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## SENT VIA REGULATIONS.GOV

U.S. Fish and Wildlife Service  
5275 Leesburg Pike  
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July 9, 2025

**Re: Response to FWS Notice Request for Information and Comment concerning Endangered Species Act Section 10(a) Program Implementation; Development of Conservation Benefit Agreements and Habitat Conservation Plans . . . (90 F.R. 24285 (June 9, 2025))**

We welcome the opportunity to comment in response to the U.S. Fish and Wildlife Service's (FWS, or Service) request for information and comment on implementation of the Endangered Species Act (ESA) Section 10(a) program. Specifically, we appreciate the Service's efforts to improve "the efficiency and effectiveness of conservation benefit agreements, habitat conservation plans, and their respective enhancement of survival permits and incidental take permits."<sup>1</sup>

Over the past two decades, we have conducted extensive research<sup>2</sup> and, through UC Irvine School of Law's Center for Land, Environment, and Natural Resources, amassed expert assessments on habitat conservation planning and the Section 10(a) program<sup>3</sup> and the ESA more generally.<sup>4</sup> This work brought together leading authorities on habitat conservation planning and the ESA from industry, federal and state government, nongovernmental organizations, and university researchers. The research provides extensive evidence about the potential but also the limitations of how the Endangered Species Act (ESA) Section 10(a) habitat conservation planning program has been implemented. These findings also supplement and affirm the more recent work of our colleagues at Defenders of Wildlife (DOW),<sup>5</sup> which are based in part on their groundbreaking, three-decade

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<sup>1</sup> Department of the Interior, Fish and Wildlife Service, Endangered Species Act (ESA) Section 10(a) Program Implementation, 90 Fed. Reg. 24285, 24286 (June 9, 2025).

<sup>2</sup> Alejandro E. Camacho, *Can Regulation Evolve? Lessons from a Study in Maladaptive Management*, 55 UCLA L. REV. 293 (2007) (conducting "the first systematic, cross-disciplinary assessment of the ESA's landmark HCP program, analyzing the value of participation and adaptation in regulatory decisions, as well as the suitability of existing government institutions in developing these vital regulatory characteristics.").

<sup>3</sup> Alejandro E. Camacho, Elizabeth M. Taylor & Melissa L. Kelly, *Lessons from Area-Wide, Multi-Agency Habitat Conservation Plans in California*, 46 ENVTL. L. REP. 10222 (2015), <https://www.law.uci.edu/centers/cleanr/CLEANR-46.10222.pdf>.

<sup>4</sup> Alejandro E. Camacho, Melissa L. Kelly & Ya-Wei Li, *Six Priority Recommendations for Improving Conservation under the ESA*, 51 ENVTL. L. REP. 10785 (2021), <https://www.law.uci.edu/centers/cleanr/news-pdfs/elr-esa-report.pdf>.

<sup>5</sup> Defenders of Wildlife, Response to FWS's Notice Request for Information and Comment concerning the Endangered Species Act (ESA) Section 10(a) Program Implementation (July 9, 2025).

evaluation of 629 Habitat Conservation Plans (HCPs) (covering 38 states and territories and 748 species) in order to gauge the program’s transparency, organization, and impact.<sup>6</sup>

In October 2024, we partnered with Defenders of Wildlife to convene a policy workshop on ESA Section 7(a)(1) with officials from the Department of the Interior, Fish and Wildlife Service, National Oceanic and Atmospheric Administration, Department of Agriculture, Bureau of Land Management, Department of Defense, Environmental Protection Agency, Department of Justice and other agencies (hereinafter “conservation officials”).

