, 1989, at 5. The Department of Energy (DOE) states that the project lies in "one of the most promising natural gas prospects on the OCS."<sup>33</sup> The Department of the Interior (DOI) states that development of the Manteo Area Block 467 could benefit the natural gas market of the southeastern United States.<sup>34</sup> Based upon a review of the record, I find that

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exploration. Mobil's Final Brief at 7. Prior consistency appeal decisions shed little light on this issue. The Korea Drilling Decision speaks only of oil and gas exploration "activities." See also Texaco Decision at 5; Amoco Decision at 14; Chevron Decision at 22; Decision and Findings in the Consistency Appeal of Gulf Oil Corporation, (Gulf Oil Decision), December 23, 1985, at 4. I find it unnecessary for the purposes of Element 1 to determine whether the activity is a necessary part of Mobil's exploration activity.

<sup>32</sup> The scope of the appeal is dictated by the scope of the proposed project. See LILCO Decision at 7. In the LILCO Decision, the Long Island Lighting Company (LILCO), applied to the U.S. Army Corps of Engineers (Corps) for a permit to perform dredging and jetty maintenance activities in conjunction with the construction of the Shoreham Nuclear Power Station (SNPS). LILCO Decision at 1. The Secretary determined, however, that since the SNPS was beyond the scope of the appeal, comments on the contribution of the SNPS to the national interest did not contribute to the findings of the Secretary. LILCO Decision at 14, n.10. In the Korea Drilling Decision, the Korea Drilling Company (KDC) applied to the EPA for an NPDES permit that would authorize its drillship to discharge drilling wastes into the Pacific Ocean in certain OCS tracts off the California coast. The Secretary determined that KDC's proposed activity would encourage competition and thus further the exploration for and development of OCS resources. See Korea Drilling Decision at 9.

<sup>33</sup> Letter from Robert H. Gentile, Assistant Secretary, Fossil Energy, Department of Energy, to Gray Castle, Deputy Under Secretary for Oceans and Atmosphere, Department of Commerce, December 19, 1990 (DOE Comments).

<sup>34</sup> Letter from David C. O'Neal, Assistant Secretary, Land and Minerals Management, Department of the Interior, to Gray Castle, Deputy Under Secretary for Oceans and Atmosphere, Department of Commerce, January 22, 1991 (DOI Comments).

Mobil's exploration for natural gas resources at this site furthers one or more of the competing national objectives or purposes contained in §§ 302 or 303 of the CZMA.

I therefore find that Mobil's proposed discharge activity indirectly furthers one of the objectives or purposes of the CZMA. In Element 2 I will determine the extent of the contribution of the activity to the national interest prior to performing the required balancing.

2. Element 2: The Activity's Individual and Cumulative Adverse Effects on the Coastal Zone are Outweighed by Its Contribution to the National Interest

In order for the Appellant to meet this Element, I must find that the disputed activity, when performed separately or when its cumulative effects are considered, does not cause adverse effects on the natural resources of the coastal zone substantial enough to outweigh its contribution to the national interest. 15 C.F.R. § 930.121(b). To perform the required balancing, I must first adequately identify the proposed project's adverse effects on the natural resources or land and water uses of the coastal zone and its contribution to the national interest. See Texaco Decision at 6. As stated above, if the information in the record is inadequate, such that I cannot adequately identify the adverse effects or the contribution to the national interest, I will be unable to perform the weighing, and therefore unable to find for Mobil on this Element. See Anton Decision at 5, n.8.

I conclude that the information in the record is insufficient for me to adequately identify the adverse coastal zone effects of the activity. Accordingly, I am unable to find for Mobil on Element 2 of Ground I.

a. Adverse Effects on Coastal Resources and Uses

In evaluating the adverse effects of the project on the resources of the coastal zone, I must consider the adverse effects of the project by itself and in combination with other past, present, or reasonably foreseeable activities affecting the coastal zone.<sup>35</sup> In this case, other activities include Mobil's activities not covered in its NPDES permit application such as discharges on the

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<sup>35</sup> See Chevron Decision at 24; Texaco Decision at 6; Gulf Oil Decision at 8. Given that the probability of a hydrocarbon discovery is estimated by the MMS to be less than ten percent, I find that development and production of such reserves is not reasonably foreseeable. In this case I will consider the cumulative effects of activities occurring during the drilling period. See Texaco Decision at 24.

ocean floor,<sup>36</sup> accidents or improper conduct of an activity. See Chevron Decision at 24; Korea Drilling Decision at 10. Prior to examining effects of Mobil's proposed activity, however, I must first identify the fates<sup>37</sup> of the discharges. The fates of drilling discharges will depend on various physical, chemical and biological processes that serve to disperse or concentrate constituent elements of the discharges. See NRC 1983 Report at 49.

#### Fates of Mobil's Drilling Wastes

The extent of adverse impacts will depend in part on the concentration of the discharges as well as on the length of time of exposure to the discharges. See Mobil Exhibit 27 at 10-1. In this section I will examine information on the physical and chemical oceanography of the drill site area, in particular the effect of currents on the dispersion of the drilling wastes, both near the surface and near the seafloor.<sup>38</sup>

Mobil plans to drill in a water depth of 2,690 feet. The ocean floor is a generally sloping terrain, marked with ridges and valleys. The physical environment at that location results from the interaction of the Gulf Stream, the Deep Western Boundary Current, the Slope Sea Gyre and Virginia coastal waters. A report prepared for Mobil on currents at Manteo Area Block 467, states that close to the maximum currents of about 5 knots are likely to occur near the site, and that high speed currents can be expected about 56% of the time.<sup>39</sup>

In its report to the Secretary of the Interior, the ESRP states that the local currents, upon which the fates of Mobil's discharges depend, are well-characterized for the Manteo site.

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<sup>36</sup> The MMS has listed other activities associated with Mobil's marine discharge activities which are not covered in its NPDES permit application: placing and removing drillship mooring anchors; support vessel transportation; physical presence of the drillship. MMS Comments at 37.

<sup>37</sup> See, e.g., EPA, Assessment of Environmental Fate and Effects of Discharges from Offshore Oil and Gas Operations, (1985) (Mobil Exhibit 24). In general, the term "fates" refers to what happens to the discharges as they enter an ecosystem.

<sup>38</sup> The NRC has provided a framework for evaluating the adequacy of physical oceanography information. See NRC 1989 Report at 18-24. See also ESRP Report at 27-29.

<sup>39</sup> Science Applications International Corp., Characterization of Currents at Manteo Block 467 off Cape Hatteras, NC, Draft Final Report (1990) (State Exhibit 27), at 1.

ESRP Report at 28. The ESRP report also states that physical information in relation to these discharges is adequate. Id.

NMFS generally comments that the information on the physical and chemical oceanographic process in this area is inadequate and does not support the conclusions of Mobil or the Minerals Management Service (MMS).<sup>40</sup> In particular, NMFS states that the concentration of marine organisms along thermal and salinity fronts raises the possibility that Gulf Stream hydrology may similarly concentrate discharges, and that Mobil has not adequately considered this issue. Id. NMFS also states that the relationship between ocean hydrology and fish migrations and concentration of larvae is not adequately described in the DER. Id.

Based upon a review of this information, I find that current movements near the site area are indeed complex and incompletely understood. I also find that many of the chemical and biological characteristics of the site area are influenced by the site's physical characteristics. Nevertheless, upon reviewing the record of this appeal, I find that the physical information in relation to Mobil's discharges is adequate. I am persuaded that Mobil's near-surface discharges will be rapidly diluted by the currents, thus reducing their impact. Furthermore, I find that effects from Mobil's near-surface discharges are most likely to be confined to exposures within a small area around the point of discharge. See NRC 1983 Report at 4.

As to the fates of the seafloor discharges, ten simulations were run using the Offshore Operators Committee (OOC) mud discharge

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<sup>40</sup> NMFS states that:

[T]he very low adverse impact predictions may be inaccurate and unsubstantiated. Documentation that current structures (lateral, horizontal, and vertical components) are understood sufficiently to support the dispersion/dilution scenario is needed.

Letter from Andreas Mager, Jr., Assistant Regional Director, Habitat Conservation Division, National Marine Fisheries Service, to Minerals Management Service, Department of the Interior, December 13, 1989 (NMFS Letter). NMFS states that certain conclusions reached in the DER regarding current patterns are not adequately supported and that the DER should either substantiate these conclusions or acknowledge that the conclusions are speculative. Id.

model to estimate the distribution of these discharges.<sup>41</sup> One limitation of the simulation model, however, is that seafloor discharges (i.e., from the drill hole) are not normally modeled. OOC Introduction at N-6. Furthermore, the scientists who performed the simulation modeling stated that "some artifice was necessary to simulate the possible behavior of bottom discharges. We do not know how accurate those simulations are." Id. One conclusion reached based upon the simulation modeling is that "[t]he average thickness of cuttings inside the 20 m circle [around the drill site] was 77 cm for minimum currents at the bottom, and 50 cm for maximum currents at the bottom."<sup>42</sup> The same study also concludes that "a small area shows quite heavy concentrations of cuttings, up to 70 cm thick within 10 m of the discharge well head on the bottom, however there is at most 0.3 km<sup>2</sup> covered with drilling mud and cuttings to a depth greater than 0.1 cm."<sup>43</sup> Id. at 28. Based upon a review of the record, I find that most of the seafloor discharges will be distributed in the immediate vicinity of the project activities.

