



SCHOOL OF LAW
TEXAS A&M UNIVERSITY

Texas A&M Law Review

Volume 1 | Issue 2

2013

Endangered Species in the Oil Patch: Challenges and Opportunities for the Oil and Gas Industry

Gabriel Eckstein

Texas A&M University School of Law, gabrieleckstein@law.tamu.edu

Jesse Snyder

Follow this and additional works at: <https://scholarship.law.tamu.edu/lawreview>



Part of the [Law Commons](#)

Recommended Citation

Gabriel Eckstein & Jesse Snyder, *Endangered Species in the Oil Patch: Challenges and Opportunities for the Oil and Gas Industry*, 1 Tex. A&M L. Rev. 379 (2013).

Available at: <https://doi.org/10.37419/LR.V1.I2.5>

This Article is brought to you for free and open access by Texas A&M Law Scholarship. It has been accepted for inclusion in Texas A&M Law Review by an authorized editor of Texas A&M Law Scholarship. For more information, please contact aretteen@law.tamu.edu.

ENDANGERED SPECIES IN THE OIL PATCH: CHALLENGES AND OPPORTUNITIES FOR THE OIL AND GAS INDUSTRY

By: *Gabriel Eckstein** and *Jesse Snyder***

TABLE OF CONTENTS

I.	INTRODUCTION.....	379
II.	BACKGROUND: THE 1973 ENDANGERED SPECIES ACT, 16 U.S.C. 1531, ET SEQ.....	380
	A. <i>ESA Purpose and Approach</i>	381
	B. <i>Mechanics of the ESA</i>	383
III.	RECENT DEVELOPMENTS RELEVANT TO OIL AND GAS PRODUCTION.....	393
	A. <i>FWS Settlement with Environmental Groups</i>	393
	B. <i>Controversy and Cooperation over the Dunes Sagebrush Lizard</i>	395
	1. The Vulnerable Dunes Sagebrush Lizard	395
	2. Effect on the Oil and Gas Industry of Listing the Dunes Sagebrush Lizard on the ESA.....	396
	3. The Texas Compromise	397
	4. The New Mexico Plan	399
	5. Adaptive Management.....	400
	6. Postscript to the Texas and New Mexico Conservation Plans	401
	C. <i>Other Species That May Be of Concern to the Oil and Gas Industry</i>	401
IV.	CONCLUSION AND RECOMMENDATIONS	408

I. INTRODUCTION

Tension among competing interests is nothing new in environmental law. Even among the most tenacious adversaries, the ability to find common ground can serve as an impetus to further the aims of both industry and environmental proponents. Broadly speaking, advocates of the oil and gas industry prefer few restraints, if any, on exploration, development, and production. Comparatively, champions of biological and ecological preservation favor regulatory protections to conserve these interests. Cutting across these often disparate objectives, the Endangered Species Act (ESA) presents a not-so-obvious oppor-

* Gabriel Eckstein is a Professor of Law at Texas A&M University School of Law and Of Counsel with the law firm of Sullivan & Worcester. Special thanks to Erin Bullard for her invaluable research assistance.

** Jesse Snyder is an Associate at Akin Gump Strauss Hauer and Feld LLP. Special thanks to the fantastic efforts of the *Texas A&M Law Review* and a warm shout out to his lovely wife Amy (Texas A&M University, Class of '06).

tunity for both sides to receive a share of the pie through cooperation and forward planning.

This Paper proffers the notion that where concerns over the survival of a species may impede oil and gas activities, proactive cooperation, planning, and compromise within the ESA process can present both industry and environmentalists with a winning outcome. The Paper first provides background information on the ESA and describes its chief statutory mechanics. Next, the Paper discusses recent ESA developments that are particularly relevant to the oil and gas industry and focuses on the cooperative effort related to the Dunes Sagebrush Lizard and pursued by the oil and gas industry, private landowners, state officials in Texas and New Mexico, and environmental organizations. Finally, the Paper reviews pending ESA issues and offers recommendations for private and public stakeholders facing ESA challenges.

II. BACKGROUND: THE 1973 ENDANGERED SPECIES ACT, 16 U.S.C. 1531, ET SEQ.

The ESA has been dubbed “the pit bull of federal environmental statutes”¹ and an “environmental jewel,”² with an avowed purpose to conserve threatened and endangered species and the associated habits which they depend on for survival.³ Although boasting slightly less nicknames and monikers than basketball superstar Shaquille O’Neal,⁴ this federal statute has displayed star power since inception.⁵ Whether offering a protective cloak for “charismatic megafauna” such as whales and bald eagles, or safeguarding less popular varieties like burying beetles,⁶ the ESA provides security for threatened and endan-

1. Robert D. Thornton, *Searching for Consensus and Predictability: Habitat Conservation Planning Under the Endangered Species Act of 1973*, 21 ENVTL. L. 605, 605 (1991) (quoting an address by Donald Barry, Majority Counsel, House of Representatives Committee on Merchant Marine and Fisheries, ABA Section on Natural Resources, Energy and Environmental Law Workshop on Endangered Species (Apr. 6, 1990)).

2. Elizabeth A. Foley, *The Tarnishing of an Environmental Jewel: The Endangered Species Act and the Northern Spotted Owl*, 8 J. LAND USE & ENVTL. L. 253, 253 (1992).

3. 16 U.S.C. § 1531(b) (2012).

4. Megan Friedman, *QUOTE: Shaquille O’Neal Retires His Basketball Nicknames*, TIME NEWSFEED, June 4, 2011, <http://newsfeed.time.com/2011/06/04/quote-shaquille-oneal-retires-his-basketball-nicknames/>.

5. See *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 174–88 (1978).

6. See John C. Kunich, *The Fallacy of Deathbed Conservation Under the Endangered Species Act*, 24 ENVTL. L. 501, 554 (1994) (suggesting that many less appealing, and thus overlooked, endangered species are actually more “essential”); Adam Wilmoth, *American Burying Beetle Bugs Oil and Gas Industry*, NEWSOK (Jan. 11, 2013), <http://newsok.com/american-burying-beetle-bugs-oil-and-gas-industry/article/3744842> (discussing the challenges that ESA protection for the American Burying Beetle poses for oil and gas companies in Oklahoma).

gered species irrespective of economic consequences.⁷ The result is a complex and often expensive series of hurdles through which oil and gas producers must maneuver. Effectively negotiating the interplay between the ESA and the planning process for oil and gas operations requires an understanding of: (1) the congressional purpose and approach, and (2) the underlying statutory mechanics for enforcement.

A. *ESA Purpose and Approach*

When legislators codified the ESA in 1973, their aim was to actively conserve biological diversity.⁸ The ESA begins with findings and a declaration of purpose.⁹ Congress found, *inter alia*, that biodiversity and species protection represent “esthetic, ecological, educational, historical, recreational, and scientific value” to the people of the United States.¹⁰ Specifically, Congress sought to “provide a means whereby ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take [other] such steps as may be appropriate.”¹¹ Realizing that an outright cure for all harmful acts was not realistic, Congress pushed for preventative action to take place “sooner rather than later”¹² by delegating the implementation and enforcement of the ESA to the Department of the Interior and Department of Commerce¹³ to identify and list endangered¹⁴ and threatened¹⁵ species.¹⁶ The Secretary of Commerce, acting through the National Marine Fisheries Service (NMFS), designates the status of marine fish and certain marine mammals; while the Secretary of the Interior, acting through the Fish and Wildlife Service (FWS), is responsible for all other wildlife.¹⁷

Given this backdrop, under section 9 of the ESA, a person—whether acting as a state or private actor—may not “take” an endan-

7. See George C. Coggins, *An Ivory Tower Perspective on Endangered Species Law*, 8 NAT. RESOURCES & ENV'T 3, 3 (1993).

8. See §§ 1531–44.

9. *Id.* § 1531.

10. *Id.* § 1531(a)(3).

11. *Id.* § 1531(b).

12. *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 680 (D.D.C. 1997).

13. § 1532(15).

14. “Endangered species” means “any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to man.” *Id.* § 1532(6).

15. “Threatened species” means “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” *Id.* § 1532(20).

16. *Id.* § 1532(16).

17. *Id.* § 1532(15). Once a species is listed, all federal agencies must consult with the FWS or NMFS if the agency’s proposed action is likely to harm the species or adversely modify its critical habitat. *Id.* § 1536(a)(2).

gered species on private or public land.¹⁸ To “take” under the ESA is “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”¹⁹ To “harass” includes “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering.”²⁰ To “harm” includes “an act which actually kills or injures wildlife,” as well as a “significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.”²¹ A taking under the ESA also includes any action resulting in potentially deleterious effects to the habitat of a listed species.²² Moreover, any acts that “maliciously damage or destroy” an endangered plant species found on federal land or in violation of state law constitute a taking.²³

Should a person violate section 9, section 11 provides for both civil and criminal penalties.²⁴ Civil penalties may be as high as \$25,000 per violation,²⁵ and criminal fines can reach \$50,000 with up to one year in prison per violation.²⁶ Although there are few examples of oil and gas operations running afoul of the ESA, the potential is significant.²⁷ Moreover, case law suggests that the government need only prove a general intent when prosecuting ESA takings violations; knowledge that a particular species is protected is not dispositive.²⁸

18. The prohibitions of section 9 reach beyond actions of the federal government to encapsulate the actions of all persons within the jurisdiction of the United States. *Id.* § 1538(a)(1).

19. *Id.* § 1532(19).

20. 50 C.F.R. § 17.3 (2012).

21. *Id.*

22. *See id.* (defining “harm” as “an act [by any agency or private person] which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”).

23. 16 U.S.C. § 1538(a)(2)(B).

24. *See id.* § 1540.

25. *Id.* § 1540(a)(1).

26. *Id.* § 1540(b)(1).

27. In one recent example, Hawk Field Services, a wholly-owned subsidiary of Houston-based Petrohawk Energy Corporation, was criminally fined \$350,000 and ordered to make a \$150,000 donation to the National Fish and Wildlife Foundation for failing to control erosion while laying underground pipes near and across streams in the Fayetteville Shale area of north-central Arkansas. The erosion caused sediment to build up at stream crossings and downstream in waters containing the endangered Speckled Pocketbook Mussel. *Natural Gas Company Sentenced in Connection with Fayetteville Shale Pipeline Construction Activities*, U.S. DEP’T OF JUSTICE (Sept. 14, 2011), <http://www.justice.gov/usao/are/news/2011/September/petrohawk%20enviro%20sent%20091311.html>.

