

C O M M E N T

# Protecting Species or Hindering Energy Development? How the Endangered Species Act Impacts Energy Projects on Western Public Lands

by Melinda Taylor, Romany Webb, and Vanessa Puig-Williams

Melinda Taylor is a Senior Lecturer and Executive Director of the Kay Bailey Hutchison Center for Energy, Law, and Business at the University of Texas at Austin (KBH Energy Center). Romany Webb is a Climate Law Fellow at the Sabin Center for Climate Change Law at Columbia Law School. Vanessa Puig-Williams is an Affiliated Fellow in the KBH Energy Center.

Since it was enacted in 1973, the Endangered Species Act (ESA) has been one of the most celebrated environmental laws, but also one of the most reviled. Though passed by the U.S. Congress with strong bipartisan support (it passed the U.S. House of Representatives by a 379-vote margin and the U.S. Senate unanimously<sup>1</sup>), the ESA has faced growing opposition by industry and developers frustrated by its ability to slow projects down, and by environmentalists discouraged by its failure to reverse the decline of many of the nation's most imperiled plants and animals.

Much of the criticism has been directed toward §7 of the ESA, which requires federal agencies to consult with the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) to ensure that actions they undertake or authorize do not jeopardize threatened or endangered species.<sup>2</sup> Industry groups argue that the consultation process frequently delays and sometimes halts much needed energy, transportation, water supply, and other projects and often dramatically increases project costs. Environmentalists disagree with this view, contending that the process actually rarely stops anything and that the FWS lacks the backbone to impose meaningful conservation requirements that would be costly or inconvenient for the project developer.

In recent years, industry complaints about the ESA have found a sympathetic ear in Congress and some members have sought to amend the Act to weaken its protections.

From 2011 to 2015, lawmakers introduced a whopping 164 bills and riders aimed at reducing the scope and applicability of the ESA, including by preventing listing of or mandating the delisting of species, and otherwise limiting the implementation of the Act.<sup>3</sup>

In 2015, we decided to delve deeply into ESA §7 to analyze how it actually works in practice and to assess the validity of various parties' claims about the consultation process. We focused on the impact of §7 consultation on energy development on public land. This Comment is an overview of our study and key findings. In a nutshell, we learned that only a small fraction of energy projects developed on public land are reviewed at all under §7. When it applies, the consultation process appears to go quickly and smoothly for the vast majority of oil and gas projects, for a variety of reasons. On the other hand, consultation on solar energy and wind energy projects tends to be lengthy and complicated.

FWS has taken steps in recent years to improve the consultation process for energy projects, including by issuing programmatic biological opinions (BiOps) to cover multiple similar actions. By and large, the industry representatives whom we interviewed spoke favorably about their experiences with the programmatic BiOps, but expressed lingering concerns about various aspects of the consultation process.

Our study focuses on energy projects involving oil, gas, solar, and wind energy development (together "energy proj-

1. 119 CONG. REC. 25694 and 30167-68 (1973).

2. 16 U.S.C. §1536(a)(2). Federal agencies must consult with FWS on any proposed action that may affect listed terrestrial and freshwater species and with NMFS on any proposed action that may affect listed marine species. The consultations discussed in this Comment were carried out by FWS.

3. Jamie Pang & Noah Greenwald, Center for Biological Diversity, *Politics of Extinction: The Unprecedented Attack on Endangered Species and the Endangered Species Act* (2015), available at [http://www.biologicaldiversity.org/campaigns/esa\\_attacks/pdfs/Politics\\_of\\_Extinction.pdf](http://www.biologicaldiversity.org/campaigns/esa_attacks/pdfs/Politics_of_Extinction.pdf).

ects”) on public lands, largely because energy developers have been among the fiercest critics of the ESA. The Western Energy Alliance, for example, has argued that:

Misuse of the ESA can prevent energy development . . . . Far too often the ESA has been used as a means to prevent or delay responsible economic activity rather than for species protection. When applied too broadly . . . the ESA can have very negative economic and job impacts on western states, local communities, and the nation.<sup>4</sup>

Further, the Barack Obama Administration has made the development of renewable energy projects on public lands a priority. The Energy Policy Act of 2005 established a goal for the Secretary of the Interior to approve 10,000 megawatts (MWs) of electricity from non-hydro-power renewable energy projects on public lands by 2015. The U.S. Department of the Interior (DOI) achieved the goal ahead of schedule in October 2012.<sup>5</sup> Building on that effort, President Obama’s Climate Action Plan, released in 2013, directed DOI to approve an additional 10,000 MW of renewable energy capacity on public lands by 2020.<sup>6</sup> We were curious about the extent to which the §7 consultation process could interfere with achieving this goal.

Ours is not the first analysis of §7 consultations. For example, a 2015 study published by the National Academy of Science analyzed 88,290 consultations undertaken nationwide between January 2008 and April 2015.<sup>7</sup> The study found that, “[i]n contrast to conventional wisdom about §7 implementation, no project was stopped or extensively altered as a result of FWS finding jeopardy or adverse modification” during consultation.<sup>8</sup> The median duration of consultation also was found to be far lower than the maximum time allowed by the ESA.<sup>9</sup> Notably, however, in calculating the duration of consultations, the study’s authors did not include the time spent discussing a project with the federal agencies before consultation is officially initiated. Nor did those authors analyze the extent to which these discussions resulted in changes to the projects.<sup>10</sup>

Our study aims to provide a more complete picture of the effect of §7 consultations on energy projects. We

reviewed consultations undertaken pursuant to §7 between fiscal year (FY) 2010 and FY 2014 involving energy projects on land managed by the Bureau of Land Management (BLM). As the majority of BLM-managed land is located in the western half of the country, the analysis focuses on energy project consultations in the 17 westernmost states in the continental United States, as well as Hawaii.<sup>11</sup> We did not analyze any consultations undertaken in other states.