#### Possibility of Unpermitted Discharges

In order to fully identify and evaluate the cumulative impacts of Mobil's proposed activity, I must consider any discharges outside of the scope of the proposed NPDES permit. I will examine, among other things, any evidence of Mobil's record of unplanned discharges at other sites, as well as any evidence of the possibility of other unplanned or unpermitted events, such as those associated with high currents and unpredictable weather at the site. These discharges could affect the resources of the State's coastal zone. See Korea Drilling Decision at 15.

The record contains relevant information on the likelihood that Mobil will accidentally discharge in excess of NPDES permit conditions. First, as to the proposed limits on cadmium and mercury discharge concentrations, Mobil states: "Abundant data demonstrate that the EPA's proposed permit condition establishing effluent limitations equal to 1 mg/kg each of cadmium and mercury

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<sup>41</sup> Introduction of the Offshore Operators Committee Simulation Modeling for the Manteo Prospect taken from Mobil's Draft Plan of Exploration (OOC Introduction). See FER at Appendix L.

<sup>42</sup> Brandsma, Simulation of Benthic Accumulations of Mud and Cuttings Discharged from Mobil Oil Corporation Well, Manteo Area, Block 467, Cape Hatteras, North Carolina, November 28, 1989, at 27. See FER at Appendix L.

<sup>43</sup> MMS reports that the drill cuttings are expected to accumulate a maximum of 77 centimeters within 10 meters of the drill site. FER at IV-64.

in the whole drilling fluid would present potentially serious compliance problems for Mobil." Mobil Exhibit 18 at 58. Mobil also states that the proposed cadmium and mercury permit limits "cannot be consistently met." Id. Given these statements, I find that it is possible that Mobil will discharge cadmium and mercury in excess of the proposed NPDES permit conditions. Second, the record indicates that for an OCS operation offshore Alabama, Mobil paid a \$2 million settlement and acknowledged that Mobil employees discharged in violation of NPDES permit conditions.<sup>44</sup> I therefore find that it is possible that Mobil could deviate from other NPDES permit conditions, in addition to the proposed cadmium and mercury permit limits.

I will now examine the possibility of unplanned discharges associated with high currents and unpredictable weather at the site. MMS states that "the flow of the Gulf Stream and the potential for the occurrence of rapidly forming storms offshore North Carolina could create extreme and hazardous oceanographic and weather conditions in the area." FER at IV-8. Mobil's drillship would be able to remain in the drilling mode in up to 3.5 knots of current. FER at IV-10. However, close to the maximum currents of about 5 knots are likely to occur near the site, and high speed currents can be expected about 56% of the time.<sup>45</sup> Upon reviewing the record, I find that there may be unplanned discharges during emergency disconnects of the well.

MMS contends that the risk of excessive discharges occurring and resulting in substantial adverse effects on the natural resources of the State's coastal zone is insignificant. MMS Comments at 30-31. In particular, MMS concludes that the procedures for an emergency disconnect of the well assure insignificant impacts from excessive discharges. See MMS Comments at 34-36. I am unpersuaded, however, by the comments of MMS. I have found that unplanned discharges are possible. I now find that information on the possible extent of discharges outside of the scope of the NPDES permit is inadequate for me to assess their risk.

#### Nature of the Discharges

Mobil's proposed wastes can have physical and chemical effects on living organisms, including the State's fisheries. Physical effects can result from sedimentation, increased turbidity and substrate alteration. Chemical effects include toxicity and

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<sup>44</sup> Settlement Agreement between the State of Alabama and Mobil (State Exhibit 29).

<sup>45</sup> D. Bolze, The Ecological Effects of Outer Continental Shelf Oil and Gas Development -- Both Offshore and in the Coastal Zone, (1989) (State Exhibit 27), at 1.

bioaccumulation of metals and organic compounds. See NRC 1983 Report at 75.

Mobil's wastes to be covered under the proposed NPDES permit include drilling fluids (muds), drill cuttings, sanitary wastes, domestic wastes, deck drainage, produced water, produced sand, and other miscellaneous wastes. Mobil estimates that its wastes will include small amounts of such metals as arsenic, barium, chromium, cadmium, copper, mercury, nickel, lead and zinc. Mobil's NPDES Permit Application. The record discloses that the permit would prohibit the discharge of diesel oil, limit mercury and cadmium discharge concentrations to 1 mg/kg, prohibit free oil in drilling fluids and cuttings, limit oil and grease discharge concentrations to 72 and 48 mg/l daily maximum and daily average, respectively, prohibit free oil in produced waters, and prohibit free oil in all other discharges. Mobil Exhibit 27 at 10-9. As previously indicated, however, Mobil's cadmium and mercury discharges may vary because of the varying concentrations of barite in drilling fluids and because of metal contributions from the formation into which it would drill. Mobil Exhibit 18 at 58. Mobil's drilling fluid may also contain paraformaldehyde, a biocide. See Mobil's NPDES Permit Application.

Mobil also plans to discharge wastes near the seafloor during the initial phase of the drilling operation, prior to setting the riser. There is little information in the record, however, on the composition of these wastes since these wastes would not be covered by the proposed NPDES permit. Again, I note that much of Mobil's information in the record only examines possible impacts from discharges within the scope of an NPDES permit. My analysis of the cumulative effects of Mobil's permitted discharges includes the effects of these wastes. Moreover, it is likely that these wastes will affect the benthic environment which will in turn affect the State's coastal fisheries.

Mobil claims that the drilling fluids to be used have a low toxicity, and that studies have shown that drilling fluids discharged into the ocean disperse rapidly into nontoxic concentrations. Mobil's Final Brief at 31. The State challenges Mobil's claim that the drilling fluids have a low toxicity. Specifically, the State asserts that the use of Fundulus heteroclitus is unsuitable for determining toxicity of drilling fluids to oceanic fish or invertebrates since, unlike oceanic species, Fundulus eggs, larvae, and adults are normally associated with high turbidities and sedimentation rates. State Objection Letter. The State indicated that toxicity information must be provided for species adapted to the oceanic environmental conditions found at the proposed drill site. Id. While I am concerned with the toxicity of the proposed wastes upon the

resources near the proposed drill site,<sup>46</sup> bioassay tests are at least useful in identifying the relative toxicities of components. See NRC 1983 Report at 76. Thus, I find that Mobil's proposed water-based drilling fluids are generally less toxic than oil-based drilling wastes.

I am unable, however, to extrapolate from the evidence in the record that Mobil's wastes are not toxic to organisms found at the drill site. First, the toxicity of the discharges will vary depending upon the organisms tested and the life cycle stage of the organism. I am persuaded that the drill site area contains sensitive larval species of commercially important fish. Second, Mobil offers little discussion of the effects of paraformaldehyde, a nonpersistent biocide, in its discharges. See State Exhibit 27 at 7. While paraformaldehyde is less toxic than chlorinated phenol biocides, the carcinogenicity of formaldehyde in solution is unknown.<sup>47</sup> See NRC 1983 Report at 82. Third, there is little discussion of the effects of unplanned, but reasonably foreseeable discharges. Finally, there is too little information on the ecological and food web effects of Mobil's discharges for me to conclude that Mobil's discharges are non-toxic.<sup>48</sup>

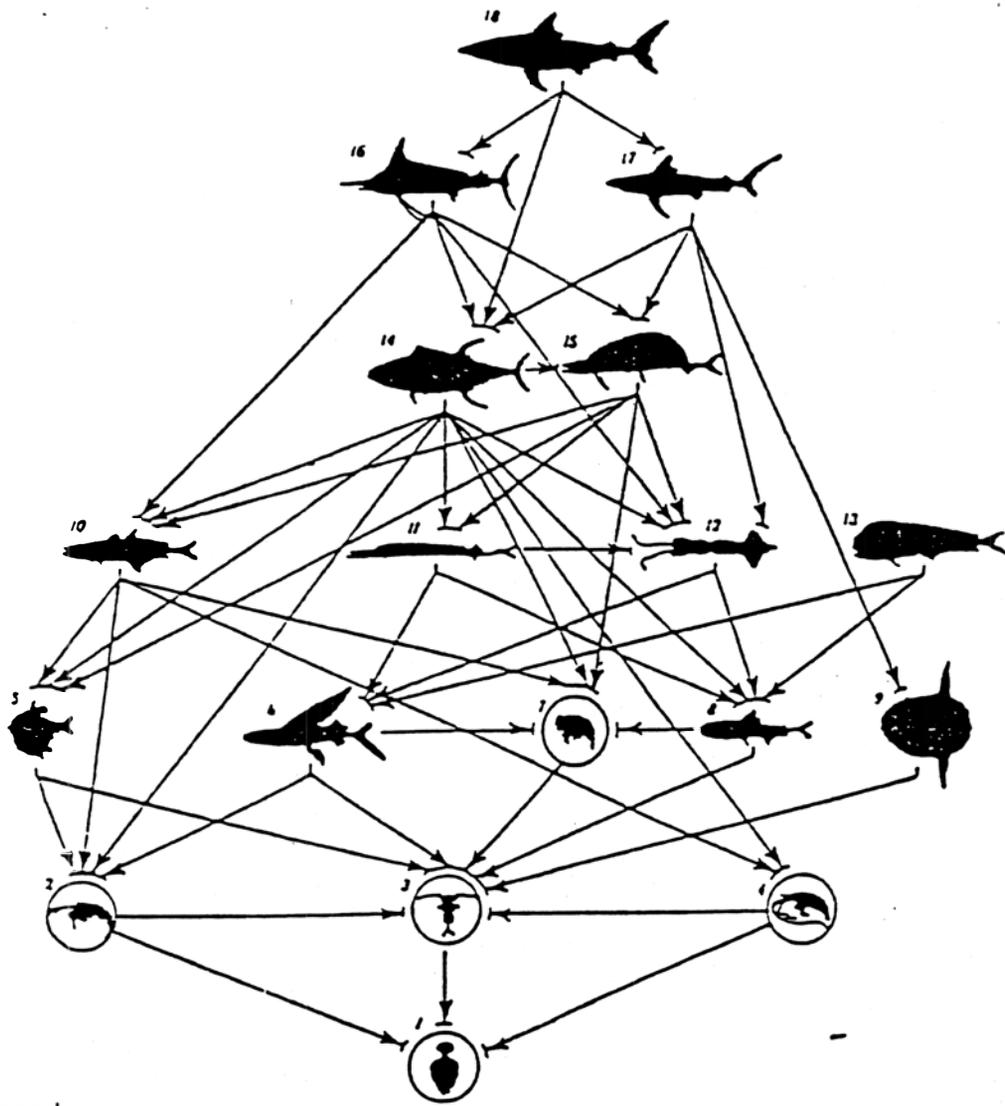
Mobil's wastes may contain hydrocarbons and heavy metals, which are discharges of major concern. See Mobil Exhibit 27 at 10-2, 10-4. While Mobil's proposed discharges would not contain diesel oil, Mobil's wastes could contain other hydrocarbons such as benzene. Benzene is a carcinogen. Heavy metals present in Mobil's discharges may affect resources through bioaccumulation. The EPA examined biological transport processes, including bioaccumulation. See EPA's Assessment of Environmental Fate and Effects of Discharges from Offshore Oil and Gas Operations, (EPA