28. *See United States v. McKittrick*, 142 F.3d 1170, 1177 (9th Cir. 1998) (statute required only that defendant knew he was shooting a wolf whether or not he also knew that the animal was protected under the ESA); *United States v. St. Onge*, 676 F. Supp. 1044, 1045 (D. Mont. 1988) (standard requires that defendant merely know he

While the statutory language certainly has teeth and reflects lofty protection goals, the true gravity of this legislation came to the forefront in 1978 when the ESA received an auspicious red carpet debut riding on a litigation story that bore striking similarities to the iconic clash between David and Goliath.²⁹ In the seminal endangered species case, *Tennessee Valley Authority* pitted the survival of the diminutive Snail Darter³⁰ against the colossal economic interests supporting the nearly completed Tellico Dam on the Little Tennessee River.³¹ Writing for the majority, Justice Burger dispelled any hesitation about the might of the ESA by declaring: “Congress intended endangered species to be afforded the highest of priorities.”³² Indeed, with the stroke of a pen, the Supreme Court upheld the protection of the Snail Darter in the face of a massive dam project that was partially funded by Congress itself, whereby assuring the people of the United States that the Federal Government intended and planned to enforce the ESA.³³ Reading between the lines, *Tennessee Valley Authority* demonstrates that the ESA was not meant to be a hollow law collecting dust with scant enforcement. Despite subsequent controversy over this decision and numerous amendments to the ESA, the fundamental tenets for species and habitat protection remain intact.³⁴

B. *Mechanics of the ESA*

Purely a creature of statute without common law origins, the ESA presents terms and concepts that are unique unto itself. As a federal statute with intersecting components, contending with the ESA and its ramifications requires cross-referencing across the statute’s various

was harming an animal regardless whether he thought that the animal was a grizzly bear but, in fact, was a protected elk); *United States v. Billie*, 667 F. Supp. 1485, 1493 (S.D. Fla. 1987) (government need only prove that defendant acted with a general intent to take an animal but not that he knew the animal was listed as endangered).

29. *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 174–88 (1978).

30. The Snail Darter is a three-inch long fish of the perch species with no commercial value. *Id.* at 158.

31. The Tellico Dam was constructed by the Tennessee Valley Authority for electric power generation, flood control, shoreline development, and recreational purposes. *Id.* at 157. At the time of the Court’s decision, the dam was “virtually completed and . . . essentially ready for operation.” *Id.* at 157–58.

32. *Id.* at 174.

33. By a 6-3 vote. *Id.*

34. See James H. Bolin, Jr., *Of Razorbacks and Reservoirs: The Endangered Species Act’s Protection of Endangered Colorado River Basin Fish*, 11 *PACE ENVTL. L. REV.* 35, 43 (1993). After *Tennessee Valley Authority*, the ESA was amended to allow the approval of exemptions from the Act’s requirements by a cabinet-level committee, facetiously termed the “God Committee.” *Id.* As of 1992, the committee had voted on only three cases after the Supreme Court’s decision, one of which was the Tellico Dam project. See Karl Gleaves & Katharine Wellman, *Economics and the Endangered Species Act*, 13 *PUB. LAND L. REV.* 150, 157 (1992). The completion of the Tellico Dam was ultimately authorized by legislation. *Id.*

sections and understanding of how each applies, both specifically and in the grand statutory scheme.

Section 3 of the ESA launches key definitions.³⁵ Among these, an “endangered species” includes “any species which is in danger of extinction throughout all or a significant portion of its range.”³⁶ In contrast, a “threatened species” is “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”³⁷ A “person” is broadly defined to include any person or entity subject to the jurisdiction of the United States.³⁸

Section 4 provides a bifurcated system for protection. First, the species must go through a listing process based on an evaluation of five categories of “natural and manmade factors affecting its continued existence.”³⁹ Second, the species’ critical habitat is identified.⁴⁰ These two determinations are not made concurrently; the Secretary of the Interior or Commerce has a full year (with the discretion to add another year if deemed prudent) after the listing decision is made to determine the location of the critical habitat.⁴¹

As a threshold for listing a species as endangered or threatened, the FWS or NMFS (collectively, “the Services”) must weigh:

[T]he present or threatened destruction, modification, or curtailment of its habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; the inadequacy of existing regulatory mechanisms; and other natural or manmade factors affecting its continued existence.⁴²

As listing decisions should be made “sooner rather than later,”⁴³ such actions turn “solely on the basis of the best scientific and commercial data available.”⁴⁴ These decisions do not require absolute scientific certainty.⁴⁵ A listing decision is also made without consideration for any second-order economic effects that may result.⁴⁶

35. 16 U.S.C. § 1532 (2012).

36. *Id.* § 1532(6).

37. *Id.* § 1532(20).

38. *Id.* § 1532(13).

39. *Id.* § 1533(a)(1), (a)(1)(E).

40. *Id.* § 1533(a)(3).

41. *Id.* § 1533(b)(6)(C). For an interesting discussion of what a court should do if the Secretary fails to designate critical habitat within the statutorily required two years, see *Alabama-Tombigbee Rivers Coalition v. Kempthorne*, 477 F.3d 1250, 1268–71 (11th Cir. 2007).

42. § 1533(a)(1).

43. *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 680 (D.D.C. 1997).

44. § 1533(b)(1)(A).

45. *Ctr. for Biological Diversity v. Lohn*, 296 F. Supp. 2d 1223, 1236 (W.D. Wash. 2003).

46. *See* § 1533(b)(1)(A); 50 C.F.R. § 424.11(b) (2012).

Once initiated, the listing process lays out a very strict timeline.⁴⁷ The agency must make an initial finding within ninety days, present a proposed rule within twelve months, and adopt a final rule within twelve months after the proposed rule.⁴⁸ Notwithstanding these rigid timelines, most petitions are processed only after litigation.⁴⁹ A decision not to list a species is subject to judicial review.⁵⁰

After receiving the petition, the Secretary of the Interior or Commerce may find that: (1) the petitioned action is not warranted; (2) the action is warranted and agency must issue a proposed listing rule; or (3) the action is warranted, but precluded by higher priority listing activities.⁵¹ In accord with these options, a proposed species is a candidate species that was found to warrant listing as either threatened or endangered and was officially proposed in a Federal Register notice after the completion of a status review and consideration of other protective conservation measures.⁵² As of September 28, 2013, the FWS listed 69 proposed species⁵³ while the NMFS listed 75 proposed species.⁵⁴

In contrast to proposed species, a warranted but precluded species is one found to warrant listing as either threatened or endangered, but is precluded because of higher listing priorities.⁵⁵ As a result, the species becomes a “candidate” for listing with its status reviewed annually in a Candidate Notice of Review (CNOR) published in the Federal Register.⁵⁶ Under a CNOR, the Services reevaluate each can-

47. Brendan Cummings & Kassie R. Siegel, *Ursus Maritimus: Polar Bears on Thin Ice*, 22 NAT. RESOURCES & ENV'T 3, 4 (Fall 2007).

48. 16 U.S.C. § 1533(b)(2)(B).

49. Cummings, *supra* note 47, at 4.

50. *Id.*

51. § 1533(b)(3)(B).

52. *Id.* § 1533(b)(3)(A).

53. *Species Reports, Environmental Conservation Online System*, U.S. FISH & WILDLIFE SERV., http://ecos.fws.gov/tess_public/SpeciesReport.do?listingType=P (last visited Sept. 28, 2013).

54. *Candidate and Proposed Species Under the Endangered Species Act (ESA)*, NAT'L OCEANIC & ATMOSPHERIC ADMIN. FISHERIES SERV., <http://www.nmfs.noaa.gov/pr/species/esa/candidate.htm> (last visited Sept. 28, 2013).

55. § 1533(b)(3)(B)(iii).

56. See 2007 Candidate Notice of Review, 72 Fed. Reg. at 69,034, 69,048 (Dec. 6, 2007) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/pkg/FR-2007-12-06/pdf/E7-23416.pdf>. FWS describes species included on the CNOR list as those “for which we have on file sufficient information on biological vulnerability and threats to support a proposal to list as endangered or threatened, but for which preparation and publication of a proposal is precluded by higher priority listing actions.” Endangered and Threatened Wildlife and Plants; Review of Native Species That Are Candidate for Listing as Endangered or Threatened; Annual Notice of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions, 75 Fed. Reg. 69,222, 69,222 (Nov. 10, 2010) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/pkg/FR-2010-11-10/pdf/2010-27686.pdf>.

didate designation,⁵⁷ monitor candidate species, and implement emergency listings when necessary.⁵⁸

Once placed on the candidate species list, a species is assigned a Listing Priority Number (LPN) that indicates the species' relative priority in the order the proposed listing will be prepared. The priority ranking system ranges from the highest priority LPN of 1, to the lowest priority LPN of 12.⁵⁹ The LPN is determined based on three criteria: the magnitude of the threat facing the species, the immediacy of the threat, and the taxonomy of the species.⁶⁰ The purpose of the priority ranking system is to allow FWS to efficiently move candidates that are at a heightened risk of extinction to the endangered or threatened species lists. Nevertheless, while on the candidate species list, listed species are *not* afforded any protection under the ESA.⁶¹

If a species is finally listed as threatened or endangered, the ESA *requires* the designation of critical habitat "to the maximum extent prudent and determinable."⁶² A critical habitat is comprised of "the specific areas within the geographical area occupied by the species at the time it is listed . . . [and] on which are found those physical or biological features essential to the conservation of the species and which may require special management consideration."⁶³ Before designating a particular area as critical habitat, the Secretary must first consider "the economic impact, and any other relevant impact."⁶⁴ Nevertheless, the D.C. Circuit Court has held that the Services are not obligated to conduct studies to obtain missing data.⁶⁵ Moreover,

57. 2007 Candidate Notice of Review, 72 Fed. Reg. at 69,048.

58. The duty to monitor is codified at 16 U.S.C. § 1533(b)(3)(C)(iii). The duty to make use of the emergency listing provisions is codified at 16 U.S.C. § 1533(b)(7). See also 2007 Candidate Notice of Review, 72 Fed. Reg. at 69,034.

59. U.S. FISH & WILDLIFE SERV., *Candidate Species*, http://www.fws.gov/endangered/esa-library/pdf/candidate_species.pdf (last visited Sept. 8, 2013).

60. The magnitude of threat a candidate species faces is first quantified as either "high" (LPN's of 1–6) or "moderate to low" (LPN's of 7–12). The species is then further categorized into those that face either "imminent" threats (LPN's of 1–3 for "high" and LPN's of 7–9 for "moderate to low") or "non-imminent" threats (LPN's of 4–6 for "high" and LPN's of 10–12 for "moderate to low"). Finally, the LPN is assigned based on the taxonomy of the species: Monotypic genus (given the lowest LPN, which means the highest priority, because it is the only member of its genus), Species, and Subspecies. See Fish and Wildlife Service: Endangered and Threatened Species Listing and Recovery Priority Guidelines, 48 Fed. Reg. 43,098, 43,098 (Sept. 21, 1983), available at <http://www.fws.gov/endangered/esa-library/pdf/48fr43098-43105.pdf>.

61. Sally A. Paez, Note, *Preventing the Extinction of Candidate Species: The Lesser Prairie-Chicken in New Mexico*, 49 NAT. RESOURCES J. 525, 547 (2009) ("Under the current administration of the ESA, candidates are not being added to the list of threatened or endangered species, and therefore do not receive the legal protections afforded to threatened and endangered species.").

