



**IMPROVING THE ENDANGERED SPECIES ACT**  
RECOMMENDATIONS FOR MORE EFFECTIVE CONSERVATION

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# Executive Summary

The federal government protects species on the brink of extinction through the Endangered Species Act (ESA). The law's goal is to allow these species to recover so that federal protection is no longer needed, but few species have actually recovered. Congress and the U.S. Fish and Wildlife Service (FWS) could change the implementation of the law in several ways to improve its effectiveness and efficiency. Our recommendations provide policymakers with ways to reduce the economic cost or improve the efficiency of species recovery. In this Strata policy brief, we examine two main ways to change the ESA.

First, the ESA makes endangered species a liability for people on both private and public lands. Congress and the FWS could better align incentives to encourage individuals to help species recover. We have identified four ways to improve the ESA by better aligning incentives:

1. Expand opportunities for voluntary approaches to conservation
2. Enhance the role of state governments in recovering species
3. Promote incentive-based approaches to conservation on private land
4. Promote market-based approaches to conservation on private land

Second, the ESA's legal framework contains many unclear, one-size-fits-all policies. Congress and the FWS could make the ESA's framework clearer and more flexible. We have identified four ways that Congress or the FWS could improve the legal framework of the law:

1. Consider economic factors in the designation and management of species
2. Improve the way recovery plans are drafted and implemented
3. Reform one-size-fits-all policies to increase regulatory flexibility
4. Reform Section 10 and Habitat Conservation Plans

As long as protecting endangered species is our national policy, the federal government has many options to improve the efficiency and effectiveness of their policies. This policy brief outlines key failings of the ESA and provides suggestions to improve the effectiveness and efficiency of the ESA. Although helping endangered species recover is a complex problem, reforming the ESA can be a win-win situation in many cases for both the conservation of species and economic development. Realigning the incentives of conservation and removing legal barriers can inspire new and innovative approaches to species recovery.

## Introduction

The Endangered Species Act of 1973 (ESA) is one of the most wide-reaching pieces of environmental legislation in U.S. history. One of the law's main goals is to help endangered or threatened species recover so that federal protection is no longer necessary.<sup>1</sup>

Despite decades of funding and regulations, the ESA has not succeeded at helping species recover. More than 2,245 species have been listed as endangered or threatened, but only 34 species (1.5 percent) have been delisted due to recovery.<sup>2</sup> Some of these recovery numbers, however, are due to factors other than the Act itself.<sup>3</sup> The ESA has also helped prevent the extinction of most listed species. Only 10 species officially listed as endangered have become

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1 U.S. Fish and Wildlife Service. (2016). *Endangered Species Overview*. Retrieved from <https://www.fws.gov/Endangered/about/index.html>

2 U.S. Fish and Wildlife Service. (2016). *Delisting Report*. Retrieved from [https://ecos.fws.gov/tess\\_public/reports/delisting-report](https://ecos.fws.gov/tess_public/reports/delisting-report)

3 Note that many experts agree that the recovery of the bald eagle, peregrine falcon, and the eastern brown pelican are mainly because of the 1972 ban of the pesticide DDT, not the ESA listing. Other species have been delisted because were incorrectly listed in the first place. For example, the milk-vetch flower and the American alligator were delisted because the listings were based on inaccurate population data.

extinct.<sup>4</sup> While it can be argued that so few extinctions is a success of the ESA, we argue that recovery and delisting would be a far better measure of the law's successes.

The ESA imposes large costs on the federal government, state governments, and private individuals. Many private landowners see endangered species as a liability, which can hinder the recovery of species. For example, landowners who discover the presence of endangered species on their land may choose to kill species whose presence would limit their ability to use their land as they see fit. The proposal to list a species may also cause landowners to preemptively destroy important habitat to avoid economic losses caused by a listing.<sup>5</sup> The current incentives created by the ESA turn species into liabilities for landowners. This works against the law's goal of helping species recover.

While the ESA can be harsh, some landowners' may underestimate the flexibility in the current law. Some progress has been made in increasing flexibility and improving incentives – particularly when it comes to Habitat Conservation Plans, which we discuss later. In addition, “no surprises” rules and regulatory assurances, implemented in the 1990s, are an important development in ESA implementation. Although there has been some progress, hostility on the part of landowners and remaining inflexibility on the part of the federal government continue to hamper the effective use of the ESA.

This policy brief only explores issues that arise in the United States. The ESA, however, reaches internationally and has proven to be problematic for certain countries that have been affected by inappropriate policy prescriptions. For example, measures such as trophy import bans have been imposed on several African countries despite protests from their governments that such measures are unnecessary and may even undermine their existing sustainable market-based approaches to conservation. Policymakers should be aware of both the domestic and international implications of the ESA.

The ESA requires reform to achieve its stated goal of species recovery and reduce costs. First, we explain the process of how species are listed as threatened or endangered. Second, we discuss the legal framework of the ESA. Third, we outline several reforms that could lower costs or improve species recovery.

Our suggestions fall under two categories. The first is to align incentives so that private individuals and state governments want to promote conservation of species. The second is to change and specify the legal framework of the ESA to clarify the purposes of the Act and increase certainty for states, private individuals, and federal agents. The FWS, as well as other federal agencies who manage listed species, could implement some of these changes themselves. Other reforms would need to be made by Congress to improve the ESA's ability to allow species to recover.

This policy brief is intended to help policymakers and average citizens understand how the ESA works and how it could be more effective and efficient. The recommendations we provide are not comprehensive, but they do provide an overview that policymakers could consider if they are looking to reform the ESA. Our recommendations seek to reduce the costs and increase the efficiency of the law, as well as enhance conservation.

## How Species Are Designated

To receive the protections of the ESA, a species must be formally listed as either endangered or threatened. Both the FWS and the National Marine Fisheries Service (NMFS) can designate species, but the NMFS focuses solely on marine life. The FWS considers endangered species as those deemed to be currently “at the brink of extinction.” Threatened species are those that the FWS sees as likely to “become an endangered species within the foreseeable

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4 Langpap, C., and Kerkvliet, J. (2010). *Allocating Conservation Resources Under the Endangered Species Act*. Agricultural and Applied Economics Association.

5 Lueck, D. and Michael, J.A. (April 2003). Preemptive habitat destruction under the Endangered Species Act. *Journal of Law and Economics*, 46, 30. Retrieved from <https://www.perc.org/sites/default/files/LueckMichaelESACaseStudy.pdf>

future throughout all or a significant portion of its range.”The rules and regulations for endangered and threatened species are similar, but threatened species have more flexibility in how they are managed.<sup>6</sup>

FWS officials consider five factors when deciding which species to designate as endangered or threatened. These criteria are often called the “5-factor analysis.”The FWS may designate a species when:

1. The habitat of a species of concern is in danger of destruction or modification.
2. Natural or artificial factors may affect a species’ survival.
3. FWS officials think that there are inadequate regulatory mechanisms regarding a species.
4. A species’ decline is caused by natural factors like disease or predation.
5. FWS officials think that a species is being over-utilized for “commercial, recreational, scientific, or educational purposes.”<sup>7</sup>

Below are two infographics that explain the formal process of listing a species as either endangered or threatened. The first infographic shows how the FWS may initiate the process for listing a species. The second infographic shows how private individuals or organizations can submit petitions to list a species.

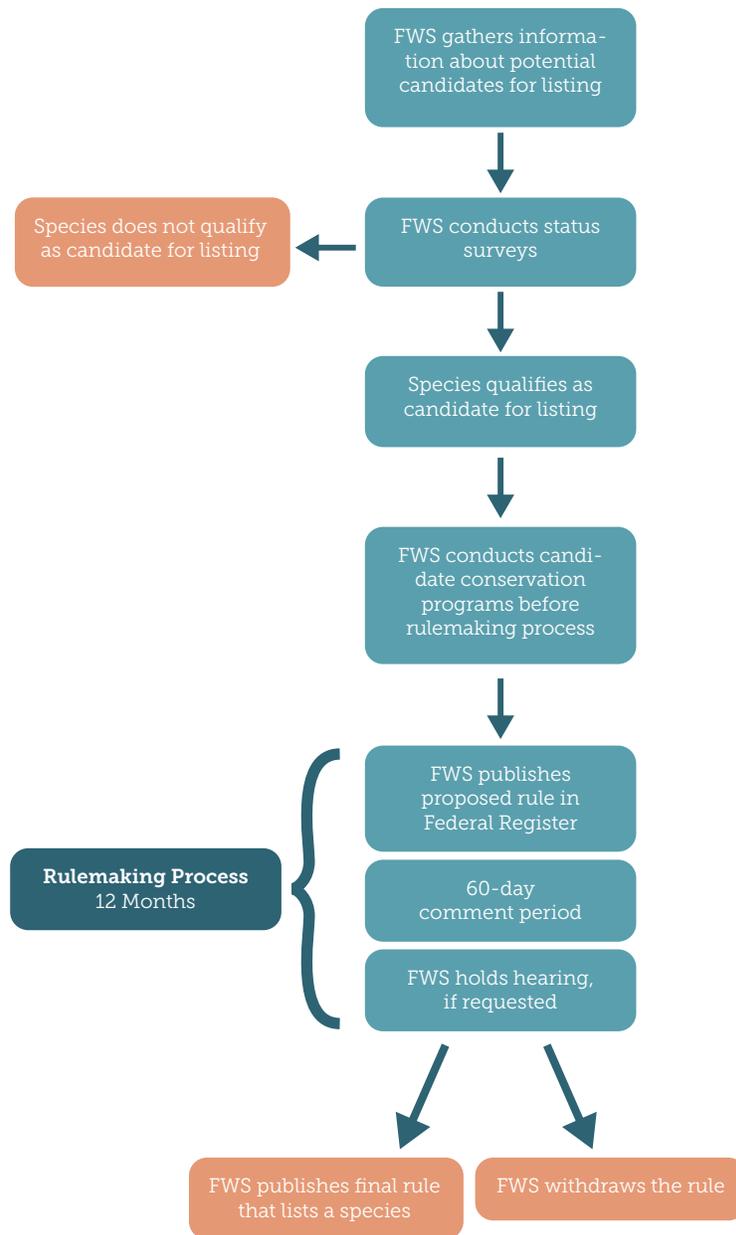
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6 U.S. Fish and Wildlife Service. (2003). *What Is the Difference Between Endangered and Threatened?* Retrieved from <https://www.fws.gov/endangered/esa-library/pdf/t-vs-e.pdf>

