Protecting Species and Timber Communities from Extinction: A Case Study on Spotted Owls, Logging, and Cooperative Management in Western Lane County, Oregon

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The media often portrays endangered species and ecosystem conservation as at loggerheads with rural communities that depend on natural resource extraction. In recent years, academics and practitioners alike have attempted to remedy this narrative by experimenting with management strategies that involve affected communities rather than impose top-down rules. This Note explores the small communities of western Lane County, Oregon, as a case study to interrogate these narratives in the context of northern spotted owl conservation. Specifically, the Note disaggregates the broad-strokes portrayal of owls versus timber into the relationships between federal government agencies with conservation mandates, small landowners, and county government to better understand the nuances of the tension and how management strategies have fared. The Note concludes by identifying five characteristics of species management strategies that benefit the species and its human neighbors: stakeholder engagement, funding, regulatory and relational certainty, monitoring, and reframing the narrative.

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INTRODUCTION

Deep in a swath of rain-soaked, hundreds-year-old trees, a soft bird call floats through the cool air and fades out: hoo! hoo-hoo! hoo-ah. The source of the hooting, the northern spotted owl, finds its home in the old-growth forests of Oregon, Washington, and California, including those in the Coast Range of western Lane County, Oregon. The spotted owl was thrust into the national spotlight in 1990 when the U.S. Fish and Wildlife Service (FWS) listed it as threatened under the Endangered Species Act (ESA), triggering protective

^{1.} Jack Ward Thomas & Jory Ruggiero, *Politics and the Columbia Basin Assessment —Learning from the Past and Moving to the Future*, Pub. LAND & RES. L. REV. 33, 33–34 (1998).

^{2.} Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Northern Spotted Owl, 55 Fed. Reg. 26114, 26114 (June 26, 1990) (to be codified at 50 C.F.R. pt. 17).

measures that commentators predicted would fall particularly strongly on timber communities.³

In the decades since, the small, inconspicuous bird has played an outsized role in social discord. During the peak of the spotted owl conflict, environmentalists formed a barricade by binding themselves to trees to prevent logging in spotted owl habitat, and loggers, in response to the perceived attacks on their livelihoods, pilloried the owl and its supporters. Western Lane County, which stretches from the college town of Eugene to the coastline, has weathered the storm of the spotted owl controversy and continues to be the setting for contentious conservation measures. Most recently, the western portion of the county was the setting for *Friends of Animals v. U.S. Fish and Wildlife Service*, a Ninth Circuit case that upheld FWS's decision to grant permits to non-federal landowners to facilitate an experiment to lethally remove barred owls in order to help the spotted owl. The ecological, social, and economic forces at play in western Lane County are ripe for studying the dynamics between conservation under the ESA and local livelihoods.

This Note uses western Lane County as a case study to diagnose sticking points in conservation under the ESA and prescribe characteristics of management strategies more likely to sustain both resource extraction-dependent communities and populations of listed species. It does so by investigating relationships among federal conservation and forestry agencies, small landowners, and county government. This Note finds that since the so-called timber wars of the 1990s, cooperative management measures in western Lane County between private landowners and federal agencies have become more common with mutual benefits for landowners and conservation. Building on the lessons from these cooperative management arrangements, the Note proposes a suite of characteristics of management strategies that federal agencies should prioritize.

Part I introduces the case study area of western Lane County, Oregon, and explains why it is an appropriate region for in-depth analysis of spotted owl conservation. Part II details the relevant federal statutory frameworks. The Part begins by introducing the variety of management approaches the ESA allows and how the statute has come under fire from communities that rely on the same natural resources as listed species. The Part then describes other relevant statutes: the Oregon and California Railroad Lands Act (O&C Lands Act), the Federal

^{3.} BRIAN J. GREBER ET AL., CONSERVATION PLANS FOR THE NORTHERN SPOTTED OWL AND OTHER FOREST MANAGEMENT PROPOSALS IN OREGON: THE ECONOMICS OF CHANGING TIMBER AVAILABILITY 4 (1990) (predicting that because of northern spotted owl conservation plans, "many rural communities may face a bleak future, and the social implications have state-wide ramifications").

^{4.} Timber Wars, *Episode 1: The Land Stand*, OR. PUB. BROAD., https://www.opb.org/article/2020/09/22/timber-wars-episode-1-the-last-stand/ (last visited Oct. 22, 2022); Timber Wars, *Episode 4: Mill City*, OR. PUB. BROAD., https://www.opb.org/article/2020/09/22/timber-wars-episode-4-mill-city/(last updated Jan. 19, 2021).

^{5.} Friends of Animals v. U.S. Fish & Wildlife Serv., 28 F.4th 19, 23 (9th Cir. 2022).

Land Policy and Management Act (FLPMA), and the National Forest Management Act (NFMA). Part III describes the history of spotted owl conservation in western Lane County more broadly by tracing its progression from the mid-1980s to present. Part IV catalogs cooperative management strategies that have involved timber landowners in western Lane County. Part V identifies promising approaches in ameliorating the tensions in western Lane County and other similarly situated locales where resource extraction overlaps with listed species habitat. Specifically, the Part recommends that spotted owl management include stakeholder engagement, funding, regulatory and relational certainty, monitoring, and reframing the narrative.

I. WESTERN LANE COUNTY IN CONTEXT

Western Lane County, Oregon, is bound by the Interstate 5 freeway to the east and the Pacific Ocean to the west.⁶ The low-lying Oregon Coast Range Mountains between the two contain old-growth forests of Douglas firs, western hemlock, red cedar, and big leaf maple.⁷ Between the incorporated cities of Veneta, a bedroom community west of the university town of Eugene,⁸ and Florence, which the Lane County tourism board heralds as Oregon's coastal playground,⁹ western Lane County contains many unincorporated towns with roots in the timber industry.¹⁰ In the late nineteenth century and for much of the twentieth century, timber and agriculture fueled Lane County's economy.¹¹ Where there is old-growth temperate rainforest—in western North America, at

^{6.} See Map, LANE CNTY., https://www.lanecounty.org/ (displaying a map of Lane County under the MAP tab) (last visited Aug. 7, 2023).

^{7.} See Siuslaw National Forest Mature and Old-Growth Forests Map, OR. WILD, https://oregonwild.org/siuslaw-national-forest-mature-and-old-growth-forests-map (last visited Aug. 7, 2023); Old Growth Ridge Trail, BLM Eugene District, Oregon, AM. TRAILS, https://www.americantrails.org/resources/old-growth-ridge-trail-blm-eugene-district-oregon (last visited Aug. 7, 2023).

^{8.} Veneta: Outgrowing the "Bedroom Community" Tradition, LANE CNTY., https://www.lanecounty.org/government/county_departments/county_administration/administration/community_and _economic_development/newsletters/veneta_outgrowing_the__bedroom_ (last visited Aug. 7, 2023).

^{9.} Florence, OR, EUGENE, CASCADES & COAST, https://www.eugenecascadescoast.org/regionscities/florence/ (last visited Oct. 16, 2023).

^{10.} See DEP'T LAND CONSERVATION & DEV., SURVEY OF OREGON UNINCORPORATED COMMUNITIES 4 (1997), https://www.oregon.gov/lcd/LAR/Documents/div022_survey_unincorp-communities.pdf (listing Alvadore, Blachly, Cheshire, Crow, Cushman, Deadwood, Elmira, Franklin, Glenada, Greenleaf, Lancaster, Lorane, Mapleton, Noti, Swisshome, Triangle Lake, and Walton, all of which are in the western part of the state, as unincorporated); see, e.g., Lumber... Supporting Western Lane's Port of Progress... Florence, Eugene Reg.-Guard, Feb. 28, 1960, at 10, https://www.newspapers.com/image/109299937/?fcfToken=eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJmcmVlL XZpZXctaWQiOjEwOTI5OtkzNywiaWF0IjoxNjcxMjQxMDQyLCJleHAiOjE2NzEzMjc0NDJ9.j7eEc FIKzqkgvezXJ5nIINGVfJGQN25vd1x7aWEb3WU (describing in an advertisement timber operations in and near Cushman, Swisshome, and Mapleton).

^{11.} Lane County History, OR. SEC'Y OF STATE, https://sos.oregon.gov/archives/records/county/Pages/lane-history.aspx#:~:text=Lane% 20County% 20was% 20established% 20Jan,south% 20to% 20the% 20California% 20border (last visited Oct. 9, 2022).

least—there are also northern spotted owls, and western Lane County serves as a microcosm of the regional owl-timber conflict.

The 397-person town of Mapleton exemplifies the fate of the timber industry in western Lane County. ¹² Starting in the late 1890s, Mapleton residents harvested trees to be processed in mills farther west in Lane County. ¹³ As recently as 1982, timber was Lane County's "leading industry." ¹⁴ Now, though, Mapleton and western Lane County are both long past their timber-fueled boom years. ¹⁵ Mapleton's mill, operated by Davidson Industries, closed in 2004, which the company attributed to onerous upgrades required by the state Department of Environmental Quality. ¹⁶ The decrease in Mapleton's timber mirrors Lane County's significant decline in timber harvests since 1989. ¹⁷

Timber communities in western Lane County merit attention for economic, cultural, and geographic reasons. First, Lane County derives substantial funding linked to timber harvests on public lands. State and federal land management agencies give private companies the right to harvest timber on certain parcels of land through timber sales. ¹⁸ Under the O&C Lands Act, discussed below in Subpart C within Part III, starting in 1937, Lane County has received half of the revenues that the Bureau of Land Management (BLM) collects for timber sales on BLM-managed O&C lands. ¹⁹ Once timber harvests on the O&C lands declined following increased protections for the spotted owl, Congress supplemented harvest-based funding for counties with payments based on

^{12.} Mapleton, OR, CENSUS REP., https://censusreporter.org/profiles/16000US4145750-mapleton-or/ (last visited Aug. 7, 2023).

^{13.} Josephine Evans Harpham & Leland H. Townsend, *Albert Knowles House in Mapleton*, *Oregon*, 74 OR. HIST. Q. 271, 273 (1973).

^{14.} LANE CNTY., WORKING PAPER: FOREST LANDS, Sec. IV (1982), https://www.lanecounty.org/common/pages/DisplayFile.aspx?itemId=6477545.

^{15.} Mapleton: A Story of Resilience, LANE CNTY., https://www.lanecounty.org/government/county_departments/county_administration/administration/community_and_economic_dev elopment/newsletters/mapleton_a_story_of_resilience (last visited Sept. 11, 2022); Mapleton, SMALL TOWN OR., http://www.smalltownoregon.com/02centralcoast/mapleton.html (last visited Sept. 4, 2022) (commenting that post-boom times Mapleton is now "lucky to keep a general store and tavern in business").

^{16.} Mapleton: A Story of Resilience, supra note 15 (describing that Davidson Industries "was forced to shut down two of its major mill sites due to environmental reasons"); Davidson to Close Oregon Sawmill, PORTLAND BUS. J. (Feb. 4, 2004, 10:53 AM), https://www.bizjournals.com/portland/stories/2004/02/02/daily30.html (mentioning that upgrades required by the state Department of Environmental Quality were too expensive to stay in business).

^{17.} ALICIA ANDREWS & KRISTIN KUTARA, OR. DEP'T OF FORESTRY, OREGON'S TIMBER HARVESTS: 1849–2004 87, 88 (2005), https://www.oregon.gov/ODF/Documents/WorkingForests/oregonstimberharvests.pdf (showing Lane County timber harvests peaked at 1,697,099 thousands of board feet (MBF) in 1972 and were 568,725 MBF in 2004).

