

## VOLUME II:

# FEDERAL LAW and EXECUTIVE ORDERS THAT CAN AFFECT THE LEGALITY OF CABLES LAID OVER OR NEAR CORAL REEFS

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### **Background: The United States' Coral Reef Resources**

Coral reefs are a significant component of U.S. marine resources. Over 90% of U.S. coral reefs, which cover a total of 6500 square miles (or approximately 4.2 million acres<sup>1</sup>), are found in the United States' Western Pacific island states and territories, such as Hawaii, Guam, and American Samoa.<sup>2</sup> The rest are "located off Florida, Texas, and U.S. islands in the Caribbean."<sup>3</sup>

A variety of Federal statutes and Executive Orders could potentially influence the laying of communications cables across coral reefs within the United States' jurisdiction. A summary of those law and orders follows.

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<sup>1</sup> United States Coral Reef Task Force, "The Department of the Interior and Coral Reefs," *U.S. Department of the Interior: Protecting the Nations Coral Reefs* (last visited June 4, 2002), <<http://coralreef.gov/doi.cfm>>.

<sup>2</sup> NOAA, *What are Coral Reefs – And Why Are They in Peril?* (Dec. 3, 2001), <<http://www.noaanews.noaa.gov/magazine/stories/mag7.htm>>.

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

## National Environmental Policy Act (NEPA)

### *Purpose, Policies and Requirements of NEPA*

The purposes of the National Environmental Policy Act (NEPA)<sup>4</sup> are “[t]o declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; [and] to enrich the understanding of the ecological systems and natural resources important to the Nation . . . .”<sup>5</sup> Congress enacted NEPA in recognition of “the profound impact of man’s activity on the interrelations of all components of the natural environment” and “the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man . . . .”<sup>6</sup> NEPA makes it the policy of the United States that “the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures . . . to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.”<sup>7</sup>

NEPA imposes six general duties on Federal agencies. “It is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may:”

- (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

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<sup>4</sup> 42 U.S.C. §§ 4321-4370e (2000).

<sup>5</sup> *Id.* § 4321.

<sup>6</sup> *Id.* § 4331(a).

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

- (2) assure for all Americans a safe, healthful, productive, and esthetically and culturally pleasing surroundings;
- (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable or unintended consequences;
- (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environmental which supports diversity and variety of individual choice;
- (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
- (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.<sup>8</sup>

In addition, NEPA imposes a procedural/analytical requirement on Federal agencies. Federal agencies must “include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment” an environmental impact statement (EIS).<sup>9</sup> This EIS must discuss:

- (i) the environmental impact of the proposed action,
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
- (iii) alternatives to the proposed action,
- (iv) the relationship between local short-term uses of man's environment and maintenance and enhancement of long-term productivity, and

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<sup>8</sup> *Id.* § 4331(b).

<sup>9</sup> *Id.* § 4332(2)(C).

- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.<sup>10</sup>

Moreover, the EIS requirement – unlike most Federal agency responsibilities under NEPA – is enforceable in Federal court through the judicial review provisions of the Federal Administrative Procedures Act (APA).<sup>11</sup>

#### *Applicability of NEPA*

NEPA applies whenever a Federal agency engages in a “major Federal action” that could “significantly affect the quality of the human environment.”<sup>12</sup> Under the Council on Environmental Quality’s (CEQ’s) regulations to implement NEPA, a “major Federal action” explicitly includes “[a]doption of official policy, such as rules, regulations, and interpretations” and “[a]pproval of specific projects,” including “actions approved by permit or other regulatory decision . . . .”<sup>13</sup> Thus, any time a Federal agency such as the FCC adopts new regulations regarding the laying of telecommunications cables across coral reefs or issues a permit allowing such cables, the FCC is subject to NEPA. Failure to comply with NEPA, moreover, is grounds for enjoining the regulations or permit.

Less clearly, NEPA can also apply when a Federal agency such as the FCC merely funds a private project.<sup>14</sup> For funding to qualify as a major Federal action, however, the Federal agency must retain some control over the use of the funds.<sup>15</sup>

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<sup>10</sup>

*Id.*

<sup>11</sup>

5 U.S.C. §§ 701-706 (2000).

<sup>12</sup>

42 U.S.C. § 4332(2)(C).

<sup>13</sup>

40 C.F.R. § 1508.18(b)(1), (4) (2001).

<sup>14</sup>

See *id.* § 1508.18(a) (noting that major Federal actions can include “projects and programs entirely or partly financed [or] assisted” by Federal agencies).

<sup>15</sup>

*Id.*

Thus, if the FCC controls a grant program and telecommunications companies use that grant money to lay cables over coral reefs, NEPA will apply.

*President Bush's Proposal to Limit NEPA's Applicability in the Oceans*

President George W. Bush has recently proposed that Congress limit NEPA's applicability in the ocean. Specifically, President Bush interprets NEPA as not applying to federal activities in certain "extraterritorial waters" of the ocean. Depending on context, the Bush Administration has suggested that these "extraterritorial waters" begin either three miles (based on the Submerged Lands Act) or 12 miles (based on international standards for a territorial sea) from shore.

Because coral reefs tend to grow relatively close to shore, President Bush's proposal would not eliminate NEPA's relevance to all coral reefs, especially when telecommunications companies seek permits to lay cables close to shore. For cables laid outside the three-mile limit, however, President Bush's proposal could eliminate NEPA's relevance.

In a recent case in the U.S. District Court for the Western District of California, the Bush Administration lost its argument for limited application of NEPA in the oceans. In *Natural Resources Defense Council v. United States Department of the Navy*,<sup>16</sup> several environmental organizations sought to enjoin active sonar tests and other activities pursuant to the Littoral Warfare Advanced Development Program that could adversely affect marine wildlife until the U.S. Navy complied with NEPA.<sup>17</sup> The federal government argued that NEPA did not apply more than three miles out to sea because

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<sup>16</sup> Order on Cross Motions for Summary Judgment, *Natural Resources Defense Council v. U.S. Department of the Navy*, CV-01-07781 CAS (RZx) (W.D. Ca. Sept. 17, 2002) (slip opinion).

<sup>17</sup> *Id.* at 1-2.

such waters are outside of the United States' territory.<sup>18</sup> Unpersuaded, the Western District of California concluded that “[b]ecause the United States exercises substantial legislative control of the EEZ in the area of the environment stemming from its ‘sovereign rights’ for the purposes of conserving and managing natural resources, . . . NEPA applies to federal actions which may affect the environment in the EEZ.”<sup>19</sup>

While the Western District of California would thus apply NEPA to Federal projects throughout the United States' 200-mile-wide EEZ, more litigation on this issue is possible, and more conservative courts could decide to limit NEPA. Prior case law was split concerning the extraterritorial application of NEPA.<sup>20</sup> However, as the Western District of California recognized, strong arguments exist under domestic and international law that none of the EEZ is truly “extraterritorial,” particularly with respect to environmental issues.

### **Statutes and Executive Orders Specifically Addressing Coral Reefs**

#### *Executive Order No. 13089 and the Coral Reef Task Force*

**Purposes and provisions.** In 1998, President Clinton issued Executive Order No. 13089 on Coral Reef Protection.<sup>21</sup> The purpose of the order was “to preserve and

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<sup>18</sup> *Id.* at 15.

<sup>19</sup> *Id.* at 21.

<sup>20</sup> *Compare* Environmental Defense Fund, Inc. v. Massey, 986 F.2d 538, 536 (D.C. Cir. 1994) (holding that NEPA applied to a Federal waste disposal facility in Antarctica), *with* Natural Resources Defense Council, Inc. v. Nuclear Regulatory Comm’n, 647 F.2d 1345 (D.C. Cir. 1981) (holding that NEPA does not apply to a federal decision to export a nuclear reactor to the Philippines); NEPA Coalition of Japan v. Aspin, 837 F. Supp. 466 (D.D.C. 1993) (holding that NEPA does not apply to the actions of military bases in Japan); Greenpeace USA v. Store, 748 F. Supp. 749 (D. Hawaii 1990) (holding that NEPA does not apply to removal of munitions from and transportation of those munitions within Germany).