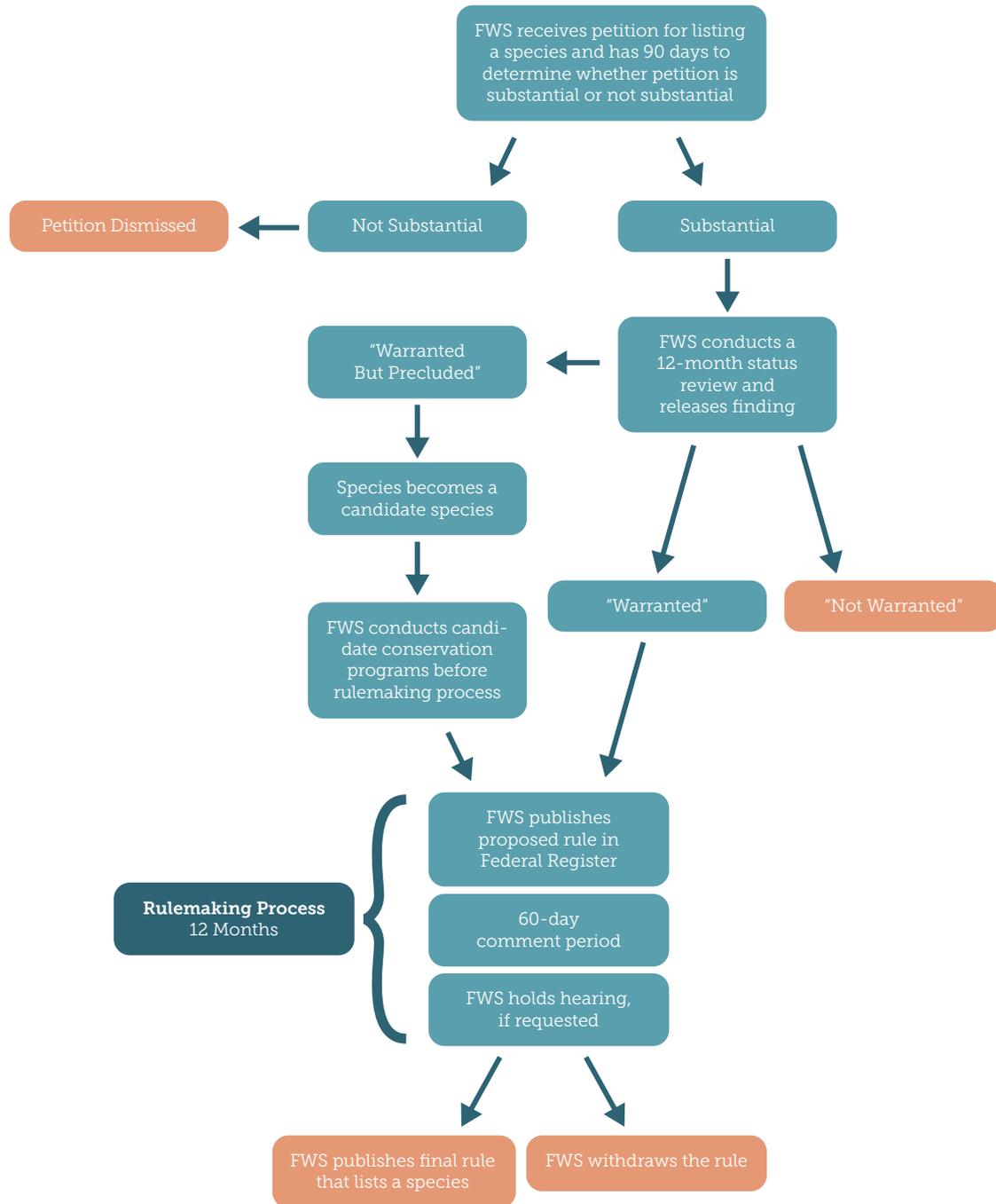
7 U.S. Fish and Wildlife Service. (2016). *Listing a Species as a Threatened or Endangered Species: Section 4 of the Endangered Species Act*. Retrieved from <https://www.fws.gov/endangered/esa-library/pdf/listing.pdf>. Also see the ESA’s Section 4(a).

# Listing a Species under the Endangered Species Act

## Listing Process Initiated by Fish and Wildlife Service



## Listing a Species under the Endangered Species Act Listing Process Initiated by Petition



In 1983, the FWS produced guidelines for how it prioritizes which species to list and to fund based on what officials believe are the plants and animals in the greatest need of preservation. Under the FWS's priority system, the most important consideration for listing and funding is the degree to which a species is threatened with extinction. The next consideration is the "immediacy of the threat and the taxonomic distinctiveness of the species." The FWS claims that it does not favor "popular species" or "higher life forms" when making proposed and final rules. The priority

system serves only as a guideline, so it is not legally binding for FWS officials.<sup>8</sup> Even with these guidelines, the FWS does not have any routine measurement for its spending on higher priority species. Because the FWS does not have periodic assessments for its funding decisions, recovery funding may not always flow to the highest priorities.<sup>9</sup>

Despite the claim that the FWS prioritizes species based on the degree to which they are threatened, a 2005 report from the Government Accountability Office (GAO) found that the FWS “base[d] their decisions to a significant extent on factors other than a species’ priority ranking.” The GAO stated that “each regional office allocates its recovery funds to their field offices differently, but in no case is priority ranking the driving factor. Instead, regional officials focus primarily on opportunities for partnerships, though they told [the GAO] that they also focus on species facing the gravest threats.”<sup>10</sup>

When the FWS determines that a species has sufficiently recovered, it can delist a species through a rulemaking process. The FWS may decide that the threats to endangered or threatened species have been eliminated or reduced enough to warrant a delisting. The FWS may also choose to “downlist” a species from endangered to threatened if a full delisting is not warranted.

The process for delisting a species as threatened or endangered is shown below.

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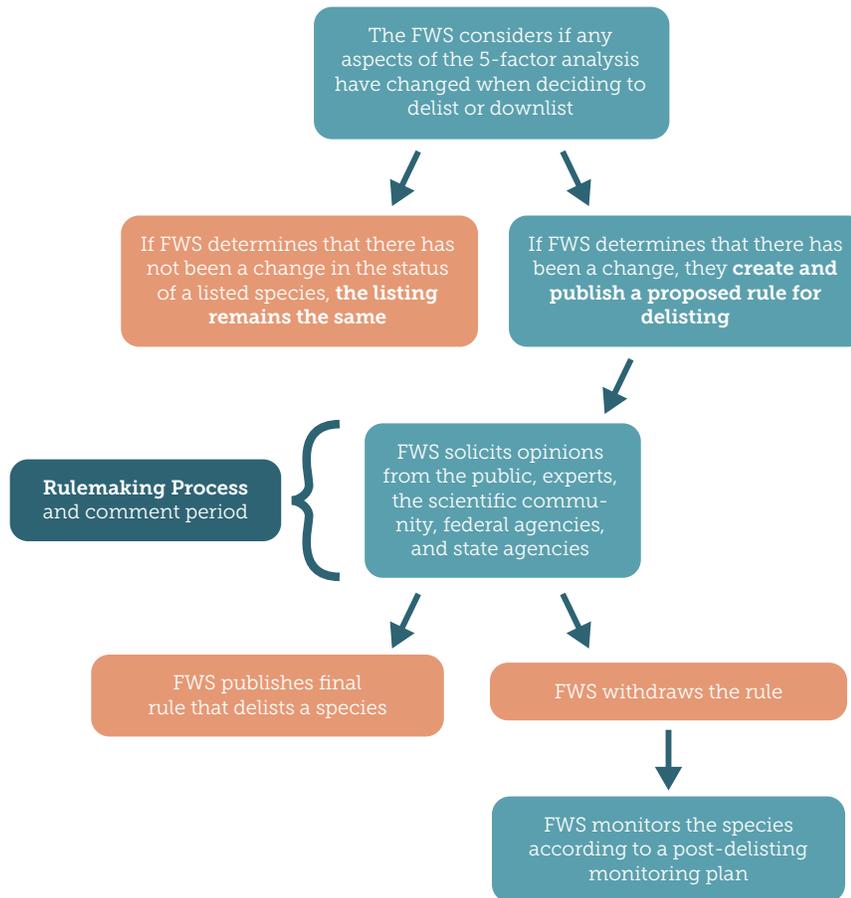
8 Ibid.

Endangered and Threatened Species Listing and Recovery Priority Guidelines, 48 Fed. Reg. 184 (September 21, 1983). Retrieved from [https://www.fws.gov/endangered/esa-library/pdf/1983\\_LPN\\_Policy\\_FR\\_pub.pdf](https://www.fws.gov/endangered/esa-library/pdf/1983_LPN_Policy_FR_pub.pdf)

9 Government Accountability Office. (2005). Fish and Wildlife Service Generally Focuses Recovery Funding on High-Priority Species, but Needs to Periodically Assess Its Funding Decisions. (GAO Publication No. 05-211). Washington, D.C.: U.S. Government Printing Office. Retrieved from <http://www.gao.gov/new.items/d05211.pdf>

10 Ibid.

## Delisting a Species under the Endangered Species Act



Another way to partially or completely delist a species is by exempting it from ESA protections through the Endangered Species Committee, nicknamed “the God Squad.” The committee is made up of seven members: the Secretary of Agriculture, the Secretary of the Army, the Chairman of the Council of Economic Advisors, the Administrator of the Environmental Protection Agency, the Secretary of the Interior, the Administrator of the National Oceanic and Atmospheric Administration, and one other member from the affected state appointed by the president. The Secretary of the Interior is the chair of the committee.<sup>11</sup>

If at least five members of the God Squad agree, they can exempt a species from the ESA’s Section 7 requirements, effectively delisting it. Under Section 7, all federal agencies must ensure that their actions, including any actions they fund or authorize, do not harm any listed species.<sup>12</sup> The committee can extend these exemptions if a listing meets four main criteria:

1. There are no reasonable alternatives to a listing.

<sup>11</sup> The original 1973 ESA did not include a process for exempting federal agencies or state governments from the strict mandates in the law. In 1978, the United States Supreme Court’s decision in *TVA v. Hill* triggered Congress to amend the ESA. The amendments written in 1978 and passed in 1979 created the process of seeking an exemption, which can now be found in section 1536.

<sup>12</sup> U.S. Fish and Wildlife Service. (2017). Endangered Species Act: Section 7(a)(2). Retrieved from <https://www.fws.gov/midwest/Endangered/section7/index.html>

2. The benefits of an exemption clearly outweigh the benefits of listing.<sup>13</sup>
3. The God Squad determines that an exemption is of “regional or national significance.”<sup>14</sup>
4. Federal agencies cannot violate Section 7(d) of the ESA, which prohibits federal agencies from entering into any “irreversible or irretrievable commitment of resources” that would harm listed species or their habitat.<sup>15</sup>

Because God Squad exemptions are so infrequent, some scholars have called the God Squad a failure because it has rarely done what it was meant to do. The 1978 amendments that created the God Squad were meant to provide a “safety valve” so that the ESA’s strict protections would not be used for ulterior motives or economically harmful practices. For several reasons, including the ESA’s politicization, the safety valve of the God Squad has rarely been used.<sup>16</sup> The first and only use of a God Squad exemption was in 1992 when thirteen of forty-four proposed federal timber sales in western Oregon were approved in spite of the presence of the threatened northern spotted owl.<sup>17</sup>

## How the ESA Protects Species

Once a species is listed as endangered or threatened, the ESA protects species in several ways. These protections include prohibitions against harming or “taking” species, protective regulations, recovery plans, land acquisitions, cooperation with state governments, cooperation among federal agencies, and the protection of critical habitat. This section is a superficial examination of the main provisions in the ESA. Hundreds of rules and regulations accompany these main provisions.

### Takings Clause and Other Prohibited Acts

The ESA forbids any person to “take” an endangered or threatened species, except with certain permission from the federal government. The FWS defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” If a person or an organization is found to have “taken” an individual of a listed species, that person or organization can be punished either civilly or criminally. The civil penalties include a fine of \$500 to \$25,000 per violation. Criminal penalties may include fines between \$25,000 and \$50,000, as well as imprisonment between six months and one year.<sup>18</sup>

The FWS includes “significant habitat modification or degradation” as a type of harm under the takings clause. Thus, the ESA protects not just the species themselves, but also the habitat where endangered species reside. This protection applies on both private and public land.<sup>19</sup>

13 Section 7 does not provide a definition for what constitutes a “benefit.” A decision to provide an exemption can be made when “such action is in the public interest.” This wording provides large discretion to the God Squad when they are considering an exemption.

14 Section 7 does not provide a definition for what constitutes “regional or national significance.” This wording provides large discretion to the God Squad when they are considering an exemption.

15 des Rosiers. Exemption Process under the Endangered Species Act: How the God Squad Works and Why. 66 Notre Dame L. Rev. 825 (1991). Retrieved from <http://scholarship.law.nd.edu/cgi/viewcontent.cgi?article=2087&context=ndlr>  
The FWS states: “Section 7(d) of the Endangered Species Act (Act) prohibits federal agencies and permit applicants from making any ‘irreversible or irretrievable commitment of resources’ ....which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate section 7(a)(2) of the Act, during consultation under section 7(a)(2). Section 7(a)(2) prohibits Federal actions that jeopardize the continued existence of listed species or that destroy or adversely modify their critical habitat.”

