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An Agricultural Law Research Article

**Pulp Friction and the Management  
of Oregon's State Forests**

by

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Originally published in JOURNAL OF ENVIRONMENTAL LAW AND LITIGATION  
13 J. ENVTL. L. & LITIG. 209 (1998)

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## **Pulp Friction and the Management of Oregon's State Forests<sup>1</sup>**

A fir tree located in the Elliott State Forest in Oregon may be a close cousin to a fir located in the Siskiyou National Forest in Oregon, but they hardly qualify as blood brothers. Trees within the Elliott are part of a land grant Oregon received at the time of statehood and are subject to peculiar statutory and constitutional mandates. In contrast, federal forest lands throughout the northwest are subject to the mandates of the Northwest Forest Plan, a Clinton administration policy. Compared to state forests, a smaller percentage of forest land will be harvested under the Northwest Forest Plan. If a tree's odds of being cut are one mea-

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<sup>1</sup> This Article is based on a study the authors conducted for the Oregon Board of Forestry in the summer, 1997. We appreciate the assistance of N. Kline and R. Rogers of the Coos District, Oregon Department of Forestry in interpreting the Elliot State Forest Habitat Conservation Plan (HCP). Similarly, Don Vagt of the Washington Department of Natural Resources (DNR) provided assistance and contacts which aided our understanding of the DNR's implementation of its HCP for the west-side Olympic Peninsula. R. Holthausen of the Forest Service provided a critical review of the manuscript as it dealt with federal efforts to protect the northern spotted owl and the Northwest Forest Plan. The views expressed in this article are solely those of the authors, and do not represent the position of the Oregon Board of Forestry, Oregon Department of Forestry, or Oregon Attorney General, or the reviewers.

sure of misfortune, federal trees may be blessed under this policy. Yet, as a result of a habitat conservation plan covering the Elliott State Forest, a tree in the Elliott, if it is eventually harvested, will likely have a much longer rotation age than a similar type of tree within those areas open to harvesting within the Siskiyou National Forest. When one then considers the rules governing a fir tree located within Tillamook State Forest, at one time acquired by counties from private parties through tax forfeiture, the picture becomes more complex. The result is three similar trees located in three different forests in Oregon. Few rules apply in the same way to all three trees, providing fuel for the current debate over how Oregon's state forests should be managed.

Legal and administrative differences among the three types of forests are marked. National Forest lands, the Northwest Forest Plan aside, are managed pursuant to the National Forest Management Act (NFMA), with detailed regulations governing management decisions.<sup>2</sup> Forests managed by the Bureau of Land Management are managed pursuant to the Federal Land Policy and Management Act (FLPMA).<sup>3</sup> Environmental protection is woven into the implementing regulations for both these Acts, and there is no obligation to produce revenues. The Northwest Forest Plan implements NFMA, FLPMA, and the Endangered Species Act on federal forests within the range of the northern spotted owl, and in doing so, severely limits the areas that may be harvested. In contrast, state trust lands are managed to produce "maximum revenue" consistent with other trust duties for the trust's public school beneficiaries. The Elliott is currently managed under a Habitat Conservation Plan (HCP), and the longer rotation age allows more trees to be cut in contrast to what would occur in its absence, ensuring a stream of income for trust beneficiaries. Forest Board lands, again in contrast to the first two categories of ownership, were acquired by the state from the counties under statutory provisions that obligate the state to return a portion of any revenue produced from the lands to the

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<sup>2</sup> National Forest Management Act of 1976, Pub. L. No. 94-588, 90 Stat. 2949 (codified as amended at 16 U.S.C. §§ 1600-1614 (1994)).