<sup>21</sup> Exec. Order No. 13089: Coral Reef Protection, 63 Fed. Reg. 32,701 (June 11, 1998). For a more thorough discussion of the 1998 Exec. Order, the Coral Reef Task Force, and the contents of the action plan, as well as the legal limitations of relying on Exec. orders to provide lasting environmental protection, see generally Robin Kundis Craig, *supra* note 190. In addition, the Coral Reef Task Force has a web site:

protect the biodiversity, health, heritage, and social and economic value of U.S. coral reef ecosystems and the marine environment . . . .”<sup>22</sup> The order defines “U.S. coral reef ecosystems” to be “those species, habitats, and other natural resources associated with coral reefs in all maritime areas and zones subject to the jurisdiction or control of the United States (e.g., Federal, State, territorial, or commonwealth waters), including reef systems in the south Atlantic, Caribbean, Gulf of Mexico, and Pacific Ocean.”<sup>23</sup> The order is thus comprehensive, extending protection to coral reefs regardless of internal jurisdictional boundaries or location of the reefs.

The Coral Reef Protection Executive Order makes Federal agencies directly responsible for protecting coral reefs. It requires that such agencies to “(a) identify their actions that may affect U.S. coral reef ecosystems; (b) utilize their programs and authorities to protect and enhance the conditions of such ecosystems; and (c) to the extent permitted by law, ensure that any actions they authorize, fund, or carry out will not degrade the conditions of such ecosystems.”<sup>24</sup> Thus, federal agencies are charged with both a negative duty to prevent harm and a positive duty to actually improve coral reef ecosystems. To aid in these efforts, the executive order also requires Federal agencies to “research, monitor, manage, and restore affected ecosystems” and to implement measures designed to, among other things, “reduce[] impacts from pollution, sedimentation, and fishing.”<sup>25</sup>

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<<http://coralreef.gov>>.

<sup>22</sup> Exec. Order No. 13089: Coral Reef Protection, 63 Fed. Reg. 32,701, 32,701 (June 11, 1998).

<sup>23</sup> *Id.* § 1(a), 63 Fed. Reg. at 32,701.

<sup>24</sup> *Id.* § 2(a), 63 Fed. Reg. at 32,701. Exceptions are allowed only in times of war, for purposes of national security, during emergencies, or when human lives or vessels are threatened by weather or other acts of God. *Id.* § 2(b), 63 Fed. Reg. at 32,701.

<sup>25</sup> *Id.* § 3, 63 Fed. Reg. at 32,702.

In addition, the Coral Reef Protection Executive Order created the Coral Reef Task Force (CRTF),<sup>26</sup> headed by the Secretary of the Interior and the Secretary of Commerce, which the President charged with implementing the policy goals and federal agency responsibilities created in the order.<sup>27</sup> The CRTF also had four specific duties to pursue: coral reef mapping and monitoring, research to identify “the major causes and consequences of degradation of coral reefs” and to provide “a sound framework for the restoration and conservation of coral reef ecosystems worldwide”; conservation, mitigation, and restoration; and international cooperation.<sup>28</sup>

Working steadily over two years, the CRTF drafted a National Plan to Conserve Coral Reefs, which the Clinton Administration adopted in March 2000. The Plan emphasizes the reduction of adverse impacts on coral reefs from specific human activities. While the CRTF’s list of activities does not explicitly mention the laying of communication cables, it does address dredging and shoreline modification. Moreover, four of its nine strategies to reduce human impact are relevant to preventing damage to coral reefs from telecommunications cables: reduce habitat destruction; restore damaged reefs; improve Federal accountability and coordination; and create an informed public for coral reef conservation. The CRTF also plans to “[s]trengthen and improve federal and state permitting and management programs for coastal development activities that impact coral reef habitats by developing long-needed technical guidance, impact thresholds and policy directives designed to avoid or minimize adverse impacts to reefs . . . .”<sup>29</sup>

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<sup>26</sup> The Coral Reef Task Force has a website: <<http://coralreef.gov>>.

<sup>27</sup> Exec. Order No. 13089: Coral Reef Protection, § 4, 63 Fed. Reg. 32,701, 32,702 (June 11, 1998).

<sup>28</sup> *Id.* § 5, 63 Fed. Reg. at 32,702.

<sup>29</sup> WORKING GROUPS OF THE U.S. CORAL REEF TASK FORCE, DRAFT: THE NATIONAL ACTION PLAN TO



**Applicability.** Under Executive Order 13089, as noted, Federal agencies must use their resources to conserve coral reefs. Enforcing this responsibility, however, is almost entirely left to the discretion of the CRTF and the individual agencies. The Executive Order itself is probably not judicially enforceable.<sup>30</sup> The CRTF did adopt an oversight document and public complaint procedure to help ensure that Federal agencies comply with the National Plan.<sup>31</sup> The oversight document required Federal agencies to submit Coral Reef Protection Implementation Plans to the CRTF by June 11, 2000, and requires them to continue to file annual reports describing their implementation of coral reef protection.<sup>32</sup> Under the public complaint procedures, any person who believes that a Federal agency is acting contrary to its duties under Executive Order 13089 can submit a statement to the agency and the CRTF.<sup>33</sup> If the agency is a member of the CRTF, it must respond in writing; if it is not a member – as the FCC is not – then the CRTF will merely *invite* a written response.<sup>34</sup> The CRTF may then “offer advice and counsel to facilitate resolution of issues under this section.”<sup>35</sup> However, the CRTF expressly emphasized that the oversight procedures and the public complaint procedures “do[] not create any right or benefit, substantive or procedural, enforceable in law or equity by a party against the United States, its agencies, its officers, or any person of Task Force Member.”<sup>36</sup>

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CONSERVE CORAL REEFS 17 (Nov. 2, 1999).

<sup>30</sup> See Robin Kundis Craig, *The Coral Reef Task Force: Protecting the Environment through Executive Order*, 30 *Envtl. L. Rep.* 10343, 10356-57 (May 2000) (discussing the enforceability of executive orders).

<sup>31</sup> U.S. CORAL REEF TASK FORCE, OVERSIGHT OF AGENCY ACTIONS AFFECTING CORAL REEF PROTECTION (Oct. 27, 1999), <<http://coralreef.gov/CRTF.TAB8.html>>.

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

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

<sup>36</sup> *Id.*

Federal agencies' duties under Executive Order 13089 may be relevant in a NEPA challenge, however.<sup>37</sup> In addition, a key element of the CRTF's National Plan is to establish 20 percent of existing marine protected areas that contain coral reefs as "no take" marine reserves. If such reserves are actually established, their "no take" provisions could prohibit all activities that could modify coral habitat, including the laying of cables.

*The Coral Reef Conservation Act of 2000*

**Purpose and provisions.** The Coral Reef Conservation Act of 2000<sup>38</sup> is primarily a funding statute. However, the purposes of the Act are more general – "to preserve, sustain, and restore the condition of coral reef ecosystems" and to promote scientific understanding and sustainable use of those ecosystems.<sup>39</sup>

The Coral Reef Conservation Act has two main management provisions. First, the Act requires the Administrator of NOAA to submit a national coral reef action strategy to the House and Senate natural resources committees within "180 days after December 23, 2000."<sup>40</sup> The strategy must have "goals and objectives as well as an implementation plan,"<sup>41</sup> and the plan must discuss, *inter alia*, "coastal uses and management," "water and air quality," and "conservation, including how the use of marine protected areas to serve as replenishment zones will be developed consistent

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<sup>37</sup> See *National Wildlife Fed'n v. Adams*, 629 F.2d 587, 592-93 (9<sup>th</sup> Cir. 1980) (upholding an EIS in part because the agency relied on a wetlands Executive Order in evaluating alternatives); *Ventura County v. Gulf Oil Corp.*, 601 F.2d 1080, 1086 (9<sup>th</sup> Cir. 1979) (noting that plaintiff would have a remedy if an agency failed to follow an applicable Executive Order in its NEPA analysis). *But see* *Citizens Concerned About Jet Noise v. Dalton*, 48 F. Supp. 2d 582, 604 (E.D. Va. 1999) (holding that the court had no authority in a NEPA review to analyze the adequacy of the agency's Executive Order-driven environmental justice analysis).