We obtained basic information about each consultation, including a brief description of the project involved and a list of species affected, from FWS’ Tracking and Integrated Logging System (TAILS). We also reviewed the BiOps and concurrence letters issued in each consultation. We then selected a subset of individual consultations for further study. With respect to those, we interviewed agency staff and, where possible, industry representatives involved in the consultations to gain a better understanding of how the consultations played out in practice.

## I. Background: The ESA and §7

The purpose of the ESA is to “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.”<sup>12</sup> Under the ESA, an “endangered species” is one that is in danger of extinction throughout all or a significant portion of its range, and a “threatened species” is one that is likely to become endangered in the foreseeable future.<sup>13</sup> Section 4 of the ESA provides that FWS must determine whether a species is endangered or threatened due to one or more factors listed in the statute.<sup>14</sup> Only after a species is listed is it entitled to protection under the ESA.<sup>15</sup>

The two primary mechanisms through which the ESA protects listed species are set out in §7 and §9. Under §7, federal agencies must ensure that their actions are “not likely to jeopardize the continued existence of any [listed] species or result in the destruction or adverse modification of [any critical] habitat” of those species.<sup>16</sup> Section 9 prohibits both federal and nonfederal actors from “taking” endangered species, with “take” defined broadly to include “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect.”<sup>17</sup>

Section 7 of the ESA establishes a process by which a federal agency (commonly referred to as the “action agency”) may consult with FWS about proposed actions. The consultation process is designed to assist the action agency to fulfill its duty to ensure that its actions do not jeopardize

4. Western Energy Alliance, *Endangered Species Act (ESA)*, WILDLIFE, <http://www.westernenergyalliance.org/knowledge-center/wildlife/endangered-species-act-esa>. (last visited Feb. 25, 2016).

5. Press Release, U.S. Department of the Interior Bureau of Land Management, Salazar Authorizes Landmark Wyoming Wind Project Site, Reaches President’s Goal of Authorizing 10,000 Megawatts of Renewable Energy (Oct. 9, 2012).

6. The President’s Climate Action Plan, Executive Office of the President (June 2013).

7. Jacob W. Malcom & Ya-Wei Li, *Data Contradict Common Perceptions About a Controversial Provision of the U.S. Endangered Species Act*, 112 PROC. NAT’L ACAD. SCI. 15844 (2015).

8. *Id.* at 15344-49.

9. *Id.*

10. The authors did note, however, that “[s]ome agencies are proposing projects with reduced impacts because they are coordinating more closely with FWS to shape the projects well before consultations begin.” *See id.* at 15847.

11. Our study includes energy projects on BLM lands in FWS regions 1, 2, 6, and 8.

12. 16 U.S.C. §1531(b).

13. *Id.* §1532(6), (20).

14. *Id.* §1533(a)(1)(A-E).

15. *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 8 ELR 20513 (1978).

16. 16 U.S.C. §1536(a)(2).

17. *Id.* §1538(a)(1)(B)-(C). *See also* §1532(19).

listed species, or destroy or adversely modify critical habitat. Consultation is required whenever an action proposed to be conducted, funded, or authorized by the agency may affect listed species. The agency's determination as to the effects of an action, and the need for consultation, is set out in a biological assessment (BA).<sup>18</sup>

Subject to limited exceptions, the action agency must complete its BA within 180 days of requesting consultation and submit it to FWS.<sup>19</sup> Based on the findings in the BA, the action agency may request that FWS initiate consultation on an informal or formal basis. Informal consultation occurs when the action agency determines that an action "may affect, but is not likely to adversely affect" a listed species. If the action may have adverse effects, formal consultation must be undertaken.

When the action agency requests informal consultation, FWS must respond within 30 days indicating whether it concurs that adverse effects are unlikely.<sup>20</sup> If FWS concurs, it will provide a "concurrence letter" to the action agency, thereby terminating the consultation process, and the action may go forward with no further review from FWS.<sup>21</sup>

If the action agency determines that the proposed action may have adverse effects, it requests formal consultation with FWS. During the formal consultation process, FWS assesses whether the action is likely to jeopardize the continued existence of listed species or destroy or adversely modify critical habitat. This review may last up to 90 days, after which time FWS must issue a BiOp within 45 days.<sup>22</sup> The BiOp reflects FWS' view as to whether the project will result in jeopardy to listed species, based on its consideration of the current status of the species and analysis of the various effects (direct, indirect, interrelated, and interdependent) of the action, and the cumulative effects of other nonfederal activities.<sup>23</sup>

If FWS determines that an action is likely to jeopardize listed species or adversely modify critical habitat, the action agency may still move forward, but risks being prosecuted by a third party for breach of §7 of the ESA or a violation of the take prohibition in §9. FWS is required by the Act to notify the agency of any alternative methods of implementing the action ("reasonable and prudent alternatives" or RPAs), which would enable it to avoid violating the ESA.<sup>24</sup> RPAs are not identified for actions that are considered unlikely to jeopardize listed species. The BiOps for those actions may include discretionary conservation measures designed to lessen any adverse impacts on listed species.<sup>25</sup>

