

Expanding Opportunities for Threatened Species Conservation through **Section 4(d) of the ESA**





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Sand County Foundation is a private, non-profit organization dedicated to working with private landowners across North America on voluntary, ethical and scientifically-sound land management practices that benefit the environment.

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The Endangered Species Act (ESA) offers two categories under which to list species — endangered or threatened. The ESA protects 173 threatened species, subspecies and distinct populations of wildlife and another 154 threatened plant species. While these categories may have important biological distinctions reflecting the degree of threat to the species, the difference lacks practical consequence for most species. This is because the U.S. Fish and Wildlife Service (USFWS) adopted a similar regulatory approach to both categories in 1978.¹ However, section 4(d) of the ESA gives both USFWS and the National Marine Fisheries Service (NMFS) the authority to write special regulations for threatened species to either increase or decrease the ESA's normal protections as long as those tailored regulations are necessary to provide for the conservation of the species.

¹ In 1978, USFWS regulations applying the same protections to threatened and endangered species as a default <http://www.law.cornell.edu/cfr/text/50/17.31>

Threatened species (328) by types of 4(d) rules

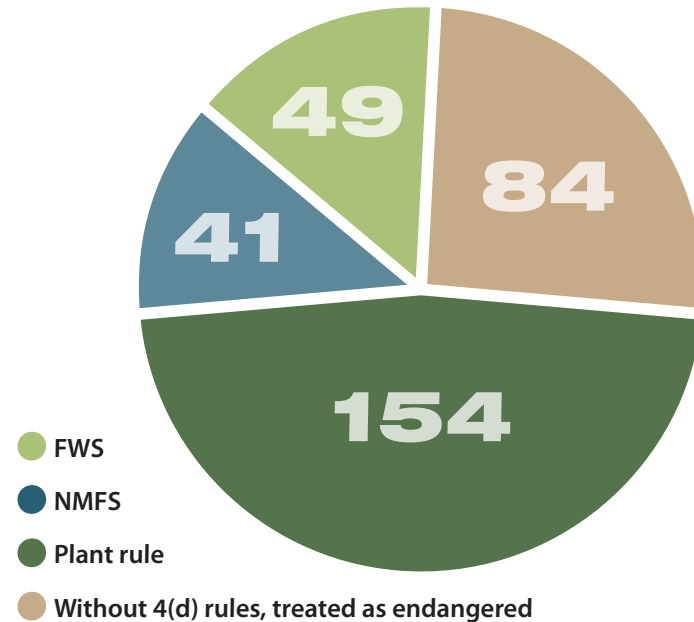


Figure 1. Coverage and jurisdiction for 4(d) rules for 328 threatened species. All numbers as of November, 2014.

Among threatened species, species-specific 4(d) rules have been used by the USFWS for 49 species² and by NMFS for 41 species and populations of wildlife.³ In almost all cases, 4(d) rules have been used to decrease rather than increase species protections, compared to endangered species. In addition, all threatened terrestrial plants are covered by a simple version of a 4(d) rule⁴ that lets state agencies take plants from federal lands for approved conservation programs.

² <http://www.law.cornell.edu/cfr/text/50/part-17/subpart-D> for USFWS 4(d) rules

³ <http://www.law.cornell.edu/cfr/text/50/part-223/subpart-B> NMFS rules

⁴ <http://www.law.cornell.edu/cfr/text/50/17.71>



staghorn coral



polar bear

What Does Section 9 Prohibit?

Section 9 affects both animals and plants and makes import, export, sale, trade and violation of any regulations illegal. Each of these prohibitions could be tailored for threatened species but it is section 9 ‘take’ prohibitions that are the focus of all 4(d) rules. For animals, section 9 makes it unlawful to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect an endangered animal. For plants, section 9 makes it unlawful to remove, damage or destroy endangered plants on areas of federal jurisdiction or remove, damage, destroy, cut, or dig up endangered plants anywhere in violation of a state law or regulation.

NMFS and USFWS take different approaches to implementing 4(d) for threatened species. NMFS policy withholds the normal take prohibitions that endangered species receive, unless NMFS issues a 4(d) rule. In contrast, USFWS applies the same take prohibitions to threatened species that endangered species receive, unless USFWS issues a 4(d) rule. As a result, approximately 84 threatened species of terrestrial and aquatic wildlife remain without 4(d) rules, and are subject to the normal take prohibitions of section 9 of the ESA.