16 Shiff, D. (2014). “The Endangered Species Act at 40: A Tale of Radicalization, Politicization, Bureaucratization, and Senescence.” 37 *Environ. L. & Pol’y J.* 105. Retrieved from <https://environs.law.ucdavis.edu/volumes/37/2/Articles/Schiff.pdf>

17 Bosh, M. (1994). The “God Squad” Proves Mortal: Ex Parte Contacts and the White House After Portland Audubon Society, 51 *Wash. & Lee L. Rev.* 1029, <http://scholarlycommons.law.wlu.edu/wlulr/vol51/iss3/8>  
Doremus, H. (2005). The Story of TVA v. Hill: A Narrow Escape for a Broad New Law. In O. A. Houck & R. J. Lazarus (Eds.), *Environmental Law Stories* (132-140). West Academic.

18 Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq. See Section 11 for more details of punishments.

19 *Babbitt v. Sweet Home Chapt. Comms. for Ore.* (94-859), 515 U.S. 687 (1995).  
Although this interpretation of the ESA was controversial, federal courts upheld the interpretation in *Babbitt v. Sweet Home* in 1995.

Section 9(a) of the ESA spells out acts that are prohibited. Any person subject to the jurisdiction of the United States cannot import, export, take, possess, sell, deliver, carry, transport, or ship any listed species without proper permission and permitting from the federal government.

The 1982 amendments changed Section 10 to allow more flexibility in the taking of species through “incidental take permits.” In the amended version of Section 10, the ESA allows the Secretary of the Interior, mainly through the FWS, to issue these permits that allow a person to take a listed species “if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” These permits are only issued if the applicant submits a Habitat Conservation Plan (HCP). The application process for incidental take permits is broken into four phases.

Phase 1 of the application process begins with the filing party determining who will file the application and who will prepare the HCP. This is simple in cases where a single landowner files for a take permit on their own property, but becomes more complicated when multiple parties work together to file a permit for a region. The filing party must then determine who will be on their “steering committee,” a group of stakeholders and experts designed to represent different interests in creating the HCP. The filing party must also consult with the FWS and NMFS to ensure that all relevant issues are covered in the application.<sup>20</sup>

During phase 2, applicants must develop several environmental compliance documents including an environmental assessment (EA) or an environmental impact statement (EIS), as required by the National Environmental Policy Act. EAs and EISs can take between 4 and 12 months to process and hundreds of thousands of dollars to complete.<sup>21</sup> In addition, applicants must generate a species list, determine the approach that the HCP will take (habitat based or species based), define the geographic boundaries covered by the HCP, gather biological data for the species in question, determine if they should create a low-effect HCP, develop a mitigation program, determine the significance of the filing party’s anticipated incidental take, develop a monitoring program, identify funding sources, and consider unforeseen circumstances that may impact their HCP in the future. According to the HCP Handbook, “[t]he goal of phase 2 is for the applicant, with [FWS] guidance and assistance, to prepare a draft HCP that is statutorily complete and meets the incidental take permit issuance criteria.”<sup>22</sup>

Phase 3 requires the FWS to process the application and decide whether to issue a take permit. The FWS issues permits only when an application addresses several criteria. During phase 3, the public is invited to provide comments on the documents submitted by the applicant.<sup>23</sup>

HCPs are implemented during phase 4. Parties that filed for a permit must implement all of their proposed conservation efforts. During this phase, FWS officials are advised to “maintain close coordination and communication with the permittee throughout implementation to cooperatively ensure the HCP is a success.”<sup>24</sup>

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20 U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. (2016, December 21). “Habitat conservation planning and incidental take permit processing handbook.” Retrieved from [https://www.fws.gov/endangered/esa-library/pdf/HCP\\_Handbook.pdf](https://www.fws.gov/endangered/esa-library/pdf/HCP_Handbook.pdf)

21 U.S. Fish and Wildlife Service. (2015, April 15). “Habitat Conservation Plans: Section 10 of the Endangered Species Act.” Retrieved from [https://www.fws.gov/midwest/endangered/permits/hcp/hcp\\_wofactsheet.html](https://www.fws.gov/midwest/endangered/permits/hcp/hcp_wofactsheet.html)

DeWitt, C., & DeWitt, P. (2008, December 5). How Long Does It Take to Prepare an Environmental Impact Statement? *Environmental Practice*, Vol. 10:4, pp. 164-174. Retrieved from <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=2836720&fileId=S146604660808037X>

U.S. Government Accountability Office. (April 2014). National Environmental Policy Act - Little Information Exists on NEPA Analyses. U.S. Government Accountability Office. pp. 13. Retrieved from [www.gao.gov/assets/670/662543.pdf](http://www.gao.gov/assets/670/662543.pdf)

22 Ibid.

23 After a period of public comments on a permit application, the Secretary will issue a permit if the application satisfactorily demonstrates that the applicant meets the five following criteria: (1) The taking will be incidental. (2) The applicant will minimize and mitigate the impacts of such taking to the maximum extent practicable. (3) The applicant ensures enough funding for the plan. (4) The taking will not significantly reduce the likelihood of the survival and recovery of the species in the wild. (5) The applicant met other measures that the Secretary required.

24 U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. (2016, December 21). “Habitat conservation planning and incidental take permit processing handbook.” Retrieved from [https://www.fws.gov/endangered/esa-library/pdf/HCP\\_Handbook.pdf](https://www.fws.gov/endangered/esa-library/pdf/HCP_Handbook.pdf)

HCPs are formal, legal contracts between the Secretary of the Interior and the permit holder.<sup>25</sup> The FWS has approved more than 430 HCPs. The FWS is currently considering many more HCPs that are in the planning stage. HCPs can vary widely in size. Many early HCPs were for areas less than 1,000 acres, but a few recent ones are for areas between 500,000 and 1,000,000 acres.<sup>26</sup>

The approved HCPs and the many more in planning have become one of the main ways the federal government has begun to introduce more flexibility in the implementation of the ESA. The development and implementation of Section 10 over the past 25 years shows that the federal government is willing and able to cooperate more fully with state governments and private landowners, but this flexible, cooperative approach could be expanded.

In the early days of HCPs, many private landowners feared that the federal government would require them to constantly update the HCPs based on environmental changes and new information about species. In 1994, the FWS began addressing these concerns by developing HCP assurances, often called the “no surprises” rule. This rule has facilitated conservation efforts with private landowners by assuring private landowners that if “unforeseen circumstances” arise, holders of HCP contracts will not face additional restrictions on their lands and will not be required to pay more for species covered by their permit.<sup>27</sup> The “no surprises” rule has made landowners more willing to make conservation investments because they know that they will not be punished with unexpected obligations and restrictions in the future. The “no surprises” rule encourages landowners to conserve both species that are listed as endangered, as well as candidate, threatened, or other vulnerable species.<sup>28</sup> This reform has increased regulatory certainty for HCP holders and has increased the ability of the FWS to cooperate with private landowners. Further reforms could enhance this cooperation and regulatory flexibility.

## Protective Regulations

Section 4(d) of the ESA allows the Secretary of the Interior, through the FWS, to issue special regulations that are “necessary and advisable to provide for the conservation of [threatened] species.” Section 4(d) gives the FWS flexibility to create guidelines and policies for the conservation of threatened species, which may involve deferring decision-making power to states or allowing exemptions for taking threatened species. Section 11(f) also authorizes the Secretary of the Interior, the Secretary of the Treasury, and the Secretary of Homeland Security (through the Coast Guard) to make regulations that are “appropriate to enforce this Act.”

## Recovery Plans

Section 4(f) of the ESA requires the FWS to develop and implement recovery plans for listed species, unless such a plan will not help a species recover. Currently, recovery plans must contain a minimum of three types of provisions. First, they must describe “site-specific management actions” that will aid in the recovery of listed species. Second, plans must have “objective, measurable criteria” that are meant to work towards recovery and delisting. Third, plans must have “estimates of the time and costs” for meeting the desired outcomes.<sup>29</sup> Before recovery plans are finalized or revised, they must go through a public comment period.

Funding and species-specific recovery plans seem to be the best indicators that listed species’ populations will increase. The FWS submits biennial reports to Congress on whether each designated species is “improving, stable,

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25 U.S. Fish and Wildlife Service. (2015). *Endangered Species Permits: Habitat Conservation Plans (HCPs) and Incidental Take Permits*. Retrieved from <https://www.fws.gov/midwest/endangered/permits/hcp/index.html>

26 U.S. Fish and Wildlife Service. (2015). *Endangered Species Permits Fact sheet: Habitat Conservation Plans Section 10 of the Endangered Species Act*. Retrieved from [https://www.fws.gov/midwest/endangered/permits/hcp/hcp\\_wofactsheet.html](https://www.fws.gov/midwest/endangered/permits/hcp/hcp_wofactsheet.html)

27 U.S. Fish and Wildlife Services. (1998, February 23). “Habitat conservation plans: Rule and regulations.” Retrieved from <https://www.fws.gov/endangered/what-we-do/rules-and-regulations.html>

28 U.S. Fish and Wildlife Service. (2013). “Habitat Conservation Plans | Learn More | Frequently Asked Questions.” Retrieved from <https://www.fws.gov/endangered/what-we-do/hcp-faq.html>

29 National Oceanic and Atmospheric Administration. (2016). *Recovery of Species under the Endangered Species Act (ESA)*. Retrieved from <http://www.nmfs.noaa.gov/pr/recovery/>

declining, or unknown.”<sup>30</sup> These reports are meant to be the main resource for evaluating the effects of the ESA on species recovery. Studies analyzing FWS data find a strong relationship between a species receiving federal funding and increasing population numbers and habitat sizes over time.<sup>31</sup> Multiple studies suggest that species-specific recovery plans are more likely to result in progress toward recovery than multi-species plans.<sup>32</sup>

## Land Acquisition

Section 5 of the ESA allows the Secretary of the Interior or the Secretary of Agriculture to acquire land for the purpose of conserving listed species. Land acquisition can come through purchase or donation. The secretaries have the authority to use the Land and Water Conservation Fund Act of 1965, as amended, to acquire land to conserve species. The Land and Water Conservation Fund (LWCF) expired at the end of September 2015, but in December of that year, Congress reauthorized it for three years.<sup>33</sup> There are currently bills in Congress to reform and permanently reauthorize the LWCF.<sup>34</sup>

## Cooperation with States

Section 6 of the ESA states that “the Secretary [of the Interior] shall cooperate to the maximum extent practicable with the States.” Facilitating this cooperation includes consultation with state governments before acquiring land or water for the purpose of conserving listed species. The Secretary can also enter into cooperative agreements or management agreements with state governments to conserve species. State governments can submit a plan to the Secretary through the FWS, and then the Secretary will decide whether the program is adequate to conserve listed species. Section 6 also allows the Secretary of the Interior, often through the FWS, to provide financial assistance to any of the states when they enter into a cooperative agreement.

## Interagency Cooperation

Section 7 of the ESA stipulates the Secretary of the Interior, most often through the FWS, must work with other federal agencies to ensure that the ESA is consistently upheld throughout the entire federal government. The Secretary oversees the agencies within the Department of the Interior to make sure that management plans and other regulations comport with the ESA. The Secretary of the Interior also has the power to ensure that the actions of other federal agencies do not harm listed species. Federal agencies consult with the Secretary on any actions that may require permits for harming listed species.

## Critical Habitat Designations

Section 4(b) of the ESA gives the Secretary of the Interior, through the FWS, the authority to designate critical habitat for endangered or threatened species. Critical habitats are defined as the places that have the characteristics

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30 Taylor, M.F.J., Suckling, K.F., and Rachlinski, J.J. (2005, April) *The Effectiveness of the Endangered Species Act: A Quantitative Analysis*. *BioScience*. 55(4): 360-367.