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<sup>46</sup> In its 1983 report, the NRC provided considerations in using available information in assessing the potential effects of drilling discharges. The NRC reported that most information about the effects of drilling fluids on marine organisms comes from laboratory experiments, and that the organisms most frequently used in these tests have been coastal and estuarine species readily available for testing and easily maintained in the laboratory. NRC 1983 Report at 129. The NRC also stated that direct measurement of the effects of drilling fluids in the field is inherently more rigorous than models and laboratory toxicity tests. See Id. at 133.

<sup>47</sup> Paraformaldehyde depolymerizes to formaldehyde upon contact with water. NRC 1983 Report at 82.

<sup>48</sup> Mobil's POE contains a diagram of the relevant food web, with the omission of humans as the highest trophic level consumers. See Figure 2.



**Legend**

- Level I Phytoplankton (1);
- Level II Euphausiids (2), copepods (3), shrimp (4);
- Level III Midwater fishes (5), flyingfishes (6), hyperiid amphipods (7), subsurface lanternfishes (8), molas (9);
- Level IV Deepwater ichthyophages (10), nyctopelagic predators (snake mackerel) (11), squid (12), dolphin fish (13);
- Level V Tunas (14), lancetfishes (15);
- Level VI Marlins (16), medium-sized sharks (17);
- Level VII Large sharks (18).

**Figure 2.** Conceptual epipelagic food web for tropical-subtropical waters (From: Parin, 1970).

444/4-85-00), (Mobil Exhibit 24) at 3-64 - 3-84. I am persuaded that the information in the record is inadequate for me to conclude that there is a low potential for bioaccumulation. While several variables determine the bioavailability of metals,<sup>49</sup> Petrazzuolo (1983) states that due to the persistence of metals, the high toxicity of some metals, the absence of laboratory data on mercury, and the inability to correlate field and laboratory measures, a finding of no significant potential effect is inappropriate at this time. Mobil Exhibit 27 at 5-24. Mobil's claim that mercury and cadmium found in drilling fluid discharges predominately occur in insoluble forms, also leads me to conclude that some mercury and cadmium will occur in soluble, and therefore potentially toxic and bioavailable, forms. See Mobil Exhibit 18 at 66-67. Finally, I note that Mobil's discharges of lead will add to the already elevated levels of lead (up to 17 ppm) in the environment near the Manteo area. See Mobil's Final Ocean Discharge Criteria Evaluation Report, December 8, 1989 (Mobil Exhibit 19) at 67. Given that the oceans around Mobil's proposed activity will be harvested for human consumption, I find that the extent of adverse effects of even small amounts of these chemicals entering the food web and affecting the food supply could be great.<sup>50</sup>

#### Effects on Biological Resources

In this section I will examine the risk of individual and cumulative adverse effects from the proposed activity on the affected biological resources and uses of those resources.<sup>51</sup>

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<sup>49</sup> These variables depend on both the compounds in which the metals are found and on the size, type and feeding behavior of the organism involved. See NRC 1983 Report at 109-110; Mobil Exhibit 27 at 5-23.

<sup>50</sup> The ESRP states that there should be a better understanding of the possibilities of contamination of food supplies by OCS activities for all the large predators. See ESRP Report at 47. Mobil discounts the effects of its proposed wastes entering the food supply by stating that at least one of its proposed waste components, bentonite clay, is used in cosmetics and as a food additive. Mobil's POE, vol. 1 at B17-21. While bentonite clay may be an allowable food additive, other of Mobil's proposed wastes, such as heavy metals and hydrocarbons, may not.

<sup>51</sup> The State has asserted that Mobil has underestimated the biological importance of The Point. NMFS has characterized the natural resources found in Block 467 as unique. NMFS Letter. NMFS also states that the biological significance and later potential for adverse impacts is severely underestimated. Id. In general, the ESRP has stated that there needs to be a study of

## Fish Resources:

One of the East Coast's most important commercial and recreational fisheries is located in the waters overlying the proposed drill site.<sup>52</sup> FER at III-83. The proposed drill site area serves as an important migratory pathway and feeding habitat for pelagic fishes. Yellowfin, bluefin, blackfin, and bigeye tuna, white and blue marlin, sailfish, swordfish, wahoo, and dolphin are caught there by North Carolina fishermen.<sup>53</sup> In addition, many target and prey species are believed to spawn near the western boundary of the Gulf Stream. Thus, the proposed drill site, even though it is located outside of the State's coastal zone, is situated such that an important food source for North Carolinians would be exposed to Mobil's proposed wastes.<sup>54</sup>

Mobil states that the species composition found at the drill site area is representative of the overall areal population, and that the species found were generally similar to those observed in previous collections conducted during the spring and fall months off the South Atlantic Bight and in the eastern Gulf of Mexico. See Mobil's Final Brief at 30-34. Upon reviewing the record, I find that while the species composition may not be unique, there is an unusual abundance of fish resources found near the drill site area, and that the area serves as an important migratory pathway, feeding habitat and spawning ground for several commercially significant species.

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the ecological relationship between The Point's unusual biological resources and its physical properties. See ESRP Report at 36-37, 47.

<sup>52</sup> The first portion of the State's proposed study is an investigation of larval and juvenile abundance and distribution in the vicinity of the Mobil project.

<sup>53</sup> The Secretary's Exxon SRU Decision at 7-10 interpreted Element 2 to include adverse effects on coastal uses. In that case, Exxon's proposed OCS POE affected a thresher shark fishery important to California fishermen.

<sup>54</sup> In addition to citing coastal uses of The Point, the State argues that the area serves as spawning habitat for species that are important to North Carolina fisheries, including both prey and target species (menhaden, spot, croaker and flounder) that migrate into North Carolina's coastal waters. Memorandum from Bill Hogarth, Director, North Carolina Division of Marine Fisheries, to Roger Schecter, Director, North Carolina Division of Coastal Management, May 21, 1990, at 2, Attachment 6 to State Objection Letter.

As to the possible effects on fishery resources, MMS states:

[I]mpacts on fish resources may result from the effects of [the] discharge of muds and cuttings [and] treated sanitary and domestic waste.... Individuals may be subject to sublethal effects before dispersion and dilution of drilling mud [and] other waste discharges.

FER at IV-216 (emphasis added). In essence, the fishery resources, upon which the State's commercial and recreational fishing industries depend, may be exposed to and potentially affected by Mobil's wastes, with individual fish possibly subjected to "sublethal effects."<sup>55</sup>

MMS concludes that the expected impacts of the proposed discharges on commercial and recreational fishing would be low-level and temporary in nature. MMS Comments at 21. The record lacks information, however, on the marketability of fish which may have been exposed to Mobil's wastes and subjected to sublethal effects.<sup>56</sup>

MMS also concludes that under its "worst case" analysis of maximum level of impacts on fish resources, the anticipated effects would be minor and indistinguishable from natural background variability. The worst case analysis, however, has limited usefulness to my analysis for four reasons. First, as stated above, resources may be affected by Mobil's wastes before dispersion. Second, the analysis does not fully examine ecological effects. Third, the conclusions on natural variability may be flawed.<sup>57</sup> Fourth, the analysis does not fully account for cumulative impacts.

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<sup>55</sup> See FER at IV-213 - 219 for a discussion of potential effects on the State's fisheries resources.

<sup>56</sup> See infra at 35 for a discussion of other potential socioeconomic effects.

<sup>57</sup> The ESRP states that the DOI decision documents are flawed in their discussion of the significance of natural variability. See ESRP Report at 45-46. The ESRP states:

Purging from the decision documents the unjustified argument that variable ecological resources and variable driving forces do not deserve the same level of protection from environmental impacts as more invariant parameters is needed to render the interpretations and conclusions adequately defensible.

ESRP Report at 46.

In commenting on this appeal, the National Marine Fisheries Service (NMFS) identified informational concerns regarding fisheries studies and stated that additional studies and information were needed. NMFS Comments. In comments on the DOI's Draft Environmental Report (DER)<sup>58</sup> on Proposed Exploratory Drilling offshore North Carolina, NMFS stated:

The DER does not adequately address fishery issues. Discussions on effects of spills or accidents on eggs, larvae, and food organisms; recreational and commercial fishing activities; potential alterations of migratory patterns of important pelagic fishes; occurrence of latent fisheries resources; habitats; and fisheries operations in the project area are inadequate.