^{18.} See Timber Sales, BUREAU OF LAND MGMT., https://www.blm.gov/programs/natural-resources/forests-and-woodlands/timber-sales (last visited Feb. 24, 2023) ("Timber sales allow for the sustainable harvest of timber for commercial purposes on public land."); Timber Sales, OR. DEP'T OF FORESTRY, https://www.oregon.gov/odf/working/pages/timbersales.aspx (last visited Feb. 24, 2023).

 $^{19. \}quad \textit{See} \quad \text{Cong. Rsch. Serv., The Oregon \& California Railroads Lands (O\&C Lands):} \\ \text{Issues} \quad \text{for} \quad \text{Congress} \quad 8-9 \quad (2015), \quad \text{https://www.everycrsreport.com/files/20150114_R42951_d89c88b4c73cb3904da01fef162afc1a52e5421e.pdf [hereinafter Cong. Rsch. Serv., O\&C Lands].} \\$

historical timber receipts through the Secure Rural Schools and Community Self-Determination Act (SRS).²⁰ The funding related to the O&C lands is significant, as Lane County received more than \$5 million each in financial years 2012 and 2013 from the SRS payments.²¹ The county's board of commissioners in 2015 declared that the county was "absolutely dependent" on funding related to the O&C lands.²² This is in line with regional patterns: given the ubiquity of publicly owned land in Oregon and Washington on which counties cannot assess property taxes, many counties have depended on timber payments from federal agencies to fund municipal and social services.²³

Outside of western Lane County's importance to the county's financial stability, its communities carry inherent value. As Steven Beda, a labor and environmental historian at the University of Oregon, has argued, industrial woodlands in the Pacific Northwest are places that carry meaning and value for people in timber communities.²⁴ Using the lens of place, Beda claims that forests for towns like Mapleton are not just physical spaces for harvesting trees but "a site of family, home, and community."25 This place-based connection to working forests means that activities that community members in western Lane County enjoy are not fungible or transferable. The importance of place also undercuts commentators' suggestion of job retraining as a solution in the wake of spotted owl-related harvest restrictions.²⁶ Even from the outside, the sense of place in western Lane County is manifest. A Facebook group named "You know you're from Mapleton, Oregon when. . ." has over 1,900 members, more than five times the town's current population, and has active members who post frequently,²⁷ Although small in population, western Lane County's unincorporated communities hold significant meaning for their residents.

Land ownership in western Lane County also makes it a compelling site for a case study on human-wildlife conflict. The federal government owns 64 percent of the land in Lane County, with approximately 22 percent of the remaining land held by large private landowners, 12 percent by small private

^{20.} Id. at 10; see also The Bureau of Land Management Distributes \$26.9 Million in SRS Payments to 18 Oregon Counties, BUREAU OF LAND MGMT. (Apr. 21, 2021), https://www.blm.gov/press-release/bureau-land-management-distributes-269-million-srs-act-payments-18-oregon-counties (listing that Lane County received nearly \$3.8 million in BLM funding to compensate for O&C lands).

^{21.} CONG. RSCH. SERV., O&C LANDS, supra note 19, at 13.

^{22.} Saul Hubbard, *BLM Timber Harvest Plans Displease Lane County Commissioners*, STATESMAN J. (Aug. 18, 2015), https://www.statesmanjournal.com/story/news/politics/2015/08/18/blm-timber-harvest-plans-displease-lane-county-commissioners/31918119/.

^{23.} STEVEN C. BEDA, STRONG WINDS & WIDOW MAKERS: WORKERS, NATURE, AND ENVIRONMENTAL CONFLICT IN PACIFIC NORTHWEST TIMBER COUNTRY 202 (2022).

^{24.} Id. at 11.

^{25.} Id.

^{26.} See Greber et al., supra note 3, at 3 (1990) (claiming "worker retraining will likely be required in many instances"); Timothy Egan, Oregon, Foiling Forecasters, Thrives as it Protects Owls, N.Y. TIMES, Oct. 11, 1994, at A1 (reporting that "timber workers are being retrained for some . . . jobs, particularly in manufacturing").

^{27.} You Know You're from Mapleton, Oregon When..., FACEBOOK, https://www.facebook.com/groups/251925711493281/?mibextid=HsNCOg (last visited Nov. 13, 2022).

landowners, and 2 percent held by the state and other public entities.²⁸ In the western portion of the state, Siuslaw National Forest covers about 246,000 acres of land, just over 39 percent of the forest's total acreage.²⁹ Much of the federal land outside of the national forest creates a checkerboard pattern comprising approximately twenty mile-wide squares of alternating federal and non-federal land.³⁰ The federal squares have been managed by BLM since the Oregon and California Railroad Company, to which Congress had granted the land, violated the terms of its grant and Congress revested the land.³¹ Because spotted owls fly across contiguous habitat, the pervasive shared boundaries of land parcels in the checkerboard area make interactions between federal and private landowners regarding the owl an inevitability.³² The structure of landownership in western Lane County therefore offers important lessons for public-private landowner relationships more generally.

Although communities in western Lane County and private landowners within it are easily overlooked, they are important assets for both county budgets and locals' sense of belonging, and the stories they can tell contain transferable lessons about private-public resource management.

II. FEDERAL STATUTORY SCHEMES IN SPOTTED OWL CONSERVATION IN WESTERN LANE COUNTY

Private landowners in western Lane County interact with a variety of federal laws in using their properties and harvesting timber from public lands. Because of the presence of northern spotted owls and other threatened species throughout Oregon's Coast Range, the ESA factors heavily into timber-related decision-making on both public and private lands. The public lands in western Lane County also fall under the O&C Lands Act, FLPMA, and NFMA, depending on the agency that manages them. The O&C Lands Act and FLMPA cover BLM land,³³ whereas NFMA binds the Forest Service in its land management.³⁴

^{28.} See Or. Forest Res. Inst., Lane County 1 (2019), https://knowyourforest.org/sites/default/files/documents/Lane-state-economic-19.pdf.

^{29.} About the Siuslaw National Forest, U.S. FOREST SERV., https://www.fs.usda.gov/detail/siuslaw/about-forest/about-area/?cid=fsbdev7_007333 (last visited Aug. 7, 2023).

^{30.} CONG. RSCH. SERV., O&C LANDS, supra note 19, at 1.

^{31.} *Id.* at 1

^{32.} Virtual Interview with Steve Beda, Assistant Professor of History, Univ. of Or. (Nov. 21, 2022); Virtual Interview with Damon Lesmeister, Research Wildlife Biologist and Team Leader, U.S. Forest Serv. (Nov. 30, 2022).

^{33.} CONG. RSCH. SERV., O&C LANDS, *supra* note 19, at 1; THE FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 AS AMENDED, BUREAU OF LAND MGMT., tit. III (2016), https://www.blm.gov/sites/default/files/AboutUs_LawsandRegs_FLPMA.pdf.

 $^{34. \}quad \textit{See generally } 16 \text{ U.S.C. } \S \ 1600-14.$

A. The ESA and Its Collisions with Natural Resource Extraction

The ESA, passed near unanimously in 1973,³⁵ sets out a strong governmental priority for species that are at risk of extinction.³⁶ In the ESA, Congress authorized FWS to maintain a list of species that are endangered or threatened by extinction,³⁷ collectively referred to as "listed species,"³⁸ and enforce against unpermitted "take" of listed species.³⁹

FWS's powers under the ESA are considerable and prioritize listed species' recovery in ways that can restrict human activities. For example, "take" of a species is defined broadly to include actions towards a listed species to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."⁴⁰ The prohibition on take is extensive, encompassing both intentional acts to harm listed species and acts that indirectly harm them.⁴¹ The general prohibition on take can hinder land development and resource extraction in favor of the ESA's species conservation objective.

1. Conflicts with Natural Resource-Dependent Communities

In focusing on conservation, the ESA by its statutory language does not mandate much flexibility for considering other factors in management, which has led to conflicts with communities that share land with listed species. Enforcement of the take prohibition, for example, does not account for impacts on human livelihoods. The cost of not complying with the prohibition is steep: a person who knowingly takes an individual of a listed species is subject to a fine of up to \$25,000 per violation, and FWS can fine a person who unwittingly takes a listed species up to \$500 per violation.⁴²

Landowners have long balked at the stringency of the ESA's provisions. Some go as far as to kill listed species or ruin habitat suitable for listed species on their property to avoid FWS regulating their activities, a strategy colloquially referred to as "shoot, shovel, and shut up." With species as varied as the gray wolf and red-cockaded woodpecker, the ESA has spawned sometimes-lethal

^{35.} Timber Wars, *Episode 3: The Owl*, OR. PUB. BROAD., https://www.opb.org/show/timberwars/ (last visited Sept. 25, 2022).

^{36. 16} U.S.C. § 1531(c)(1).

^{37.} Id. § 1533(a).

^{38.} See Endangered Species Act, U.S. FISH & WILDLIFE SERV., https://www.fws.gov/law/endangered-species-act (last visited Aug. 7, 2023) (referring to species that are listed as threatened and endangered collectively as listed species).

^{39.} Id. § 1538(a)(1)(B)–(C).

^{40.} Id. § 1532(19).

^{41.} Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or., 515 U.S. 687, 708 (1995) (holding FWS through the Secretary of the Interior "reasonably construed the intent of Congress when he defined 'harm' to include 'significant habitat modification or degradation that actually kills or injures wildlife'").

^{42. 16} U.S.C. § 1540(a)(1).

^{43.} Karrigan Bork, Listed Species Reintroductions on Private Land: Limiting Landowner Liability, 30 STAN. ENV'T L.J. 177, 188 (2011).

conflicts when listed species get in the way of landowners' livelihoods.⁴⁴ This conflict poses a major obstacle to the ESA's ability to meet its conservation objectives, as about "half of listed species have at least 80 percent of their habitat on private lands."⁴⁵

2. ESA Provisions that Incorporate Human Community Needs

Some provisions of and practices promulgated under the ESA, in contrast, allow for greater consideration of human communities in FWS's rulemaking regarding threatened and endangered species. For example, a 1978 amendment to the statute directs FWS to take "economic impact" into account when designating critical habitat for a listed species. ⁴⁶ While this directive allows FWS to consider community-level effects of imposing the restrictions that accompany critical habitat designation, it also has the downside of potentially slowing down protection for species. ⁴⁷

Other statutory provisions go beyond incorporating the value of listed species and their habitat to human communities into management decisions by laying the groundwork for cooperative management of listed species. Cooperative management, while carrying a variety of definitions in the literature, for the purposes of this Note means "the sharing of responsibilities, rights, and duties between the primary stakeholders, particularly local communities and the nation state."⁴⁸

In the context of the ESA, cooperative management measures largely take the form of permits that FWS grants to meet the needs of specific non-federal landholders. For instance, the ESA's exception section allows FWS to permit "any act otherwise prohibited by section 1538 for scientific purposes or to enhance the propagation or survival of the affected species." FWS issues these enhancement of survival permits to non-federal landowners who agree to participate in hands-on management to protect a listed species. In exchange for participation in species conservation, FWS can grant the landowner an

^{44.} Ronald Bailey, "Shoot, Shovel, and Shut Up," REASON (Dec. 31, 2003), https://reason.com/2003/12/31/shoot-shovel-and-shut-up/.