31 Male, T.D., and Bean, M.J. (2005). *Measuring progress in US endangered species conservation*. *Ecology Letters*. 8: 986-992; Clark, J.A., Hoekstra, J.M., Boersma, P.D. & Kareiva, P. (2002). *Improving U.S. endangered species act recovery plans: key findings and recommendations*. *Conservation Biology*. 16: 1510-1519.

32 Taylor, M.F.J., Suckling, K.F., and Rachlinski, J.J. (2005, April) *The Effectiveness of the Endangered Species Act: A Quantitative Analysis*. *BioScience*. 55(4): 360-367.; Clark, J.A., Harvey, E. (2002, June). *Assessing Multi-Species Recovery Plans under the Endangered Species Act*. *Ecological Society of America*. 12(3): 655-662.; Ferraro, P.J., McIntosh, C., and Ospina, M. (2007, November). *The Effectiveness of the US Endangered Species Act: An Econometric Analysis Using Matching Methods*. *Journal of Environmental Economics and Management* 54(3): 245-261.

33 Cama, T. (2015). Conservation fund gets 3-year lifeline in spending bill. *The Hill*. Retrieved from <http://thehill.com/policy/energy-environment/263424-conservation-fund-gets-3-year-lifeline-in-spending-bill>  
Bishop, R. (2015). Why I let the Land and Water Conservation Fund expire. *Politico*. Retrieved from <http://www.politico.com/agenda/story/2015/12/land-water-conservation-fund-000339>

34 U.S. Senate Committee on Energy and Natural Resources. (2017). Senators Introduce Bipartisan Bill to Permanently Authorize, Fully Fund the Land and Water Conservation Fund. Retrieved from <https://www.energy.senate.gov/public/index.cfm/2017/3/senators-introduce-bipartisan-bill-to-permanently-authorize-fully-fund-the-land-and-water-conservation-fund>  
Hiar, C. (2017). Simpson proposes bill to boost LWCF, address backlog. *E&E News*. Retrieved from <https://www.eenews.net/eenewspm/2017/06/09/stories/1060055844>

necessary for the survival of a listed species. The Secretary of the Interior can designate critical habitats even in places where the species does not currently exist, as long as the designated areas are “essential for the conservation of the species.”<sup>35</sup> As of January 2015, the FWS has designated critical habitat for 704 species listed as endangered or threatened species within the United States.<sup>36</sup>

Critical habitat designations are made through the standard rulemaking process, much like the listing of species and other proposed regulations. The FWS will publish proposals to designate critical habitat in the Federal Register. After publishing proposals, the FWS will consider relevant information from the public comment period. Based on the information that is gathered from the public comment period, the FWS may choose to alter final designations. The FWS will then promulgate a final rule.<sup>37</sup>

These designations only affect the actions of federal agencies or private individuals that are federally funded or permitted. Private landowners are not affected by critical habitat designations unless they have federal funding or authorization. Federal agencies must avoid “destruction” or “adverse modification” of critical habitats.<sup>38</sup> For example, the critical habitat of the northern spotted owl extends along the Cascade Range and the coastal ranges of Washington, Oregon, and California. This habitat contains almost ten million acres of old-growth forests.<sup>39</sup> In the designated areas, federal projects or private projects that are permitted on federal land can move forward when the FWS finds that projects will not overly harm the species.<sup>40</sup> Federal agencies must consult with the FWS before funding or authorizing modifications to critical habitat. For example, if the U.S. Army Corps of Engineers were to disturb the critical habitat of sea turtles, it would work with the FWS to replenish sand to a beach before or after the nesting season to avoid harm to the sea turtles.<sup>41</sup>

Critical habitat designations and recovery plans are meant to help species recover, but there are many problems with data on species populations and proper habitat designations. The ESA gives the Secretary of the Interior the authority to designate critical habitat according to the “best scientific and commercial data available.”<sup>42</sup> This scientific and commercial data, however, is incomplete and often nonexistent.<sup>43</sup> Due to these data problems, the FWS and other federal agencies have a difficult time determining the cause of species decline, which subsequently prevents agencies from creating effective plans for species recovery.

The FWS has found that 650 listed species are capable of full recovery, but as much as 71 percent of these species have no population data at all.<sup>44</sup> Further, data on species’ range or habitat decline are “virtually nonexistent” despite

35 Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq.

36 U.S. Fish and Wildlife Service. (2015). *Listing and Critical Habitat | Critical Habitat | Frequently Asked Questions*. Retrieved from <https://www.fws.gov/endangered/what-we-do/critical-habitats-faq.html>

37 Ibid.

38 U.S. Fish and Wildlife Service. (2017). *Critical Habitat: What is it?* Retrieved from [https://www.fws.gov/endangered/esa-library/pdf/critical\\_habitat.pdf](https://www.fws.gov/endangered/esa-library/pdf/critical_habitat.pdf)

39 Endangered and Threatened Wildlife and Plants; Designation of Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. 71875 (December 4, 2012). Retrieved from [https://www.fws.gov/oregonfwo/Species/Data/NorthernSpottedOwl/Documents/NSO-FinalCH\\_Rule21Nov2012.pdf](https://www.fws.gov/oregonfwo/Species/Data/NorthernSpottedOwl/Documents/NSO-FinalCH_Rule21Nov2012.pdf)

40 U.S. Fish and Wildlife Service. (2017). *Listing and Critical Habitat | Critical Habitat*. Retrieved from <https://www.fws.gov/endangered/what-we-do/critical-habitats.html>

41 Listing Endangered and Threatened Species and Designating Critical Habitat; Implementing Changes to the Regulations for Designating Critical Habitat, 81 Fed. Reg. 7414 (February 11, 2016) 50 CFR Part 424. Retrieved from [https://www.fws.gov/endangered/improving\\_ESA/pdf/Designating\\_Critical\\_Habitat-2016-02680-02112015.pdf](https://www.fws.gov/endangered/improving_ESA/pdf/Designating_Critical_Habitat-2016-02680-02112015.pdf)

42 U.S. Fish and Wildlife Service. (2017). *Critical Habitat under the Endangered Species Act*. Retrieved from <https://www.fws.gov/southeast/endangered-species-act/critical-habitat/>

43 U.S. Fish and Wildlife Service. (2003, November 24) *Endangered Species Act of 1973*. Pg. 5. Retrieved from <http://www.fws.gov/endangered/esa-library/pdf/ESAall.pdf>

44 Gibbs, K. E., and Currie, D. J. (2012, May 2). *Protecting Endangered Species: Do the Main Legislative Tools Work?* PLoS ONE. 7(5): e35730. doi:10.1371/journal.pone.0035730

45 Neel, M. C., Leidner, A. K., Haines, A., Goble, D. D., Scott, J. M. (2012, July) *By the Numbers: How is Recovery Defined by the US Endangered Species Act?* BioScience.

their importance in listing and delisting species.<sup>45</sup> Adding to the confusion, methodologies for collecting population data are not consistent between government agencies or research institutions.<sup>46</sup>

## Potential Ways to Improve the ESA

The current version of the ESA has two main flaws. First, the law creates perverse incentives and unintended consequences that limit the ability of endangered species to recover. Second, the wording of the law is unclear and unspecific in many cases, which limits the ability of the federal government to facilitate species recovery.

We have found that the effectiveness of the ESA could be improved in two ways. The FWS or Congress could take steps to incentivize private individuals and state governments to promote conservation. The FWS or Congress could also change and specify the legal framework of the ESA. Within these two categories, we have listed several more specific suggestions that could make the ESA more effective at species recovery.

### A. Aligning Incentives to Promote Conservation

#### 1. Expand Opportunities for Voluntary Approaches to Conservation

**Problem:** The ESA creates perverse incentives and regulatory barriers that discourage voluntary approaches to species conservation.

**Potential Reform:** The FWS or Congress could open more opportunities for federal agencies to work with private groups in species conservation and recovery.

Although the ESA has helped many species avoid extinction, it also imposes significant costs and trade-offs that affect people and their livelihoods. In many cases, designations under the ESA create perverse incentives that encourage people to destroy, rather than preserve, species. With these perverse incentives, the ESA may actually harm the species it was meant to protect. Voluntary private action may be a viable alternative to direct government involvement in helping many species recover. The federal government could also make it easier and less costly for private actors to cooperate in species conservation and recovery.

Privately initiated conservation can produce similar or better results than the ESA. Conservation-minded people can create positive incentives for others to conserve species voluntarily. These conservationists are often located closer to endangered species and can take advantage of relationships with local citizens. One of the main advantages of private action is that it is often more flexible because it avoids the bureaucratic processes of the ESA and the political incentives of federal bureaucrats.

There are many examples of private groups encouraging and succeeding at species conservation. For example, the Coral Restoration Foundation grew and replanted over 36,000 corals in the Florida Keys area in 2015. Defenders of Wildlife, a non-profit organization, works to improve wolf conservation in the western United States by reimbursing farmers for lost livestock. The Ugly Animal Preservation Society and EDGE of Existence are two groups that promote the conservation of non-charismatic species through public awareness campaigns.<sup>47</sup>

One of the largest examples of private conservation is the American Prairie Reserve (APR), a non-profit organization that purchases private land and obtains leases to public grazing lands in Montana. The ultimate goal is to stitch together a wildlife preserve of over three million acres.<sup>48</sup> One of the most notable aspects of the APR is how

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45 Ibid.

46 Abbitt, R. J. F., Scott, J. M. (2001, October). *Examining Differences between Recovered and Declining Endangered Species*. Conservation Biology. 1274-1284; Seasholes, Brian. (2007, September). *Bad for Species, Bad for People: What's Wrong with the Endangered Species Act and How to Fix It*. Natural Center for Policy Analysis.

47 Simmons, R., Hansen, M., and Patty, G. (2017). *Saving Endangered Species: Voluntary Solutions to Conservation*. Retrieved from <http://strata.org/pdf/2017/esa-full.pdf>

48 Roberts, R. (Host) and P. Geddes. (Guest). 2015, September 28. Pete Geddes on the American Prairie Reserve. Econtalk. Retrieved from [http://www.econtalk.org/archives/2015/09/pete\\_geddes\\_on.html](http://www.econtalk.org/archives/2015/09/pete_geddes_on.html)

the managers of the reserve work with a number of federal and state agencies to accomplish the goal of large-scale, multi-species conservation. The APR works with the BLM to lease public lands that are tied to adjacent private lands through grazing permits.

The APR also borders Upper Missouri River Breaks National Monument, Charles M. Russell National Wildlife Refuge, and privately owned land. APR's management works with the BLM and the FWS to coordinate and collaborate on species conservation, along with relevant state land management agencies.

The ESA can unintentionally discourage private groups or individuals from these voluntary activities because non-compliance with federal regulations could result in fines and imprisonment, even if these private actors are trying to enhance the conservation of species. Limiting bureaucratic red tape is an important step in helping private, voluntary conservation efforts. The development of more flexible policies, such as the "no surprises" rule for HCPs, has been important because it reduces the disincentives that may prevent some people from engaging in voluntary conservation. The "no surprises" rule has been a significant step in the right direction, but policymakers should consider additional reforms that could encourage a wider use of voluntary conservation. One of the most effective and efficient approaches to species conservation may occur when private actors work with FWS in a cooperative, mutually beneficial relationship.

The numerous examples of private conservation efforts show that many people are willing to invest their own time and money into species conservation. The FWS and other agencies that aid species recovery could better leverage these private efforts to increase the efficiency and effectiveness of recovery by removing regulatory barriers that discourage private action. Some suggestions for enhancing private conservation include conservation easements, less costly and more timely permitting, federal grants to private conservation organizations, or cooperation with private preserves.