<sup>3</sup> Act of October 21, 1976, Pub. L. No. 94-579, 90 Stat. 2762 (codified at 43 U.S.C. §§ 1701-1784).

counties. These lands are managed by the Board of Forestry, a seven-member, gubernatorially appointed citizens board.<sup>4</sup>

A court decision found a lack of standards governing the management of lands owned by the Board of Forestry and managed by the Oregon Department of Forestry (the Department).<sup>5</sup> Consequently, in 1997, the Department undertook an administrative rulemaking process to provide clarity about the role and the use of state forest lands.<sup>6</sup> After the Department considered several versions of draft rules to launch the rulemaking process, in July 1997, it recommended that the Board of Forestry begin the process with draft rules embracing an "active management" approach. Under this approach, the Board of Forestry lands are to be managed to produce a sustainable supply of timber and revenues from timber production as long as other forest values are protected.<sup>7</sup> The Department found this approach to be consistent with statutory and court mandates. However, testimony from several environmental organizations was strongly opposed to the active management approach, seeing it as a continuation of the traditional timber production emphasis. Some in this group argued that all potential uses, including preservation, should receive equal consideration. This argument, not too surprisingly, sounds similar to the traditional federal "multiple use" approach. Although an "equality of uses" approach was at some point considered by the Department, it ultimately concluded this "multiple use" model was inconsistent with legal mandates governing these lands.

In July 1997, the Board of Forestry approved beginning the rulemaking process with the "active management" draft rules recommended by the Department.<sup>8</sup> Following public hearings in August and an extended public comment period on the draft rules, in November 1997, the Department released revised draft rules.<sup>9</sup> Significant changes in the revised draft rules include a definition of the "greatest permanent value," which includes eco-

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<sup>4</sup> OR. REV. STAT. § 526.009(1) (1997).

<sup>5</sup> *Friends of Abiqua v. State* (Or. Cir. Ct. Marion Co.) (on file with authors).

<sup>6</sup> The rules also address the Department's management policies, silviculture policies, silvicultural capabilities of the lands, management planning processes, land management classifications, and public involvement goals.

<sup>7</sup> Oregon Dep't of Forestry, Agenda Item 8, Attachment 1, Page 3 of 4, Agenda for July 25, 1997 Board of Forestry meeting in Tillamook County, OR.

<sup>8</sup> OR. ADMIN. R. 629-35-0000(1) (1998).

<sup>9</sup> The subcommittee, appointed at the September 3, 1997 meeting of the Board of Forestry, was comprised of Board members: Sherry Sheng, Howard Sohn, and Sam

conomic, social, and environmental components.<sup>10</sup> Timber production must be sustainable, and must be carried out within the context of protecting other forest resource values.<sup>11</sup> Following an additional public comment period, the revised draft rules were approved by the Board of Forestry at its January, 1998 meeting.

Public comments on both the draft and revised draft rules were prolific but primarily focused on objections to the broad management framework.<sup>12</sup> Few commenters dissected the standards by which lands would be managed, including standards for developing forest plans, standards for designating the forest land base as timber production or non-timber production, and standards for considering the effects of timber harvest activity on other forest resources.<sup>13</sup> These standards provide some guidance but leave much flexibility to managers and, it would seem, should be a primary focus for those concerned with how the state forests are managed.

The purpose of this Article is to suggest that, although the mandates governing Board of Forestry lands are unique among public forest lands in Oregon, and among similar forest lands in other states, management opportunities exist to protect other forest values. The draft rules incorporate several of these opportunities and leave significant flexibility to managers in meeting management standards. The Article begins by examining the history and current legal framework governing Board of Forestry lands. Section I sets out the historical background for three types of public forest lands in Oregon: federally owned, common school lands and county forest lands. Section II builds on this comparison by examining similar tax reverted forest lands in Washington, Michigan, Minnesota, and Wisconsin. Washington's forest lands are most comparable to Oregon's, but lessons are offered from the midwestern states as well. Section III examines how these historical and statutory differences translate to varia-

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Johnson. Following several work sessions, the subcommittee provided recommendations on the rules to the full Board at its November 14, 1997 meeting.

<sup>10</sup> OR. ADMIN. R. 629-35-0020.