^{45.} Ashley Graves, Collaborative Management as a Mechanism for Incentivizing Private Landowners and Protecting Endangered Species, 6 Tex. A&M L. Rev. 297, 300 (2018) (citing Our Endangered Species Program and How It Works with Landowners, U.S. FISH & WILDLIFE SERV. (2009), https://perma.cc/A2XR-ZFXE).

^{46. 16} U.S.C. § 1533(b)(2); Pub. L. No. 95-632, 92 Stat. 3751; see also U.S. FISH & WILDLIFE SERV., CRITICAL HABITAT: WHAT IS IT? 1 (2017), https://www.fws.gov/sites/default/files/documents/critical-habitat-fact-sheet.pdf (indicating that FWS designates critical habitat for both threatened and endangered species).

^{47.} NAT'L RSCH. COUNCIL, SCIENCE AND THE ENDANGERED SPECIES ACT 7 (1995).

^{48.} NAT'L OCEANIC & ATMOSPHERIC ADMIN., COOPERATIVE RESEARCH AND COOPERATIVE MANAGEMENT: A REVIEW WITH RECOMMENDATIONS 5 (2015) (citing THE WORLD BANK, REPORT FROM THE INTERNATIONAL WORKSHOP ON COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT (1999)).

^{49. 16} U.S.C. § 1539(a)(1)(A).

^{50.} Safe Harbor Agreements, U.S. FISH & WILDLIFE SERV., https://www.fws.gov/service/safe-harbor-agreements (last visited Oct. 22, 2022).

enhancement of survival permit alongside a safe harbor agreement (SHA), which limits the landowner's exposure to ESA enforcement by relieving it of liability for incidental take in carrying out the agreed conservation measures.⁵¹ The enhancement of survival permit authority is original to the 1973 ESA,⁵² whereas FWS and NMFS created the SHA program in 1999 in recognition of the "involvement of non-Federal property owners in the conservation and recovery of listed species [being] critical to the eventual success of these efforts."⁵³

FWS can issue enhancement of survival permits even before it designates a species as threatened or endangered. When FWS is contemplating listing a species, it can enter into a candidate conservation agreement with assurances with a non-federal landowner to encourage the landowner to carry out conservation activities.⁵⁴ To reward the landowner for their conservation efforts, the agency then issues an enhancement of survival permit that will go into effect if the species is listed and that does not increase the property owner's conservation obligations.⁵⁵ FWS finalized the candidate conservation agreement with assurances program alongside the SHA policy in 1999 to meet the need to incentivize non-federal landowners to conduct conservation activities and provide "certainty with regard to land, water, or resource use restrictions that might be imposed should the species later become listed."⁵⁶

Because of 1982 amendments to the ESA,⁵⁷ FWS can also permit take that "is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."⁵⁸ These incidental take permits allow landowners to use or extract natural resources from their property without fear of liability for accidentally killing or injuring listed wildlife.⁵⁹ An applicant for an incidental take permit must also submit a habitat conservation plan that describes "the anticipated effects of the proposed taking, how those impacts will be minimized or mitigated, and how the conservation measures included in the plan will be funded."⁶⁰ By requiring actors who expect to take listed species to propose conservation measures in a habitat conservation plan, the incidental take process gets landowner buy-in and allows FWS and private landowners to meet in the middle of conservation and economic development.⁶¹

- 51. Bork, *supra* note 43, at 202.
- 52. Endangered Species Act of 1973, Pub. L. 93-205, 87 Stat. 884 § 10(a).
- 53. Announcement of Final Safe Harbor Policy, 64 Fed. Reg. 32717, 32717 (June 17, 1999).
- 54. Candidate Conservation Agreements with Assurances, U.S. FISH & WILDLIFE SERV., https://www.fws.gov/service/candidate-conservation-agreements-assurances (last visited Oct. 22, 2022).
 - 55. Id.
- 56. Announcement of Final Policy for Candidate Conservation Agreements with Assurances, 64 Fed. Reg. 32726, 32726 (June 17, 1999).
- 57. Habitat Conservation Plans, U.S. FISH & WILDLIFE SERV., https://www.fws.gov/service/habitat-conservation-plans (last visited Oct. 22, 2022).
 - 58. 16 U.S.C. § 1539(a)(1)(B).
 - 59. Habitat Conservation Plans, supra note 57.
 - 60. Id.
- 61. *Id.* (characterizing the incidental take program as "a process to reduce conflicts between listed species and economic development").

Outside of its programs related to take, the ESA also allows FWS to solicit input from relevant public and private groups. Section 4(f)(2) of the ESA allows the agency to appoint recovery teams of "appropriate public and private agencies and institutions" to help develop and implement species recovery plans.⁶² These recovery teams are not subject to the Federal Advisory Committee Act, relieving FWS of the Act's open meeting and reporting requirements.⁶³

The ESA, while predominantly holding species conservation as its paramount concern, has several entry points for consideration of human communities that co-occur with protected species. FWS has a suite of cooperative management options, including obligatory permits for certain activities, that private landowners can affirmatively choose to pursue.⁶⁴ Some of the tools are recent inventions that came out of the "shoot, shovel, and shut up" conflicts in the ESA's early years.⁶⁵

B. Federal Land Policy and Management Act

BLM's organic statute, FLPMA,66 "establishes the agency's multiple-use and sustained yield mandate to serve present and future generations."67 In contrast to limiting BLM lands to a dominant use like timber production,68 FLPMA's multiple-use mandate requires that the agency contemplate a variety of uses both in terms of type, including "recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values," and intensities, ranging from using some to all of an area's resources.69 The statute directs BLM to create land use tools, called resource management plans (RMPs), in which "present and future use is projected" for specific lands.70 In effect, RMPs act as general roadmaps for future specific BLM action, dictating

^{62. 16} U.S.C. § 1533(f)(2).

^{63.} *Id.*; see 5 U.S.C. App. §§ 10, 11 (describing open meeting and transcript availability requirements for advisory committees).

^{64.} See, e.g., supra notes 50, 54 & 57.

^{65.} Policy responses to the shoot, shovel, and shut up perspective that allow landowners to continue developing their properties, like habitat conservation plans, have "substantially lessened political pressure for major legislative reform of the ESA." J. Peter Byrne, *Precipice Regulations and Perverse Incentives: Comparing Historic Preservation Designation and Endangered Species Listing*, 27 GEO. INT'L ENV'T L. REV. 343, 374–75 (2015). However, it is not clear whether these programs have lessened intentional violence towards or destruction of the habitat of listed species. *See id.* at 357 (noting that there is "little data" on the frequency of shoot, shovel, and shut up-type actions).

^{66.} See 43 U.S.C. §§ 1701–85.

^{67.} THE FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 AS AMENDED, tit. III, § I (2016); see also 43 U.S.C. § 1701(a)(7) (establishing that public land management will be based on "multiple use and sustained yield").

^{68.} See Michael C. Blumm & Jonathan Lovvorn, The Proposed Transfer of BLM Timber Lands to the State of Oregon: Environmental and Economic Questions, 32 LAND & WATER REV. 353, 364, 377 (1997) (noting that BLM interprets the O&C Lands Act as a dominant-use statute that prioritizes timber harvest, although it is limited in pursuit of that dominant use by NEPA and the ESA).

^{69. 43} U.S.C. § 1702(c).

^{70. 43} U.S.C. § 1701(a)(2).

the agency's management actions and more granular plans going forward.⁷¹ These RMPs are not self-executing: the agency must issue management decisions, like in completing timber sales, to implement the plans.⁷²

In August 2016, BLM finalized an approved RMP for northwestern and coastal Oregon that prioritizes spotted owl management.⁷³ For instance, the wildlife resource program's management objectives include "manag[ing] habitat conditions for northern spotted owl movement and survival between and through large" habitat blocks and "not authoriz[ing] timber sales that would cause the incidental take of northern spotted owl."⁷⁴ In contrast, the RMP mentions private landowners only in passing,⁷⁵ suggesting that BLM has not programmatically planned to engage private landowners in its western Oregon forest management.

C. Oregon and California Railroad Lands Act

The O&C Lands Act also dictates how timber in western Lane County operates. To In 1937, Congress enacted the Act to use revenues from timber sales on BLM-managed O&C lands to compensate eighteen counties in Oregon, including Lane County, for the loss of property tax from the federal government revesting lands it had previously dedicated to the railroad. While the allocation to counties shifted over the years, the Act provided a base of 50 percent of timber revenues directly to counties. Because timber harvests declined in the 1990s due to the combination of spotted owl-related restrictions and unrelated industry stagnation, Congress provided safety net payments—colloquially called "owl payments"—to make sure counties with O&C lands, as well as counties that depended on timber revenues from other BLM and national forest system lands, did not have budget shortfalls. Since 2000, Congress has paid O&C counties through the SRS based on historical receipts for O&C timber harvest payments, in addition to continuing, although much reduced compared to mid-century,

^{71.} THE FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 AS AMENDED, BUREAU OF LAND MGMT., tit. III, 8 (2016).

^{72. 43} U.S.C. § 1712(e).

^{73.} See generally Bureau of Land Mgmt., Northwestern & Coastal Oregon Record of Decision and Resource Management Plan (2016), https://eplanning.blm.gov/public_projects/lup/57902/79046/91311/NCO_ROD_RMP_ePlanning.pdf.

^{74.} Id. at 100.

^{75.} See, e.g., id. at 13, 56–58, 81 (mentioning private individuals' valid existing rights, private property in wildfire management, and road transportation needs for private lands).

^{76. 43} U.S.C. §§ 2601–34.

^{77.} CONG. RSCH. SERV., O&C LANDS, supra note 19, at 1, 8; 43 U.S.C. § 2605.

^{78.} CONG. RSCH. SERV., O&C LANDS supra note 19, at 8–9.

^{79.} See id. at 10 ("While some argue that the declining harvest levels were due to successful litigation to protect the northern spotted owl and other resource protection values in the Pacific Northwest, others argue that the declining harvest levels are mostly due to other forest management, economic, and industry factors.").

^{80.} *Id.*; 16 U.S.C. § 7102(4), (7) (defining "eligible county" as containing revested O&C lands, among other qualifications); 16 U.S.C. § 7111(b) (specifying payment methodology for eligible counties).

payments based on revenue from timber sales.⁸¹ By linking portions of county budgets to timber harvests on BLM land,⁸² the O&C Lands Act provides a powerful incentive for Lane County to produce as much timber as it can, a countervailing interest to the ESA's requirements.

D. National Forest Management Act

The U.S. Forest Service's enabling statute, NFMA, is similarly powerful in western Lane County. Like BLM's statutory requirement under FLPMA, NFMA requires the Forest Service to create and maintain land and resource management plans for the service's units.⁸³ Under regulations promulgated under NFMA, the Forest Service must manage fish and wildlife "to maintain viable populations of existing native and desired non-native vertebrate species" as suggested by a set of indicator species.⁸⁴ Federal judges have determined northern spotted owls to be one of these indicator species.⁸⁵ NFMA also enables the Forest Service to work with private landowners, including to conduct forest research.⁸⁶

The Forest Service's current plans that apply in Lane County are the Northwest Forest Plan (NWFP),⁸⁷ discussed below in Subpart A within Part III, and the Siuslaw National Forest Plan.⁸⁸ Because the NWFP was published at the peak of the controversy between spotted owl conservation and timber, the plan encompasses the range of the northern spotted owl and focuses on species recovery.⁸⁹ The Siuslaw National Forest Plan, which predates the spotted owl's listing, provides a framework for the forest's management but does not reflect subsequent increased protections for the spotted owl.⁹⁰ Because the Forest

- 83. 16 U.S.C. § 1604(a).
- 84. 36 C.F.R. § 219.9 (1982).
- 85. Seattle Audubon Soc'y v. Evans, 771 F.Supp. 1081, 1083 (W.D. Wash. 1991).
- 86. 16 U.S.C. § 1643(c).