Federal officials will need to be flexible in how they facilitate and encourage private, voluntary conservation. The federal government could take hundreds of approaches to encourage more private efforts to increase species conservation, but the specific ways will depend on the unique circumstances of each situation. These circumstances may include the species involved, the culture of a particular community, and the statutory mechanisms that influence the actions of government officials and private individuals alike. For example, federal officials would need to approach private conservation efforts differently in the Pacific Northwest than they would in the Deep South because of the differences in ecology, politics, and culture.

## 2. Enhance the role of state governments in recovering species

**Problem:** Section 6 of the ESA is meant to facilitate coordination between states and the federal government, but the vague wording of the section has caused a lack of cooperation.

**Potential Reform:** Congress or the FWS could set specific standards for species conservation, but defer more decision-making power to state governments.

One of the main areas of the ESA that could be reformed is Section 6. The section states that the federal government "shall cooperate to the maximum extent practicable with the States."<sup>49</sup> Section 6 is meant to ensure that the federal government consults with state governments when working to conserve endangered or threatened species. But, since the wording of the Act is not a hard mandate, cooperation between the federal government and states has been inconsistent. Under the current ESA, states can implement their own species protection programs that go beyond federal action, but the protections of the ESA are so stringent that few states can afford to exceed the federal levels. We argue that keeping a federal floor for ESA compliance while also opening up more opportunities for cooperation and innovation may improve conservation for species, as well as decrease economic harms. Since the current federal floor may be too stringent and inflexible, the FWS may need to reevaluate the floor to facilitate more cooperation with states and increase the effectiveness of species conservation.

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49 U.S. Fish and Wildlife Service. (2013). Endangered Species Act | Section 6. Retrieved from <https://www.fws.gov/endangered/laws-policies/section-6.html>

Many federal environmental laws, such as the Clean Water Act or the Clean Air Act, are largely based on cooperation between the federal government and states. These federal pollution control laws often use the state-federal relationship to ensure that states meet a set standard, but allow the states to do it in a way that works best for their unique political, cultural, and ecological circumstances. Pollution control laws may still be costly and onerous, but states have more flexibility in how they implement these laws. The ESA, however, has lacked these cooperative relationships. Congress or the FWS could improve the ESA by adopting the pollution-control model of cooperative federalism. A more decentralized decision-making process would allow for greater innovation in the way that state governments and private individuals work to conserve species.<sup>50</sup>

The Western Governors' Association (WGA) has proposed several reforms to the ESA that would give more authority to states to address endangered species issues. The WGA is composed of the governors from 19 Western states, as well as 3 U.S. territories in the Pacific. The members of the WGA wrote the Species Conservation and Endangered Species Act Initiative as a way for states to "lead species conservation efforts with a goal of eliminating the need for federal protection of species."<sup>51</sup>

In essence, the Western Governors are asking the federal government to give them more money and more authority. Western Governors, just like federal politicians and bureaucrats, display rational self-interest when they try to accrue as much power and discretion as possible. Officials at lower levels of government are not more altruistic than those at higher levels. Instead, the practical purpose for decentralizing decision-making power is purely to take advantage of local knowledge.

One of the greatest advantages of decentralization is that local politicians and bureaucrats often have and are better equipped to use local knowledge about time and place. There is a distinct difference between the requisite scientific knowledge for conservation and knowledge for effective implementation. Scientific knowledge is often centralized by one body that holds the sum of scientific knowledge about a particular field. For example, the FWS may have the most comprehensive data about the population numbers for listed species. Effective conservation, however, needs more knowledge than just scientific data and theory. State and local officials are more likely to know specific information that is required to implement an effective conservation strategy. For example, state and local officials are more likely to know the needs of local people, local customs and culture, how to ease tensions of local property owners, and how ecosystems are changing over time. A difficult aspect of localized knowledge is that it is impossible to know what types of local information are necessary for any given situation.<sup>52</sup> Local decision-making is important because centralized decision-makers may miss relevant local information.

Another benefit of decentralized decision-making is that there is a higher probability of accountability. Keeping politicians and bureaucrats accountable to their constituents is a difficult issue at both the state and federal levels, but federal politicians and bureaucrats are much farther removed from the electorate than state officials. At lower levels of government, politicians and bureaucrats are likely to be more responsive to the needs and preferences of the electorate.

Cooperation between the federal government and states will help strike a balance so that conservation concerns do not dominate economic ones, and vice versa. Federal officials are farther removed from the daily life of average Americans, so their incentives and constraints allow them to focus more on the needs of conservation. State and local officials are more likely to prioritize the economic well-being of their constituents because they are more responsive to local voters. The federal government could defer the actual implementation of conservation plans to states while still ensuring that states meet conservation objectives. This approach would be a more cooperative, balanced means of conservation.

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50 Perry, T. (March 8, 2016). *The Western Governors' ESA Initiative*. Martin Law. Retrieved from <http://www.martenlaw.com/newsletter/20160308-western-governors-esa-initiative>

51 Species Conservation and the Endangered Species Act. (June 14, 2016.) Western Governors' Association. Retrieved from <https://westgov.org/policies/303-wildlife/1210-species-conservation-and-the-endangered-species-act>

52 Hayek, F. A. (1945). "The Use of Knowledge in Society." Library of Economics and Liberty. Retrieved from <http://www.econlib.org/library/Essays/hykKnw1.html>

Another benefit from decentralization is that states can serve as laboratories of experimentation with different kinds of policies. When free to do so, states can innovate with different management regimes or conservation plans, which increases the likelihood that they will discover the most efficient and effective policies. Officials in one state can adopt policies that have worked in another state and avoid policies that have not. This type of experimentation and innovation has been compared to a “laboratory of democracy.” Michael S. Greve, a professor at the Antonin Scalia Law School at George Mason University, asserts that “one can make a powerful theoretical case for the experimental, decentralized politics that the laboratory metaphor suggests.”<sup>53</sup> Smaller, localized policies are more capable of adapting to changing circumstances, whether economic or ecological.

One of the main reforms that the Western Governors suggest is to change Section 6. First, the proposed reforms include increasing the amount of federal grants authorized under the Section 6. The increased funding would help states and local governments better implement the Act. Second, the proposed reforms would help increase cooperation between states and the federal government on ESA issues. More federal funding does not necessarily guarantee better results, but increased cooperation will likely lead to better decision-making.

The members of the WGA state that they would use the funding to increase economic incentives for landowners. The WGA members also intend to replace the need for listing new species by better using the Cooperative Endangered Species Conservation Fund authorized under Section 6. They suggest that this fund be managed by state officials to create incentive-based programs to prevent listings, bolster recovery plans, and increase the delisting of species.<sup>54</sup>

Section 6 authorizes the federal government to fund state conservation programs that are at least as stringent as federal programs. Although federal funding for state programs has increased over the past 30 years, grants alone will not save endangered species.<sup>55</sup>

In addition to grants, one of the most important reforms to the ESA will be allowing states to issue permits for taking species.<sup>56</sup> Currently, only the federal government can issue take permits, but delegating that power to states may improve flexibility and innovation in the trade-offs between conservation and development. By requiring that states meet federal standards for species but allowing them to make conservation decisions locally, the federal government can allow states to prioritize local issues. Since one state’s actions may affect another state’s endangered species populations, states may have to cooperate with one another in cases where species cross state lines.

By fully developing Section 6 of the ESA, the federal government could facilitate a more consistent, sustained partnership with states. States could then lead the recovery efforts for threatened and endangered species. Although it is a complex issue, state-led efforts may help increase the recovery of species, as well as mitigate economic harm.<sup>57</sup>

### 3. Incentive-Based Approaches on Private Land

**Problem:** The ESA incentivizes many private landowners to destroy critical habitat and kill species.

**Potential Reform:** The FWS or Congress could provide financial incentives for or compromise with the owners of critical habitat to encourage them to help conserve species and habitat.

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53 Greve, M. S. (March 31, 2001). *Laboratories of democracy*. *American Energy Institute*. Retrieved from <http://www.aei.org/publication/laboratories-of-democracy/>

54 Species Conservation and the Endangered Species Act. (June 14, 2016.) Western Governors’ Association. Retrieved from <https://westgov.org/policies/303-wildlife/1210-species-conservation-and-the-endangered-species-act>

55 Fischman, R. L. (2005). *Cooperative Federalism and Natural Resources Law*. Articles by Maurer Faculty. Paper 219. Retrieved from <http://www.repository.law.indiana.edu/facpub/219>

56 Ibid.

57 Arha, K., and Thompson, B. (n.d.) *Endangered Species Act and Federalism: Effective Species Conservation through Greater State Commitment*. Woods Institute for Environment Stanford Law School. Policy Paper. Retrieved from <https://woods.stanford.edu/sites/default/files/files/Endangered-Species-Act-Policy-Paper-20050224.pdf>

The ESA does not contain any provisions to compensate landowners for losses sustained by ESA regulations, and it provides minimal incentives for landowners to facilitate species recovery. For example, the main incentive program in the ESA is for landowners to create HCPs and then rely on the “no surprises” rule to avoid changes in the future. While HCPs make species listings workable for landowners, they can still be still costly and time consuming, which disincentivizes many landowners from engaging with the federal government. A wider array of approaches could make listed species less of a liability for private landowners. Creating better incentives for private landowners is one of the most important goals of ESA reform.

Professor R. Neal Wilkins, the director of the Institute of Renewable Natural Resources at Texas A&M University, argues, “An ESA that provides a framework for innovative approaches to stimulating conservation on private lands will be much more effective than an ESA that approaches private lands as a regulatory problem.”<sup>58</sup>

Incentive-based solutions to species conservation may help avoid two of the Act’s largest unintended consequences. The first of these consequences has been the secretive killing of endangered species on private land, colloquially referred to as “shoot, shovel, and shut up.”<sup>59</sup> If private land is designated as critical habitat for a species, the owner may be restricted from logging, mining, or farming, among other activities. These restrictions can make a tract of private land unprofitable — harming the owner’s livelihood and reducing the market value of the property. In fact, incentives of the ESA frequently lead landowners to kill endangered species secretly and destroy the evidence. They do this to avoid regulations that restrict how landowners can use their property. “Shoot, shovel, and shut up” practices may hasten the decline of a species.<sup>60</sup>

The second unintended consequence of the Act has been the preemptive destruction of habitat. If private landowners fear that the FWS may soon list a species on their property, landowners may destroy the habitat to extract as much value as possible prior to the listing. For example, imagine that an individual owns part of a forest and makes a living by logging. If the FWS issued a proposal to list a bird species that lived in the forest, the landowner would see the listing as a threat to his livelihood. The landowner may try to cut down as many trees as possible before the bird is listed. Landowners may do this because they think that it is more profitable to cut down many trees before a listing than take the chance that they will not be able to use their land after a potential listing.<sup>61</sup>

“Shoot, shovel, and shut up” practices and preemptive habitat destruction have occurred because of improper incentives for private landowners and people who lease public land. An incentive-based system that compensates people affected by listed species would help alleviate these negative consequences. Another way to align incentives is to reduce the risk and potential penalties to landowners for having an endangered species on their land. Take permits and HCPs help decrease the conservation burden placed on landowners, but filing a take permit can be prohibitively expensive.

Currently, some private groups are working to provide incentives for the protection of endangered species. The Nature Conservancy heads BirdReturns, a project in California that provides rice farmers with incentives to protect endangered species habitat. The project uses crowdsourced data to identify habitats for migratory birds. The group then pays rice farmers to either flood or not use their fields at times of the year when rice production is minimal. These actions help birds breed and travel safely when migrating. Prior to the beginning of the project, rice farmers

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58 Mehan, G.T. (April 1, 2012.) PERC Report: Volume 30, No.1, Spring 2012 Retrieved from <https://www.perc.org/articles/ark-dry-dock>

59 Dolan, M. 1992. Nature at risk in a quiet war. Los Angeles Times December 20, 1992, p.1A.;

Lambert, Thomas and Robert J. Smith. The Endangered Species Act: Time for a Change. Center for the Study of American Business. Policy Study No. 119 (March 1994).