<sup>11</sup> *Id.*

<sup>12</sup> Most of those commenting were concerned that the new management framework would either: (1) reduce revenue to the schools and counties and/or reduce employment related to timber production; or (2) result in an emphasis on timber harvesting at the expense of other natural resource values. See Package Nos. 1-4, written comments received by the Oregon Dep't of Forestry Regarding Proposed State Forests Management Program Administrative Rules (on file with author Rice).

<sup>13</sup> OR. ADMIN. R. at 629-035-0030, -0040, -0050.

tions in contemporary management practices. The practical consequences of the different management frameworks are elucidated by comparing policies on federal forest lands in Oregon and state forest lands in Washington and Oregon. Section IV then draws on lessons from other public forest lands to suggest that the debate over the "active management" versus "multiple use" approaches for Board of Forestry lands may be misplaced. That is, protection of non-timber forest resources may be achieved through developing standards and guidelines that determine which lands may be harvested, and the manner in which the lands are harvested. The new rules include important standards for achieving such protection.

## I

### **BACKGROUND: PUBLIC FOREST LANDS IN OREGON**

Public forest lands in Oregon have moved in and out of public ownership since the days of the Lewis and Clark explorations. By 1900, under various public land disposal laws, about one-half of all land in Oregon was privately held. While a major purpose of the disposal laws was to facilitate permanent settlement, other factors contributed to the accelerated timber harvesting and the subsequent abandonment of millions of acres of forest land in the state. Technological advances in logging and worldwide demand for timber also prompted rapid logging. Fires, on both cut-over and standing forests, devastated hundreds of thousands of acres. Cut-over and burned lands were then abandoned in large part because of the cost involved in retaining, reforesting, and managing forest lands with no prospect for returns for fifty or more years.<sup>14</sup>

This pattern put a tremendous burden upon some counties. The counties realized no tax revenue from these lands, but property taxes nevertheless were due from the county to the state under a rate system that did not distinguish between forested and cut-over timber lands. Counties turned to their general funds to meet this direct obligation to the state. By 1928, nearly three million acres of forest land in Oregon were cut-over and/or

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<sup>14</sup> CHARLES LANDMAN, OREGON DEP'T OF JUSTICE, OREGON BOARD OF FORESTRY LANDS: AN HISTORICAL OVERVIEW OF THE ESTABLISHMENT OF STATE FOREST LANDS (1995), at 8-14 [hereinafter Landman History].

burned, and over one-quarter of this land was tax delinquent.<sup>15</sup> Statewide, delinquencies on property taxes reached 34% by 1932, leaving \$14 million in unpaid taxes to be made up out of county general funds.<sup>16</sup> Along with the state property tax, counties were obliged to pay delinquent fire patrol taxes. By 1936 the delinquency rose to nearly \$200,000 on over 750,000 acres of county-owned land.<sup>17</sup>

Prior to the 1930s state ownership of forest land was minimal. The Oregon Department of Forestry, established in 1911, was at first primarily a fire protection agency. However, as early as 1920 the Board of Forestry had adopted a comprehensive forest policy for the state that supported the acquisition and management of cut-over and unproductive forest land "to secure the benefits for future generations."<sup>18</sup> Public sentiment towards increasing state ownership of forest lands was mixed. Private interests wanted lands reforested, but also wanted to ensure that reforested lands would be available for them to log. Counties and private entities feared the loss of tax revenues provided by private ownership. Many state officials saw counties as financially incapable of providing adequate fire protection or otherwise efficiently managing the lands.<sup>19</sup>

While counties and the state were faced with the dilemma of cut-over and abandoned forest lands, by the first decade of this century the federal government had already carved out of the public domain forest lands that would be retained for federal management.<sup>20</sup> Beginning in the 1890s, forest land was withdrawn from disposition from the public domain and designated as forest reserves.