<sup>38</sup> Pub. L. No. 106-562, 114 Stat. 2800 (Dec. 23, 2000), codified at 16 U.S.C. §§ 6401-6409 (2000).

<sup>39</sup> 16 U.S.C. § 6401(1), (2), (3) (2000).

<sup>40</sup> *Id.* § 6402(a).

<sup>41</sup> *Id.* § 6402(b).

with local practices and traditions.”<sup>42</sup> However, Congress did not demand that NOAA be consistent with the CRTF’s National Plan to Conserve Coral Reefs; instead, the Secretary of Commerce “may consult” with the CRTF if the Secretary so desires.<sup>43</sup> NOAA finalized the strategy in late September 2002.

Second, the Act established the Coral Reef Conservation Program, authorizing NOAA to provide matching grants to coral reef conservation projects and funding the Program at \$8 million per year for fiscal years 2001 through 2004.<sup>44</sup> Eligible applicants include state agencies and other agencies that work with coral reefs and educational and other nongovernmental organizations with expertise in conserving coral reefs.<sup>45</sup> Congress specified that at least 40% of the funds must go to coral reef conservation projects in the Pacific and at least 40% to coral reef conservation projects in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea.<sup>46</sup> NOAA can use any remaining funds “for projects that address emerging priorities or threats.”<sup>47</sup>

NOAA issued final funding program guidelines in April 2002.<sup>48</sup> Funneling the coral reef money through existing grant programs,<sup>49</sup> NOAA awards grants in six categories: (1) coral reef conservation activities undertaken by state and territorial governments; (2) coral reef ecosystem monitoring and assessment activities undertaken by state and territorial governments; (3) coral reef ecosystem research projects; (4) “cooperative coral reef conservation, protection, restoration, research, or education

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<sup>42</sup> *Id.* § 6402(b)(1), (2), (8).

<sup>43</sup> *Id.* § 6402(a).

<sup>44</sup> 16 U.S.C. §§ 6403(a), 6408(c) (2000).

<sup>45</sup> *Id.* § 6403(c).

<sup>46</sup> *Id.* § 6403(d).

<sup>47</sup> *Id.*

<sup>48</sup> Coral Reef Conservation Grant Program Implementation Guidelines, 67 Fed. Reg. 19,396 (April 19, 2002).

<sup>49</sup> *Id.* at 19,399.

projects” not eligible under other categories; (5) “[p]rojects to develop, improve, or amend Fishery Management Plans to conserve, protect and restore coral reef habitats and associated fishery populations within the U.S. Exclusive Economic Zone”; and (6) international coral reef conservation projects.<sup>50</sup>

NOAA itself may also “conduct activities to conserve coral reefs and coral reef ecosystems” under the Coral Reef Conservation Act,<sup>51</sup> and Congress has funded these projects with an additional \$8 million per year for fiscal years 2001 through 2004.<sup>52</sup>

**Applicability.** NOAA released its Coral Reef Strategy to the public in late September 2002.<sup>53</sup> Despite the lack of a statutory obligation to confer with the Coral Reef Task Force, NOAA wholeheartedly adopted the Task Force’s 2000 *National Action Plan to Conserve Coral Reefs*.<sup>54</sup> Like the *National Action Plan*, the Coral Reef Strategy “is divided into two fundamental themes and 13 goals essential to addressing and reducing threats to coral reefs worldwide.”<sup>55</sup> The themes are to: (1) understand coral reef ecosystems; and (2) reduce the adverse impacts of human activities. The four goals toward improving understanding of coral reef ecosystems are to: (1) “[c]reate comprehensive maps of all U.S. coral reef habitats”; (2) “[c]onduct long-term monitoring and assessments of reef ecosystem condition”; (3) “[s]upport strategic research to address the major threats to reef ecosystems; and” (4) “[i]ncrease understanding of the

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<sup>50</sup> *Id.* at 19,399-400.

<sup>51</sup> 16 U.S.C. § 6406(a) (2000).

<sup>52</sup> *Id.* § 6408(d).

<sup>53</sup> NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION, U.S. DEPT. OF COMMERCE, A NATIONAL CORAL REEF ACTION STRATEGY: REPORT TO CONGRESS ON IMPLEMENTATION OF THE CORAL REEF CONSERVATION ACT OF 2000 AND THE NATIONAL ACTION PLAN TO CONSERVE CORAL REEFS IN 2002-2003 (June 2002), available at <<http://www.coris.noaa.gov/activities/actionstrategy/actionstrategy.html>> (last updated Sept. 30, 2002) [hereinafter CORAL REEF STRATEGY].

<sup>54</sup> *Id.* at iii.

<sup>55</sup> *Id.*

social and economic factors of conserving coral reefs.”<sup>56</sup> The nine goals for reducing human impacts on coral reefs are to: (1) “[i]mprove the use of marine protected area to reduce threats”; (2) “[r]educe adverse impacts of fishing and other extractive uses”; (3) “[r]educe impacts of coastal uses”; (4) “[r]educe pollution”; (5) “[r]estore damaged reefs”; (6) “[i]mprove education and outreach”; (7) “[r]educe international threats to coral reef ecosystems”; (8) “[r]educe impacts from international trade in coral reef species; and” (9) “[i]mprove coordination and accountability.”<sup>57</sup>

Of these goals, the most directly applicable to telecommunications cables is the goal to reduce the impact of coastal uses. According to NOAA:

Coral reef ecosystems are being continually, and in some cases irreparably, damaged by a number of potentially avoidable human activities. Coastal activities like dredging for navigation or marinas, construction of breakwaters and other hardened shoreline protection measures, beach renourishment, sand mining, pipelines *and cable installation*, and land-use practices (e.g. road construction, mangrove deforestation, and land reclamation for agricultural and urban development) decrease water quality around reefs.<sup>58</sup>

Thus, NOAA has explicitly recognized in the Coral Reef Strategy that telecommunications cables may harm coral reefs. This admission in and of itself should be relevant to the FCC’s NEPA analyses in connection with telecommunications permit applications.

The specific objectives within the goal of reducing the impact of coastal uses strengthen arguments that the FCC would be arbitrary and capricious in ignoring the threats that telecommunications cables pose to coral reefs. First, NOAA aims to “[d]evelop informal guidance, protocols and technical assistance programs to reduce the

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<sup>56</sup> *Id.*  
<sup>57</sup> *Id.* at iv.  
<sup>58</sup> *Id.* at 54.

risks of damage to coral reefs resulting from activities conducted, funded or approved by federal agencies.”<sup>59</sup> In pursuit of this objective, NOAA intends in 2002-2003 to “[i]ncrease capacity of states and territorial partners to address coral reef conservation and coastal management issues, including enforcement, assessment and mitigation.”<sup>60</sup> In general, therefore, NOAA views both the development practices employed and local enforcement as inadequate to protect coral reefs, strongly suggesting that the FCC should be similarly concerned about telecommunications companies’ cable-laying techniques.

Second, NOAA seeks to “[s]trengthen, improve, and integrate federal and state permitting and management programs for coastal development activities impacting coral reef habitats by developing technical guidance, impact thresholds, and policy directive that minimize or prevent adverse impacts to coral reef ecosystems.”<sup>61</sup> Again, therefore, NOAA stresses that many coastal development activities adversely affect coral reefs, again suggesting that the FCC’s NEPA analysis should evaluate the environmental effects of cable laying carefully.