NMFS Letter. NMFS states that "many of the finfish that inhabit the site as eggs and larvae are not discussed. More information on distribution, life history aspects, and fisheries, should be provided on tunas, dolphin, wahoo, and marlins." Id. The NMFS comments continue:

The uniqueness of the Cape Hatteras area as a faunal mixing zone is not adequately addressed. The drill site is located near [an area] known for its value to migrating pelagic fishes. The area also is a critical feed site for tunas.

Id. NMFS also states that the "[e]cology, life history, and habitat requirements of epipelagic fishes are not well known. Accordingly there is insufficient basis for most of the assumptions made in the DER regarding potential impacts." Id.

Upon reviewing the information in the record of this appeal, I find that I am unable to adequately assess the risk of adverse impacts to fish resources. Consequently, I am unable to adequately identify the adverse effects on fish resources. While I previously found that Mobil's studies adequately predict a rapid dispersion of wastes near the surface, I was unable to find that Mobil's wastes will have a low toxicity. Furthermore, the State's fisheries may be subjected to sublethal effects before dispersion and dilution of Mobil's wastes. Finally, I find that the fish resources at the proposed drill site are sufficiently rich, and their ecology sufficiently important, to require additional site-specific information.

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<sup>58</sup> Given that NMFS' comments on this appeal were forwarded after the completion of the FER, one inference that can be drawn is that its prior concerns with the DER remain unresolved.

## Benthic Communities:

Benthic communities include, among other things, both infaunal and epifaunal organisms. Densities of infauna and epifauna near the Mobil drill site have been found to be unusually high.<sup>59</sup> The North Carolina Division of Marine Fisheries has stated that Block 467 has the highest benthic infauna population of any deep water site on the east coast. The State argues:

The benthic assemblages found near the drill site are unique on the western North Atlantic slope. While species diversity is low, the benthic infauna exhibit extremely high biomass and species abundances.... The concentrations of demersal fishes are larger than usual for this water depth.

Summary and Assessment of Ad Hoc Live Bottom Committee (State Exhibit 23) at 4. Commercially harvested demersal fishes prey on infaunal organisms.<sup>60</sup> See FER at III-82, III-101-104, 180-183. Mobil argues that its Live Bottom Survey shows that the benthic organisms are commonly occurring and widely distributed. Mobil's Initial Brief at 42. Upon reviewing the record, I find that the benthic community near the drill site is unusual for its high biomass and productivity. Moreover, I find that benthic communities are directly linked to the food web supporting the State's fisheries.

Potential damage to benthic and infaunal communities may be physical and/or chemical.<sup>61</sup> NRC 1983 Report at 5. Factors influencing damage to benthic communities include the type and quantity of drilling discharges, the hydrographic conditions at

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<sup>59</sup> The third portion of the State's proposed -part fisheries study is to measure the effects of drilling waste deposition on bottom organisms.

<sup>60</sup> Mobil's sweeping statement in its Final Brief that "there is absolutely no indication that any coastal fishes or other coastal wildlife resources utilize the benthic habitat, benthic food sources, or benthic-derived energy in any form" is belied by statements in the FER and the EA. Compare Mobil's Final Brief at 29 with FER at III-82, III-101-104, 180-183.

<sup>61</sup> Upon reviewing existing information on the fates and effects of drilling fluids and cuttings on the OCS, the NRC states that "[t]he postdepositional fates of drilling fluids and the recovery of altered communities are the processes for which data are most limited and predictions most tenuous." NRC 1983 Report at 136. The NRC advises caution in extrapolating observations of adverse effects from one region to another. See Id. at 137.

the time of discharge, and the height above the bottom of the discharges. FER at IV-61. The effects also depend on how quickly the benthic community recovers, not only in total density and biomass, but also in the composition and structure of the community. NRC 1983 Report at 135. Benthic communities may also be damaged from the placing and removal of drillship mooring anchors. See MMS Comments at 37-38.

I will evaluate the benthic impact of Mobil's discharges as well as the emplacement and removal of drillship mooring anchors on the benthic environment. Mobil's drilling plans include both near-surface and seafloor discharges. Based upon a review of the information in the administrative record, I find that there is a low likelihood that the near-surface discharges will have a measurable adverse impact on benthic communities given the water depth and the current movements. Mobil's drilling plans, however, also include seafloor discharges and anchor placement. As previously stated, Mobil has performed simulation modeling of the deposition of seafloor discharges, for which I found that the seafloor discharges will be distributed in the immediate vicinity of the drill site.

MMS comments that the only expected negative effects of the proposed discharges would be from the deposition of drilling muds and cuttings directly on the seafloor during the drilling of the initial portion of the well. MMS Comments at 17. In its FER, MMS states that the major effect of the release of drilling muds and cuttings directly to the seafloor will be to bury and kill local benthic organisms. See FER at IV-211; MMS Environmental Assessment of Exploration Plan for Manteo Area Block 467 (EA), Appendix E at E-4. Upon reviewing the record, I find that the major short term effect of the deposition of seafloor drilling discharges will be to bury and kill benthic organisms in the immediate vicinity of the drill site. I also find, however, that possible sublethal impacts include altered burrowing behavior, chemosensory responses, alterations in embryological or larval development, depressed feeding, decreased food assimilation and growth efficiency, and altered respiration and nitrogen excretion rates. See Mobil Exhibit 27 at 10-6. Thus, I find that in the immediate vicinity of Mobil's drill site, Mobil's proposed wastes may either destroy or poison a food source for part of the State's demersal fishery resources.<sup>62</sup>

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<sup>62</sup> In discussing the effects of Mobil's proposed wastes on benthic communities, Mobil discounts the effects on the food supply by stating: "The primary drilling fluid to be discharged at the sea floor is simply prehydrated bentonite clay (see Appendix I-1). Bentonite clay is a naturally-occurring material that is used in cosmetics and as a food additive." Mobil's POE, vol. 1 at B17-21.

As to the period of the diminishment in value of these natural resources, since I am unable to conclude that the benthic community would be accustomed to burial of the magnitude envisioned in the modeling studies, I decline to accept Mobil's argument that the area will become rapidly repopulated. Rather, as indicated in the FER, I find that recovery of these deep sea fauna could take several years and the recolonizing community may be significantly different from the pre-drilling one.<sup>63</sup> FER at IV-212.

MMS has also stated that the emplacement and removal of drillship mooring anchors will cause localized destruction of benthic organisms. MMS Comments at 38. I agree with the MMS' conclusion, however, upon review of the record, I find that the possible extent of this damage should be minimal.

Finally, NMFS and the ESRP have raised informational concerns on the possible impacts of Mobil's proposed waste discharges on the ecology of the benthic community. NMFS comments that the relationship between the high benthic infauna population and the proposed action should be addressed. See NMFS Letter. The ESRP states that a survey of the seafloor in the vicinity of the Manteo Unit should be completed prior to initiation of exploratory drilling, and that "the limited knowledge of the geographical extent of the unusual benthic community around the Manteo drill site is inadequate to describe what fraction of this system would be at risk during deposition of muds and cuttings." ESRP Report at 39. The ESRP states that this benthic survey should identify the geographic extent and degree of uniqueness of the unusual benthic community. ESRP Report at 45. I agree with NMFS and the ESRP. I find that while the record identifies certain adverse effects, I am unable to adequately assess other ecological impacts of Mobil's proposed action on the benthic communities.

In summary, I found that the benthic communities are directly linked to the food web supporting the State's fisheries. While I found that the effects of Mobil's near surface discharges on the benthic environment will be minimal, I found that Mobil's seafloor discharges are likely to damage or destroy benthic communities in the immediate vicinity of Mobil's proposed drill site. I also found that the recovery period for this richly populated area could be several years. Finally, I found that

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<sup>63</sup> The ESRP has indicated that the question of the recovery rate of the benthic community from the effects of Mobil's proposed wastes is unanswered. See ESRP Report at 48-49. The NRC states that benthic recovery rates from complete annihilation can be many years on the continental slope. NRC 1983 Report at 136.

there is presently inadequate information for me to adequately assess other ecological impacts on the benthic communities.

#### Plankton and Near Surface Resources:

The near surface environment includes a Sargassum community as well as planktonic and nektonic organisms.<sup>64</sup> The Sargassum communities provide habitat, food and protection to juvenile finfish and endangered sea turtles, and are closely connected to the State's fisheries. Tuna and dolphin feed on juvenile fish, crabs, and shrimp which occur in the Sargassum community. Mobil Exhibit 19 at 36. Phytoplankton and zooplankton constitute a major portion of the food base for pelagic food webs. Mobil Exhibit 27 at 6-1. In addition, most fish have planktonic eggs and larvae. Mobil Exhibit 19 at 28.

Mobil claims that the types of Sargassum which are found near the drill site are found over a very wide ocean area. Mobil's Initial Brief at 43; Mobil's Final Brief at 32. Mobil claims that due to the rapid dispersion of the discharges and the naturally short regeneration times of planktonic species, there will be minimal short term impacts. Mobil's Final Brief at 32.

Even though the proposed discharges would be shunted at least 25 feet below the surface of the water and the expected upper limit of the discharge plume is approximately 30 feet below the surface, near surface organisms, including plankton, could be affected by Mobil's drilling discharges. See FER at IV-207. If plankton come in contact with drilling discharges, the photosynthetic production of phytoplankton could be reduced due to increased turbidity of the water; filter feeding and respiratory functions could be harmed by contact with particulates; and there may be lethal or sublethal effects. Id. These effects would vary depending on the currents. The FER concludes, however, that:

While it is not known with certainty whether the availability of phytoplankton as a food source for zooplankton grazers eventually affects the abundance or productivity of major fisheries, drilling discharges are not expected to result in measurable impacts on populations of phytoplankton or on the marine food web.