Where FWS determines that a federal action that is unlikely to jeopardize the continued existence of a listed species may nonetheless result in a take of that species, it

will prepare an incidental take statement for the action.<sup>26</sup> Though the ESA generally prohibits take of a listed species, FWS may permit take which is incidental to, and not the purpose of, an otherwise lawful activity.<sup>27</sup> The incidental take statement specifies the amount or extent of take due to the action, identifies reasonable and prudent measures to minimize take, and outlines terms and conditions to be observed in implementing the measures.<sup>28</sup> The reasonable and prudent measures, and the terms and conditions for implementing them, must not "alter the basic design, location, scope, duration or timing of the action and may involve only minor changes," according to the FWS' regulations.<sup>29</sup>

## II. Interagency Consultation in Practice

Within the general parameters described above, interagency consultations vary significantly in practice, depending on a range of factors. The process may be impacted by the nature of the proposed action, the location in which it is to occur, and the species found therein. For most projects, the process is highly collaborative and involves significant discussions and negotiations between FWS, the action agency (BLM, for the energy projects we researched), and the applicant (if any).

Before officially requesting consultation, the action agency and FWS discuss the project, so that FWS may provide its initial views on the impacts of the action. FWS encourages such pre-consultation discussions, on the grounds that they give the applicant an opportunity to make adjustments and incorporate mitigation measures in the design phase, resulting in fewer or less-severe impacts on species and their habitat. We learned from FWS staff that pre-consultation discussions can last 18 months or more, depending on the complexity of the project.<sup>30</sup> The discussions among the parties often continue after the initiation of consultation. The parties may exchange information regarding the likely impacts of the project, and agree on measures to minimize the impacts. In formal consultations, FWS may provide the action agency and applicant a draft of its BiOp and invite them to provide comments.<sup>31</sup>

## III. Programmatic Consultations

Traditionally, consultations have been done separately for individual federal actions. Individual consultations take significant time to complete and can be expensive to carry out. In addition, some commentators have expressed con-

18. 50 C.F.R. §402.12(a).

19. 16 U.S.C. §1536(c); 50 C.F.R. §402.12(i).

20. 50 C.F.R. §402.12(j).

21. *Id.* §402.13(a).

22. 16 U.S.C. §1536(b)(1)(A), (3)(A).

23. Relevant nonfederal activities may include state, tribal, local, or private activities that are reasonably certain to occur in the project area.

24. 50 C.F.R. §402.14(h)(3). *See also* §402.14(g)(5).

25. *Id.* §402.14(j). *See also* §402.14(g)(6).

26. *Id.* §402.14(g)(7)(i).

27. 16 U.S.C. §1536(b)(4).

28. 50 C.F.R. §402.14(i)(1).

29. *Id.* §402.14(i)(2).

30. The consultation lengths reported in this study do not include time spent on pre-consultation discussions. We understand from discussions with agency staff that this time is generally not recorded by FWS and BLM.

31. FWS is required to discuss with the action agency and applicant its basis for any finding in the BiOp, pursuant to regulation. FWS must, if requested, make available to the action agency its draft BiOp. *See* 50 C.F.R. §402.14(g)(5).

cern that, where consultation is undertaken separately for each action, FWS may fail to adequately address the cumulative impacts of all actions. FWS may not be aware of small projects that are determined by the action agency to have “no effect” on listed species and, as a result, may fail to consider those projects when assessing the cumulative effects of other activities.

To address these concerns, FWS has increasingly utilized a programmatic consultation process in recent years. The term “programmatic consultation” refers to consultations evaluating the effects of:

- Federal agency programs that establish general guidelines for particular types of actions (e.g., land use plans);
- Multiple actions of the same or similar type; or
- A group of different actions proposed to occur within the same area.<sup>32</sup>

In each case, following consultation, FWS issues a programmatic biological opinion (PBiOp) that addresses the effects of future actions of a specified type and sets out general conservation measures that apply to those actions.

When an action covered by a PBiOp is proposed, additional documentation is generally required. The documentation will take one of two forms<sup>33</sup>:

- Under the “tiered programmatic consultation approach,” for actions covered by a PBiOp, FWS may issue a tiered BiOp. This is similar to a standard BiOp in that it analyzes the likely effects of the action and identifies conservation measures to offset those effects. It is, however, generally easier to complete because it incorporates data and analysis from the previous BiOp.
- Under the “appended programmatic consultation approach,” a subsequent action covered by a PBiOp may be appended thereto, eliminating the need for a separate BiOp. In such cases, the action agency will notify FWS that it considers a proposed action to be consistent with the PBiOp. FWS may issue a letter confirming the agency’s view and appending the action to the PBiOp.

In the course of this study, we reviewed the following five programmatic consultations, which apply to a number of the energy projects we analyzed:

- The Oil and Gas PBiOp dated July 17, 1996, as revised and extended on September 28, 2001, addressing small-scale projects associated with BLM’s oil and gas leasing program in Kings and Kern Counties in California (the California Oil and Gas PBiOp)<sup>34</sup>;

- The 1999, 2005, and 2009 PBiOps issued with respect to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (RIP), which applies to projects involving water depletions from the Upper Colorado River Basin<sup>35</sup>;
- The 2006 PBiOp issued with respect to the Platte River Recovery Implementation Program (PRRIP), which covers projects involving water depletions from the Platte River Basin<sup>36</sup>;
- The 2005 PBiOp on BLM’s Wind Energy Development Program<sup>37</sup>; and
- The 2012 PBiOp on BLM’s Solar Energy Program.<sup>38</sup>

There may be other PBiOps relevant to energy development on BLM lands, which we did not review.