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<sup>15</sup> *Id.* at 13 (citing 18TH ANNUAL REPORT OF THE STATE FORESTER OF THE STATE OF OREGON 10 (1928)).

<sup>16</sup> *Id.* at 14 (citing REPORT OF THE STATE TAX COMMISSION OF THE STATE OF OREGON 50 (1935)).

<sup>17</sup> *Id.* at 20.

<sup>18</sup> *Id.* at 11.

<sup>19</sup> *See id.* at 20-23.

<sup>20</sup> Public domain as used here refers to the land that was acquired by the United States and not yet disposed of under homestead or other Federal grant programs. See GEORGE C. COGGINS & CHARLES F. WILKINSON, FEDERAL PUBLIC LAND AND RESOURCES LAW (2d ed. 1987), at 48-61.

### **A. Overview of Forest Land in Oregon**

Oregon's forests cover about twenty-eight million acres, or approximately 45% of the state.<sup>21</sup> Of this twenty-eight million acres, 5.8 million are considered forested but not capable of growing sufficient wood to be defined as timber lands.<sup>22</sup> Seven categories of timberland ownerships and the percent of the timberlands in Oregon that they own or manage, are shown in Figure 1. Timberland ownership is divided between public management (60%) and private ownership (40%). Private land ownership is divided into three types: non-industrial private ownerships of less than 5,000 acres (12.5%); industrial private ownerships of 5,000 acres or greater (25.5%); and Native American sovereign tribal timberlands (2%).<sup>23</sup> Two federal agencies manage the vast majority of public timberlands in Oregon: the Forest Service manages 44.5%, while the Bureau of Land Management administers 10.5%, including the Oregon and California revested lands. Oregon's Department of Forestry manages 3.5% of the timberlands. Other federal, state and local agencies control 2% of the timberlands. The following sections set out the physical characteristics of federal and state forest lands, how they were acquired by their current owner, and their current management framework.

### **B. Federally Owned Timber Lands in Oregon**

The federal government owns about thirty million acres in Oregon, comprising about 48% of the state's land area. However, only about twelve million of these acres are forested (including commercial timber land), and most (80%) of these are located within one of thirteen national forests. The other 20% of federally owned forest lands in Oregon (approximately 2.6 million acres) are managed by the Bureau of Land Management (BLM). The bulk of the BLM-managed lands belongs to the federal government as a result of the 2.6 million acres of "Oregon and California Railroad" and "Coos Bay Wagon Road" reverted lands

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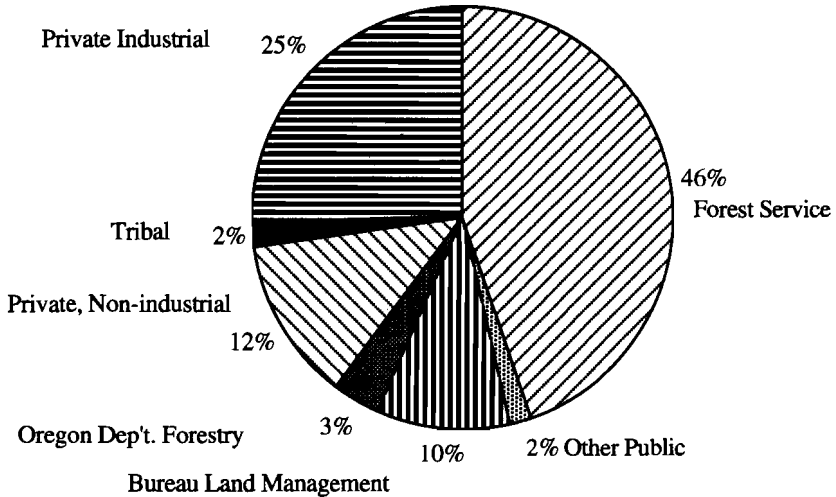
<sup>21</sup> OREGON BOARD OF FORESTRY, FORESTRY PROGRAM FOR OREGON, 1995 ANNUAL REPORTS.

