COMMENTS

WADING OUT OF THE TILLA-MUCK: REDUCING TIMBER HARVESTS IN THE TILLAMOOK AND CLATSOP STATE FORESTS, AND PROTECTING RURAL TIMBER ECONOMIES THROUGH ECOSYSTEM SERVICE PROGRAMS

BY

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This Comment examines the contentious history of the ORS 530 state lands in the Tillamook and Clatsop State Forests of Oregon's Pacific Coast Range, including an analysis of the lands' unique "greatest permanent value" (GPV) management mandate, the local counties' revenue incentives to harvest aggressively, and the subsequent and ongoing controversy over how to manage them. This Comment proceeds to interpret GPV and posits that the legislature intended environmental values to be co-equal to revenue maximization in the GPV equation. Based on this conclusion, this Comment suggests that environmentalists and the timber industry agree to permanently remove (i.e., decouple) some ecologically important ORS 530 lands from harvesting as a way to effectuate a more balanced GPV. This Comment then models the approximately $6 million/year revenue gap created by such an agreement, including county budget shortfalls in three key counties, timber job impacts, and the impact on statewide public school funding. To combat this gap, a state cash infusion to the counties is proposed—paid back over time by revenue from ecosystem service programs related to watershed protection, CO_2 sequestration, and recreation/aesthetic value monetization. This Comment concludes

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that such programs could more than make up the gap, while moving the counties toward more diversified economies, creating a more resilient forest ecosystem, and possibly curtailing much of the political wrangling that has hampered the ORS 530 forests for decades.

I. INTRODUCTION

As a result of high moisture, moderate temperatures, and low fire frequency, the Tillamook and Clatsop State Forests of the Oregon Pacific Coast Range[1] support a year-long growing season that produces a rich array of animal and plant species.[2] These same conditions also lead to the growth of large trees that are valuable as timber.[3] In many places within the forests, preservation of the biologically unique forest ecosystem cannot coexist with the long-entrenched timber harvesting industry.[4] In the late 1800s and early 1900s, exploitative and often fraudulent timber harvesting (and profiteering) dominated Oregon's economic and political landscape.[5] In an effort to provide a more measured alternative to true timber primacy, the state legislature passed a series of acts in the 1930s and 1940s instructing how to

1 The present-day Tillamook and Clatsop State Forests span the northern part of the Oregon Coast Range, a mountain range between the Portland Metro Area and the Pacific Ocean. TOM MIEWALD, BOB VAN DYK & GORDON REEVES, WILD SALMON CTR., OREGON NORTH COAST SALMON CONSERVATION ASSESSMENT 10 (2008), *available at* http://www.wildsalmoncenter.org/pdf/WSC_OR_NCSalmonAssmnt08.pdf. The Tillamook State Forest—the state's largest forest at 364,000 acres—was created in 1973. The Clatsop State Forest—the state's second largest forest at 154,000 acres—was created in 1937. OR. DEP'T OF FORESTRY, NORTHWEST OREGON STATE FOREST MANAGEMENT PLAN 1–3 (2010), *available at* http://www.oregon.gov/ODF/STATE_FORESTS/docs/management/nwfmp/NWFMP_Revised_April_2010.pdf [hereinafter ODF, FOREST MANAGEMENT PLAN]. These two forests dwarf all other state forests. *See* Or. Dep't of Forestry, *Welcome to Oregon's State Forests*, http://www.oregon.gov/odf/pages/state_forests/state_forests.aspx (last visited Nov. 18, 2012).

2 CTR. FOR BIOLOGICAL DIVERSITY, SPECIES OF CONCERN OF THE TILLAMOOK RAINFOREST & NORTH COAST, OREGON 8 (2009), *available at* http://forestlegacy.org.s57429.gridserver.com/wp-content/uploads/2012/08/Center-for-Biological-Diversity-report-on-North-Coast-Species-of-Concern.pdf; *see also* ODF, FOREST MANAGEMENT PLAN, *supra* note 1, at 1–4 ("Annual rainfall ranges from 45 to 100 inches . . . This area is dominated by forests of Douglas-fir, western hemlock, and western red cedar, with Sitka spruce in a narrow coastal strip.").

3 ODF, FOREST MANAGEMENT PLAN, *supra* note 1, at 1–4.

4 PAUL LEVESQUE, THE PURPOSE OF STATE FOREST TRUST LANDS AND THE INTEREST OF TRUST LAND COUNTIES 5–6 (2006), *available at* http://www.oregon.gov/odf/board/docs/bof_b3_010307.pdf; *see* CTR. FOR BIOLOGICAL DIVERSITY, *supra* note 2, at 8.

5 In the 1890s, the Great Lakes timber industry began to exhaust its supply of timber. Deborah Scott & Susan Jane M. Brown, *The Oregon and California Lands Act: Revisiting the Concept of "Dominant Use"*, 21 J. ENVTL. L. & LITIG. 259, 264 (2006). Consequently, much of the nation's timber industry moved from the Midwest to the Northwest. *See* David M. Ellis, *The Oregon and California Railroad Land Grant, 1866–1945*, 39 PAC. NORTHWEST Q. 253, 261 (1948). During the first two decades of the Twentieth Century, Oregon was enmeshed in a major public land fraud scandal driven by illegal sales of timber-rich land and speculation which eventually led to the indictment of over a thousand people, including both of Oregon's U.S. Senators, a U.S. Congressman from Oregon, a U.S. District Attorney from Oregon, a GLO Commissioner, several Oregon State Senators and Assistant Attorneys, and countless other businessmen and officials in the state. Michael C. Blumm & Tim Wigington, *The Oregon and California Railroad Grant Lands' Sordid Past, Contentious Present, and Uncertain Future: A Century of Conflict*, 40 B.C. ENVTL. AFF. L. REV. (forthcoming 2013) (manuscript at 12), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2039155. Further, the Southern Pacific Railroad lost nearly three million acres of federal land granted to its successor in the 1860s due to illegal sales and the all-in timber mentality pervading the era. Or. & Cal. R.R. Co. v. United States, 238 U.S. 393, 396, 438–39 (1915).

manage forestland acquired by the state in a more multi-faceted way.[6] As a result of this legislation, the counties that primarily house these state forests—Clatsop, Tillamook, and Washington Counties, hereafter referred to as the "counties"[7]—have relied on harvests to support their local budgets and thus have a vested interest in keeping harvests high.[8] Because of this interest, the counties have effectively lobbied the state to favor timber-centric management of these state forest units.[9] However, management that consistently allows for high harvest levels is not ecologically sustainable, and may not comply with Oregon's legal standards. As such, a change of course that monetizes non-timber values and creates proper management incentivizes is necessary.

This preference for timber-centric management of state forests dates back to Oregon's pioneer days, and is thus deeply ingrained in the region's conscience. Although timber harvesting in the Pacific Coast Range began in the 1830s, the industry expanded enormously around the turn of the twentieth century when market demand, railway improvements, and capital improved access to the timber supply.[10] As the industry matured, timber syndicates flourished, as did corrupt acquisition of public land.[11] Because the price for Northwest timber was high, private forestland owners were able to pay their property taxes to the counties.[12] After a few boom decades, this

6 *See infra* notes 104 (authorization statutes), 105 (management mandate), 108 (revenue distribution formula), and accompanying text.

7 Although other Oregon counties are involved in the Northwest timber economy, this paper focuses on these three counties because they contain the Tillamook and Clatsop State Forests at issue in this Comment.

8 *See infra* note 111 and accompanying text (noting the significant revenue Tillamook County receives).

9 *See generally infra* notes 112 (describing the historically high harvest levels obtained by the counties), 138 (describing the recent CFTLC lobbying effort to change the definition of GPV), 139–43 (describing a proposed pro-timber Clean Water Act amendment), and accompanying text.

10 *See* ODF, FOREST MANAGEMENT PLAN, *supra* note 1, at 1-6 to 1-8.

11 In 1902, the Theodore Roosevelt Administration began investigating widespread land fraud in Oregon and California, principally under the Timber and Stone Act of 1878, ch. 151, 20 Stat. 89, and the Forest Reservation Act of 1897, ch. 2, § 1, 30 Stat. 36. John Messing, *Public Lands, Politics, and Progressives: The Oregon Land Fraud Trials, 1903-1910*, 35 PAC. HIST. REV. 35, 35, 37 (1966); *see also* S. DOC. NO. 58-189, at v (1905) (asking the U.S. Senate Public Lands Commission to recommend changes necessary to correct the land fraud). These investigations eventually led to the indictment of over a thousand people, including both U.S. Senators and a U.S. Congressman from Oregon, a U.S. District Attorney from Oregon, a General Land Office Commissioner, several Oregon State Senators and Assistant Attorneys, and many other businessmen and officials in the state. GEORGE DRAFFAN, TAKING BACK OUR LAND: A HISTORY OF RAILROAD GRANT LAND REFORM 22 (1998), *available at* http://www.landgrant.org/takingback.pdf.

12 *See* 1 PAUL A. LEVESQUE, A CHRONICLE OF THE TILLAMOOK COUNTY FOREST TRUST LANDS 179, 181 (Tillamook Cnty., Or. 1985) [hereinafter LEVESQUE, CHRONICLE OF TILLAMOOK] (explaining that "[p]rior to 1915, Oregon counties had very little tax foreclosed lands" and that forestland ownerships did not begin to experience the first symptoms of chronic tax delinquency until 1911); Jerry A. O'Callaghan, The Disposition of the Public Domain in Oregon 41 (May 10, 1960) (unpublished Ph.D thesis, Stanford University) (on file with U.S. Senate) (stating that by 1900, the 1866 "Oregon & California" federal grant lands had an estimated worth of $30–$50 million).

arrangement unraveled in the 1920s when depressed timber markets meant unpaid taxes, and the counties were forced to foreclose upon large swaths of tax-delinquent land.[13] And, as the Great Depression, aggressive harvesting practices, and almost two decades worth of large forest fires conspired to create economic and ecological mire in the forests, more timber companies found themselves in possession of cut-over, burned, low-value timberland on which they could no longer pay their property taxes.[14]

The counties thus acquired large tracts of this private forestland during the 1930s, 1940s, and 1950s.[15] Although these lands produced little revenue in their cut-over condition, the counties still owed large tax debts to the state.[16] Concerned about the amount of foreclosed land held by the counties,[17] the Oregon legislature passed a series of laws—now codified at Oregon Revised Statutes chapter 530 (ORS 530)—that allowed the counties to deed these lands to the state and established a formula under which the counties would receive payments for timber harvested off of the acquired lands.[18] Although there is little doubt that all parties expected future revenues from timber harvests, the unique "greatest permanent value" management mandate enacted for these acquired "ORS 530 lands"[19] clearly anticipated a long-range approach that would consider multiple forest values in the management calculus.

After enacting these laws, the state financed and conducted a massive rehabilitation effort of many of these dilapidated lands.[20] As harvestable trees grew, the counties began to earn (and continue to earn) significant revenues from timber harvests on ORS 530 lands. Although the formula has been amended over time,[21] the counties now receive approximately 57¢ from every $1 of net revenue earned by the states from the acquired ORS 530 lands.[22] Because the greatest potential source of revenue has been timber

13 LEVESQUE, *supra* note 4, at 6–7; *see also* Eugene School Dist. No. 4 v. Fisk, 79 P.2d 262, 266 (Or. 1938) (noting that taxes collected for a state or county purpose "belong to the county").

14 LEVESQUE, *supra* note 4, at 6; OR. DEP'T OF FORESTRY, TILLAMOOK BURN TO TILLAMOOK STATE FOREST 6, 12–13, 22 (1993) [hereinafter ODF, TILLAMOOK BURN]; Janet C. Neuman, *Thinking Inside the Box: Looking for Ecosystem Services Within a Forested Watershed*, 22 J. LAND USE & ENVTL. L. 173, 175 (2007); *Comments Before the Oregon Board of Forestry Regarding the Meaning of Greatest Permanent Value State Forests* 2, Mar. 3, 2010 [hereinafter Bloemers Comments] (statement of Ralph O. Bloemers).

15 LEVESQUE, *supra* note 4, at 6; LEVESQUE, CHRONICLE OF TILLAMOOK, *supra* note 12, at 353–55.

16 *See Eugene School Dist. No.4*, 79 P.2d at 262 (describing state's preferred creditor rights to taxes); State v. Baker Cnty, 33 P. 530–31 (Or. 1893); LEVESQUE, *supra* note 4, at 6–7 (stating counties became the owners of large amounts of tax delinquent "cut-over and burned over forestlands").

17 *See* LEVESQUE, *supra* note 4, at 7–8 (noting legislature's concern about "the amount of tax reverted lands in county ownership"); *infra* notes 103–104 and accompanying text.

18 *See infra* note 108 and accompanying text.

19 *See infra* note 105 and accompanying text. This mandate is discussed in further detail in Part III.A.

20 *See infra* notes 108–09 and accompanying text.

21 *See infra* note 108 and accompanying text (noting the 1931 and 1939 amendments to the revenue structure).

22 *See infra* Part V.A.

harvest, county politicians have advocated strongly for a management scheme in which timber harvesting of the ORS 530 lands predominates. And for many years, especially during and following World War II, the Oregon Board of Forestry (BOF) and the Oregon Department of Forestry (ODF)—collectively referred to as "Forestry"[23]—made policy and management decisions regarding the ORS 530 lands that allowed for timber harvest maximization.[24] Together, these circumstances set the stage for the counties' dependency on timber harvests from the ORS 530 lands, especially in the Clatsop and Tillamook State Forests.[25]

Tensions over management of the ORS 530 lands have heightened during the last three decades as changed legal, economic, demographic, and social forces reshaped the Oregon political and economic landscape.[26] Namely, as timber supply from federal lands declined following a series of species protection lawsuits, pressure increased to log the state forests.[27] In addition, international timber became competitive and the Oregon forest products industry shrunk significantly.[28] As these fundamental shifts occurred, the drive to achieve less timber-centric management on the ORS 530 lands gained momentum. However, because the counties' cultural and economic fates are tied to this fading, one-dimensional "lord of yesterday,"[29] they have sought a timber-centric management approach. At the same time, conservation, fishing, and recreational interests have called for limits to harvesting. As such, the management of ORS 530 lands is a socially and economically charged issue.[30]

On top of these economic and socio-historical layers, the scope of the legal mandate governing ORS 530 lands is also controversial, albeit clear. According to the statute, ORS 530 lands must be managed for their "greatest permanent value"[31] (GPV). The meaning of this phrase is at the center of the

23 The State Board of Forestry is a volunteer board, appointed by the Governor and confirmed by the State Senate. OR. REV. STAT. §§ 526.009(1), 526.031(1) (2011) (describing board composition and BOF appointment of the State Forester, respectively). The Oregon Department of Forestry is the state agency responsible for managing state forestlands. *See* ODF, FOREST MANAGEMENT PLAN, *supra* note 1, at S-4; *see also* Or. Dep't of Forestry, *Welcome to Oregon's State Forests*, www.oregon.gov/odf/pages/state_forests/state_forests.aspx (last visited Nov. 18, 2012). Together, these two closely related entities are referred to in this paper as "Forestry."

24 *See infra* notes 82–83 and accompanying text.

25 *See* LEVESQUE, *supra* note 4, at 3–5, 15 ("Counties now have a reasonable expectation for the promised return on their investments.").

26 *Id.* at 41–43; *see infra* notes 117–25, 233–47 and accompanying text.

27 *See infra* text accompanying notes 118–21, 124.

28 *See infra* text accompanying notes 246–50.

29 Professor Charles Wilkinson describes the "lords of yesterday" as "a battery of nineteenth-century laws, policies, and ideas that arose under wholly different social and economic conditions but that remain in effect due to inertia, powerful lobbying forces, and lack of public awareness." CHARLES F. WILKINSON, CROSSING THE NEXT MERIDIAN: LAND, WATER, AND THE FUTURE OF THE WEST 17 (1992). According to Wilkinson, timber is one of these "lords," along with the Hardrock Mining Law of 1872, public rangelands and forestlands, water and dams, and the prior appropriation doctrine. *Id.* at 20–21.

30 *See generally* LEVESQUE, *supra* note 4, at 42–43 (arguing that the primary use of State Forests is for timber harvests, but recognizing that State Forests also have recreational value).

31 OR. REV. STAT. § 530.050 (2009).

debate regarding ORS 530 land management, and is best understood by summarizing the briefing conducted in a 2005 Tillamook County Circuit Court case, *Tillamook County v. Oregon* (*Tillamook II*).[32] On one side, the counties argued that the state forestry laws enacted in the 1930s and 1940s, combined with the circumstances surrounding their enactment, created an arrangement whereby the counties would deed the damaged forestlands to the state in exchange for an agreement to maximize timber harvest revenues for their benefit.[33] In response, the state countered that the counties misinterpreted the legislative intent behind GPV.[34] The state argued that the statutes did not create a duty to maximize revenues for the counties, and that other sources of law and historical circumstances, although arguably compelling, were not included in the statute or legislative history, and thus could not be relied upon as proof of the arrangement.[35] As such, the state argued that GPV required the balancing of multiple forest values, not just timber harvest revenue maximization.[36] Although the county circuit court resolved the dispute in favor of the counties in *Tillamook II*,[37] this Comment argues that the basis for this holding was incorrect, especially in light of *State v. Gaines*,[38] the state's established statutory construction framework, and the guidance provided by the Oregon Supreme Court in *Tillamook County v. State Board of Forestry* (*Tillamook I*).[39]

In Oregon, the meaning of statutory phrases is determined by applying the *Gaines* framework.[40] The goal of the *Gaines* analysis is to identify legislative intent.[41] In identifying the legislative intent behind a statute, Oregon courts must analyze the provision's "text and context"[42] and may give weight to any legislative history offered by the parties.[43] If this process is inconclusive, courts will then rely on applicable maxims of statutory interpretation to interpret and implement legislative intent.[44]

Although Forestry has often equated GPV to timber harvest maximization,[45] on its face, GPV seems to require that Forestry weigh the

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32 No. 042118 (Tillamook Cir. Ct., July 5, 2005).

33 Memorandum from Schwabe, Williamson & Wyatt, The State's Duties Toward the Counties With Respect to Forest Trust Lands In Oregon 1–3, 5–6 (2006) (on file with author) [hereinafter SWW Memo].

34 Memorandum from Jas. Jeffrey Adams, Or. Dep't of Justice, Gen. Counsel Div., Existence and Nature of Fiduciary Relationship between Forestry and the Counties with Respect to Conveyed Forest Lands 4 (Oct. 16, 2006) [hereinafter ODOJ Memo].

35 *Id.* at 6–10.

36 *Id.* at 36.

37 Tillamook Cnty., No. 042118, at *7.

38 206 P.3d 1042 (Or. 2009) (en banc).

39 730 P.2d 1214 (Or. 1986).

40 *Gaines*, 206 P.3d at 1050–51.

41 *Id.* at 1050.

42 In analyzing context, courts should look to other provisions of the same statute and other related statutes. Portland Gen. Elec. Co. v. Bureau of Labor & Indus., 859 P.2d 1143, 1145–46. (Or. 1993). This may include looking to old versions of the current statute. Dockins v. State Farm Ins. Co., 985 P.2d 796, 800–01 (Or. 1999).

43 *Gaines*, 206 P.3d at 1050–51.

44 *Id.* at 1051.

45 *See infra* note 113 and accompanying text.

long-term non-economic and economic values provided by ORS 530 lands, and then select the policy outcome that provides the greatest value to the state as a whole. This GPV language does not suggest a statutory duty to maximize short-term revenues from the ORS 530 lands.[46] Other provisions in ORS 530 and its implementing regulations require a balanced approach.[47] Although provisions in ORS 526, the general forestry administration chapter, do inject some ambiguity into the analysis, ORS 526's influence on ORS 530 land management is minimal at best, and does not likely change the plain meaning understanding of GPV.[48] Finally, because the legislature chose not to draft GPV in a way that would clearly create a trust duty to maximize revenues, no such duty should be implied.[49] As such, the text of GPV—which does not require timber revenue maximization—is dispositive under *Gaines* because it is the best evidence of legislative intent.[50]

Further, although the court in *Tillamook I* did not directly define or address the meaning of GPV, it held that the overall ORS 530 scheme governing state forest management—which includes the overriding GPV requirement and the county revenue arrangement—would not be violated so long as the state did not fully extinguish the revenue-producing capacity of ORS 530 lands by transferring the land to private parties such that the state would no longer have any obligations to the counties on the lands.[51] In addition, the court also held that whatever relationship the ORS 530 scheme created between the state and counties—i.e., a fiduciary-like relationship where GPV would be equated with harvest maximization, or a relationship meant to provide the counties revenues, but that views GPV through a more balanced, long-term lens—its contours flowed from the statute and not from principles of contract or trust law (which are routes through which a duty to maximize revenues might have been created).[52] Thus, contrary to the counties' litigation position, this holding does not suggest that the state-county relationship creates a broad duty to maximize ORS 530 land revenues for the counties' benefit.[53] Rather, if the counties cannot prove that ORS 530

46 *See* discussion *infra* Part III.A.

47 *See* discussion *infra* Part III.A.

48 See *infra* Part III.A for further discussion of ORS 526. In general, ORS 526 describes the duties of the BOF and ODF, outlines how the state acquires forestland property, describes general forest health and management initiatives (including local government classifications), provides guidance to nonindustrial private landowners, and outlines various functions and programs performed by the Oregon Forest Resource Institute (OFRI).

49 *See infra* notes 188–98 and accompanying text.

50 State v. Gaines, 206 P.3d 1042, 1050 (Or. 2009) (en banc) (citing State *ex rel.* Cox v. Wilson, 562 P.2d 172, 173 (Or. 1977)).

51 *See Tillamook I*, 730 P.2d 1214, 1221 (1986) (rejecting a proposed land exchange that would have transferred ORS 530 land from the statutory arrangement under which the counties have a "protected, recognizable interest" to private ownership that would not have afforded the counties any opportunity to earn revenue from the land).

52 *Id.* The heart of the dispute is whether ORS 530 imposed a duty on the state to maximize revenues, and thus conform its interpretation of GPV to timber-centric management activities that would result in revenue maximization for the counties.

53 *See* SWW Memo, *supra* note 33, at 3 ("[T]he Counties rights and interests set forth in [*Tillamook I* and *Tillamook II*] are part of a broader spectrum of protected, recognizable

created a duty to maximize timber revenues under the *Gaines* test, *Tillamook I* foreclosed the counties' ability to establish that duty through contract or trust principles, and by implication, most likely through partnership principles as well.

However, because the meaning of GPV has never been directly interpreted, and because the counties have a strong vested interest in a pro-timber GPV interpretation, management of the state forests remains a heated issue to this day. This lack of resolution has created further distrust and position entrenchment between timber companies and counties on one side, and environmentalists on the other.[54] As a result, the debate has escalated in recent decades, while the ecological status of the forests and their species continue to worsen as a result of logging.[55] Since the mid-1990s, environmental groups have attempted to utilize litigation, ballot initiatives, and Endangered Species Act (ESA)[56] listings to promote conservation and reduced logging in the Tillamook and Clatsop State Forests.[57] At the same, the counties and aligned timber interests have responded with their own litigation, proposed rule amendments, and vigorous political lobbying of federal legislators in an effort to obtain timber primacy.[58]

Forestry attempted to offer some clarity in 1998 through administrative rules defining GPV.[59] However, these rules tried to maximize both environmental and timber benefits, and did not resolve the debate.[60] Likewise, Forestry's 2001 adoption of the Northwest Forest Management Plan (NWFMP) for the ORS 530 lands in the Pacific Coast Range did not resolve the debate.[61] Because this litigious, zero-sum process has provided no long-term certainty for either environmental or timber interests, it is time for a change.

Instead of maintaining this pattern, this Comment argues that interest groups from both sides should agree to permanently remove, or "decouple,"[62] some ecologically important ORS 530 lands from timber harvesting. Doing so would lead to a more balanced GPV outcome for the ORS 530 lands, and

interests that can be asserted against the State . . . [and therefore] the State is obligated [by statute] to best promote timber production on [ORS 530] lands consistent with securing the greatest permanent value of those lands.") (internal quotations omitted).

54 *See Oregon Forests: Hearing on S. 2895 Before the Subcomm. On Public Lands & Forests of the S. Comm. on Energy & Natural Resources*, 111th Cong. (2010) (statement of Michael Carrier, Natural Res. Policy Dir., Office of the Governor), *available at* http://www.gpo.gov/fdsys/pkg/CHRG-111shrg61825/html/CHRG-111shrg61825.htm (listing factors that hinder improving forest management and sustainability).

55 *See infra* Part II.B, notes 144–46 and accompanying text.

56 Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (2006 & Supp. IV. 2010).

57 *See infra* Part II.B.

58 *See infra* Part II.B.

59 *See* Neuman, *supra* note 14, at 196 (discussing the controversy surrounding the rulemaking process and resulting broader GPV definition).

60 *Id.*; *see infra* notes 126–27 and accompanying text.

61 *See infra* notes 127–33.