#### IV. Energy Development on BLM Lands

The federal government owns 28% of the land in the United States, or approximately 650 million acres, of which more than three-quarters is managed by DOI. Within DOI, BLM is the largest land manager, with responsibility for approximately 247 million surface acres and 700 million subsurface (mineral) acres.<sup>39</sup> The bulk of the acreage is located in the western United States, primarily in Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Wyoming. Approximately one-third of all domestically produced energy currently comes from public lands.<sup>40</sup>

reau of Land Management (July 17, 1996) (on file with authors); Memorandum from Assistant Field Supervisor, Sacramento Fish and Wildlife Office, to Manager, Bureau of Land Management (Sept. 28, 2001) (on file with authors).

35. Memorandum from Regional Director, Region 6, Fish and Wildlife Service, to Geographic Assistant Regional Director, Southern Geographical Area, Region 6 (Dec. 1999) (on file with authors); Memorandum from Regional Director, Region 6, Fish and Wildlife Service, to Assistant Regional Director, Ecological Services, Region 6 (Jan. 10, 2005) (on file with authors); Memorandum from Colorado Field Supervisor, Ecological Services, Fish and Wildlife Service, to Area Manager, Western Colorado Area Office, Bureau of Reclamation (Dec. 4, 2009) (on file with authors).
36. Memorandum from Steve Anschutz, Field Supervisor, Nebraska Ecological Services Field Office, U.S. Fish and Wildlife Service, to Michael J. Ryan, Regional Director, Great Plains Region, Bureau of Reclamation, and Mike Stempel, Assistant Regional Director, Fisheries and Ecological Services, Region 6, U.S. Fish and Wildlife Service (June 16, 2006) (on file with authors).
37. Letter from Richard E. Sayers, Chief, Division of Consultation, Habitat Conservation Planning, Recovery, and State Grants, U.S. Fish and Wildlife Service, to Kathleen Clarke, Director, Bureau of Land Management (Nov. 30, 2005) (on file with authors).
38. U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE, ENDANGERED SPECIES ACT CONSULTATION FOR SOLAR ENERGY PROGRAM (2012), available at [http://solareis.anl.gov/documents/docs/SolarPEIS\\_Biological\\_Opinion.pdf](http://solareis.anl.gov/documents/docs/SolarPEIS_Biological_Opinion.pdf).
39. U.S. Department of the Interior Bureau of Land Management, *The Bureau of Land Management: Who We Are, What We Do*, ABOUT THE BLM, [http://www.blm.gov/wo/st/en/info/About\\_BLM.html](http://www.blm.gov/wo/st/en/info/About_BLM.html) (last updated Jan. 26, 2012).
40. U.S. DEPARTMENT OF THE INTERIOR, AMERICAN ENERGY FOR AMERICA’S FUTURE: THE ROLE OF THE U.S. DEPARTMENT OF THE INTERIOR 3 (2004), available at <https://archive.org/details/americanenergyfo3388unit>.

32. Memorandum of Agreement between the Bureau of Land Management, Forest Service, National Marine Fisheries Service, and Fish and Wildlife Service, at 2 (Aug. 30, 2000), available at [http://www.blm.gov/or/esa/reports/Procedures/Interagency\\_MOA\\_for\\_Plan\\_and\\_Programmatic\\_Consultation.doc](http://www.blm.gov/or/esa/reports/Procedures/Interagency_MOA_for_Plan_and_Programmatic_Consultation.doc).

33. *Id.* at 5.

34. Memorandum from Field Supervisor, Ecological Services Sacramento Field Office, Fish and Wildlife Service, to Caliente Resource Area Manager, Bu-

BLM's management of public lands is governed by the Federal Land Policy and Management Act (FLPMA),<sup>41</sup> which requires it to apply the principle of "multiple use," such that land is "utilized in the combination that will best meet the present and future needs of the American people."<sup>42</sup> FLPMA requires BLM to develop and periodically revise land use plans that specify uses for various tracts of public land.<sup>43</sup> Land use plans, also referred to as Resource Management Plans (RMPs), "form the basis for every action and approved use on the public lands."<sup>44</sup>

The development of an RMP constitutes a "federal action" for the purposes of §7 of the ESA. BLM will, therefore, consult with FWS under §7(a)(2) prior to issuing a new RMP. Consultation is also required whenever BLM proposes to revise or amend the RMP. Finally, reinitiation of consultation is required when additional species are listed as threatened or endangered, or if significant new information becomes available that suggests there is a need to reevaluate the effects of the RMP.

Consultation on RMPs is governed by a memorandum of agreement (MOA) executed on August 30, 2000, between BLM, FWS, NMFS, and the U.S. Forest Service.<sup>45</sup> Conservation measures designed to mitigate any adverse effects on listed species resulting from development carried out pursuant to the RMPs are developed through a programmatic consultation carried out under the auspices of the MOA.

Individual energy projects are authorized through a permit process overseen by BLM. For most projects, this authorization takes the form of a right-of-way (ROW). A ROW is the privilege of passing over or through land owned by another entity (DOI, in this case). FLPMA authorizes BLM to issue ROWs over public lands for renewable energy projects.<sup>46</sup> BLM also has authority to permit the development of federally owned onshore oil and gas resources under the Mineral Leasing Act, and does so through the sale of leases of public land and issuance of permits to drill.<sup>47</sup>

## V. BLM's Role in Oil and Gas Development

BLM is authorized to lease public land for oil and gas development pursuant to §14 of the Mineral Leasing Act.<sup>48</sup> Prior to selling a lease to an oil and gas developer, the rel-

evant state office of BLM must consult with FWS if listed species are likely to be affected. There is no single, uniform approach to consultation on oil and gas lease sales. Rather, each state office has developed its own procedures.