<sup>22</sup> Forested lands are generally considered to have 10% canopy closure of tree species, or to have been recently harvested and likely to be replanted. Timber lands are defined as capable of growing twenty cubic feet of wood per acre per year.

<sup>23</sup> Private lands in this breakdown include Native American sovereign tribal timberlands since they are not managed for general public uses.



**FIGURE 1. OREGON'S TIMBER LANDS OWNERSHIP AND MANAGEMENT (1994).**



(collectively referred to as O&C lands). About 500,000 acres of these lands are administered by the U.S. Forest Service with the remaining two million acres managed by the BLM.<sup>24</sup>

### 1. Acquisition

Beginning in 1892 with the establishment of the Bull Run Timberland Reserve on the west slope of Mount Hood, federal forests were established under various congressional acts and executive orders through withdrawal from the public domain and designation as forest reserves.<sup>25</sup> In 1897, the Forest Service Organic Act was adopted and provided authority to federal managers to manage these lands.<sup>26</sup> Forest Reserves, which were set aside primarily for watershed and other resource protection, and not to be used or developed, continued to be established in Ore-

<sup>24</sup> U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MANAGEMENT, PUBLIC LAND STATISTICS 1990 (Aug. 1991).

<sup>25</sup> Bull Run was established under Presidential Proclamation dated June 17, 1892, 27 Stat. 1028. The Forest Reserve Act of 1891 authorized the President to set aside or reserve in any state having public land bearing forests, as public reservations. 26 Stat. 1103 (codified as amended at 16 U.S.C. § 475 (1997)). Gerald W. Williams, *The USDA Forest Service in the Pacific Northwest: Major Political and Social Controversies Between 1891-1945*, presented at the annual Pacific Northwest Historians Guild meeting entitled *Pacific Northwest History '85: A Conference on Regional History*, in Seattle, WA, Mar. 1-2, 1985.

<sup>26</sup> Act of June 4, 1897, 30 Stat. 34, 35 (1897); (codified as amended at 16 U.S.C. § 475).

gon until 1907 when, under a new federal law, all federal forests were designated as national forests.<sup>27</sup>

Approximately 3.7 million acres of land located mostly in western Oregon were granted to the Oregon and Central Railroad Company in 1869 for the purpose of constructing lines.<sup>28</sup> Congress limited sale by the railroad of these lands: (1) to actual settlers; (2) for no more than \$2.50 per acre; and (3) no more than 160 acres to any person.<sup>29</sup> The U.S. later brought suit to recover the unsold lands claiming the railroad company had violated all three conditions of the grant.<sup>30</sup> As a result of this case, the lands in 1916 were revested by Congress in the United States.<sup>31</sup> The Coos Bay Military Wagon Road lands, public lands in western Oregon once granted to the state to aid in the construction of the Coos Bay Military Wagon Road, were also later forfeited and returned to federal ownership by reconveyance.<sup>32</sup>

## 2. *Current Management Framework*

The establishment of federal forests in Oregon was embroiled in the same controversy affecting all newly established forests governed by federal law. The NFMA, prompted by growing public concern about clearcutting practices and high levels of timber production, marked a dramatic shift in federal timber management. Prior to its passage, concerns were expressed about whether federal foresters were adequately complying with their multiple use mandate to consider other resource values including recreation, watershed, wildlife, and grazing. The NFMA and its regulations were intended in part to insure that resources other than timber production are adequately considered and protected, and that decisions regarding methods of harvest follow scientific and policy guidelines.<sup>33</sup>

While the Forest Service is still given considerable autonomy in recognition of its tradition of high-caliber management, the NFMA limited the agency's discretion by imposing forest plan-

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<sup>27</sup> Proclamation No. 3270, 34 Stat. 3270 (1907) (Cascade Range Forest Preserve).

<sup>28</sup> 14 Stat. 239, ch. 242 § 2 (1866).