This paper describes the types of 4(d) rules that have been developed in the past and provides a description of innovative ways that 4(d) could be used to cover additional activities, lands or programs in ways that could either incentivize greater conservation activity or streamline review and permitting processes that likely provide little conservation benefit.

Examples of 4(d) rules

The following summaries describe a range of 4(d) rules from rules that provide the highest degree of protection to those rules that have little conservation benefit and are mostly facilitating some human use of lands or waters that the agencies have decided to allow. Since some rules are complex and cover multiple activities and types of programs, the summaries below are not exclusive or precise — some species might in fact fit in many different categories.

1) Clearer standards than endangered species

The authority in the ESA allows either agency to apply stronger take prohibitions for threatened than endangered species. While USFWS has never taken advantage of this authority, NMFS has arguably used it in a few cases to provide more explicit and comprehensive definition to prohibited activities. For example, protections afforded to the Stellers’ sea lion through a 4(d) rule include the same take prohibitions as apply for endangered species and also prohibitions on using a firearm within 100 yards of a sea lion, approaching by sea within 3 miles of a rookery or by land within 0.5 miles. Similarly, NMFS’ 4(d) rule covering 14 salmon and trout populations details specific circumstances that the agency will regulate as take.

2) Default to endangered protections

All threatened species managed by USFWS that don’t have species-specific 4(d) rules default to have endangered-level take protections. In contrast, National Marine Fisheries Service policy for ocean species requires a 4(d) rule if a threatened species is to have any take prohibition apply. Thus, for ocean species some rules simply apply the section 9 take prohibitions. Staghorn coral, elkhorn coral and spotted seal rules follow this model.

3) Conservation programs

In addition to the different protections that already apply to listed plants under section 9, the USFWS uses a broad rule to cover all threatened plants and allow states working under cooperative agreements (i.e., all states) to collect and 'take' seeds of threatened plants for conservation programs for the species. The same rule also allows anyone to take or use seeds of species as long as they are of 'cultivated' origin. With far greater detail and specificity, NMFS has also produced a rule that allows take associated with a suite of conservation programs for 14 evolutionarily-significant units of threatened salmon species and steelhead (trout).

The 4(d) rule for six populations of green, loggerhead and olive ridley sea turtles is also a rule for conservation purposes. The rule defines a program that, if followed, provides fishermen with protection from being subject to otherwise applicable take prohibitions. It outlines fishing technologies (turtle excluder devices or TEDs) to reduce bi-catch of turtles during trawling and fishing operations. If these technologies are employed and take occurs, the rule exempts fisherman from any of section 9's "take" prohibitions that would apply in the absence of the 4(d) rule.

Another rule covers activities affecting threatened salmon on tribal lands that are subject to Tribal Resource Management Plans that will not reduce the likelihood of species survival and recovery.⁵ The USFWS rule for the coastal California gnatcatcher allows take as long as it occurs under an approved Natural Community Conservation Plan, as long as the plan receives written concurrence from USFWS that it meets the issuance criteria applied for an incidental take permit when it reviews "habitat conservation plans" submitted pursuant to section 10. It also allows take in the jurisdiction of a county developing such a plan.

⁵ <http://www.law.cornell.edu/cfr/text/50/223.204> for Tribal rule

4) Scientific purposes and zoos

Many 4(d) rules are written to void any take restriction associated with harm to species from scientific projects. For example, a rule for the Madison cave isopod is exclusively focused on scientific research. Many other rules similarly don't apply take prohibitions to science-based take as long as it is in compliance with a state permit or other state requirements.