As detailed herein, collectively this work provides exceptionally robust evidence of the substantial benefits and the challenges of both Section 10(a) and Section 7(a)(1) in advancing the core goals Congress established and that courts have repeatedly affirmed for the ESA—to conserve vulnerable species and “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved” and to “provide a program” for their conservation, to the point where protections are no longer required.<sup>7</sup>

## I. Rigorous Research Details Significant Conservation Benefits of Section 10(a) Implementation

We agree with DOW that Section 10(a) programs provide a “valuable mechanism for both species protection and sustainable growth” and that changes to HCP and Conservation Benefit Agreement (CBA) programs should include making available “additional resources, transparency, and policy guidance” rather than “tinkering with the language of the regulations.”<sup>8</sup> Equally important, we agree with their research, published by Harl et al., which demonstrates that maximizing the effectiveness of Section 10(a) programs aligns with Congress’s intent that “all Federal departments and agencies...shall utilize their authorities to recover threatened and endangered species”<sup>9</sup> and Section 7(a)(1)’s “requirement that federal agencies use their authorities to recover listed species.”<sup>10</sup>

Attempts to “improve the development and implementation of voluntary agreements, plans, and permits” as well as “the overall efficiency and effectiveness”<sup>11</sup> of the Section 10(a) program should be made with ESA’s broader purpose and Congressional policy in mind. New efforts to encourage or streamline CBA and HCP development, clarify Service roles and responsibilities, and enhance communications should take care to further, rather than contravene, the statutory purpose of ESA. ESA’s purpose includes not only protecting endangered and threatened species but also the habitat and ecosystems upon which they depend.<sup>12</sup>

## II. Section 10(a) Implementation Can Be Improved to Enhance Conservation Even More

Substantial evidence supports the conclusion that Section 10(a) as currently implemented has provided significant conservation benefits while allowing for reasonable economic development. However,

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<sup>6</sup> Heather Harl, Natalie Madden, David E. Jennings, Andrew Carter, *Habitat Conservation Plans Under the Endangered Species Act: A Comprehensive Three-Decade Analysis*, 7 CONSERVATION SCIENCE AND PRACTICE e70061 (2025).

<sup>7</sup> 16 U.S.C. § 1531(b).

<sup>8</sup> *Supra* note 5, at 3.

<sup>9</sup> 16 U.S.C. § 1531(c).

<sup>10</sup> 16 U.S.C. § 1536(a)(1).

<sup>11</sup> 90 Fed. Reg. 24285 (June 9, 2025).

<sup>12</sup> 16 U.S.C. § 1531(b).

there are nonetheless a number of features of the program that could be improved through the allocation of significantly more human and financial resources throughout the planning process, including species and ecosystem inventory monitoring, initial conservation planning and permitting, monitoring, and enforcement. DOW unearthed missing documentation, inconsistent or absent conservation standards, data limitations, inconsistent use of mitigation ratios and other measures, difficulty evaluating the extent of monitoring as stipulated in HCPs, and uncertainty over whether conservation measures are successful. Their findings mirror critiques of the Section 10(a) program dating back to the mid-1990s.<sup>13</sup>

For example, the “first systematic, cross-disciplinary assessment of the ESA’s landmark HCP program” (2007) found that, despite being hailed as an early experiment in regulatory innovation, it failed to embrace experimentalism or adaptive management.<sup>14</sup> Specifically, the study found that the program was *maladaptive* – the Service did not adequately incorporate knowledge from preceding HCP processes, failed to systematically gather basic scientific and other information, neglected to include independent scientists to inform HCP development and implementation, devolved or violated monitoring requirements, discouraged evaluation and adjustment of HCP conservation strategies, and failed to develop a coordinated framework for learning.<sup>15</sup> The article, as well as two subsequent pieces based on policy design workshops with key stakeholders, provide detailed recommendations to address the Service’s “indifference to adaptation.”<sup>16</sup>

The first, based on substantial research and dialogue sessions convened by UC Irvine’s environmental law center and the Center for Collaboration in Governance (2015), concludes that regulators and HCP applicants “must clearly engage stakeholders about the underlying tradeoffs among plan scale, depth, duration, cost, certainty, and efficacy.”<sup>17</sup> It offers “conditions for success” for habitat conservation to increase the likelihood that interjurisdictional problem solving via areawide, multiagency HCPs is productive: (1) clear and efficient implementation structures; (2) interagency coordination and integration of permitting requirements according to ecological boundaries; (3) broad, meaningful, accessible, and transparent participation with balanced representation; (4) integration of an initial scoping of issues and tailoring plans to fit regional characteristics via local input; (5) a well-funded mechanism to facilitate information sharing across jurisdictions and with all interested parties; (6) sufficient training and resources to stand up a collaborative planning as opposed to an adversarial bilateral process; and (7) leadership attuned to participant incentives to build relationships and norms of good behavior.<sup>18</sup>