<sup>29</sup> 16 Stat. 47, ch. 27 (1869).

<sup>30</sup> *Oregon & Cal. R.R. Co. v. United States*, 238 U.S. 393, 35 S. Ct. 908, 59 L. Ed. 1360 (1914). The Supreme Court found the railroad had violated "enforceable covenants" which allowed Congress to determine the disposition of the unsold lands.

<sup>31</sup> The Chamberlain-Ferris Act of 1916, 39 Stat. 219 (1916).

<sup>32</sup> 40 Stat. 1179, ch. 47 (1919).

<sup>33</sup> See CHARLES F. WILKINSON, *CROSSING THE NEXT MERIDIAN* 144-46 (1992).

ning procedures (including public participation and appeals) that provide for greater accountability than had previously existed. In addition to limits on the use of clearcutting, NFMA requires the agency to provide for diversity of plant and animal communities and to protect watershed health.<sup>34</sup> Indirectly, below-cost timber sales are given more scrutiny, and limits are set on timber harvest levels to ensure sustained yields into the future.<sup>35</sup> Implementing regulations require that the agency "maintain viable populations" of existing vertebrate species.<sup>36</sup> Management plans, incorporating statutory and regulatory mandates, are required for each national forest.<sup>37</sup>

The BLM is governed by specific statutory provisions in managing the O&C lands, as well as other laws governing BLM management activities in general. The O&C lands not classified as more suitable for agricultural use must be managed primarily for permanent forest production. Following principles of sustained yield, timber "shall be" cut for the purpose of providing a permanent supply of timber, protecting watersheds, regulating streamflow, contributing to the economic stability of local communities and industries, and to provide recreational facilities.<sup>38</sup> Annual timber production must be no less than one-half billion board feet annually, "or not less than the annual sustained yield capacity," or as much of this amount "as can be sold at reasonable prices on a normal market."<sup>39</sup> Counties receive revenues from these lands, either as tax equivalent payments or a share of the revenues produced from timber operations. Presently, the counties receive at least 50% of gross revenues.<sup>40</sup>

Courts have reviewed the management obligations imposed by these provisions. Generally, courts have upheld the BLM's obligation to manage the O&C lands for timber resources. When challenged by an environmental group claiming BLM has not adequately considered wildlife conservation in its plan for the O&C

<sup>34</sup> 16 U.S.C. § 1604g(3).

<sup>35</sup> See Wilkinson, *supra* note 33, at 145; 16 U.S.C. § 1604.

<sup>36</sup> 36 C.F.R. § 219.19 (1996).

<sup>37</sup> 16 U.S.C. § 1604. The NFMA both authorized and limited clearcutting on national forests. See generally, *West Virginia Div. of the Izaak Walton League of America, Inc. v. Butz*, 522 F.2d 945 (4th Cir. 1975); Charles F. Wilkinson & H. Michael Anderson, *Land and Resource Planning in the National Forests*, 64 OR. L. REV. 1, 40-45 (1985).

<sup>38</sup> 43 U.S.C. § 1181a.

<sup>39</sup> 43 U.S.C. § 1181a.

<sup>40</sup> 43 U.S.C. § 1181f.

lands, courts have upheld BLM management decisions that construe the provisions as establishing timber production as the dominant use.<sup>41</sup> One court found that setting aside areas to serve as wildlife habitat would be inconsistent with the principle of sustained yield required by the Act.<sup>42</sup> In an earlier decision, the same court held that BLM had no obligation to provide for recreational use of the O&C lands, finding recreation to be a secondary use under the Act.<sup>43</sup>

In addition to laws pertaining specifically to national forests or BLM lands, however, the Forest Service and the BLM must comply with numerous other federal environmental laws including the Endangered Species Act,<sup>44</sup> the National Environmental Policy Act,<sup>45</sup> and the Clean Water Act.<sup>46</sup> Thus, despite the statutory language and the legal decisions promoting timber production, another recent court decision has made it clear that O&C lands are subject to the same environmental constraints as other public lands.<sup>47</sup>