5) Following state rules

The bulk of USFWS 4(d) rules have been used to maintain the authority of state agencies to regulate listed species. For example, many rules do not define harm to species of fish if that harm is consistent with state laws and rules. This is the case for bull trout, gila trout and approximately 30 other species of threatened fish. Similar rules exist for blue-tailed mole skink, sand skink and San Marcos salamander. As noted above in the case of the coastal California gnatcatcher, California's Natural Community Conservation Planning Act created another novel opportunity for 4(d) to follow state law and rules.





spectacled eider

6) Rules that facilitate species conservation and human activity

In addition to some of the circumstances described above, some rules have just a narrow conservation purpose and are more focused on clarifying regulation to allow subsistence or economic activities. For example, the pygmy sculpin (a fish) is covered by a rule that allows a city to use all water in the spring in which the fish lives except 3 cubic feet per second of water. A USFWS rule for the shovel-nosed sturgeon allows take when it is incidental in commercial fishing operations, but without the gear and other conservation-oriented limitations included in the NMFS rules for sea turtles, as noted above. Usually these rules include language and conditions tailored to make sure that species get some benefit out of what is often a different management regime than the ESA provides. For example, the NMFS rule covering 14 salmon and steelhead populations covers a suite of actions including water management activity and urban development that occur under plans that require stream buffering and other protective measures, but otherwise could be interpreted as allowing or streamlining development.

Subsistence uses – A rule for green, loggerhead and olive ridley sea turtle populations and another for a population of the northern sea otter allow take as part of subsistence use by native people. A tribal rule exempts any harvest of threatened salmon by tribes from the take prohibition if it occurs under an approved Tribal Resource Management Plan that will not reduce the likelihood of species' survival and recovery. The Northern sea otter rule allows trade in otter products produced by native Alaskans.

Farming, ranching and forestry – In addition to the flexibility provided in some rules for large carnivores, other rules have broad carve-outs for farming and ranching activities. For example, California tiger salamander and red-legged frog are both covered by rules that allow take as a result of a broad definition of routine ranching activities. Similarly, a Chirachahua leopard frog rule allows take of any frogs in the context of maintenance or use of livestock watering tanks. The rule for Prebble's meadow jumping mouse allows take during the course of rodent control activities that occur within 10 feet of a building and through routine agricultural operations, landscaping, noxious weed control and ongoing use of water. The rule for the Louisiana black bear allows take during the course of logging activities as long as the logging does not destroy or harm trees of two particular species with visible hollows that could be den trees. In some of these cases, the farming and ranching helps create or enhance habitat for the species.

Protecting people and livestock – The statute directs 4(d) rules to be tailored to provide stronger or weaker protection for species in ways that are consistent with the conservation needs of the species. Rules for large carnivores were developed that, while reasonable, certainly stretch the definition of conservation. Rules adopted for Minnesota's gray wolves and grizzly bear allow agency staff to kill animals that have preyed on domestic animals. The grizzly rule also allows killing in the case of self-defense and the killing of problem



northern
sea otter

bears. Such rules provide coverage for self-defense and are proposed under the argument that they also prevent ranchers from killing even greater numbers of these species. In this way, the USFWS has argued that the rules are contributing to conservation by preventing an even worse outcome. In another rule justified as a way to reduce illegal killing of a threatened species, a 4(d) for the Utah prairie dog allows the killing of up to 6,000 Utah prairie dogs as long as the state provides a permit and the USFWS does not conclude that the take would be inconsistent with the species conservation.

Hunting and fishing – Many rules for threatened fish like the apache and bull trout allow incidental take of the species if they are captured during fishing and as long as the fish are returned to the water. Alaska and the USFWS have been working on a 4(d) rule that would allow hunting of wood bison that are being reintroduced in the state, especially excess males.

7) Expanding flexibility through the polar bear rule

Whereas most 4(d) rules make changes only with regard to specific provisions of Section 9 that apply, the USFWS broke new ground with its 4(d) rule for polar bear. That rule limits applicability of take prohibitions for actions that affect polar bears if those actions occur outside occupied habitat. Specifically, the polar bear rule eliminates the application of the take prohibition for any lawful activity outside the Arctic range of the polar bear (i.e. in the lower 48 states). This provision was designed in part to eliminate the concern that listing of polar bear would be used to subsequently restrict activities such as the operation of power plants that contribute to climate change.