The second, based on dialogues facilitated by UC Irvine’s environmental law center and the Environmental Policy Innovation Center (2021), emphasized improvements to the ESA and its implementing regulations.<sup>19</sup> It unearthed cross-cutting implementation challenges that mirror findings

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<sup>13</sup> See, e.g., Daniel Hall, *Using Habitat Conservation Plans to Implement the Endangered Species Act in Pacific Coast Forests: Common Problems and Promising Precedents*, 27 ENVIRONMENTAL LAW 803 (1997); Jessica Owley, *Keeping Track of Conservation*, 42 Ecology Law Quarterly 79 (2015); Katie Surrey, Gwenllian Iacona, Becca Madsen et al., *Habitat Conservation Plans Provide Limited Insight into the Cost of Complying with the Endangered Species Act*, 4 CONSERVATION SCIENCE AND PRACTICE e12673 (2022).

<sup>14</sup> *Supra* note 2, at 295.

<sup>15</sup> *Id.* at 335 *et seq.*

<sup>16</sup> *Id.* at 351.

<sup>17</sup> *Supra* note 3, at 10223.

<sup>18</sup> *Id.* at 10233 *et seq.*

<sup>19</sup> *Supra* note 4.

in DOW research and Harl et al., while providing legal, regulatory, and administration changes to enhance species and habitat conservation, such as (1) tailored protections for endangered, threatened, and recovered species and their habitats based on level of vulnerability; (2) revised incidental take authorization standards to “no-net-loss,” “full mitigation,” or “net benefit or recovery contribution” standards; (3) improved recovery planning and implementation; (4) incentives for species conservation across private, state, and federal lands; (5) accounting for ecological change in listing, authorization processes, and recovery planning and implementation; and (6) improved generation, quality, and public dissemination of data.<sup>20</sup>

### III. Section 7(a)(1) Agency Conservation is a Vital and Underutilized Complement to Section 10(a)

In addition to considering how to improve Section 10(a) to better promote species and ecosystem conservation, the FWS should consider how to promote more effective, integrated, and streamlined conservation through Section 7 of the ESA. Section 7 also furthers the policy of species and ecosystem conservation and should be considered in light of any changes considered to Section 10(a) program implementation. Section 7(a)(2) mandates that federal agencies consider the impacts of their actions on endangered and threatened species and their habitat.<sup>21</sup> It calls for species protection and conservation considerations to be integrated across a range of federal actions, from land management and infrastructure development to permitting and regulatory decision-making. It requires agencies to consult with the Service when their actions have the potential to impact listed species or their habitat.

In addition, Section 7(a)(1) emphasizes the importance of coordination and interagency collaboration in conserving listed species.<sup>22</sup> It encourages agencies to leverage their resources and expertise across sectors. By directing agencies to identify opportunities to contribute to species recovery and habitat conservation and to integrate conservation into their programs, policies, and activities, Section 7(a)(1) underscores the shared responsibility of agencies in addressing species and biodiversity loss.<sup>23</sup> Affirmative contributions to species recovery and other aspects of conservation may include, among others, habitat restoration projects, species monitoring and research, public education and outreach, and partnerships with nonprofits, academic institutions, and private landowners.<sup>24</sup>

Section 7(a)(1) creates procedural (i.e., consult with the Service about potential conservation measures) as well as substantive (i.e., develop conservation programs within existing agency authorities) obligations. It directs federal agencies to “carry[ ] out programs for the conservation of endangered species and threatened species listed pursuant to Section 4 of [the statute].”<sup>25</sup> It requires the Secretary of the Interior to “review other programs” that they administer and “utilize such programs in

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<sup>20</sup> *Id.* at 10789 et seq.

<sup>21</sup> 16 U.S.C. § 1536(a)(2).

<sup>22</sup> J. B. Ruhl, *Section 7(a)(1) of the New Endangered Species Act: Rediscovering and Redefining the Untapped Power of Federal Agencies' Duty to Conserve Species*, 25 ENVIRONMENTAL LAW 1107, 1121-1125 (1995).