Based on discussions with BLM staff, we understand that most state offices do not consult on individual lease sales where consultation has already occurred on the applicable RMP and the lease is in accordance with the RMP. The state offices take the view that the act of leasing does not, by itself, have any effect on listed species. Rather, the lessee is required to obtain a separate authorization (an application for permit to drill, or APD), which authorizes development. A detailed assessment of effects on listed species is, therefore, typically left until the lessee requests an APD.

In several states, including Colorado, New Mexico, and Wyoming, consultation is undertaken on lease sales that give rise to additional effects not considered during review of the applicable RMP. BLM is currently in the process of updating its RMPs, many of which are over 20 years old. Until the updates are completed, BLM state offices are, in many cases, routinely consulting on individual lease sales.<sup>49</sup> Such consultations generally proceed on an informal basis, with FWS undertaking a simplified review, wherein it merely confirms that the lease contains stipulations to protect listed species, and does not analyze the likely effects of development under the lease.<sup>50</sup>

## VI. BLM's Role in Renewable Energy Development

Under §501(a)(4) of FLPMA, BLM may grant ROWs over public lands, authorizing use of that land for "systems for generation, transmission, and distribution of electric energy," including renewable generating facilities.<sup>51</sup> To date, BLM has permitted 33 utility-scale solar energy projects with a combined capacity of 9,278 MW.<sup>52</sup> The agency has also authorized 39 wind energy projects with a combined capacity of 5,557 MW and over 100 wind energy testing facilities.<sup>53</sup>

BLM's experience with renewable energy projects is relatively recent compared to oil and gas projects. The first utility-scale solar project on public lands was approved by BLM in 2010. In the early years of interest in solar projects, BLM did not have any policy or guidance in place

41. 43 U.S.C. §§1701-1785, ELR STAT. FLPMA §§102-603.

42. *Id.* §§1701(a)(7), 1702(c).

43. *Id.* §1717.

44. U.S. Department of the Interior Bureau of Land Management, Land Use Planning, [http://www.blm.gov/wo/st/en/prog/planning/planning\\_overview.html](http://www.blm.gov/wo/st/en/prog/planning/planning_overview.html) (last updated Mar. 30, 2016).

45. Memorandum of Agreement on Endangered Species Act Section 7 Programmatic Consultations and Coordination, Between Bureau of Land Management, Forest Service, National Marine Fisheries Service, and Fish and Wildlife Service, Aug. 30, 2000, available at [http://www.blm.gov/or/esa/reports/Procedures/Interagency\\_MOA\\_for\\_Plan\\_and\\_Programmatic\\_Consultation.doc](http://www.blm.gov/or/esa/reports/Procedures/Interagency_MOA_for_Plan_and_Programmatic_Consultation.doc). [hereinafter MOA on Programmatic Consultations].

46. 43 U.S.C. §1761 (2016).

47. 30 U.S.C. §185 (2016).

48. *Id.* §223.

49. One example is the Carlsbad RMP, which covers 2.7 million acres in southeastern New Mexico, and which was issued in 1988. See U.S. Department of the Interior Bureau of Land Management, Carlsbad Resource Management Plan Revision, [http://www.blm.gov/nm/st/en/fo/Carlsbad\\_Field\\_Office/carlsbad\\_rmp.html](http://www.blm.gov/nm/st/en/fo/Carlsbad_Field_Office/carlsbad_rmp.html) (last updated May 18, 2015).

50. Lease stipulations are developed by BLM on an ad hoc basis, outside of the formal planning process. We understand from discussions with agency staff that FWS is typically not involved in the development of lease stipulations. The stipulations are, however, incorporated into RMPs as they are revised and will be reviewed by FWS when it consults on the revised RMP.

51. 43 U.S.C. §1761(a)(4).

52. U.S. Department of the Interior Bureau of Land Management, *New Energy for America*, RENEWABLE ENERGY RESOURCES, [http://www.blm.gov/wo/st/en/prog/energy/renewable\\_energy.html](http://www.blm.gov/wo/st/en/prog/energy/renewable_energy.html) (last updated July 1, 2015).

53. *Id.*

with respect to siting. BLM responded to development applications on a case-by-case basis, with no overarching development plan in place. As a result, a number of early projects were located in ecologically sensitive areas, which resulted in a backlash from environmental groups.

In response to the criticism, BLM created a Solar Energy Program in 2012 that spans six western states with solar energy potential: Arizona, California, Colorado, Nevada, New Mexico, and Utah.<sup>54</sup> BLM identified certain areas of public land that are excluded from solar energy development and created solar energy zones (SEZs) where developers are incentivized to locate projects, with BLM ensuring more efficient permitting procedures. BLM defines an SEZ as “an area within which the BLM will prioritize and facilitate utility-scale production of solar energy and associated transmission infrastructure development.”<sup>55</sup> BLM amended RMPs in those states that were affected by the Solar Energy Program and consulted with FWS about the impacts on listed species.