62 "Decouple" means to "separate; disengage; dissociate." OXFORD AMERICAN DICTIONARY AND LANGUAGE GUIDE 246 (1999).

thus come closer to fulfilling legislative intent.[63] However, left uncompensated, county budgets would suffer a shortfall because the counties could not earn timber harvest revenues from these removed ORS 530 lands.[64] Thus, to pay for this "cost of conservation," foregone timber harvest revenues from these ecologically important 530 lands would first be replaced by an upfront cash infusion to the counties, which would then be repaid by non-extractive, environmentally neutral "ecosystem services"[65] revenue streams. And because the ORS 530 lands would continue to generate revenue, this shift would comply with the holding in *Tillamook I*.[66] Overall, this proposal could help the resource-dependent timber communities shift their revenue base to non-extractive revenue streams in exchange for an agreement to permanently protect ecologically sensitive ORS 530 lands.

Removing important ORS 530 lands from timber harvest would likely yield economic benefits for the counties and ecological benefits for the forests as a whole. Once decoupled, the counties would then develop new ecosystem service revenue sources, thus diversifying their economies and mitigating some of the unpredictability associated with economic dependency on timber harvests.[67] Making this change is important given the protracted Oregon timber and housing markets,[68] and the changed nature of Oregon's forestry products industry.[69] Further, removing important ORS 530 lands from clearcutting and monocultural replanting would likely decrease disease, pest spread, and habitat fragmentation, and would likely increase the amount of CO_2 sequestered in the ORS 530 lands.[70] Overall, this improved forest health would likely improve the prospects for future timber harvest revenues.[71]

Decoupling would also help correct statutory flaws inherent to ORS 530. Because the statute does not impose revenue caps, the counties have an incentive to harvest as much ORS 530 timber as they can.[72] Much like a federal program that ties highway funding to activities that stress and degrade the federal highway infrastructure, the Oregon legislature subsidizes a similar program with respect to the ORS 530 lands. In contrast to the federal highways, decoupling would provide more ecological balance (thus achieving a more balanced GPV outcome), non-harvest revenue streams that

63 The legislative intent behind GPV is discussed in detail later. *See infra* Part III.A.

64 With less timber harvested from ORS 530 lands, less ORS 530 revenue would flow back to the counties. This would thus decrease the counties' budgets. *See infra* Part VI.

65 Ecosystem services are defined and described in *infra* notes 340–41. Particular ecosystem service programs are discussed and applied to the ORS 530 lands. *See infra* Part VI.B.1–3.

66 730 P.2d 1214, 1221 (Or. 1986).

67 *See infra* Part IV.A (discussing the changing nature of the Oregon timber economy, and—using Curry County as an example—discussing Oregon's over-reliance on Oregon & California land (O&C) timber receipts).

68 *See infra* notes 119, 241 and accompanying text.

69 *See infra* notes 245–50 and accompanying text.

70 *See infra* Part IV.A–B.

71 *See infra* note 277 and accompanying text.

72 *See infra* Part IV.C.

would at least partially correct the perverse incentive to maximize timber harvests, and a solution that might help the ORS 530 lands avoid structural decay.

Decoupling might also help to defuse the politically contentious atmosphere surrounding ORS 530 land management. Assuming the counties are both economically and ideologically motivated to lobby for high harvest levels, the removal of the economic element could possibly lessen lobbying pressure on politicians, thus decreasing the political motivation to revise bedrock federal environmental protection statutes so as to appease these interest groups. Acting in pursuit of this possibility is especially important because Senator Ron Wyden (D-Or.) recently proposed an amendment to the Clean Water Act (CWA)[73] that would undermine environmental protections afforded to ORS 530 lands, and the species therein, by the Ninth Circuit.[74]

In order to make this shift palatable to the counties, this Comment proposes that the state offer the counties an upfront cash infusion that would represent the present worth of forty years of timber harvests on the decoupled ORS 530 lands—approximately one aggressive harvest cycle.[75] To pay for this infusion, the State Treasurer could issue a bond.[76] The infusion would then be repaid over time by the revenues earned from ecosystem service programs. By the end of the forty-year transition period, the counties would then be able to earn perpetual ecosystem service revenues from the decoupled ORS 530 lands without having to harvest timber in ecologically important parts of the forest. And to ensure that timber harvests do not merely shift from decoupled ORS 530 lands to unprotected ORS 530 lands, the proposal must control "leakage."[77] Although the specifics of leakage control are outside the scope of this Comment, it is important to note that in order to prevent leakage from decoupled areas into unprotected ORS 530 areas, Forestry or the legislature should explicitly forbid the transfer of

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73 Federal Water Pollution Control Act, 33 U.S.C. §§ 1251–1387 (2006).

74 *See infra* notes 142–43 and Part IV.B (discussing Sen. Ron Wyden's recent proposal to exempt timber harvesters in Oregon from CWA protections deemed necessary by the Ninth Circuit).

75 *See infra* Part VI.A.

76 *See infra* notes 332–38 and accompanying text.

77 Without a guarantee that these harvest reductions would not simply be relocated to unprotected ORS 530 lands in the Tillamook and Clatsop State Forests, the ecological benefits of decoupling could be undermined. *See* Liz Kalaugher, *REDD Project Unlikely to Save Forest in Indonesia*, ENVIRONMENTALRESEARCHWEB, Oct. 1, 2009, http://environmentalresearchweb.org/cws/article/news/40574 (last visited Nov. 18, 2012) (noting that an anti-deforestation project in Indonesia will save 1,313 square kilometers of forest by 2030, but that 7,913 square kilometers may be lost to palm oil plantations and roads across landscapes *outside* the protected areas). This phenomenon, known as leakage, "refers to the phenomenon where forest preservation measures merely displace deforestation activity, producing little net effect on . . . deforestation rates and land use patterns." Gabriel Weil, *Costs, Contributions, and Climate Change: How Important Are Universally Binding Emissions Commitments?,* 23 GEO. INT'L ENVTL. L. REV. 319, 338 (2011); *see also* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: MITIGATION OF CLIMATE CHANGE: WORKING GROUP III CONTRIBUTION TO THE FOURTH ASSESSMENT REPORT, FORESTRY 544, 548 (2007) *available at* http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_wg3_report_mitigation_of_climate_change.htm (click on "Chapter 9: Forestry").

foregone decoupled timber harvests to other non-decoupled ORS 530 lands. This additional plan element would help ensure the long-term feasibility of the proposal, as well as the ecological integrity of the ORS 530 lands as a whole.

With this context, this Comment explains how monetizing the cost of conservation and then implementing replacement revenue generation programs could promote environmental values, while also ensuring that timber communities continue to have economic security. Thus, Part II details the history of, and the management controversy surrounding, the ORS 530 lands. Part III analyzes how the GPV management mandate has been applied and interpreted over time. Part IV outlines the proposal to decouple ecologically important ORS 530 lands from timber harvesting, and describes the positive economic, ecological, statutory, and socio-political benefits likely to flow from the proposal. Part V models the county budget, job, and school funding impacts that might be created by the proposal. Finally, Part VI discusses and models how an ecosystem services-based approach to revenue generation could overcome the concerns raised in Part V, and thus make the proposal viable over the long-term.

II. THE ORS 530 LANDS OF THE TILLAMOOK AND CLATSOP STATE FORESTS AND CONFLICT REGARDING THEIR MANAGEMENT

The story of the ORS 530 lands began in the 1830s and continues to this day.[78] As a result of legislation enacted in the 1930s and 1940s to help alleviate county budget and taxation issues, the state assumed ownership of the ORS 530 lands.[79] Once acquired, these lands were to be managed for their "greatest permanent value."[80] However, even after the counties transferred ownership, they still retained the right to earn revenue from timber harvested from ORS 530 lands in their counties.[81] As a result of this statutory feature, the counties grew to expect significant timber revenues from the ORS 530 lands.[82] And for many years, Forestry made management and policy decisions that favored county and timber interests, and created an expectation of high harvest levels among the counties.[83]

However in the 1980s and 1990s, a number of state and federal court decisions began to alter the timber-centric landscape that had predominated.[84] As the Northwest timber world underwent drastic changes, management of the ORS 530 lands began to change as well.[85] Since the mid-1990s, both the environmental and timber interests have sought to maximize

78 *See infra* Part II.A–B.

79 *See infra* notes 96–104 and accompanying text.

80 *See infra* note 105 and accompanying text.

81 *See infra* note 108 and accompanying text.

82 LEVESQUE, *supra* note 4, at 4–5 (noting counties' historical expectation of revenue return); *see infra* text accompanying note 110.

83 *See infra* notes 113, 157, 158, 163 and accompanying text.

84 *See infra* Part II.B (discussing state and federal court decisions that altered the Northwest timber landscape).

85 *See supra* notes 26–29 and accompanying text.

their respective ORS 530 land uses. In support of their efforts, environmental groups used litigation, ballot initiatives, and ESA listings.[86] At the same time, timber interests and the counties responded with their own litigation, proposed rule amendments, and vigorous political lobbying of federal legislators.[87] Forestry's attempts to clarify these difficult management issues offered no resolution.[88] Today, the "proper" management of the ORS 530 lands remains unresolved and contentious precisely because the lands mean so much to so many people.[89]

A. The Origins of the ORS 530 Lands and the Counties' Economic Dependence on Them

Small-scale timber harvesting in the present-day Tillamook and Clatsop State Forests began in the 1830s.[90] In the later part of the 1800s, this dynamic began to change as the timber companies successfully consolidated individual federal land grants into large areas of privately owned land.[91] As market demand, railway improvements and capital caught up to the supply, the Pacific Coast Range timber industry expanded greatly.[92] Because it took some time for all of these variables to fall into place, and for the national timber industry to shift to the Northwest, the industry did not really begin to blossom until the late 1800s and early 1900s.[93] However, once the industry scaled up, timber companies, politicians, and speculators conspired to promote a free-for-all premised on timber primacy.[94] The counties in turn collected property taxes from these private timberland owners, and these taxes went into county coffers.[95]

This system posed no real issues until the 1920s, when many of these private forestland owners began to default on their property taxes.[96] The high rate of default intensified during the Great Depression, leading to large-scale county foreclosure of private forestland property.[97] The combination of over-logging and large fires in 1933 and 1939 further exacerbated the forests'

86 *See infra* Part II.B (describing these efforts in detail).

87 *See infra* Part II.B (describing these efforts in detail).

88 *See infra* notes 126–31 and accompanying text.

89 Neuman, *supra* note 14, at 174.

90 *See* ODF, FOREST MANAGEMENT PLAN, *supra* note 1, at 1-6.

91 LEVESQUE, *supra* note 4, at 5–6 (noting that despite the small agrarian model envisioned by Congress in its various disposition acts, large timber companies came to own large portions of Northwest forestland).

92 *See* ODF, FOREST MANAGEMENT PLAN, *supra* note 1, at 1-6, 1-8.

93 *See id.*; Scott & Brown, *supra* note 5, at 264 (stating that by the nineteenth century, the Great Lakes timber industry began to exhaust its supply of timber); *see* Ellis, *supra* note 5, at 261 (resulting in much of the nation's timber industry migrating to the Northwest).

94 *See supra* note 5 and accompanying text.

95 *See* Eugene Sch. Dist. No. 4 v. Fisk, 79 P.2d 262, 266 (Or. 1938) (noting that taxes collected for a state or county purpose "belong to the county").

96 LEVESQUE, *supra* note 4, at 6–7 (noting that at this time, the state used the counties as a vehicle for collecting state property taxes).

97 *Id.* at 6.

tenuous condition.[98] By 1940, because of the large fires, the effects of the Great Depression, and over-harvesting, private timber owners had forfeited approximately 1.1 million acres of this cut-over and charred land to the counties.[99] After 1940, large fires in 1945 and 1951 further devastated the lands.[100] All told, these four large fires, collectively known as the "Tillamook Burn," burned a total of 355,000 acres, or 13.1 billion board feet (BF) of timber.[101]

Because the state tax collection system in place at the time created a debtor-preferred creditor relationship between the counties and the state,[102] the counties were obligated to pay the state delinquent property taxes on these foreclosed-upon lands from their county general funds despite the fact that they could not earn any income from them.[103] This arrangement quickly overwhelmed the counties. Concerned about the amount of foreclosed, unprofitable land held by the counties, and to avoid the well-known pitfalls associated with all-out timber primacy, the Oregon legislature passed a series of compromise laws that granted the counties the power to dispose of these lands and gave Forestry the authority to acquire these lands.[104] In addition, the legislature declared that once acquired, the lands would be managed for their "greatest permanent value . . . to the state."[105] Since 1931, Forestry has acquired roughly 654,000 acres of ORS 530 lands,[106] with 85% of these acquisitions occurring between 1936 and 1954.[107]

98 *See* Neuman, *supra* note 14; ODF, TILLAMOOK BURN, *supra* note 14, at 6, 12, 22; Bloemers Comments, *supra* note 14, at 2.

99 LEVESQUE, *supra* note 4, at 6.

100 *See* Neuman, *supra* note 14, at 175.

101 *Id.*; ODF, TILLAMOOK BURN, *supra* note 14, at 6, 12–13, 22 (1997). "Board feet" (BF) is the metric used for measuring timber harvest volumes. One BF is equal to a 12-inch square of inch-thick wood. Jon Jefferson, *Timmmberr! How Two Lawyers and A Spotted Owl Took A Cut Out of the Logging Industry*, A.B.A. J., Oct. 1993, at 80, 81. One thousand BF is abbreviated as "1 MBF." One million BF is abbreviated as "1 MMBF." MICHAEL READE & BOHDAN ROMANIUK, ACRONYMS, INITIALISMS & ABBREVIATIONS DICTIONARY 2881, 3003 (Michael Reade & Bohdan Romaniuk eds., 35th ed. 2005).

102 Eugene Sch. Dist. No. 4 v. Fisk, 79 P.2d 262, 268 (Or. 1938) (describing preferred creditor rights to taxes); State v. Baker Cnty., 33 P. 530, 530–32 (Or. 1893) (imposing debtor-creditor relationship). In a debtor-creditor relationship, the debtor has a corporate obligation to pay the state any tax obligation apportioned to it. *Id.* at 530–31. Thus, under the tax regime in place at the time, the state could sue the county to collect any tax obligation apportioned to it that had not been properly remitted to the state. *Id.* at 532.

103 LEVESQUE, *supra* note 4, at 6–7.

104 Act of March 11, 1937, ch. 402, 1937 Or. Laws 611 (granting the counties the power to dispose of lands if in the best interests of the counties); Act of February 28, 1931, ch. 93, §§ 1–2, 1931 Or. Laws 129 (authorizing Forestry to acquire forestland from the counties and outlining various methods by which such land could be acquired); LEVESQUE, *supra* note 4, at 7–8 (noting the concern harbored by the legislature). All related laws are currently codified in ORS 530.

105 Act of March 6, 1945, ch. 154, 1945 Or. Laws 213 (creating the "greatest permanent value" management mandate).

106 LEVESQUE, *supra* note 4, at 3. Of these 654,000 acres, all but approximately 85,000 acres were acquired by the state through the ORS 530 mechanisms. *Id.*

107 *Id.* at app. I (noting that 557,926 out of the 654,000 acres were deeded to the state from 1936–1954). Of particular note, over 127,000 acres of land were deeded to the state in both 1943 and 1949. *Id.*

In addition to authorizing these exchanges and establishing the management mandate, the legislature created a formula by which the counties would receive payments for timber harvested from lands deeded to the state under the new statutory scheme.[108] However, because much of this newly acquired land was burned and/or cut-over, and therefore could not produce much revenue for the counties under this formula, the state financed a massive forest rehabilitation effort from 1950–1973.[109] As a result of rehabilitation, commercial timber harvesting again became possible. Thirty-five years later, this statutory formula provides the counties with roughly 57¢ from every dollar of timber revenues harvested from ORS 530 lands, without any limit on revenues.[110] These ORS 530 payments now comprise a significant percentage of county budgets.[111] As such, the counties are resistant to changes that would affect their ability to reap the maximum amount of revenue possible under this statutory revenue structure.[112] Although Forestry policy and management decisions created an expectation that the counties would always have high harvest levels to support their local economies,[113] this expectation has shifted in recent years as the Oregon environmental movement has grown in strength, and as a result of the downsized and changed Northwest timber economy.

B. Increasing Management Controversy

Since the mid-1980s, the scope and meaning of ORS 530 has grown more contentious and state policymakers have started to consider ORS 530 lands for their multiple values and not just timber harvest revenue

108 Act of March 8, 1941, ch. 236, 1941 Or. Laws 368 (amending the distribution formula); Act of March 22, 1939, ch. 478, 1939 Or. Laws 934 (amending the distribution formula); Act of February 28, 1931, ch. 93, § 5, 1931 Or. Laws 129–130 (establishing revenue distribution formula). The current revenue formula is codified at OR. REV. STAT. §§ 530.110 and 530.115 (2009).

109 In 1948, Oregon voters adopted Article XI-E to the Oregon Constitution allowing for forest rehabilitation bonds. *Tillamook I*, 730 P.2d 1214, 1216 (1986). From 1950 to 1973, the state spent $15 million to rehabilitate the newly acquired Tillamook and Clatsop State Forests. These expenditures were financed by a series of 15-year bonds. *Greatest Permanent Value: Testimony before the Oregon Board of Forestry* (Mar. 3, 2010) [hereinafter Ruder Comments] (statement of Paul Ruder, Pacific Univ.). Although it is unclear what the original repayment terms were, the counties only paid back 23% of the bonded rehabilitation costs. *Id.*

110 *See infra* Part V.A.

111 *See* TILLAMOOK CNTY. TREASURER, TILLAMOOK COUNTY BUDGET 2011-2012, at 8–10 (2011), *available at* http://www.co.tillamook.or.us/gov/treasurer/Documents/11-12 tc budget book.pdf (noting that of Tillamook County's $20.27 million overall projected general fund revenues for FY 2011–2012, $2.775 million—or 13.7%—came from ORS 530 land harvests).

112 *See infra* note 138 and accompanying text (discussing 2010 CFTLC proposal to amend GPV).

113 As a result of high war-related and post-war timber harvests, by 1947 Tillamook County enjoyed a budget surplus of $160,000. LEVESQUE, *supra* note 4, at 14–15. In 1955, State Forester George Spaur stated that the state forest lands represented a partnership between the counties and the states. *Id.* at 27. Further, in 1960, Forestry again emphasized the timber production potential of the state forests. *Id.* at 27–28 (quoting *State Forest Developed in Green Basin Section*, FOREST LOG, at 8 (July 1960)). In addition to these statements, the "[c]ounties now have a reasonable expectation for the promised return on their investments." *Id.* at 5.

maximization.[114] The first step in this direction occurred in 1986 with the Oregon Supreme Court's holding in *Tillamook I*. In that case, the legislature directed Forestry to exchange ORS 530 land in Linn County for a tract of private old growth forests, which it wanted to preserve as a state park.[115] The court rejected this exchange because it would have denied Linn County "the revenues as set forth in the statutory distribution formula."[116] *Tillamook I* did not require the state to maximize revenues; rather, it held that the ORS 530 lands must retain the capacity—even if not allowed under current laws—to theoretically produce revenue in the future.[117]

In addition to limiting the argument for revenue maximization in *Tillamook I*, the environmental preservation movement began to alter the prevailing conceptions as to how Northwest forestlands should be managed. The spark for this change was a slew of federal court decisions from 1988–1991 that enjoined timber harvests so as to protect the Northern spotted owl (*Strix occidentalis caurina*) from extinction.[118] Largely as a result of these injunctions and the 1993 Northwest Forest Plan, the overall Oregon timber economy shrank significantly, including a dramatic reduction in timber harvested from federal lands.[119] In addition to virtually halting logging on federal lands,[120] the spotted owl controversy magnified the divide between pro-logging and pro-conservation interests in the Northwest.[121]

114 *See* LEVESQUE, *supra* note 4, at 42–43.

115 *Tillamook I*, 730 P.2d 1214, 1217–18 (Or. 1986).

116 *Id.* at 1218, 1221.

117 *See id.* at 1220–21 (noting that if the transfer went through, the state would avoid its obligations under ORS 530, and that therefore, the key was keeping the ORS 530 land in state ownership such that the counties could enforce their protected interests in some way). The thrust of this point is illustrated by the fact that some ORS 530 land, although not currently capable of producing revenue under the ORS 530 scheme due to current regulatory restrictions, is still theoretically capable of doing so in the future. *See* OR. ADMIN. R. 629-640-0100(2)(b) (2012) (preventing all harvesting within 20 feet of the relevant stream types). However, because the state still owns the land, the revenue producing capacity is not *permanently* extinguished, and thus appears to comply with *Tillamook I*.

118 *See infra* note 237 and accompanying text.

119 In 1988, 8.6 billion board feet (BBF) of timber was cut in Oregon; by 1994, 4.17 BBF was harvested in Oregon; in 2009, only 2.7 BBF was harvested in all of Oregon; and in 2010, 3.2 billion board feet was cut. OR. DEP'T OF FORESTRY, OREGON ANNUAL TIMBER HARVEST REPORTS (2012), *available at* http://www.oregon.gov/odf/pages/state_forests/frp/annual_reports.aspx (click on year, then "Timber Harvest Report – West" and "Timber Harvest Report – East."). These reductions were closely related to the spotted owl injunctions. Dave Owen, *Prescriptive Laws, Uncertain Science, and Political Stories: Forest Management in the Sierra Nevada*, 29 ECOLOGY L.Q. 747, 749 n.2 (2002); Jory Ruggiero, *Toward A Law of the Land: The Clean Water Act As a Federal Mandate for the Implementation of an Ecosystem Approach to Land Management*, 20 PUB. LAND & RESOURCES L. REV. 31, 42 (1999).

120 In 1988, of the 8.6 BBF cut in Oregon, 5 BBF was cut from federal lands; in 1994, 0.688 BBFof timber was harvested from federal lands, but in 2001, only 0.173 billion board feet of timber was harvested from federal lands. *See* OR. DEP'T OF FORESTRY, *supra* note 119.

121 *See* Daniel S. Reimer, *The Role of "Community" in the Pacific Northwest Logging Debate*, 66 U. COLO. L. REV. 225, 238 (1995) ("The division between those who are 'pro-logging' and those who would like to see reductions in the amount of timber harvested has become quite stark in light of the spotted owl controversy . . . . The conflict between loggers and environmentalists

Although the federal court injunctions only applied to federal timber sales, the controversy inevitably influenced the debate as to how to manage the ORS 530 lands. In the early 1990s, the spotted owl and the marbled murrelet (*Brachyramphus marmoratus*), which are found in the ORS 530 lands, were listed under the ESA.[122] Further, as Northwest environmental and recreational concerns grew and found a stronger collective voice, they experienced more success in limiting timber harvests on ORS 530 lands.[123] Finally, the state felt more pressure to harvest ORS 530 lands aggressively so as to compensate for the decline in the supply of federal timber.[124] Since the spotted owl controversy of the 1990s, ORS 530 land management controversy has smoldered, never far from a flare-up at the ballot box or a trip to court. As explained by former and current Governor John Kitzhaber, ORS 530 lands exist in an unending cycle of turmoil:

> Environmental interests sue the natural resource industries and governmental agencies for failing to meet . . . standards and regulations. They strive to strengthen environmental laws through legislative action. In return, economic interests that are subject to . . . regulation challenge these regulations in the courts and seek to repeal or weaken them through legislative action. Each side tends to look for opportunities to advance their agenda when the [a]dministration . . . is in their favor, while the other side relies on the courts to form a defensive front against changes that might imperil their interests.[125]

The debate over GPV was reinitiated in 1998 when Forestry promulgated new administrative rules reflecting an updated, more expansive view of the public's interest in ORS 530 lands.[126] However, because the rules tried to maximize timber harvest and environmental values at the same time, they further fueled the controversy instead of resolving the difficult

has polarized both positions and created tension between loggers and other residents of the Pacific Northwest and the larger society.").

122 The marbled murrelet was listed in 1992. Determination of Threatened Status for the Washington, Oregon, and California Population of the Marbled Murrelet, 57 Fed. Reg. 45,328, 45,328 (Oct. 1, 1992) (codified at 50 C.F.R § 17.11). The northern spotted owl was listed in in 1990. Determination of Threatened Status for the Northern Spotted Owl; Final Rule, 55 Fed. Reg. 26114 (June 26, 1990) (codified at 50 C.F.R § 17.11).

123 *See, e.g.*, *Oregon Supreme Courts Orders Halt to Logging at Abiqua Creek*, MOSCOW-PULLMAN DAILY NEWS, Jan. 4, 1995, at 5A (halting a timber harvest on state forest land because of environmental group concerns).

124 Between 1980 and 1996, 21.6% of the timber harvested in Tillamook and Clatsop Counties came from ORS 530 lands. By 2000, this percentage had jumped to 36.5%. THOMAS M. POWER & PHILIP J. RUDER, ECONOMIC REALITIES IN THE TILLAMOOK AND CLATSOP STATE FORESTS ii (2003); *see also* Kathie Durbin, *Tillamook Burn Becoming Bright Spot in Oregon's Timber Picture*, OREGONIAN, Dec. 20, 1990, at A-7 (addressing the correlation between reduced federal land harvests and increased state land harvests because of land set aside for the spotted owl).

125 Neuman, *supra* note 14, at 185 (quoting John Kitzhaber, M.D., Governor of Oregon, Speech to the Ecological Society of America (Aug. 6, 2004)).