8) Covering credit/debit programs for wildlife

In 2013, the USFWS also proposed an innovative 4(d) rule to cover a candidate species being considered for listing — the lesser prairie chicken found in Colorado, Kansas, Oklahoma, Texas and New Mexico. The draft 4(d) rule became operational when the species was listed as threatened in 2014. Similar to other rules, it exempts routine farming activities from take prohibitions (on lands that have been in farming for more than 5 years). However, the draft rule is innovative in the sheer scope of activities and area it proposed to exclude from take prohibitions. First, the rule intends to cover activities under 27 different USDA Natural Resource Conservation Service practices. Second, the rule covers any actions on non-federal lands in five states if those lands are enrolled in (and complying with) a newly approved five-state plan for the prairie chicken run by state wildlife agencies. Whereas past rules have generally focused on tailoring threatened protection with regard to traditional state agency management tools like hunting and fishing laws, this rule gives states the green light to effectively run their own permitting, or conservation banking program covering conservation activities and development as well as routine land uses on millions of acres.



Recommendations for improved 4(d) policy

Relatively recent rules covering the polar bear and lesser prairie chicken create an enormous new opportunity to tailor threatened species protection to the conservation, political and landscape context that is specific to each species or ecosystem. More threatened species could be covered by special rules. Existing rules, especially those by the USFWS, could be revised to facilitate more conservation programs and to incentivize more conservation.

The USFWS' last major statement of policy on threatened species take prohibitions has been in place since 1978. Since that time, the agency has had the chance to learn from numerous rules applied on a case by case basis for individual threatened species, some of which have now been proposed for delisting because of recovery. Approximately 84 threatened species currently lack coverage under any rules and hundreds of new species are likely to be listed in the next decade, of which many may be threatened listings.

The following ideas could provide benefits to the effectiveness of the ESA in recovering species and the efficiency with which it works, and could be adopted without legislation and without affecting most of the 4(d) rules already in place. Revised 4(d) policy could eliminate unnecessary paperwork, incentivize more conservation partnerships and provide a greater degree of autonomy to state wildlife agencies, tribes and a host of conservation partners, and more certainty and predictability to landowners and developers. What follows is a suggested new 'default' regulation to cover species under the jurisdiction of USFWS. This would replace the default rule that has been in place for such species since the 1970s. It is important to note that nothing would prevent USFWS from adopting more stringent or specific protections for individual threatened species or classes of species which is another policy opportunity that heretofore has not been used for threatened species under USFWS jurisdiction.

Two of the most important benefits that would accrue by creating a more permissive environment for threatened species are indirect. Expansion of 4(d) would create more meaningful distinction to the ESA category of threatened. The level of regulation that would ensue lowers a barrier to getting species listed under the ESA earlier, before their populations drop to critical levels requiring an endangered listing and the associated higher level of protection and regulation of public and private land-based activities. In addition, the lower level of regulation and greater autonomy suggested for states in the recommendations below create an incentive for investments in endangered species to more quickly advance their status in ways that would merit a downlisting to threatened. Since there is no distinction between the restrictions applicable to threatened species and those applicable to endangered species under the jurisdiction of USFWS in many cases, such a 'reward' for progress is lacking under the ESA as currently implemented by USFWS.



State permits

Many state agencies have laws and policies in place to guide their issuance of take permits for scientific purposes, conservation management activities, development, or other impacts. A new 4(d) rule could provide broad coverage for state permitting programs determined by USFWS to provide adequate protections for threatened species both as structured and implemented, eliminating the necessity for any federal permit for actions covered by a state permit that affect threatened species. Many 4(d) rules already provide such exemptions. This approach would grant more deference to state wildlife management agencies and reduce paperwork burdens. Especially with regard to scientific purpose permits, a simpler approach of requiring only a state permit might encourage more beneficial research on threatened species.

State by state flexibility after progress

States that have made greater contributions to the conservation of multi-state ranging species have seen little reward for that progress. New 4(d) coverage could provide broader authority to any state in which recovery goals for delisting (or downlisting) have been met. Perhaps the best example of this concerns the Karner blue butterfly which has made a great deal of recovery progress in Wisconsin but is still far from recovery goals in New York, New Hampshire, and Ohio. A default rule could establish a process for actions in Wisconsin to be exempted from selected section 9 prohibitions, but not in the other states where similar progress has not occurred.