62. 16 U.S.C. § 1533(a)(3)(A) (2012).

63. *Id.* § 1532(5)(A)(i).

64. *Id.* § 1533(b)(2).

65. Sw. Ctr. for Biological Diversity v. Babbitt, 215 F.3d 58, 60 (D.C. Cir. 2000).

“[t]he Service[s] must utilize the best scientific . . . data available, not the best scientific data possible.”⁶⁶

Section 7 involves agency actions and consultations.⁶⁷ The purpose of consultation is to obtain an advanced expert opinion by the Services to determine whether an action is likely to jeopardize a listed species or adversely modify its critical habitat and, if so, to identify reasonable and prudent alternatives that will avoid unfavorable consequences.⁶⁸ The consultation requirement reflects “a conscious decision by Congress to give endangered species priority over the ‘primary missions’ of federal agencies.”⁶⁹ To this end, section 7 requires all federal agencies to “utilize their authorities in furtherance of the purposes of” the ESA.⁷⁰ Section 7 mandates that before an agency undertakes any action that may affect a listed species, it must “consult” with the Secretary of the Interior or of Commerce in order to ensure that the planned action is not likely to jeopardize the continued existence of that species.⁷¹ The idea behind section 7 is to identify possible dangers that federal actions may pose to a listed species before those actions take place in order to avoid or mitigate adverse effects.⁷² Although this section is explicitly directed at federal agencies, any private party or other governmental entity, such as a state, may be affected if (1) its project or activity requires a federal permit, (2) it is even partially funded from federal resources, or (3) it has some other federal involvement.⁷³

At its core, section 7 requires a federal nexus (i.e., federal government involvement) and mandates that the Secretary work with federal agencies on “any action authorized, funded, or carried out” that may affect a listed species or its habitat to ensure that the action will not “jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [its] habitat.”⁷⁴ If an entity requiring a permit or license from a federal agency to carry out its plans “has reason to believe that an

66. *Bldg. Indus. Ass’n of Superior Cal. v. Norton*, 247 F.3d 1241, 1246 (D.C. Cir. 2001).

67. § 1536.

68. *Turtle Island Restoration Network v. Nat’l Marine Fisheries Serv.*, 340 F.3d 969, 974 (9th Cir. 2003).

69. *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 185 (1978).

70. § 1536(a)(1).

71. § 1536(a)(2).

72. See DANIEL J. ROHLF, *THE ENDANGERED SPECIES ACT: A GUIDE TO ITS PROTECTIONS AND IMPLEMENTATION* 137 (1989).

73. See, e.g., *Conservation Law Found., Inc. v. Anarus*, 623 F.2d 712 (1st Cir. 1979) (holding that a private party who applied for a lease from the federal government for oil and gas exploration was subject to the ESA), *amended*, 14 *Env’t Rep. Cas. (BNA)* 1229 (1st Cir. 1980); *Nat’l Wildlife Fed’n v. Coleman*, 529 F.2d 359 (5th Cir. 1976) (holding that a state highway department must comply with the ESA when constructing a thoroughfare using federal money), *cert. denied sub nom.*, *Boteler v. Nat’l Wildlife Fed’n*, 429 U.S. 979.

74. § 1536(a)(2).

endangered species or threatened species may be present in the area affected by [the] project and that implementation of such action will likely affect such species,” the agency must consult and work with the Services.⁷⁵ Under the latter provision, these areas may include drilling activities on federal lands, drilling on federal offshore leases, pipelines crossing wetlands that require permits from the Army Corps of Engineers, and activities affecting “waters of the United States” as defined by federal law.

The requirement to consult and the level of consultation to satisfy the ESA is necessarily a matter of degree. The acting agency that proposes the action must determine whether its action may affect the listed species or critical habitat and then present its conclusions in a biological assessment.⁷⁶ If the acting agency determines that its action will have no effect, consultation is not required.⁷⁷ If the acting agency finds that its proposed action may affect a listed species or critical habitat, it must formally or informally consult with the FWS or NMFS as so-called consulting agencies.⁷⁸ The “may affect” standard is a “relatively low” threshold for triggering consultation.⁷⁹ “*Any possible effect*, whether beneficial, benign, adverse or of an undetermined character,” triggers the requirement.⁸⁰ As explained, “The threshold for formal consultation must be set sufficiently low to allow Federal agencies to satisfy their duty to ‘insure’” that their actions do not jeopardize listed species or adversely modify critical habitats.⁸¹ If the FWS or NMFS, acting as consulting agencies, determine during informal consultation that the proposed action is “not likely to adversely affect any listed species or critical habitat,” formal consultation is not required and the process ends.⁸² Importantly, actions that have any chance of affecting listed species or critical habitat—even if it is later determined that the actions are “not likely” to do so—require at least some level of consultation.⁸³

If the acting agency or consulting agency determines that the proposed action is likely to adversely affect a listed species or critical habitat, the parties must engage in formal consultation.⁸⁴ In a formal consultation, the consulting agency issues a biological opinion stating whether the action is likely to jeopardize the species or habitat.⁸⁵ Generally, formal consultations must conclude within ninety days af-

75. *Id.* § 1536(a)(3).

76. *Id.* § 1536(c)(1); 50 C.F.R. § 402.12 (2012).

77. 50 C.F.R. § 402.14.

78. *Am. Rivers v. Nat’l Marine Fisheries Serv.*, 126 F.3d 1118, 1122 (9th Cir. 1997).

79. *Cal. ex rel. Lockyer v. U.S. Dep’t of Agric.*, 575 F.3d 999, 1018 (9th Cir. 2009).

80. *Id.* at 1018–19 (quoting 51 Fed. Reg. 19,926, 19,949 (June 3, 1986)) (emphasis in original).

81. 51 Fed. Reg. at 19,949.

82. 50 C.F.R. § 402.14(b)(1).

83. *Karuk Tribe of Cal. v. U.S. Forest Serv.*, 681 F.3d 1006, 1027 (9th Cir. 2012).

84. 50 C.F.R. §§ 402.13, 402.14.

85. 16 U.S.C. § 1536(b) (2012); 50 C.F.R. § 402.14.

ter initiation, and a final biological opinion is due within forty-five days after conclusion of consultations.⁸⁶ If there is a finding of “no jeopardy,” the consulting agency must issue an incidental take statement that sets particular levels for a taking of that species which will not jeopardize its existence.⁸⁷ If these levels are later exceeded, FWS or NMFS must reinstate consultations.⁸⁸ If it finds jeopardy is likely, then the acting agency may suggest reasonable and prudent alternatives to ensure that the listed species or critical habitat is not put in jeopardy.⁸⁹ At a minimum, the Services will prohibit activity in its current state.⁹⁰ Again, the requirements to engage in consultation only apply to agency actions “in which there is discretionary Federal involvement or control.”⁹¹

Section 10 authorizes the Services to grant an incidental take permit, allowing an entity to incidentally kill an endangered species or to modify its habitat in the course of business activity.⁹² A take is incidental if it is prohibited under section 9 but “is incidental to, and not the purpose of carrying out an otherwise lawful activity.”⁹³ Incidental takings of a listed species will be allowed if the applicant prepares a Habitat Conservation Plan (HCP) that effectively makes the species’ chances better than if the status quo had been left in place.⁹⁴ Fundamentally, HCPs were designed to minimize and mitigate harmful effects.⁹⁵ Applicants must include a description of the impacts that will likely result from the taking, proposed steps to minimize such impacts, and alternatives considered by the applicant including reasons why these alternatives are not being pursued.⁹⁶ The HCP must contain specific information, analysis, and plans—including financial sup-

86. *Haw. Longline Ass’n v. Nat’l Marine Fisheries Serv.*, No. 01-765 (CKK/JMF), 2002 U.S. Dist. LEXIS 7263, at *37 (D.D.C. Apr. 25, 2002) (interpreting 50 C.F.R. § 402.14(e)).

87. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i).

88. 50 C.F.R. § 402.16.

89. 16 U.S.C. § 1536(b)(3)(A); *see also* 50 C.F.R. § 402.14(h)(3).

90. 50 C.F.R. § 402.14(h)(3) (“If the Service is unable to develop such alternatives, it will indicate that to the best of its knowledge there are no reasonable and prudent alternatives.”).

91. *Id.* § 402.03.

92. 16 U.S.C. § 1539(a)(1)(B) (1988); *see also* Donald E. Soderberg & Paul E. Larsen, *Triggering Section 7: Federal Land Sales and “Incidental Take” Permits*, 6 J. LAND USE & ENVTL. L. 169, 177–80 (1991).

93. *See* 50 C.F.R. § 17.22 for detailed provisions.

94. 16 U.S.C. § 1539(a)(2)(A) (The section sets forth the requirements in an HCP: “(i) the impact which will likely result from such taking; (ii) what steps the applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps; (iii) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and (iv) such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan.”).

95. *Animal Welfare Inst. v. Beech Ridge Energy LLC*, 675 F. Supp. 2d 540, 544 (D. Md. 2009).

96. 16 U.S.C. § 1539(a)(2)(A)(i)–(iv); *see also* 50 C.F.R. § 17.22(b).

port—that specify how the applicant will “minimize and mitigate” the adverse impact on the protected species.⁹⁷ The regulations further require the Services to include precise measures to address any changed circumstances arising during the lifetime of the permit which may jeopardize the survival and recovery of the threatened or endangered (i.e., listed and non-listed) species covered by the plan.⁹⁸ *A fortiori*, permit holders may be required to adjust to changed circumstances *only* if additional mitigation measures are provided for in the HCP.⁹⁹

As an end result, if an applicant can show that its HCP will improve the lot of the species such that a few incidental takings will not jeopardize its continued existence, then the applicant may obtain a section 10 permit to relieve the prospect of section 9 liability.¹⁰⁰ The Secretaries issue permits for an incidental taking if the information provided in the plan is satisfactory and “the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.”¹⁰¹ Moreover, the Secretaries may revoke a permit if the holder does not comply with its terms.¹⁰² The issuance of a take permit, though, may trigger section 7 consultation¹⁰³ and could even obligate a federal agency to prepare an environmental impact statement (EIS) pursuant to the National Environmental Policy Act (NEPA).¹⁰⁴

A HCP also provides regulatory certainty to permit holders.¹⁰⁵ Under the “No Surprises Rule,” the Services assure private landowners that it will not impose additional restrictions on the use of natural resources or the implementation of mitigation measures beyond what is provided for under a properly functioning HCP.¹⁰⁶ Similarly, “no

97. 16 U.S.C. § 1539(a)(2)(A).

98. 50 C.F.R. §§ 17.22(b)(1)(iii)(B), 17.32(b)(1)(iii)(B).

99. *See id.*

100. 16 U.S.C. § 1539(a)(2)(B).

101. *Id.* § 1539(a)(2)(B)(iv).

102. *Id.* § 1539(a)(2)(C).