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<sup>64</sup> See FER III-65 - III-70 for a summary of information collected on the Sargassum community known to occur in the area of the proposed activity. The second part of the State's proposed four-part fisheries study is to gather additional information centered on the Sargassum community. The State has designed the study to investigate the abundance and size of Sargassum rafts near Block 467 and summarize information on the Sargassum community as a source of food for various fish species.

FER at IV-207; see also EA at 51. MMS also states that its "worst case" analysis looked at the possibility of the proposed discharges contacting the "sensitive" Sargassum communities. MMS Comments at 51. MMS concluded that there would be no anticipated measurable effects on the Sargassum or associated organisms, including fish, species fed on by fish, and marine turtles. MMS Comments at 51. MMS also states that any effects on fish eggs and larvae would be minimized due to the proposed shunting of the discharges 25 feet below the sea surface. MMS Comments at 20.

In addition to expressing the view that there is inadequate information on the ecology of the drill site, NMFS states that "the DER fails to address adequately the concentration of marine fauna along thermal and salinity fronts and the potential consequence of oil spills and other toxic releases along these fronts." NMFS Letter.

The ESRP states that ecological information on the functioning of the Sargassum community is inadequate. See ESRP Report at 35-38. In addition, the ESRP states that what is needed is an "enhanced understanding of the processes that control the function and production of this Sargassum system." ESRP Report at 38.

Based upon a review of the information contained in the record, I find that for the purposes of this appeal, there is inadequate information on the effects of the proposed activity on near-surface and planktonic resources. While I accept the conclusions that the near surface discharges will be rapidly dispersed, given the potential ecological importance of the Sargassum community to the State's fisheries, and the presence of sensitive larval forms of the State's fisheries, I find that the potential for significant impacts is great enough to merit further study before an informed decision can be made.

#### Marine Mammals:

There are several species of cetaceans and pinnipeds which can be found in the waters off North Carolina, and which can be grouped into regularly occurring species, migratory species, and rare or unknown-occurrence species.<sup>65</sup> See Mobil Exhibit 27 at 6-24. As with many of the State's coastal resources, the range of marine mammals may include both State and Federal waters. Several species are endangered or threatened or recognized as species of undetermined status by the State and intra-scientific community. Mobil Exhibit 27 at 6-25. The record contains biological

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<sup>65</sup> In its objection letter the State indicated that it wanted information on use of the site by marine mammals, specifically identifying numbers of individuals, numbers of species, and activities by species at the site.

summaries for species of marine mammals that frequent this area. See FER at III-192 - III-222; Mobil Exhibit 18 at 47-49.

The following possible adverse effects have been disclosed in the record. Underwater noise generated by drilling activities could affect cetaceans. FER at IV-220, 225. Vessel and aircraft traffic could produce startle reactions in cetaceans. FER at IV-222. Certain wastes may produce sublethal effects on cetaceans. See FER at IV-223-224. Turbidity could affect the sight and echolocation capabilities of some marine mammals if they swim within the discharge plume. Prey species of cetaceans could be displaced and the prey-locating ability of predators could be diminished by the presence of mud particles in the water column. FER at IV-64. The FER also points out, however, that only predators in a weakened physical state would experience any effects if they were unable to move to a nearby area where prey is obtainable. FER at IV-64.

In spite of the evidence suggesting possible harassment of, and injury to, marine mammals, Federal agencies offered few other comments on the proposed project's effects on marine mammals. In particular, NMFS, the Federal agency with jurisdiction over certain marine mammals, provided few specific comments on the need for information on marine mammals. MMS concluded that the level of impacts on marine mammals is considered to be very low. FER at IV-224, 227.

After reviewing the information in the record on the effects of the proposed project on marine mammals, I find that the information is sufficient for the purposes of this appeal and that the individual and cumulative effects of the proposed project will be minimal. In assessing the risk of possible injury to the endangered and threatened marine mammal population, I note that while the extent of the harm could be related to the marine mammals' diminished numbers, the likelihood of damage will be low due to the rapid dilution of near-surface wastes and the temporary nature of the drilling activity. I find that any harassment of marine mammals is likely to be temporary. In making these findings I note that NMFS has expressed few specific concerns as to the effects of the proposed project on marine mammals.

#### Sea Turtles:

Five species of endangered or threatened sea turtles are found within the coastal and offshore marine habitats of North Carolina.<sup>66</sup> See FER at III-222 - 237; Mobil Exhibit 18 at

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<sup>66</sup> In its objection letter the State indicated that it wanted information on use of the site by sea turtles. Specifically, the State wants information on numbers of

49-52. The endangered species are the Kemp's ridley (Lepidochelys kempii), hawksbill (Eretmochelys imbricata), and leatherback turtle (Dermochelys coriacea). The green turtle (Chelonia mydas) and loggerhead turtle (Caretta caretta) are classified as threatened. FER at III-222.

Potential impacts to sea turtles include underwater noises, vessel and aircraft traffic, drilling discharges and hydrocarbon releases. See FER at IV-229-231. Juvenile green and loggerhead turtles, and possibly those of other species, could be exposed to Mobil's wastes. See EA at E-8. In addition, prey species of sea turtles could be displaced and the prey-locating ability of predators could be diminished by the presence of mud particles in the water column. FER at IV-64.

Mobil argues, however, that the proposed activity is expected to have few impacts on turtles in the area. Mobil states that the drilling would not alter natural currents and would not disrupt the Sargassum mats which provide habitat to juvenile turtles. Mobil Exhibit 18 at 51. Mobil states that sea turtles can easily avoid ships and that the turtles will be protected by NPDES permit conditions, including subsurface shunting of discharges. Id.

MMS states that due to the primarily inshore distribution of marine turtles during the proposed drilling period, the impacts of the proposed project are likely to be minimal. See FER at IV-231. Planktonic prey species such as jellyfish are unlikely to be displaced by the discharges. FER at IV-230. A temporary increase in water turbidity could, however, affect a turtle's ability to detect prey. Id. MMS based its conclusions principally on the limited areal extent and duration of the discharge plume. See EA at E-8.

Other Federal agencies offered few other comments on the proposed project's effects on sea turtles. In particular, NMFS, the Federal agency with jurisdiction over endangered sea turtles, provided few specific comments on the need for information on sea turtles.

The ESRP concludes that the ecological information on the Sargassum community as habitat for juvenile sea turtles is inadequate for all phases of oil and gas resource exploitation. See ESRP Report at 8, 37, 48. The ESRP states that "knowledge of the spatial and temporal abundance of hatchling sea turtles in the Sargassum community of the western wall of the Gulf Stream is inadequate to evaluate the risks of oil and gas activities on these endangered and threatened species." ESRP Report at 37.

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individuals, numbers of species, and activities by species at the site.

After reviewing the information in the record on the effects of the proposed project on sea turtles, however, I find that the information is sufficient for the purposes of this appeal and that the individual and cumulative effects of the proposed project will be minimal. In assessing the risk of possible damage to the endangered and threatened sea turtle population, I note that while the extent of the harm could be high to the turtles' diminished numbers, the likelihood of damage will be low because of the rapid dispersal of near surface discharges and the primarily inshore distribution of sea turtles during the drilling period. In making these findings I also note that NMFS has expressed no specific concerns as to the effects of the proposed project on endangered or threatened sea turtles.

#### Birds:

The Manteo area is used as a feeding ground by many resident and migratory species of seabirds which also frequent the State's coastal zone. The waters along the western edge of the Gulf Stream off Cape Hatteras are an important feeding area for several species. MMS indicates that the birds identified in the FER constitute an important ecological, economic, and aesthetic resource within North Carolina's coastal zone. See FER III-238. Some of the species are either endangered or threatened. The cahow (endangered) may be found on the North Carolina OCS. Mobil Exhibit 27 at 6-28. Coastal endangered and threatened species that may be present in the project area include the peregrine falcon (endangered), bald eagle (endangered), piping plover (threatened), and the roseate tern (threatened). Mobil Exhibit 27 at 6-28.

The Fish and Wildlife Service (FWS) has stated that it is concerned about the potential indirect impacts of exploratory drilling on seabirds. Memorandum from Regional Director, FWS, Atlanta, to MMS Regional Director, Atlantic OCS Region, December 22, 1989, (Attachment Four to Mobil Exhibit 18). Of particular concern to the FWS is that the only known concentration of the rare black-capped petrel (Pterodroma hasitata) at sea occurs specifically in and around the drilling site, with numbers peaking in May, August, and late December through early January. Id. The FWS also stated that black-capped petrel specimens have had high levels of mercury relative to other seabird species collected within the lease sale area. Id. The FWS recommended the establishment of a monitoring program.

In its FER, MMS identified the following possible adverse effects on birds. Birds could experience startle reactions from aircraft noise and vessel traffic. FER at IV-233. Specifically, since the bald eagle and piping plover are known to nest during the period proposed for exploration, aircraft noise between the drill site and the Michael J. Smith Field in Beaufort could cause adults to abandon the nest. FER at IV-234. MMS concluded,

however, that this possible effect is unlikely given that, on the average, there will only be two aircraft flights per day. Id. MMS also states that there is no evidence that the helicopter flights will impinge on critical feeding areas. Id. As to possible effects from drilling muds and cuttings, MMS concluded that direct contact with, or contamination by, muds and cuttings are not considered likely for the Bermuda petrel, roseate tern, or other endangered species. Id. However, prey species of marine birds could be displaced and the prey-locating ability of predators could be diminished by the presence of mud particles in the water column. FER at IV-64.