^{81.} CONG. RSCH. SERV., O&C LANDS, *supra* note 19, at 1, 10 (describing that without the SRS payments, O&C counties in FY2013 would receive timber revenue sharing payments that would represent an 85 percent reduction from SRS payments). The first SRS payments in 1993 were based on the average O&C timber harvest payments from financial years 1986–1990. CONG. RSCH. SERV., REAUTHORIZING THE SECURE RURAL SCHOOLS AND COMMUNITY SELF-DETERMINATION ACT OF 2000, at 2 (2010), https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5260244.pdf.

^{82.} CONG. RSCH. SERV., O&C LANDS, *supra* note 19, at 10 (describing that O&C counties would receive a share of timber revenues without SRS payments); Saul Hubbard, *supra* note 22 (reporting that Lane County objected to BLM's proposed management plan that would have decreased timber harvest because of its impact on the county's budget, indicating that the county still receives funding linked to timber sales despite also receiving SRS payments).

^{87.} League of Wilderness Defs. Blue Mountain Biodiversity Project v. Allen, 615 F.3d 1122, 1125 (9th Cir. 2010).

^{88.} See generally USDA FOREST SERV., LAND AND RESOURCE MANAGEMENT PLAN FOR SIUSLAW NATIONAL FOREST (1990).

^{89.} *Northwest Forest Plan*, U.S. FOREST SERV., https://www.fs.usda.gov/detail/r6/landmanagement/planning/?cid=fsbdev2_026990 (last visited Nov. 13, 2022).

^{90.} See LAND AND RESOURCE MANAGEMENT PLAN FOR SIUSLAW NATIONAL FOREST, supra note 88, at IV-8 (forecasting that the number of spotted owl pairs in the forest would decrease from fifty-five in the first decade of the forest plan's implementation to forty-two in the fifth decade of its implementation).

Service, like BLM, manages much of the land in western Lane County,⁹¹ the NWFP and Siuslaw National Forest Plan affect citizens on surrounding privately held land.

III. SPOTTED OWL CONSERVATION IN OREGON

As federal statutes and their modes of implementation have evolved, so too have on-the-ground species conservation activities and their social ramifications. The intertwined efforts to save Oregon's old-growth forests and the spotted owl have crisscrossed their way through the court system, legislatures, and federal agencies for more than thirty-five years.

A. Conservation of Old-Growth Forest through the ESA in the 1990s

Even before the northern spotted owl came into the spotlight, the old-growth forests of western Lane County were a flashpoint for conservationist-timber community tension. In 1986, the National Wildlife Federation sued the Forest Service, alleging the agency violated the National Environmental Policy Act (NEPA), NFMA, and the Multiple-Use Sustained-Yield Act in allowing proposed timber sales in the Mapleton Ranger District to go forward. From this early point, environmentalists found a favorable audience in the courts: the District Court for the District of Oregon, over the objections of the Forest Service and intervenor Davidson Industries, granted an injunction enjoining the Forest Service from selling timber in the district until it complied with NEPA. Although the Ninth Circuit vacated portions of the district court's amended injunction, it upheld the core of the injunction.

In search of other tools to protect old-growth forest, conservationists looked to the ESA. Although ultimately aiming to protect the old-growth forests on which the northern spotted owl depends, conservationists were at first hesitant to use the ESA to protect ecosystems by identifying an at-risk, little-known species like the owl. Although the ESA had passed with near unanimous support, the law in the popular imagination "was designed to protect big, beloved animals," like blue whales and bald eagles. Onservationists worried that applying the power of the ESA to lesser-known fauna like the northern spotted owl could incur backlash that "could lead to the death of the law."

Despite the lack of consensus about the wisdom of the strategy, conservationists at GreenWorld, a Massachusetts nonprofit, decided to petition

^{91.} NORTHWESTERN & COASTAL OREGON RECORD OF DECISION AND RESOURCE MANAGEMENT PLAN, *supra* note 73, at 54–55.

^{92.} Nat'l Wildlife Fed'n v. U.S. Forest Serv., 592 F. Supp. 931, 933 (D. Or. 1986).

^{93.} Id. at 944-45

^{94.} Nat'l Wildlife Fed'n v. U.S. Forest Serv., 801 F.2d 360, 360-61 (9th Cir. 1986).

^{95.} Timber Wars, Episode 3: The Owl, supra note 35.

^{96.} *Id*.

FWS to list the northern spotted owl in 1986,⁹⁷ introducing the ESA's controversies and tensions to old-growth forests. The Sierra Club Legal Defense Fund, along with other conservation groups who saw spotted owl listing as inevitable and in need of better scientific support than GreenWorld's petition, joined in by filing their own petition.⁹⁸ FWS denied both petitions in 1987, deciding that the spotted owl was not endangered or threatened.⁹⁹

The nonprofits' unsuccessful petitions took the brewing spotted owl controversy to the courts. In 1988, the District Court for the Western District of Washington decided FWS acted arbitrarily and capriciously in declining to list the species. 100 Congress, sensing trouble in the old-growth forests, intervened in 1989 by including directions to the judiciary in section 318 of the Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1990.¹⁰¹ The provision "determine[d] and direct[ed] that management of areas . . . on the thirteen national forests in Oregon and Washington and Bureau of Land Management lands in western Oregon known to contain northern spotted owls [was] adequate consideration for the purpose of meeting the statutory requirements that [were] the basis" for three active spotted owl court cases involving the claims under the Migratory Bird Treaty Act, NEPA, FLPMA, and the O&C Lands Act.¹⁰² Known as the Northwest Timber Compromise,¹⁰³ the provision attempted to diffuse the legal controversies by cordoning off current agency plans from legal challenge. 104 The FWS, after revisiting the spotted owl issue on remand, listed the owl as threatened in June 1990.¹⁰⁵

In May 1990, the Forest Service, BLM, FWS, and the National Park Service released a conservation strategy prepared by the Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl (ISC). The ISC report sent shockwaves through forestry and conservation circles by proposing to revamp the existing protection of areas with one to three spotted

^{97.} U.S. GOV'T ACCOUNTABILITY OFF., ENDANGERED SPECIES: SPOTTED OWL PETITION EVALUATION BESET BY PROBLEMS 5 (1989).

^{98.} Brendon Swedlow, Scientists, Judges, and Spotted Owls: Policymakers in the Pacific Northwest, 13 DUKE ENV'T L. & POL'Y F. 187, 202 (2003).

^{99.} ENDANGERED SPECIES: SPOTTED OWL PETITION EVALUATION BESET BY PROBLEMS, supra note 97, at 1.

^{100.} Northern Spotted Owl (Strix Occidentalis Caurina) v. Hodel, 716 F.Supp. 479, 483 (W.D. Wa. 1988) (finding that the Forest "Service 'disregarded all the expert opinion on population viability, including that of its own expert, that the owl is facing extinction").

^{101.} Portland Audubon Soc'y v. Lujan, 795 F.Supp. 1489, 1494 (D. Or. 1992).

^{102.} Pub. L. 101–21, 103 Stat. 701 § 318(b)(6)(A) (listing Seattle Audubon Society v. Robertson, Washington Contract Loggers Association v. Robertson, and Portland Audubon Society v. Lujan as the three cases it wanted to put to bed); Seattle Audubon Soc'y v. Robertson, 914 F.3d 1311, 1312 (outlining NEPA, O&C Lands Act, FLPMA, and Migratory Bird Treaty Act claims).

^{103.} Swedlow, supra note 98, at 215.

^{104.} *Id.* at 216 (noting that the compromise was "a renewed effort to reclaim control of policymaking from the judiciary").

^{105.} Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Northern Spotted Owl, 55 Fed. Reg. 26114 (June 26, 1990) (to be codified at 50 C.F.R. pt. 17).

owl pairs by instead protecting "[l]arge blocks of habitat capable of supporting multiple pairs of owls" by blocking them off from logging. 106

While the ISC report only pertained to federally owned land, commentators worried that it was just the opening salvo of a comprehensive reimagining (and, according to some, gutting) of the timber industry. A study on the ISC conservation strategy predicted that job displacement "could range from 12.1 to 23.4 thousand jobs in 1995 . . . and could be from 18.4 to 24.0 thousand jobs in 2005," accompanied by displaced income of "\$515 million to \$1,002 million per year in 1995, and from \$1,163 million to \$1,258 million in 2005." 107 If the ISC conservation strategy were extended to private lands, the study predicted that "the displacement [would] swell[] to 49.5 thousand jobs and \$2,147 million in income in 1995 and 27.6 thousand jobs and \$2,511 million in income in 2000." 108

By the close of 1990, Congress's attempt at a détente through the Northwest Timber Compromise, while having survived review by the U.S. Supreme Court, expired and left the Forest Service and BLM vulnerable to suit over their lack of consideration of new data on the northern spotted owl.¹⁰⁹

With the spotted owl cloaked in the ESA's powerful protection, federal scientific research supporting protection, and Congress's compromise expired, the stage was set for a legal showdown between the owl's protectors and the human communities that, like the owl, had adapted to the rainy old-growth forests of the West Coast. In 1991, Judge William Dwyer of the District Court for the Western District of Washington in *Seattle Audubon Society v. Evans* threw down the gauntlet by granting the Seattle Audubon Society its requested relief and enjoining the Forest Service from selling new logging rights in spotted owl habitat until it complied with NFMA. 110 Although *Seattle Audubon Society* was predicated on NFMA's requirement that fish and wildlife in national forests be managed to maintain "viable populations" rather than the ESA's protections to prevent imminent extinction, 111 the case emphasized that the "the Forest

^{106.} JACK WARD THOMAS ET AL., INTERAGENCY SCI. COMM. TO ADDRESS THE CONSERVATION OF THE N. SPOTTED OWL, A CONSERVATION STRATEGY FOR THE NORTHERN SPOTTED OWL 3 (1990), https://www.fws.gov/sites/default/files/documents/ConservationStrategyForTheNorthernSpottedOw_May1990.pdf.

^{107.} Greber et al., supra note 3, at 3.

^{108.} Id.

^{109.} Robertson v. Seattle Audubon Soc'y, 503 U.S. 429, 433 (1992).

^{110.} Seattle Audubon Soc'y v. Evans, 771 F.Supp. 1081, 1096 (W.D. Wash. 1991).

^{111.} *Id.* at 1083. NFMA's population viability requirement applies more broadly than ESA's protections, which only apply to species listed as threatened or endangered. *See* Courtney A. Schultz et al., *Wildlife Conservation Planning Under the United States Forest Service's 2012 Planning Rule*, 77 J. WILDLIFE MGMT. 428, 432 (2013). The broader application makes NFMA's mandate conducive to a potentially "precautionary and proactive approach to wildlife conservation" that contrasts with the "proverbial emergency room" treatment that the ESA provides to species more urgently imperiled by extinction. *Id.* at 441.