Coverage for federal programs

The draft rule for the lesser prairie chicken breaks new ground by providing coverage for private land-based activities taking place through participation in a set of USDA programs. New policy could apply such an exemption more broadly to all threatened species

for participants undertaking USDA conservation practices on their land. In addition, it would be possible to provide coverage on federal lands for take that occurs under established management plans such as new forest plans adopted under the Forest Service 2012 National Forest Management Act planning rule or under Candidate Conservation Agreements (CCAs). In these cases, the best approach may be to use something like the system in place for California gnatcatcher or for the approval of Department of Defense integrated natural resource management plans rather than a 4(d) rule. Such an approach would require the USFWS to determine or concur in writing that coverage of USDA landowner assistance programs or a U.S. Forest Service, National Preserve, National Park or other federal management unit plan provides a benefit to the species (as distinct from simply “avoiding jeopardy” to the species). The best way to provide such a written approval would be a separate consultation under section 7(a)(1) of the ESA, or combining a 7(a)(1) consultation with a 7(a)(2) consultation. However, a default 4(d) rule could be used to specify how this consultation and tailoring of incidental take protections applies with regard to federal programs and lands.





golden paintbrush

Conservation lands

Land trusts, conservancies and local land protection agencies manage millions of acres across the country for conservation purposes. These organizations and agencies are required to have permits for management activities when incidental take could result from management, for transfer or translocation of individuals of threatened species to establish new populations or other actions. Revised 4(d) policy could exempt such activities from section 9 take prohibitions or do so if conducted under a state permit. Either approach might simplify management of conservation areas, make it easier for conservationists to manage, enhance and restore populations and fuel more investments in threatened species conservation. Alternately, 4(d) could cover specific suites of management action like prescribed burns conducted under a plan. Coverage under 4(d) could be provided through a process in which the appropriate state agency or USFWS would accept a site management plan and concur that it would benefit the threatened species.

Additional protection for candidate agreements

When the USFWS issues a Candidate Conservation Agreement with Assurances (CCAA) it provides participants with a guarantee that, if the species covered by the agreement are listed as endangered or threatened, the agency will provide participants with a permit that allows incidental take in ways that are consistent with participants' obligations in the agreement. Some have questioned whether there is a defensible legal basis for the USFWS to obligate itself to issue a permit before it has authority to do so. While not all candidate species are listed as threatened, a 4(d) rule could provide an additional and clear basis in the ESA for allowing incidental take by participants in a CCAA who have met their obligations under the agreement.

USFWS has the opportunity to create additional incentives for conservation and also tailor incidental take protections so they benefit species while having narrower impacts on economic or other interests or by allowing states to maintain significant control over threatened species. Appendix A offers suggestions on how these purposes could be adopted through a special 4(d) rule but there are many ways to achieve the same purposes and use the flexibility inherent in the ESA to get a better outcome for wildlife and society.



Appendix A

Suggested 4(d) revisions to establish each of the recommendations above

The following revisions to existing regulations are meant to illustrate the relatively brief revisions needed to achieve the purposes described above, using section 4(d) of the ESA. These suggested revisions apply only to species under USFWS jurisdiction although the language could be amended in a separate rule to cover species under National Marine Fisheries Service jurisdiction.

§ 17.31 Prohibitions.

*(a) Except as provided in subpart A of this part, ~~or in a permit issued under this subpart,~~ **the regulations in this part apply to the species under the jurisdiction of the Secretary of Interior that have been determined to be threatened species pursuant to section 4(a) of the Act, and provide for the conservation of such species by establishing rules and procedures governing activities involving the species.***

*(b) **Except as provided in (c) of this section,** all of the provisions in § 17.21 shall apply to threatened wildlife, except § 17.21(c)(5).*

*(c) **Exemptions.***

***(1)** In addition to any other provisions of this part 17, any employee or agent of the Service, of the National Marine Fisheries Service, or of a State conservation agency which is operating a conservation program pursuant to the terms of a Cooperative Agreement with the Service in accordance with section 6(c) of the Act, who is designated by his agency for such purposes, may, when acting in the course of his official duties, take those threatened species of wildlife which are covered by an approved cooperative agreement to carry out conservation programs.*

(2) In any of the following circumstances, incidental take of threatened species will not be considered a violation of section 9 of the Act:

i) On any privately owned agricultural land from conservation practices that are carried out in accordance with a conservation plan developed by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS);

ii) In any state within which recovery goals have been achieved and achievement of those goals is described in a periodic review of the species conducted at least once every five years in accordance with §424.41;

iii) On permanently protected lands and waters held in fee or under easement owned or managed by a private non-profit describe with reference to U.S. code established non-profits with a wildlife conservation mission]; or

iv) On lands and waters enrolled under and being managed consistently with any Candidate Conservation Agreement with Assurances approved by the Service.