126 *Id.* at 196; *see id.* at 182, 184 ("[T]he state's approach to the Tillamook has changed to accommodate several endangered species in the forest and to respond to new demands for protecting many other values besides timber . . . . The Tillamook State Forest . . . [holds] wondrous riches of timber, fisheries, wildlife habitat, water supply, and recreation.").

questions.[127] And in 2001, the state adopted the NWFMP and "structure-based management" for the ORS 530 lands.[128] The aim of the NWFMP was to transform the forest from even-aged, monocultural tree plantations into structurally diverse forests.[129] Timber interests—who believed that the NWFMP would result in less timber—and environmentalists—who were concerned about the active management approach being applied throughout the whole forest under the NWFMP—reacted skeptically.[130] Currently, the plan only dedicates 30% of forested stands on ORS 530 lands to grow into older forest, leaving as much as 70% of the landscape open to clearcutting.[131] Due to the uncertainty inherent to the plan, the NWFMP did not resolve the ORS 530 management dispute. This lack of resolution became apparent three years later. In 2004, an environmentalist-sponsored initiative sought to place half of the Tillamook and Clatsop State Forests into permanent conservation as a way of implementing GPV; this initiative would not have compensated the counties for lost revenues, though any lost school funds would have been provided by the state general fund.[132] Voters soundly defeated the measure.[133]

A year later, in *Tillamook II*, the Tillamook County Circuit Court invalidated the state's attempt to transfer $10 million in ORS 530 land revenues to the state general fund, finding that such a transfer violated the ORS 530 "contract" between the state and the counties.[134] In so holding, the court held that both ORS 530 and the deeds entered into by the counties pursuant to the scheme bound the state.[135] It emphasized that the deeds were based on a historical agreement, and that therefore the state breached its contract when it attempted this transfer.[136] The state tried to appeal this result, but as a result of a procedural error, the appeal was dismissed.[137] As a result, the exact scope of GPV, and the proper sources of law for interpreting its meaning, remains elusive, although the key tenets of *Tillamook I* still carry weight.

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127 *Id.* at 196.

128 *Id.* at 183.

129 *Id.*

130 *Id.* at 184.

131 Only 15% of ORS 530 forests must achieve "layered" forest stand structure, and only 15% must achieve "old growth" forest stand structure—the rest need only reach "regeneration" (15%), "closed single canopy" (5%), and/or "understory" (30%) stand structures. *See* ODF, FOREST MANAGEMENT PLAN, *supra* note 1, at S-17. Although 70% of ORS 530 land is theoretically open to clearcutting, the actual percent of land open to clearcutting varies by timber district due to terrain (i.e. steep slopes, rocks, stream buffers, wetlands), a lack of road access, and/or varied growing conditions.

132 *See* Oregon Measure 34, §§ 2(a)–(b), 4 (Nov. 2, 2004), http://oregonvotes.org/pages/history/archive/nov22004/guide/meas/m34_text.html (last visited Nov. 18, 2012).

133 Only 38.3% of the state electorate voted in favor of the initiative. OR. SEC'Y OF STATE, NOVEMBER 2, 2004, GENERAL ELECTION ABSTRACT OF VOTES, STATE MEASURE NO. 34 (2010), *available at* http://www.sos.state.or.us/elections/doc/history/nov22004/abstract/m34.pdf.

134 Tillamook Cnty. v. Oregon, No. 042118, at 1–2 (Tillamook Cir. Ct., July 5, 2005).

135 *Id.* at 7.

136 *Id.* (invalidating the revenue transfer law a result of the breach of contract).

137 Order of Dismissal, Tillamook Cnty. v. Oregon (Or. Ct. App. Feb. 15, 2006) (No. CA A130264).

Following a few years of relative quiet, the debate again escalated as the new decade began. In 2010, the Council of Forest Trust Land Counties (CFTLC) forwarded a proposal to Forestry that would have revised GPV such that the "management focus" was "on sustainable and predictable harvest . . . [and] revenues."[138] The rule was not adopted. Nonetheless, the fact that the counties made this proposal suggests that they were not confident that the current incarnation of GPV imposed a duty on the state to maximize revenues. Later in 2010, the pendulum swung in favor of conservation. In *Northwest Environmental Defense Center v. Brown* (*NEDC v. Brown*),[139] the Ninth Circuit held that timber-logging roads are "point sources" for the purposes of the CWA.[140] Although the U.S. Supreme Court has since granted certiorari in the case, the Ninth Circuit decision was seen as a landmark decision for salmon and watershed protection, as sediment run-off from logging roads and clearcutting can increase water turbidity to the detriment of salmon and clean drinking water resources.[141] Less than a year later, however, Senator Ron Wyden co-sponsored the Silviculture Regulatory Consistency Act,[142] a bill meant to reverse the holding of *NEDC v. Brown*.[143] And finally, in the summer of 2012, Forestry voted in favor of creating a new state land category to protect "high value conservation lands."[144] After years of riding this roller coaster, and even despite the recent Forestry vote, Oregon forestland management remains heated and contentious, and far from a long-term amicable resolution.

To resolve the concerns of the counties, their economic interests must be protected. Further, to resolve the concerns of environmentalists, ORS 530 lands and the sensitive species residing therein must receive heightened protection from clearcutting, road construction, and erosion, larger stream buffers should be created, and the forests should be harvested on longer rotation cycles.[145] Current Oregon laws and practices do not sufficiently

138 COUNCIL OF FOREST TRUST LAND CNTYS., PROPOSED GREATEST PERMANENT VALUE RULE HIGHLIGHTS (Jan. 7, 2010), *available at* http://www.oregon.gov/ODF/BOARD/docs/January_2010/Jan_7_Workshop/BOFMIN_20100107_ATTCH_7.pdf.

139 617 F.3d 1176 (9th Cir. 2010) *cert granted sub nom.* Georgia-Pac. W., Inc., v. Nw. Envtl. Def. Ctr., 2012 WL 2368686 (U.S. 2012).

140 *Id.* at 1196 (interpreting Federal Water Pollution Control Act, 33 U.S.C. § 1362(14) (2006)).

141 *See* OR. DEP'T OF ENVTL. QUALITY, TURBIDITY ANALYSIS FOR OREGON PUBLIC WATER SYSTEMS 37–38 (2010) (describing turbidity impacts on water quality).

142 S. 1369, 112th Cong. (2011).

143 S. 1369 would exempt timber activities from having to obtain a national pollutant discharge elimination system (NPDES) permit. *Id.* § 2(3)(A) (proposing to amend 33 U.S.C. § 1342(l) (2006)).

144 Tyler Graf, *Forestry Board Moves in New Direction*, DAILY ASTORIAN, July 27, 2012, http://www.dailyastorian.com/free/forestry-boardmoves-in-new-direction/article_34484c6a-d816-11e1-bf2a-001a4bcf887a.html (last visited Nov. 18, 2012).

145 Clearcut logging and fires have reduced the old growth forest in the Pacific Range to 1% of historical levels. CTR. FOR BIOLOGICAL DIVERSITY, *supra* note 2, at 12. The CBD study estimates that logging, road construction, erosion and other factors threaten 60 "species of concern" in the Pacific Range. *Id.* Moreover, Oregon allows 120-acre clearcuts, and has limited riparian zones of only 20 feet around rivers and streams. OR. ADMIN. R. 629-640-0100(2)(a)–(c), 629-640-0200(2)(a)–(c) (2012); *see* OR. REV. STAT. § 527.740(1)–(2) (2011). In contrast, federal forests are required to maintain 150-foot buffers. CTR. FOR BIOLOGICAL DIVERSITY, *supra* note 2, at 12. The

protect sensitive riparian areas or species,[146] or prevent forest habitat fragmentation from clearcutting.[147] The first step towards predictability for these tortured ORS 530 lands is to properly interpret GPV.

III. THE STATUTORY FRAMEWORK: INTERPRETING THE MEANING OF GPV

As evidenced by the discussion in Part II.B, the courts, legislature, and agencies have not provided a conclusive and robust interpretation of GPV, thus leading to significant legal wrangling as to what the mandate requires. Thus, providing some definitive guidance could avoid much of this back-and-forth. The statute itself states that all ORS 530 lands must be managed "so as to secure the *greatest permanent value* of those lands *to the state*."[148] The original legislation did not define GPV, although ORS sections 530.050(1)–

lesser protections in state forests are accentuated by "rotation" cycles as low as 35–40 years. *Id.* at 12–13.

146 OR. ADMIN. R. 629-635-0310(1)(a) (2012) (allowing small domestic use/non-fish streams 20 feet riparian management areas, whereas small fish streams receive 50 feet management areas. All other small streams that do not have domestic or fish use classifications only receive water quality protection, and receive no riparian management area); *id.* at 629-640-0100(2)(a)–(c), 629-640-0200(2)(a)–(c) (2012) (allowing operators along fish streams, domestic streams, and large and medium unclassified streams, to retain understory vegetation within 10 feet of a stream, trees within 20 feet of a stream, and all trees leaning over a channel). If too much sediment exists in the water—either by way of landslide cover or excessive run-off sediment—salmon breeding could be impaired. *See* Cymie Payne, *Foreword*, 24 ECOLOGY L.Q. 619, 621 (1997). Moreover, unlike federal land, state owned land is only subject to section 9 of the ESA (prohibiting "takes" of listed species), and not to section 7 (requiring consultation with federal environmental agencies). Michael C. Blumm & Jonathon Lovvorn, *The Proposed Transfer of BLM Timber Lands to the State of Oregon: Environmental and Economic Questions*, 32 LAND AND WATER L.R. 354, 396–97 (1997). Thus, state land managers need not consult with federal environmental agencies prior to making management decisions. *See id.* Moreover, all of the listed species found in the ORS 530 lands are threatened. *See infra* notes 267–75 and accompanying text. Section 9 liability does not generally apply to threatened species, unless a specific state law provides otherwise. Blumm & Lovvorn, *supra* at 396. Because no Oregon law provides such protection, and because Oregon has soured on habitat conservation plans, the only ESA check on the state's management of ORS 530 lands is the regulatory takings doctrine outlined in *Strahan v. Coxe*, 127 F.3d 155 (1st Cir. 1997), *cert. denied*, 525 U.S. 830 (1998). This court held a state liable under section 9 of the ESA for permitting fishing activity that was likely to harm endangered whales. *Id.* at 164–65. A similar claim was brought before the Oregon federal district court with respect to state permitting of clearcut logging on high risk landslide sites, small and medium streams home to listed coho with minimal buffers, and non-fish streams without buffers that could have downstream impacts on listed salmon. Pac. Rivers Council v. Brown, CV-02-243-BR, at 5 (D. Or. Dec. 23, 2002). Although this line of cases may in the future lead to more checks on state activities, overall, protections on state forestlands are much less stringent than protections on federal forestlands. *See* Blumm & Lovvorn, *supra* at 410.

147 *See, e.g.*, OR. REV. STAT. § 527.740(1) (2011) (allowing clearcuts up to 120 acres in size); OR. ADMIN. R. 629-630-0100(1) (2012) (operators are given the discretion to choose the method by which to harvest forests); *see supra* note 130 and accompanying text (describing that only 15%–25% of ORS 530 land is anticipated to achieve older forest conditions—the rest is theoretically open to clearcutting); Edward J. Heisel, *Biodiversity and Federal Land Ownership: Mapping A Strategy for the Future*, 25 ECOLOGY L.Q. 229, 244 (1998) ("Clearcutting of [Northwest old growth] forests has severely compromised their biological integrity, resulting in the direct loss of biodiversity through habitat fragmentation.").

148 OR. REV. STAT. § 530.050 (2011) (emphasis added).

(12) now collectively list a number of activities—protecting the land from fire and disease, selling forest products, entering into timber contracts, grazing, fish and wildlife habitat, recreation, water supply protection, and starting a carbon offset forest program—as consistent with GPV. Further, in 1998, Forestry promulgated Oregon Administrative Rule 629 (OAR 629) that defined GPV as "healthy, productive, and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic, and environmental benefits to the people of Oregon."[149] OAR 629 then provides a non-exhaustive list of GPV activities, including timber production, properly functioning aquatic habitats for salmon and other native fish and aquatic life, habitats for native wildlife, productive soil, clean air and water, protection against floods and erosion, and recreation.[150]

Unfortunately, neither ORS 530 nor OAR 629 prioritized these benefits. Thus, like many mandates that attempt to balance multiple uses, GPV lacks the substantive standards necessary to guide decisionmaking.[151] Without legislative guidance as to how to achieve a GPV outcome, Forestry is left to make discretionary management decisions. These decisions are not made in a vacuum. Rather, as a volunteer citizen board,[152] the BOF relies heavily on public input. And because BOF and ODF are open to and accessible by the public, Forestry's policymakers are under constant political scrutiny from politicians, loggers, environmentalists, and other interest groups.[153] Because of this dynamic, interest groups typically have an incentive to lobby Forestry for one-sided, short-term land-use positions that elevate particular aspects of GPV above all other variables.[154] Thus, management decisions regarding ORS 530 lands are often "more about appeasing [these] interest groups . . . than about long-term permanent value maximization."[155] As a result of these pressures, "[a]dding together a bunch of interest group demands and calling it . . . the 'greatest value'" is often what occurs.[156] However, when GPV is determined simply by adding up the interests that have lobbied most loudly, the multiple use mandate is not fulfilled.

Although all citizens technically have the ability to influence Forestry policy, "[p]ublic choice theory predicts that small, well-organized interest groups 'will exert a disproportionate influence on policymaking,'" especially

149 OR. ADMIN. R. 629-035-0020(1) (2012).

150 *Id.* at 629-035-0020(2).

151 OR. REV. STAT. § 530.050(1)–(12) (2011) (providing no comparative criteria, and no guidance as to how to balance multiple possible uses of the forests); s*ee also* Michael C. Blumm, *Public Choice Theory and the Public Lands: Why "Multiple Use" Failed*, 18 HARV. ENVTL. L. REV. 405, 407 (1994) ("[M]ultiple use is founded upon a standardless delegation of authority to managers of public lands and waters. . . .").

152 OR. REV. STAT. §§ 526.009(1), 526.031(1) (2011). Board members are only compensated for expenses and receive only a small per-diem for attending the BOF meetings. OR. REV. STAT. § 526.016(2) (2011).

153 Neuman, *supra* note 14, at 195.

154 *Id.*; *supra* notes 141–153 and accompanying text.

155 Neuman, *supra* note 14, at 195.

156 *Id.*

when their livelihoods depend on the outcome of the policy decisions.[157] In line with this prediction, even though they represent a small percentage of the overall public, the counties have successfully persuaded Forestry policymakers to authorize high timber harvests for their benefit for many years.[158] Even recently, the counties successfully lobbied Forestry to approve higher harvest levels.[159]

The strength of this influence is likely due to the strong economic interests of organized and proximate timber interests whose livelihoods are linked to the forests. As noted in Part II, the counties rely significantly on revenue obtained from ORS 530 lands.[160] And since the counties profit more if more ORS 530 land timber is harvested,[161] they have a strong incentive to lobby for aggressive harvest levels.[162] Due to these dynamics, the GPV mandate—like other mandates balancing multiple uses—has often failed to yield balanced outcomes and instead has created one-sided "special interest legislation."[163] As a result of the counties' clout, Forestry decisions often further understate and undervalue the already under-appreciated natural preservation, conservation, and recreation values associated with these public goods.[164]

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157 Sara A. Clark, *Taking A Hard Look at Agency Science: Can the Courts Ever Succeed?*, 36 ECOLOGY L.Q. 317, 325 (2009) (quoting Blumm, *supra* note 151, at 407).

158 LEVESQUE, *supra* note 4, at 4.

159 On April 22, 2010, the BOF voted 5-2 to approve a revised forest management plan that decreased old growth forest goals, approved higher clearcut limits and abandoned the Habitat Conservation Plan Process. Petition for Reconsideration, In the Matter of the State Forests Work Plan 2, IBI-6, Changes to the NW Forest Management Plan made by the Oregon Board of Forestry, at *2–5 (June 18, 2010), *available at* http://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/Petition_for_Reconsideration_June_2010.pdf. These changes were approved by the BOF without the completion of a required scientific review. OR. ADMIN. R. 629-035-0020(3) (2012). However, this forestry management plan focused on one aspect of the OAR: the "[s]ustainable and predictable production of forest products that generate revenues for the benefit of the state, counties, and local taxing districts." OR. ADMIN. R. 629-035-0020(1)(a) (2012).

160 *See* COUNCIL OF FOREST TRUST LAND CNTYS., STATE FORESTER'S ANNUAL REPORT FOR THE ASSOCIATION OF OREGON COUNTIES 5 tbl.2 (2009) [hereinafter COUNCIL OF FORESTS TRUST LAND CNTYS., 2009 ANNUAL REPORT] (noting that Clatsop County received a 10-year average of $17,201,285 in revenues from ORS 530 lands and Tillamook County received an average $11,858,314 from fiscal years 2000–2009); *see also* TILLAMOOK CNTY. TREASURER, *supra* note 111, at 4 (noting that "State Forest Revenue provides [Tillamook County with] about $2,800,000 in funding for General Fund Programs").

161 For example in 2000, with timber prices at $347 per MBF, 214,165 MBF of timber was harvested from ORS 530 lands. This yielded nearly $74.64 million net cash to the counties. COUNCIL OF FOREST TRUST LAND CNTYS., 2009 ANNUAL REPORT, *supra* note 160, at 9 tbl.5. In 2007, with timber prices at $348 per MBF, 244,398 MBF of timber was harvested from ORS 530 lands. This yielded net cash to the counties of almost $98.29 million. *Id.*

162 *See* Clark, *supra* note 157, at 325.

163 Blumm, *supra* note 151, at 407 ("[M]ultiple use has created the archetypal 'special interest' legislation.").

164 *See* David A. Dana, *Existence Value and Federal Preservation Regulation*, 28 HARV. ENVTL. L. REV. 343, 346 (2004) ("[W]e should expect the . . . political process to understate significantly the comparative magnitude of the existence-value benefits of natural preservation.").

Although these pro-timber management outcomes make sense in the context of interest group pressure and public choice theory, the question is whether pro-timber management that maximizes timber revenues complies with the legislative intent behind ORS 530. For two main reasons, this Comment argues that GPV instead requires balanced, multi-value management, and not harvest maximization for the benefit of the counties. First, Section A of this Part analyzes GPV using Oregon's *State v. Gaines*[165] statutory construction framework, and argues that the legislature did not intend to impose a statutory duty on the state to maximize timber revenues. Second, Section B analyzes the holdings from *Tillamook I* and *Tillamook II* and argues that if the counties' statutory construction arguments under *Gaines* fail to persuade, it is improper to impose a duty to maximize revenue by way of contract or trust principles. In support of Section B, Section C argues that the counties cannot likely establish a duty to maximize revenue through partnership law even if *Tillamook I* did not foreclose the argument.

A. Interpreting the GPV Mandate Under the State v. Gaines *Framework*

In *State v. Gaines*, the Oregon Supreme Court adopted a framework under which all statutes—ambiguous and unambiguous—are interpreted.[166] The overriding goal of this analysis is to determine legislative intent.[167] In identifying the legislative intent behind a statute, Oregon courts must analyze the provision's "text and context"[168] and may give weight to any legislative history offered by the parties.[169] If this process is inconclusive, courts will then consider any applicable maxims of statutory interpretation.[170] ORS 530 has no dispositive or influential legislative history,[171] although officials made a number of post-enactment statements regarding the statute.[172] These post-

165 State v. Gaines, 206 P.3d 1042, 1050–51 (Or. 2009) (en banc).

166 *Id.* at 1050–51.

167 *Id.* at 1050.

168 In analyzing context, courts should look to other provisions of the same statute and other related statutes. Portland Gen. Elec. Co. v. Bureau of Labor & Indus., 859 P.2d 1143, 1146 (Or. 1993). This may include looking to old versions of the current statute. *See* Dockins v. State Farm Ins. Co., 985 P.2d 796, 799 (Or. 1999).

169 *Gaines*, 206 P.3d at 1046.

170 *See id.*

171 ODOJ Memo, *supra* note 34, at 8–9, 9 n.4–6 (noting that only one relevant statement was made during the course of a legislative session). This statement, made by Governor Charles Sprague, articulated that "[n]et proceeds from the lands could flow back to the counties and taxing units." LEVESQUE, CHRONICLE OF TILLAMOOK, *supra* note 12, at 519 (1985).

172 For example, Governor Sprague addressed the federal Joint Congressional Committee on Forestry on December 12, 1939 (after the enactment of 1939 Or. Laws, c 478), and characterized the state's acquisition of conveyed forest lands as the administration of "a permanent public trust." LEVESQUE, CHRONICLE OF TILLAMOOK, *supra* note 12, at 545. In 1945, Clatsop County Forester Charles Henry commented that the "solution is to turn the lands over to state under what we are pleased to call a co-partnership with the state." LEVESQUE, *supra* note 4, at 25–27. Further, ODF frequently referred to the state-county relationship as a partnership in its 1960s publications. *Id.* at 27–28.

enactment statements do not, however, qualify as legislative history,[173] and therefore the *Gaines* analysis should not consider them. Thus, the interpretation of GPV will be based on the text and context of the provision, supported by applicable maxims of statutory construction.

The plain meaning of "greatest permanent value . . . to the state" itself provides strong evidence of legislative intent under the first step of the *Gaines* framework. Although Forestry has often equated GPV to revenue maximization,[174] on its face, GPV seems to require that Forestry weigh the long-term non-economic and economic values provided by the ORS 530 lands, and then to select the management outcome that provides the greatest benefits to the state as a whole. In particular, "greatest . . . value" implies a comparative analysis that weighs competing economic, recreational and extrinsic returns that can be derived from the forests.[175] Moreover, "permanent" implies a long-term view.[176] Finally, the "value" language is not phrased in economic terms, but rather as a more open-ended, multi-faceted assessment.[177] The plain meaning of GPV thus suggests that Forestry should balance the approved ORS Section 530.050(1)–(12) activities so as to arrive at management decisions that maximize returns for the entire state, including future generations.[178] As such, the GPV mandate seems to require more of Forestry than typical multi-use, discretionary authorization such as that found in the Multi-Use Sustained-Yield Act of 1960.[179]

With respect to context, other provisions in ORS 530 support the plain meaning conclusion suggested above. As noted, ORS 530.050 did not prioritize any particular management activities. Further, in giving Forestry the authority to acquire ORS 530 lands, the legislature did not elevate any particular objective—such as revenue maximization—above others. Instead, the legislature gave Forestry the authority to acquire lands "chiefly valuable for the production of forest crops, watershed protection and development, erosion control, grazing, recreation *or* forest administrative purposes."[180] This suggests that the legislature considered erosion control, watershed protection, and recreation values co-equal to timber harvest revenue in drafting the GPV language.[181]

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173 Salem-Keizer Ass'n of Classified Emps. v. Salem-Keizer Sch. Dist., 61 P.3d 970, 974–75 (Or. Ct. App. 2003).

174 *See supra* notes 113, 172 and accompanying discussion.

175 Neuman, *supra* note 14, at 197.

176 *Id.*

177 *Id.* at 197–98.

178 *Id.* at 198.

179 16 U.S.C. §§ 528–531 (2006). The USFS is charged with administering the national forests "for multiple use and sustained yield of the several products and services obtained therefrom," with "due consideration [to] be given to the relative values of the various resources in particular areas." *Id.* § 529. Congress defined multiple use as "that [which] will best meet the needs of the American people; making the most judicious use of the land." *Id.* § 531(a). As interpreted by the Ninth Circuit, this language "breathe[s] discretion at every pore." Perkins v. Bergland, 608 F.2d 803, 806 (9th Cir. 1979) (quoting Strickland v. Morton, 519 F.2d 467, 469 (9th Cir. 1975)).

180 OR. REV. STAT. § 530.010(1) (2011) (emphasis added).

181 *Id.* § 530.050(4) (stating that ODF may protect these lands for "fish and wildlife environment, landscape effect, protection against floods and erosion, recreation, and protection

Other ORS chapters do not undermine this conclusion, although ORS 526 injected some confusion into the debate. Under ORS 526, entitled "Forestry Administration," if the counties have established a forestland classification committee, that committee "shall periodically investigate and study all land within the boundaries of its county," "determine which of the land is forestland," "assign all forestland" within county boundaries to a "class," and prepare "maps showing the final classifications."[182] "Class I" lands are those that are "primarily suitable for the production of timber," "Class II" lands are those "primarily suitable for joint use for timber production and the grazing of livestock," and "Class III" lands are those lands "suitable for grazing or other agricultural use."[183] Further statutory instructions provide that "[a]ll . . . forestland classified pursuant to . . . [ORS 526] . . . shall be so *administered* [by the state forester] as best to promote the primary use for which that land is classified."[184] At first glance, the interaction of ORS 526 and ORS 530 is unclear, and no courts—including *Tillamook I* and *Tillamook II*—appear to have addressed this question. However, for three reasons, ORS 526 should not be construed to impact the value balancing approach seemingly required by the plain meaning of ORS 530.

First, ORS 526 classifications were not cross-referenced in ORS 530.050 as activities to weigh in the GPV management calculus.[185] Second, ORS 526 classifications only apply as between timber harvesting, agriculture and grazing, and not to other considerations such as GPV, that are outside the scope of the ORS 526 classification scheme.[186] Third, land *administration* (as discussed in ORS 526) is arguably a subcategory of land *management* (as discussed in ORS 530), and so to construe ORS 526 as limiting ORS 530 GPV management options would both misunderstand this distinction and render several aspects of GPV superfluous.[187] Thus, because ORS 526 and GPV share

of water supplies"); *id.* § 530.050(12) (ODF may "[d]o all things . . . necessary or convenient for the management, protection, utilization and conservation of the lands"); *see* OR. ADMIN. R. 629-035-0020(1) (listing social, economic and environmental values).