Service has understood at all times that its duties under NFMA and ESA are concurrent."112

The *Seattle Audubon Society* court also framed the controversy as pitting the spotted owl against timber communities and minimized the decision's effects on the latter. In finding an irreparable harm, the court found that "[t]he logging of 66,000 acres of owl habitat, in the absence of a conservation plan, would itself constitute a form of irreparable harm" because "[n]o amount of money can replace the environmental loss" of losing old-growth forests. 113 On the other side of the ledger, the court downplayed the injunction's social and economic impacts, finding that because of other economic factors, "[j]ob losses in the wood products industry w[ould] continue regardless of whether the northern spotted owl [wa]s protected" and pointing to state dislocation and retraining programs as mitigating factors. 114 Judicial endorsement of the owls-versus-loggers narrative solidified the zero-sum framing of spotted owl conservation.

BLM inserted itself into the increasingly socially fraught issue of spotted owl conservation in September 1990 by issuing management guidelines for spotted owl conservation without first submitting the guidelines to FWS for consultation as required under the ESA.¹¹⁵ The guidelines came to be known the Jamison Strategy after BLM's director under President George H.W. Bush, Cy Jamison.¹¹⁶ The strategy was part of the Bush administration's effort to minimize the economic impact of protecting the owl,¹¹⁷ which came at the expense of actually protecting it and other old-growth-dependent species: the strategy later scored low or medium-low ratings on four of five biological criteria used to inform later management.¹¹⁸

After environmentalists succeeded in enjoining the Forest Service from permitting timber sales in *Seattle Audubon Society* and in light of the procedurally flawed Jamison Strategy, lawsuits targeted BLM next. In *Lane County Audubon Society v. Jamison*, the District Court for the District of Oregon determined BLM violated section 7 of the ESA by failing to consult with FWS on its final action of the Jamison Strategy. 119 However, the district court decided to not enjoin timber sales for 1991 because the sales were made under existing timber management plans rather than the Jamison Strategy. 120 The Ninth Circuit partially upheld the district court's ruling but decided 1991 sales should also be

^{112.} Seattle Audubon Soc'y, 771 F.Supp. at 1086.

^{113.} Id. at 1093.

^{114.} Id. at 1095.

^{115.} Lane Cnty. Audubon Soc'y v. Jamison, 958 F.2d 290, 291–92 (9th Cir. 1992).

^{116.} Thomas & Ruggiero, supra note 1, at 36.

^{117.} Swedlow, supra note 98, at 264.

^{118.} FOREST SERV. & BUREAU OF LAND MGMT., RECORD OF DECISION FOR AMENDMENTS TO FOREST SERVICE AND BUREAU OF LAND MANAGEMENT PLANNING DOCUMENTS WITHIN THE RANGE OF THE NORTHERN SPOTTED OWL 18 (1994).

^{119.} Lane Cnty. Audubon Soc'y v. Jamison, No. 91-6123-JO, 1991 WL 354885, at 2 (D. Or. Sept. 11, 1991).

^{120.} *Id.* at 2–3.

enjoined because they were also final actions requiring FWS consultation, which BLM failed to seek.¹²¹

BLM also came under fire under NEPA. In *Portland Audubon Society v. Lujan*, the District Court for the District of Oregon decided that BLM violated NEPA by concluding that new information about the effects of logging on the spotted owl did not warrant a supplemental environmental impact statement. ¹²² Similar to the Western District of Washington's injunction for the Forest Service in *Seattle Audubon Society*, the District of Oregon enjoined BLM from allowing logging operations in suitable habitat for the spotted owl or that "may affect" the northern spotted owl until it submitted a supplemental environmental impact statement focused on spotted owls. ¹²³

While spotted owls were in the spotlight, the Clinton administration organized a forest summit in 1993 to bring together environmentalists and members of the timber industry, 124 predominantly higher-level industry leaders. 125 After the summit, President Clinton's Forest Ecosystem Management Assessment Team produced the NWFP, which aimed to manage old-growth forest on a landscape scale while maintaining timber harvest. 126 The plan covered more than twenty-four million acres of federal land and attempted to protect the temperate rainforest ecosystem as whole, including its old-growth forests, wildlife, and watersheds. 127 Although it was not the outcome either the timber industry or conservationists sought and although it no longer controls most BLM lands after the agency revised its RMP in 2016, the compromise solution of the NWFP has had considerable staying power. 128

The twists and turns of spotted owl management in the 1990s cemented the narrative that full conservation of the species was mutually exclusive with the economic lifeblood of small timber communities the owls lived alongside. After the NWFP was adopted and the Forest Service and BLM incorporated spotted owl data into their timber plans, popular attention on the tensions between spotted owl conservation and timber decreased to a simmer.

^{121.} Lane Cnty. Audubon Soc'y, 958 F.2d at 295.

^{122.} Portland Audubon Soc'y, 795 F. Supp. at 1507 (D. Or. 1992).

^{123.} Id. at 1510-11.

^{124.} Timothy Egan, Clinton, Planning Forest Conference, Hopes to Free Logjam in Northwest, N.Y. TIMES (Mar. 27, 1993).

¹²⁵. See BEDA, supra note 23, at 218-19 (noting the "complete absence of timber workers in the NWFP drafting process").

^{126.} Jack Ward Thomas et al., *The Northwest Forest Plan: Origins, Components, Implementation Experience, and Suggestions for Change*, 20 CONSERVATION BIOLOGY 277, 280 (2006); *see also* FOREST SERV. & BUREAU OF LAND MGMT., *supra* note 118.

^{127.} Michael C. Blumm et al., *The World's Largest Ecosystem Management Plan: The Northwest Forest Plan after a Quarter-Century*, 52 ENV'T. L. 151, 153–54 (2022).

^{128.} Id. at 210.

B. Present-Day Spotted Owl and Timber Community Status

Despite the increased awareness and improved management practices that the debates of the 1990s provided, the spotted owl is not thriving. The species is still listed as threatened, although it meets the criteria for endangered status. 129 In 2020, FWS found that the spotted owl warranted reclassification to endangered, but the reclassification was precluded by higher-priority ESA listings. 130 Monitoring data backs the warranted-but-precluded finding. A 2021 study found that spotted owl populations have been declining by 6 to 9 percent per year in six demographic study areas and by 2 to 5 percent annually in five other study areas. 131 In 2017, the study found that populations were at or below 35 percent of 1995 levels in seven study areas and at or below 50 percent of historical levels in three other study areas. 132

The spotted owl now faces new threats in addition to habitat loss. Since the spotted owl was listed in 1990, the barred owl, an invasive competitor, has emerged as a new threat because it competes with the spotted owl for food and habitat and sometimes attacks spotted owls. The barred owl historically was widespread in eastern North America, but it has gradually moved west to British Columbia and down the West Coast to California. Barred owls have overtaken habitat loss as the stressor with the largest negative impact on spotted owls. 135

In an effort to stem the spotted owl's population decline, FWS conducted an experiment to lethally remove barred owls from northern spotted owl habitat, ¹³⁶ which showed that removal benefitted the threatened species. ¹³⁷ To help carry out the experiment, FWS issued enhancement of survival permits to and entered into SHAs with non-federal landowners. ¹³⁸ The Ninth Circuit in *Friends of Animals v. U.S. Fish and Wildlife Service* upheld the permits and SHAs, determining that the informational benefit of knowing how barred owl removal affects spotted owls came within the scope of "net conservation benefit"

^{129.} Northern Spotted Owl (Strix occidentalis caurina), U.S. FISH & WILDLIFE SERV. ENV'T CONSERVATION ONLINE SERV., May 20, 2021, https://ecos.fws.gov/ecp/species/1123 (last visited Sept. 25, 2022); Endangered and Threatened Wildlife and Plants; 12-Month Finding for the Northern Spotted Owl, 85 Fed. Reg. 81144, 81144 (Dec. 15, 2020).

^{130.} Id. at 81144.

^{131.} Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Northern Spotted Owl, 86 Fed. Reg. 62606, 62607 (Nov. 10, 2021).

^{132.} Id.

^{133.} Friends of Animals v. U.S. Fish & Wildlife Serv., 28 F.4th 19, 23 (9th Cir. 2022).

^{134.} Notice of Intent to Prepare an Environmental Impact Statement Related to Experimental Removal of Barred Owls for the Conservation Benefit of Threatened Northern Spotted Owls, 74 Fed. Reg. 65546, 65546 (Dec. 10, 2009).

^{135. 86} Fed. Reg. 62606, *supra* note 131, at 62607.

^{136.} *See* Experimental Removal of Barred Owls to Benefit Threatened Northern Spotted Owls; Final Environmental Impact Statement, 78 Fed. Reg. 44588 (July 24, 2013).

^{137.} Barred Owl Management, U.S. FISH & WILDLIFE SERV., https://www.fws.gov/project/barred-owl-management (last visited Sept. 25, 2022).

^{138.} Friends of Animals v. U.S. Fish & Wildlife Serv., 28 F.4th 19, 26 (9th Cir. 2022).

required to issue an enhancement of survival permit.¹³⁹ FWS now plans to implement a broader barred owl removal strategy to prop up spotted owl populations.¹⁴⁰

Timber communities in western Oregon, including in Lane County, are in a similarly precarious situation. Congress let the SRS funding associated with O&C lands lapse in 2014, leaving O&C counties for a brief period with significantly less funding to compensate for the lack of property taxes on O&C lands. While the funding has since been renewed, O&C counties' reliance on SRS appropriations because of low revenues from timber harvests is an "interim solution" that puts county budgets at the whims of Congress. 142

IV. COOPERATIVE MANAGEMENT STRATEGIES FOR THE SPOTTED OWL IN WESTERN LANE COUNTY

Modern-day spotted owl management in western Lane County appears to have learned from the top-down management pitfalls of the 1990s and more meaningfully involves private landowners. Both federal and state land management agencies are working with private landowners in the county to chart a path forward on spotted owl management, representing an important and needed salve to the tensions of the timber war years.

A. Federal Agency Management Strategies

FWS and the Forest Service have worked to engage local community members in western Lane County to protect the spotted owl. As detailed below, FWS has done so primarily through direct engagement with private landowners in the form of SHAs, some of which are supercharged with funding from the U.S. Department of Agriculture (USDA). For its part, the Forest Service has engaged in stakeholder consultation to inform programs in the Siuslaw National Forest.

1. FWS Cooperative Management Measures

FWS has pursued SHAs to further spotted owl conservation in western Lane County, including through an innovative program in partnership with the Oregon Department of Forestry (ODF) and the USDA's Natural Resources Conservation Service (NRCS). As part of the barred owl removal experiment, FWS also convened a stakeholder group to increase buy-in from private landowners and other interested parties.

With the blessing of FWS and its federal and state partners, small landowners throughout Oregon have entered into SHAs to promote conservation

^{139.} Id. at 29.

^{140.} Barred Owl Management, supra note 137.

^{141.} Joseph E. Taylor et al., *Oregon & California Railroad Land Grant Payments*, THE SPATIAL HIST. PROJECT, http://web.stanford.edu/group/spatialhistory/FollowTheMoney//pages/O_C.html.