Anderson, T. (2014). When the Endangered Species Act Threatens Wildlife. Property and Environment Research Center. Retrieved from <https://www.perc.org/articles/when-endangered-species-act-threatens-wildlife>

60 Brown, G.M., and Shogren, J. F. (1998). Economics of the Endangered Species Act. *Journal of Economic Perspectives*, Volume 12, Number 3, 7. Retrieved from <http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.12.3.3>

61 Lueck, D. and Michael, J.A. (April 2003). Preemptive habitat destruction under the Endangered Species Act. *Journal of Law and Economics*, 46, 30. Retrieved from <https://www.perc.org/sites/default/files/LueckMichaelESACaseStudy.pdf>

had no reason to engage in activities that benefit the birds, but the Nature Conservancy provided the farmers' motivation.<sup>62</sup>

Other private groups, like Wild Sky Beef, offer to pay nearby landowners for photos of certain kinds of wildlife, such as bears and wolves, found on private land. The managers of Wild Sky Beef realize that wildlife can be a liability to farmers and ranchers. By paying landowners for photos of wildlife, the American Prairie Reserve incentivizes nearby landowners to view the wildlife as an asset, rather than a burden. Landowners then work with the APR to keep wildlife alive and even find ways to accommodate wildlife on their properties. The reserve also compensates surrounding cattle ranches for installing wildlife-friendly fences.<sup>63</sup> The FWS could implement strategies like these to encourage landowners to protect species, rather than destroying the species.

Aligning private incentives with the conservation of species may allow the FWS to spend less money on litigation and the enforcement of stringent policies and allow them to focus those funds on working with private landowners to conserve species. Any of the suggestions in this section would require a paradigm shift for ESA policies, which would also require the FWS to shift how it allocates its resources. Funding incentives is simple in theory, but policymakers will need to be cautious so that any federal funding for incentives does not become a rent-seeking opportunity. If an incentive program became a rent-seeking project of special interest groups, the purpose of such a program would be undermined.

#### 4. Market-Based Approaches on Private Land

**Problem:** The current ESA makes it difficult for private parties to own or lease listed species, as well as acquire permits to protect them.

**Potential Reform:** The FWS or Congress could simplify the permitting process and allow for the ownership and sale of listed species in some circumstances so that private parties voluntarily work toward propagation, protection, and recovery.

One way to improve the recovery of species is to make the ownership of species profitable. Under the ESA, owning or selling endangered species is illegal and punishable by fines or jail time. The federal government could change the ESA so that the ownership and sale of species is legal in a wider range of circumstances. In other words, the federal government could set up a system of modified property rights over some endangered species, which would create market incentives for preservation and propagation. The FWS could also expand the situations in which permits are acceptable for possessing listed species.

Currently, the FWS can issue permits for groups to own endangered species for scientific research and enhancement of propagation. The FWS can also issue permits for threatened species in certain cases, such as a zoological exhibition, educational use, and "special purposes consistent with the ESA."<sup>64</sup> People who register with the FWS can also receive a captive-bred wildlife permit that allows them to buy and sell live, non-native endangered or threatened animals that born in captivity in the United States. These types of permits can only be used for species propagation, and both parties must be permitted for the same animal to make a transaction. The FWS specifically stipulates that captive-bred wildlife permits will not be used to "keep or breed endangered or threatened animals as pets." The FWS claims that using listed species as pets is not consistent with the ESA's purposes of conservation and recovery of wild populations.<sup>65</sup>

Obtaining permits can be a costly and time-consuming process. Applicants must complete application forms, review the regulations that apply to the applicable permit, pay an application fee, attach any required state or foreign permit,

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62 The Nature Conservancy. (n.d.) Program overview. Retrieved from <http://birdreturns.org/home-page/about/about/>

63 Wild Sky Beef. (n.d.) Pocket guide to wildlife-friendly ranching. Retrieved from <http://wildskybeef.org/sites/default/files/rancher-pocket-guide-single-pages.9.11.15.pdf>

64 U.S. Fish and Wildlife Service. (2016). "Permits | Frequently Asked Questions." Retrieved from <https://www.fws.gov/endangered/permits/faq.html>

65 Ibid.

and send all required materials to one of four FWS programs that issue permits. To complicate matters, each of these programs handles a different category of permits, but some types of permits are issued by more than one program. A review of permit applications takes at least 60 days, but often longer.<sup>66</sup> Streamlining and expanding the permitting process or ability to own listed species could allow a wider array of individuals and organizations to find innovative ways to conserve and propagate species.

Making it easier for private actors to profit from conservation efforts would help facilitate the protection and recovery of listed species. The FWS manages the Ecological Services Program to formally and informally cooperate with groups to conserve species. Through this program, the FWS forms partnerships to protect and recover endangered and threatened species. The Ecological Services Program has made agreements and partnerships with other FWS programs, other federal agencies, state governments, private landowners, non-governmental organizations, and American Indian tribes.<sup>67</sup> The FWS, through the Ecological Services Program or other programs, could expand the opportunities for private individuals, for-profit organizations, and nonprofit organizations to aid in the recovery of endangered and threatened species. If the FWS made it easier for these groups to lease or own listed species, then they could generate ticket sales and philanthropy to support their efforts to breed, reintroduce, and sell these species.

The FWS could make it simpler and less costly for a private organization to acquire listed species so that they can run private conservation areas. These organizations could charge admission to the area, like a zoo or botanical garden. People that value species will pay to see them, or people that value conservation may send donations. If conservation becomes a revenue source, the owner of the conservation area will provide proper food and habitat and ensure that the species continues to reproduce. Unfortunately, this approach would tend to favor species that are traditionally popular, such as mammals, birds, or amphibians.

Owners of private preserves may facilitate the conservation of multiple species at once. Botanical gardens may contain many species of rare and endangered plants, or animal preserves may house various species that depend on each other ecologically. The ability to profit from endangered species conservation may not apply to every species or every situation, but using this approach to the fullest extent may be a win-win situation for both conservationists and entrepreneurs.

Even without a strong profit incentive, a person's own interest in a species might be enough to lead them to protect it.<sup>68</sup> Take for example the Flying D Ranch in Montana, owned and operated by Ted Turner. Turner loves the West and purchased the ranch so that he could better enjoy the local wildlife. Soon after buying the ranch, he transitioned it from cattle ranching to bison ranching and began cultivating the area for wildlife. Although bison are less profitable than cattle, other features of the ranch make it worthwhile to Turner. He has worked with the Nature Conservancy to protect the area under a conservation easement, ensuring that it will continue to be protected even after his death.

The Flying D Ranch does not specifically protect endangered species, but it could be used as a model for conservation. The ranch is able to operate because of its profits from bison sales and hunting experiences, and it offers protections to a host of species. For example, two packs of grey wolves, a species that was taken off of the endangered species list in 2011, live on the ranch.<sup>69</sup> Much like Turner's approach, the FWS should work to incentivize private individuals and organizations to aid in the conservation and recovery of listed species.

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66 U.S. Fish and Wildlife Service. (2017). "How to Obtain a Permit." Retrieved from <https://www.fws.gov/permits/instructions/ObtainPermit.html>

67 U.S. Fish and Wildlife Service. (2017). "Partnership Stories." Retrieved from <https://www.fws.gov/endangered/what-we-do/partners.html>  
U.S. Fish and Wildlife Service. (2016). "Ecological Services: What We Do." Retrieved from <https://www.fws.gov/ecological-services/about/what-we-do.html>

68 Haddock, D. D. *Accounting for Mother Nature*. Stanford University Press. *Why Individuals Provide Public Goods*. p. 277-279.

69 Coltrane, J., Gude, J., Inman, B., Lance, N., Laudon, K., Messer, A., ... Vore, J. (2015). Montana Gray Wolf Conservation and Management 2015 Annual Report. Montana Fish, Wildlife & Parks. Helena, Montana. Retrieved from [fwp.mt.gov/fwDoc.html?id=74299](http://fwp.mt.gov/fwDoc.html?id=74299).

## B. Reforming the Legal Framework of the ESA

### 1. Considering economic factors in the conservation of species

**Problem:** Under the current ESA, the federal government cannot consider economic costs when listing and prioritizing species as endangered or threatened, which can have negative economic impacts on the federal government, state governments, and private citizens.

**Potential Reform:** Congress could alter the ESA so that the FWS must consider economic impacts in the listing process and when prioritizing species, which would improve human well-being and still allow for the recovery of species.

The ESA was designed to protect endangered species “whatever the cost,” which can have negative economic impacts on private landowners, or lead to the waste of federal funds.<sup>70</sup>

Under the ESA, the Secretary of the Interior is required to consider listing species “solely on the basis of the best scientific and commercial data available.” This means that the Secretary cannot consider the economic impacts and costs of preserving a species. An amendment to the Act that addresses the economic issues of the ESA would help better balance the trade-offs between species preservation and human well-being. The God Squad approach is one of the few tools that allows the federal government to consider economic impacts under the ESA, but the God Squad has been used so few times that the Act may require further reforms.

Some argue that considering economic factors in listings dismisses the importance of protecting an endangered species. Sarah Willey, the Director of Development and Community Outreach for the Great Rivers Environmental Law Center, argues that “[i]f a species meets the criteria as defined, it is endangered; it is endangered regardless of how convenient it is to any of us. Science cannot be dictated by politics or economics.”<sup>71</sup> Although the use of science in endangered species determinations is important, policy decisions that require federal agencies to use valuable resources and make trade-offs should also consider economic factors.

Once the FWS lists a species as endangered, it becomes responsible for the preservation of that species, regardless of cost. If economic impacts are entirely ignored, the FWS can spend valuable scarce resources on preserving a species that has little chance of recovery and no economic value. Economic reforms to the ESA would allow the FWS to more effectively protect species with a greater chance of recovering.

Including the economic costs in the listing and prioritization processes would likely reduce costs for species conservation, but some people may argue that economic considerations would harm the recovery of species. Leah R. Gerber, an environmental scientist and professor at Arizona State University, found that a better spending prioritization system could improve recovery outcomes and provide for more species than current spending practices. Gerber’s analysis shows that the FWS is spending more on some species than their recovery plans call for. Conservation does not automatically improve when federal agencies overspend on recovery budgets. If the FWS were to eliminate extra spending on “costly yet futile” species, that funding could make up the deficit in spending on over 180 other species. Gerber asserts, “Sharpening our focus on deliberate decision making offers the potential to achieve desired outcomes in avoiding extinction for Endangered Species Act-listed species.”<sup>72</sup>

While the FWS has guidelines in place to suggest that species managers should prioritize listing species that are in greater danger, managers are not legally bound to do so.<sup>73</sup> Instead proposed listings are often reviewed in the order

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70 *Tennessee Valley Auth. v. Hill* 437 U.S. 153 (1978)

71 Willey, S. (2017, February 15). Congress must not pass Endangered Species reform bill. *The Hill*. Retrieved from <http://thehill.com/opinion/letters/319758-congress-must-not-pass-endangered-species-reform-bill>

72 Gerber, L. R. (2016). Conservation triage or injurious neglect in endangered species recovery. *Proceedings of the National Academy of Sciences of the United States of America*, 113(13), 3563–3566. <http://doi.org/10.1073/pnas.1525085113>

73 *Endangered and Threatened Species Listing and Recovery Priority Guidelines*, 48 Fed. Reg. 184 (September 21, 1983). Retrieved from [https://www.fws.gov/endangered/esa-library/pdf/1983\\_LPN\\_Policy\\_FR\\_pub.pdf](https://www.fws.gov/endangered/esa-library/pdf/1983_LPN_Policy_FR_pub.pdf)

they were proposed, posing several problems. First, a species in rapid decline may be beyond salvation by the time it is reviewed for listing. Devoting scarce resources to conserve such a species may not be worthwhile. Second, if a species has significantly declined since it was listed, it may become far more expensive for the FWS to attempt to save the species. Requiring the FWS to review species based on need and likelihood of recovery would ensure that species with greater potential to be saved are examined first, which may decrease the cost of saving the species.