103. *Env'tl. Prot. Info. Ctr. v. U.S. Fish & Wildlife Serv.*, No. C 04-04647 CRB, 2005 U.S. Dist. LEXIS 30843, at *4 (N.D. Cal. Nov. 10, 2005) (“The issuance, or rather, consideration of whether to issue, a take permit also requires the Service to initiate consultation pursuant to Section 7 of the ESA.”).

104. *See* 42 U.S.C. § 4332(2)(C) (2012) (mandating that federal agencies prepare an EIS for major federal actions “significantly affecting the quality of the human environment”); *see also* *Norton v. So. Utah Wilderness Alliance*, 542 U.S. 55, 72 (2004) (“NEPA requires a federal agency to prepare an environmental impact statement (EIS) as part of any proposals for legislation and other major Federal actions significantly affecting the quality of the human environment.”) (citation omitted); *Ramsey v. Kantor*, 96 F.3d 434, 444 (9th Cir. 1996) (holding that if a federal takings permit is a prerequisite for a project with an adverse impact on the environment, the relevant federal agency may be required to prepare an EIS).

105. *Animal Welfare Inst. v. Beech Ridge Energy LLC*, 675 F. Supp. 2d 540, 545 n.2 (D. Md. 2009).

106. *See, e.g.*, Notice of Availability of a Final Addendum to the Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, 65 Fed. Reg. 35,242, 35,242–43 (June 1, 2000), available at <http://www.gpo.gov/fdsys/pkg/FR-2000-06-01/pdf/00-13553.pdf>.

additional land use restrictions or financial compensation will be required of the permit holder with respect to species covered by the permit, even if unforeseen circumstances arise after a permit is issued indicating that additional mitigation is needed for a given species covered by a permit.”¹⁰⁷

As the final intersecting statutory component, the Services operate a separately budgeted Candidate Conservation Program (CCP) that provides some conservation benefits to candidate species.¹⁰⁸ The CCP provides technical and financial support to landowners who wish to develop voluntary conservation strategies for candidate species in order to address threats to the species while also avoiding the need to list the species as threatened or endangered.¹⁰⁹

The Services offer two types of voluntary conservation agreements to landowners: Candidate Conservation Agreements (CCA) and Candidate Conservation Agreements with Assurances (CCAA).¹¹⁰ CCAs are partnerships between the Services and other federal agencies designed to develop and implement strategies that conserve candidate species.¹¹¹ Here, the landowner agrees to take certain actions to reduce the threat to these species so that listing will not be necessary.¹¹² In return, the landowner generally receives an incidental take permit to allow a taking or habitat modification to achieve the conditions set forth in the agreement.¹¹³ CCAAs are partnerships where the Services offer incentives to non-federal landowners, including states, tribes, citizens, and local governments, to enter voluntary conservation agreements.¹¹⁴ CCAAs may include provisions in which the Services agree to not enact further land use restrictions on private property in the future.¹¹⁵ Partnerships like CCAs and CCAAs were originally contemplated by section 2 of the ESA, which encourages cooperative conservation efforts between the Services and public, private, and government entities for the purpose of removing or reducing threats to imperiled species.¹¹⁶

107. *Spirit of the Sage Council v. Norton*, 294 F. Supp. 2d 67, 78 (D.D.C. 2003) (quoting *NO SURPRISES* Rule, 63 Fed. Reg. 8859, 8863 (Feb. 23, 1998), codified at 50 C.F.R. §§ 17.22, 17.32).

108. 2007 Candidate Notice of Review, 72 Fed. Reg. at 69,034, 69,054 (Dec. 6, 2007) (to be codified at 50 C.F.R. pt. 17), *available at* <http://www.gpo.gov/fdsys/pkg/FR-2007-12-06/pdf/E7-23416.pdf>.

109. *Id.*

110. *Id.* at 69,046, 69,057.

111. Announcement of Final Policy for Candidate Conservation Agreements with Assurances, 64 Fed. Reg. 32,726, 32,727 (June 17, 1999), *available at* <http://www.gpo.gov/fdsys/pkg/FR-1999-06-17/pdf/99-15257.pdf>.

112. 50 C.F.R. § 17.22(d) (2012).

113. *Id.*

114. *Id.*

115. *Id.*

116. 16 U.S.C. § 1531(a)(5) (2012).

Based on this statutory scheme, the following charts encapsulate the necessary threshold inquiries and follow-up questions for practitioners when negotiating a project that may implicate the ESA. Each new inquiry builds on the previous and addresses foreseeable legal consequences.

Figure 1a. The ESA Process for Private Parties (Part 1)

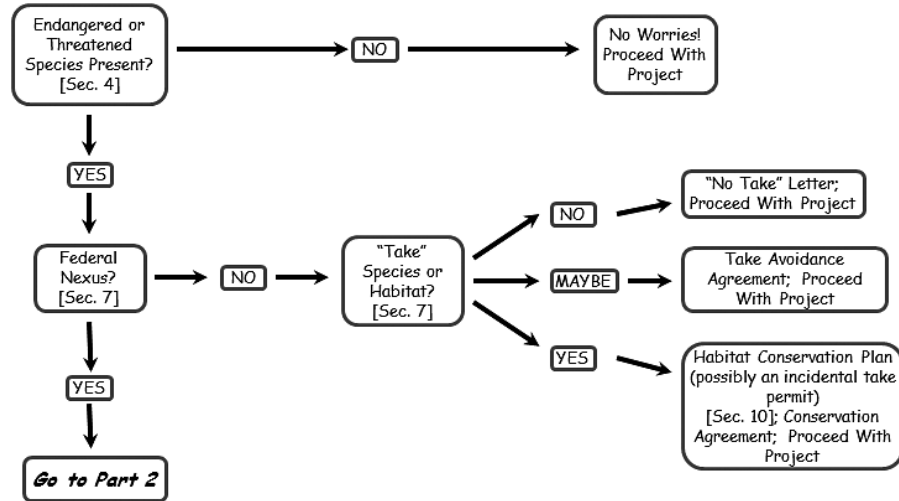
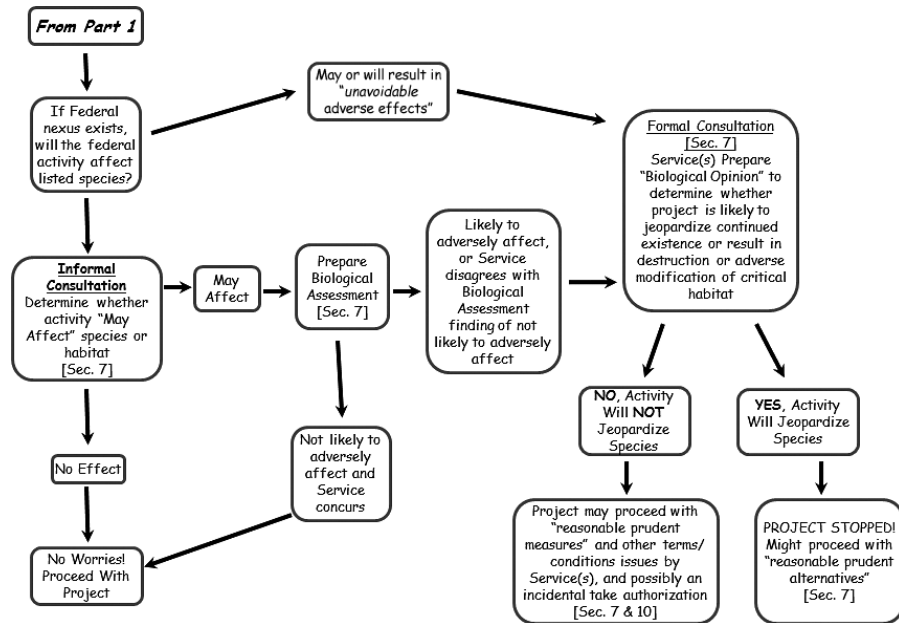


Figure 1b. The ESA Process for Private Parties (Part 2)



III. RECENT DEVELOPMENTS RELEVANT TO OIL AND GAS PRODUCTION

The ESA poses unique challenges to the exploration and extraction of oil and gas resources, as well as to the production of other mineral reserves. Recent developments have made this especially evident, as many operations across the country must now confront the consequences of dozens of proposed new listings, the regulatory complications that accompany those initiatives, various lawsuits challenging one or both of the Services or specific industries, and more generally, revisions to the ESA rules. The following section reviews a number of these developments.

A. *FWS Settlement with Environmental Groups*

In recent years, the number of species considered eligible for listing but precluded by higher listing priorities from immediate ESA protection had ballooned.¹¹⁷ This dramatic increase was due to an increase in listing petitions, a lack of funding in relation to the number of candidate species, and a process that allows the two Agencies to prioritize listing decisions according to the threats species face.¹¹⁸ For example, in 2005, FWS included 286 species on its candidate species list, while in 2010, the Service listed 251 candidate species,¹¹⁹ many of the species listed on the candidate list had stayed on the list for more than a decade.¹²⁰

As a result of this backlog, FWS and NMFS often found themselves challenged in court by environmental organizations seeking greater and expedited ESA determinations. From 2009 to 2010 alone, two groups in particular—Wild Earth Guardians (Guardians) and Center for Biological Diversity (CBD)—filed twenty separate lawsuits. Twelve of these were consolidated into the Section 4 Litigation and the rest were either settled or withdrawn. The twelve suits in the Section 4 Litigation had been filed in four different federal district courts across the country: six lawsuits in the District of Colorado, four in the District of Columbia, one in the District of Nevada, and one in the District of New Mexico.¹²¹ Following years of such litigation, on September 9, 2011, the U.S. District Court for the District of Columbia approved a pair of historic and substantial settlement agreements between Guardians and CBD and FWS.

117. *Id.*

118. See Todd Woddy, *Wildlife at Risk Face Long Line at U.S. Agency*, N.Y. TIMES, Apr. 20, 2011, http://www.nytimes.com/2011/04/21/science/earth/21species.html?page-wanted=all&_r=0.

119. 50 C.F.R. § 17.