182 OR. REV. STAT. § 526.320 (2011) (directing the Forestry committee to periodically study all lands and determine which are forestlands); *id.* § 526.324(1) (assigning all forestland into classes); *id.* § 526.328(2) (requiring one or more maps showing the final classification of forestlands).

183 Act of Mar. 11, 1937, ch. 381, § 4, 1937 Or. Laws 554, 556 (codified at OR. REV. STAT. § 526.324(1)(a)–(c) (2011)).

184 OR. REV. STAT. § 526.350(1) (2011). The statutory provision does not explicitly state that the state forester is to administer these lands, but that is the most likely inference. *Id.* § 526.350(3) ("The forester, on forestland classified pursuant to ORS [526], shall administer the forest laws of this state in accordance with the policy stated in this section as it applies to the land involved.").

185 *See* OR. REV. STAT.§ 530.050 (2011) (discussing the management of land acquired so as to secure the "greatest permanent value," but failing to cross-reference ORS 526).

186 *See id.* § 526.350(2)(a) (ORS 526 explicitly recognizes that the forester "shall give primary consideration to timber production and reforestation, in preference to grazing or agricultural uses, *not excluding, however*, recreation needs or scenic values.") (emphasis added).

187 Courts are to interpret statutes so as to give each part meaning, and not render any provision superfluous. Mitchell v. City of St. Paul, 36 P.3d 513, 516 (Or. Ct. App. 2001) (citing OR. REV. STAT. § 174.010). Reading ORS 526 to require only timber-centric management options would render superfluous the environmental, ecosystem service, and recreational aspects of GPV and its

no textual link, ORS 526 is aimed at a narrow set of land use classes, and ORS 526 land *administration* does not conflict with the ORS 530 land *management* scheme, ORS 526 should not be seen as requiring timber harvest maximization on ORS 530 lands.

The absence of language that would impose a "trust" duty[188] to maximize timber revenues is also instructive in analyzing GPV under the *Gaines* framework. In enacting ORS 530, the legislature used the phrase "greatest permanent value . . . to the state." Especially when compared to other Northwest forestland management statutes,[189] the legislature's choice to require GPV, and not some other standard, was revealing.

In defining ORS 530 land management, the Oregon legislature did not require the ORS 530 lands be held "in trust" for the state, as did the 1923 Washington legislature in describing its state forestlands.[190] According to the Washington Supreme Court, this express "in trust" language imposed on the state a duty to maximize revenues from these lands.[191] Likewise, the legislature did not instruct the state to manage the ORS 530 lands for the "*greatest benefit* for the *people of this state*, consistent with the conservation of this resource under sound techniques of land [and timber] management," as it did for the Oregon common school lands in 1859.[192] In 1917, prior to the enactment of GPV, the Oregon Supreme Court held that this language imposed a duty on the state to hold the common school lands in trust for the benefit of the state schools, and that holding these lands in

regulations. Further, administration of forestland classifications is arguably a subcategory of forest management, not a conflicting management mandate. *See* Greenhalgh v. Columbia Cnty., 54 Or. Land Use B.A. 626, 636, 2007 WL 2230114, at *6 (2007) (noting that permitted uses in forest zones include "[s]tructures and facilities necessary for and accessory to commercial forest management. The uses served by such structures and facilities may include, but are not limited to: *administration*, equipment storage and maintenance, communications, fire protection, fish rearing, and residences for property owners, employers or full-time employees *directly accessory to and required for commercial forest management*.") (emphasis added).

188 Oregon law defines a trust as an "equitable obligation, either express or implied, resting upon a person by reason of confidence reposed in him to apply or deal with property for the benefit of some other person . . . according to such confidence." Lozano v. Summit Prairie Cattlemens Ass'n, 963 P.2d. 92, 95 (Or. Ct. App. 1998).

189 Context analysis also includes other related statutes on the same general topic. State v. Carr, 877 P.2d 1192, 1194 (Or. 1994).

190 Washington explicitly stated that all land deeded to Washington, and then managed by the Department of Natural Resources (DNR) "shall be held in trust" by DNR. State Forests-Reforestation Act, ch. 288, § 3(b), 1927 Wash. Sess. Laws 704, 707 (codified at WASH. REV. CODE § 79.22.040 (2010)).

191 With respect to its state forestlands, the Washington Supreme Court held that language required revenue maximization. Skamania Cnty. v. State, 685 P.2d 576, 580 (Wash. 1984) ("A *trustee must act with undivided loyalty to the trust beneficiaries*, to the exclusion of all other interests . . . . In the context of [Washington state forest land] this means that when the state transfers trust assets such as contract rights it *must seek full value for the assets*.") (emphasis added) (internal citations omitted).

192 OR. CONST., art. VIII, § 5(2) (emphasis added). Upon entry to the union in 1859, Oregon accepted Congress' offer to take title to sections 16 and 36 of every township of public lands in the state for the use of schools. Act of June 3, 1859, § 1, 1859 Or. Laws 29, 30.

trust required the state to maximize revenues from them.[193] Legal developments following the enactment of GPV also affirmed the notion that the common school lands carried with them a duty to maximize revenues for the benefit of the state's citizenry.[194] In contrast, although it easily could have done so when drafting ORS 530 in the 1930s and 1940s, the Oregon legislature did not use explicit trust-creating language, as did the 1923 Washington legislature, nor did it imply trust duties, as did the Oregon courts in 1917 with respect to the common school lands. This drafting decision with respect to ORS 530 suggests that the legislature did not intend to impose a revenue maximization duty on the state under GPV.

This conclusion is supported by accepted maxims of statutory construction. In Oregon, the legislature is presumed to be aware of existing laws.[195] Further, Oregon courts have consistently held that courts should not insert into the statute what has been omitted.[196] As such, when analyzed in the context of Oregon's accepted statutory construction maxims, the legislature's failure to use language known to trigger a revenue maximization duty when it enacted GPV in 1945[197] suggests that it did not intend to impose such a duty on the state with respect to the ORS 530 lands. Accordingly, the courts should not imply such a duty. Comparing the modern administrative rules governing common school and ORS 530 lands bolsters this conclusion. On the one hand, common school lands emphasize revenue maximization, whereas on the other hand, the rules governing ORS 530 lands require the balancing of multiple, permanent values.[198]

In sum, application of the *Gaines* framework confirms that the legislature did not intend to impose a statutory duty to maximize revenues

193 Grand Prize Hydraulic Mines v. Boswell, 162 P. 1063, 1064 (Or. 1917) ("[T]he school lands granted to the state of Oregon are a trust for the benefit of public education. It is the duty of the state to dispose of [the common school lands] *for as near their full value as may be*, and to create thereby a continuing fund for the maintenance of public schools.") (emphasis added); State Land Bd. v. Lee, 165 P. 372, 375 (Or. 1917) (noting the state "holds the funds *in trust* for the common schools of the state, and hence in trust for a public purpose") (emphasis added).

194 OR. ADMIN. R. 141-110-0010(1) (2012) ("All Trust Land will be managed in accordance with the need to *maximize long-term financial benefit* to the Common School Fund.") (emphasis added); 36 Or. Op. Att'y Gen. 150, 224 (1972) (The common school mandate imposes "a complete management responsibility of the state's land resources to make them productive of income or other values depending upon what will best conduce with the welfare of the people of the state and the conservation of the state's land resources"). The Washington Supreme Court held similarly with respect to state forest lands held in trust by DNR. *See supra* note 191 (discussing *Skamania County*).

195 State v. Waterhouse, 307 P.2d 327, 332–33 (Or. 1957) ("Knowledge on the part of the legislature of . . . earlier enactments is presumed . . . .").

196 Portland Gen. Elec. Co. v. Bureau of Labor & Indus., 859 P.2d 1143, 1146 (Or. 1993), *superseded in part by statute*, OR. REV. STAT. § 174.020, *as recognized in* State v. Gaines, 206 P.3d 1042 (Or. 2009) (stating that courts should "not . . . insert what has been omitted").

197 Act of 1945, ch. 154, § 5, 1945 Or. Laws 213, 214.

198 *Compare* OR. ADMIN. R. 629-035-0020(1) (2012) ("'[G]reatest permanent value' means healthy, productive, and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic, and environmental benefits to the people of Oregon."), *with* OR. ADMIN. R. 141-110-0010(1) (2012) ("All Trust Land will be managed in accordance with the need to *maximize long-term financial benefit* to the Common School Fund.") (emphasis added).

from the ORS 530 lands. The plain text meaning of GPV seems to require Forestry to weigh the long-term non-economic and economic values provided by the ORS 530 lands, and then to select the policy outcome that provides the greatest values to the state as a whole. Other provisions in ORS 530 and its implementing regulations support this balanced approach. Although ORS 526 does inject some ambiguity into the equation, the connection between the two chapters is tenuous at best, and the exclusive ORS 526 county timber classifications would be preempted by the state management regime outlined in ORS 530. Finally, because the legislature chose not to draft GPV in a way that would clearly create a trust duty to maximize timber revenues, no such duty should be implied. As such, because statutory text is the best evidence of legislative intent,[199] interpreting the GPV language to require long-term, multi-resource management is far more supportable under *Gaines* than are timber or revenue-centric interpretations.

B. Statutory Interpretation Implications from Tillamook I

The Oregon Supreme Court's conclusion in *Tillamook I* also supports the long-term, multi-value conclusion reached under the *Gaines* framework. Although the court did not define GPV under ORS 530, it held that the statute's management and revenue scheme prohibited the state from conveying ORS 530 lands to a third party—an act that would have extinguished the lands' revenue-producing capacity, and denied the counties what they were entitled to "as set forth in the statutory distribution formula."[200] Far from requiring revenue maximization, as was required by the Oregon common school and Washington state forest trust land schemes, *Tillamook I* only required that Forestry not eliminate *all* revenue potential from ORS 530 lands. As such, the opinion clearly imposed a floor that Forestry could not go below, but did not impose any duty to produce a certain amount of revenue, let alone a mandate to maximize revenue.

In addition, the court in *Tillamook I* noted that whatever GPV required, it was not determined by "describ[ing] the arrangement in contract or trust terms," but by looking to the ORS 530 statutes to see "what flows from them."[201] Thus, if the counties could not prove that ORS 530 created a duty to maximize timber revenues, they could not then fall back on contract or trust principles to establish the revenue maximization duty. As noted in Part III.A, the GPV mandate did not likely create a statutory duty to maximize revenues for the counties.

Therefore, *Tillamook II*, which held that county-to-state deeds created a revenue maximization duty in contract,[202] was decided incorrectly in light of

199 *State v. Gaines*, 206 P.3d at 1050 (citing State *ex rel* Cox v. Wilson, 562 P.2d 172, 173 (Or. 1977) (en banc)).

200 *Tillamook I*, 730 P.2d. 1214, 1218–21 (Or. 1986).

201 *Id.* at 1221.

202 *See Tillamook II*, No. 042118, at 7 (Tillamook Cir. Ct., July 5, 2005) ("[T]he State is contractually bound not only because of what comes from the statutory scheme, which has

Tillamook I. Although the court in *Tillamook I* recognized that the state admitted that it "actively promoted the benefits of county participation in the program which included assurances that the lands would be used to produce revenue,"[203] these assurances did not create a contract outside of the statute.[204] Likewise, these assurances did not create an independent, non-statutory trust duty to maximize revenues.[205] Thus, because the Oregon Supreme Court's "interpretation of a statute becomes a part of that statute as if expressed in the statute itself,"[206] the counties cannot rely on contract or trust principles outside of what was created by the statutes to argue that a revenue maximization mandate exists.

C. A Duty to Maximize Timber Revenues From Partnership Principles?

Although *Tillamook I* held that the state-to-county revenue relationship—which is directly influenced by the state's interpretation and implementation of GPV—flowed from ORS 530, and not principles of *contract* or *trust* law,[207] it did not explicitly foreclose the possibility that partnership principles could establish a duty to maximize revenues. By implication, however, the court foreclosed all non-statutory avenues for establishing a revenue maximization duty, and simply listed contract and trust law principles in its refutation of the lower court's holding.[208] Even assuming that *Tillamook I* did not foreclose all other non-statutory avenues for establishing a revenue maximization duty, partnership principles do not likely establish such a duty. Although the counties might argue otherwise, the ORS 530 relationship between the counties and the state appears to lack critical elements of a partnership.

Partnerships in Oregon are formed when two or more entities "carry on as co-owners" of a business created for profit.[209] The legislature has enumerated several factors to consider when determining whether a partnership has been created. These factors are: 1) the receipt of or right to receive a share of the business' profits; 2) the expression of intent to be partners; 3) the participation or right to participate in the control of the business; 4) the sharing of or agreement to share losses or liability from claims against the business; and 5) the contribution of or agreement to contribute money or property to the business.[210] In weighing these factors,

been a consensual arrangement for more than 70 years, but also from the deeds entered into by the Counties pursuant to the statutory scheme and which the State 'sought and bargained for' and gave 'assurances that the lands would be used to produce revenue.'").

203 *Tillamook I*, 730 P.2d at 1221.

204 *See id.*

205 *See id.*

206 Dennehy v. Roberts, 798 P.2d 663, 665 (Or. 1990).

207 *Tillamook I*, 798 P.2d at 1221.

208 *Id.* ("The trial court held that a contractual or trust relationship existed between the state and the counties. We deem it unnecessary to describe the arrangement in contract or trust terms. *Rather, we look to the statutes to determine what flows from them.*") (emphasis added).

209 OR. REV. STAT. § 67.055(1) (2009).

210 *Id.* § 67.055(4)(a).

the parties' intent is not dispositive (although it is a factor),[211] and the party alleging a partnership has the burden to establish its existence.[212] With respect to the first factor, the counties arguably receive a share of profits from ORS 530.[213] This aspect of ORS 530 leans in favor of a partnership. The remaining four factors, however, lean in the opposite direction. Although various officials and publications have classified ORS 530 as a partnership throughout the years,[214] the legislature was silent, thus evidencing its intent not to engage in a partnership.[215] Moreover, because the counties do not own the ORS 530 lands,[216] they do not have a right to control or manage them.[217] Next, virtually no expenses are shared,[218] and the counties do not share in any losses.[219] Further, because they do not own the ORS 530 lands, the counties cannot contribute property to the alleged partnership, even if they have contributed a small amount of money over the years.[220] On balance, no partnership likely existed because the sharing of profits, without more, is not itself sufficient to establish that a partnership exists.[221] Rather, under ORS 530, the counties receive 57% of the remaining revenues as consideration for having conveyed land to the state under the ORS 530 scheme.[222] Because the counties essentially receive profits in "consideration for the sale . . . of . . . property," they lost the rebuttable presumption in favor of partnership.[223]

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211 *See id.* § 67.055(1); *see also id.* § 67.055(4)(a)(B).

212 H.H. Worden Co. v. Beals, 250 P. 375, 377 (Or. 1926).

213 OR. REV. STAT. § 67.055(4)(a)(A) (2011).

214 For example, in 1945, Clatsop County Forester Charles Henry commented that the "solution appeared to be to turn the lands over to the state under what we are pleased to call a co-partnership with the state." LEVESQUE, *supra* note 4, at 26. Further, ODF frequently referred to the state-county relationship as a partnership in its 1960s publications. *Id.* at 27–28.

215 No statutes or deeds evidence intent to form a partnership with the counties. ODOJ Memo, *supra* note 34, at 22. In interpreting a statute, the best evidence of the legislature's intent is the text of the statutory provision itself. Portland Gen. Elec. Co. v. Bureau of Labor & Indus., 859 P.2d 1143, 1146 (Or. 1993).

216 OR. REV. STAT. § 526.162 (2011) (stating that the state holds ORS 530 land in fee simple title).

217 The counties "gave up control over their forest lands" in exchange for the receipt of revenues. *Tillamook I*, 730 P.2d. 1214, 1221 (Or. 1986). The counties do have an advisory role pursuant to ORS 530 land management. OR. REV. STAT. § 526.156(3) (2011).

218 The counties shared in the costs of a joint state-county boundary survey (estimated cost of $4,000) in 1957, and have expended money toward road construction. LEVESQUE, *supra* note 4, at 31–32. Otherwise, all other management expenses are incurred by the state.

219 No statutory provision exists for the sharing of losses. As such, any time management expenses exceed revenues under the ORS 530 scheme, the state alone would likely have to absorb these costs.

220 *See supra* note 218 and accompanying text.

221 OR. REV. STAT. § 67.055(4)(c) (2011) ("The sharing of gross returns does not by itself create a partnership, even if the persons sharing them have a joint or common right or interest in property from which the returns are derived."); *see also* Hayes v. Killinger, 385 P.2d 747, 750 (Or. 1963).

222 ODOJ Memo, *supra* note 34, at 21; *see also Tillamook I*, 730 P.2d. at 1221 ("Pursuant to the enactment of the statutory plan and to the assurances of the state, counties gave up control over their forest lands in *consideration* for a percentage of the revenue derived from such lands.") (emphasis added).

223 OR. REV. STAT. § 67.055(4)(d)(F) (2011).

Combined with the *Gaines* framework and the *Tillamook I* decision, this conclusion as to partnership principles appears to foreclose the last available argument for establishing a duty to maximize timber harvests for the benefit of the counties. Moreover, even if the statutes created a partnership, a partnership would not necessarily mandate timber-centric management. If and when the Oregon courts do directly interpret GPV, they should find that the mandate, and the overall ORS 530 scheme, did not impose on the state a duty to maximize timber revenues for the counties. Instead, they should interpret the phrase's plain meaning, under which Forestry must weigh the long-term non-economic and economic values provided by the ORS 530 lands, and then select the management outcome that provides the greatest benefits to the state as a whole.

IV. DECOUPLING COUNTY BUDGETS FROM ORS 530 TIMBER HARVEST REVENUES

One way to achieve this long-term GPV balance of economic and non-economic values would be to remove ecologically important ORS 530 lands from revenue generating activities that cause ecological degradation by placing land in permanent conservation reserves. Although it may be legal under *Tillamook I* to extinguish the revenue-generating capacity of these lands for a long period of time (but not permanently), a better course of action would be to "decouple"[224] these ecological reserves from the ORS 530 revenue disbursement scheme. As discussed and modeled in Part V, the counties would suffer a budget shortfall as a result of decoupling because they would not be able to earn revenues from the removed ORS 530 lands.[225] As detailed in Part VI, to pay for this "cost of conservation," foregone timber harvest revenues from these ecologically important ORS 530 lands would first be replaced by an upfront cash infusion to the counties, which would be repaid by non-extractive, environmentally neutral "ecosystem services"[226] revenue streams. Once shifted to ecosystem services, the ORS 530 lands would continue to generate revenue, thus complying with *Tillamook I*.[227] However, as discussed in Part VII, "leakage"[228] controls would need to accompany decoupling so as to ensure that the foregone timber harvests did not simply shift to other non-decoupled ORS 530 lands.

Decoupling would also yield several positive benefits, which are discussed in this Part. Decoupling and subsequent ecosystem service programs would help the counties diversify their economies in the face of the shifting regional and global timber economy and a changed forest

224 "Decouple" means to "separate; disengage; dissociate." OXFORD AMERICAN DICTIONARY AND LANGUAGE GUIDE 246 (1999).

225 With less timber harvested from ORS 530 lands, less ORS 530 revenue would flow back to the counties. This would decrease the counties' budgets. *See* discussion *supra* Part V.A.

226 *See supra* Part VI.B (defining in detail ecosystem services, including ORS 530 land-specific examples).

227 730 P.2d 1214 (Or. 1986).

228 *See supra* note 77 (defining "leakage"); *infra*, Part VII (applying the concept of leakage to the revenue gap caused by reduction in harvests).

products industry.[229] With this flexibility, the counties may be able to avoid the stark, timber-dependent financial situation currently faced by Curry, Josephine and other southern Oregon Counties with respect to the federal "Oregon & California" (O&C) forestlands.[230] Moreover, as a result of decoupling, less ORS 530 land would be subject to clearcutting and monocultural replanting.[231] Thus, decoupling may improve the overall health of the ORS 530 lands by decreasing their susceptibility to disease and pest outbreaks, while limiting habitat fragmentation, and allowing for more CO_2 sequestration.[232]

Decoupling could also help to correct some statutory flaws in ORS 530. Because the statute does not impose any revenue caps, the counties, as statutory beneficiaries of ORS 530, have an incentive to harvest as much ORS 530 timber as possible.[233] Arguably, GPV imposes an ecological cap, but until more balanced management occurs, this cap may not be observed.[234] In its current form, ORS 530 is thus quite similar to a statute guiding the federal highway system. Both statutes tie annual beneficiary funding to activities—logging and driving, respectively—that if maximized, would stress and degrade the underlying resource over the long-term. In both schemes, the beneficiaries' short-term incentive to derive more funding overrides their long-term interest in maintaining the health of the underlying resource. However, in contrast to the federal highways, decoupling would partially correct the perverse, short-term incentive to maximize timber harvests. As such, the proposal might help the ORS 530 land ecosystem avoid the long-term structural decay that now plagues the federal highway system.

Finally, decoupling and replacing ecosystem service revenues would arguably diminish the political argument for timber harvest maximization based on county budget impacts. Assuming the counties are both economically and ideologically motivated, lessening the economic rationale for timber harvest maximization on ORS 530 lands through decoupling might also help defuse the politically contentious atmosphere surrounding Oregon forest management. As a result, there might be less support for amending the CWA in a way that would undermine environmental protections afforded by the Ninth Circuit in *NEDC v. Brown*.[235]

229 *See infra* notes 236–50 and accompanying text.

230 *See infra* notes 251–66 and accompanying text.

231 *See infra* Part IV.B.

232 *See infra* notes 267–78 and accompanying text.

233 *See supra* notes 111 (describing Tillamook County's budget reliance on ORS 530 land revenue), 113 (describing past timber-centric management expectations). This incentive is apparent in recent proposed regulatory changes approved by the counties that would make it easier to harvest more timber. *See supra* notes 138 (2010 proposed CFTLC GPV amendment), 139–44 (proposed amendment to CWA).

234 *See supra* Part III (discussing past management outcomes, and the proper statutory interpretation of GPV).

235 *See supra* notes 139–44 and accompanying text.

A. Economic Benefits of Decoupling

Among its many benefits, decoupling would help the counties mitigate the region's changed economic landscape. Although the counties once counted on robust demand for Oregon's prized Douglas fir timber, this assumption may no longer be true.[236] During the late 1980s and early 1990s, the spotted owl controversy and the subsequent Northwest Forest Plan[237] dramatically downsized the overall Northwest timber economy.[238] Moreover, sub-equatorial nations have developed productive, short-rotation, low-cost, timber farms.[239] Soon, these timber imports are expected to fulfill a significant portion of American demand.[240] Further, timber prices are "highly correlated" with housing starts.[241] As housing starts decline, so does the demand for timber.[242] Because housing starts decreased dramatically during the current recession,[243] Oregon timber prices have remained low.[244]

236 J. F. Franklin & K. Norman Johnson, *Forests Face New Threat: Global Market Changes*, ISSUES IN SCI. & TECH., Summer 2004, at 41.

237 The beginning of this stark downturn occurred when a federal court judge held that the U.S. Fish and Wildlife Service acted arbitrarily and capriciously when it chose not to list the Northern spotted owl as endangered or threatened. Northern Spotted Owl (Strix Occidentalis Caurina) v. Hodel, 716 F. Supp. 479, 483 (W.D. Wash. 1988). The issue intensified when all U.S. Forest Service timber sales in spotted owl habitat were enjoined. Seattle Audubon Soc'y v. Evans, 771 F. Supp. 1081, 1096 (W.D. Wash. 1991). This led to the Northwest Timber Summit, which produced a management plan limiting timber harvests on federal lands to 1.2 billion board feet. GEORGE CAMERON COGGINS ET AL., FEDERAL PUBLIC LAND AND RESOURCES LAW, at 758–59 (6th ed. 2007). The option selected was recorded in a record of decision, which ultimately became the Northwest Forest Plan (NWFP), applying to all national forest and Bureau of Land Management (BLM) lands in western Oregon, Washington, and California. *Id.* at 760 (citing Seattle Audubon Soc'y v. Lyons, 871 F. Supp. 1291 (W.D. Wash. 1994), *aff'd sub nom.* Seattle Audubon Soc'y v. Moseley, 80 F.3d 1401 (9th Cir. 1996)). This forest plan sought to manage the forest's ecosystems on a landscape level so as to balance the need for forest habitat and forest products. *See* Lauren M. Rule, *Enforcing Ecosystem Management Under the Northwest Forest Plan: The Judicial Role*, 12 FORDHAM ENVTL. L. REV. 211, 222–27 (2000).

238 *See supra* note 119 and accompanying text.

239 Franklin & Johnson, *supra* note 236.

240 *Id.*

241 OR. DEP'T OF FORESTRY, AN EVALUATION OF THE ACHIEVEMENT OF ALL NINE PERFORMANCE MEASURES FOR TWO MANAGEMENT APPROACHES ON THE TILLAMOOK AND CLATSOP STATE FORESTS 3 fig.1 (2009), *available at* http://www.oregon.gov/ODF/BOARD/docs/June_3_2009/3_Att_1.pdf [hereinafter ODF, NINE PERFORMANCE MEASURES].