On July 20, 2012, FWS issued a PBiOp concluding that the Solar Energy Program is not likely to jeopardize the continued existence of 17 listed species or destroy or adversely modify designated critical habitat. FWS determined that “the selection of [SEZs], exclusion of certain areas from eligibility for solar development, application of design features to all the solar developments that will occur, and the review process . . . are likely to contribute to the conservation of listed species.”<sup>56</sup>

Wind projects are also relatively new for BLM. Seeking to encourage the development of such projects, in August 2006, BLM adopted a comprehensive Wind Energy Development Program (WEDP) to guide wind energy site testing and development projects in the western United States, excluding Alaska.<sup>57</sup> BLM amended 52 RMPs in nine states to specify areas where wind development will be allowed and where it will not be permitted, unless the applicable RMP is amended.<sup>58</sup>

In developing the WEDP, BLM consulted with FWS pursuant to §7 of the ESA. FWS found that future development under the WEDP may adversely affect nine endangered and threatened species, but is unlikely to jeopardize their continued existence because developers will be required to comply with best management practices (BMPs).<sup>59</sup> The

BMPs were revised in 2008 to provide updated guidance for wind energy development.<sup>60</sup>

Additional strategies for reducing the impacts of wind energy development are set out in guidelines published by FWS in March 2012, which include BMPs related to siting, construction, and operations designed to reduce risks to species.<sup>61</sup> Compliance with the BMPs is voluntary and does not relieve the developer of any obligations he/she may have under the ESA.<sup>62</sup> FWS will, however, consider a developer’s efforts to comply with the BMPs when assessing what action (if any) to take in an ESA enforcement situation.<sup>63</sup>

## VII. Study Results

### Total Number of Consultations for Energy Projects, FY 2010-FY 2014<sup>64</sup>

	Formal Consultations	Informal Consultations	Total
Oil and Gas Projects	24	119	143
Solar Projects	19	8	27
Wind Projects	6	3	9
<b>TOTAL</b>	<b>49</b>	<b>130</b>	<b>179</b>

#### A. Oil and Gas Projects

Our research identified a total of 179 consultations relating to energy projects on BLM lands undertaken from FY 2010 through FY 2014. The vast majority (80%) of those consultations involved oil and gas development. However, the number of consultations relating to oil and gas projects is small when assessed relative to all oil and gas developments permitted by BLM during that period. Only approximately 10% of all oil and gas projects authorized on BLM land during FY 2010 through FY 2014 were subject to consultation.<sup>65</sup>

Service, to Kathleen Clarke, Director, Bureau of Land Management (Nov. 30, 2005) (on file with authors).

54. Bureau of Land Management Solar Energy Program, *Western Solar Plan*, Solar Energy Program, <http://blmsolar.anl.gov> (last visited Mar. 10, 2016).

55. Solar Energy Development Programmatic EIS Information Center, *Solar Energy Zones*, <http://solareis.anl.gov/sez/index.cfm> (last visited Mar. 10, 2016).

56. U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE, ENDANGERED SPECIES ACT CONSULTATION FOR SOLAR ENERGY PROGRAM 1 (2012), available at [http://solareis.anl.gov/documents/SolarPEIS\\_Biological\\_Opinion.pdf](http://solareis.anl.gov/documents/SolarPEIS_Biological_Opinion.pdf).

57. U.S. Department of the Interior Bureau of Land Management, Record of Decision: Implementation of a Wind Energy Development Program and Associated Land Use Plan Amendments (2006), available at <http://windeis.anl.gov/documents/docs/WindPEISROD.pdf>.

58. The nine states are Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

59. Letter from Richard E. Sayers, Chief, Division of Consultation, Habitat Conservation Planning, Recovery, and State Grants, U.S. Fish and Wildlife

60. U.S. DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT, INSTRUCTION MEMORANDUM No. 2009-043; WIND ENERGY DEVELOPMENT PROGRAM Attachment 1 (2008), available at [http://www.blm.gov/wo/st/en/info/regulations/Instruction\\_Memos\\_and\\_Bulletins/national\\_instruction/2009/IM\\_2009-043.html](http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2009/IM_2009-043.html).

61. U.S. FISH AND WILDLIFE SERVICE, LAND-BASED WIND ENERGY GUIDELINES (2012), available at [https://www.fws.gov/ecological-services/es-library/pdfs/WEG\\_final.pdf](https://www.fws.gov/ecological-services/es-library/pdfs/WEG_final.pdf).

62. *Id.* at vi.

63. *Id.* at vii.

64. The above totals are based on consultations recorded in TAILS. TAILS may not include all consultations undertaken on energy projects on BLM land during the study period. Potentially excluded consultations include those proceeding under the appended programmatic consultation approach discussed above.

65. There was a total of 19,977 wells drilled on BLM lands during the study period, with the highest number being in Wyoming (6,425 wells) and the lowest in Nevada (22). See BUREAU OF LAND MANAGEMENT, NUMBER OF DRILLING PERMITS APPROVED BY FISCAL YEAR ON FEDERAL LANDS (2015), available at [http://www.blm.gov/style/medialib/blm/wo/MINERALS\\_REALTY\\_AND\\_RESOURCE\\_PROTECTION\\_/energy/oil\\_gas\\_statistics/data\\_sets.Par.65795.File.dat/numberofpadsapproved.pdf](http://www.blm.gov/style/medialib/blm/wo/MINERALS_REALTY_AND_RESOURCE_PROTECTION_/energy/oil_gas_statistics/data_sets.Par.65795.File.dat/numberofpadsapproved.pdf).

None of the formal consultations involving oil and gas projects resulted in a finding of jeopardy to listed species or destruction or adverse modification of critical habitat. In two of the consultations, FWS determined that the project may result in the taking of listed species and issued an incidental take statement, outlining RPMs to minimize take. The BiOps for those and other projects included details of various conservation measures that the project proponent had agreed to implement. Agency staff indicated that the conservation measures are usually proposed by BLM and/or the project proponent.