120. *Id.*

121. See *In re Endangered Species Act Section 4 Deadline Litig.*, 716 F. Supp. 2d 1369, 1369 (J.P.M.L. 2010).

Under the FWS-Guardians agreement, FWS agreed to issue protection decisions for 841 plants and animals and establish annual work plans to reduce the backlog of potentially endangered or threatened species in the system over a six-year period through 2016.¹²² Among other requirements, FWS must now process the 251 species that had been identified as candidates for listing in 2010, and either propose a final listing decision or issue a not warranted finding for each of those species by September 30, 2016. In particular, FWS agreed to complete this process for at least 130 of the 251 candidate species by September 30, 2013, no fewer than 160 by September 30, 2014, and 200 by September 30, 2015.¹²³ Within these groupings, FWS also is required to make final listing decisions for a number of specific species by designated deadlines.¹²⁴

In exchange for this aggressive decision-making process, and with some exceptions, Guardians agreed to refrain until March 31, 2017, from filing, soliciting other parties to file, or materially supporting the filing of litigation seeking to enforce the deadlines or challenge any listing decision resulting in a warranted-but-precluded finding for any species within the jurisdiction of FWS.¹²⁵ In addition, Guardians agreed to submit no more than ten new listing petitions in any fiscal year through September 30, 2016.¹²⁶

While CBD was reluctant to sign on to the FWS-Guardians agreement, it eventually reached their own accord with FWS that supplements the FWS-Guardians accord. In effect, the FWS-CBD agreement requires FWS to make preliminary and final listing decisions for more than 700 species by 2018, most of which are also covered by the FWS-Guardians agreement, but adds specific deadlines

122. See Stipulated Settlement Agreement, *Ctr. for Biological Diversity v. Salazar* (*In re* Endangered Species Act Section 4 Lit.), No. 10-377 (EGS) (D.D.C. July 12, 2011) [hereinafter CBD-FWS Settlement Agreement]; Juliet Eilperin, *Interior Dept. Strikes Deal to Clear Backlog on Endangered Species Listings*, WASHINGTON POST, May 10, 2011, http://www.washingtonpost.com/national/interior-strikes-deal-with-conservation-groups-on-endangered-species-listings/2011/05/10/AF7iX2hG_story.html; Juliet Eilperin, *Endangered Species Truce Faces Big Test from Little Sand Dune Lizard*, WASHINGTON POST, May 6, 2011, http://www.washingtonpost.com/national/health-science/endangered-species-truce-hangs-in-the-balance/2012/05/06/gIQAdmEv5T_story.html.

123. Stipulated Settlement Agreement, *WildEarth Guardians v. Salazar* (*In re* Endangered Species Act Section 4 Deadline Lit.), No. 10-377 (EGS) ¶¶ 2, 6 (May 20, 2011), available at http://www.fws.gov/endangered/improving_ESA/exh_1_re_joint_motion_FILED.PDF [hereinafter Guardians/FWS Settlement].

124. For example, FWS was obligated to make final listing decision for the Mexican Wolf no later than the end of fiscal year 2012, the New Mexico Meadow Jumping Mouse by fiscal year 2013, the Pacific Fisher by fiscal year 2014, and the Greater Sage-grouse and the Sonoran Desert Tortoise by fiscal year 2015. *Id.* ¶¶ 2, 3.

125. *Id.* ¶ 9.

126. *Id.* ¶ 11.

for FWS decisions on approximately forty species, some of which were not covered by FWS-Guardians agreement.¹²⁷

Like Guardians, CBD also conceded to reduce its litigation against the agency.¹²⁸ CBD, however, agreed that if it filed more than ten suits or succeeded in obtaining more than a certain number of remedies in a given time period, then FWS would receive an extension—up to five years—to publish petition findings on 478 species as well as additional time to complete final decisions on nearly 50 other species.¹²⁹

As a result of these agreements and uncompromising timetables, FWS's ability to make "warranted but precluded" decisions appears to be constrained if not proscribed. Nevertheless, bolstered by the faith that it could devote more resources to ESA listing issues and less to litigation, FWS has embarked on an intensive effort to comply with its obligations to make preliminary and final listing decisions. In 2011 alone, FWS made positive listing decisions for 539 petitioned species, more than in any year in the law's history.¹³⁰ As of September 28, 2013, 162 species remained on FWS's candidate species list,¹³¹ while NMFS listed 16 candidate species.¹³² Of the various decisions FWS has made since reaching the settlements with Guardians and CBD, one of the most significant to the oil and gas industry was the "not warranted" finding for the Dunes Sagebrush Lizard.

B. *Controversy and Cooperation over the Dunes Sagebrush Lizard*

1. The Vulnerable Dunes Sagebrush Lizard

The Dunes Sagebrush Lizard, also known as the Sand Dune Lizard, is a small insectivorous reptile native solely to portions of southwestern Texas and southeastern New Mexico.¹³³ The lizard's habitat is wholly dependent on the shinnery oak sand dune systems that are

127. See S. Keith Garner, *Fish and Wildlife Service Settles Lawsuits on Listing Deadlines*, NAT'L L. REV. (Aug. 13, 2011), available at <http://www.natlawreview.com/article/fish-and-wildlife-service-settles-lawsuits-listing-deadlines>.

128. It is noteworthy that neither settlement precludes other groups from suing FWS. Moreover, both Guardians and CBD are entitled to file challenges to final FWS determinations that a particular listing is not warranted.

129. Garner, *supra* note 127.

130. See Eilperin, *Endangered Species*, *supra* note 122.

131. *Species Reports*, *supra* note 53.

132. *Candidate and Proposed Species*, *supra* note 54.

133. Endangered and Threatened Wildlife and Plants; Endangered Status for Dunes Sagebrush Lizard, 75 Fed. Reg. 77,801, 77,804 (Dec. 14, 2010) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/pkg/FR-2010-12-14/pdf/2010-31140.pdf#page=1>. The Dunes Sagebrush Lizard's habitat in New Mexico extends from the San Juan Mesa in northeastern Chaves County, Roosevelt County, through eastern Eddy and southern Lea Counties. In Texas, the lizard is found solely in a narrow band of shinnery oak dunes in Gaines, Ward, Winkler, and Andrews Counties. *Id.*

only found within a narrow range of this remote and arid region.¹³⁴ Of its total known population, approximately two-thirds are located in New Mexico, with the remaining one-third in Texas.¹³⁵

The lizard's chief threat is habitat loss due to land management practices that include oil and gas development operations, conversion of the native ecosystem to cropland and rangeland, and off-road vehicles.¹³⁶ These activities have fragmented the lizard's already limited habitat into numerous dwindling patches, many of which can no longer maintain an adequate environment for either the shinnery oak or the lizard.¹³⁷ Since 1982, the Dunes Sagebrush Lizard has lost forty percent of its historic shinnery oak sand dune habitat.¹³⁸

As a result of its decreasing range and the growing threats to its existence, in 2002, CBD petitioned FWS to list the Dunes Sagebrush Lizard under the ESA. Following two years of review, the Service issued a finding of "warranted, but precluded by higher priorities."¹³⁹ It was not until late 2010 that FWS finally issued a proposed rule recommending that the Dunes Sagebrush Lizard be formally protected under the ESA.¹⁴⁰

2. Effect on the Oil and Gas Industry of Listing the Dunes Sagebrush Lizard on the ESA

The proposed listing of the Dunes Sagebrush Lizard was viewed by the oil and gas industry as a significant threat to operations. Industry representatives asserted that oil and gas production in the Permian

134. *Id.* at 77,803. The shinnery oak is a short shrub whose subsurface rhizomes and root system often comprise ninety percent of the plant's biomass, and which thrives in the sandy plains, sand dunes, and sand hills of the southern Great Plains. *See id.*

135. *See generally id.* at 77,804.

136. *Id.* at 77,806–07. The types of oil and gas development activities that have impacted the lizard's habitat include overall infrastructure, such as roads, pad sites, battery tanks, power lines, pipelines, and injection wells. In addition, other activities, including seismic exploration, have also affected the habitat of the Dunes Sagebrush Lizard. *Id.*

137. *Id.* at 77,809–10. The segmented and diminished sections of shinnery oaks have made the Dunes Sagebrush Lizard more vulnerable to predation and reduced its foraging areas.

138. *Id.* at 77,803.

139. *Id.* at 77,802.

140. *Id.* at 77,801. In fact, EPA extended the comment period on this proposed rule on two occasions—in December 2011 and February 2012—as a result of "substantial disagreement regarding the sufficiency or accuracy of the available data relevant to the proposed listing rule." Endangered and Threatened Wildlife and Plants; 6-Month Extension of Final Determination for the Proposed Listing of the Dunes Sagebrush Lizard as Endangered, 79 Fed. Reg. 75,858, 75,858 (Dec. 5, 2011) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/pkg/FR-2011-12-05/pdf/2011-31198.pdf>; Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for the Dunes Sagebrush Lizard, 77 Fed. Reg. 11,061, 11,061 (Feb. 24, 2012) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/pkg/FR-2012-02-24/pdf/2012-4348.pdf>.

Basin of southeast New Mexico and west Texas was a significant economic activity on which much of the region's workforce and economy depended. They contended that listing the lizard under the ESA would curtail the extraction of hydrocarbons in areas where the creature was found and, in turn, would have a disastrous impact on local jobs and public services. According to the Texas Comptroller:

[F]or every job in oil and gas, three additional jobs are created across Texas that depend on it. The oil and gas industry has a very high economic "multiplier," stemming from the fact that companies buy tremendous amounts of equipment, material and services in Texas, in addition to the direct jobs they create in the oil patch itself. For that reason, when the DSL was being considered for listing, the entire Texas economy was placed at risk, though most of the state is hundreds of miles from the Permian Basin.¹⁴¹

Additionally, industry supporters argued that oil and gas production in the Permian Basin was of national significance.¹⁴² In 2012, for example, oil production in the region topped one million barrels of oil daily, accounting for twenty percent of total United States production in the lower 48 states.¹⁴³ Moreover, production in the region is not expected to decline anytime soon. For example, recovery potential in the Bone Spring formation is estimated in excess of 1.5 billion barrels of oil.¹⁴⁴ Due to the Permian Basin's continued status as one of the most significant hydrocarbon fuel production regions of the United States, any restrictions on oil and gas development resulting from listing the lizard could have broader national implications for the availability of oil and gas.

3. The Texas Compromise

Disturbed by the perceived threats to one of Texas's chief sources of revenue and national pride, in 2011, while EPA pursued its proposed listing rule for the Dunes Sagebrush Lizard, the Texas Comptroller's Office began organizing a coalition of stakeholders that included private landowners, royalty owners, the oil and gas and agriculture indus-

141. Susan Combs, *Endangered Economy: A Case Study of the Dunes Sagebrush Lizard and the West Texas Oil and Gas Industry*, TEX. COMPTROLLER OF PUB. ACCOUNTS PUBL'N, Publication #96-1709, 2 (2012), available at <http://texasahead.org/texasfirst/species/pdf/96-1709%20DSL.pdf>.

142. U.S. Senator John Cornyn said, "An endangered species listing for this lizard would have had devastating consequences for Texas jobs and for the nation's energy security." Jim Forsyth, *Conservation Deal Keeps Sand Dune Lizard off U.S. Endangered List*, REUTERS (June 13, 2012), <http://www.reuters.com/article/2012/06/13/us-usa-environment-lizard-idUSPRE85C1M720120613>.

143. *Id.*; cf. Combs, *supra* note 141 (noting that in 2011, oil production in the region amounted to 280 million barrels of oil, accounting for seventy-one percent of state-wide Texas oil production and fourteen percent of total oil production in the United States).