242 For example, during the early 1980s, the housing market plummeted, and housing starts sank from over 2.0 million per year to 1.07 million per year. Daniel Jack Chasan, *A Trust for All the People: Rethinking the Management of Washington's State Forests*, 24 SEATTLE U. L. REV. 1, 10 (2000). By 1982, Washington timber that had sold for $337/MBF in 1980 fell to $175/MBF. *Id.*

243 In 2007, private housing starts in the United States numbered around 1.046 million. U.S. CENSUS BUREAU, NEW PRIVATELY OWNED HOUSING UNITS STARTED IN THE UNITED STATES BY PURPOSE AND DESIGN 1 (2011), *available at* http://www.census.gov/const/www/quarterly_starts_completions.pdf. As of 2010, annual housing starts had fallen to 471,000. *Id.*

244 Average stumpage price for timber in Oregon was $348/MBF in fiscal year (FY) 2007. COUNCIL OF FOREST TRUST LAND CNTYS., 2009 ANNUAL REPORT, *supra* note 160, at 9 tbl.5. In 2009, average stumpage prices had dropped to $211/MBF. *Id.* Prices did climb moderately in FY 2010 as ORS 530 land timber sold for an average of $257/MBF. COUNCIL OF FORESTS TRUST LAND CNTYS., STATE FORESTER'S ANNUAL REPORT FOR THE ASSOCIATION OF OREGON COUNTIES 12 tbl.5 (2010).

Combined, these macro-economic factors make it more difficult for Oregon timber to compete in the global marketplace.[245]

The Oregon forest products industry has also changed, further denting the competitive advantage once held by Oregon timber communities. In the past, the Oregon timber industry enjoyed a competitive advantage as a result of the cluster of businesses that arose to support the forest products industry.[246] In the middle of the cluster were the milling and forest product companies; in support were equipment manufacturers, distributors and business services.[247] Most of this support infrastructure was located in Oregon, close to the forests.[248] But now, many of the formerly clustered customers and suppliers are no longer local.[249] This changed dynamic makes it even more difficult for Oregon timber and forest products to compete globally.[250] Combined, these regional and macroeconomic market shifts make continued economic reliance on Oregon timber, and the ORS 530 revenues that flow from them, a risky bet.

Decoupling, combined with a shift to a diverse array of ecosystem service revenue streams, would help the counties adapt their economies to the changed regional and global timber industry. Doing so might also help the ORS 530 counties avoid the economic and public service shortfalls now faced by several counties—including Curry County—in Southern Oregon that are dependent on federal timber revenues.[251] Curry County is home to large tracks of the federally owned Oregon and California ("O&C") forestlands.[252] Originally, the O&C lands were grant lands held by private railroads.[253] When the railroad companies violated the terms of the 1866 grant, the grant lands revested to the United States.[254] Congress' initial

245 *See* Franklin & Johnson, *supra* note 236.

246 E.D. HOVEE & CO., OREGON FOREST CLUSTER ANALYSIS i (2005), *available at* http://www.edhovee.com/OFRI_report.pdf.

247 *Id.* at 6–7.

248 *Id.* at i.

249 *Id.* at 7.

250 *See* Franklin & Johnson, *supra* note 236, at 41, 43 ("The United States will likely become a minor player in the global production of common wood-based products, including lumber, pulp, and paper.").

251 Although Curry County relies on timber harvests from federal land, the same macroeconomic impacts on the Northwest timber economy apply. Curry County currently faces the prospect of bankruptcy if Congress does not renew federal funding. Eric Mortenson, *Rural Oregon Counties Scramble as Timber Payments Dry Up, While Critics Say It's Time They Paid for Services*, OREGONIAN, Mar. 4, 2012, http://www.oregonlive.com/environment/index.ssf/2012/03/oregon_timber_counties_scrambl.html (last visited Nov. 18, 2012).

252 *See* Blumm & Wigington, *supra* note 5, at 6. The O&C lands are a patchwork of forestlands in Southern Oregon and Northern California owned by the federal government. U.S. BUREAU OF LAND MGMT., OVERVIEW OF THE OREGON AND CALIFORNIA (O&C) LANDS ACT OF 1937, at 1 (2011), *available at* www.blm.gov/or/rac/files/Oregon%20Flyer.pdf.

253 Act of July 25, 1866, ch. 242, § 1, 14 Stat. 239, 239–40 (1866).

254 *See* Chamberlain-Ferris Act of 1916, § 1, ch. 137, 39 Stat. 218, 218–19 (1916). In 1911, the Oregon District Court found that the railroad company had forfeited title to all remaining O&C lands. United States v. Or. & Cal. R.R. Co., 186 F. 861, 921, 924, 933 (D. Or. 1911). Although the U.S. Supreme Court eventually concluded that the railroad did not forfeit the lands, it enjoined the railroad from making further sales, and asked Congress to create a solution that would

management regimes failed,[255] but in 1937 it enacted the Oregon & California Lands Act (OCLA).[256] The OCLA provided the O&C counties 50% of the revenue earned by the federal government from logging operations on the O&C lands.[257] This revenue was meant to replace the tax revenues the counties would lose as a result of the revesting.[258] For many years, this arrangement sufficiently supported the O&C Counties.

Since the spotted owl controversy of the late 1980s and 1990s, Congress has authorized a variety of payment programs to help the counties deal with the financial uncertainty caused by the dispute.[259] In 2008, Congress reauthorized the appropriation of money for county payments originally approved under the Secure Rural Schools and Community Self-Determination Act of 2000 (SRSA).[260] The 2008 act appropriated money for fiscal years 2008–2011 on a declining basis.[261] Congress has not reauthorized the SRSA or Payment in Lieu of Taxes (PILOT), although both houses of Congress proposed payment extensions for both programs in 2012.[262] Currently, the O&C counties estimate that they will need $110 million annually to sustain county services and avoid possible insolvency.[263] Indicative of its dire economic situation, Curry County has announced plans

remove the railroad from its ownership position. Or. & Cal. R.R. Co. v. United States, 238 U.S. 393, 438–39 (1915).

255 ASS'N OF O&C COUNTIES, O&C AND RELATED LANDS IN WESTERN OREGON 1–2 (1993), *available at* http://www.oandccounties.com/PDF/BLM.pdf (last visited Nov. 18, 2012).

256 Revested Oregon and California Railroad, etc., grant lands, Pub. L. No. 75-405, 50 Stat. 874 (1937).

257 Oregon and California Land-Grant Fund; annual distribution of moneys, 43 U.S.C. § 1181f (2006).

258 U.S. BUREAU OF LAND MGMT., *supra* note 252, at 1; *see* COGGINS ET AL., *supra* note 237, at 158–59 (noting that the OCLA was enacted because federal property is immunized from state tax laws).

259 U.S. BUREAU OF LAND MGMT., *supra* note 252, at 2. For example, under the Payment In Lieu of Taxes Act (PILOT), 31 U.S.C. §§ 6901–6907 (2006), the O&C counties receive a payment for every acre of their county land that is managed by BLM or the USFS so as to reimburse them for revenues lost because of the tax-exempt status of the federal lands. *Id.* §§ 6901(1)–(2), 6902(1)(a), 6903, 6904.

260 Emergency Economic Stabilization Act of 2008, Pub. L. No. 110-343, § 601(a), 122 Stat. 3765, 3893 (2008).

261 *Id.* § 101(a) (codified at 16 U.S.C. § 7111(a) (Supp. IV 2010)).

262 *See* Federal Forests County Revenue, Schools, and Jobs Act of 2012, H.R. 4019, 112th Cong., 2d Sess., §§ 101(1), 101(8), 102, and 201 (2012) (proposing extension of PILOT funding until 2017 and replacing SRSA funding with a more aggressive county payments program). The Senate recently approved a one-year extension of PILOT funding, and a one-year extension of SRSA. United States Senate, Roll Call Votes 112th Congress – 2nd Session, Vote on the Baucus Amdt. No. 1825, http://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=112&session=2&vote=00029 (approving a one year extension by overwhelming majority) (last visited Nov. 18, 2012).

263 *See* Eric Mortensen & Charles Pope, *Forest Plan Would Share Cost*, OREGONIAN, Feb. 2, 2012, at C1; Tami Abdollah, *Oregon Senate Urges Continued Federal Aid for Timber Counties*, ARGUS OBSERVER, May 19, 2011, http://www.argusobserver.com/news/oregon-senate-urges-continued-federal-aid-for-timber-counties/article_ea09bc5c-463d-5716-ab2f-a74317304756.html. (last visited Nov. 18, 2012); Eric Mortenson, *supra* note 251.

to place a county sales tax measure on the November 2012 ballot.[264] In response to the O&C counties timber-centric revenue problems, three Oregon congressmen recently outlined a proposal whereby the O&C lands would be divided into a privately held timber trust managed for the benefit of the O&C counties, and federally owned conservation lands protected from harvesting.[265] Moreover, a bipartisan group of Congress members recently proposed a new timber-centric management scheme that would attempt to return the O&C lands to greatly elevated harvest conditions and extend PILOT funding.[266] Neither proposal has been enacted.

Although the financial woes of the O&C Counties are connected to federally-created timber dependency, they represent the danger of timber dependency in the changed Northwest timber economy. Preemptively decoupling some ORS 530 lands, and developing replacement ecosystem service revenues, could diversify the counties' economies, and thus help them to avoid the dire economic situation currently confronting the O&C counties.

B. Ecological Benefits of Decoupling

Decoupling important ORS 530 lands would also create a more diverse and resilient ecosystem in the Tillamook and Clatsop State Forests. Decades of timber harvesting have converted many of Oregon's traditional complex stand coastal forests into monoculture-like forests of Douglas fir.[267] And recently, clearcuts have occurred on more frequent rotation cycles, while sensitive riparian zones have not been adequately protected.[268] Forests that

264 CURRY CNTY., DRAFT CURRY COUNTY SALES TAX, AS OF SECOND READING (Mar. 15, 2012), *available at* http://www.co.curry.or.us/commissioners/2012_03_15%20Draft%20Curry%20County%20Sales%20Tax_Second%20Reading.pdf; Eric Mortenson, *Curry County Holds Off on Sales Tax Vote*, OREGONIAN, Mar. 16, 2012, http://www.oregonlive.com/environment/index.ssf/2012/03/curry_county_holds_off_on_sale.html (last visited Nov. 18, 2012). The county earlier proposed building a coast-side golf course to generate revenue. *See* Lori Tobias, *Curry County Officials Hope to Tee Off with Golf Course Plan, But Others Think They Are Out of Bounds*, OREGONIAN, Aug. 28, 2011, http://www.oregonlive.com/pacific-northwest-news/index.ssf/2011/08/post_41.html (last visited Nov. 18, 2012). This plan has since been withdrawn. Lori Tobias, *Curry County Pulls the Plug on Plan to Build Golf Course in Floras Lake Area*, OREGONIAN, Sept. 28, 2011, http://www.oregonlive.com/pacific-northwest-news/index.ssf/2011/09/curry_county_pulls_the_plug_on.html (last visited Nov. 18, 2012).

265 *See* H.R.____, 112th Cong., 2nd Sess., A Bill to Create the O&C Trust § 101(9)(b) (Discussion Draft 2012), *available at* http://www.defazio.house.gov/images/stories/OCTCA_FINAL_02-16-2012.pdf.; *see also* Reps. Greg Walden, Peter DeFazio & Kurt Schrader, *Oregon's Forested Communities: Congressmen Offer Bipartisan Solution to Fiscal Crisis*, OREGONIAN, Dec. 17, 2011, http://www.oregonlive.com/opinion/index.ssf/2011/12/oregons_forested_communities_c.html (last visited Nov. 18, 2012).

266 *See* H.R. 4019, 112th Cong. (2d Sess. 2012).

267 CTR. FOR BIOLOGICAL DIVERSITY, *supra* note 2, at 16.

268 Oregon allows 120-acre clearcuts, and has limited riparian management zones of only 20 feet around rivers and streams (as compared to 150 foot buffers on federal lands). *Id.* at 12. In addition to minimal riparian protection, private forest stands are harvested on 35–40 year "rotation times," as compared to historical 40–60 year rotations. *Id.* at 12–13. The USFS uses a 100-year rotation for Douglas fir in many national forests. COGGINS ET AL., *supra* note 237, at 701. Although Forestry does not release rotation age figures—instead relying on forest structure and

are clearcut and then replanted in monocultural patterns are more susceptible to the spread of disease and pests due to a loss of genetic variability.[269] Whereas diverse old growth coastal forests used to predominate the Oregon Coast Range,[270] even-aged monocultural forests on the Oregon coast may be less resistant to disease spread[271] and pests[272] because of their homogeneity. A recent study of Oregon coastal forests suggested that the replanting of monocultural Douglas fir-based forests has contributed to the rapid spread of Swiss needle cast disease.[273] In addition, clearcutting, short rotation cycles, and even-aged monocultural management lead to habitat fragmentation[274] for ESA-listed species in the counties (which could lead to lawsuits against the state),[275] and likely decrease the amount of

revenue goals—there is anecdotal evidence that the rotation age for ORS 530 lands falls somewhere in between private and federal land rotation cycles. *See* ODF, NINE PERFORMANCE MEASURES, *supra* note 241, at 2 tbl.1, 7 (discussing complex structure goals, including the goal to increase revenues to county governments); *infra* note 329 (describing the relative intensity of rotations on private, state, and federal land in Oregon).

269 George Cameron Coggins, *The Greening of American Law?: The Recent Evolution of Federal Law for Preserving Floral Diversity*, 27 NAT. RESOURCES J. 247, 261 n.90 (1987).

270 Michael C. Wimberly, *Spatial Simulation of Historical Landscape Patterns in Coastal Forests of the Pacific Northwest*, 32 CAN. J. FOREST RES. 1316, 1323 (2006) ("[O]ld growth was the dominant structure class in pre-settlement landscapes [of the Northwest].").

271 Bryan A. Black et al., *Impacts of Swiss Needle Cast on Overstory Douglas-Fir Forests of the Western Oregon Coast Range*, 259 FOREST ECOLOGY & MGMT. 1673, 1679 (2010) ("[S]tand age [is] almost certainly involved in the observed patterns of Swiss needle cast severity . . . [O]lder stands may have inherent buffers to the disease associated with lower tree densities, trees with deeper, more shaded crowns, and a highly developed overstory that better protects against environmental extremes.").

272 *See* Julian Heiermann & Kai Füldner, *Mixed Forests in Comparison to Monocultures: Guarantee for a Better Forest Conservation and Higher Species Diversity? Macroheterocera (Lepidoptera) in Forests of European Beech and Norway Spruce*, 15 MITT. DTSCH. GES. ALLG. ANGEW. ENT. 195, 198 (2006) (finding that mixed forests in Germany were less susceptible to pest infiltration than were monocultural forests).

273 Black et al., *supra* note 271, at 1679.

274 *See* Determination of Critical Habitat for the Northern Spotted Owl, 57 Fed. Reg. 1796, 1799 (Jan. 15, 1992) (codified at 50 C.F.R. § 17.11) ("Current management practices, such as clear cutting, even-aged management, and short rotations preclude development of suitable [spotted owl] habitat.").

275 The marbled murrelet and northern spotted owl were listed as threatened species in each of the three counties. U.S. FISH & WILDLIFE SERV., FEDERALLY LISTED, PROPOSED, CANDIDATE SPECIES AND SPECIES OF CONCERN UNDER THE JURISDICTION OF THE FISH AND WILDLIFE SERVICE WHICH MAY OCCUR WITHIN CLATSOP COUNTY, OREGON 1 (2011), *available at* http://www.fws.gov/oregonfwo/Species/Lists/Documents/County/CLATSOP%20COUNTY.pdf; U.S. FISH & WILDLIFE SERV., FEDERALLY LISTED, PROPOSED, CANDIDATE SPECIES AND SPECIES OF CONCERN UNDER THE JURISDICTION OF THE FISH AND WILDLIFE SERVICE WHICH MAY OCCUR WITHIN TILLAMOOK COUNTY, OREGON 1 (2011), *available at* http://www.fws.gov/oregonfwo/Species/Lists/Documents/County/TILLAMOOK%20COUNTY.pdf; U.S. FISH & WILDLIFE SERV., FEDERALLY LISTED, PROPOSED, CANDIDATE SPECIES AND SPECIES OF CONCERN UNDER THE JURISDICTION OF THE FISH AND WILDLIFE SERVICE WHICH MAY OCCUR WITHIN WASHINGTON COUNTY, OREGON 1 (2011), *available at* http://www.fws.gov/oregonfwo/Species/Lists/Documents/County/WASHINGTON%20COUNTY.pdf. The Oregon Coast coho salmon were recently listed as threatened. Listing Endangered and Threatened Species: Threatened Status for the Oregon Coast Coho Salmon Evolutionary Significant Unit, 76 Fed. Reg. 35755, 35762 (June 20, 2011) (to be codified at 50 C.F.R. pt. 223) (listing coastal coho salmon north of Cape Blanco, Oregon and south of the

carbon dioxide sequestered in the forest.[276] In addition to these ecological and potential legal concerns, less healthy forests in turn lead to less available harvestable timber, and millions in lost timber revenue.[277] As such, the counties have a vested interest in improving the health of the ORS 530 forests.[278]

C. Correcting the Statutory Incentive to Maximize Timber Harvests

In addition to yielding economic and ecological benefits, decoupling would also help correct the perverse statutory incentive to harvest increasingly higher levels of ORS 530 lands. Under the ORS 530 revenue disbursement formula enacted by the legislature,[279] the counties receive about 57¢ from every $1 dollar of timber revenues harvested from ORS 530 lands.[280] The legislature did not place a monetary cap on these payments,[281] and so the counties have a perverse incentive to harvest as much timber as possible because these payments comprise a significant percentage of their budgets.[282] Although the legislature did not embed any explicit ecological triggers into ORS 530, GPV is arguably not met if ecologically damaging timber harvests are overly emphasized.[283] However, until Forestry adequately limits forest harvesting by equally balancing economic and non-economic values, it will fail to protect the integrity of the forest resource from which the counties' revenues flow, while at the same time perpetuating an unproductive subsidy for the counties, and maintaining the status quo for the timber industry.

Columbia River as an Evolutionary Significant Unit). The red tree vole was also recently selected as a candidate for listing. U.S. FISH & WILDLIFE SERV., ENDANGERED AND THREATENED WILDLIFE AND PLANTS; 12-MONTH FINDING ON A PETITION TO LIST A DISTINCT POPULATION SEGMENT OF THE RED TREE VOLE AS ENDANGERED OR THREATENED 2 (2011), *available at* http://www.fws.gov/oregonfwo/Species/Data/RedTreeVole/Documents/RTVoleFindingOFR9.30.11.pdf. Further, as discussed in *supra* note 144, there may be legal implications for the state if ESA-listed species are killed or harmed.

276 Mark E. Harmon & Barbara Marks, *Effects of Silvicultural Practices on Carbon Stores in Douglas-Fir – Western Hemlock Forests in the Pacific Northwest, U.S.A.: Results from a Simulation Model*, 32 CAN. J. FOREST RES. 863, 874 (2002).

277 *See Forests at Risk: Swiss Needle Cast Epidemic in Douglas-Fir Trees Unprecedented, Still Getting Worse*, SCI. DAILY, Apr. 12, 2010, http://www.sciencedaily.com/releases/2010/04/100405152557.htm (last visited Nov. 18, 2012).

278 *See* WILKINSON, *supra* note 29, at 16 ("Loggers . . . may help to tear up some ground with clear-cuts . . . but a clean and vital outdoors remains the fiber of their daily lives.").

279 1931 Or. Laws 130 (establishing the revenue distribution formula); 1939 Or. Laws 934 (amending the distribution formula); 1941 Or. Laws 368 (amending the distribution formula). The current revenue formula is codified at OR. REV. STAT. § 530.110 (2011).

280 *See infra* Part V.A.

281 *See* OR. REV. STAT. §§ 530.110, 530.115 (2011) (describing the revenue distribution scheme).

282 *See supra* note 111 and accompanying text (noting Tillamook County's budget reliance on OR. REV. STAT. § 530 revenue).

283 *See* OR. REV. STAT. § 530.050(1)–(12) (2011); *see also supra* notes 174–81 and accompanying text (discussing requirements of GPV).

America's experience with the federal highway system offers a cautionary tale with respect to the negative outcomes that can flow from this type of unbalanced revenue scheme. The Federal Aid Highway Act of 1956 (FAHA)[284] authorized nearly $25 billion in expenditures for building a national highway system, and funded the project through increased motor fuel, heavy vehicle and tire taxes.[285] However, the primary financing source for maintaining the highway system—the Highway Trust Fund—cannot keep pace with authorized spending levels because increased revenues from fuel and truck-related taxes flow from increased use of the system, which then increases the need for system repair and upgrades.[286] Consumers continue to perpetuate this cycle because the trust fund structure and relatively low gas taxes effectively subsidized a "low intensity, petroleum-intensive" lifestyle, and the coal, oil, electric and automobile industries are resistant to change because of their vested interest in the status quo.[287] As a result of this system, the revenue shortfall is large enough that much of the public infrastructure system is "functionally obsolete" and "structurally deficient."[288] In short, by tying funding to activities that stress and degrade the highway infrastructure, Congress created an insufficient trust fund and subsidized socially unproductive behaviors. Although federal highways receive enough revenue from the trust fund to keep the system from completely crumbling, the federal highways remain perpetually under-funded.[289] As such, the significant underlying problems created by the statute remain unfixed, and the industrial interests vested in the status quo have no incentive to change themselves, or to motivate consumer change.

The ORS 530 statutory scheme is similarly flawed, even if the negative outcomes are not as easily visible as with the federal highway system. In both ORS 530 and the FAHA, the legislative body initially subsidized the program.[290] With respect to the FAHA, Congress authorized nearly $25 billion in expenditures for building a national highway system,[291] thus enabling the initial capital necessary to establish the highway system. Likewise, the Oregon legislature allowed the counties to deed their unproductive land to the state, and paid for the cost of rehabilitation,[292] thus providing the

284 Federal Aid-Highway Act of 1956, Pub. L. No. 84-627, 70 Stat. 374.

285 Roel Hammerschlag, *Legislating the Highway Act of 1956: Lessons for Climate Change Regulation*, 31 ENVIRONS: ENVTL. L. & POL'Y J., 59, 61–62 (2007).

286 U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-09-845T, HIGHWAY TRUST FUND: OPTIONS FOR IMPROVING SUSTAINABILITY AND MECHANISMS TO MANAGE SOLVENCY 1 (2009), *available at* http://www.gao.gov/new.items/d09845t.pdf.

287 Roberta F. Mann, *On the Road Again: How Tax Policy Drives Transportation Choice*, 24 VA. TAX REV. 587, 589 (2005); Hammerschlag, *supra* note 285, at 98–99.

288 Ellen Dannin, *Crumbling Infrastructure, Crumbling Democracy: Infrastructure Privatization Contracts and Their Effects on State and Local Governance*, 6 NW. J. L. & SOC. POL'Y 47, 50–51 (2011).

289 Jack Schenendorf & Elizabeth Bell, *Modernizing U.S. Surface Transportation System: Inaction Must Not Be an Option*, DAILY REP. EXEC (BNA) at B-1 (July 22, 2011).

290 Hammerschlag, *supra* note 285, at 98–99.

291 *Id.* at 62.

292 1931 Or. Laws 129, §§ 1–2 (authorizing Forestry to acquire forestland from the counties, and outlining various methods by which such land could be acquired); *Tillamook I*, 730 P.2d

resources necessary to initiate the program. Moreover, under both schemes, strong industrial interests prefer to maintain the status quo.[293] Under both schemes, the statutory beneficiaries—the counties under ORS 530 and the highway system under the FAHA—receive more revenues whenever more of the underlying resource is utilized.[294] Moreover, under each scheme, the more revenue the beneficiary earns, the more the underlying resource is degraded.[295] As such, both schemes compromise the long-term sustainability of their respective resources. Finally, under both schemes, revenues from the underlying resource are insufficient to support the beneficiaries reliant on the funds.[296] As such, the statutory revenue scheme incentivizes maximization of socially unproductive activities to the detriment of the underlying resource, while trapping the beneficiary in an unending cycle of under-funding.

In contrast to the FAHA, decoupling combined with replacement ecosystem services, could help correct the statutory flaws inherent to ORS 530, and thus avoid structural degradation of the ORS 530 forest resource.[297] First, decoupling would effectively incorporate the missing ecological cap on ORS 530 harvests and revenues that is not present in the statute because it would create more ecological and economic balance,[298] and thus better effectuate GPV.[299] As such, because revenues would flow from non-timber activities, the perverse incentive to maximize harvests to the detriment of forest resources would be at least partially corrected. As a result, the overall health of the ORS 530 land ecosystem—from which ORS 530 revenues flow—would improve, thus helping to avoid structural decay of forest ecosystems.[300] Combined, these facets of decoupling would help correct the statutory flaws of ORS 530.

1214, 1216 (Or. 1986) (showing Oregon spent $15 million to rehabilitate the newly acquired Tillamook and Clatsop State Forests).

293 In the case of ORS 530 lands, the timber industry wants to maintain the status quo of high harvest levels. With respect to the federal highways, fossil fuel and automobile industries want to maintain the status quo of high driving levels. *See* Hammerschlag, *supra* note 285, at 99.