In addition, in listing accomplishments toward meeting this objective, NOAA emphasized the interaction between its Coral Reef Strategy and Clean Water Act permitting. In particular, the Coral Reef Strategy notes that the EPA and the Army Corps of Engineers have “[m]inimized impacts to corals of Clean Water Act (CWA) Section 404 permitted projects, U.S. Army Corps of Engineers planning projects, and proposed activities under other federal resource management programs” and “[p]rohibited or restricted the use of CWA Section 404 Nationwide Permits for activities

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<sup>59</sup> *Id.* at 55.  
<sup>60</sup> *Id.* at 58.  
<sup>61</sup> *Id.* at 55-56.

directly impacting coral reefs.”<sup>62</sup> Therefore, because cables laid across coral reefs directly impact those reefs, telecommunications companies requiring Clean Water Act permits (see below) will be unable to rely on general permits, subjecting them to the more stringent review given to individual section 404 permits.

Third, the Coral Reef Strategy seeks to “[s]trengthen existing and develop new resource management programs and protected areas to address the broad range of coastal activities. This may include developing new programs, policies, and regulations to address resource protection threats.”<sup>63</sup> In 2002-2003, NOAA specifically intends to “[d]evelop protected area management effectiveness protocols and performance indicators as well as initiate pilot projects in states and territories.”<sup>64</sup> For coral reefs located outside protected areas, however, no work seems to be immediately forthcoming.

Finally, NOAA seeks to “[d]evelop mitigation guidelines for coastal development projects that are deemed essential by federal, state and territory agencies.”<sup>65</sup> In the next year, more specifically, NOAA intends to “[d]evelop best management practices and associate guides for use in coastal construction projects to reduce impacts to coral reef ecosystems.”<sup>66</sup> By the end of 2003, therefore, protocols may be in place to evaluate whether telecommunications companies are laying fiber optic cables in the most protective way possible, and such protocols should influence the FCC’s NEPA analyses and permitting requirements.

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<sup>62</sup> *Id.* at 56.

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

<sup>64</sup> *Id.* at 59.

<sup>65</sup> *Id.* at 56.

<sup>66</sup> *Id.* at 59.

Without the help of some other federal statute such as NEPA or the Clean Water Act, however, the Coral Reef Strategy provides challengers with very little enforcement authority. The last goal of the strategy is to improve coordination and accountability, and NOAA specifically refers to Executive Order 13058's goal of improving the accountability of federal agencies in protecting coral reefs.<sup>67</sup> The objectives of this goal focus primarily on increasing coordination among federal agencies and on producing more reports from federal agencies on what they are doing.<sup>68</sup> As far as forcing federal agencies to actually protect coral reefs, however, the Coral Reef Strategy relies almost entirely on NEPA and seeks to “[w]ork with the Council on Environmental Quality, federal agencies and other interested entities, to develop guidance and tools assessing alternatives and potential impacts of actions through the National Environmental Policy Act (NEPA) . . . .”<sup>69</sup>

In sum, therefore, NOAA's Coral Reef Strategy will affect the laying of telecommunications cables over coral reefs only to the extent that other statutes, such as NEPA or the Clean Water Act, are also relevant to those projects. However, in the context of a NEPA analysis, the Strategy admits that cables impact coral reefs and seeks to reduce such impacts, suggesting that federal agencies will be arbitrary and capricious in their NEPA analyses if they do not consider the effect of cables on coral reefs and, at a minimum, impose the best management protections and other safeguards that NOAA identifies on cable-laying activities. In addition, coral reef considerations are already a part of the Clean Water Act section 404 permitting process. As a result, through these indirect means, the Coral Reef Strategy may

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<sup>67</sup> *Id.* at 90.

<sup>68</sup> *Id.* at 91.

<sup>69</sup> *Id.*



significantly limit whether and how telecommunications companies lay cables over and near coral reefs.

## **Statutes and Executive Orders Relating to Marine Protected Areas**

### *National Marine Sanctuaries Act*

**Purposes and provisions.** As CRTF's *National Plan to Conserve Coral Reefs* and NOAA's Coral Reef Strategy make clear, marine protected areas (MPAs) are and will continue to be an important component of coral reef protection in the United States. Title III of the Marine Protection, Research, and Sanctuaries Act of 1972,<sup>70</sup> also known as the National Marine Sanctuaries Act, is the clearest congressional statement of the United States' marine protected area (MPA) policy. The primary purposes of the Act are "to identify and designate as national marine sanctuaries areas of the marine environment which are of special national significance" and "to provide authority for comprehensive and coordinated conservation and management of these marine areas, and activities affecting them, in a manner which complements existing regulatory authorities . . ."<sup>71</sup>

**Applicability.** Thirteen national marine sanctuaries have been established and a fourteenth is in progress. Four of the existing thirteen National Marine Sanctuaries – the Flower Garden Banks National Marine Sanctuary in the Gulf of Mexico, the Hawaiian Islands Humpback Whale National Marine Sanctuary, the Florida Keys National Marine Sanctuary, and the Fagatele Bay National Marine Sanctuary in American Samoa – protect coral reefs, and the proposed fourteenth sanctuary, currently

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<sup>70</sup> 16 U.S.C. §§ 1431-1434 (2000).

<sup>71</sup> *Id.* § 1431(b)(1), (2).

known as the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, will protect a large coral reef ecosystem at the ecosystem level.

The Act makes it illegal to “destroy, cause the loss of, or injure any sanctuary resource managed under law or regulations for that sanctuary” or to trade in sanctuary resources illegally taken.<sup>72</sup> “Sanctuary resource” is a broad term and certainly includes the coral reefs found within a given National Marine Sanctuary. Therefore, to the extent that an company’s telecommunications cables actually destroy or injure coral reefs found within a National Marine Sanctuary, that company will be liable for the damages under the National Marine Sanctuaries Act.

In addition, NOAA has the authority under the National Marine Sanctuaries Act to forbid the laying of telecommunications cables within a sanctuary. To date, however, NOAA has been reluctant to forbid activities within National Marine Sanctuaries, and this reluctance runs through its recent considerations of the specific issue of laying cables there.<sup>73</sup> However, NOAA concedes that NEPA applies to any specific cable-laying project within a National Marine Sanctuary.<sup>74</sup>

Finally, the National Marine Sanctuaries Act does not apply to coral reefs lying outside of a designated sanctuary.

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<sup>72</sup> *Id.* § 1436(1), (2). The Act defines “sanctuary resource” to be “any living or nonliving resource of a national marine sanctuary that contributes to the conservation, recreational, ecological, historical, research, educational, or aesthetic value of the sanctuary . . . .” *Id.* § 1432(8).

<sup>73</sup> See Fair Market Value Analysis for a Fiber Optic Cable Permit in National Marine Sanctuaries, 67 Fed. Reg. 55,201, 55,204 (Aug. 28, 2002); Notice of Applicability of Special Use Permit Requirements to Certain Categories of Activities Within the National Marine Sanctuary system, 67 Fed. Reg. 35,501, 35,503-04 (May 20, 2002); Installing and Maintaining Commercial Submarine Cables in National Marine Sanctuaries (proposed rule), 65 Fed. Reg. 51,264 (Aug. 23, 2000).

<sup>74</sup> See *generally* National Oceanic and Atmospheric Administration Environmental Impact Statement (EIS) on the Proposed MFS Globenet, Inc. Monterey Bay Fiber Optic Cable Installation Project Within the Monterey Bay National Marine Sanctuary, 64 Fed. Reg. 45,951 (Aug. 23, 2001).

## *Executive Order 13158: Marine Protected Areas*

**Purposes and provisions.** On May 26, 2000, President Clinton issued his MPA Executive Order,<sup>75</sup> “creating the framework for a national system of marine protected areas.”<sup>76</sup> “The order calls for strengthening management of existing marine protected areas, creating new protected areas that conserve a full range of representative habitats in a systematic and strategic network, and preventing harm to marine ecosystems by federally approved, conducted, or funded activity.”<sup>77</sup> While the future of this goal seemed uncertain after George W. Bush became president in January 2001,<sup>78</sup> the Bush administration has since adopted the Executive Order,<sup>79</sup> and work on the national system of MPAs continues.<sup>80</sup>

**Applicability.** Because of coral reefs’ importance to U.S. fisheries and their intrinsic appeal, many of the MPAs in the United States already protect coral reefs. The U.S. Department of the Interior directly manages “about 1,786,500 acres of coral reefs and other submerged lands.”<sup>81</sup> Within that Department, moreover, the U.S. Fish & Wildlife Service manages 19 National Wildlife Refuges “that include or border on significant coral reefs, including 2.1 million acres in the Pacific and 500,000 acres in

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<sup>75</sup> Exec. Order No. 13,158, 65 Fed. Reg. 34,909 (May 26, 2000).