144. *Review of Emerging Resources: U.S. Shale Gas and Shale Oil Plays*, U.S. ENERGY INFO. ADMIN., 57-59 (July 2011), <ftp://ftp.eia.doe.gov/natgas/usshaleplays.pdf>.

tries, academia, and state and federal agency representatives.¹⁴⁵ The goal of the coalition was to craft a strategy that would minimize economic disruption and oil production in the Permian Basin by preparing a conservation plan that would encompass both pre- and post-listing scenarios. Under the pre-listing plan, landowners and industry could voluntarily enroll in the program and agree to undertake certain conservation practices that would ensure the survival of the Dunes Sagebrush Lizard and potentially keep it from being listed under the ESA. In the event that the lizard was listed, the plan would be formalized and allow landowners and industry to continue their oil and gas development activities in the region by enrolling in the plan.¹⁴⁶ Largely as a result of this effort,¹⁴⁷ in June 2012, FWS withdrew its proposed listing rule for the lizard, citing “unprecedented commitments to voluntary conservation agreements now in place in New Mexico and Texas that provide for the long-term conservation of the Dunes Sagebrush Lizard.”¹⁴⁸

The Texas Conservation Plan for Dunes Sagebrush Lizard (*Sceloporus arenicolus*) (the Texas Plan) was designed to encourage the avoidance of human activity within the creature’s known territory that would degrade its habitat or otherwise interfere with the lizard’s long-term survival. Where habitat loss was unavoidable, the Texas Plan calls for participants to adopt conservation measures to minimize detrimental impacts to the lizard’s habitat, as well as to mitigate the loss of that habitat.¹⁴⁹ In addition, the Texas Plan promotes reclamation of

145. Combs, *supra* note 141, at 2.

146. *Id.*

147. The Texas plan was submitted to FWS on February 13, 2012. See Letter from Lisa Elledge, of Office of Tex. Comptroller of Pub. Accounts, to Dr. Benjamin Tuttle of the Sw. Reg’l Office of the U.S. Fish & Wildlife Serv., available at http://texasahead.org/texasfirst/esa/task_force/priority/pdf/DSL_Plan_021312.pdf.

148. Press Release, U.S. Dept. of the Interior, Landmark Conservation Agreements Keep Dunes Sagebrush Lizard off the Endangered Species List in NM, TX (June 13, 2012), available at http://www.fws.gov/southwest/es/Documents/R2ES/NR_for_DSL_Final_Determination_13June2012.pdf. In its final determination, FWS explained that it withdrew the proposed listing because:

[t]he threats to the species as identified in the proposed rule no longer are as significant as believed at the time of the proposed rule. We base this conclusion on our analysis of current and future threats and conservation efforts. We find the best scientific and commercial data available indicate that the threats to the species and its habitat have been reduced to the point that the species does not meet the statutory definition of an endangered or threatened species.

Endangered and Threatened Wildlife and Plants; Withdrawal of the Proposed Rule to List Dunes Sagebrush Lizard, 77 Fed. Reg. 36,728, 36,872 (June 19, 2012) (to be codified at 50 C.F.R. pt. 17), available at <http://www.fws.gov/home/feature/2012/dsl-final-determination.pdf>.

149. See generally *Texas Conservation Plan for the Dunes Sagebrush Lizard (Sceloporus arenicolus)*, U.S. FISH & WILDLIFE SERV., ET AL., 37–43 (Sept. 27, 2011), available at http://www.fws.gov/southwest/es/Documents/R2ES/TX_Cons_Plan_DSL_20110927.pdf. Among others, measures applicable to participants involved with oil and gas development activities include: either limiting seismic surveying to areas outside

lizard habitat to reduce fragmentation, as well as removal of mesquite trees where they encroach into shinnery oak dunes.¹⁵⁰

During the initial three years of the Texas Plan (2012 to 2015), total habitat loss must not exceed one percent of the lizard's total habitat in Texas, and over the 30-year life of the plan, total habitat loss must not exceed ten percent. FWS and Texas Plan participants must subsequently evaluate the Texas Plan's progress and consider whether any additional habitat loss might be authorized.¹⁵¹

One of the hallmarks of the Texas Plan is its structure as a CCAA. Under a CCAA, private landowners and lessees who enroll in the voluntary program and who implement acceptable conservation measures are provided with assurances of regulatory certainty. Should the Dunes Sagebrush Lizard eventually become listed under the ESA, private participants will receive assurances that they will be exempt from conservation measures and resource use restrictions in addition to those they have already implemented.¹⁵² For many private landowners, this degree of regulatory certainty offers a tremendous incentive to enroll in the program.

4. The New Mexico Plan

In contrast to Texas's more recent action, New Mexico had implemented its own conservation program for the Dunes Sagebrush Lizard (New Mexico Plan) in 2008 in collaboration with FWS, the Bureau of Land Management, and the Center of Excellence for Hazardous Materials Management, a not-for-profit scientific research organization.¹⁵³ Structured as a combined CCA and a CCAA for non-Federal landowners, the New Mexico Plan focuses on both the Dunes Sagebrush Lizard and the Lesser Prairie-Chicken. Like Texas, though, the New Mexico Plan is a voluntary program that focuses on habitat restoration and enhancement activities, as well as minimization of habitat degradation, not otherwise required under existing species protection regulations.¹⁵⁴ Likewise, the New Mexico Plan uses certificates of inclusion to enroll landowners and document the particular conserva-

of the lizard's designated habitat or utilizing walk-in geophone where possible; either developing well sites outside lizard habitat or maximize use of existing developed areas and rights-of-ways for infrastructure supporting well development; minimizing development footprints; utilize directional drilling; reclaim plugged and abandoned well sites located in lizard habitat with native vegetation. *Id.* at 38–40.

150. *See id.*, Appendix E.

151. *Habitat Disturbances Under the Texas Habitat Conservation Plan for the Dunes Sagebrush Lizard*, DEFENDERS OF WILDLIFE (May 2013), <http://www.defenders.org/sites/default/files/publications/dunes-sagebrush-lizard-mapping-report.pdf>.

152. *See* U.S. FISH & WILDLIFE SERV., ET AL., *supra* note 149.

153. *Candidate Conservation Agreement for the Lesser Prairie-Chicken (Tympanuchus pallidicinctus) and Sand Dune Lizard (Sceloporus arenicolus) in New Mexico*, U.S. FISH & WILDLIFE SERV., ET AL. (Dec. 8, 2008), available at http://www.fws.gov/southwest/es/Documents/R2ES/LPC-SDL_CCA-CCAA_2008.pdf.

154. *See generally id.*

tion practices implemented, and offers regulatory assurances to private landowners and lessees through the supplemental CCA.¹⁵⁵

As a follow up to the New Mexico Plan, in March 2012, the New Mexico State Land Office enrolled all lizard habitats on State Trust lands under these agreements.¹⁵⁶ At the same time, numerous oil and gas and ranching interests operating on private and federal Bureau of Land Management (BLM) lands in the state enrolled in the agreements. As a result, ninety-five percent of the total Dunes Sagebrush Lizard habitat in New Mexico is now protected under conservation agreements.¹⁵⁷

5. Adaptive Management

One of the more progressive aspects of both the Texas Plan and New Mexico Plan is that both utilize an adaptive management approach to the ongoing conservation activities implemented under the two programs. Adaptive management is a decision-making framework that incorporates uncertainty into program planning and implementation.¹⁵⁸ It is a process of experimentation that, rather than testing hypotheses in a stilted laboratory setting, implements its trials in the real world.¹⁵⁹ Fundamentally, adaptive management necessitates both feedback and updated information, both of which are dependent on an ongoing monitoring and review process.¹⁶⁰

Accordingly, both plans contemplate modifying accepted practices and measures in response to new information and changing circumstances as a means to achieving their respective long-term objectives. Conceptually, this includes reductions in conservation requirements if the species is thriving beyond expectations, as well as new or heightened measures if species survival continues to be in jeopardy.¹⁶¹ In the case of the New Mexico Plan, adaptive management modifications apply only to subsequently issued certificates of participation.¹⁶²

155. *Id.*; *Candidate Conservation*, *supra* note 153, at 2.

156. Press Release, U.S. Dept. of the Interior, Conservation Agreements for the Dunes Sagebrush Lizard (June 13, 2012), *available at* <http://www.doi.gov/news/press-releases/loader.cfm?csModule=security/getfile&pageid=304405>.

157. *Id.*

158. J.B. Ruhl, *Regulation by Adaptive Management—Is It Possible?*, 7 MINN. J.L. SCI. & TECH. 21, 28–30, 38 (2005).

159. In other words, adaptive management entails a continuous iterative management process that endeavors to learn through a process of trial and error and that adjusts its policies and actions in response to changes in circumstances and new information. Carl Bruch, *Adaptive Water Management: Strengthening Laws and Institutions to Cope with Uncertainty*, in WATER MANAGEMENT IN 2020 AND BEYOND 91–92 (Asit K. Biswas & Cecilia Tortajada, eds. 2009).

160. *Texas Conservation Plan*, *supra* note 149, at 37–43; Ruhl, *supra* note 158, at 28–30, 38.

161. *See Candidate Conservation*, *supra* note 153, at 2; *see Texas Conservation Plan*, *supra* note 149, at 37–43.

162. *Candidate Conservation*, *supra* note 153, at 2.

6. Postscript to the Texas and New Mexico Conservation Plans

While the Texas and New Mexico plans were hailed by many in both the business and environmental communities, not everyone is completely satisfied. On March 14, 2013, CBD and another environmental organization, Defenders of Wildlife, filed notice with FWS that they intend to sue the agency for declining to apply ESA protections to the Dunes Sagebrush Lizard on the basis of the Texas and New Mexico conservation programs.¹⁶³ The two groups claim that FWS erred in basing its decision on Texas's voluntary habitat conservation agreements that, once signed by Texas property owners, are confidential documents that not even the federal government can access. In the case of New Mexico's plan, the environmental groups claim that although that state's voluntary conservation agreements are not confidential, Texas has prevented federal wildlife officials and the public from reviewing voluntary habitat conservation agreements adopted by New Mexico landowners.¹⁶⁴ To date, the two groups have yet to formally file the threatened suit.

C. *Other Species That May Be of Concern to the Oil and Gas Industry*

While the proposed listing of the Dunes Sagebrush Lizard may have posed one of the greatest ESA challenges for the oil and gas industry, there are other candidate species that FWS is obligated to review under the Guardians-FWS agreement that could have important consequences for oil and gas production. Table 1 provides a list of species that either have been listed as threatened or endangered, or placed on FWS's or NMFS's warranted-but-precluded lists, and whose protection efforts could impact oil and gas exploration and development.

163. Rene Romo, *Dunes Lizard Object of Lawsuit*, ALBUQUERQUE JOURNAL, Mar. 15, 2013, available at <http://www.abqjournal.com/main/178476/news/dunes-lizard-object-of-lawsuit.html>.