294 Under ORS 530, the counties receive more revenue as more timber is harvested from ORS 530 lands. *See* OR. REV. STAT. § 530.110 (2011). Under FAHA, the highways receive more money as more gas and driving-related expenditures are made. These expenditures result in increased used of the highways. *See* Hammerschlag, *supra* note 285, at 62.

295 *See* CTR. FOR BIOLOGICAL DIVERSITY, *supra* note 2, at 12 (noting the impact that intense logging has left on old growth forest and species therein along the North Coast, including ORS 530 lands); Dannin, *supra* note 288, at 51 (stating that much of the federal highway infrastructure system is "functionally obsolete" and "structurally deficient").

296 *See* U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 283, at 2 (noting that the Highway Account within the trust fund is "not keeping pace with authorized spending levels," even despite cash infusions into the system); Samantha Swindler, *County Budget Calls for Cuts*, TILLAMOOK HEADLIGHT-HERALD, May 18, 2011, http://www.tillamookheadlightherald.com/news/article_11a3e65e-80ad-11e0-b1cd-001cc4c03286.html (last visited Nov. 18, 2012).

297 *See* Dannin, *supra* note 288, at 51.

298 *See* OR. REV. STAT. §§ 530.110, 530.115 (2011).

299 *See supra* Part III.A (discussing plain meaning requirements of GPV).

300 *Cf.* Dannin, *supra* note 288, at 62 (noting the structurally deficient status of the federal highway system).

D. Socio-Political Benefits of Decoupling

Decoupling could also help soothe the political controversy surrounding forest management in Oregon. This Comment assumes that the counties and other pro-timber interests are both economically and ideologically motivated to lobby for harvest maximization. Given the long and contentious history of Northwest forest management, there is no guarantee that decoupling ORS 530 lands would decrease the ideological motivation to maximize timber harvests.[301] However, because decoupling would arguably satisfy the counties' economic concerns,[302] it might help to defuse the politically contentious atmosphere surrounding Oregon forest management because it would lessen or remove the counties' economic impetus to lobby political leaders for harvest maximization and pro-timber outcomes, while at the same time modeling ways to resolve timber disputes on other Oregon forestlands.

Achieving these outcomes as soon as possible is important because a group of senators, including Senator Ron Wyden, introduced an appropriation rider in July 2011 that would exempt all Oregon timber interests from an important CWA protection provided by the Ninth Circuit in *NEDC v. Brown*.[303] In discussing the purpose of the rider, Senator Wyden suggested that he was interested in protecting the Northwest timber industry.[304] Of particular note, Senator Wyden emphasized that *NEDC v. Brown*—and as a result, the proposed CWA amendment—stemmed from a dispute on ORS 530 lands.[305] Senator Wyden also indicated his willingness to entertain creative solutions that would minimize economic impacts and avoid further litigation.[306] Together, these statements reveal that Senator

301 Non-economic ideological divisions have played a part in past Northwest timber issues such as the Spotted Owl dispute. *See* Reimer, *supra* note 121, at 238 ("The conflict between loggers and environmentalists has polarized both positions"); *see also* Stephen Clowney, *Environmental Ethics and Cost-Benefit Analysis*, 18 FORDHAM ENVTL. L. REV. 105, 139 (2006) (stating that in the early 1990s, "the fate of the Northwest's old-growth had become an intractable, ideologically charged conflict that few people believed could be resolved peacefully.").

302 *See supra* Part IV.A (discussing positive economic benefits); *supra* Part VI (discussing revenue replacement options).

303 S. 1369, 112th Cong., 1st Sess., § 2 (Or. 2011) (exempting timber roads from the CWA, as protected in NEDC v. Brown, 617 F.3d 1176, 1196 (9th Cir. 2010)).

304 *See* 157 CONG. REC. S4567, S4611 (daily ed. July 14, 2011) (statement of Sen. Ron Wyden) ("Bring your ideas for how we can monitor and protect water without sacrificing what remains of Oregon's forest *industry* . . . .We have to first look for solutions that avoid the epidemic of litigation and appeals that threaten the sustainability and survival of our timber *industry*.") (emphasis added).

305 *Id.* at S4610–11.

306 In discussing the Silvicultural Regulatory Consistency Act, Senator Wyden stated:

> To my friends in the environmental community who raise legitimate concerns about a range of issues surrounding this policy I encourage you to sit down with us in a dialogue, at both the Federal and State levels. Bring your ideas for how we can monitor and protect water without sacrificing what remains of Oregon's forest industry. You will be heard and I stand ready to work with you. . . . We have to first look for solutions that

Wyden does not likely support this amendment as part of an ideological, pro-timber agenda. Rather, as is consistent with past congressional riders addressing Northwest forest issues, Senator Wyden's proposed amendment appears to be primarily motivated by economic concerns for his constituents.[307]

Because the Wyden rider is still in committee,[308] there is still time to discuss and implement alternate solutions that do not alter bedrock environmental statutes without full public participation and judicial scrutiny.[309] As one such creative solution, decoupling would arguably provide economic security to the counties, and thus some resolution to the parties involved in the original dispute leading to the proposed amendment. As a result of the non-litigious, economically beneficial nature of the decoupling solution, implementation of such a strategy might weaken Senator Wyden's economically-motivated enthusiasm for supporting the rider in its current all-or-nothing form,[310] and keep the interests on both sides out of court.[311]

Overall, decoupling would likely yield economic benefits for the counties, ecological benefits for the forests as a whole, help correct the flaws of ORS 530, and possibly help defuse the volatility surrounding Oregon forest management. In addition to providing the counties an opportunity to diversify their economies in the face of stark local, regional and global economic conditions, decoupling would likely decrease disease, pest spread,

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> avoid the epidemic of litigation and appeals that threaten the sustainability and survival of our timber industry.

Id. at S4611.

307 In addition to the Wyden bill, Congress has a history of intervening in Northwest forest disputes so as to protect economic interests. *See* DeAnne E. Parker, *Backdoor Tactics to Forest Management: The Emergency Salvage Timber Rider of H.R. 1944*, 16 J. ENERGY NAT. RESOURCES & ENVTL. L. 216, 228 (1996) ("Congress's real intent behind the [1994 Northwest timber] salvage program is to provide short-term economic assistance to the timber industry and timber communities by releasing timber sales previously blocked by environmental litigation.").

308 GovTrack.us, *S. 1369: Silviculture Regulatory Consistency Act*, http://www.govtrack.us/congress/bill.xpd?bill=s112-1369 (last visited Nov. 18, 2012).

309 For example, Congress enacted the timber salvage rider as a means of circumventing environmental statutes. Parker, *supra* note 307, at 228–29 ("The inherent problem with this [timber salvage rider] program is that Congress, through pressures from industry, may annihilate any environmental statute without public participation and scrutiny. Without judicial intervention, Congress may override environmental statutes that the public deems important and necessary for the protection of our national forests.").

310 157 CONG. REC. S4567, S4611 (daily ed. July 14, 2011) (statement of Sen. Ron Wyden) ("[T]heir litigation tries to impose an outcome on my region without ever attempting to address the concerns and needs of the thousands of people in my State who earn their living as responsible stewards of the . . . forest.").

311 "I don't want this situation to go back to posturing and positioning. To the politics of division that has characterized this issue in the past. I hope we can stay in the conference room and out of the courtroom." STEVEN L. YAFFEE, THE WISDOM OF THE SPOTTED OWL: POLICY LESSONS OF A NEW CENTURY 141–43 (1994) (quoting then President Bill Clinton with respect to the Northwest forest spotted owl controversy). William Jefferson Clinton, U.S. President, Remarks at the Conclusion of the Forest Conference in Portland, OR (Apr. 2, 1993), *in* 29 WEEKLY COMP. PRES. DOC. 530, *available at* http://www.gpo.gov/fdsys/pkg/WCPD-1993-04-12/html/WCPD-1993-04-12-Pg529.htm.

and habitat fragmentation, and would likely increase the amount of CO_2 sequestered in the ORS 530 lands.[312] Decoupling would also help correct the statutory flaws in ORS 530 because it would impose a de facto cap on the incentive to over-harvest to the detriment of the health of the ORS 530 land ecosystem. Finally, decoupling might also help to defuse the politically contentious atmosphere surrounding Oregon forest management, and possibly result in a more collaborative solution to the dispute addressed by Senator Wyden's proposed amendment. Together, the various benefits of decoupling should weigh strongly in favor of pursuing the proposal.

V. MODELING THE REVENUE GAP CREATED BY AN AGREEMENT TO MANAGE CRITICAL HABITAT IN ORS 530 LANDS FOR PERMANENT CONSERVATION

As noted in Part III, Forestry should manage the ORS 530 lands in a manner that better achieves the balancing approach contemplated by GPV. One way to achieve a more balanced GPV outcome is to permanently stop timber harvesting in ORS 530 areas that provide critical habitat for important species (i.e., place this land in Forestry-mandated conservation reserves). This Comment argues that in order to sufficiently protect sensitive species, it is necessary to reduce the overall ORS 530 land harvest from 183 MMBF/year to 142 MMBF/year—a reduction of 41 MMBF/year.[313] Reducing the harvest by this amount would likely lead to economic and ecological diversification, help correct statutory flaws in ORS 530, and might mitigate the seemingly unending legal-political wrangling over the ORS 530 lands. However, to make this proposal palatable to the counties, it must provide them with economic security. The first step in such a solution is to understand how much revenue the counties would lose if timber from some ORS 530 lands were no longer harvested. As such, this Part models the economic impact to the counties if the allowable ORS 530 harvest level fell by 41 MMBF/year. Once modeled and understood, Part VI then discusses and monetizes non-timber harvest revenue streams that would replace the revenue shortfall caused by a 41 MMBF/year reduction in ORS 530 timber harvests.

A. Modeling the Revenue Gap That Results from Decoupling

This section calculates the overall revenue gap caused by a 41 MMBF/year reduction in harvests in the counties, and considers potential lost employment opportunities, as well as how un-replaced ORS 530 revenue for the counties would impact statewide school funding. In order to

312 *See supra* Part IV.A–B.

313 With full plan implementation of the 2002–2007 harvest plan by 2013, annual planned harvests from the Astoria, Tillamook and Forest Grove districts (roughly equivalent to Clatsop, Tillamook and Washington Counties) would be 183 MMBF (million board feet). ODF, NINE PERFORMANCE MEASURES, *supra* note 241, at 5. The current 2001 Forest Management Plan implemented with draft Habitat Conservation Plan strategies suggests an annual harvest level of 142 MMBF in these three districts. *Id.* at 2, 5.

calculate the revenue gap, this Comment relies on projected timber harvest volume and stumpage price estimates for each of the counties. Using fiscal years (FY) 2000–2009 as a baseline, the ORS 530 lands produced over $83 million/year in *gross revenue*.[314] Timber volume (FY 2000–2009 average total harvest of 240.943 MBF) multiplied by stumpage price (FY 2000–2009 average price of $296/MBF), or $71.32 million, does not equal $83 million in gross revenue. Thus, in addition to this *volume x price* calculation, gross revenue includes a *remainder* value comprised of project work payments and rehabilitation payments.[315] During FY 2000–2009, this remainder equaled 14.3% of gross revenue, or $11.9 million/year.[316] Because this Comment's estimated impact on county budgets relies on estimates, this remainder value is added into all of the modeling so as to accurately forecast gross revenues. Under ORS 530, gross revenue thus equals: (*Projected MMBF Harvest Volume x Projected Stumpage Price $*) + *Remainder Value*. Calculating gross revenue is just the first step, however, because not all gross revenues earned by the state from ORS 530 lands are distributed back to the counties. During FY 2000–2009, over $47 million/year of the $83 million/year in gross revenues—or 57.2%—*netted* back to the counties under ORS 530.[317] This percentage of revenues that actually flows back into county budgets is referred to as the *net distribution percentage*. To obtain the final revenue value that flows back to the counties, ORS 530 gross revenue is multiplied by the net distribution percentage.

1. Revenue Shortfalls in Clatsop, Tillamook & Washington Counties Resulting from Decreased Timber Harvesting

For FY 2011–2015, each county has specific projected timber harvest volumes and prices. Thus, in order to accurately model the revenue impacts of a 41 MMBF/year reduction in timber harvest on the three counties, this Comment uses county-specific FY 2011–2015 harvest volume (MBF) and stumpage price ($/MBF) estimates. The county-specific Forestry price and volume estimates for each county are as follows:[318]

314 COUNCIL OF FORESTS TRUST LAND CNTYS, 2009 ANNUAL REPORT, *supra* note 160, at 9 tbl.5.

315 *Id.* at 9 tbl.5 n.1.

316 *Id.* Multiplying 240.943 MBF by $296/MBF yields a total of $71.32 million in revenues from the ORS 530 lands. This accounts for 85.6% of $83 million. Thus, the remaining 14.32% must be attributed to work payments and rehabilitation costs.

317 *Id.* at 5 tbl.2, 9 tbl.5; *see* OR. REV. STAT. §§ 530.110, 530.115 (2011) (describing specific revenue disbursement).

318 The volume and stumpage prices were provided by ODF. The projections were based on district-specific data, which is largely the same as county-specific data. To remain consistent, this author has adjusted the ODF-provided data from its original district-specific format to county-specific format. OR. DEP'T. OF FORESTRY, REVENUE PROJECTION BY DISTRICT: FY 2011–2015, at 1 (2009).

Table 1	CLATSOP COUNTY		TILLAMOOK COUNTY		WASHINGTON COUNTY	
	Volume (MBF/year)	Price ($/MBF)	Volume (MBF/year)	Price ($/MBF)	Volume (MBF/year)	Price ($/MBF)
2011	64,538	$228.81	74,292	$132.59	23,995	$230.90
2012	76,576	$281.17	87,067	$162.93	24,834	$283.73
2013	76,576	$338.66	87,067	$196.25	24,834	$341.75
2014	76,576	$358.41	87,067	$207.69	24,834	$361.68
2015	76,576	$358.97	87,067	$208.02	24,834	$362.25
Average	74,168	$313.20	84,512	$181.50	24,666	$316.06

For each of the three counties, the average predicted harvest volume is multiplied by the average predicted stumpage price, the remainder value is added, and then this gross annual revenue total is multiplied by 57.2%, yielding predicted net annual revenues for the counties (Column B, Tbl. 2). This "predicted cut" level assumes that all timber projected for harvest will be harvested during the year. Next, this Comment calculates the net annual revenues for each county if the overall ORS 530 harvest in the Tillamook and Clatsop State Forests is reduced by 41 MMBF/year (Table 2, Column C).[319] At this level—what is referred to here as the "distributed conservation cut" level—the total average predicted FY 2011–2015 harvest level for the three counties is proportionally reduced by 41 MMBF/year among the three counties. The actual average annual county net revenues from FY 2000–2009 are provided as a benchmark (Table 2, Column A).[320] The following are the annual net county revenue values at (A) historical, (B) predicted, and (C) distributed conservation harvest levels:

Table 2	(A) FY 2000–09 Average Annual Net Revenues Received	(B) Predicted Cut of 183 MMBF/year (Annual Net Revenues Expected)	(C) Distributed Conservation Cut (Annual Net Revenues Counties Would Still Receive)
Clatsop	$17,201,285	$14,469,038	$12,038,054
Tillamook	$11,858,314	$10,237,882	$7,948,691
Washington	$5,719,043	$5,201,798	$4,038,674
3-County Total	$34,778,642	$29,908,717	$24,025,418

The annual net revenues from the distributed conservation cut (C) are then subtracted from the annual net revenues at the predicted cut level of 183 MMBF/year (B). This yields the net revenue shortfall that would occur if 41 MMBF/year of ORS 530 land timber were left un-harvested:

319 "Distributed Conservation Cut" assumes that the 41 MMBF/year harvest reduction will be spread evenly among these three counties.

320 COUNCIL OF FOREST TRUST LAND CNTYS., 2009 ANNUAL REPORT, *supra* note 160, at 5 tbl.2.

Table 3	Net Revenue Shortfall from Distributed Conservation Cut
Clatsop	$2,430,984
Tillamook	$2,289,191
Washington	$1,163,124
3-County Total	$5,883,299

Thus, the total cost of reducing the timber harvest to levels of 142 MMBF/year would be approximately $5.88 million/year assuming the reductions were proportionately spread among the three counties. Based on historical data, these reductions would impact the counties' general, school, and government funds, as well as local school district funds—the primary line items funded by ORS 530 revenues.[321] As such, these county programs would likely be most impacted if no replacement revenues were provided.

2. Impact of Decreased Timber Harvesting on Timber Jobs

Although one might assume that a reduction in timber harvest volume would have a fixed arithmetic relationship with local timber harvest jobs, the link between timber harvest changes and jobs may actually be relatively weak.[322] This weak correlation is due to the presence of other local, regional, and global market factors that react quickly to micro-level harvest changes.[323] In 2009, Forestry estimated that a 1 MMBF harvest level change would have a 10.16 job effect.[324] Based on this "multiplier," a 41 MMBF reduction in timber harvesting would result in the loss of 416 jobs. However, this multiplier does not withstand historical scrutiny and has been recently criticized in an independent scientific review.[325] To demonstrate, although timber harvests in the Tillamook and Clatsop State Forests grew by 282 MMBF from 1990–2006, the counties only created 28 new jobs.[326] This suggests a historical multiplier of 0.099 jobs/1 MMBF change in timber harvest. Applying the Forestry 10.16 job multiplier, the 282 MMBF harvest increase from 1990–2006 should have yielded 2,865 new jobs. This multiplier over-predicted job effects by over a thousand-fold (2,837 jobs). Although this historical example might not hold true for job reductions, this outcome suggests that the Forestry multiplier is likely much too high.

321 *See* ODF, NINE PERFORMANCE MEASURES, *supra* note 241, at 7 ("Revenue from state forests plays an important role in sustaining and enhancing government services from schools and local and state governments.").

322 POWER & RUDER, *supra* note 124, at 26.

323 *Id.* at 24.

324 ODF, NINE PERFORMANCE MEASURES, *supra* note 241, at 6, 6 tbl.5 (suggesting that an increase in 54 MMBF of harvesting would result in the creation of 549 jobs in rural Western Oregon communities, thus indicating a multiplier of 10.16 jobs/1 MMBF).

325 INST. FOR NATURAL RES., FINAL REPORT: SCIENCE REVIEW OF THE OREGON DEPARTMENT OF FORESTRY'S PROPOSED SPECIES OF CONCERN STRATEGY AND THE BOARD OF FORESTRY'S STATE FORESTS PERFORMANCE MEASURES 40 (2011), *available at* http://oregonstate.edu/inr/sites/default/files/documents_reports/FINAL_Report_ODF_28Feb.pdf.

326 Ruder Comments, *supra* note 109, at tbl.3.

For a reduction of 41 MMBF, the Forestry multiplier would predict 416 lost jobs. In contrast, the historical multiplier (0.099) would predict 4 lost jobs. Based on past data, this Comment suggests that the job impacts will be much less drastic than what the Forestry multiplier might suggest. Moreover, the ecosystem service management activities discussed in Part VI would create new forest jobs and offset job losses from reduced ORS 530 land timber harvests.

B. Impact of Decoupling on Statewide School Equalization Funding

The Oregon Constitution was amended in 2000 to require funding equalization for all state school districts.[327] The legislature subsequently adopted this policy.[328] This program aimed to provide high- and low-income districts with the same amount of statewide education support.[329] Because the counties use some ORS 530 net revenues to support their schools, any reduction in ORS 530 revenue that reduces education funding in the counties must then be absorbed by proportional decreases in other school district budgets (so as to equalize). Thus, if decreased ORS 530 revenues are not replaced, the actual revenue loss suffered by the counties would be less than $5.88 million/year. However, the lost timber harvest revenues that would have supported the counties' schools would be felt by the 197 school districts throughout the state.[330] Because decoupling without replacement revenue would impact state school funding, it makes sense to replace the $5.88 million/year in foregone ORS 530 revenues with other revenue streams so that other school districts are not forced to equalize downward.

Based on Forestry volume and price projections, if the annual ORS 530 harvest level in the counties is permanently reduced by 41 MMBF so as to protect ecologically important areas, the counties will lose $5.88 million/year in ORS 530 revenues. Although this harvest reduction might decrease jobs in the counties, this Comment argues that these impacts would be minimal, especially if ecosystem service management jobs replace lost timber jobs. Finally, the $5.88 million/year ORS 530 revenue shortfall caused by a 41 MMBF harvest reduction would impact statewide school district funding if not replaced by alternative revenue streams. To avoid these potential impacts, this Comment suggests a suite of ecosystem service revenue replacement programs.

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327 OR. CONST. art. VIII, § 8(1) (amended by Ballot Measure 1 (2000)).

328 OR. REV. STAT. § 327.333 (2001).

329 David H. Angeli, *The Oregon Legislature's Constitutional Obligation to Provide an Adequate System of Public Education: Moving from Bold Rhetoric to Effective Action*, 42 WILLAMETTE L. REV. 489, 494 (2006).

330 For example, if the counties lose $5.88 million/year in revenues, and $1 million of those revenues was allocated to school funding, then a proportional amount of money would need to be diverted from each school district throughout the state to make up for this gap. There are 197 school districts in the state, and so each district would be forced to assume approximately 1/197 of the diminished school-used timber revenues if decoupling without revenue replacement occurred. *See* Or. State Archives, *Oregon Blue Book: Public Education in Oregon*, http://bluebook.state.or.us/education/educationintro.htm (last visited Nov. 18, 2012).

VI. FUNDING OPTIONS FOR DECOUPLED LANDS: UPFRONT FUNDING INFUSION AND ECOSYSTEM SERVICE MONETIZATION PROGRAMS

Ultimately, if some ORS 530 lands are removed from timber production, there will be a $5.88 million annual gap in revenues for the counties.[331] To avoid impacts on the county budgets and job markets, and to prevent unequalized school budgets, replacement revenue streams must bridge the $5.88 million/year annual gap in county budget funding. Instead of replacing these revenues on an annual basis, this Comment suggests that the counties should receive an upfront cash infusion—paid for by State Treasurer bonds—to cover the net present value of lost timber revenues over a timber harvest cycle. An up-front infusion would provide the counties more economic flexibility, lessen their dependence on the timber and housing markets, and provide an opportunity for the counties to earn interest on the principal; thus providing another potential funding source. To pay for this infusion, Forestry should develop ecosystem service programs that capture and monetize the values provided by the ORS 530 lands. These ecosystem service programs should be tied to the actual ORS 530 lands removed from timber harvesting so that the lands' revenue producing capacity is not permanently extinguished.[332] Moreover, these programs should reinforce positive ecological and social outcomes, and not the harvest maximization incentive currently driving most ORS 530 land management decisions. To pay back the upfront funds provided to the counties, the state could collect watershed protection, carbon sequestration, aesthetic preservation, and recreational fees. At the end of the transition period, these developed ecosystem service programs would then serve as a long-term replacement of ORS 530 land timber harvest revenues.

A. Upfront Funding Infusion

The first step in implementing this revenue replacement proposal is to finance an upfront cash infusion to the counties. This cash infusion should cover forty years, or approximately one rotation cycle, of ORS 530 timber harvests.[333] In addition to spurring the growth of ecosystem service

331 *See supra* Part V.A.1.

332 *See supra* Part III.A (discussing the Oregon Supreme Court's holding in *Tillamook I*).

333 Rotation cycles for private forests along Oregon's North Coast can be as short as 35–40 years. CTR. FOR BIOLOGICAL DIVERSITY, *supra* note 2, at 12–13. Typical rotation lengths for federal forests can reach 100 years. COGGINS ET AL., *supra* note 237, at 701. Forestry does not publish ORS 530 forest rotation ages. However, recent testimony from Governor John Kitzhaber to the Oregon Board of Forestry suggests that ORS 530 rotation ages are similar to private land rotations. In his testimony, Gov. John Kitzhaber noted that 59% of the state's 30,499,733 acres of forestland is owned by the federal government. *Governor Kitzhaber Testimony Before the Board of Forestry*, Nov. 3, 2011, http://www.oregon.gov/gov/media_room/pages/speechess2011/testimony_boardofforestry_110311.aspx (last visited Nov. 18, 2012). All of that federal ownership yields 12% of the state's timber production. In contrast, 19% of the state's forestland is owned privately, while yielding 75% of the state's timber production. *Id.* The remaining 3% of Oregon forestland is owned by the state and produces 10% of the state's total timber harvest. *Id.* All things assumed equal, one unit of federal ownership yields five times less timber than if all

programs, the counties would receive upfront funding. With this funding, the counties would then have more investment options at their disposal, and an opportunity to earn interest on the principal. Thus, instead of remaining so reliant on fluctuating, unpredictable annual ORS 530 revenues to support their budgets,[334] the counties would be able to invest in a more diverse array of markets over a longer term. Having these options would allow the counties to better insulate their economies from the volatile timber and housing markets, and global competition from timber industries overseas.[335] Ideally, this money could also be used to stimulate job growth in the counties and to defray any job losses associated with decreased timber harvests on permanently protected ORS 530 lands.

The amount of this funding infusion would be based on the present worth of forty years of foregone ORS 530 timber harvests from decoupled lands. This present worth—or net present value (NPV)—is calculated by summing forty years of $5.88 million/year timber harvest cash-flows, and then discounting that sum by a percentage so as to avoid a windfall for the recipient.[336] In calculating NPV, the choice of a discount rate in environmental policy considerations is very controversial because the rate can greatly expand or reduce the NPV amount.[337] For example, if a 1% discount rate were used, forty years of $5.88 million cash flows would have a NPV of $193.17 million. In contrast, if a 7% discount rate were used, the NPV would be $78.43 million. Thus, the overall funding infusion amount would likely fall somewhere in or near this range.