^{142.} Id.

and avoid liability for incidental take of spotted owls while also receiving financial assistance. To enable this program, FWS entered into an SHA with ODF and NRCS in 2010 that authorized ODF to extend the SHA's incidental take coverage by issuing certificates of inclusion to eligible landowners. ¹⁴³ The agreement intended to streamline related programs from the participating agencies: ODF's Stewardship Agreement Program, which provides incentives for conservation; NRCS's Healthy Forest Reserve Program (HFRP), which discounts conservation practices and reimburses landowners; and FWS's programmatic SHAs. ¹⁴⁴ Four landowners in western Lane County participate in the program. ¹⁴⁵ Unlike standalone SHAs issued by FWS, SHAs in the joint ODF-NRCS-FWS program come with funding to compensate landowners for up to the full value of their conservation easement and 100 percent of the average cost of approved conservation practices. ¹⁴⁶

In contrast to the jointly issued SHAs, SHAs with landowners in Lane County were intended to facilitate the barred owl removal experiment. 147 Two of the SHAs for the barred owl experiment were with timber companies—Roseburg Resources Company and Oxbow Timber, which operated under one SHA, 148 as well as Weyerhaeuser 149—and the third was with the ODF. 150 The agreements allowed FWS to access the non-federal property owners' land and roads for removing barred owls and committed the landowners to maintaining spotting owl nesting habitat in exchange for an enhancement of survival permit authorizing incidental take of spotted owls in areas the owls did not occupy at the start of the experiment. 151

^{143.} U.S. FISH & WILDLIFE SERV., PROGRAMMATIC SAFE HARBOR AGREEMENT FOR THE N. SPOTTED OWL BETWEEN U.S. FISH AND WILDLIFE SERV., OREGON DEP'T OF FORESTRY, AND USDA NATURAL RES. CONSERVATION SERV. 1–2 (2010).

^{144.} *Id*.

^{145.} Virtual Interview with Annie Marion, Dist. Conservationist, USDA-NRCS Waldport Field Off. (Nov. 16, 2022).

^{146.} Programmatic Safe Harbor Agreement for the Northern Spotted Owl Between U.S. Fish and Wildlife Serv., Oregon Dep't of Forestry, and USDA Natural Res. Conservation Serv., supra note 143, at 1.

^{147.} See First Amended Complaint, Friends of Animals v. Fish & Wildlife Serv., 2018 WL 11241375, No. 6:17-cv-00860-AA (D. Or. Mar. 27, 2018).

^{148.} Proposed Draft Safe Harbor Agreement for the Northern Spotted Owl and Draft Env't Assessment, Roseburg Resources Company and Oxbow Timber I, LLC, Lane County, OR, 80 Fed. Reg. 67779 (Dec. 3, 2015); *see also* Friends of Animals v. U.S. Fish & Wildlife Serv., 28 F.4th at 26 n.3 ("After FWS issued the permits, Roseburg acquired Oxbow. Because of this acquisition, there are now only three permits for the Oregon Coast Ranges study area that are being challenged (Roseburg-Oxbow, Weyerhaeuser, and Oregon).").

^{149.} Proposed Weyerhaeuser Company Safe Harbor Agreement for the Northern Spotted Owl and Draft Env't Assessment, 81 Fed. Reg. 8739 (Mar. 23, 2016).

^{150.} Oregon Dep't of Forestry; Proposed Safe Harbor Agreement for the Northern Spotted Owl and Draft Env't Assessment, 81 Fed. Reg. 15116 (Apr. 20, 2016).

^{151.} U.S. FISH & WILDLIFE SERV., SAFE HARBOR AGREEMENT FOR THE NORTHERN SPOTTED OWL BETWEEN ROSEBURG RESOURCES COMPANY, OXBOW TIMBER I, LLC, AND THE U.S. FISH AND WILDLIFE SERV. IN THE OREGON COAST RANGES STUDY AREA OF THE BARRED OWL REMOVAL EXPERIMENT 24–25 (2016); U.S. FISH & WILDLIFE SERV., SAFE HARBOR AGREEMENT FOR THE NORTHERN SPOTTED OWL

Before issuing SHAs for the barred owl removal experiment, FWS also brought together a stakeholder group of more than forty representatives from different interested groups to provide input on the experiment. ¹⁵² FWS organized the group under the ESA's recovery team provision, which gives the agency flexibility to solicit input without triggering requirements under the Federal Advisory Committee Act. ¹⁵³ The stakeholder group had a broad range of perspectives from government agencies, the forest product industry, Native American tribes, environmental groups, and animal welfare and protection organizations. ¹⁵⁴ Over the course of several convenings, from presentations to facilitated dialogues to site visits, and under the direction of an environmental ethicist, ¹⁵⁵ the participants considered whether the barred owl removal experiment was ethically justified and whether it could be done humanely. ¹⁵⁶

2. Forest Service Cooperative Management Measures

The Forest Service, like FWS ahead of the barred owl removal experiment, is working in collaboration with stakeholders to solicit input for projects in the Siuslaw National Forest. To inform the NEPA process for its North Fork Smith River restoration project, for instance, the agency is working with the Oregon Central Coast Forest Collaborative.¹⁵⁷ The collaborative was established in 2020 with funding from ODF to enable collaborative engagement across the Siuslaw National Forest.¹⁵⁸ Members are as diverse as American Forest Resource Council representatives; staff from state and local nonprofits Oregon Wild and the Coast Range Association; Forest Service employees; and general community members.¹⁵⁹ For the North Fork project, which includes the objective of restoring habitat for species like the spotted owl that are associated with late-

BETWEEN U.S. FISH AND WILDLIFE SERV. AND WEYERHAEUSER COMPANY IN THE OREGON COAST RANGES STUDY AREA FOR THE BARRED OWL REMOVAL EXPERIMENT 23–24 (2016); U.S. FISH & WILDLIFE SERV., SAFE HARBOR AGREEMENT FOR THE NORTHERN SPOTTED OWL WITH OREGON DEP'T OF FORESTRY IN THE OREGON COAST RANGES STUDY AREA FOR THE BARRED OWL REMOVAL EXPERIMENT 23–24 (2016).

- 152. OR. FISH & WILDLIFE OFF., U.S. FISH & WILDLIFE SERV., EXPERIMENTAL REMOVAL OF BARRED OWLS TO BENEFIT THREATENED NORTHERN SPOTTED OWLS FINAL ENVIRONMENTAL IMPACT STATEMENT 188 (2013).
 - 153. See 16 U.S.C. § 1533(f)(2).
 - 154. OR. FISH & WILDLIFE OFF., supra note 152, at 188.
 - 155. Id.
 - 156. Oregon Dep't of Forestry, supra note 150, at 189.
- 157. E-mail from Kailey Guerrant, Acting District Ranger, Cent. Coast Ranger Dist., Siuslaw Nat'l Forest, to author (Dec. 12, 2022, 11:08 AM PST); *Oregon Central Coast Forest Collaborative: Current Projects*, CASCADE PAC., https://cascadepacific.org/?page_id=1377 (last visited Dec. 16, 2022).
- 158. Oregon Central Coast Forest Collaborative, CASCADE PAC., https://cascadepacific.org/?page_id=808 (last visited Dec. 16, 2022); see also OR. CENT. COAST FOREST COLLABORATIVE, LETTER OF AGREEMENT 1 (2021), https://cascadepacific.org/wp-content/uploads/2022/01/SNF-Letter-of-Agreement-102621-Signed.pdf (indicating that the Siuslaw National Forest agreed to work with the collaborative).
- 159. OR. CENT. COAST FOREST COLLABORATIVE, MEETING MINUTES TO DATE 2022, at 5 (2022), https://cascadepacific.org/wp-content/uploads/2022/09/OCCFC-Meeting-Minutes-todate-2022.pdf.

successional and old-growth forests, ¹⁶⁰ the collaborative aims to find common ground among its members. ¹⁶¹

B. Oregon Stakeholder Engagement in Forestry Management

Oregon's Private Forest Accord, published in 2022, does not focus on the spotted owl but is an example of a cooperative agreement at the junction of conservation and forestry. The accord came out of twelve large forest sector companies, Oregon's largest small woodlands organization, and conservation and fishing groups coming together to resolve their disagreements over voter initiatives regarding timber and salmonid conservation. The legislature passed three bills focused on aerial pesticide application, a science-informed policy development process, and salmon, steelhead, and bull trout stream rules because of the accord. As the accord explains, the agreement is a compromise among groups weary of fighting with each other. The accord attempts to balance business, environmental, and regulatory certainty while creating a science-driven adaptive management process and providing alternatives for small forestland owners. The accordance of the specific process and providing alternatives for small forestland owners.

V. RECOMMENDATIONS FOR FUTURE MANAGEMENT

Drawing from federal and state management in spotted owl conservation and beyond, several characteristics of successful management strategies emerge: stakeholder engagement, funding, regulatory and relational certainty, monitoring, and changing the narrative.

A. Stakeholder Engagement

To begin, federal agencies could consider following the examples of the NWFP, the Oregon Private Forest Accord, and the stakeholder group for FWS's barred owl experiment to bring together stakeholders early in the process. Stakeholder engagement processes should emphasize working with small landowners, not just large timber companies.

To make spotted owl conservation more palatable, stakeholders should be involved in the management decision-making process as early as possible and at least as soon as there are signs of conflict. Timber industry stakeholders should not be limited to large companies, as opposed to timber workers and small

^{160.} IAIN EMMONS & MYCAH SCOGGINS, U.S. FOREST SERV., NORTH FORK SMITH RIVER RESTORATION PROJECT: WILDLIFE 5 (2022), https://usfs-public.app.box.com/v/PinyonPublic/file/1022632832236.

^{161.} Oregon Central Coast Forest Collaborative: Current Projects, supra note 157.

 $^{162. \}quad PRIVATE \quad FOREST \quad ACCORD \quad REPORT \quad 2022, \quad at \quad 4 \quad (2022), \quad https://www.oregon.gov/odf/aboutodf/documents/2022-odf-private-forest-accord-report.pdf.$

^{163.} Id. at 4, 9.

^{164.} *Id.* at 4.

^{165.} *Id.* at 6–7.

woodlands owners, as they were in the NWFP process. 166 In contrast to "the complete absence of timber workers in the NWFP drafting process,"167 future stakeholder engagement processes should proactively include small woodlands owners. The multi-party involvement in the Private Forest Accord, while an improvement on the NWFP, is also imperfect. By having representatives from twelve large timber companies and only one from the small woodlands owner association, 168 the accord gave the views of corporations more weight than those of local landowners. 169 Limiting small woodlands owner participation has had on-the-ground impacts: ahead of the accord going into effect, members of the western Lane County timber community heard of landowners preemptively cutting down trees that the accord would soon make off limits because the landowners felt inadequately consulted or compensated by the accord process.¹⁷⁰ Moreover, the accord negotiations framed the stakeholder groups as two opposing teams, one pro-timber and one pro-environment, which left out small landowner stakeholders who do not believe in the zero-sum timber versus environment dichotomy.¹⁷¹

Also notably absent from the Private Forest Accord negotiations are Native American tribes. 172 Tribes' absence in the negotiations is particularly salient in the western Lane County context because the western portion of the county is on the ancestral homelands of the Confederated Tribes of Coos, Lower Umpqua, & Siuslaw Indians. 173 The Tribes have expressed interest in managing the Elliott State Forest, a state-owned forest in Coos County that is in transition to becoming a research forest. 174 Because the Tribes have lived with their ancestral homelands since time immemorial and have the traditional ecological knowledge to steward

^{166.} BEDA, *supra* note 23, at 218–19 (noting that the NWFP was a compromise reflecting "the growing political and legal power of the environmental movement, the waning economic power of the timber industry, and, ultimately, the increasing silence of working people in forest-management decisions").