164. *Id.*

Table 1. Species that either were listed as threatened or endangered, or placed on the FWS or NMFS warranted-but-precluded lists, and whose protection efforts could impact oil and gas exploration and development

Species Name	Species Type	Geographic Range	Federal Status	LPN ¹⁶⁵	Next Action
Diamond Darter	Fish	123 river miles in Kanawha and Clay Counties, WV, and Edmonson, Hart, and Green Counties, KY	Listed as Endangered	2	Listed as Endangered on July 26, 2013; ¹⁶⁶ final critical habitat rule published on August 22, 2013 ¹⁶⁷
Gunnison Sage Grouse	Bird	Gunnison Basin, San Miguel Basin, Pinon Mesa, Crawford, Cerro Summit–Cimarron–Sims Mesa, and Poncha Pass in Colorado, and Monticello–Dove Creek in Utah	Proposed removal from Candidate Species List and final listing as endangered	2	Proposed for final listing as endangered; comment period closed September 3, 2013; final determination expected by March 31, 2014 ¹⁶⁸
Lesser Prairie Chicken	Bird	CO, KA, NM, OK, and TX	Proposed removal from Candidate Species List and final listing as threatened	2	Comment period for final listing as endangered and designation of critical habitat or withdrawal of proposal closed on August 8, 2013; final determination expected by March 30, 2014 ¹⁶⁹
Phantom Cave snail, Phantom springsnail, Diamond Y Spring snail, Gonzales springsnail, and the Pecos amphipod and Diminutive amphipod	Molluscs and crustaceans	450 acres in West Texas around Reeves, Jeff Davis, and Pecos Counties	Listed as endangered	2	Listed as Endangered and final critical habitat designation published on July 9, 2013 ¹⁷⁰

165. Listing Priority Number. *See supra* notes 59–61 and accompanying text.

166. Endangered Species Status for Diamond Darter, 78 Fed. Reg. 45,074, 45,074 (July 26, 2013) (to be codified at 50 C.F.R. pt. 17), *available at* <http://www.gpo.gov/fdsys/pkg/FR-2013-07-26/pdf/2013-17938.pdf>.

167. Designation of Critical Habitat for the Diamond Darter (*Crystallaria cincotta*), 78 Fed. Reg. 52,364, 52,377 (Aug. 22, 2013) (to be codified at 50 C.F.R. pt. 17), *available at* <http://www.gpo.gov/fdsys/pkg/FR-2013-08-22/pdf/2013-20449.pdf>.

168. Endangered Status for Gunnison Sage-Grouse, 78 Fed. Reg. 2486, 2486 (proposed Jan. 11, 2013) (to be codified at 50 C.F.R. pt. 17), *available at* <http://www.fws.gov/mountain-prairie/species/birds/gunnisonsagegrouse/78FR2486.pdf>.

169. 6-Month Extension of Final Determination for the Proposed Listing of the Lesser Prairie-Chicken as a Threatened Species, 78 Fed. Reg. 41,022, 41,022 (July 9, 2013) (to be codified at 50 C.F.R. pt. 17), *available at* <http://www.gpo.gov/fdsys/pkg/FR-2013-07-09/pdf/2013-16111.pdf>.

170. Determination of Endangered Species Status for Six West Texas Aquatic Invertebrates, 78 Fed. Reg. 41,228, 41,228 (July 9, 2013) (to be codified at 50 C.F.R. pt. 17), *available at* <http://www.gpo.gov/fdsys/pkg/FR-2013-07-09/pdf/2013-16222.pdf>.

Species Name	Species Type	Geographic Range	Federal Status	LPN	Next Action
Texas Fatmucket, Texas Fawnsfoot, Texas Pimpleback	Freshwater mussels	In Texas in portions of the Colorado, Guadalupe, Nueces-Frio, and Brazos River systems	On Candidate Species List	2	Conservation efforts in place; ¹⁷¹ the Guardians-FWS agreement required a 12-month review by the end of FY 2011; as of 2012 CNOR, FWS made a warranted-but-precluded finding ¹⁷²
Pariette Cactus	Plant	UT	Originally listed as Threatened as part of <i>Sclerocactus glaucus</i> species; on Candidate Species List as its own species ¹⁷³	2	Conservation efforts in place ¹⁷⁴

171. The Texas Fatmucket, Fawnsfoot, and Pimpleback are highly susceptible to acute contamination from oil spills. There is a “Mussel Watch Group” in place and FWS is collaborating with Federal, State, and private partners in Texas on conservation measures for these species. *Species Assessment and Listing Priority Assignment Form: Texas Fatmucket*, U.S. FISH & WILDLIFE SERV. (Oct. 27, 2011), available at http://ecos.fws.gov/docs/candidate/assessments/2013/r2/F04I_I01.pdf. While a variety of factors beyond oil and gas activity affect these species, because these species are found in oil and gas production areas, their addition to the endangered species list would directly affect oil and gas operations. *Id.*

172. *Species Profile: Texas Fawnsfoot*, U.S. FISH & WILDLIFE SERV., available at <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=F04E> (last accessed July 28, 2013).

173. The Pariette Cactus was previously included within the *Sclerocactus Glaucus* species. This species was protected under the ESA as “threatened,” and this protection continues to cover the Pariette Cactus even though it has now been identified as a separate species. In the 2012 CNOR, the FWS cited the species’ existing listing as one of the main reasons for not uplisting the species at this time. Petitions to Reclassify Species Already Listed or to Add to the Listed Range, 77 Fed. Reg. 69,994, 70,048 (proposed Nov. 21, 2012) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/pkg/FR-2012-11-21/pdf/2012-28050.pdf>.

174. The entire population of the Pariette Cactus is within a developed and expanding oil and gas field. The threats are of a high magnitude because of the species’ limited range and the threats are ongoing and, therefore, imminent. *Id.* The BLM has some regulatory mechanisms in place regarding construction of new wells, however, there have been no critical habitat rules or conservation plans implemented yet. *Recovery Outline: Pariette Cactus*, UTAH ECOLOGICAL SERVS. FIELD OFFICE (Apr. 2010), available at http://ecos.fws.gov/docs/recovery_plan/Pariette%20Cactus_Recovery%20Outline_Apr%202010.pdf.

Species Name	Species Type	Geographic Range	Federal Status	LPN	Next Action
Xantus's Murrelet	Bird	CA	On Candidate Species List	5	Conservation efforts unrelated to oil and gas activities in place; ¹⁷⁵ the Guardians-FWS agreement requires either a proposed rule or not warranted finding by September 30, 2016 ¹⁷⁶
Golden Orb and Smooth Pimpleback	Freshwater mussels	In Texas in portions of the Colorado, Guadalupe, Nueces-Frio, and Brazos River systems	On Candidate Species List	8	Conservation efforts in place; ¹⁷⁷ the Guardians-FWS agreement requires either a proposed rule or not warranted finding by September 30, 2016 ¹⁷⁸

175. The only threat to the Xantus's Murrelet related to oil and gas activity is a proposal to build three liquid natural gas facilities that could affect the birds' nesting colonies due to artificial lights, noise, and the threat of oil spills. These facilities are in the early stages of the long-term planning process and it is possible that none of these facilities will be built. The more imminent threats facing the Murrelet come from nonnative predators and artificial lighting, and efforts are under way to eliminate and reduce these hazards. Review of Native Species That Are Candidates for Listing as Endangered or Threatened, 77 Fed. Reg. 69,994, 70,014 (Nov. 21, 2012) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/pkg/FR-2012-11-21/pdf/2012-28050.pdf>.

176. Guardians/FWS Settlement, *supra* note 123 ¶ 17.

177. The Golden Orb and Smooth Pimpleback are highly susceptible to acute contamination from oil spills. There is a "Mussel Watch Group" in place, and the FWS is collaborating with Federal, State, and private partners in Texas on conservation measures for these species. *Species Assessment and Listing Priority Assignment Form*, U.S. FISH & WILDLIFE SERV. 22–23 (2012), available at http://ecos.fws.gov/docs/candidate/assessments/2013/r2/F04J_I01.pdf. While a variety of factors beyond oil and gas activity affect these species, because these species are found in oil and gas production areas, their addition to the endangered species list would directly affect oil and gas operations. 12-Month Finding on a Petition to List Texas Fatmucket, Golden Orb, Smooth Pimpleback, Texas Pimpleback, and Texas Fawnsfoot as Threatened or Endangered, 76 Fed. Reg. 62,166, 62,181 (proposed Oct. 6, 2011) (to be codified at 50 C.F.R. pt. 17), available at <http://texasahead.org/texasfirst/species/pdf/FR10611Mussels.pdf>.

178. Guardians/FWS Settlement, *supra* note 123 ¶ 17.

Species Name	Species Type	Geographic Range	Federal Status	LPN	Next Action
Greater Sage Grouse	Bird	CA, CO, ID, MT, NE ND, OR, SD, UT, WA, and WY	On Candidate Species List	8	Both Guardians-FWS and CBD-FWS agreements require FWS to submit Proposed Rules or a not-warranted finding for various Distinct Population Segments by the end of fiscal year 2013 or 2015; ¹⁷⁹ FWS issued a Draft Umbrella Candidate Conservation Agreement with Assurances for Wyoming Ranch Management whose comment period closed March 11, 2013; ¹⁸⁰ March 22, 2013, FWS released a final report prepared by scientists and experts to identify the sage grouse's conservation status, threats, and long-term conservation objectives in order to guide state and landscape-level conservation efforts ¹⁸¹
Sprague's Pipit	Bird	Wintering Range: AZ, AR, LA, MS, NM, OK, and TX Breeding Range: MN, MT, ND, SD	On Candidate Species List	8	Formal conservation plan in place; ¹⁸² the Guardians-FWS agreement requires either a proposed rule or not warranted finding by September 30, 2016 ¹⁸³

179. CBD-FWS Settlement Agreement, *supra* note 122, at 5; Guardians/FWS Settlement, *supra* note 123 ¶ 17.

180. Draft Greater Sage-Grouse Umbrella Candidate Conservation Agreement with Assurances for Wyoming Ranch Management, 78 Fed. Reg. 9066, 9067 (Feb. 7, 2013), *available at* <http://www.gpo.gov/fdsys/pkg/FR-2013-02-07/pdf/2013-02728.pdf>.

181. *Greater Sage-Grouse Conservation Objectives: Final Report*, U.S. FISH & WILDLIFE SERV. (Feb. 2013), *available at* <http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/COT/COT-Report-with-Dear-Interested-Reader-Letter.pdf>.

182. Studies show that the Sprague Pipit's breeding range overlaps major oil production areas and the bird's population decreases within 300 meters of oil wells. The FWS issued a formal conservation plan in 2010 that cites some limited specific data showing that the bird is also likely to exhibit negative responses to vertical structures in their habitat, a similar concern to that facing the Lesser Prairie-Chicken. There are currently no regulatory mechanisms in place to ensure that oil and gas activities avoid nesting habitat, however, the conservation plan prescribes more research and offers ways to increase and restore the bird's prairie habitat. These include avoiding construction of roads, re-vegetation of linear development, and the maintenance of large patches of grassland. Stephanie L. Jones, SPRAGUE'S PIPIT (*ANTHUS SPRAGUEII*) CONSERVATION PLAN, U.S. FISH & WILDLIFE SERV., 20–23, *available at* <http://www.fws.gov/mountain-prairie/species/birds/spraguespipit/SpraguesJS2010r4.pdf>.