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of Oregon forest acreage was evenly harvested among different ownership types. In contrast, one unit of ownership of state forestland produces about 3.33 times more timber than would be expected if ownership matched production output. Likewise, one unit of private ownership produces about 3.95 more timber than would be expected if ownership matched production output. Relying on this very simple metric, ORS 530 forests appear to be harvested much like private forests, and thus the proposed cash payment period of 40 years is linked to the higher end of aggressive private rotation cycles. CTR. FOR BIOLOGICAL DIVERSITY, *supra* note 2, at 12–13.

334 *See supra* note 111 and accompanying text (noting the implications on Tillamook County's budget).

335 Jim Pyke, *Timber: Another Way to Play the Housing Market Recovery*, SEEKING ALPHA, Jan. 3, 2012, http://seekingalpha.com/article/317100-timber-another-way-to-play-the-housing-market-recovery (last visited Nov. 18, 2012) (explaining that the timber market is more volatile than other commodities and emerging markets).

336 For the purposes of net present value, the estimated annual average cash flow from 2000–2009 is $5.88 million per year. *See supra* Part V.A.1. This value is held constant for the purpose of this calculation. "The object of discounting is to avoid giving the [entity] a lump-sum windfall. He or she instead receives an amount of money which, when invested for the period of time that the [entity] would have earned the lost [revenues], will grow to a sum equal to the total lost [revenues]." Alvin B. Rubin & David King, *New Cargo from Old Ports: Recent Significant Maritime Personal Injury Cases*, 8 MAR. LAW. 1, 18 n.135 (1983) (citing Culver v. Slater Boat Co., 688 F.2d 280, 286 (5th Cir. 1982)).

337 *See* Robert Pindyck, *Uncertainty in Environmental Economics*, 1 REV. ENVTL. ECON. & POL'Y 45, 48 (2007). Some commentators recommend using a rate between 1%–2% for long-term environmental analyses, whereas the United States Office of Management and Budget uses rates between 3%–7% for long-term regulatory analyses. *Id.* at 48, 62. As such, discount rates ranging from 1%–7% are considered here.

To pay for this upfront funding infusion, the State Treasurer could issue something akin to an "environmental policy bond."[338] The State Treasurer has the authority to approve state bonds under ORS 286A when the relevant agency—Forestry in this case—requests that he/she do so.[339] Thus, this note suggests that Forestry should ask the State Treasurer to approve this type of bond. Once approved, the legislature can then determine the amount of bonds the State Treasurer can issue for each agency,[340] although the Governor can modify that amount.[341] The state could then raise revenues from environmental service charges, fees, and credits to repay the infusion over time. By the end of the forty-year transition period, these payments would have paid off the original funding infusion, while at the same time having solidly entrenched these new ecosystem service programs as revenue-producing mechanisms.

B. ORS 530 Land Revenue from Non-Extractive Ecosystem Services

To successfully implement decoupling, and pay off the upfront funding infusion to the counties, Forestry can monetize the non-economic values provided by the ORS 530 lands, and then sell these service values. However, successfully implementing this idea will require a shift in thinking, and forceful leadership by the state.[342] Mainstream economic calculations usually undervalue land because the value of the services provided by the natural

338 "Environmental policy bonds" are instruments meant to include the financial sector in the achievement of environmental policy goals. ORG. FOR ECON. COOPERATION AND DEV., HANDBOOK OF MARKET CREATION FOR BIODIVERSITY: ISSUES IN IMPLEMENTATION 113 (2004), *available at* http://www.peblds.org/files/Publications/OECD/OECD_Handbook%20of%20Market%20Creation_implementation.pdf. For example, Delaware recently completed the sale of an "Energy Efficiency" bond meant to pay for efficiency upgrades and the construction jobs necessary to implement these upgrades. Univ. of Del., *Energy Conservation Initiative*, http://www.udel.edu/udaily/2012/aug/SEU-081911.html (last visited Nov. 18, 2012). The European Bank for Reconstruction and Development (EBRD) also sponsors bonds for environmental service and water management services. EBRD, EBRD'S ENVIRONMENTAL SUSTAINABILITY BONDS – FREQUENTLY ASKED QUESTIONS ¶¶ 1–2 (2011), *available at* http://www.ebrd.com/downloads/capital/FAQ.pdf.

339 OR. REV. STAT. § 286A.005(2) (2011) ("Unless otherwise authorized by law other than this section, the State Treasurer may issue bonds only if a related agency has requested that the bonds be issued.").

340 *Id.* § 286A.035(4).

341 *Id.* § 286A.035(5).

342 *See* Laurie A. Wayburn & Anton A. Chiono, *The Role of Federal Policy in Establishing Ecosystem Service Markets*, 20 DUKE ENVTL. L. & POL'Y F. 385, 385–86 (2010) ("[W]hile voluntary markets for ecosystem services currently exist in the United States, these are unlikely to produce an efficient level of the ecosystem service due to insufficient demand and the persistence of free-ridership problems. Government regulation will be necessary to complement these market approaches, establishing compliance markets that induce demand for ecosystem service proxies, set standards, and foreclose on free-ridership. Many ecosystem services are difficult or costly to measure directly, thus the government also must establish rigorous standards and guidelines to ensure the veracity of the proxies used.").

environment are discounted.[343] Ecosystem service schemes monetize the otherwise "free" service values that healthy, functioning ecosystems provide to humans.[344] Importantly, Oregon statutorily recognized the value of ecosystem services in 2009.[345] Nonetheless, ORS section 530.050 should be amended such that Forestry has the explicit ability to design projects and collect ecosystem service fee payments from the decoupled ORS 530 lands. For example, the ecosystem services provided by the Tillamook and Clatsop State Forests can be broken down into four categories: commodities, environmental condition improvements, cultural services, and supporting services that make these other values possible.[346] Commodities include fisheries, wood, and fresh water.[347] A forest also improves environmental conditions for humans via flood control, water purification, and carbon sequestration.[348] Cultural services include recreation, education, and aesthetics.[349] Finally, forests provide supporting services such as nutrient cycling, soil formation, and primary production that make all of these other services possible.[350] This Part will thus address and model possible ecosystem service revenue streams connected to the Tillamook and Clatsop State Forests with a particular focus on monetizing watershed protection, carbon sequestration, and recreational/aesthetic values.

1. Monetizing the Watershed Values of the ORS 530 Lands

In recent decades, many municipalities and water districts have come to recognize the economic value of forested watersheds.[351] The GPV mandate

343 Paulo A. Lopes, *Is REDD Accounting Myopic?: Why Reducing Emissions from Deforestation and Forest Degradation Programs Should Recognize and Include Other Ecosystems and Services Beyond CO_2 Sequestration*, 11 SUSTAINABLE DEV. L. & POL'Y 25, 25 (2011).

344 *See* Neuman, *supra* note 14, at 188–89.

345 S. 513, 75th Leg. Assemb., Reg. Sess. (Or. 2009), *available at* http://www.oregon.gov/OWEB/docs/SB513.pdf; Act of 2009, ch. 808, § 2, 2009 Or. Laws 2680 ("It is the policy of this state to support the maintenance, enhancement and restoration of ecosystem services throughout Oregon, focusing on the protection of land, water, air, soil and native flora and fauna.").

346 J.B. Ruhl, *Ecosystem Services and the Clean Water Act: Strategies for Fitting New Science into Old Law*, 40 ENVTL. L. 1381, 1382 (2010).

347 *Id.*; Neuman, *supra* note 14, at 189. Aside from the fresh water resource, fish and wood products are valued in the market already, and thus will not be discussed in this section of this Comment.

348 Ruhl, *supra* note 346, at 1382; *see* Wayburn & Chiono, *supra* note 342, at 386 ("In the United States, natural systems currently offset roughly one-fifth of total carbon emissions, largely via forest sequestration.").

349 Ruhl, *supra* note 346, at 1382.

350 *Id.*; Wayburn & Chiono, *supra* note 342, at 386 (discussing the need for "investment in securing the natural infrastructure of land that provides the basic 'factory'" for producing ecosystem services).

351 Travis Greenwalt & Deborah McGrath, *Protecting the City's Water: Designing A Payment for Ecosystem Services Program*, 24 NAT. RESOURCES & ENV'T. Summer 2009, at 9, 9; *see* Keith H. Hirokawa, *Sustaining Ecosystem Services Through Local Environmental Law*, 28 PACE ENVTL. L. REV. 760, 790–91 (2011) ("In many cases, such as the protection of the Bull Run watershed by Portland, Oregon, evidence of the substantial economic value of local ecosystem services compels local governments to engage in ecosystem investments.").

provides sufficient authority to manage ORS 530 lands for "protection against floods and erosion" and the "protection of water supplies."[352] This, in combination with Oregon legislature's general approval of ecosystem services in Senate Bill 513,[353] and the authority Forestry has to promulgate new rules necessary to manage the land in accordance with GPV,[354] should lead Forestry to promulgate rules that implement an ecosystem service charge on municipalities reliant on watersheds within the Tillamook and Clatsop State Forests. In the short-term, fees raised from this surcharge could go toward repaying the funding infusion. In the long-term, these fees could become a consistent source of income from the ORS 530 lands.

Healthy forested watersheds are of critical importance to water users.[355] This is especially true in the Pacific Coast Range, where large storm run-off and landslide events can increase surface water turbidity.[356] Although natural watershed conditions contribute to surface water turbidity, timber harvesting can increase turbidity.[357] As such, the Oregon Department of Environmental Quality (ODEQ) and the Oregon Department of Human Services have expressed concerns about the resiliency of public water systems that rely on watersheds prone to heavy rains and landslides.[358] This is because higher turbidity and decreased water quality can increase operational costs, cause plant shutdowns, and generally interfere with such systems.[359] To help protect these watersheds from increased erosion-related turbidity, water users could pay a conservation surcharge for watersheds managed for forest conservation.[360] This proposal implicates difficult questions as to whether water users reliant on the watersheds in the Tillamook and Clatsop State Forests would be willing to pay a surcharge—i.e. an avoided maintenance and repair surcharge—so as to support healthier, less turbid watersheds.

Although no data exists for the watersheds in the Tillamook and Clatsop State Forests, there is evidence that water users are willing to pay extra so as to maintain and improve the watersheds from which their water

352 OR. REV. STAT. § 530.050(4) (2011).

353 S.B. 513, 75th Leg. Assemb., Reg. Sess. (Or. 2009).

354 OR. REV. STAT. § 530.050 (2011).

355 Greenwalt & McGrath, *supra* note 351, at 9 ("[F]low regulation; filtration; flood control; and protection against runoff, erosion, and sedimentation are critically important . . . .").

356 *See* OR. DEP'T OF ENVTL. QUALITY, *supra* note 141, at 1.

357 *Id.*

358 The state is interested in ensuring that public water system operations are not affected or compromised by turbidity, that operational costs do not increase too much to deal with increased turbidity filtering, and in preventing treatment plant shutdowns. *Id.*

359 *Id.*; *see* J.B. Ruhl & James Salzman, *The Law and Policy Beginnings of Ecosystem Services*, 22 J. LAND USE & ENVTL. L. 157, 157 (2007) ("[D]evelopment in forested watersheds has degraded the service of water purification.").

360 Greenwalt & McGrath, *supra* note 351, at 9 ("Studies of water utilities across the United States show that every dollar invested in watershed protection saves tens to hundreds of dollars in water treatment costs . . . . Payment for Ecosystem Service (PES) programs mitigate the risks posed to watersheds by linking the payment for hydrological services to consumers and using the resulting funds for conservation, restoration, and land acquisition projects.").

supply comes from.[361] This willingness to pay has been demonstrated in studies of river basins in North and South Carolina,[362] Ecuador,[363] Brazil,[364] and Mexico City.[365] In fact, one community in Ecuador recently increased water surcharges so as to protect the upriver watershed.[366] These studies are limited to the geographic and socio-economic circumstances in which they occurred. However, despite these caveats, these studies suggest that when faced with the prospects of threatened water supplies, water users around the world are willing to pay extra to improve the reliability and health of their water supplies. Although this Comment does not attempt to estimate the value of healthy Tillamook and Clatsop State Forest watersheds, or how much users might be willing to pay, it does suggest that a municipal surcharge imposed on dependent users could raise significant funds

361 *See infra* notes 362–67 and accompanying text.

362 A 2002 willingness to pay (WTP) analysis of the Catawba River Basin in North and South Carolina found that households would annually be willing to pay $139 for a drinking water management plan designed to protect the river's long-term water quality. Jonathon I. Eisen-Hecht & Randall A. Kramer, *A Cost-Benefit Analysis of Water Quality Protection in the Catawba River Basin*, 38 J. AM. WATER RESOURCES ASS'N 453, 464 (2002). The management plan that would return the basin's water quality standards involves the implementation of best management practices, including larger riparian buffers, land acquisition, and permanent protection of "critical tracts of land." *Id.* at 460. A 2005 WTP analysis of the Cape Fear River basin (the largest river basin in North Carolina) found that households in New Hanover County would annually be willing to pay $175 per person for five years for a basin-wide management plan meant to maintain long-term water quality. CHRISTOPHER F. DUMAS ET AL., MEASURING THE ECONOMIC BENEFITS OF WATER QUALITY IMPROVEMENT WITH BENEFIT TRANSFER: AN INTRODUCTION FOR NONECONOMISTS 13 (Am. Fisheries Soc'y, 2005).

363 In Loja, Ecuador, households have a median household income of $790 per month, pay an average of $19.60 per month for their water services, and are willing to pay 15–29.5% (or $3.00–$5.80) more each month to improve water security. SAMUEL D. ZAPATA ET AL., THE ECONOMIC VALUE OF BASIN PROTECTION TO IMPROVE THE QUALITY AND RELIABILITY OF POTABLE WATER SUPPLY: SOME EVIDENCE FROM ECUADOR 9–10 (2009). As of 2006, there were 24,587 households connected to the municipal service. *Id.* at 13. Multiplying the willingness to pay value of $5.80 by the number of water users suggests that the total aggregate value of preserving the two watershed basins that supply the municipal water utility is $0.89 to $1.7 million per year. *See id.* at 14.

364 A 2006 WTP analysis in Manaus, Brazil (the economic hub of the Amazon, with 1.5 million residents) found that on average, households in six low-income communities were willing to pay at least R$11 (US $5.61) more per month for improved water service. James F. Casey et al., *Willingness To Pay For Improved Water Service In Manaus, Amazonas, Brazil*, 58 ECOLOGICAL ECON. 365, 371 (2005).

365 A 2003 WTP analysis in Mexico City found that households were willing to pay 136% more than they currently paid so as to avoid the deterioration of their water services. Gloria Soto Montes de Oca et al., *Assessing the Willingness to Pay for Maintained and Improved Water Supplies in Mexico City* 16 (Centre for Social and Economic Research on the Global Environment, Working Paper No. ECM 03-11, 2003), *available at* www.cserge.ac.uk/sites/default/files/ecm_2003_11.pdf. Additionally, they would be willing to pay 158% more to improve the reliability and quality of the service. *Id.*

366 Households in Pimampiro, Ecuador now pay a 20% water consumption surcharge to finance a project for water basin conservation. Sven Wunder & Montserrat Albán, *Decentralized Payments for Environmental Services: The Cases of Pimampiro and PROFAFOR in Ecuador*, 65 ECOLOGICAL ECON. 685, 686, 689 fig.2 (2008).

annually.[367] Further economic study regarding the surcharge amount and coverage area should be undertaken.

Despite these uncertainties, forest watershed restoration—which could be accomplished here by decreasing timber harvesting—is becoming a more popular and viable way to raise revenues. Portland, Oregon and Denver, Colorado have both invested heavily in watershed protection in an effort to save their water users a great deal of money over time, and have collected surcharges to fund the restoration.[368] For cities with watersheds in the Tillamook and Clatsop State Forests, surcharges could help pay for the avoided deforestation of ORS 530 lands, thus minimizing the effects of harvesting on water quality and water systems.[369] In addition, healthy watersheds help create stream conditions where temperatures are compliant with Clean Water Act standards.[370] Thus, if the forested watersheds are managed less intensively, the counties could sell temperature credits to other governmental units whose water discharges exceed CWA limits.[371]

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367 *See* Hirokawa, *supra* note 351, at 790 ("The City [of Roanoke, Virginia] found substantial value in [its urban forest's] stormwater control services retention capacity at $128 million, and pollution sequestration potential at an annual value of $2.3 million.").

368 Annually, the City of Portland spends nearly $1 million to protect the Bull Run watershed so as to maintain the filtration benefit to Portland's water supply. DOUGLAS KRIEGER, ECONOMIC VALUE OF FOREST ECOSYSTEM SERVICES: A REVIEW 10 (2001). The alternative is often much more expensive. For example, each year Salem, Oregon spends $3.2 million to operate water treatment facilities. *Id.* at 12. Moreover, in an effort to avoid possible catastrophic effects on water supply from fire, Denver Water (the utility that supplies water to 1.3 million people in the metro area) recently signed a $33 million cost-sharing agreement with the USFS for watershed restoration. Neil LaRubbio, *Communities Help Pay for Ecosystem Services Provided by Forests*, HIGH COUNTRY NEWS, Feb. 20, 2012, at 6, http://www.hcn.org/issues/44.3/communities-help-pay-for-ecosystem-services-provided-by-forests (last visited Nov. 18, 2012). To pay for this work, the average residential water user will pay an extra $27 over the course of the next five years. *Id.*

369 In the Willamette Valley alone, sedimentation—often exacerbated by timber harvesting—imposes $5.5 million in annual costs. KRIEGER, *supra* note 368, at 12.

370 Healthy forests provide shade, thus reducing water temperatures in rivers and streams, and helping communities comply with total maximum daily load (TMDL) limits set by states under the Clean Water Act. OR. DEP'T OF ENVTL. QUALITY, WILLAMETTE BASIN TOTAL MAXIMUM DAILY LOAD (TMDL), APPENDIX C: TEMPERATURE, at C-14 (2006), *available at* http://www.deq.state.or.us/wq/tmdls/docs/willamettebasin/willamette/appxctemp.pdf; *see* Federal Water Pollution Control Act, 33 U.S.C. § 1313(d) (2006) (requiring states to set TMDLs for impaired water bodies). Oregon has set temperature TMDLs for some rivers that run through the Tillamook and Clatsop State Forests. *See* Or. Dep't of Envtl. Quality, *Water Quality: Total Maximum Daily Loads (TMDLs) Program*, http://www.deq.state.or.us/wq/tmdls/willamette.htm#coast (last visited Nov. 18, 2012). Some municipalities are struggling to meet their temperature TMDLs for their municipal wastewater discharges. *See, e.g.*, Alan Horton & Marley Gaddis, *Pace & Scale: How Environmental Markets Could Change Conservation for Good*, 3 FRESHWATER, no. 2, 2011, at 12, 16, *available at* http://www.thefreshwatertrust.org/sites/thefreshwatertrust.org/files/docs/freshwater-05_vol3_issue2_WEB.pdf (noting the TMDL set for Rogue River, and the temperature limits set on wastewater treatment discharges from the cities of Ashland and Medford).

371 *See id.* (describing a scheme whereby the City of Medford has agreed to pay the Freshwater Trust to restore river-side shade in exchange for "temperature reduction credits" it can use to offset its continued water discharges in excess of its temperature TMDL).

2. Monetizing the CO_2 Sequestration Value of the ORS 530 Lands

The ORS 530 lands also have the potential to sequester significant amounts of CO_2. By way of photosynthesis, forests absorb atmospheric CO_2, convert the CO_2 into carbon (which is stored in trees and the surrounding ecosystem), and then release oxygen into the atmosphere.[372] Old growth forests such as the Tillamook and Clatsop State Forests store large amounts of CO_2 in live and dead trees and in the forest floor.[373] Any sort of disturbance of this finely tuned machine—disease, timber harvest, roads, etc.—can greatly affect the amount of CO_2 sequestered in the forests.[374] Across all American forests, living trees account for one-third of all sequestered CO_2, while the remaining two-thirds is actually captured in the surrounding ecosystem.[375]

The CO_2 sequestration services performed by forests are typically captured in the form of avoided deforestation, improved forest management, or reforestation credits.[376] "Deforestation" is "the direct human-induced conversion of forested land to non-forested land."[377] By its nature, timber harvesting thus causes deforestation every harvest cycle. Improved forest management involves activities that maintain or increase the amount of CO_2 stored in the land relative to baseline levels.[378] "Reforestation" involves restoring tree cover to land that has been un-forested for a period of time.[379] With respect to the heavily forested Tillamook and Clatsop State Forests, avoided deforestation and improved management practices provide the most opportunity.

Although avoided deforestation and improved forest management allow forests to continue to sequester carbon, it is hard to quantify how much "credit" an actor should be able to sell, as well as how long a credit should and can last (i.e., its permanence).[380] Although not permanent, studies have shown that net CO_2 accumulation and sequestration was still increasing in 300-year-old stands in the Pacific Coast Range, the West Cascades, and the

372 CHRIS WOLD ET AL., CLIMATE CHANGE AND THE LAW 272 (2009).

373 OR. DEP'T OF FORESTRY, FOREST MANAGEMENT AND CARBON STORAGE: STATE OF THE SCIENCE REPORT 10 (2010), *available at* http://www.oregon.gov/ODF/BOARD/docs/2010_July/BOFATTCH_20100730_06_01.pdf.

374 *Id.* at 2–3; *see also* WOLD ET AL., *supra* note 372, at 273.

375 OR. DEP'T OF FORESTRY, *supra* note 373, at 7.

376 *See, e.g.*, CAL. AIR RES. BD., COMPLIANCE OFFSET PROTOCOL U.S. FOREST PROJECTS § 3.1.1 (2011), *available at* http://www.arb.ca.gov/regact/2010/capandtrade10/copusforest.pdf; Conference of the Parties Serving as the Meeting of the Parties to the Kyoto Protocol, 1st Sess., Montreal, Can., Nov. 28–Dec. 10, 2005, Decision 16/CMP.1, Land Use, Land-Use Change and Forestry, U.N. Doc. FCCC/KP/CMP/2005/8/Add.3, at 3, 5 (Mar. 30, 2006) (including afforestation, cropland and grazing management, and re-vegetation activities).

377 *Id.*

378 CAL. AIR RES. BD., *supra* note 376, at § 2.1.2.

379 *Id.* § 2.1.1.

380 OR. DEP'T OF FORESTRY, *supra* note 373, at 7 (noting that avoided deforestation credits are controversial); *see* BERNHARD SCHLAMADINGER & GREGG MARLAND, PEW CENTER ON GLOBAL CLIMATE CHANGE, LAND USE & GLOBAL CLIMATE CHANGE: FORESTS, LAND MANAGEMENT, AND THE KYOTO PROTOCOL 8 (2000) (noting that emission reductions in land use activities "might be released at a later time.").

Sierra Nevada, and in a 600-year-old stand in the Klamath Mountains.[381] Moreover, once old-growth stands are harvested, the amount of CO_2 stored in the forest may never again reach the previous level of storage.[382] Due to these realities, it can be difficult to determine how much credit will be allocated for the different types of activities, as well as how long a credit can and should last as compared to a forest's optimal sequestration schedule.

Another key question with respect to avoided deforestation and improved forest management activities is whether those activities are "additional." For a project to be additional, the activity leading to CO_2 sequestration must go beyond "business-as-usual" and not be the result of natural economic or technical progression.[383] Further, if the sequestration activity is legally required, the project is not additional.[384] Additionality is thus an important and oftentimes difficult hurdle to clear when dealing with public land sequestration potential.

Therefore, although uncertainty exists with respect to sequestration quantification, permanence, and eligibility, carefully tailored avoided deforestation and improved forest management initiatives could turn the ORS 530 forests into a source of carbon sequestration revenue for the counties. Although a robustly priced forest carbon trading market does not yet exist, the large stocks of CO_2 housed in the Pacific Coast Range forests might soon become a popular offset source and eventually provide significant revenue streams to the counties.[385]

a. Voluntary Carbon Offset Schemes in the United States

Although the U.S. Environmental Protection Agency (EPA) has begun to regulate CO_2 emissions from stationary sources[386] and new motor vehicles,[387] federal cap and trade legislation—which could have included a forestry offset trading mechanism—now appears to have lost enthusiasm as

381 Tara Hudiburg et al., *Carbon Dynamics of Oregon and Northern California Forests and Potential Land-Based Carbon Storage*, 19 ECOLOGICAL APPLICATIONS 163, 170 tbl.2 (2009).

382 OR. DEP'T OF FORESTRY, *supra* note 373, at 10.

383 WOLD ET AL., *supra* note 372, at 242.

384 *See* CAL. AIR RES. BD., *supra* note 376, at § 3.1.

385 See *infra* Part VI.B.2(a) (detailing voluntary carbon offset potential) and Part VI.B.2(b) (detailing mandatory carbon offset potential).

386 In *Massachusetts v. U.S. Envtl. Prot. Agency*, 549 U.S. 497, 532–33 (2007), the Supreme Court ruled that CO_2 was a pollutant under the Clean Air Act. Following this ruling, the Obama administration found that CO_2 endangers the public health and welfare. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,516, 66,523 (Dec. 15, 2009) (codified at 40 C.F.R. Chapter 1). This finding has been the foundation for regulation of greenhouse gases (GHGs) emitted from stationary sources under the Tailoring Rule. Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule. 75 Fed. Reg. 31,514, 31,519 (June 3, 2010) (codified at 40 C.F.R. pts. 51–52, 70–71).