^{167.} *Id*.

^{168.} PRIVATE FOREST ACCORD REPORT, supra note 162, at 4.

^{169.} See Timber Wars – How Helpful?, HYLA WOODS BLOG, https://hylawoods.com/timber-wars-how-helpful.

^{170.} Phone Interview with Lane Cnty. Small Landowner and HFRP SHA Participant (Nov. 29, 2022); Virtual Interview with Annie Marion, *supra* note 145.

^{171.} Phone Interview with Peter Hayes, President, Hyla Woods, and Washington Cnty. SHA Participant (Dec. 1, 2022).

¹⁷². The 1993 forest summit, in contrast, included tribal leaders. Blumm et al. supra note 127, at 169.

^{173.} *History*, Confederated Tribes of Coos, Lower Umpqua & Siuslaw Indians, https://ctclusi.org/history/ (last visited Sept. 25, 2022).

^{174.} Clayton Franke, *The Elliott's Potentially Peaceful Future*, EUGENE WEEKLY, Feb. 24, 2022, https://eugeneweekly.com/2022/02/24/the-elliotts-potentially-peaceful-future/ (""We have a really strong interest in the Elliott,' says Colin Beck, forest lands manager for the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Indians. 'It's right in the middle of our ancestral territories. We still have many of our tribal members who use the Elliott on a regular basis.'").

the land,¹⁷⁵ the Tribes should at minimum be consulted regarding management measures for Lane County forestlands as they are with respect to the Elliott State Forest. While an incomplete recognition of the Tribes' relationship to what is now western Lane County, consultation would be a valuable first step towards rematriating tribal land and devolving management to the Tribes.¹⁷⁶ Oregon has already restored other ancestral lands to Tribes in western Oregon,¹⁷⁷ indicating that land rematriation is feasible. Moreover, forestlands under tribal management largely resemble those government management and serve similar goals: tribally owned lands are used for timber production and conservation, as well as "goods and material gathering" and "other uses tied to culture and history."¹⁷⁸

Because of their limited representation of interest groups and adversarial framing, the stakeholder consultations in developing the NWFP and Private Forest Accord, while better than no engagement at all, fell short in including local stakeholder groups.

The stakeholder group convened ahead of the barred owl removal experiment provides a better model for stakeholder consultation. First, FWS assembled the group using its existing statutory authority in the ESA. 179 Second, the group's wide array of participants made it more representative of the parties with an interest in the topic. 180 Moreover, the group's charge of surfacing findings rather than negotiating a management solution allowed the participants to find common ground. 181 Lastly, although FWS convened the stakeholder group for the purpose of the barred owl removal experiment, 182 the results of the survey can help inform future spotted owl management measures beyond the removal experiment, 183 extending the utility of the exercise. By involving a broad swath of different interests in a non-adversarial posture, the barred owl stakeholder group serves as a valuable model for future stakeholder engagement.

^{175.} *See* Letter from Debbie Bossley, Confederated Tribes of Coos, Lower Umpqua, & Siuslaw Indians Tribal Council Chair, to Members of the Oregon Legislature (Jan. 28, 2022), https://olis.oregonlegislature.gov/liz/2022R1/Downloads/CommitteeMeetingDocument/251779.

^{176.} See Dep't of Natural Res. and Culture, CONFEDERATED TRIBES OF COOS, LOWER UMPQUA, AND SIUSLAW INDIANS, https://ctclusi.org/department-of-natural-resources-culture/ (naming return of tribal lands as the first goal of the Tribes' department of natural resources).

^{178.} *Id.* at 20–21.

^{179.} OR. FISH & WILDLIFE OFF., U.S. FISH & WILDLIFE SERV., supra note 152, at 188; 16 U.S.C. § 1533(f)(2).

^{180.} See id.

^{181.} See William S. Lynn, Bringing Ethics to Wild Lives: Shaping Public Policy for Barred and Northern Spotted Owls, 26 SOC'Y & ANIMALS 217, 228 (describing the ethicist facilitator's process for articulating findings based on the sense of the meeting).

^{182.} OR. FISH & WILDLIFE OFF., U.S. FISH & WILDLIFE SERV., EXPERIMENTAL REMOVAL OF BARRED OWLS TO BENEFIT THREATENED NORTHERN SPOTTED OWLS FINAL ENVIRONMENTAL IMPACT STATEMENT 188 (2013).

^{183.} Virtual Interview with Fish and Wildlife Biologist, FWS (Dec. 5, 2022).

B. Funding for Land Management Agencies, Private Landowners, and Counties

Stakeholder engagement and other best management practices, while crucial, are often a substantial undertaking. President Clinton, Vice-President Al Gore, and other cabinet-level officials, in addition to the local stakeholders, attended the full-day forest summit in 1993, making the magnitude of the event "unprecedented" relative to the local nature of the issue. 184 Similarly, the Private Forest Accord in 2022 was facilitated by Oregon Governor Kate Brown and required time from the governor's staff and hired mediators. 185 The barred owl stakeholder group, while more modest in attendee stature, entailed over the course of six months an informational webinar, a multi-day ethics workshop, a series of conference calls, and a field trip to see spotted and barred owls. 186 Likewise, the Oregon Central Coast Forest Collaborative that works with the Siuslaw National Forest came about because of state funding. 187 All four stakeholder engagement processes required investments of significant time and funding, highlighting the importance of allocating money to land management agencies and their partners to enable consultation with interested parties.

Funding is a throughline in private landowner participation in cooperative spotted owl management as well. The funding for the HFRP SHAs has been a significant incentive for landowners to participate because it can help minimize the financial uncertainty that small working forest landowners face. ¹⁸⁸ Because the HFRP was reauthorized by the 2018 Farm Bill but not appropriated more money, ¹⁸⁹ there is unmet demand for the program as interested landowners wait for federal funding. ¹⁹⁰ Conservation-minded landowners can enter into ODF's SHA without the accompanying HFRP funding, but they are the exception. ¹⁹¹ To encourage participation in SHAs, federal agencies should provide financial incentives to participating landowners.

Another way funding must factor into management decisions is with respect to county budgets. Examples from federal and state forest management illustrate the importance of accounting for county funding. In 2015, the Lane County

^{184.} Blumm et al. *supra* note 127, at 168–69.

^{185.} PRIVATE FOREST ACCORD REPORT, *supra* note 162, at 6.

^{186.} Lynn, *supra* note 181, at 224–25.

^{187.} Oregon Central Coast Forest Collaborative, CASCADE PAC., https://cascadepacific.org/?page_id=808 (last visited Dec. 16, 2022).

^{188.} Phone Interview with Lane Cnty. Small Landowner and HFRP SHA Participant, *supra* note 170.

^{189.} Compare Food, Conservation, and Energy Act of 2008, Pub. L. 110-246 \$ 8205(b) (2008) (allocating \$9,750,000 for financial years 2009 to 2012), and Agricultural Act of 2014, H.R. 2642 \$ 8203(b) (2014) (authorizing \$12,000,000 for each fiscal year 2014 through 2018), with Agricultural Improvement Act of 2018, H.R. 2 \$ 8407(a)(8) (2018) (extending the end date for the previous Farm Bill's appropriated funds to 2023).

^{190.} Virtual Interview with Annie Marion, supra note 145.

^{191.} Virtual Interview with Jennifer Weikel, Wildlife Biologist, Forest Res. Div., ODF (Nov. 29, 2022).

Board of Commissioners opposed BLM's RMP, specifically claiming that it would not allow enough timber harvest to keep up O&C lands payments. 192 In a draft letter to BLM,193 the board took issue with the agency's "lack of analysis of unincorporated communities in favor of cities," claiming it showed "a callous and remarkable disregard for the cultural realities of western Oregon."194 The board's draft letter additionally pointed out the financial shortfall the county could face without more O&C funds. To drive the financial argument home, the draft letter highlighted levies and fees imposed on Lane County residents to make up for the decline in harvests from O&C and Forest Service lands. 195 In the context of state forest management, Lane County in 2016 joined a coalition of other Oregon counties in suing the state for not maximizing revenue from state forestlands. 196 The counties lost on appeal, 197 but Lane County's participation shows that state timber revenues remain an important concern for the county, even for a county where the state owns only two percent of forestland. 198 In future management decisions, federal agencies should take into account impacts on county budgets.

C. Regulatory and Relational Certainty

Another element of successful cooperative management is easing landowner concerns about what ESA-related restrictions will apply to their property and how agency staff will respond to changes on the ground. In addition to the financial incentives the HFRP offers, SHAs are attractive to landowners because they limit landowner liability for incidental take that occurs while they carry out agreed-upon conservation measures. 199 One western Lane County landowner who participates in the HFRP SHA program said that "[i]f an owl moved on the property today, without the safe harbor I might be dead in the water for anything in the future." 200 The landowner called the SHA "an insurance

^{192.} Alex Cuyler, Memorandum, Lane County Bd. of Comm'rs, at 10, (Aug. 7, 2015), https://cdn5-hosted.civiclive.com/UserFiles/Servers/Server_3585797/File/Government/BCC/2015/2015_AGENDAS /081815agenda/T.8.C.pdf.

^{193.} *See* Agenda, Lane Cnty. Bd. Of Comm'rs (Aug. 18, 2015), https://cdn5-hosted.civiclive.com/UserFiles/Servers/Server_3585797/File/Government/BCC/2015/2015_AGENDAS /081815agenda/08-18_19-15viewagenda.pdf.

^{194.} Cuyler, supra note 192, at 3.

^{195.} *Id*.

^{196.} County of Linn v. State, 319 Or. App. 288, 296–97 (Or. Ct. App. 2022); Mike McNally, *Lawsuit on State's Management of Forestland Moves to Oregon Supreme Court*, OR. CAP. CHRON. (July 13, 2022), https://oregoncapitalchronicle.com/2022/07/13/lawsuit-on-states-management-of-forestland-moves-to-oregon-supreme-court/.

^{197.} County of Linn v. State at 318.

^{198.} See Lane County, OR. FOREST RES. INST., supra note 28.

^{199.} See Bork, supra note 43, at 202.

^{200.} Eric Mortenson, *Owl Oversight Expands Range*, THE OREGONIAN, Sept. 10, 2010, https://infoweb-newsbank-com.libproxy.berkeley.edu/apps/news/document-view?p=AWNB&t=&sort=YMD_date% 3AD&fld-base-0=alltext&maxresults=20&val-base-0=% 22safe% 20harbor% 20agreement% 22% 20% 22lane% 20county% 22&docref=news/1322C9297661D060.

policy" against future political and ecological changes.²⁰¹ Given the severe penalties for ESA violations,²⁰² offering this regulatory certainty is a strong asset.

Through interacting one on one, HFRP participants and agency staff can also develop mutually beneficial working relationships that enhance relational certainty.²⁰³ Development of the SHAs for the barred owl removal experiment, for example, helped in building trust and cooperation between FWS and private landowners.²⁰⁴ Similarly, because participation in the HFRP SHA program is so individualized and site-specific, these working relationships afford landowners and agency staff flexibility to adjust program requirements as required by the circumstances, like in the wake of an ice storm in 2016 that severely damaged trees.²⁰⁵ Drawing from the examples of the barred owl and HFRP SHAs, increasing regulatory and relational certainty in the face of unpredictable species changes should be an important element of future management.