3) On lands or in waters within a management unit of a national forest, national grassland, national wildlife preserve, national park, any incidental take of threatened species will not be considered a violation of section 9 of the Act when:

- i) Conservation actions for the species are specifically described in the appropriate resource management plan for the management unit; and
- ii) The Service has provided written concurrence that the protective and management activities provided for in the currently applicable or proposed plan constitute or will constitute effective actions taken to meet the obligations of the agency concerned under §7(a)(1) of the Endangered Species Act and provide or will provide a clear overall benefit to the species.

4) Threatened species may be taken in accordance with applicable State fish and wildlife conservation laws and regulations in the following instances when they are also part of a state wildlife action plan and are incorporated through provisions in the State's cooperative agreement with the Service under Section 6 of the Act: educational purposes, scientific purposes, the enhancement of propagation or survival of the species, zoological exhibition, and other conservation purposes consistent with the Act that, as determined by the Service, provide a benefit to the species concerned.

5) The Service will monitor the implementation of plans and programs covered under paragraphs (c)(2), (c)(3) and (c)(4) and will conduct a review every 5 years to determine whether the plans and programs are effective in providing an overall benefit to threatened species. If the Services determines that one or more plans or programs is not effective in that purpose, the Service may seek modification of the plans and programs

involved. If the plans and programs involved are not modified within a reasonable time so as to support a determination by the Service that the plans and programs will be effective, the Service may revoke the coverage of a plan or program under this special rule by publishing a notice of pending revocation in the Federal Register and providing a 90-day public comment period prior to the effective date for revocation. The notice of pending revocation shall include information supporting the revocation, including any modifications recommended by the Service but not adopted that, if adopted, would obviate the need for revocation. Revocation will result in the reinstatement of the take prohibitions set forth under 50 CFR 17.31(a), (b) and (c)(1) in the affected area for actions taken following the effective date of the revocation.

(d) Whenever a special rule in §§ 17.40 to 17.48 applies to a threatened species, none of the provisions of paragraphs (a), and (b) and (c) of this section will apply. The special rule will contain all the applicable prohibitions and exceptions.

Photo Credits:

Cover Photo: Threatened Stellar Sea Lions (*Eumetopias jubatus*) on the Oregon Coast, Mark Stevens, 2008; **Page 3:** Staghorn coral (*Acropora cervicornis*), Nick Hopgood; **Page 4:** Polar Bear (*Ursus maritimus*), U.S. Fish and Wildlife Service; **Page 6:** Karner Blue Butterfly (*Lycaeides melissa samuelis*), Joel Trick, U.S. Fish and Wildlife Service; **Page 7:** Spectacled Eider (*Somateria fischeri*), Laura Whitehouse, U.S. Fish and Wildlife Service; **Page 8:** Northern Sea Otter (*Enhydra lutris kenyoni*), Lillian Carswell, U.S. Fish and Wildlife Service; **Page 10:** Bull trout (*Salvelinus confluentus*), Joel Sartore, National Geographic and Wade Fredenberg, U.S. Fish and Wildlife Service; **Page 11:** Grizzly Bear (*Ursus arctos horribilis*), Terry Tollefsbol, U.S. Fish and Wildlife Service; **Page 12:** Golden paintbrush, (*Castilleja levisecta*), Ted Thomas, U.S. Fish and Wildlife Service; **Page 13:** Coachella Valley fringe-toed lizard (*Uma inornata*), William Radke, U.S. Fish and Wildlife Service; **Back cover:** Green Sea Turtle (*Chelonia mydas*), M. Sullivan, National Oceanic and Atmospheric Administration.