<sup>23</sup> Meredith Hou, *The Dark Horse of the Endangered Species Act: How Section 7(a)(1) Can Be Used to Mitigate Climate Change*, 88 GEORGE WASHINGTON LAW REVIEW 753,773-776 (2020).

<sup>24</sup> Memorandum from Sarah Krakoff, Deputy Solicitor for Parks and Wildlife and Shawn Finley, Attorney-Advisor, Division of Parks and Wildlife to Martha Williams, Director, U.S. Fish and Wildlife Service re: Federal Agency Obligations under Section 7(a)(1) of the Endangered Species Act (Feb. 6, 2024), <https://www.fws.gov/sites/default/files/documents/federal-agency-obligations-under-section-7-a-1-memo-2024-02-06.pdf>.

<sup>25</sup> 16 U.S.C. § 1536(a)(1). *See also Id.* § 1531(b) (one purpose of the ESA is to “provide a program for the conservation” of listed species).

furtherance of the purposes of [the ESA].”<sup>26</sup> In consultation with the Secretary, “all other federal agencies shall . . . utilize their authorities in furtherance of the purposes of [the ESA] by carrying out programs for the conservation” of listed species.<sup>27</sup>

Conservation under the ESA means “the use of all methods and procedures which are necessary to bring any endangered or threatened species to the point at which the measures provided pursuant to [the ESA] are no longer necessary.”<sup>28</sup> It embodies multiple goals, including recovery, habitat conservation, ecosystem protection, and the prevention of species extinction. Among Section 7(a)(1)’s affirmative requirements, all federal agencies<sup>29</sup> must consult with the Service about listed species within their purview and their conservation plans,<sup>30</sup> further conservation through programs that are species-specific rather than applied to listed species generally,<sup>31</sup> develop conservation programs independent of the agency’s primary mission programs,<sup>32</sup> and undertake actions where necessary for species recovery.

As existing assessments of affirmative conservation efforts under Section 7(a)(1) are limited,<sup>33</sup> we partnered with Defenders of Wildlife to convene a policy workshop with federal agency staff. Officials from the Department of the Interior, Fish and Wildlife Service, National Oceanic and Atmospheric Administration, Department of Agriculture, Bureau of Land Management, Department of Defense, Environmental Protection Agency, Department of Justice and other agencies (hereinafter “conservation officials”) attended the workshop at UC Irvine School of Law on October 31, 2024.

Participants were selected based on their decades of experience with conservation policy and attempts to develop and further thoughtful, less ambiguous, and more comprehensive applications of threatened and endangered species recovery within the Service and at land management and action agencies. They brought considerable knowledge of the ESA, its statutory text and legislative history,<sup>34</sup> its purpose, Section 7(a)(1)’s emphasis vis-à-vis Section 7(a)(2), and the requirement that federal agencies consult with the Service to determine the effects of agency actions.<sup>35</sup>

Prior to the workshop, we carried out interviews (n=20) with federal officials to understand the barriers to effective and efficient use of ESA authority, what Section 7(a)(1) calls for with regards to endangered and threatened species;<sup>36</sup> Section 7(a)(1) programs and plans; roles and responsibilities; available policy guidance; and strategies and incentives for implementation. Among our findings:

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<sup>26</sup> 16 U.S.C. § 1536(a)(1).

<sup>27</sup> *Id.*

<sup>28</sup> 16 U.S.C. § 1532(3).

<sup>29</sup> *Pyramid Lake Paiute Tribe of Indians v. U.S. Dep’t of the Navy*, 898 F.2d 1410, 1416 (9th Cir. 1990).

<sup>30</sup> *Sierra Club v. Glickman*, 156 F.3d 606, 618 (5th Cir. 1998); *Pyramid Lake*, 898 F.2d at 1416 n. 15.

<sup>31</sup> *Sierra Club*, 156 F.3d at 615.

<sup>32</sup> *Fla. Key Deer v. Stickney*, 864 F. Supp. 1222, 1228-29, 1238 (S.D. Fla. 1994).