387 *See, e.g.*, California Greenhouse Gas Emission Standards for New Motor Vehicles, 74 Fed. Reg. 32,744, 32,744 (July 8, 2009). The Endangerment finding was also a prerequisite to promulgating the new motor vehicle rule. *See* 75 Fed. Reg. at 31,519.

a result of the weak economy.[388] As such, forestry emission monetization in the United States primarily occurs through voluntary over-the-counter (OTC) transactions.[389] In 2010, OTC forestry CO_2 offsets sold for an average of \$5.63/tCO_2e (metric tons of carbon dioxide equivalent) globally.[390] Although this Comment estimates that at current prices, 41 MMBF of permanently protected timber could yield up to \$7.7 million in voluntary carbon sequestration payments, until voluntary CO_2 offset prices increase or are replaced by regulations, such offsets are unlikely to become a stand-alone revenue-producing alternative for lands currently utilized for timber production (unless timber stumpage prices remain exceedingly low) because this payment would not be on an annual basis, but rather over a number of years.[391]

Nonetheless, various Northwest-specific voluntary sequestration mechanisms do exist. First, Oregon is home to Ecotrust—an organization through which private forest owners can manage their resources for carbon sequestration values, and not just for harvest maximization.[392] As of 2004, Ecotrust began investing directly in carbon storage, and now directly manages 12,449 acres of private Oregon forestland to this effect.[393] Although Ecotrust has thus far only partnered with private landowners in an effort to model best management practices, it could potentially serve as a facilitator for the state in developing offset programs on ORS 530 lands.

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388 John M. Broder, *'Cap and Trade' Loses Its Standing as Energy Policy of Choice*, N.Y. TIMES, Mar. 25, 2010, http://www.nytimes.com/2010/03/26/science/earth/26climate.html (last visited Nov. 18, 2012).

389 "Voluntary OTC" trades are market driven transactions that have occurred without a formal exchange or a formal emissions cap. DAVID DIAZ ET AL., ECOSYSTEM MARKETPLACE, STATE OF THE FOREST CARBON MARKETS 2011: FROM CANOPY TO CURRENCY 11 (2010), *available at* http://www.forest-trends.org/documents/index.php?pubID=2963.

390 *Id.* at 6 tbl.3.

391 Based on a survey of the California forests, one acre of live tree forest holds roughly 160 tons of CO_2. TIMOTHY A. ROBARDS, CURRENT FOREST AND WOODLAND CARBON STORAGE AND FLUX IN CALIFORNIA: AN ESTIMATE FOR THE 2010 STATEWIDE ASSESSMENT 8 (2010), *available at* http://www.bof.fire.ca.gov/board_committees/policy_committee/current_projects/current_projects/carbon_white_paper_-_final.pdf. Because the trees themselves only hold 1/3 of the forest's sequestered CO_2, this Comment assumes that 480 tons of CO_2 are sequestered in an acre of forest. *See supra* note 375 and accompanying text. As such, if an average offset sells for \$5.63/tCO_2e, one acre of ORS 530 land/ecosystem could be purchased on the voluntary market for \$2702. Comparatively, one acre of California forest is estimated to hold approximately 14 MBF of timber. *Id.* at 8. In comparison, the lowest forecasted selling price for any timber in the Tillamook or Clatsop State Forests is \$132.59/MBF. *See supra* note 318 and accompanying table. The highest project price is \$362.25/MBF. *Id.* One acre of ORS 530 timber harvest could fetch between \$1,856 and \$5,071 on the timber market. *Id.* Thus, voluntary offset prices would need to almost double in order to make CO_2 offsets viable as a sole replacement revenue stream if timber prices rebound to anywhere near their pre-downturn levels (i.e. not as low as \$132.59/MBF). Total sequestration revenues were estimated by dividing (41 MMBF/14 MBF) x \$2,702/acre of tCO_2e.

392 Gail L. Achterman & Robert Mauger, *The State and Regional Role in Developing Ecosystem Service Markets*, 20 DUKE ENVTL. L. & POL'Y F. 291, 295 (2010) (discussing the Ecotrust).

393 *Id.*

In addition, uncertified private transactions are becoming a popular method for monetizing the value of carbon sequestration in the Northwest and around the world.[394] For example, in 2009, the Jefferson Land Trust (JLT), a Washington non-profit, sold uncertified voluntary offsets to Shorebank Enterprise Cascadia, a financial institution that works with local organizations to promote economic opportunity.[395] Shorebank sought to offset its CO_2 impact, and JLT agreed to dedicate the CO_2 stored in its working forest toward an offset for Shorebank.[396] JLT sold 400 tons of CO_2 credits at $20/ton, with a commitment for the offset to remain with the land for 100 years.[397] The only other condition was that the credits had to be Forest Stewardship Council (FSC) certified.[398] If coastal or Portland businesses pooled together their resources to buy long-term harvesting contracts or non-harvest easements from Forestry, and then managed those lands for their CO_2 sequestration value for the duration of those instruments,[399] these tracts of ORS 530 lands could serve as a viable revenue source for the counties.

b. Regulatory Schemes to Trade Forest Carbon

In addition to these voluntary offset options, mandatory offset trading markets might provide Forestry with another option for selling the carbon sequestration value provided by the ORS 530 lands. In the absence of federal cap-and-trade legislation, the only current domestic option for forestry

394 *See* DIAZ ET AL., *supra* note 389, at 13.

395 Selden McKee, *Jefferson Land Trust/NNRG/Shorebank Carbon Sale*, JEFFERSON LAND TRUST, Dec. 21, 2009, http://www.saveland.org/News/News_Detail.aspx?processID=69 (last visited Nov. 18, 2012).

396 *Id.*

397 *Id.*

398 Nw. Natural Res. Grp., *Northwest Natural Resource Group Completes its Largest Carbon Offset Sale to Date*, Dec. 22, 2009, http://nnrg.org/news-events/news/northwest-natural-resource-group-completes-its-largest-carbon-offset-sale-to-date (last visited Nov. 18, 2012). "FSC" certification requires compliance with the various principles and criteria of forest management. *See* FOREST STEWARDSHIP COUNCIL (FSC), FSC-US REVISED FOREST MANAGEMENT STANDARD (2010), *available at* http://us.fsc.org/download.fsc-us-forest-management-standard-v1-0.95.htm. Because this standard focuses on sustainable forestry management, it is not directly applicable to conservation.

399 In managing the ORS 530 lands for GPV, Forestry has the legal authority to create and manage a forestry carbon offset program. OR. REV. STAT. § 530.050(11)(a)(2011) ("In establishing the program, the forester may . . . [e]xecute any contracts or agreements necessary to create opportunities for the creation of forestry carbon offsets"). Forestry also has the authority to grant conservation easements over ORS 530 lands. *Id.* § 530.050(5). Other countries have experimented with long-term non-harvest contracts. For example, in 2009, the Queensland state government in Australia announced the sale of a 99-year contract lease on Forestry Plantations Queensland state forest property to Hancock Timber Resource Group (a North-America based firm). Andrew Fraser, *Rail Workers' Strike Underlines Asset-Sale Anger*, AUSTRALIAN, June 9, 2009, http://www.theaustralian.com.au/news/strike-underlines-sale-anger/story-e6frgczx-1225877220671 (last visited Nov. 18, 2012); *see also* DEP'T OF AGRICULTURE, FISHERIES AND FORESTRY, CENTRAL QUEENSLAND FOREST ASSOCIATION ANNUAL REPORT 10 (2010) (Austl.).

offsets is the California market.[400] In 2006, California passed the Global Warming Solutions Act of 2006,[401] the first comprehensive climate change regulatory program in the United States.[402] The California Air Resources Board (CARB) has since adopted a mandatory cap-and-trade structure.[403] Under the CARB forest protocols, 8% of an emitter's compliance obligation under the CARB cap-and-trade scheme can be met through forestry offsets.[404] This translates into roughly 13 $MtCO_2e$ of emissions that can be offset in 2013, and a projected total of 200 $MtCO_2e$ from 2013–2020.[405] Under the U.S. Forest Protocol adopted by CARB, state-owned forests in the United States are eligible for avoided deforestation and improved forest management activity credits if approved by the relevant state forest management agency and deemed additional.[406] To be additional, these activities cannot be deemed "legally required" under state law, management plans, or private instruments.[407] CO_2 sequestration is listed as a permissive statutory and regulatory activity, and the regional state forest management plan does not impose any CO_2 sequestration requirements.[408] Thus, assuming Forestry can demonstrate additionality on ORS 530 lands—which it should be able to—the rich CO_2 stores in these forests may become attractive to those seeking CARB compliance.

In addition to tapping into the California market, if more enthusiasm resurfaces for binding commitments that include forestry offsets, Oregon's unique regulatory environment would likely foster quick growth of regulated markets that could easily include ORS 530 lands. First, the GPV mandate explicitly authorized Forestry to establish "a forestry carbon offset program to market, register, transfer or sell forestry carbon offsets," while providing Forestry the authority to contract and negotiate for the sale of such CO_2 credits.[409] Second, Oregon is also a member of the Western Climate Initiative (WCI)—a 2007 partnership between eleven western United States and Canadian jurisdictions.[410] In July 2010, the WCI proposed a regional

400 DIAZ ET AL., *supra* note 389, at 18 ("With the light extinguished for any US federal cap-and-trade program in the near term, California emerged as the single clearest home for pre-compliance offsets.").

401 A.B. 32, 2005–2006 Leg., Reg. Sess. (Cal. 2006) (codified at CAL. HEALTH & SAFETY CODE § 38500 (West 2012)).

402 DIAZ ET AL., *supra* note 389, at 17.

403 Press Release, Cal. Air Res. Bd., *California Air Resources Board Adopts Key Element of State Climate Plan*, Oct. 20, 2011, http://www.arb.ca.gov/newsrel/newsrelease.php?id=245 (last visited Nov. 18, 2012).

404 DIAZ ET AL., *supra* note 389, at 17.

405 *Id.*

406 CAL. AIR RES. BD., *supra* note 376, at §§ 2.1, 3.1, 3.6.

407 *Id.* § 3.1(1)–(2). An activity is deemed legally required if it is mandated by law or regulation, a court order, management plan, conservation easements, or deed restriction. *Id.*

408 *See* OR. REV. STAT. § 530.050(11) (2011) (Forestry may achieve GPV by "[e]stablish[ing] a forestry carbon offset program to market, register, transfer or sell forestry carbon offsets."); OR. ADMIN R. 629-022-0070 (2012) (allowing offsets, but not requiring them); ODF, FOREST MANAGEMENT PLAN, *supra* note 1, at ch. 5 (detailing implementation guidelines, which did not include any requirements to manage for CO_2 sequestration).

409 OR. REV. STAT. § 530.050(11) (2011).

410 DIAZ ET AL., *supra* note 389, at 19.

emissions reduction plan aimed at reducing GHG emissions 15% below 1990 levels by 2020.[411] This proposal included a regional cap-and-trade scheme where offsets from forestry, agricultural and waste management markets can account for 49% of overall reductions.[412] As such, a strong foundation exists for Oregon to once again lead the way with regulated carbon markets once the economy improves.

3. Monetizing the Recreation and Aesthetic Values of the ORS 530 Lands

Ecosystems such as the ORS 530 lands also provide a vast array of opportunities for recreation and aesthetic enjoyment.[413] Situated less than an hour away from Portland, these ORS 530 forests provide a diverse array of hiking, camping, horseback riding, biking, off-highway vehicle, boating, picnicking, and fishing opportunities.[414] These forests are also recognized for their unique beauty.[415] Because the ORS 530 lands offer a number of recreational and aesthetic opportunities,[416] potential exists for monetizing them as ecosystem services. This section describes three ways to monetize these recreational and aesthetic values.

a. Collection of State Forest Fees—Siuslaw National Forest Comparative Case Study

The ORS 530 lands could likely produce a sizeable amount of revenue from various recreational and use permits. Although not a perfect parallel, Oregon's Siuslaw National Forest illustrates the potential recreation and use permit revenue inherent in the ORS 530 lands. The Siuslaw National Forest is an Oregon coastal forest comprised of 630,000 acres of forestland.[417] The Tillamook and Clatsop State Forests are similarly sized at a combined 518,000 acres.[418] Because the Siuslaw is similar in size and geography to the ORS 530 lands, the revenue generated from this national forest serves as a rough benchmark for the capacity of the Tillamook and Clatsop State Forests. The Siuslaw National Forest generates revenue from forest users in

411 *Id.*

412 *Id.*; KATHERINE HAMILTON ET AL., BUILDING BRIDGES: STATE OF THE VOLUNTARY CARBON MARKETS, 14 (2010). Oregon has not begun implementing any WCI policies. DIAZ ET AL., *supra* note 389, at 19 n.12.

413 *See* Robert L. Fischman, *The EPA's NEPA Duties and Ecosystem Services*, 20 STAN. ENVTL. L.J. 497, 530 (2001).

414 OR. DEP'T OF FORESTRY, TILLAMOOK STATE FOREST RECREATION GUIDE 1–2 (2011), *available at* http://www.oregon.gov/ODF/tillamookstateforest/docs/TSFRecreationGuideWeb.pdf [hereinafter ODF, TILLAMOOK RECREATION GUIDE].

415 *See Arbor Day Found.*, The Tillamook State Forest, http://www.arborday.org/replanting/stories2011.cfm?forest=58 (last visited Nov. 18, 2012).

416 *See* Or. Dep't of Forestry, *Recreation Opportunities in the Tillamook State Forest*, http://www.oregon.gov/ODF/tillamookstateforest/Recreation.shtml (last visited Nov. 18, 2012).

417 U.S. Forest Serv., *About the Forest*, http://www.fs.usda.gov/main/siuslaw/about-forest (last visited Nov. 18, 2012).

418 POWER & RUDER, *supra* note 124, at i.

a number of ways, including recreation passes, campground fees, off-highway vehicle passes, special forest products passes (such as firewood, mushroom gathering, and Christmas tree harvesting), special use permits (large gatherings, and commercial filming), and road-use hauling permits, among others.[419] From 2006 to 2010, the Siuslaw National Forest hosted 1.8 million visitors a year and averaged $1.69 million/year in recreation fee revenues.[420] Although the ORS 530 lands may have less revenue potential than the Siuslaw National Forest, the significant revenues earned from the Siuslaw should motivate Forestry to consider expanding their recreation and user pass programs as a way to help fund the decoupling process.

b. Salmon Surcharge on Sport Fishing Licenses

The Tillamook watershed is considered a "major southern stronghold" for chinook and chum salmon, and steelhead.[421] The ORS 530 lands in this watershed host some of Oregon's premier fisheries, including popular runs in the Kilchis, Miami, Nehalem, Salmonberry, Trask, and Wilson rivers.[422] As such, additional fishing license related revenue could help to support the decoupling effort. As of October 2011, short-term fishing licenses cost between $8.50 and $58 for residents, and between $8.50 and $106.25 for non-residents.[423] For the most part, all of the license prices are the same for residents and non-residents.[424] One way to raise additional revenue would be to add an ORS 530 salmon surcharge to all sport fishing license sales. From 2001 to 2010, the state sold an average of 599,546 sport fishing licenses per year.[425] A $2/license increase could yield almost $1.2 million/year in increased revenues. Another possibility is to charge non-resident anglers a higher amount that includes an ORS 530 salmon surcharge.[426] Under *Baldwin v. Fish*

419 *See generally* U.S. Forest Serv., *Passes & Permits*, http://www.fs.usda.gov/main/siuslaw/passes-permits (last visited Nov. 18, 2012) (noting what permits are required for certain activities in the Siuslaw National Forest).

420 U.S. FOREST SERV., SIUSLAW NATIONAL FOREST ANNUAL REPORT: 2010, at 2 (2010), *available at* http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5329779.pdf (reporting 1.8 million visitors and $1.69 million in recreation fees); U.S. FOREST SERVICE, SIUSLAW NATIONAL FOREST ANNUAL REPORT: 2008, at 2 (2008), *available at* http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev7_006994.pdf (reporting 1.8 million visitors and $1.79 million recreation fees); U.S. FOREST SERVICE, SIUSLAW NATIONAL FOREST ANNUAL REPORT: 2006, at 2 (2006), *available at* http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev7_006995.pdf (reporting 1.8 million visitors and $1.6 million in recreation fees).

421 Neuman, *supra* note 14, at 178.

422 Ass'n of Northwest Steelheaders, *State Forests,* http://www.nwsteelheaders.org/conservation/stateforests/ (last visited Nov. 18, 2012).

423 Or. Dep't of Fish & Wildlife, *Licenses & Fees: Sport Fishing*, http://www.dfw.state.or.us/resources/licenses_regs/sport_fishing.asp (last visited Nov. 18, 2012).

424 The biggest difference is with respect to a standard angling license (comparing $33 for residents versus $106.25 for non-residents). *Id.*

425 OR. DEP'T OF FISH & WILDLIFE, LICENSE SALES AND FEES 1975–2010, at 1 (2011), *available at* http://www.dfw.state.or.us/agency/budget/docs/2009/License_tag_sales_thru_10.pdf.

426 In 2010, Oregon sold 14,594 non-resident fishing licenses. *Id.* From 2007–2009, Oregon sold 23,725, 21,789, and 22,745 nonresident licenses, respectively. *Id.*

and Game Commission of Montana,[427] a state law may facially discriminate against out-of-state residents so as to protect a finite resource such as salmon.[428] Based on 2001–2010 average sales, a $10 increase on out-of-state licenses could yield almost $200,000/year in increased revenues. Because of this potential, Forestry should explore the expansion of fishing license fees as a means of supporting the decoupling process, including an analysis of whether these additional fees would depress overall license purchases.

c. State Highway Toll for US 26 and US 6

Many people derive aesthetic value from ecosystems, as evidenced by support for scenic drives.[429] When driving between the Oregon coast and Portland on either U.S. Highway 26 or Oregon Highway 6, motorists pass through the Clatsop and Tillamook State Forests respectively.[430] When driving on these roads, motorists can often view numerous clearcuts. Thus, Forestry should consider a toll that monetizes the value of a more aesthetic drive-by view.[431] The majority of automobile traffic that passes through the Tillamook and Clatsop State Forests occurs on U.S. Highway 6 (to Tillamook) and U.S. Highway 26 (to Cannon Beach). On U.S. Highway 26 (Sunset State Highway 47), an average of 7,500 cars passed the Tillamook-Washington County line each day in 2010.[432] If each vehicle were charged $1/round trip, $2.74 million in gross revenue could be raised from tolls each year. On Oregon Highway 6 (Wilson River State Highway 37), an average of 4,900 cars passed the Tillamook-Washington County line each day in 2010.[433] If each vehicle were charged $1/round trip, $1.78 million in gross revenue could be raised from tolls each year. In sum, monetizing the scenic vista observed by cars driving through the forests could result in $4.52 million/year in gross revenues for decoupling, although it would be prudent to design the toll such that local users were exempted. With current technology, a toll road could be implemented and managed electronically.[434]

427 436 U.S. 371 (1978).

428 *Id.* at 386, 390 (noting that such a law will not violate the Privileges and Immunities or Equal Protection clauses of the Constitution if it does not undermine one's constitutional right to earn a living).

429 Marcia Silva Stanton, *Payments for Freshwater Ecosystem Services: A Framework for Analysis*, 18 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 189, 202 (2012).

430 *See* ODF, TILLAMOOK RECREATION GUIDE, *supra* note 414, at 2.

431 In 2009, the Oregon legislature passed legislation suggesting that within three years, transportation officials needed to develop a program to study the effect on traffic congestion. State planners were encouraged to explore all options, including toll booths. H.B. 2001, § 3, 75th Leg., Reg. Sess. (Or. 2009), *available at* http://www.leg.state.or.us/09reg/measures/hb2000.dir/hb2001.en.html. As a part of this study, Forestry could try to convince transportation planners to implement a toll collection system on U.S. Highway 26 and Oregon Highway 6.

432 OR. DEP'T OF TRANSP., 2010 TRAFFIC VOLUMES ON STATE HIGHWAYS 76 (2011), *available at* http://www.oregon.gov/ODOT/TD/TDATA/tsm/docs/2010_TVT.pdf.

433 *Id.* at 71.

434 *See* TMRI Sys. Integration, *Electronic Tolling and Automated Access Systems for Roadways, Airports, Parks, Bridges and Walkways*, http://www.trmi.com/ (last visited Nov. 18, 2012).

Together, the various ecosystem service values contained in the ORS 530 lands could provide a significant amount of non-extractive revenues. During the forty-year transition period, these revenue streams could help to pay off the upfront funding infusion the counties would receive under the ORS 530 decoupling proposal. And over time, these non-extractive revenue streams could serve as an ecologically sustainable alternative to timber harvesting, while at the same time leaving the ORS 530 revenue flow to the counties undisrupted. However, because decoupling has ecological, economic, and socio-political benefits, investing in the program would be a wise move for the state.

VII. CONCLUSION

Since the enactment of ORS 530, the counties have been reliant on timber revenues from these lands.[435] The counties have argued that under ORS 530, the state has a duty to maximize timber revenues for them.[436] For many decades, the Tillamook and Clatsop State Forests were managed more heavily for timber. However, no duty to maximize timber harvests was created by statute, contract, trust, or partnership principles.[437] As such, GPV requires equal consideration of economic, conservation, wildlife, and recreation values. In recent decades, timber and environmental interests have fought more aggressively regarding the meaning and implementation of GPV.[438] Instead of perpetuating this unending, unpredictable legal battle, both sides should agree to a different approach that builds on Forestry's recent move to create high value conservation zones.

As a change of course, this Comment suggests that once ecologically important ORS 530 lands are removed from timber harvest, thus "decoupling" them from the ORS 530 revenue framework, timber harvest revenues from these lands can be replaced by ecosystem service programs.[439] This approach would achieve a balanced GPV result and provide a winning outcome for both sides. Decoupling would also help the counties diversify their economies in the face of the shifting regional and global timber landscape, and would also help improve the overall health of the ORS 530 lands. Further, decoupling would help to correct the statutory flaws in ORS 530, thus placing some limit on the counties' incentive to maximize timber revenues. Finally, decoupling might help to defuse the politically contentious atmosphere surrounding Oregon forest management.[440]

Achieving a minimal level of conservation in the ORS 530 lands would require taking 41 MMBF of timber offline.[441] At current volume and price estimates, this would decrease county revenues by $5.88 million/year under

435 *See supra* notes 21–25 and accompanying text.
436 *See supra* notes 33, 53 and accompanying text.
437 *See* discussion *supra* Part III.
438 *See supra* notes 53–57 and accompanying text.
439 *See* discussion *supra* Part IV.
440 *See* discussion *supra* Part III.
441 *See supra* note 313 and accompanying text.

the ORS 530 scheme.[442] This annual reduction in ORS 530 revenues would have only minimal effects on jobs, and would not have an effect on statewide school funding so long as foregone timber harvest revenues are replaced.[443]

In order to ameliorate potential county budget shortfalls as a result of decoupling, the foregone harvest revenues would need to be replaced with other revenue streams. To make decoupling economically palatable to the counties, the counties would receive the net present value of one timber rotation worth (forty years) of ORS 530 revenues, or approximately $78 to $192 million in upfront funding.[444] This upfront funding infusion—paid for by a State Treasurer-issued bond—would provide the counties economic flexibility, the opportunity to create jobs, principal on which to earn interest, and the opportunity to diversify their economies. Payments from a variety of ecosystem services programs would pay back the upfront funding. In the long term, these ecosystem service programs would serve as a perpetual source of revenue.[445]

Among the most promising ecosystem services include watershed conservation, river temperature compliance credit trading, carbon sequestration offsets, collection of forest recreation fees, fishing license surcharges, and Portland-to-Coast toll road fees.[446] Several of these options already present excellent revenue options, and when combined and bolstered over time, could both pay back the original bond and serve as a permanent source of revenue for the counties after the forty-year transition period ends. As modeled, these ecosystem services could provide at least $7.62 million/year in replacement revenues,[447] not including additional watershed and CO_2 revenues.[448] Again, ORS section 530.050 should be amended such that Forestry has the specific authority to design projects and collect ecosystem service fee payments from the permanently protected areas.

The last piece to the puzzle is ensuring that reduced harvests in permanent protection areas do not simply shift to unprotected lands. The state could adopt regulatory constraints on the remaining, non-decoupled areas of ORS 530 forestlands so as to avoid leakage.[449] With leakage controlled, decoupling would allow for comprehensive management of the ORS 530 land ecosystem, while still allowing sufficient timber harvests to support the counties.

442 *See* discussion *supra* Part V.A.1, Table 3.

443 *See* POWER & RUDER, *supra* note 124, at 26; discussion *supra* Part V.A.2–B.

444 *See* discussion *supra* Part VI.A. This net present value range is a result of the use of different discount rates.

445 *See* discussion *supra* Part VI.B.

446 *See* discussion *supra* Part VI.B.3.

447 Administrative expenses associated with these revenues are not calculated here.

448 The $7.62 million/year estimate does not include watershed protection or carbon sequestration revenue estimates because of the uncertainty regarding these values.

449 *See supra* note 77 and accompanying text.