Based on the evidence in the record, I find that for the purposes of this appeal there is adequate information on the possible effects of Mobil's proposed activity on birds, an important ecological, economic, and aesthetic resource within North Carolina's coastal zone. In considering the risk of potential impacts upon birds, I find that the individual and cumulative impacts of Mobil's proposed activity on birds will be minimal. In particular, I note that while the impacts on endangered or threatened species could be great given their diminished numbers, the likelihood of impacts will be small given the nature and duration of possible impacts.

#### Air Quality

Activities associated with the drilling activity at the time of Mobil's waste discharges will emit air pollutants. See FER at IV-205. Upon reviewing the information in the record, however, I find that the information is adequate for me to conclude that there will not be any significant impacts (including cumulative impacts) on the State's air quality.

#### Water Quality

Mobil's proposed activity will have individual and cumulative effects on water quality near the drill site. Mobil claims, however, that its discharge activity would satisfy North Carolina's water quality criteria within 100 meters from the point of discharge, and that there would be no impact on the water quality of the State's coastal zone. Mobil's Initial Brief at 44; Mobil's Final Brief at 32. The State disputes Mobil's claims on water quality. J. Trevor Clements of the State DEM found that Mobil's Water Quality Table incorrectly lists five State Water Quality Concentration Limits. The State also argues that the Water Quality Table calculations are inadequate. State's Final Brief at 18. Furthermore, the State also points to the EPA draft 403(c) report to indicate that there are projected to be five violations of the State's water quality standards during Mobil's proposed final mud dump event.

MMS states that the effect of drilling discharges on offshore water quality has been the subject of numerous field monitoring programs. MMS Comments at 13. MMS states that the expected effects of drilling effluent on water quality are short-term, minor, and that water quality parameters are anticipated to return to background concentrations within a few hundred meters of the point of discharge. MMS Comments at 15. MMS predicts that there will be no impact on water quality of the State's coastal zone. Other agencies offered few specific comments on the proposed project's effects on water quality.

Upon reviewing the information in the record, I find that the information is adequate for me to conclude that there will be no significant impacts (including cumulative impacts) on the State's water quality, given the location of the activity and the dynamic current regime.

### Socioeconomic Effects

Having previously considered the effects of the proposed project on the resources of the coastal zone which in turn affect the coastal uses,<sup>67</sup> in this section I will focus on other possible adverse effects of the proposed project on uses of the State's coastal zone.<sup>68</sup> Important economic activities in the State's coastal zone include agriculture, tourism, recreation, forestry, and commercial fishing. FER at III-313-315.

The primary coastal use at issue in this case is the commercial and recreational fishing industry.<sup>69</sup> The proposed exploration area contains important concentrations of epipelagic, bluewater

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<sup>67</sup> Natural resource damage valuation is based in part on the value of the uses of those resources. See, e.g., Oil Pollution Act § 1006(d), 33 U.S.C. § 2706(d).

<sup>68</sup> The MMS states that North Carolinians living in eastern North Carolina in general have "fewer job opportunities, greater unemployment, higher levels of dependency, and lower incomes than North Carolinians living elsewhere in the State." FER at III-297. I will consider these comments when assessing the extent to which Mobil's proposed project furthers the national interest in economic development.

<sup>69</sup> The fourth part of the State's proposed study would be documentation of the commercial and recreational fishing in the vicinity of the drill site and The Point. This part of the study would be accomplished by surveying commercial and recreational fishermen on specific days upon returning to various ports in North Carolina. The information obtained, along with some field data, would be used to document the importance of the area as a fishery.

fish and The Point is one of the most productive offshore fishing grounds along the east coast. See FER at III-83. Over the year, The Point is the most frequently and intensively fished area by the Oregon Inlet charter boats, private recreational and commercial bluewater fleet. The area's reputation for large blue marlin has prompted several local billfish tournaments. The fishing industry may be affected by space use conflicts, both from drillship activities and increased vessel traffic.<sup>70</sup> The drillship will be in place for approximately 114 days between May and October. This time period coincides with much of the fishing season. FER at IV-217. During this time period there could be as many as 100-125 boats engaged in fishing near The Point and the drill site.<sup>71</sup>

In commenting on this appeal, Federal agencies differed in their assessment of the potential effects on the fishing industry. MMS concludes that impacts on the fishing industry are expected to be low. FER at IV-219. MMS stated that interference from the placement of drillship anchors would be minimized by the placement of surface buoys and a notice to mariners. MMS Comments at 38. MMS also concluded in its FER that interference from support vessel traffic would be minimal. See FER at IV-242-243.

I agree that the space use impacts will be temporary in that they are scheduled to last for about 114 days. There is unrefuted evidence that the fishing industry seasonally concentrates near the drill site, however, indicating that there will be a high likelihood of impacts. I find, however, that the potential extent of those space use impacts will be minor given that Mobil plans to drill only one exploratory well. In evaluating the information in the record, I therefore find that the information is adequate for me to conclude that the space use impacts upon the fishing industry will be minor.

The ESRP concludes that, in general, socioeconomic is the most neglected area in the primary documents dealing with exploratory drilling at the Manteo site. See ESRP Report at 58. The ESRP made a number of general comments on the inadequacy of existing socioeconomic information. See ESRP Report at 59-60. Furthermore, the ESRP recommends that a base case characterization analysis, community studies, studies on aesthetic and perceptual issues, studies on infrastructure, and a socioeconomic monitoring study should be initiated as soon as possible, especially since these studies were not done at the leasing phase. See ESRP Report at 61-63.

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<sup>70</sup> See also discussion, supra at 24.

<sup>71</sup> Testimony of John Bayless, Oregon Inlet Sportfishing Guides Association (State Exhibit 26-A).

Upon reviewing the information in the record of this appeal, I am unable to adequately identify the extent of the individual and cumulative adverse socioeconomic effects resulting from Mobil's proposed activity. Given that this is a frontier area and an area of rich natural resources upon which the State heavily depends, socioeconomic impacts must be more fully addressed.

#### Conclusion on Adverse Effects

I have evaluated the information in the record on adverse effects of Mobil's proposed drilling discharges on the natural resources and uses of the State's coastal zone. I found that the planned drilling discharges will have adverse effects on the resources and uses of the State's coastal zone. In particular, I found that the proposed discharges will affect the benthic environment, which is linked to the State's fisheries. Moreover, based on a review of the record, I have identified informational concerns sufficient that I am unable to adequately assess the risk of impacts of Mobil's proposed activity, and so, I am unable to adequately identify the individual and cumulative adverse effects of Mobil's proposed activity.

I note that the NRC stated in its 1989 report that "[t]he basic information needed to make a leasing decision anywhere includes a characterization of the environment, identification of the biological resources at risk, and a basic understanding of ecological relationships." NRC 1989 Report at 5. Even at this post-leasing stage, I find that Mobil has not adequately documented the biological resources or ecological relationships at risk. While the overall likelihood of impacts may be low, to say that the models of a worst case scenario obviate the need to understand any ecological relationships between the State's fish resources and the Sargassum or benthic communities is too facile an explanation for me to accept, given that the potential extent of impacts may be high.

Furthermore, the 1989 NRC report indicates that where unique habitats and endangered and rare species exist, more extensive characterization of the sensitivity of biota to OCS-related activities, characterization of recovery rates, and identification of mitigating measures is needed. NRC 1989 Report at 5. I am persuaded that the biological resources of the drill site area are sufficiently rich and unique to merit further investigation. I am also persuaded that the fisheries located at the site are an important part of the State's coastal zone, and that there may be potential risks of contamination of sensitive fish larvae. I find that Mobil has not adequately accounted for the effects of reasonably foreseeable effects resulting from increased currents or adverse weather conditions. I am persuaded that the ecological relationship of the benthic environment to the State's fisheries must be further assessed in order to adequately evaluate the risk of impact of Mobil's proposed

activities. Finally, I find that Mobil has not adequately assessed the risk of its impacts on the socioeconomic uses of the State's coastal zone.

**b. Contribution to the National Interest**

The national interests to be balanced in Element 2 are limited to those recognized in or defined by the objectives or purposes of the CZMA. See Korea Drilling Decision at 16. Since our national interests are not static, however, the Secretary has noted that there are several ways to determine the national interest in a proposed project, including seeking the views of Federal agencies, examining Federal laws and policy statements from the President and Federal agencies, and reviewing plans, reports and studies issued by the Federal agencies. See Decision and Findings in the Consistency Appeal of Union Oil Company of California, (Union Decision), November 9, 1984, at 15. These sources of information can assist the Secretary in determining the current national interest in a proposed project.

**I conclude that the national interest contribution of Mobil's proposed drilling discharges is minimal.**

Energy self-sufficiency through oil and gas production is a recognized goal of the CZMA and the Secretary has previously held that it furthers the national interest under this Element. See Exxon SRU Decision at 11. Moreover, the record of this appeal indicates that energy self-sufficiency continues to be in the national interest. Of those Federal agencies that commented on the issue of the national interest in the Appellant's proposed activity, most expressed support for domestic energy projects. The DOI states that "[s]uch an important discovery, as the Manteo Prospect may represent, is an essential component in maintaining our self-sufficiency in clean burning, environmentally safe natural gas." DOI Comments. In § 6003 of the Oil Pollution Act of 1990, however, Congress found that the Outer Banks is an area of "exceptional environmental fragility and beauty" and that there are concerns about the adequacy of the scientific and technical information underlying oil and gas exploration decisions in this area. See 33 U.S.C. § 2753(b). Based upon a review of the record, I find that there is a national interest in the informed exploration for natural gas resources at this site. Potential risks must be fully evaluated.