<sup>33</sup> See, e.g., Ya-Wei Li, *Invigorating a Neglected Tool for Endangered Species Recovery*, 16 American Bar Association Section of Environment, Energy, and Resources Endangered Species Committee Newsletter 6 (Aug. 2017); Mary Christina Wood, *Protecting the Wildlife Trust: A Reinterpretation of Section 7 of the Endangered Species Act*, 34 ENVIRONMENTAL LAW 605 (2004); J. B. Ruhl, *Section 7(a)(1) of the New Endangered Species Act: Rediscovering and Redefining the Untapped Power of Federal Agencies’ Duty to Conserve Species*, 25 ENVIRONMENTAL LAW 1107, 1121-1125 (1995).

<sup>34</sup> See *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 174-75 (1978) (describing the ESA’s legislative history).

<sup>35</sup> 16 U.S.C. §§ 1532(19), 1533(a)(3)(A)(i), 1536(a)(2), 1538(a)(1)(B).

<sup>36</sup> 16 U.S.C. §§ 1531(b)-(c)(1), 1533(a)(1). Endangered species are those “in danger of extinction throughout all or a significant portion of their range.” *Id.* § 1532(6). Threatened species are “likely to become an endangered species within the foreseeable future throughout all or a significant portion of their range.” *Id.* § 1532(20).

- Relatively few agencies attempt to meet their affirmative recovery obligations under Section 7(a)(1).<sup>37</sup>
- Section 7(a)(1) encourages interagency collaboration and maximizing the effectiveness of conservation efforts,<sup>38</sup> yet with a handful of exceptions, there is little formal guidance on how federal agencies should fulfill their affirmative duty to conserve species and their habitat.
- While agencies have a nondiscretionary duty to carry out significant, affirmative recovery programs,<sup>39</sup> there is a lack of guidance and plans are highly inconsistent.<sup>40</sup>
- Substantial uncertainty remains among federal agencies over how to develop and implement Section 7(a)(1) plans; informal discussions with agency staff suggest a lack of knowledge of Section 7(a)(1), its obligations, and how to meet them.
- In the absence of clear Section 7(a)(1) guidance, important questions remained unanswered, including (1) What steps should be taken by the Service and land management agencies in particular to ensure that the affirmative duty is met?; (2) What are necessary conservation program elements – defining a baseline, identifying data, conducting cumulative effects analysis – and how should agency staff define and determine conservation benefits to align their actions with Congressional intent?; and (3) What should be included in a conservation plan to adequately guide action (e.g., purpose, actors, target species status, geographic range, baselines, effects and effectiveness monitoring, adaptive management strategy) and gauge effectiveness?
- For nearly four decades, the Service as well as land management agencies gave Section 7(a)(1) relatively little attention.
- Field scientists work on an individual project basis under programs that stress minimizing or stabilizing effects rather than improving the habitat to result in a greater distribution or greater numbers of individual members of the species, meaning Section 7(a)(1) is barely acknowledged at the field level.
- While Section 7(a)(1) “does not exist in any one plan,”<sup>41</sup> agency practices that most readily align with Section 7(a)(1) – including recovery plans<sup>42</sup> – lack detail, are of different ages and degrees of specificity, and do not include a minimal set of components of a conservation program.
- Recovery plans often do not translate directly to what an action agency can do, in terms of their land management unit or their authorities.
- While tens of thousands of consultations exist under Section 7(a)(2), there are very few “Section 7(a)(1) plans”;<sup>43</sup> opportunities to consider “duty to recover” listed species or their habitat in the context of Section 7(a)(2) consultations (from whether an agency action will

<sup>37</sup> Megan Evansen, Heather Harl, Andrew Carter, & Jacob Malcom, *Status of the Recovery Mandate Under Section 7(a)(1) of the U.S. Endangered Species Act*, 2 FRONTIERS IN CONSERVATION SCIENCE 768628 (2021).

<sup>38</sup> U.S. Fish and Wildlife Service, *ESA Section 7 Consultation*, <https://www.fws.gov/service/esa-section-7-consultation>.

<sup>39</sup> Fla. Key Deer v. Paulison, 522 F.3d 1333, 1147 (11th Cir. 2008) (“while agencies might have discretion in selecting a particular program to conserve . . . they must in fact carry out a program to conserve, and not an ‘insignificant’ measure that does not, or is not reasonably likely to, conserve endangered or threatened species”); Pyramid Lake Paiute Tribe of Indians v. United States Dep’t of Navy, 898 F.2d 1410, 1423 (9th Cir. 1990) (“agencies have affirmative obligations to conserve under section 7(a)(1)”); they can exercise “some discretion in ascertaining how best to fulfill the mandate . . .”).