183. Guardians/FWS Settlement, *supra* note 123 ¶ 17.

Species Name	Species Type	Geographic Range	Federal Status	LPN	Next Action
Texas Hornshell	Freshwater mussel	NM and TX	On Candidate Species List	8	Conservation efforts in place; ¹⁸⁴ the Guardians-FWS agreement requires either a proposed rule or not warranted finding by September 30, 2016 ¹⁸⁵
Yellow-billed Loon	Bird	Migratory, known to occur in AK	On Candidate Species List	8	CBD-FWS agreement requires FWS to submit a Proposed Rule or a not-warranted finding by the end of fiscal year 2014; ¹⁸⁶ as of 2012 CNOR, FWS made a warranted-but precluded finding; ¹⁸⁷ conservation efforts in place ¹⁸⁸
Cumberland Arrow Darter	Fish	KY and TN	On Candidate Species List	9	Conservation efforts in place ¹⁸⁹

184. The Texas Hornshell is under a constant threat from ongoing or potential oil and gas activities along its riverine habitat. New Mexico has undertaken extensive conservation efforts, including the completion of a State recovery plan for the species. Conservation efforts are also underway in Texas along the Rio Grande River. The magnitude of the threats is moderate (due to the conservation efforts in both Texas and New Mexico), although the threats continue to be regarded as imminent. Review of Native Species That are Candidates for Listing as Endangered or Threatened, 77 Fed. Reg. 70,023, 70,023–24 (proposed Nov. 21, 2012) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/pkg/FR-2012-11-21/pdf/2012-28050.pdf>.

185. Guardians/FWS Settlement, *supra* note 123 ¶ 7.

186. CBD-FWS Settlement Agreement, *supra* note 122, at 5

187. *Species Profile: Yellow-Billed Loon*, U.S. FISH & WILDLIFE SERV., <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DQ> (last updated Sept. 7, 2013).

188. The greatest numbers of Yellow-Billed Loons in the United States occur in Alaska's National Petroleum Reserve (federal land). The BLM requires multi-year pre-development surveys, as well as a 1-mile buffer around Yellow-Billed Loon nests and a 0.3 mile buffer around the nest lake. Oil and gas activities are currently considered a stressor but not a population-level threat. *Species Assessment and Listing Priority Assignment Form: Yellow-Billed Loon*, U.S. FISH & WILDLIFE SERV. 2, 12 (2012), available at http://ecos.fws.gov/docs/candidate/assessments/2013/r7/B0DQ_V01.pdf. Subsistence harvest is the primary threat to the Yellow-Billed Loon and the primary reason for the LPN of 8. Review of Native Species That are Candidates for Listing as Endangered or Threatened, 77 Fed. Reg. 69,994, 70,014 (proposed Nov. 21, 2012) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/pkg/FR-2012-11-21/pdf/2012-28050.pdf>.

189. The existence of the Cumberland River Darter is threatened by water quality degradation and physical habitat disturbance from oil and gas activities. Habitat Conservation Plans and reconstruction projects are under way in both Kentucky and Tennessee to try to curb the effects of development. *Species Assessment and Listing Priority Assignment Form: Cumberland River Darter*, U.S. FISH & WILDLIFE SERV. 8, 16, 22 (2012), available at http://ecos.fws.gov/docs/candidate/assessments/2013/r4/E0BT_V01.pdf.

Species Name	Species Type	Geographic Range	Federal Status	LPN	Next Action
Graham's Beardtongue and White River Beardtongue	Plants	CO and UT	Proposed removal from Candidate Species List and final listing as threatened	9	Conservation efforts in place; ¹⁹⁰ Comment period for final listing as threatened and designation of critical habitat or withdrawal of proposal will close on October 7, 2013. ¹⁹¹
Pacific Walrus	Mammal	Across the Bering and Chukchi Seas	On Candidate Species List	9	CBD-FWS agreement requires FWS to submit a Proposed Rule or a not-warranted finding by the end of fiscal year 2017; ¹⁹² as of 2012 CNOR, FWS made a warranted-but precluded finding; ¹⁹³ conservation efforts unrelated to oil and gas activities ongoing. ¹⁹⁴
Loggerhead Sea Turtle	Reptile	Throughout temperate and tropical regions of the Atlantic, Pacific, and Indian Oceans	Some populations listed as Threatened, others as Endangered	N/A	Comments on proposed designation of critical habitat for the Northwest Atlantic Ocean Distinct Population Segment closed on September 16, 2013. ¹⁹⁵

190. Seventy-one percent of the known population of White Riverbeard Tongue is found on BLM land. The BLM currently affords candidate species the same protection as listed species, giving the White Riverbeard Tongue a 300-foot buffer from surface-disturbing activities. The BLM has further attempted to minimize the impacts to the species and its habitat through conservation measures, including: conducting pre-project studies, moving well pad and pipeline locations, and monitoring plants during and after construction. There are currently no other regulatory mechanisms in place. *Species Assessment and Listing Priority Assignment Form: White Riverbeard Tongue*, U.S. FISH & WILDLIFE SERV. 2, 12 (2012), available at http://ecos.fws.gov/docs/candidate/assessments/2013/r6/Q2QI_P01.pdf. The BLM protections lessen the extent of traditional oil and gas development impacts to this species. Review of Native Species That are Candidates for Listing as Endangered or Threatened, 77 Fed. Reg. at 70,023–24.

191. Threatened Species Status for Graham's Beardtongue (*Penstemon grahamii*) and White River Beardtongue (*Penstemon scariosus* var. *albifluvis*), 78 Fed. Reg. 47,590, 47,590 (Aug. 6, 2013) (to be codified at 50 C.F.R. pt. 17), available at <http://www.fws.gov/mountain-prairie/species/plants/2utahbeardtongues/78FR47590.pdf>. The habitats of the Graham's Beardtongue and White River Beardtongue overlap almost entirely with oil and gas drilling and shale and tar sand development areas, and are, therefore, particularly susceptible to the effects of energy development. *Id.*

192. CBD-FWS Settlement Agreement, *supra* note 122, at 5.

193. Guardians/FWS Settlement, *supra* note 123 ¶ 17.

194. Oil and gas activity, including oil spills, can be significant stressors to the Pacific Walrus. However, the only significant threat to the species is subsistence harvest, and there are regulations and plans in place to reduce this threat. Review of Native Species That are Candidates for Listing as Endangered or Threatened, 77 Fed. Reg. at 70,023–24; *Species Assessment and Listing Priority Assignment Form: White Riverbeard Tongue*, U.S. FISH & WILDLIFE SERV. 2, 12 (2012), available at http://ecos.fws.gov/docs/candidate/assessments/2013/r6/Q2QI_P01.pdf.

195. Designation of Critical Habitat for the Northwest Atlantic Ocean Distinct Population Segment of the Loggerhead Sea Turtle, 78 Fed. Reg. 18,000, 18,000 (Mar. 25, 2013) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/>

Species Name	Species Type	Geographic Range	Federal Status	LPN	Next Action
Sperm Whale	Mammal	Globally in Atlantic, Pacific, and Indian Oceans	Listed as Endangered	N/A	Comments on petition to list Sperm Whales in Gulf of Mexico as an endangered or threatened distinct population segment closed May 28, 2013 ¹⁹⁶

IV. CONCLUSION AND RECOMMENDATIONS

Even among supposed conflicting positions, ESA challenges can be overcome through compromise and forward planning. Whether an environmental advocate or industry proponent, the route to a successful outcome and achieving a client's goals remains the same and is resolute. As case studies and examples have borne out, to secure their own interests, the oil and gas industry and related private interests must cooperate with state and federal officials, as well as environmental interests, to develop and adopt best management practices and voluntary mitigation plans to protect both listed species and those on the candidate species list. Such practices may include set-backs from river banks, directional drilling, swales, erosion and siltation prevention schemes, measures to minimize operational and environmental footprints, systems to prevent and contain discharges, and other safeguards to minimize the impacts of oil and gas-related activities.¹⁹⁷ This proactive and cooperative approach can minimize impasses and allow competing interests to coexist.

Additionally, forward looking voluntary measures developed in conjunction with states, other governmental entities, and environmental groups can help forestall listings and critical habitat designations while facilitating the continuation of oil and gas production efforts. Assurances under CCAAs are only available to operators who enroll before a species is listed. Therefore, oil and gas operators should take action as soon as possible where their operations have the potential to harm candidate species currently under evaluation. Operators who decline to participate in a CCAA before a candidate species is listed and protection measures are implemented could be precluded or hindered from carrying out their oil and gas activities. As a pay-to-play option, when the FWS is considering designating a critical habitat, op-

pkg/FR-2013-03-25/pdf/2013-06458.pdf; Designation of Critical Habitat for the Northwest Atlantic Ocean Distinct Population Segment of the Loggerhead Sea Turtle, 78 Fed. Reg. 42,921 (July 18, 2013) (to be codified at 50 C.F.R. pt. 17), available at <http://www.gpo.gov/fdsys/pkg/FR-2013-07-18/pdf/2013-17205.pdf>.

196. 90-day Finding on a Petition to List Sperm Whales in the Gulf of Mexico as a Distinct Population Segment Under the Endangered Species Act, 78 Fed. Reg. 19,176, 19,176 (Mar. 29, 2013) (to be codified at 50 C.F.R. pt. 223, 224), available at <http://www.gpo.gov/fdsys/pkg/FR-2013-03-29/pdf/2013-07355.pdf>.

197. Shaun Gehan, *Endangered Species Act Finding with Potential Fracking Implications*, FRACKING INSIDER (July 31, 2012), <http://www.frackinginsider.com/regulatory/endangered-species-act-finding-with-potential-fracking-implications/>.

erators may pay to participate in the process. Critical habitat designations are not mandatory under the ESA and should the agency indeed designate a critical habitat, it has a duty to avoid “destruction or adverse modification.” Thus, it is crucial to realistically demonstrate the economic burdens that such designations would have, along with any and all mitigation measures undertaken.

As a general course of conduct, diligence and vigilance are key attributes for practitioners to embrace when contemplating a project that may implicate the ESA. Advocates should survey potential state and federal species and habitat listings, as well as take into account pending and threatened FWS litigation. The ability to render suitable solutions to achieve positive client outcomes involves staying abreast of new and creative uses of the ESA and similar statutes advanced by governmental entities and environmental groups. In certain instances, protecting a client’s interest may necessitate a more assertive approach. Some projects will necessarily require a detailed assessment of risk to ongoing or prospective operations as well as an evaluation of the need for possible comments on listings. Legal advocates must be prepared to monitor important listing decisions and even intervene in litigation to protect a client’s interests.¹⁹⁸ While achieving a successful outcome that meets the needs of all involved is far from certain, proactive planning and cooperation can make such a desired end more probable.

198. Pamela Giblin, *Endangered Species Act Still a Complication for Energy Development*, AM. COLL. OF ENVTL. LAW (Aug. 3, 2011), <http://www.acoel.org/post/2011/08/03/Endangered-Species-Act-Still-a-Complication-for-Energy-Development.aspx>.