<sup>76</sup> Tundi Agardy, *Key steps taken to preserve the U.S.’s marine heritage*, 17:1 ISSUES IN SCIENCE AND TECHNOLOGY ONLINE 1, 1 (Fall 2000), available at <<http://www.nap.edu/issues/17.1/update.htm>>.

<sup>77</sup> *Id.*

<sup>78</sup> In January 2001, President Bush issued a general “Regulatory Review Plan,” which delayed implementation of the MPA Exec. Order (and other last-minute Clinton initiatives). Regulatory Review Plan, 60 Fed. Reg. 7,701, 7,701 (Jan. 24, 2001); see also ENVIRONMENTAL PROTECTION AGENCY, OCEAN DISCHARGE CRITERIA: REVISIONS TO THE OCEAN DISCHARGE CRITERIA REGULATIONS 1 (2001), available at <[http://www.epa.gov/owow/oceans/protecting\\_oceans/cwa403rule.pdf](http://www.epa.gov/owow/oceans/protecting_oceans/cwa403rule.pdf)> (noting that rules proposed to implement the MPA Exec. Order had been delayed in response to the Regulatory Review Plan).

<sup>79</sup> Press Release, Donald L. Evans, Secretary of Commerce, Supplement to Exec. Order 13,158 (June 4, 2001), available at <[http://mpa.gov/frontmatter/sup2\\_evansstatement.html](http://mpa.gov/frontmatter/sup2_evansstatement.html)>.

<sup>80</sup> See generally NOAA, *Marine Protected Areas of the United States* (last visited Aug. 9, 2002), <<http://mpa.gov>> (the official web site regarding NOAA’s work to implement the MPA Exec. Order).

<sup>81</sup> United States Coral Reef Task Force, “The Department of the Interior and Coral Reefs,” *U.S. Department of the Interior: Protecting the Nations Coral Reefs* (last visited June 4, 2002), <<http://coralreef.gov/doi.cfm>>.

South Florida and the Caribbean,<sup>82</sup> while nine parks that the National Park Service oversees cover “almost 245,000 acres of coral reef habitat (about 240,000 in the South Atlantic/Caribbean and about 5,000 in the Indo-Pacific).”<sup>83</sup>

Currently, the MPA Executive Order does not provide any additional protection to coral reefs. Therefore, if the existing regulations governing a particular coral reef MPA do not exclude the laying of cables over the coral reefs, such activity is allowed.

However, the MPA Executive Order has the potential to significantly increase protections for certain coral reefs by encouraging the establishment and strengthening of fully-protected marine reserves. On a reef-by-reef basis, therefore, individual marine reserves may prohibit all extractive and damaging uses, including, perhaps, the laying of cable reefs.

### **Statutes that Protect Species**

#### *Magnuson-Stevens Fishery Conservation and Management Act*

**Purposes and provisions.** Congress passed the Magnuson-Stevens Fishery Conservation and Management Act<sup>84</sup> in 1972. It is the primary federal statute for managing fisheries in federal waters more than three miles out from shore. Congress recognized in the Act that “[a] national program for the conservation and management of the fishery resources of the United States is necessary to prevent overfishing, to rebuild overfished stocks, to insure conservation, and to realize the full potential of the

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<sup>82</sup> United States Coral Reef Task Force, “U.S. Fish and Wildlife Service,” *U.S. Department of the Interior: Protecting the Nations Coral Reefs* (last visited June 4, 2002), <<http://coralreef.gov/fish.cfm>>.

<sup>83</sup> United States Coral Reef Task Force, “National Park Service,” *U.S. Department of the Interior: Protecting the Nations Coral Reefs* (last visited June 4, 2002), <<http://coralreef.gov/nps.cfm>>.

<sup>84</sup> 16 U.S.C. §§ 1801-1883 (2000); see also MPAS: TOOLS FOR SUSTAINING OCEAN ECOSYSTEMS, *supra* note 17, at 151, 163-65.

Nation's fishery resources."<sup>85</sup> Under the Act, NOAA and NMFS work with eight regional Fishery Management Councils to establish fishery management plans for fished stocks<sup>86</sup> – but only when those stocks are recognized to be in trouble.<sup>87</sup> The primary national standard for fisheries managed under the Act is “optimum yield” – “conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.”<sup>88</sup> Historically, this standard has a practical matter promoted continuing overfishing, and “[f]isheries management has repeatedly mortgaged the future for short-term gain, even while espousing a devotion to maximum sustainable yield . . . .”<sup>89</sup>

**Applicability.** American fisheries are highly dependent on coral reefs. NOAA, NMFS, and the regional Fishery Management Councils established under the Magnuson-Stevens Act manage “over 500 commercially valuable coral reef fishes and invertebrates . . . , including four candidate ESA species.”<sup>90</sup> About half of all federally-managed fisheries depend on coral reefs for at least part of their life cycle, and the annual value of commercial coral reef fisheries in the United States is approximately \$100 million.<sup>91</sup> Reef-related recreational fisheries are probably worth even more.<sup>92</sup>

Under the Magnuson-Stevens Act, NMFS and the eight regional Fishery Management Councils can establish and manage various types of fishing zones in the

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<sup>85</sup> 16 U.S.C. § 1801(a)(6) (2000).

<sup>86</sup> 16 U.S.C. §§ 1852(a), 1853 (2000).

<sup>87</sup> See *id.* § 1802(29) (defining “overfished), 1853.

<sup>88</sup> *Id.* §§ 1851(a)(1), 1802(21).

<sup>89</sup> Charles H. Peterson & Jane Lubchenco, *Marine Ecosystem Services*, in GRETCHEN C. DAILY, ED., NATURE'S SERVICES: SOCIETAL DEPENDENCE ON NATURAL ECOSYSTEMS 177, 178-79 (1997).

<sup>90</sup> NOAA, *Coral Reefs: Critical Biodiversity and Fisheries Resources* (last updated Feb. 13, 2002), <[http://www.nmfs.noaa.gov/prot\\_res/PR/coralhome.html](http://www.nmfs.noaa.gov/prot_res/PR/coralhome.html)> (citing P.G. Spurgeon, *The economic valuation of coral reefs*, 24:11 MARINE POLLUTION BULLETIN 529-36; NOAA, OUR LIVING OCEANS: THE ECONOMIC VALUATION OF U.S. FISHERIES (1996)).

<sup>91</sup> NOAA, *What are Coral Reefs – And Why Are They in Peril?* (Dec. 3, 2001), <<http://www.noaanews.noaa.gov/magazine/stories/mag7.htm>>.

<sup>92</sup> *Id.*

nation's EEZ, including no-take zones.<sup>93</sup> For example, NMFS/NOAA, the South Atlantic Fishery Management Council, and the Gulf of Mexico Fishery Management Council established first a "habitat of particular concern" (HAPC) and then an experimental marine reserve under the Magnuson-Stevens Act to protect the ivory tree coral found off the coast of Florida.<sup>94</sup> In such protected areas, activities that destroy or risk habitat critical to the fishery under consideration can be prohibited.

The Magnuson-Stevens Act does not give NOAA, NMFS, and the regional Fishery Management Councils jurisdiction over non-fishing activities, such as the laying of telecommunications cables. However, the existence of fishery regulations to protect coral-reef dependent fisheries would be very relevant to the FCC's NEPA analysis should the FCC contemplate a project that would allow telecommunications cables in the same area. Highly protected areas under the Magnuson-Stevens Act, therefore, may effectively render the FCC arbitrary and capricious should it decide to allow telecommunications cables in the same area.