<sup>40</sup> The Endangered Species Consultation Handbook contains comprehensive guidance to the Service and the National Oceanic and Atmospheric Administration (NOAA) as well as action agencies on consultations under § 7(a)(2). It provides less than a page on program reviews under § 7(a)(1). Two regional offices of the Service developed their own § 7(a)(1) guidance; whether they were widely circulated is difficult to determine.

<sup>41</sup> *Supra* note 37, at 4.

<sup>42</sup> 16 U.S.C. § 1533(f).

<sup>43</sup> *Supra* note 37, at 4 (describing § 7(a)(1) plans as referenced “within species-specific documents developed as part of the implementation of the ESA, including recovery plans, five-year reviews, Species Status Assessments, and biological opinions.”).

harm a species or their habitat to the issuance of an incidental take permit) between an action agency and the Service are rare.

- There is a lack of understanding across agency staff and leadership of what affirmative conservation under Section 7(a)(1) would entail, as well as a lack of confidence within the Service over how to engage in non-regulatory practices that further conservation.
- Questions regarding an agency's approach to affirmatively further conservation are difficult to address when awareness of Section 7(a)(1) is infinitesimal as part of day-to-day staff missions; when there are few, if any, dedicated staff under Section 7(a)(1) within the Service or land management agencies; when at best staff may be able to devote 1-2 hours per week to issues related to recovery and conservation; when Section 7(a)(1) recommendations in biological opinions tend to be drafted the day before an opinion is reviewed by a manager; when many federal agencies do not view the ESA as part of their mission; when most activities that are related to Section 7(a)(1) are not categorized as such; when there is no attempt to inventory such programs or actions; and when until recently Section 7(a)(1) was not included in required trainings or agency-wide guidance (aside from a few paragraphs).
- The state of best available science, limited capacity to carry out ESA duties overall, and problems inherent in multiple-use statutes such as the Federal Land Policy and Management Act (FLPMA)<sup>44</sup> also constrain agency attempts to affirmatively further conservation.
- When conservation officials try to better integrate Section 7(a)(2) practice with Section 7(a)(1) goals and requirements, they meet substantial monitoring and data analysis barriers: (1) defining and defending the potential benefits of affirmative conservation programs a priori, and (2) gauging the efficacy of such programs via performance measures that can help them achieve regulatory flexibility.

At the same time, conservation officials increasingly turn to Section 7(a)(1) at federal agencies. They seek to integrate not only Section 7(a)(1) and Section 7(a)(2), but also other ESA provisions, including Section 10(a), to affirmatively further conservation. They do so in response to budgetary limits, the number of consultations required; the rising cost of species-specific conservation efforts, attempts to track ESA-related expenditures to comply with biological assessments and opinions, the advent of online cost databases and portals that can track annual expenditures, and litigation regarding failure to comply with the ESA that encouraged agencies to make creative use of authorities, including affirmative conservation measures, to achieve what officials refer to as a “regulatory buffer.”

To encourage and support these efforts, any changes to Section 10(a) program implementation should be designed with affirmatively furthering conservation in mind. The Service should be at the vanguard of encouraging conservation programs that can realize substantial effectiveness and efficiency gains. Among other things, the Service should:

- Stress that the ESA and Section 7(a)(1) give staff authority to implement programs to bring about species recovery, and that Section 7(a)(1) duties extend to actions vis-à-vis permittees, licensees, and other third parties.
- Describe the potential benefits (e.g., effectiveness, efficiency) of affirmative conservation programs to primary agency functions.
- Earmark a portion of the agency's budget for Section 7(a)(1) actions along with preliminary analysis of return on investment for Section 7(a)(1) programs or plans.
- Require agencies to inventory programs, policies, and activities that trigger affirmative conservation responsibility.

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<sup>44</sup> Federal Land Policy and Management Act of 1976, 43 U.S.C. §§ 1701-1785.