## 2. Improving the way recovery plans are drafted and implemented

**Problem:** Many recovery plans for species are ineffective and lack the mechanisms to facilitate recovery.

**Potential Reform:** Congress or the FWS could change the requirements for recovery plans so that plans have more specific, attainable goals.

The current version of the ESA does not require clear recovery goals for listed species. If species recovery is the ultimate aim of the ESA, specified recovery goals for every species would help federal and state officials, as well as private individuals, to work towards an attainable goal. The Western Governors' Association is pushing for this specific reform because they believe that recovery and the delisting of species should be "the highest priority of the Act."<sup>74</sup>

The FWS specifically states that the main purpose of the ESA is "the recovery of listed species to levels where protection under the Act is no longer necessary." To achieve that goal, the FWS is meant to "develop and implement recovery plans that provide detailed site-specific management actions for private, Federal, and State cooperation in conserving listed species and their ecosystems."<sup>75</sup> Recovery plans are not regulatory documents. They simply give guidance to the parties involved in the recovery of listed species.

Under the ESA, all listed species must have a recovery plan, unless the FWS determines that a plan will not help the species recover.<sup>76</sup> Many academic and policy-oriented organizations have evaluated the effectiveness of ESA recovery plans. They have also offered suggestions for how to improve these plans. Although a majority of listed species managed by the FWS have recovery plans, the presence of a recovery plan does not say much about the plan's effectiveness.

Conservation biologists P. Dee Boersma and her fellow researchers found that recovery plans take too long to complete, and longer plans are not more effective at helping species recover. After a species is listed, recovery plans can take several years to create. For example, the lag time between a listing and an approved recovery plan was, on average, 3.1 years before 1990 and 5.1 years after 1990. Species that were declining in number have plans that were, on average, one and half times as long as the plans for species that were improving or stable. Plans widely vary in length, ranging from 14 pages to 432 pages, with an average of 104 pages.

There are at least two explanations for why longer plans do not lead to better conservation. First, species that are the closest to extinction require greater conservation efforts, necessitating longer plans for recovery.<sup>77</sup> Second, longer plans contain significant amounts of superfluous information and take longer to draft, which requires unnecessary

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74 Species Conservation and the Endangered Species Act. (June 14, 2016.) Western Governors' Association. Retrieved from <https://westgov.org/policies/303-wildlife/1210-species-conservation-and-the-endangered-species-act>

75 U.S. Fish and Wildlife Service. (August 23, 2016). Overview. Retrieved from <https://www.fws.gov/Endangered/about/index.html>

76 In 2014, the FWS had primary responsibility for recovering 1,478 federally-listed species, 307 which were listed as threatened and 1,171 listed as endangered. By the end of fiscal year 2014, the FWS had recovery plans for 78 percent (1,148) of the 1,478 species under its jurisdiction. The timespan between the listing of a species to when an active recovery plan is created for it has ranged from 2 to 40 years. U.S. Fish and Wildlife Service. (June 2016). Report to Congress on the Recovery of Threatened and Endangered Species, Fiscal Years 2013-2014. Retrieved from [https://www.fws.gov/endangered/esa-library/pdf/Recovery\\_Report\\_FY2013-2014.pdf](https://www.fws.gov/endangered/esa-library/pdf/Recovery_Report_FY2013-2014.pdf)

77 Boersma, P.D., Kareiva, P., Fagan, W.F., Clark, J.A., & Hoekstra, J.M. (August 1, 2001). How Good Are Endangered Species Recovery Plans?: The effectiveness of recovery plans for endangered species can be improved through incorporation of dynamic, explicit science in the recovery process, such as strongly linking species' biology to recovery criteria. *BioScience*, 51(8), 643-649. doi:10.1641/0006-3568(2001)051[0643:hgaesr]2.0.co;2

management.<sup>78</sup> Longer plans could therefore delay implementation and misdirect how the FWS and other federal agencies prioritize their management.

There are a few ways that Congress or the FWS could improve the way recovery plans are drafted and implemented. First, federal and state managers need to be able to engage in low-cost, flexible management. This type of management includes relatively frequent revisions to recovery plans because unrevised plans can become inapplicable over time and because the environment is dynamic. Some people may argue that it would be costly and burdensome to frequently revise recovery plans, but frequent revisions may cost less than complying with outdated policies that do little to aid in recovery. Federal and state managers can use ever-improving information to make more effective and efficient plans.<sup>79</sup>

Second, recovery plans and their revisions should be written with a diversity of participants, such as federal officials, state officials, non-profit organizations, industry leaders, and private landowners. Bringing in a diversity of people to engage in the planning process will better align incentives with effective and efficient recovery. So long as federal agents hold recovery to a certain standard, allowing diverse groups to contribute to recovery plans should allow the recovery to negatively impact as few groups as possible, while still facilitating species recovery. A diverse set of participants can also take advantage of localized knowledge that FWS officials may not have. Although involving diverse groups may significantly increase the time it takes to create a recovery plan, it may also ensure that the plans are more effective in the long run.

Third, recovery plans should include explicitly stated recovery criteria. Many recovery plans use vague generalities from ecology or conservation biology. Without specific goals, recovery plans have a low likelihood of achieving the recovery of species in an efficient or effective way.

Fourth, current management strategies often focus on multiple species at once, or they focus on ecosystem-based recovery plans, but managers should be skeptical of these approaches unless they show verifiable evidence that they are effective. Boersma and her fellow researchers found that multi-species plans are often less effective than single-species plans. Although the intentions of multi-species plans or ecosystem-based recovery plans are meant to be beneficial on larger scales, the intentions should not outweigh the actual results. If these types of plans are ineffective, managers should have the flexibility to find new strategies.

If recovery plans are meant to actually recover species, then government officials must verify whether recovery plans are achieving that goal. Collecting better quantitative data on the population trends of species will help make recovery more objective and effective.<sup>80</sup>

### 3. Increase regulatory flexibility

**Problem:** The current wording and interpretation of the ESA is rigid and applies many one-size-fits-all approaches to the recovery of species, which limits its effectiveness.

**Potential Reform:** The FWS or Congress could work to increase regulatory flexibility, which would facilitate an innovative and diverse set of approaches to species conservation.

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78 Schemske, D.W., Husband, B.C., Ruckelshaus, M.H., Goodwillie, C., Parker, I.M., and Bishop, J.G. (1994). Evaluating approaches to the conservation of rare and endangered plants. *Ecology* 75: 584–606

79 Boersma, P.D., Kareiva, P., Fagan, W.F., Clark, J.A., & Hoekstra, J.M. (August 1, 2001). How Good Are Endangered Species Recovery Plans?: The effectiveness of recovery plans for endangered species can be improved through incorporation of dynamic, explicit science in the recovery process, such as strongly linking species' biology to recovery criteria. *BioScience*, 51(8), 643–649. doi:10.1641/0006-3568(2001)051[0643:hgaesr]2.0.co;2

80 Boersma, P.D., Kareiva, P., Fagan, W.F., Clark, J.A., & Hoekstra, J.M. (August 1, 2001). How Good Are Endangered Species Recovery Plans?: The effectiveness of recovery plans for endangered species can be improved through incorporation of dynamic, explicit science in the recovery process, such as strongly linking species' biology to recovery criteria. *BioScience*, 51(8), 643–649. doi:10.1641/0006-3568(2001)051[0643:hgaesr]2.0.co;2

The FWS and related agencies could work with state, local, and private individuals to create range-wide management plans. These plans would help conserve species that could potentially be listed, as well as helping listed species recover. For example, the Western Association of Fish and Wildlife Agencies has been working on a range-wide conservation plan which would boost the population of the lesser prairie chicken across several Western states.<sup>81</sup>

Another approach to increase flexibility would be for the FWS to create species-specific thresholds like population counts or minimum range areas. When a species population drops beneath a particular number or the size of a range becomes too small, the FWS could automatically list the species of concern. While these thresholds could be subject to political influences and litigation, more objective listing criteria would give conservation groups and state governments concrete criteria on which to base their actions.<sup>82</sup>

One of the major problems with the ESA is the inflexibility of the petitioning process and the 12-month finding requirements. Under the ESA, a person or organization can petition to list as many species, subspecies, or distinct population segments as they want. Once a petition is submitted, the FWS is legally required to determine whether a petitioned species is warranted, not warranted, or warranted but precluded within 12 months of the petition's submission.

The inflexible requirement for the 12-month finding has given some organizations the incentive to submit large numbers of petitions. For example, WildEarth Guardians filed a petition to protect 475 species in the Southwest in 2007.<sup>83</sup> In 2010, the Center for Biological Diversity filed a petition to protect 404 species in the southeastern United States.<sup>84</sup> Because the FWS has limited time, money, and resources, it cannot always meet the 12-month deadline. Organizations that filed large petitions can then threaten to sue the FWS for violating the provisions of the ESA. The FWS then settles with these organizations.<sup>85</sup> Settlement agreements often stipulate that the FWS will submit 90-day findings and 12-month findings for the species in question.

These organizations strategically file such large numbers of petitions so that the FWS is more likely to comply with the organizations' desires during settlement agreements. Gary Frazer, the Assistant Director of the Endangered Species Program for the FWS, said, "These megapetitions are putting us in a difficult spot, and they're basically going to shut down our ability to list any candidates for the foreseeable future. If all our resources are used responding to petitions, we don't have resources to put species on the endangered species list. It's not a happy situation."<sup>86</sup>

In addition, nonprofit organizations like WildEarth Guardians and the Center for Biological Diversity can profit by suing the government when they submit such large petitions to the FWS. Under the Equal Access to Justice Act (EAJA), the federal government reimburses people for litigation costs when those people cannot afford to take on the government. If the courts find that the government has violated a statute, the government will pay the litigation costs to the plaintiffs. A loophole in the law, however, allows nonprofit organizations of any size to take advantage of EAJA funds. Both WildEarth Guardians and the Center for Biological Diversity are multimillion-dollar nonprofits who have their legal fees partially or fully reimbursed with EAJA funds when they win a court case. For example, in 2009 the Center for Biological Diversity raised \$7.5 million dollars, \$1.7 million of which was labeled

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81 Range-wide Conservation Plan. (n.d.) Western Association of Fish and Wildlife Agencies. Retrieved from [http://www.wafwa.org/initiatives/grasslands/lesser\\_prairie\\_chicken/range-wide\\_conservation\\_plan](http://www.wafwa.org/initiatives/grasslands/lesser_prairie_chicken/range-wide_conservation_plan)

82 Watson, R. (March 2017). Endangered Species: Harness economic incentives to enhance wildlife assets. PERC Public Lands Report. Retrieved from <https://www.perc.org/sites/default/files/pdfs/PERC%20A%20New%20Landscape%20DOI%20Report.pdf>

83 WildEarth Guardians. (2007, June 21). "Group Seeks Federal Protection for 475 Southwestern Endangered Species: Largest Listing Petition Filed in Thirty Years." Retrieved from

84 Platt, J. (2010, April 22). "Petition filed to protect 404 southeastern U.S. species." *Scientific American*. Retrieved from <https://blogs.scientificamerican.com/extinction-countdown/petition-filed-to-protect-404-southeastern-u-s-species/>

85 Species Conservation and the Endangered Species Act. (June 14, 2016.) Western Governors' Association. Retrieved from <https://westgov.org/policies/303-wildlife/1210-species-conservation-and-the-endangered-species-act>

86 Woody, T. (2011, April 20). "Wildlife at Risk Face Long Line at U.S. Agency." *The New York Times*.

as “legal returns.” In 2010, they received \$6,635,167 from EAJA funds, which was due mainly to suing the FWS for noncompliance.<sup>87</sup>

One way to fix the problem with petitions and the 12-month finding requirement is to increase the flexibility of statutory timeframes for reviewing petitions and listing species. If the FWS service had more time to cope with the large amount of petitions, it would decrease the incentive for people to submit large petitions for listing species. EAJA may also require reform to remove the loophole that allows multimillion-dollar nonprofit organizations to have their legal fees reimbursed. Limiting the number of petitions that a person or organization can submit would not likely resolve the problem of large petitions because groups interested in petitioning for a large number of species could find workarounds. For example, all the members of an organization could submit the petitions as individuals, but the total number of petitions may remain the same. Or, members of an organization could have sympathizers outside the organization submit the petitions on their behalf.