### *The Endangered Species Act of 1973*

**Purposes and provisions.** Congress enacted the Endangered Species Act<sup>95</sup> in 1973 because "various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation" and because threatened species "of fish, wildlife, and plants are of esthetic, ecological, education, historical, recreational,

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<sup>93</sup> 16 U.S.C. § 1853 (2000).

<sup>94</sup> NOAA, *What Is a Marine Protected Area? Experimental Oculina Research Reserve* (last revised March 17, 2002), <[http://mpa.gov/mpadescriptive/cs\\_obrr.html](http://mpa.gov/mpadescriptive/cs_obrr.html)>.

<sup>95</sup> 16 U.S.C. §§ 1531-1544 (2000).

and scientific value to the Nation and its people.”<sup>96</sup> The purposes of the Act “are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved” and “to provide a program for the conservation of such endangered species and threatened species.”<sup>97</sup> Under the command of the ESA, “all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this chapter.”<sup>98</sup>

The ESA imposes two duties specific to Federal agencies. First, all “Federal agencies shall, in consultation with and with the assistance of the Secretary [of the Interior or of Commerce, depending on the species], utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species” listed under the Act.<sup>99</sup> Federal courts have held that this provision both supports Federal agencies when they voluntarily choose to take action to conserve listed species and imposes an affirmative obligation upon Federal agencies to make pro-species choices.

Second, “[e]ach Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary . . . to be critical . . . .”<sup>100</sup>

Like NEPA, this requirement imposes an elaborate analytical procedure on any Federal

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<sup>96</sup> *Id.* § 1531(a)(1), (3).

<sup>97</sup> *Id.* § 1531(b).

<sup>98</sup> *Id.* § 1531(c)(1).

<sup>99</sup> *Id.* § 1536(a)(1).

<sup>100</sup> 16 U.S.C. § 1536(a)(2) (2000).

agency funding, permitting, or carrying out any action in an area where listed species are present, including: a request for information on the presence of listed species; a Biological Assessment by the acting agency; a Biological Opinion by the consulting agency; and a final decision. Unlike NEPA, however, the ESA imposes a substantive requirement on Federal agencies: their actions *cannot* jeopardize the continued existence of a listed species or destroy its critical habitat.

In addition, the ESA establishes a more general requirement that no person – including no Federal agency – “take any such species within the United States or territorial sea of the United States” or “take any such species on the high seas.”<sup>101</sup> This prohibition thus applies in the oceans. Under the ESA, “[t]he term ‘take’ means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct”<sup>102</sup>; Federal regulations clarify that a taking also occurs if there is habitat modification that actually kills or injures a listed species.<sup>103</sup>

**Applicability.** The ESA’s prohibitions and requirements do not apply until the Secretary of the Interior or, for marine species, the Secretary of Commerce actually lists a species for protection in accordance with the Act’s procedures – essentially, a science-based rulemaking.<sup>104</sup> Thus, unless a particular coral reef is home to one of these species, the ESA does not apply.

However, recent scientific studies suggest that coral reef species are more likely than any other marine species to be at risk of extinction, and listing of species that frequent coral reefs has already influenced Federal agency decisions in non-cable

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<sup>101</sup> 16 U.S.C. § 1538(a)(1)(B), (C) (2000).

<sup>102</sup> *Id.* § 1532(19).

<sup>103</sup> 50 C.F.R. § 17.3 (2001).

<sup>104</sup> See 16 U.S.C. § 1533 (2000).



matters. For example, virtually all species of sea turtles have been listed for protection under the Act. Critical habitat for the Hawksbill Sea Turtle – which the ESA forbids Federal agencies from either harming or allowing to come to harm through Federal funding or permitting – includes the coral reefs off of Puerto Rico.<sup>105</sup> Moreover, the ESA duty to not jeopardize listed species led the EPA to forbid discharges of pollutants near Saipan’s coral reefs because endangered Green and Hawksbill Sea Turtles lived near those reefs.<sup>106</sup>

Therefore, if listed endangered or threatened species reside within or visit the coral reefs where cable laying is contemplated, the FCC must consider whether those cables will destroy critical habitat or jeopardize the listed species, including through habitat destruction or modification. Moreover, courts will reverse any FCC any decision to allow cables to be laid in such areas if the FCC does not comply with the ESA’s requirements.

### **Statutes that Protect Ocean Water Quality and Navigability**

#### *The Clean Water Act*

**Purposes and provisions.** The objective of the Clean water Act “is to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”<sup>107</sup> To accomplish this goal, the Clean Water Act prohibits “the discharge of any pollutant by any person” except as in compliance with the Act.<sup>108</sup> To comply with the Act, dischargers generally must get a permit, and two types of Clean Water Act permit exist:

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<sup>105</sup> 47 Fed. Reg. 27,295 (June 24, 1982).  
<sup>106</sup> 64 Fed. Reg. 15,749, 15,750 (April 1, 1999).  
<sup>107</sup> 33 U.S.C. § 1251(a) (2000).  
<sup>108</sup> *Id.* § 1311(a).

(1) the section 404 permit program, administered by the Army Corps of Engineers, for the discharge of dredged or fill material into the navigable waters; and (2) the section 402 National Pollutant Discharge Elimination System (NPDES) permit program, administered by the EPA, for all other discharges of pollutants. EPA, the Army Corps, and delegated states have authority to enforce the Clean Water Act.<sup>109</sup> In addition, the Clean Water Act provides a private right of action – a citizens’ suit provision – so that private parties who are adversely affected by Clean Water Act violations can sue either the government agencies or the private violators in federal court.<sup>110</sup>

Clean Water Act jurisdiction depends upon whether a particular discharger meets all of the statutory elements. The Act defines “discharge of a pollutant” to be “(A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.”<sup>111</sup> Thus, in general, the Act applies in the ocean as well as in internal waters. Specifically, “navigable waters” are “the waters of the United States, including the territorial seas”<sup>112</sup>; “territorial seas” are “the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles”<sup>113</sup>; the “contiguous zone” is “the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone,”<sup>114</sup> a reference to the

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<sup>109</sup> *Id.* § 1319.

<sup>110</sup> *Id.* § 1365(a).

<sup>111</sup> *Id.* § 1362(12).

<sup>112</sup> *Id.* § 1362(7).

<sup>113</sup> *Id.* § 1362(8).

<sup>114</sup> *Id.* § 1362(9).

first United Nations Conventions on the Law of the Sea; and the “ocean” is “any portion of the high seas beyond the contiguous zone.”<sup>115</sup>

While the oceans are clearly included within the Clean Water Act, however, a source must be a “point source” before the Act’s permit requirements apply. A “point source” is “any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.”<sup>116</sup> By statute, the term “point source” does not include “agricultural stormwater discharges and return flows from irrigated agriculture.”<sup>117</sup>

Finally, “pollutant” is a broad term under the Clean Water Act. The Act defines “pollutant” to be:

dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.<sup>118</sup>

Thus, it is generally very easy to find a pollutant.

**Applicability of section 404.** Under section 404, the Army Corps of Engineers “may issue permits . . . for the discharge of dredged or fill material into the navigable waters at specified disposal sites.”<sup>119</sup> The first jurisdictional limitation of this program relevant to coral reefs is that it only applies to discharges in the “navigable waters” – that is, to discharges into the internal waters of the United States and into the territorial

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<sup>115</sup> *Id.* § 1362(10).

<sup>116</sup> *Id.* § 1362(14).

<sup>117</sup> *Id.*

<sup>118</sup> *Id.* § 1362(6).

<sup>119</sup> *Id.* § 1344(a), (d).

sea. Because the Clean Water Act's "territorial sea" extends seaward only three miles, any cable-laying activities outside of this three-mile limit are not subject to section 404 at all.