- Encourage staff who work on HCPs, CBAs, and related permits to have a working knowledge of Section 7(a)(1), including the distinction between mitigation banking and raised baselines that would qualify as actions under Section 7(a)(1).
- Devote resources to address data gaps, such as inventories of ongoing conservation efforts and justifications for how each aligns with agency responsibilities under Section 7(a)(1).
- Develop best practices for species inventory (including range-wide analysis for a given species) and metapopulation models (with a focus on realistic, agent-based models that allow users to consider management decisions and their likely impacts locally, regionally, and range-wide).
- Provide guidance as to how species recovery can be incorporated into future management decisions, including those involved in Section 10(a) program implementation.
- Address procedural frictions across disjointed ESA permitting processes, including those provided under Section 10(a), by developing threshold standards for aligning each process with ongoing conservation efforts.
- Break down procedural frictions across the ESA, Fish and Wildlife Coordination Act,<sup>45</sup> and National Environmental Policy Act.<sup>46</sup>
- List where conservation is already discussed as a part of listing and permitting processes and whether conservation is framed as recommended (e.g., biological opinion) or required (e.g., reasonable and prudent measures).
- Consider important review (e.g., every five years under Integrated Natural Resources Management Plans<sup>47</sup>) and reevaluation (e.g., every 15 years under the Federal Insecticide, Fungicide, and Rodenticide Act<sup>48</sup>) cycles where updated data, best available science, and mitigation or recovery measures can be applied.
- Consider bottlenecks that can divert resources from conservation programs (e.g., an expensive biological opinion for a handful of pesticides versus mitigation measures for hundreds of pesticides under other initiatives).
- Consider statutory authorities and related plans and incentives that require conservation commitments, such as statutes (e.g., the Sikes Act,<sup>49</sup> Partners for Fish and Wildlife Act<sup>50</sup>) that encourage multipurpose use or proactive conservation projects, programs (e.g., the Federal Emergency Management Agency's Community Rating System<sup>51</sup>) that encourage landscape-scale management practices, and plans (e.g., Integrated Natural Resource Management Plans, forest plans) that require or promote conservation.
- Develop best management practices to reduce the likelihood that future actions trigger Section 7(a)(2) consultation.
- Outline how existing regulations encourage or allow programmatic consultation.<sup>52</sup>
- Synthesize best available science for defining and quantifying “net conservation benefits” and distinguishing between short-term salutary effects and long-term restoration of habitat and revitalization of species for a menu of existing and anticipated conservation strategies; net conservation benefits should be framed as “compliance documentation” that furthers the agency’s “primary mission.”

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<sup>45</sup> Fish and Wildlife Coordination Act of 1934, 16 U.S.C. §§ 661 et seq.

<sup>46</sup> National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321 et seq.

<sup>47</sup> U.S. Fish and Wildlife Service, *Integrated Natural Resources Management Plans (INRMPs)*, <https://www.fws.gov/service/integrated-natural-resources-management-plans-inrmpls>.

<sup>48</sup> Federal Insecticide, Fungicide, and Rodenticide Act of 1947, 7 U.S.C. §§ 136 et seq.

<sup>49</sup> U.S. Fish and Wildlife Service, *Sikes Act*, <https://www.fws.gov/law/sikes-act>.

<sup>50</sup> U.S. Fish and Wildlife Service, *Partners for Fish and Wildlife Act*, <https://www.fws.gov/law/partners-fish-and-wildlife-act>.

<sup>51</sup> U.S. Department of Homeland Security Federal Emergency Management Agency, *Community Rating System*, <https://www.fema.gov/floodplain-management/community-rating-system> 11-12.

<sup>52</sup> See Congressional Research Service, *Endangered Species Act Section 7 Consultation and Infrastructure Projects* (Aug. 4, 2021).