If the FWS had more time for data collection and analysis on reviewing petitions and listing decisions, it could make more informed decisions that would both minimize the economic impact of listings and minimize the chance that the FWS is forced to list species that do not necessarily need the protection of the ESA. Reviewing a species for listing requires a delicate balance between protecting a species in time to slow its decline and ensuring that species are not needlessly listed.

The creation of the “no surprises” rule for habitat conservation plans is one example where the federal government has succeeded in creating more regulatory flexibility for states and private landowners. This reform, however, was not enough to sufficiently limit the stringent rules and regulations that cause the Act to burden landowners and lessees of federal land. Federal officials could continue to reform the ESA in the same style as the “no surprises” rule.

#### 4. Reforming Section 10 and Habitat Conservation Plans

**Problem:** Section 10 and Habitat Conservation Plans do little to incentivize private landowners to conserve species.

**Potential Reform:** Congress could alter Section 10 so that Habitat Conservation Plans are more tailored to private landowners.

The goal of Section 10 of the ESA is to allow for “incidental takings” of endangered species. Section 10 sets up a system of permits that allows private landowners and lessees on public lands to perform actions that would otherwise be considered illegal under Section 9 of the ESA. Landowners that accidentally harm a listed species while participating in everyday activities commit an “incidental take.” To obtain an incidental take permit, applicants must have an approved Habitat Conservation Plan (HCP).<sup>88</sup> Some reforms to Section 10 have occurred in the past, such as “no surprises” policies and regulatory assurances that were developed in the 1990s. These reforms, however, have not resolved all the problems that remain with the implementation of Section 10 and HCPs.

Section 10 lacks a mandate for in-depth public participation in the HCP formation and approval process. The section only calls for “public comment” before the Secretary of the Interior and the FWS make their final decision. There is no stipulation in the law for the quality of the scientific review or the role of any scientific advisory committees needed to approve an HCP. Section 10 is largely silent about what happens after the FWS approves an HCP, and the section lacks a cap on the length of the permit, a requirement of periodic reviews on compliance with a plan, and a review of the actual condition of the species population.<sup>89</sup>

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87 Budd-Falen, K. (2009, September 30). “Follow-up to Attorney Fees/Litigation Information.” Budd-Falen Law Offices, LLC. Retrieved from [https://www.westernlegacyalliance.org/images/pdfs/september\\_30.pdf](https://www.westernlegacyalliance.org/images/pdfs/september_30.pdf)

Lofthouse, J., Simmons, R., and Yonk, R. (2014). “Equal Access to Justice Act.” Strata. Retrieved from <http://www.strata.org/wp-content/uploads/ipePublications/Final-Print.pdf>

88 Dana, David A., “Reforming Section 10 and the Habitat Conservation Plan Program” (2009). Faculty Working Papers. Paper 193. <http://scholarlycommons.law.northwestern.edu/facultyworkingpapers/193>

89 Dana, D.A., “Reforming Section 10 and the Habitat Conservation Plan Program” (2009). Faculty Working Papers. Paper 193. <http://scholarlycommons.law.northwestern.edu/facultyworkingpapers/193>

The only language in Section 10 about revoking a permit says, “The Secretary shall revoke a permit issued under this paragraph if he finds that the permittee is not complying with the terms and conditions of the permit.” This language does not mean that the Secretary must investigate compliance or assure that compliance will help in recovery.<sup>90</sup>

Law Professor David Dana of Northwestern University suggests that the “central dilemma” of the ESA is “how to foster species conservation and recovery on private land [...] Even in areas where there is substantial federal land that contains critical habitat, the federal land often is part of a patchwork of federal, state, local, and purely private holdings.”<sup>91</sup> In the following paragraphs, we summarize several of Dana’s suggestions to reform Section 10 and the HCP process.

Congress could amend the ESA to require the FWS to collect and publish a complete database on HCPs, as well as requiring the FWS to report the provisions and performance of HCPs to Congress. Performance reporting would incentivize the FWS to pay more attention to the effectiveness of HCPs. Without routine reviews and reporting of HCPs, these plans could actually be causing environmental damage without creating net environmental benefits. Because most people do not willingly seek out criticism, a statutory mandate for reviewing and reporting the effectiveness of HCPs may help the FWS improve species recovery. The increased transparency may also allow other organizations to participate in making HCPs more effective at conserving species and promoting economic development.<sup>92</sup>

In recent years, the HCP process has become more diverse and adaptable to many circumstances, but despite these improvements, the process of applying for and receiving an incidental take permit and an HCP are still costly. One of these improvements has been the development of “low-effect” HCPs, which have “minor or negligible effects on federally listed, proposed, or candidate species and their habitats.” The purpose of low-effect HCPs is to expedite the process for approving HCPs and incidental take permits for activities with inherently low impacts on listed species and their habitats. The FWS considers each HCP application on a case-by-case basis to decide whether it fits within the low-effect category. The FWS has wide discretion when determining whether an HCP is low-effect because the Service must account for “all relevant factors including biological factors” and “must be based on its anticipated impacts prior to implementation of the mitigation plan.”<sup>93</sup>

Dana suggests that smaller-scale, lower-impact HCPs are challenging for three main reasons. First, economies of scale and investment values make it difficult for small landowners to develop or implement an HCP, unless they can coordinate with other neighbors. This coordination, however, can also be costly in terms of time and money. Second, small landowners may simply lack the finances to create mitigation or conservation plans, as well as the necessary insurance premiums. Third, even if smaller landowners go through the costly process to set up HCPs, they may not follow them because regulators and non-government organizations do not have the resources to oversee their compliance consistently.<sup>94</sup>

The simplest response to these problems would be to remove small landowners from HCP requirements. Alternatively, the FWS could further simplify and decrease the cost of the HCP process for small-scale operations. The FWS could make sure that these small-scale HCPs are compliant through a selective auditing process. This approach also has shortcomings, which means that regulators would need to recognize that the complete enforcement of these plans is impossible. Trade-offs between the amount of enforcement and costs of that enforcement is an unavoidable battle for regulators.

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90 Ibid.

91 Mehan, G.T. (April 1, 2012.) PERC Report: Volume 30, No.1, Spring 2012 Retrieved from <https://www.perc.org/articles/ark-dry-dock>

92 Dana, D.A., “Reforming Section 10 and the Habitat Conservation Plan Program” (2009). Faculty Working Papers. Paper 193. <http://scholarlycommons.law.northwestern.edu/facultyworkingpapers/193>

93 U.S. Fish and Wildlife Service. (2015). “Endangered Species Permits: Low-Effect HCP.” Retrieved from <https://www.fws.gov/midwest/endangered/permits/hcp/loweffecthcp.html>

94 Dana, D.A., “Reforming Section 10 and the Habitat Conservation Plan Program” (2009). Faculty Working Papers. Paper 193. <http://scholarlycommons.law.northwestern.edu/facultyworkingpapers/193>

Another plan would be to expand the use of the conservation mitigation banks. These banks are large landholdings managed to promote conservation by offsetting any habitat destruction in one place with conservation in another. In place of HCPs or as a supplement to HCPs, the FWS could require landowners to make one-time financial contributions to conservation mitigation banks.<sup>95</sup> For the purposes of the ESA, it would make sense to create conservation mitigation banks in the same region with a similar composition of species. In many regions across the United States, some HCPs include stipulations where developers pay fees or provide alternative habitat on their own or through a conservation bank.

The expanded use of these banks is a simpler way to reduce the costs of the ESA on private landowners, and these banks also allow the FWS or other federal agencies to manage species as they see fit.<sup>96</sup> Ruhl, Glen, and Hartman claim that “[c]onservation banks, in comparison to the piecemeal approach [to species mitigation], generally can be expected to result in larger preserves and thus better habitat connectivity.”<sup>97</sup> Due to the many perverse incentives that the ESA inflicts on private landowners, conservation banks may be a more effective way of conserving species, with or without the presence of small-scale HCPs.<sup>98</sup>

Conservation banks are a relatively new approach to conservation in the United States. In May 2003, the FWS issued the first comprehensive guidelines for conservation banks to mitigate impacts to species.<sup>99</sup> One concern is that conservation banking may have problems with locality and transferability. For example, preserving an endangered species through a conservation bank may not be the exact equivalent of preserving the same endangered species in another area where its habitat is altered. Conservation banking also only preserves habitat rather than creating it. These uncertainties make it difficult for regulators to know how much to charge landowners or what to include in potential HCPs.<sup>100</sup>

Although the Department of Interior has used conservation banks in some contexts, it has not used them for widespread conservation of endangered species. Because of their limited use, the FWS does not have any regulatory criteria for determining, measuring, or reporting the success of conservation banks. To make matters more confusing, no government agency has an official, complete database of approved conservation banks. Despite their shortcomings, conservation banks can be a successful, innovative approach to helping endangered species recover.<sup>101</sup> The ESA has not been successful at helping species recover, which means that the management of these species could likely benefit from innovative and adaptive approaches.

## Conclusion

In this report, we have shown how the current listing and delisting processes work. We have also shown how the ESA goes about preserving and recovering species. Most importantly, we show some of the main flaws in the wording and implementation of the ESA and suggest ways to improve the law to better achieve species conservation.

We have found two overarching reforms that Congress and the FWS could implement to improve the ESA's ability to recover species. First, Congress and the FWS could align the incentives of private individuals and state

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95 U.S. Fish & Wildlife Service. (2012). “Conservation Banking: Incentives for Stewardship.” Retrieved from [https://www.fws.gov/endangered/esa-library/pdf/conservation\\_banking.pdf](https://www.fws.gov/endangered/esa-library/pdf/conservation_banking.pdf)

96 Dana, D.A., “Reforming Section 10 and the Habitat Conservation Plan Program” (2009). Faculty Working Papers. Paper 193. <http://scholarlycommons.law.northwestern.edu/facultyworkingpapers/193>

97 Ruhl, J., Glen, A., & Hartman, D. (2005). A Practical Guide to Habitat Conservation Banking Law and Policy. *Natural Resources & Environment*, 20(1), 26-32. Retrieved from <http://www.jstor.org/stable/40924630>

98 Dana, D.A., “Reforming Section 10 and the Habitat Conservation Plan Program” (2009). Faculty Working Papers. Paper 193. <http://scholarlycommons.law.northwestern.edu/facultyworkingpapers/193>

99 U.S. Fish & Wildlife Service. (2012). “Conservation Banking: Incentives for Stewardship.” Retrieved from [https://www.fws.gov/endangered/esa-library/pdf/conservation\\_banking.pdf](https://www.fws.gov/endangered/esa-library/pdf/conservation_banking.pdf)

100 Dana, D.A., “Reforming Section 10 and the Habitat Conservation Plan Program” (2009). Faculty Working Papers. Paper 193. <http://scholarlycommons.law.northwestern.edu/facultyworkingpapers/193>

101 Ibid.

governments to make preserving species an asset instead of a liability. Second, Congress and the FWS could implement legal reforms that would specify the vague wording and change ineffective approaches to recovery.

There are no easy ways to help endangered species recover, but reforming the ESA can be a win-win situation for both the conservation of species and economic development in many cases. Removing the perverse incentives and legal barriers of the law may help spark new and innovative approaches to species recovery.