Of the 24 formal consultations relating to oil and gas projects, 21 (88%) proceeded in a streamlined manner under one of the PBiOps, either the RIP or PRRIP, which apply to oil, gas, and other projects involving water diversions from the Upper Colorado and Platte River Basins, respectively. FWS did not undertake a detailed assessment of the likely impacts of any of these projects, nor identify project-specific mitigation measures, but rather concluded that the RIP or PRRIP will mitigate any adverse project effects. The reviews were therefore completed quickly, with the longest taking 65 days.

Just three (13%) of the formal consultations involving oil and gas projects underwent the traditional, individualized review process. One of those—a reinitiation of consultation on the California Oil and Gas PBiOp—was undertaken in response to a request from BLM for changes to the incidental take statement in the original PBiOp. It was a lengthy process, taking 574 days to complete. The other two formal consultations were completed more quickly, lasting an average of 133 days. Each related to a unique project involving the development, over multiple years, of oil and gas resources in Colorado.<sup>66</sup> FWS concluded that neither project would jeopardize the continued existence of any listed species or result in the adverse modification of critical habitat. The finding was based on a commitment, by the project proponent, to implement certain measures to minimize any adverse impacts, and the measures were similar for both projects, because the same species were involved in both.

The majority (83%) of consultations involving oil and gas development during the study period were conducted on an informal basis. Between FY 2010 and FY 2014, 119 informal consultations were undertaken for oil and gas projects, almost five times the number of formal consultations. Of the 119 informal consultations, 94 (79%) were completed within 30 days, the time frame specified in FWS regulations.<sup>67</sup> Of the remaining 25 consultations,

the majority were completed within 60 days, though some lasted in excess of 120 days. The average length of review of all 119 informal consultations was 27 days. This does not include time spent on pre-consultation discussions, however. Based on interviews with agency staff, we understand that the extent of pre-consultation discussions varies depending on the nature of the project and the field office handling the consultation, among other factors.

## B. Renewable Energy Projects

A significantly larger percentage of renewable energy projects on BLM land were subject to consultation during the study period. From FY 2010 through FY 2014, 36 consultations were undertaken for renewable projects, of which 27 (75%) involved solar energy development and nine (25%) involved wind projects. We estimate that those numbers represent 82% of all solar energy developments and 71% of all wind energy developments authorized by BLM during the study period.

From the end of 2009 through 2014, FWS engaged in 17 traditional (not programmatic) formal consultations for 14 utility-scale solar projects. All but one of those consultations involved impacts to the Mojave desert tortoise. In all of the consultations, FWS determined that the proposed project was not likely to jeopardize the continued existence of the desert tortoise (or the Peninsular bighorn sheep and flat-tailed horned lizard, in the case of one project). FWS issued incidental take statements authorizing a certain number of takes of desert tortoises, provided that BLM and the applicant comply with the conservation measures in the BiOp. Because all but one of the BiOps involved the desert tortoise, the conservation measures in each are similar. The measures were developed in a collaborative fashion with FWS, BLM, and the project proponent, according to the agencies and industry representatives whom we interviewed.

Most of the solar project formal consultations carried out during the study period were not completed within the 135-day time limit in the ESA. This is likely because they are large in scale and relatively new to BLM lands, as noted previously. It appears, however, that BLM's Solar Energy Program has helped to streamline the process. A recent study by the Wilderness Society indicates that the average permitting time for projects inside an SEZ is about 50% less than projects outside solar energy zones.<sup>68</sup> The reduced overall permitting time includes reduced time required for consultations, because the SEZ projects are tied to a PBiOp.

Between FY 2010 and FY 2014, BLM and FWS engaged in only eight informal consultations for solar projects. One of those projects resulted in issuance of a non-concurrence letter from FWS to BLM stating that the project may affect the peninsular bighorn sheep. Formal consultation for the Imperial Valley Solar Project was required.

66. Memorandum from the Western Colorado Supervisor, FWS, to the Field Manager, BLM (July 15, 2010) (on file with authors) (stating that the project proponent proposed a five-year program of oil and gas exploration and development, involving the drilling of up to 107 wells on 12 existing and 67 new well pads, and associated access roads, pipelines, and handling facilities); Memorandum from the Western Colorado Supervisor, FWS, to the Field Manager, BLM (Sept. 3, 2013) (on file with authors) (indicating that the project proponent proposed a four-year program of oil exploration, involving the drilling of up to 108 wells on 12 new well pads, and associated access roads and pipelines).

67. 50 C.F.R. §402.12(j).

68. See THE WILDERNESS SOCIETY, FACT SHEET: SOLAR ENERGY ZONES (2015), available at <https://wilderness.org/sites/default/files/SEZ%20permitting%20time%20fact%20sheet.pdf>.

The smallest number of §7 consultations conducted during the study period related to wind energy development. Of the 179 consultations undertaken from FY 2010 through FY 2014, only nine (5%) involved wind projects. Of those, six were formal consultations and three were informal. In each formal consultation, FWS found that the wind development would not jeopardize the continued existence of listed species or destroy or adversely modify critical habitat, provided the developer implemented certain conservation measures. As with oil and gas and solar projects, we understand that the conservation measures are generally proposed by the developer and/or BLM and discussed with FWS prior to and during the consultation process.