Within the three-mile limit, a point source must discharge "dredged material" or "fill material" in order for section 404 to apply. In the case of cable-laying, the point source could be the vessel that delivers the cables, because vessels clearly qualify as "point sources" under the statutory definition. The cable, however, is unlikely to qualify as "dredged material" or "fill material." Under the Army Corps' regulations, "dredged material" is "material that is excavated or dredged from waters of the United States,"<sup>120</sup> which telecommunications cables are not. "Fill material," in turn, is "any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a waterbody."<sup>121</sup> While telecommunications cables may, arguably, in some circumstances change the bottom elevation of the territorial sea, any such change is likely to be regarded as incidental or *de minimis*.

If any construction or destruction is required to lay the telecommunications cables, however, appropriate discharges of dredged or fill material may exist. If companies need to dig trenches through or near coral reefs in order to lay the cables, those companies will create "dredged material." If the companies then redeposit that dredged material within the territorial sea, such as by piling it alongside the trench or using it to refill the trench after they have laid the cable, they would be discharging dredged material and require a section 404 permit.<sup>122</sup> Similarly, if telecommunications

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<sup>120</sup> 33 C.F.R. § 323.2(c) (2001).

<sup>121</sup> *Id.* § 323.2(e).

<sup>122</sup> *See id.* § 323.2(d)(1) (defining the "discharge of dredged material" to be "any addition of dredged material into, including any redeposit of dredged material within, the waters of the United States").

companies transport material to the sites in order to even out the bottom of the sea, they would be discharging fill material and require a section 404 permit.<sup>123</sup>

The section 404 permit process is complex and requires the Army Corps to comply with EPA's Section 404(b)(1) Guidelines. These guidelines provide extensive environmental review of proposed section 404 permits. Moreover, as noted above, in response to the Coral Reef Task Force's *National Action Plan to Conserve Coral Reefs* and the Coral Reef Conservation Act of 2000, review of section 404 permits now includes evaluation of the permitted activity's effect on coral reefs. Therefore, for cable-laying activities within the first three miles of the ocean, the section 404 permit process, particularly in the context of state section 401 certifications (see below), could be a powerful means of ensuring coral reef protection. In addition, because the Army Corps' issuance of a section 404 permit is a major Federal action affecting the quality of the human environment, NEPA review also applies to the section 404 permit process.

Section 404 will not apply, however, to any cable-laying activities that occur more than three miles out to sea. In addition, in the absence of construction activities that actually discharge dredged or fill material, it is unlikely that the mere dropping of a cable from a ship will trigger the permit requirement because of the unlikelihood that the cable itself will qualify as dredged or fill material.

**Applicability of section 402.** The Clean Water Act's NPDES permit program applies to any "discharge of a pollutant" not covered by section 402 permits.<sup>124</sup>

Although the EPA had the initial authority to issue NPDES permits,<sup>125</sup> most states have

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<sup>123</sup> See *id.* § 323.2(f) (defining the "discharge of fill material" to be "the addition of fill material into waters of the United States").

<sup>124</sup> 33 U.S.C. § 1342(a) (2000).

<sup>125</sup> *Id.*

now acquired that authority in accordance with the Clean Water Act's procedures for doing so.<sup>126</sup> As a result, and unlike for most section 404 permits, NPDES permits for discharges within the first three miles of ocean are likely to be state actions that do not trigger NEPA. In contrast, the EPA would have to issue an NPDES permit for any discharge more than three miles out to sea, and NEPA would thus apply.

Geographically, the NPDES permit program is more extensive than the section 404 permit program, applying to all "discharges of a pollutant," including discharges into the contiguous zone and the ocean. As with section 404 permits, moreover, the vessel itself qualifies as the point source for cables laid within the three-mile territorial sea. However, the Act's definition of "discharge of a pollutant" emphasizes that the point source for discharges into the contiguous zone or the ocean cannot be the vessel or other floating craft that carries the cable to sea. Equipment used from the ship to position the cable may, however, qualify as an independent point source.

The critical question in both the territorial sea and beyond, however, is whether the laying of cables involves a pollutant. One possibility is that the cable itself qualifies as a pollutant. The Act's definition of "pollutant" is broad and includes other solid, non-leaky objects such as rocks. On the other hand, the definition also stresses industrial "wastes," and telecommunications companies will argue that the cables themselves are not wastes but valuable equipment. The Ninth Circuit has finessed this distinction by finding that the intentional dumping of herbicides into irrigation canals specifically to kill nuisance algae still constituted a discharge of a "pollutant," but its reasoning in reaching

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<sup>126</sup> *Id.* § 1342(b).

that conclusion was unclear and rested in part on the fact that chemical residues were certain to result.<sup>127</sup>

Thus, the finding of a “pollutant” would be easier if extraneous material accompanies the cable into the water. Such material could include protective wrappings, sealants or lubricants, protective powder, or guidance appendages that remain with the cables. These materials clearly become “wastes” once the cable enters the water and hence clearly qualify as pollutants.

A second potential path to an NPDES permit is to regard the cable as the point source and the bottom material it stirs as the pollutant. While sand, dirt, shells, and coral bits stirred into otherwise clear water are almost certainly pollutants, the cable’s status as a “point source” is troubling. While many courts approach point sources liberally and generally allow that any human-defined cause of water pollution would count, others emphasize the requirement for a confined and discrete *conveyance*, like a pipe, that *adds* pollutants to the water body. For example, courts have deemed dams that withdraw living fish from a lake and chop them to bits before returning the bits to the same lake to be nonpoint sources exempt from the NPDES permit requirement.<sup>128</sup> Because moving cables do not convey material but merely stir up existing bottom material, courts would likely consider them nonpoint sources that do not add pollutants to the ocean.

In summary, for cable-laying projects within the first three miles of ocean, the vessel that carries the cable to sea can be a point source, but the cable itself is probably not a pollutant, although any extra waste material accompanying the cable would be.

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<sup>127</sup> Headwaters, Inc. v. Talent Irrigation District, 243 F.3d 526, 526-34 (9<sup>th</sup> Cir. 2001).

<sup>128</sup> GET CITE.

Such a discharge of pollutants would require an NPDES permit, which would probably come from the relevant state, eliminating the applicability of NEPA and section 401. If the cable is being laid more than three miles out to sea, the vessel cannot be the point source, but other cable laying equipment could be. Such permits will come from the EPA, and hence NEPA will apply, but because the discharge occurs more than three miles out to sea, section 401 will not apply.

**Applicability of section 401.** Section 401 of the Clean Water Act provides that “[a]ny applicant for a Federal license or permit to conduct any activity . . . which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate . . . that any such discharge will comply” with the Clean Water Act.<sup>129</sup> The federal agency cannot issue the license or permit if the state denies the certification,<sup>130</sup> and the state can impose water-quality-related conditions on the federal license or permit.<sup>131</sup> Section 401 applies to *any* federal license or permit application when the permitted activity could affect water quality, and it thus applies not only to section 404 permits issued by the Army Corps and NPDES permits issued by the EPA, but also to the FCC licenses allowing the laying of telecommunications cables.

Two aspects of section 401 limit its potential applicability to licenses for telecommunications cables to be laid near coral reefs, however. First, like section 404, section 401 is limited to discharges into the “navigable waters” and thus applies in the sea only to discharges within the first three miles. Second, the term “discharge” in section 401 is unclear in scope – does it refer only to discharges of pollutants, and thus

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<sup>129</sup> 33 U.S.C. § 1341(a) (2000).

<sup>130</sup> *Id.*

<sup>131</sup> *Id.* § 1341(d).



only to point source discharges, or is it broader, so that it includes nonpoint sources? Despite cogent arguments that “discharge” is broader than “discharge of a pollutant” and hence that section 401 certifications should be required for nonpoint source pollution, the Ninth Circuit has held otherwise.<sup>132</sup>

If the broad view of section 401 prevails elsewhere, then state would have the power to require that cables laid within the first three miles of the sea do no damage to coral reefs or other aspects of the biological integrity of the Act’s territorial seas. Even if section 401 applies only to point source discharges, however, states will have the power to certify – or potentially veto – the laying of telecommunications cables in the Act’s territorial sea on water quality grounds so long as the laying of the cable involves some sort of a discharge of a pollutant.