D. Monitoring

The certainty that SHAs and working relationships can provide stands in stark contrast to the unknowns of future spotted owl population dynamics. However, there are opportunities for cooperation between federal agencies and private landowners in monitoring spotted owls.

Public-private cooperation to track spotted owls can fit into existing monitoring efforts. Long-term ecological monitoring of the northern spotted owl on federal lands has taken place since the NWFP in 1994.²⁰⁶ Historically, the monitoring entailed marking and recapturing individual owls on a set of eight study areas.²⁰⁷ Because of technological advances and declining spotted owl populations making mark-and-recapture less statistically robust, the Forest Service is now moving to passive bioacoustic monitoring,²⁰⁸ which uses artificial intelligence to identify owls based on their vocalizations. The new monitoring technique is scalable because autonomous recording units can be installed

^{201.} *Id*.

^{202.} See 16 U.S.C. § 1540(a)(1).

^{203.} See Jennifer A. Theiss & Mary E. Nagy, Actor-Partner Effects in the Associations Between Relationship Characteristics and Reactions to Marital Sexual Intimacy, 27 J. Soc. & PERS. RELATIONSHIPS 1089, 1091 (defining relational uncertainty as "people's confidence in their perceptions of a relationship").

^{204.} Virtual Interview with Fish and Wildlife Biologist, *supra* note 183.

^{205.} Phone Interview with Lane Cnty. Small Landowner and HFRP SHA Participant, *supra* note 170.

^{206.} FOREST SERV. & BUREAU OF LAND MGMT., STANDARDS AND GUIDELINES FOR MANAGEMENT OF HABITAT FOR LATE-SUCCESSIONAL AND OLD-GROWTH FOREST RELATED SPECIES WITHIN THE RANGE OF THE NORTHERN SPOTTED OWL E-10 (1994).

^{207.} Damon Lesmeister & Ray Davis, Bioacoustics and Artificial Intelligence: A New Chapter for Northern Spotted Owl Monitoring and Research, 245 U.S. FOREST SERV. PAC. NW. RSCH. STATION SCI. FINDINGS 2 (2022); Alan B. Franklin et al., Range-Wide Declines of Northern Spotted Owl Populations in the Pacific Northwest: A Meta-Analysis, 259 Bio. Conservation 109168 (2021).

^{208.} Id.

anywhere throughout the spotted owl's range and feed data into the Forest Service's monitoring program.²⁰⁹ The Hoopa Valley Tribe, which participated in the traditional mark-and-recapture monitoring, and state partners are already working with the Forest Service to roll out the passive bioacoustics program in 2023.²¹⁰

Interested private landowners in the spotted owl's range could similarly opt in to monitoring, potentially in exchange for financial or regulatory certainty incentives. While private landowners are not statutorily required to monitor species on their property, the Forest Service has authority under NFMA to conduct research in cooperation with private landowners.²¹¹ Not all landowners may be interested, but there is precedent for small landowners wanting to engage with monitoring efforts. A SHA participant in Washington County in northwest Oregon, for instance, sees his working forestland as an experimental forest.²¹² In collaboration with Portland Audubon, local universities, ODF, and other partners, the landowner monitors for birds, amphibians, and invertebrates.²¹³ Given the lower commitment of installing autonomous monitoring units as compared to conducting surveys by hand, similarly minded landowners in western Lane County could be open to participating in the bioacoustic monitoring program.

Increased monitoring is particularly important because of the growing threats to the spotted owl and the historical study areas' limited scale. The barred owl's progressive occupation of spotted owl territory farther and farther south is a threat "of crisis proportions" with resulting spotted owl declines that "warrant serious concern." Knowing where remaining spotted owls are, especially on lands beyond the historical study areas that may paint too rosy a picture of spotted owl populations, is imperative for future management. Impacts from climate change also affect spotted owl reproduction. As Lane County experiences larger and more frequent wildfires, wildlife managers must be aware of where spotted owls are and how their populations are changing.

^{209.} Virtual Interview with Damon Lesmeister, supra note 32.

^{210.} Id.

^{211. 16} U.S.C. § 1643(c).

^{212.} Phone Interview with Peter Hayes, *supra* note 171.

^{213.} E-mail from Peter Hayes, President, Hyla Woods, and Washington Cnty. SHA Participant, to author (Aug. 11, 2023, 2:26 PM PST).

^{214.} Jeremy T. Rockweit et al., *Range-Wide Sources of Variation in Reproductive Rates of Northern Spotted Owls*, ECOLOGICAL APPLICATIONS 18 (2022); OR. FISH & WILDLIFE OFF., U.S. FISH & WILDLIFE SERV., *supra* note 152, at 189.

^{215.} Virtual Interview with Damon Lesmeister, supra note 32.

^{216.} See Katie M. Dugger, The Northern Spotted Owl: The Conservation History of an Iconic Oregon Species, in As the Condor Soars: Conserving and Restoring Oregon's Birds 138, 143 (Susan M. Haig et al. eds., 2022) (stating that "the legacy of long-term research has provided key information that continues to aid land managers and conservation agencies in designing management actions to ensure the persistence of" the spotted owl).

^{217.} See Marni Koopman, GEOS Inst., Climate Trends Primer: Lane County, Oregon 14 (May 2021), https://climatereadycommunities.org/wp-content/uploads/2021/10/Lane-County-Climate-Trends-Primer.pdf.

Protecting spotted owl habitat, which could accompany monitoring agreements with private landowners, can also bring co-benefits relating to wildfires. Research indicates "northern spotted owl habitat can buffer the negative effects of climate change by enhancing biodiversity and resistance to high-severity fires." Given the threats to the species, federal agencies should consider expanding spotted owl monitoring in collaboration with private landowners. 219

E. Changing the Narrative

A less concrete but still important aspect of future management should be changing the narrative around forestry and spotted owl conservation in the Pacific Northwest. Private landowners who participate in existing cooperative management programs, like the SHA program, tend to value land stewardship and not see conservation and financially viable timber production as mutually exclusive.²²⁰ While not all small forestland owners share that conservationminded ethic, there is reason to believe that the time has come to move beyond the zero-sum mindset.²²¹ For example, a small tree farm in western Lane County that wanted a working forest conservation easement was named Lane County Tree Farmer of the Year in 2010.²²² In the same vein, starting in 2021, a convening called the Northwest Innovative Forestry Summit has brought together forestry professionals to discuss pathways to "improving sustainable forest management through partnerships and problem solving."223 Federal agencies and commentators can encourage transitioning away from a zero-sum ideology and towards conservation and timber working hand in hand by being mindful about framing conservation and forestry as adversaries and refraining from using war metaphors.²²⁴

^{218.} Damon D. Lesmeister et al., *Mixed-Severity Wildfire and Habitat of an Old-Forest Obligate*, 10 ECOSPHERE 1, 1 (Apr. 2019).

^{219.} A public-private partnership to monitor spotted owls, even if adopted, would not be a panacea enabling robustly data-driven spotted owl management. As noted above, not all private landowners are likely to be interested in participating, which would constrain the amount of additional data the program could provide. Adding financial or regulatory benefits to encourage participation could also create perverse incentives for grifting landowners who only agree to participate in order to reap those benefits and do not intend to meaningfully help monitoring.

^{220.} Virtual Interview with Annie Marion, *supra* note 145; Phone Interview with Peter Hayes, *supra* note 171.

^{221.} See, e.g., Timber Wars – How Helpful?, supra note 169.

^{222.} Scottie Barnes, Growing a Legacy, SAWMILL & WOODLOT (2011).

^{223. 2022} Northwest Innovative Forestry Summit, NW. NAT. RES. GRP. 3 (2022).

^{224.} For examples of war metaphors, *see* Timber Wars, *Episode 1: The Land Stand*, *supra* note 4 (framing the entire conflict as the timber wars and calling the conflict's triggering event the "Easter massacre"); Blumm et al., *supra* note 127, at 215 (warning against reigniting the "war in the woods"); Franke, *supra* note 174 (referencing a conservationist's "work fighting old growth timber harvest" and characterizing the Elliott State Forest as "one of the battlegrounds for Oregon's 'timber wars'"); BEDA, *supra* note 23, at 6 (explaining that environmentalists during the timber wars "were cast as the protagonists, valiantly fighting to preserve what remained of the beauty and biodiversity of the Northwest's forests").

Additionally, the economies of communities with roots in the timber industry have changed since the peak of conflict, which should factor into how conservation and timber is framed. Coastal recreation opportunities have changed the nature of the economy in western Lane County, ²²⁵ with the Oregon Dunes National Recreation Area and other coastal attractions bringing in revenue for the area. ²²⁶ In Florence, the hub of Lane County's tourism, more than 1,600 people, or 63 percent of its workforce, live outside of the city. ²²⁷ Although tourism has its drawbacks as a staple of local economies, ²²⁸ tourism-related business helped keep western Lane County afloat throughout the challenging economic conditions of the early COVID-19 pandemic. ²²⁹ When discussing current management challenges, stakeholders should ground their concerns in realities of the current situation, which differ starkly from the 1990s, and not in hackneyed tropes from years past.

CONCLUSION

Western Lane County offers important lessons for spotted owl management and public-private conservation under the ESA and federal land management statutes. Following the white-hot peak of social and litigious conflict between spotted owl conservation and timber in the 1990s, FWS, the Forest Service, and the state of Oregon now work more closely with, rather than in opposition to, private landowners. From these innovative management measures, five key characteristics of strategies that diffuse conservation-timber tensions emerge. First, early and representative stakeholder engagement improves buy-in for conservation. Second, funding for stakeholder consultation, conservation efforts by private landowners, and county government provides incentives for conservation and lessens financial pressures. Third, providing regulatory and relational certainty through limits on liability and one-on-one working relationships is helpful. Fourth, there are opportunities for collaborative monitoring to capitalize on new technologies and make informed management decisions in the face of changing threats in the future. Lastly, encouraging stakeholders—from the timber industry and federal agencies alike—to reframe

^{225.} Virtual Interview with HFRP and SHA Participant in W. Lane Cnty. (Nov. 29, 2022).

^{226.} See Recreation and the Dunes Today, SAVE OR. DUNES, https://www.saveoregondunes.org/learn/the-dunes-today/#thedunestoday (describing the dunes as an "economic driver for local communities").

 $^{227. \}quad Worksource\ Or.\ Emp.\ Dep't,\ Florence\ Fact\ Sheet\ 1\ (2022)\ (on\ file\ with\ author).$

^{228.} See Kai Kronenberg & Matthias Fuchs, Aligning Tourism's Socio-Economic Impact with the United Nations' Sustainable Development Goals, 39 TOURISM MGMT. PERSPS. 9 (2021) (noting seasonality and low incomes as problems with tourism jobs).

^{229.} Dana Sparks, *More Permanent Business Closures in Eugene-Springfield While Florence, Cottage Grove Appear Steady*, EUGENE REG. GUARD, April 26, 2021, https://infoweb-newsbank-com.libproxy.berkeley.edu/apps/news/document-view?p=AWNB&t=&sort=YMD_date%3AD&page=3 &fld-base-0=alltext&maxresults=20&val-base-0=mapleton%20%26%20oregon%20NOT%20sports&docref=news/1821D7D231175E18.

the narrative as one of potential mutual benefit rather than inevitable conflict has the potential to further unlock cooperation. Together, these lessons can help chart a new path for timber and conservation in Lane County and beyond.