The average length of the formal consultations relating to wind energy development was 172 days, calculated from the initiation of consultation to publication of a BiOp, and excluding time spent on pre-consultation discussions. According to agency staff we interviewed, in most cases, the delay in publishing the BiOp was likely due to staffing constraints. In just two consultations were the BiOps published within the maximum (135-day) time limit set out in the ESA. The shortest consultation lasted nine days, for a project able to take advantage of the streamlined review process in the RIP and PRRIP.

## VIII. Discussion and Conclusions

As discussed above, only a small number of energy projects on BLM land were subject to consultation under §7 of the ESA between FY 2010 and FY 2014. Over that period, however, the number of energy projects subject to consultation annually has increased, largely because of the growth in the number of renewable energy projects on BLM lands. The growth in renewable energy projects reflects national policies (federal tax incentives, for example) designed to spur investment in solar and wind projects.

None of the energy projects subject to consultation during the study period were found to jeopardize listed species or destroy or adversely modify critical habitat. All projects were, therefore, allowed to proceed without substantial modification. We learned from discussions with FWS staff, however, that some projects were cancelled by the developer during or after consultation. It is not possible, based on the data we obtained from FWS, to ascertain the exact number of cancelled projects, or the reasons for cancellation. Although most cancellations were likely attributable to financial or business considerations, it is possible that some occurred in response to concerns expressed by FWS regarding the potential for jeopardy to listed species.

Based on discussions with agency staff and industry representatives, the consultation process appears to be highly collaborative, with significant back-and-forth discussions among FWS, BLM, and the project proponent. This is particularly true with respect to renewable energy projects. The novelty of such projects on public lands, as well as their large size and inevitable impact on species and habitats, result in considerable effort and time spent by all parties to

develop conservation measures. This process has, on occasion, led to substantial delays and/or major changes to the project location and footprint.

Our analysis suggests that most recent consultations involving energy projects on BLM lands were completed fairly quickly. This is particularly true of consultations relating to oil and gas projects, which took an average of 33 days, well below the 135-day time limit set in the ESA. Consultations on renewable energy projects generally took longer, with consultations for solar projects lasting 131 days on average and wind project consultations lasting 144 days on average. It is important to note that these figures do not include the often significant time spent in informal consultation, discussing a project prior to the official start of formal consultation.

Despite the fact that no projects were stopped by the ESA during the study period, implementation of the Act may nevertheless hinder energy development in some circumstances. The industry representatives we interviewed for this study emphasized that the consultation requirement in §7 of the ESA can and often does lead to significant project delays. This claim is disputed by environmentalists, who argue that most consultations are completed within the time limits set in the statute. Our research shows that most formal consultations relating to oil and gas projects were completed within the statutory time limits, but renewable energy projects often took longer.

Even where the statutory time limits are officially met, project delays may occur as a result of lengthy pre-consultation discussions undertaken before the official clock starts on consultation. Industry representatives expressed frustration with the time involved in these discussions. They also expressed concerns about inconsistencies in the treatment of similar projects. Industry complained that the assessment of project effects and the measures required to minimize those effects often varies between and even within FWS offices. As a consequence, similar projects may be treated differently, depending on the FWS staff assigned to the consultation. This leads to considerable uncertainty for developers, a problem acknowledged by several of the agency staff we interviewed.

Inconsistencies and delays do not arise to the same extent where projects are covered by a PBiOp. The PBiOps recently issued by FWS cover multiple actions of the same type or in the same area. When a covered action is proposed, BLM and FWS may agree to append the action to the existing PBiOp, or use the PBiOp as a foundation for further analysis, leading to greater consistency in the treatment of each action. Indeed, as one industry representative we interviewed noted, the existence of a PBiOp can remove much of the “subjectivity that can be injected [into consultations] by individual staff.” Others, however, warned that this is not always the case and that the PBiOp may be subject to different interpretations over time, particularly when there is staff turnover.

The agency staff and industry representatives we interviewed generally agreed that the existence of a PBiOp

greatly streamlines the consultation process. This is confirmed by our research. As an example, between FY 2010 and FY 2014, 21 oil and gas projects and one wind energy project were subject to consultation under the RIP and PRRIP. All of those consultations were completed quickly, with the longest lasting 97 days. Across all 22 consultations, the average length of review was just 27 days, calculated from the date consultation was officially requested. We understand from discussions with agency staff and industry representatives that there are generally no or few pre-consultation discussions for projects covered by the RIP and PRRIP.

Specific programmatic consultations have been undertaken with respect to renewable energy projects on BLM lands. For example, as part of its Wind Energy Development Program, BLM consulted with FWS on the likely impact of future wind energy projects on nine threatened and endangered species. To minimize any adverse impacts, various BMPs were developed for wind projects that may affect those species. Those BMPs continue to guide the conservation measures adopted in individual project consultations. This not only provides greater certainty for

developers, but should also ensure the consultation process runs more smoothly.

Similar efforts have been taken to streamline consultation on solar energy projects. Before the development of BLM's Solar Energy Program, FWS had to ensure that the location of projects would not interfere with habitat connectivity for the Mojave desert tortoise. On occasion, this meant that the project footprint or location had to be altered during consultation. With the development of SEZs, developers should have more certainty regarding the landscape-level conservation measures with which they will be required to comply. The consultation process should run more efficiently, while ensuring protection of listed species and their habitats.

Agency and industry representatives we interviewed agreed that there has been progress made in recent years to streamline and standardize the consultation process for energy projects on BLM lands. The data we analyzed confirms this conclusion. As BLM, FWS, and the renewable energy industry gain experience with the new PBiOps for wind and solar projects, the extent of improvement will become clearer.