- Build on existing practices, such as Species Status Assessments,<sup>53</sup> that are available to the agency to quantify and track net conservation benefits.
- Incorporate recommendations by the Government Accountability Office and other reports regarding how agencies should better track and evaluate recommendations in biological opinions, habitat conservation plans, and other documents.<sup>54</sup>
- Consider documents, such as Army Corps of Engineers technical notes,<sup>55</sup> that made early attempts to quantify conservation program benefits.
- Develop procedural guidance that considers tracking implementation more closely and ensuring that defined conservation commitments are ingrained in management processes, including the Service's approach to adaptive management.
- Discuss what the Service considers necessary to measure progress toward linking affirmative conservation efforts to net conservation benefits, as well as the agency's capacity to document and link its efforts to net conservation benefits.
- List other agencies with unique analytical capacity (e.g., habitat fragmentation) that can supplement the Service's ability to assess and track each conservation effort.
- Leverage performance measures that are already in use under existing statutory authorities that directly impact listed species.
- State clearly that multiple use statutes such as FLPMA do not prevent collaboration, upfront planning, check-in points, and other steps necessary to achieve an agency's affirmative conservation duties.
- Build upon a handful of recent and ongoing pilot programs that are designed to achieve "proof of concept" for monitoring the achievement of net conservation benefits.
- Develop indicators of "credit" for affirmative conservation actions (e.g., credit against incidental take, prior work that is embraced in biological opinions),
- Develop threshold levels for achieving regulatory relief at different stages of agency practices, which may include setting defined conservation commitments, early actions (e.g., acquiring property interests, entering into cooperative agreements with third parties to undertake natural resource management activities on those properties, habitat restoration), and achieving increased likelihood of recovery, net conservation benefits, and species delisting.
- Set out how Section 7(a)(1) activities can directly inform and reduce the cost of biological assessments.
- Discuss how staff time and resources as well as legal risk under Section 7(a)(2) can be reduced through Section 7(a)(1) actions.
- Develop the key elements of a post-delisting monitoring plan, while stressing that delisting is exceedingly rare.

Our findings regarding Section 7(a)(1) mirror the results in Harl et al. regarding Section 10(a) program implementation, in particular the need to improve the functionality of ESA programs, establish and update conservation measure standards and mitigation ratios that HCP applicants can use to offset impacts, produce sufficient scientific data and centralized data systems, and provide greater resources for underfunded and understaffed biologists – whose work extends well beyond Section 10 – to better

<sup>53</sup> U.S. Fish and Wildlife Service, *Species Status Assessment*, <https://www.fws.gov/project/species-status-assessment>.

<sup>54</sup> See, e.g., U.S. Government Accountability Office, *Endangered Species Act: The U.S. Fish and Wildlife Service has Incomplete Information about Effects on Listed Species from Section 7 Consultations* (GAO-09-550) (May 2009), <https://www.gao.gov/assets/gao-09-550.pdf>; U.S. Government Accountability Office, *Endangered Species: More Federal Management Attention is Needed to Improve the Consultation Process* (GAO-04-93) (Mar. 2004), <https://www.govinfo.gov/content/pkg/GAOREPORTS-GAO-04-93/pdf/GAOREPORTS-GAO-04-93.pdf>.

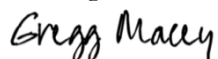
<sup>55</sup> Paul Hartfield, Jennifer G. Brown, and Richard A. Fischer, *The Role of Interagency Cooperation in the Conservation of Threatened and Endangered Species* (ERDC TN-DOER-E40) (Jan. 2017), <https://apps.dtic.mil/sti/tr/pdf/AD1026058.pdf>.

monitor and manage HCPs. Each of our programmatic critiques contain parallels regarding the “challenges in achieving a more comprehensive and inclusive conservation strategy.”<sup>56</sup> Together, they underscore the need to build out guidance, metrics, systems, and capacity for affirmative conservation under Section 7(a)(1) and Section 10(a) simultaneously.

A comprehensive Section 7(a)(1) program will encourage consistency, transparency, and efficiencies that, to date, are only achieved by policy entrepreneurs among federal staff at a handful of agencies, including the Service as well as the Department of Defense. If considered alongside reforms to Section 10(a) program implementation, such a program will enhance conservation outcomes in a cost-effective manner, thereby furthering the ESA’s purpose.

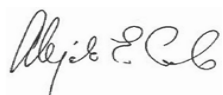
We look forward to commenting on specific proposals regarding Section 10(a) as well as the Service’s efforts to align Section 10(a) program implementation with a whole-of-government approach to the affirmative furtherance of conservation to achieve greater effectiveness and efficiency under the Endangered Species Act.

Best regards,



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<sup>56</sup> *Supra* note 6, at 10.