#### *Coastal Zone Management Act*

**Purpose and provisions.** Congress enacted the Coastal Zone Management Act<sup>133</sup> after finding, *inter alia*, that:

[t]he increasing and competing demands upon the lands and waters of our coastal zone occasioned by population growth and economic development, *including requirements for industry, commerce, residential development*, recreation, extraction of mineral resources and fossil fuels, transportation and navigation, waste disposal, and harvesting of fish, shellfish, and other living marine resources, *have resulted in the loss of living marine resources, wildlife, nutrient-rich areas, permanent and adverse changes to ecological systems*, decreasing open space for public use, and shoreline erosion.<sup>134</sup>

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<sup>132</sup> Oregon Natural Desert Ass’n v. Dombeck, 172 F.3d 1092, 1095-98 (9<sup>th</sup> Cir. 1998).

<sup>133</sup> 16 U.S.C. §§ 1451-1465 (2000).

<sup>134</sup> *Id.* § 1451(c) (emphasis added).

As a result, Congress established a national policy “to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation’s coastal zone for this and succeeding generations . . . .”<sup>135</sup>

The substantive provisions of the Coastal Zone Management Act establish funding incentives for coastal states that enact coastal zone management plans that conform to the Act’s, EPA’s, and NOAA’s requirements.<sup>136</sup> For example, state programs must include “[a]n inventory and designation of areas of particular concern within the coastal zone,”<sup>137</sup> “[b]road guidelines on priorities of uses in particular areas, including specifically those uses of lowest priority,”<sup>138</sup> and “procedures whereby specific areas may be designated for the purpose of preserving or restoring them for their conservation, recreational, ecological, historical, or esthetic values”<sup>139</sup> in order for the state to receive coastal zone management funding.

**Applicability.** State coastal zone management plans apply only in the “coastal zone.” Under the Act:

The term “coastal zone” means the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches. *The zone extends . . . seaward to the outer limit of State title and ownership under the Submerged Lands Act . . . .* The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters, and to control those geographical areas which are likely to be affected by or vulnerable to sea level rise. Excluded from the coastal zone are lands

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<sup>135</sup> *Id.* § 1452(1).

<sup>136</sup> *Id.* §§ 1454-1455b.

<sup>137</sup> *Id.* § 1455(d)(2)(C).

<sup>138</sup> *Id.* § 1455(d)(2)(E).

<sup>139</sup> *Id.* § 1455(d)(9).

the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers, or agents.<sup>140</sup>

Thus, the coastal zone subject to state planning extends three miles out to sea, sufficient to encompass many reefs.

All states with marine coasts now have approved coastal zone management plans, which necessarily vary from state to state. However, to the extent that approved state coastal zone management plans protect the coral reefs over which telecommunications companies want to lay cables, the FCC will have to comply with the Coastal Zone Management Act's federal consistency provisions before issuing any permits. The Act provides that after a state plan is approved,

any applicant for a required Federal license or permit to conduct an activity, in or outside of the coastal zone, affecting any land or water use or natural resource in the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the enforceable policies of the state's approved program and that such activity will be conducted in a manner consistent with the program.<sup>141</sup>

The applicant must also furnish the certification to the state, which can then object to the project.<sup>142</sup> "No license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant's certification or until, by the state's failure to act, the concurrence is conclusively presumed," subject to being overruled by the Secretary of Commerce.<sup>143</sup> However, the Secretary can only overrule the state's objection if the Secretary finds "that the activity is consistent with the

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<sup>140</sup> *Id.* § 1453(1) (emphasis added).

<sup>141</sup> *Id.* § 1456(c)(3)(A).

<sup>142</sup> *Id.*

<sup>143</sup> *Id.*

objectives of this chapter or is otherwise necessary in the interest of national security.”<sup>144</sup>

Thus, as in section 401 of the Clean Water Act, the Coastal Zone Management Act gives states a potentially powerful veto over telecommunications cable projects both inside and outside of the coastal zone that could affect coral reefs within three miles of shore. However, if the state chooses not to object to the cables, or if the state has not enacted enforceable policies to protect coral reefs, the Coastal Zone Management Act provides no protection for those reefs.

#### *Rivers and Harbors Act of 1899*

**Purpose and provisions.** Congress enacted the Rivers and Harbors Act of 1899<sup>145</sup> “to preserve federal control over maintaining navigability of the Nation’s waters.”<sup>146</sup> Under section 10 of that Act:

The creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is prohibited; and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines, or where no harbor lines have been established, except on plans recommended by the Chief of Engineers and authorized by the Secretary of the Army; *and it shall be unlawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of,* and port roadstead, haven, harbor, canal, lake, harbor of refuge, or inclosure within the limits of any breakwater, *or of the channel of any navigable water of the United States*, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army prior to beginning the same.<sup>147</sup>

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<sup>144</sup> *Id.*

<sup>145</sup> 33 U.S.C. §§ 401-418 (2000).

<sup>146</sup> T. Addison & T. Burns, *The Army Corps of Engineers and Nationwide Permit 26: Wetlands Protection or Swamp Reclamation*, 18 *ECOLOGY L. Q.* 619, 624 (1991).

<sup>147</sup> 33 U.S.C. § 403 (2000).

Therefore, the Rivers and Harbors Act requires persons disturbing navigable waters to have a permit from the Army Corps of Engineers.

**Applicability.** Under the Army Corps' regulations, the "[n]avigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce."<sup>148</sup> Such waters "include all ocean and coastal waters . . . ."<sup>149</sup>

In essence, therefore, the Rivers and Harbors Act confers broader geographical permitting jurisdiction on the Army Corps of Engineers than section 404 of the Clean Water Act, reaching all ocean and coastal waters instead of just those within three miles of shore. However, the Rivers and Harbors Act requires some effect or potential effect on traditional navigation before a permit is required. Nevertheless, the Rivers and Harbors Act permit requirement could be relevant to telecommunications cables if telecommunications companies sought to lay cables within or across shipping lanes, through harbors, or in other places where the cable-placing process might itself interfere with navigation. The Rivers and Harbors Act could also potentially apply in shallow ocean waters if the cables might pose a risk of snagging vessel propellers, especially at low tide.

As with Clean Water Act permits, if a telecommunications company must get a Rivers and Harbor permit from the Army Corps of Engineers, NEPA requirements also apply, and federal courts have recognized that ecological considerations are relevant to

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<sup>148</sup> 33 C.F.R. § 329.4 (2001).

<sup>149</sup> *Id.* § 329.12(a).

the Army Corps' Rivers and Harbors Act permitting decisions.<sup>150</sup> However, unlike under the Clean Water Act, there is no private right of action for persons injured by violations of the Rivers and Harbors Act.

### **Conclusion**

Absent some other environmental consideration besides coral reefs – endangered species, fishery conservation, water quality – or independent marine protected area/National Marine Sanctuary status and regulations – no Federal statute, regulation, or executive order directly and enforceably prohibits the laying of telecommunications cables over coral reefs. However, if such other statutes and regulations come into play, they are potentially powerful in restricting such cables, especially if the Endangered Species Act is triggered.

Otherwise, the most potent combination of Federal policies is the NEPA environmental impact statement requirement in the context of Executive Order 13089. At the very least, any failure on the part of the FCC to consider the effects of telecommunications cables on coral reefs in the context of permitting should be sufficient to render the permitting decision arbitrary and capricious, which in turn should prompt the reviewing court to enjoin the permit until the FCC complies with NEPA. NEPA, however, imposes no substantive requirements on the FCC. Therefore, if the FCC does consider the impact on coral reefs and adequately analyzes alternatives, NEPA and Executive Order 13089 will probably be insufficient to prevent the installation of cables.

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<sup>150</sup> See, e.g., *Zabel v. Tabb*, 430 F.2d 199, 211-14 (5<sup>th</sup> Cir. 1970), *cert. denied*, 401 U.S. 910 (1971).