The State argues, however, that the national interest issue is limited by the scope of the activity, and that Mobil's drilling proposal is not the subject of this appeal. State's Initial Brief at 6-7. I agree. However, Mobil's proposed discharges are a part of Mobil's drilling proposal, and a portion of the national interest contribution of the proposed one-well OCS exploration can be imputed to Mobil's proposed drilling discharges.

In order to perform the required balancing for Element 2, I must also identify the extent of the activity's contribution to the national interest. To identify the extent of the national interest contribution of Mobil's one-well drilling proposal, in this case, I will consider the potential size and likelihood of natural gas recovery as well as the degree to which the proposal is based on informed decision-making, such that potential risks have been fully evaluated.<sup>72</sup> As evidenced by comments from MMS and the DOI, exploration could result in the recovery of five trillion cubic feet of natural gas.<sup>73</sup> I find that there is a potential for a large discovery.<sup>74</sup> The State requests that I consider the lack of in-place infrastructure when taking into consideration the probability that natural gas can be recovered at the site. State's Final Brief at 46. Given that I have found that if natural gas is discovered it will probably be in a large amount, I find that the size of the discovery will outweigh the costs of bringing the natural gas to market. As to the likelihood of a natural gas discovery, in its comments on this appeal, MMS has stated:

Without a discharge permit, even drilling a single exploratory well on the Manteo Prospect, with estimates of hydrocarbon resources as great as 1 billion barrels of oil equivalent in the form of 5 trillion cubic feet (tcf) of natural gas, would have to be questioned given that the chance of encountering hydrocarbons is only 10 percent or less. (Emphasis added.)

MMS Comments at 8. Accordingly, there is a 90 percent chance that no hydrocarbons will be found, a small likelihood of discovery.

Informed exploration is in the national interest, however, even if there is no discovery of hydrocarbons.<sup>75</sup> In this case,

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<sup>72</sup> The parameters influencing contribution to the national interest will depend on the facts of each case.

<sup>73</sup> MMS geologists characterize the five trillion cubic feet estimate as optimistic. FER at II-6.

<sup>74</sup> While the estimated potential hydrocarbon reserve would be found under approximately 21 lease blocks, Mobil's POE covers only one well in one lease block. See Mobil's Initial Brief at 8; Mobil's POE, vol. 1 at A1-4, A1-9. The MMS states that production of five trillion cubic feet of natural gas would involve the drilling of approximately 103 wells. FER at IV-13.

<sup>75</sup> Whether or not gas will be discovered, the exploration itself furthers the national interest by ascertaining information on available hydrocarbon reserves. See Texaco Decision at 30-31;

pursuant to § 6003 of the Oil Pollution Act in which Congress noted the importance of informed decision-making in this area, the ESRP concluded that adequate information is lacking for even an informed leasing decision, let alone an informed decision to explore. I therefore find that Mobil's drilling proposal contributes less to the national interest because it contains informational deficiencies as identified by the ESRP.

Above, I found that the potential size of the discovery is large. However, there is a 90 percent chance that no hydrocarbons will be discovered at the site and that Mobil's drilling proposal contributes less to the national interest because it contains informational deficiencies as identified by the ESRP. Based upon a review of the record, I find that Mobil's proposed one-well OCS exploration would make a minor contribution to the national interest.

The activity at issue in this case, however, is Mobil's proposed discharges. Based upon a review of the record, I find that the proposed discharges are a small part of Mobil's overall one-well exploration activity at Manteo Area Block 467, and that these discharges contribute proportionately less to the national interest than does Mobil's drilling proposal. In considering these factors I now find that Mobil's proposed discharges contribute minimally to the national interest.

### c. Balancing

I have evaluated the information in the record on adverse effects of Mobil's proposed drilling discharges on the natural resources and uses of the State's coastal zone. I found that the planned drilling discharges will have adverse effects on the resources and uses of the State's coastal zone. In particular, I found that the proposed discharges will affect the benthic environment, which is linked to the State's fisheries. Moreover, based on a review of the record, I have identified informational concerns sufficient that I am unable to adequately assess the risk of impacts of Mobil's proposed activity, and so, I am unable to adequately identify the individual and cumulative adverse effects of Mobil's proposed activity.

I have evaluated the information in the record on the contribution of the proposed activity to the national interest. I found that the proposed discharges contribute to the national interest by furthering Mobil's one-well exploration plan. I found, however, that the national interest contribution of Mobil's proposed drilling discharges is minimal.

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Amoco Decision at 45.

Because I cannot adequately identify the extent of the individual and cumulative adverse effects of the proposed activity, I am unable to perform the required balancing of the adverse effects against the contribution to the national interest. Consequently, I cannot find that the national interest benefits of Mobil's proposed activity outweigh the proposed activity's adverse effects on the State's coastal resources and uses.

3. Element 3: Activity Will Not Violate The Clean Water Act or the Clean Air Act

To satisfy the third Element of Ground I, I must find that "[t]he activity will not violate any of the requirements of the Clean Air Act, as amended, or the Federal Water Pollution Control Act, as amended." 15 C.F.R. § 930.121(c). The requirements of the Clean Air Act and the Federal Water Pollution Control Act are incorporated into all State coastal programs approved under the CZMA § 307(f). I conclude that the activity meets the requirements of the Clean Water Act and the Clean Air Act, and therefore satisfies Element 3 of Ground I.

a. Clean Water Act

Sections 301(a) and 402 of the Federal Water Pollution Control Act (Clean Water Act or CWA), 33 U.S.C. §§ 1311(a) and 1342, provide that the discharge of pollutants is unlawful except in accordance with an NPDES permit issued by the EPA. Mobil submitted its application for an NPDES permit to the EPA on August 18, 1989.

EPA must prescribe appropriate terms and conditions in an NPDES permit for discharges associated with OCS activities. In its comments on this appeal, EPA stated:

Compliance with all conditions of the NPDES permit, if consistency is resolved and the permit issued, would meet the requirements of the Clean Water Act applicable to point source discharges. Therefore, assuming that Mobil will not discharge until they have obtained a permit, the project will not be in violation of the Clean Water Act, as amended.

EPA Comments. EPA has confirmed in its comments in earlier override appeals that an OCS facility operated in compliance with an NPDES permit would satisfy the requirements of the CWA. See, e.g., Korea Drilling Decision at 10. Conversely, a project not operating in compliance with the terms of an NPDES permit would not meet the requirements of the CWA applicable to point source discharges.

In spite of Mobil's statements to the contrary,<sup>76</sup> Mobil cannot lawfully conduct its proposed activity without meeting the terms and conditions of an NPDES permit, thus meeting the standards of the Clean Water Act. Therefore, I find that Mobil's proposed activity will not violate the requirements of the Clean Water Act.

**b. Clean Air Act**

Sections 108 and 109 of the Clean Air Act, as amended (CAA), 42 U.S.C. §§ 7408 and 7409, direct the EPA to prescribe national ambient air quality standards (NAAQS) for air pollutants to protect the public health and welfare. Pursuant to CAA § 110, 42 U.S.C. § 7410, each state in turn is required to develop and enforce an implementation and enforcement plan for attaining and maintaining the NAAQS for the air mass located over the state.

Mobil states that due to the distance of the drill site from the nearest land, the onshore effects of drilling emissions are negligible, and that emissions from both the onshore and offshore facilities are estimated in accordance with EPA standards and guidelines.<sup>77</sup> Mobil's Initial Brief at 46; Mobil's Final Brief at 38. The State has commented that "[s]ince Clean Air Act issues have not been raised in this appeal, the Secretary's attention should be devoted to whether Mobil has established in the record that its proposed drilling discharges will not violate any requirements of the Clean Water Act." State's Initial Brief at 35. In its comments on this appeal, EPA states that the onshore impact would not violate any current requirements set under the Clean Air Act.<sup>78</sup> Based upon a review of the record, I find that Mobil's proposed marine discharge activities under an NPDES permit will not violate the CAA.

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<sup>76</sup> Mobil has stated that the proposed cadmium and mercury limits would present serious compliance problems, and that these limits cannot be consistently achieved. See Mobil Exhibit 18 at 58.

<sup>77</sup> 30 C.F.R. § 250.33(a). Total estimated emissions from both the onshore and offshore facilities fall below the calculated regulatory exemption levels set forth in 30 C.F.R. § 250.45. Mobil's POE, vol. 1 at B19-1 - B19-6.

<sup>78</sup> Letter from Richard E. Sanderson, Director, Office of Federal Activities, Environmental Protection Agency, to Gray Castle, Deputy Under Secretary for Oceans and Atmosphere, Department of Commerce, December 14, 1990 (EPA Comments).

4. Element 4: No Reasonable, Consistent Alternatives Available

To meet the requirements of the fourth Element of Ground I, I must find that "[t]here is no reasonable alternative available (e.g., location, design, etc.) which would permit the activity to be conducted in a manner consistent with the [state's coastal] management program." 15 C.F.R. § 930.121(d). For state objections based on 15 C.F.R. § 930.64(b), the fourth Element of Ground I is usually decided by evaluating the alternative(s) proposed by a state in the consistency objection. See Chevron Decision at 58; LILCO Decision at 16. In this case, however, the State's objection to Mobil's proposed drilling discharges is based on a lack of information necessary to determine the consistency of the activity. See 15 C.F.R. §§ 930.64(d).

I find that there is no reasonable, available alternative to Mobil's proposed drilling discharges which would permit Mobil to conduct the activity in a manner consistent with the State's coastal management program.

In terms of alternatives, § 930.64(d) imposes different requirements upon a state than does § 930.64(b)(2). Under § 930.64(d) "the objection must describe the nature of the information requested and the necessity of having such information to determine the consistency of the activity with the management program."<sup>79</sup> Unlike § 930.64(b)(2), § 930.64(d) does not require a state to describe in its objection "alternative measures (if they exist) which, if adopted by the applicant, would permit the proposed activity to be conducted in a manner consistent with the management program." If a state lacks information necessary to assess a proposed activity, it would likely lack information necessary to assess possible alternatives to an activity.

Nevertheless, in this case the State indicated in its objection letter that the only alternative available is for Mobil to provide the information needs identified in the proposed four-part fisheries study. State Objection Letter. The State continued: "Should Mobil subsequently provide the required information, the State will then be in a position to review the proposed activity to determine whether it may be conducted in a

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<sup>79</sup> Section 930.64(d) does not require the Appellant to first gather information on reasonable alternatives for presentation to the State for a probable consistency determination, as suggested by the State. See State's Initial Brief at 38. It would be incongruous to require an Appellant to provide evidence of a reasonable alternative to a State, only to require the Appellant, on appeal, to prove the unreasonableness of the alternative.

manner consistent with North Carolina's Coastal Management Program." State Objection Letter. Since the information is allegedly necessary to a consistency determination, however, the State cannot determine the probable consistency of the activity prior to the submission of the information by Mobil. I find that the State's suggested alternative of a four-part fisheries study is not a reasonable alternative available which would permit the activity to be conducted in a manner consistent with the State's coastal management program because there is no indication by the State of the probable consistency of Mobil's proposed activity upon submission of the additional information. See also Chevron Decision at 51.

In reviewing the record of this appeal, I have identified two possible alternatives that may be reasonable and available. First, in its briefing for the appeal the State argues that a no-discharge NPDES permit is a reasonable alternative that could allow exploratory drilling to go forward while additional information is gathered through monitoring studies. State's Initial Brief at 39. The State asserts, however, that the consistency of this alternative would depend on identification of a suitable disposal site. State's Initial Brief at 39. The barging proposal therefore fails to qualify as an alternative because the State does not indicate whether barging would probably be consistent with the State's CMP since the proposal's consistency is dependent upon identification of a suitable disposal site. Second, the State makes a reference in its initial brief to possible relocation of Mobil's drilling site. State's Initial Brief at 39. The State claims, however, that "without additional information on the biological resources located in other potential discharge areas, acceptable alternative sites cannot presently be properly evaluated." State's Initial Brief at 39. The possible relocation of Mobil's drilling site fails to qualify as an alternative for two reasons. First, the description is too general in nature since the State did not identify the location of an alternative site. See Texaco Decision at 36; Korea Drilling Decision at 24. Second, the State does not indicate whether an alternative site would probably allow Mobil to conduct drilling discharges consistent with the State's CMP.

The record for this appeal discloses no reasonable, available alternatives. If such alternatives existed, the State would likely offer them even though not required to do so for objections made pursuant to 15 C.F.R § 930.64(d). Element 4 requires that alternatives be consistent with state CMPs, and a state is in the best position to evaluate the consistency of a possible alternative. Therefore, based on the record before me, I find that there is no reasonable, available alternative to Mobil's proposed drilling discharges which would permit Mobil to conduct the activity in a manner consistent with the State's coastal management program.

## Conclusion for Ground I

Based on the findings above, I find that Mobil has not satisfied the second Element of Ground I. Therefore, Mobil's proposed drilling discharge activity is not consistent with the objectives or purposes of the CZMA.

### B. Ground II: Necessary in the Interest of National Security

I conclude that the proposed activity is not necessary in the interest of national security.

The second statutory ground for an override of a state's objection to a proposed activity is based on a finding that an activity is necessary in the interest of national security. To make this determination I must find that "a national defense or other national security interest would be significantly impaired if the activity were not permitted to go forward as proposed." 15 C.F.R. § 930.122.

Again, it is important to identify the scope of the activity; it is the discharge of drilling wastes, a part of Mobil's proposed one-well OCS exploration for natural gas. As with the contribution to national interest, part of the contribution of Mobil's OCS gas exploration to the national security can be imputed to Mobil's proposed drilling discharges.

Mobil asserts that decreased reliance on oil imports contributes to the national defense and national security and that exploration is a necessary step in the development of new domestic reserves. Additionally, Mobil contends that there are few large oil and gas reserves to be found,<sup>80</sup> and that the size of the potential natural gas reserve in this area would make its explor-

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<sup>80</sup> I agree with Mobil that our nation's security interests are not static. See Mobil's Initial Brief at 65. I note, however, that our nation's concern for energy independence from foreign sources of oil has been longstanding, as exemplified by President Nixon's announcement on November 7, 1973, of "Project Independence." See 9 Compilation of Presidential Documents 1309 (1973), cited in State of Alaska v. Andrus, 580 F.2d 465, 467 n.1 (D.C. Cir.), vacated in part sub nom, Western Oil & Gas Assoc. v. State of Alaska, 439 U.S. 922 (1978). Moreover, the Secretary has previously held that the size of oil and gas reserves is not determinative of whether the requirements of this ground are met. The degree of importance the Secretary assigns the size of oil and gas reserves in deciding whether interests are significantly impaired depends on the facts of the case. Chevron Decision at 71.

ation important for national security reasons. Mobil's Final Brief at 62.

In order to decide this ground, I will give considerable weight to the views of the Department of Defense (DOD) and other Federal agencies. 15 C.F.R. § 930.122. In soliciting the views of several Federal agencies, the Deputy Under Secretary asked those agencies to identify any national defense or other national security objectives directly supported by Mobil's drilling discharge activities, and to indicate which of the identified national defense or other national security interests would be significantly impaired if Mobil's activity were not allowed to go forward as proposed.

The DOD responded by stating that even if five trillion cubic feet of natural gas are found,

it is not possible to establish a direct impact on the Department of Defense (DoD) (Ground II) from a natural gas exploration project. Therefore, DoD is unable to identify a basis for a determination that the national defense or national security interest would be significantly impaired if the proposed consistency certification were not granted.<sup>81</sup>

Mobil discounts the DOD comments by stating that DOD misunderstood the grounds for a Secretarial override. Mobil's Final Brief at 57, n.60. Nevertheless, I interpret DOD's comments to mean that in the opinion of DOD, national security interests would not be significantly impaired if the project were not allowed to go forward as proposed.

Other Federal agencies support the general proposition that OCS exploration contributes to national security interests. The DOE stated that "[p]roducible oil and gas reserves in the Atlantic Outer Continental Shelf (OCS) can help this country replace imports, thereby meeting both energy and economic security and national defense goals. However, when environmentally benign exploitation such as that proposed by Mobil is blocked, this option is lost." DOE Comments. The DOE continues:

Neither our domestic nor foreign policy should be subject to the availability of imported oil especially when the opportunity exists to develop domestic natural gas resources that can replace important [sic] oil. Consequently, we believe that this project is necessary

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<sup>81</sup> Letter from Diane K. Morales, Deputy Assistant Secretary (Logistics), Department of Defense, to Gray Castle, Deputy Under Secretary for Oceans and Atmosphere, Department of Commerce, November 27, 1990.

in the interest of national security.

Id. The NSC stated that it is in the national security interest to increase domestic oil production where such production is economic and consistent with environmental procedures.<sup>82</sup> The Department of the Treasury recognizes significant benefits to national security from domestic energy resources.<sup>83</sup> The DOI states that there is a direct relationship between national security and the success of the Federal program to develop offshore energy resources. DOI Comments. I find that none of these comments specifically address how these interests would be "significantly impaired" if Mobil's proposed marine discharge of drilling wastes is not allowed to proceed "as proposed."

MMS commented, however, that denial of an NPDES permit application for Mobil's proposed drilling discharges "could well foreclose any possibility of future oil and gas exploration in frontier areas of the OCS." MMS Comments at 63; see also MMS Comments at 9. MMS also commented:

Prohibition of the proposed activity would result in a direct and significant impairment of the potential for discovery of a natural gas field of such magnitude that national security and defense concerns could be significantly compromised.

MMS Comments at 65 (emphasis in original). I decline to give much weight to MMS' comment on significant impairment, however, because its comment appears to be based on speculation that denial of this NPDES permit application could well foreclose any possibility of future oil and gas exploration in frontier areas of the OCS. The record of this appeal does not disclose that this case is a referendum on future oil and gas exploration in frontier areas of the OCS.

### Conclusion for Ground II

Since Mobil's proposed discharges are a part of Mobil's proposed one-well exploration, a portion of the national security value of the exploration may be imputed to the discharges. However, I find that the comments of the Federal agencies fail to persuade me that a national defense or other national security interest

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<sup>82</sup> Memorandum from William F. Sittmann, Executive Secretary, National Security Council, to Michael P. Skarzynski, Chief of Staff, Department of Commerce, December 11, 1990.

<sup>83</sup> Letter from Bruce R. Bartlett, Deputy Assistant Secretary, Office of Economic Policy, Department of the Treasury, to Gray Castle, Deputy Under Secretary for Oceans and Atmosphere, Department of Commerce, November 13, 1990.

would be significantly impaired if Mobil were not permitted to discharge its wastes as proposed. Therefore, based on the record before me, I now find that the requirements for Ground II have not been met.

V. CONCLUSION AND SECRETARIAL DECISION

I have found that Mobil's proposed discharges of drilling wastes are neither consistent with the objectives of the CZMA nor necessary in the interests of national security. Accordingly, I decline to override North Carolina's objection to Mobil's proposed discharges of drilling wastes.

  
for Ronald H. Brown  
Secretary of Commerce

September 2, 1994