Aside from environmental mandates that must be met, BLM seems to have at least some discretion to manage O&C lands for non-timber purposes. The FLPMA, which generally requires multiple use management on BLM lands, does not apply to O&C lands.<sup>48</sup> However, agency policy statements and solicitor's memos reflect the agency's own interpretation that O&C laws provide flexibility to manage the O&C lands for multiple uses.<sup>49</sup> Additionally, the Ninth Circuit recently concluded that the BLM has authority under the O&C statute to manage these lands for

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<sup>41</sup> *Headwaters, Inc. v. Bureau of Land Management, Medford Dist.*, 914 F.2d 1174 (9th Cir. 1990), *reh'g denied*, 940 F.2d 435 (1991).

<sup>42</sup> *Headwaters*, 914 F.2d at 1183.

<sup>43</sup> See *O'Neal v. United States*, 814 F.2d 1285 (9th Cir. 1987).

<sup>44</sup> 16 U.S.C. §§ 1531-1543.

<sup>45</sup> 42 U.S.C. §§ 4321-4370.

<sup>46</sup> 33 U.S.C. §§ 1251-1387.

<sup>47</sup> Michael C. Blumm & Jonathan Lovvorn, *The Proposed Transfer of BLM Lands to the State of Oregon: Environmental and Economic Questions*, 32 LAND & WATER L. REV. 353, 374, 377 n.136 (1997) (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)).

<sup>48</sup> Federal Land Policy and Management Act of 1976, Pub L. No. 94-579, § 701(b), 90 Stat. 2786 (1976). The extent to which this language means that the multiple use requirements of FLPMA do not apply to O&C lands is discussed in Blumm and Lovvorn, *supra* note 43, at 365 nn.62-73.

<sup>49</sup> Memorandum from Solicitor, U.S. Dep't of the Interior, to Director, Bureau of Land Management (Sept. 8, 1981) (on file with authors).

habitat conservation, although this is not specifically mentioned in the statute.<sup>50</sup> It is not clear at what point, if any, such discretionary management for non-timber purposes might violate the agency's duty to manage primarily for timber, following sustained yield principles, or might unlawfully interfere with the counties' interest in receiving revenues.<sup>51</sup>

Policy initiatives, including the 1992 announcement of an "ecosystem management" policy, also affect federal agency's forest management decisions. Under NFMA's planning requirements, and to address concerns about old growth forests and associated wildlife, the Clinton administration convened a group of scientists called the Forest Ecosystem Management Team. This team identified ten alternative management options for federal forest lands in the Northwest, affecting all or parts of thirteen national forests and six BLM Districts in Oregon.<sup>52</sup> Differences between the options centered on three items: (1) the size and number of designated reserve or set-aside areas; (2) the types of management allowed within the reserves; and (3) the level of harvesting allowed outside of the reserves.<sup>53</sup> The Northwest Forest Plan, which is a modification of Option 9, was selected by the administration.<sup>54</sup> As a practical matter, the guidelines found in the Northwest Forest Plan currently control the management of all federally owned forest lands within the range of the northern spotted owl in Oregon.<sup>55</sup> In recognition of

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<sup>50</sup> Cf. *Seattle Audubon Soc'y*, 871 F. Supp. at 1314.

<sup>51</sup> Memorandum from Gale A. Norton & Constance B. Harriman, Associate Solicitors, to James Cason, Deputy Assistant Secretary, Land and Minerals Management, Dep't of the Interior 1 (Oct. 20, 1986) (on file with authors). This memo was prepared in consideration of possible strategies for protecting the northern spotted owl. While the Ninth Circuit has suggested a federal obligation to provide a stream of revenue to the counties, *Headwaters, Inc. v. Bureau of Land Management*, Medford Dist., 914 F.2d 1174, 1183 (9th Cir. 1990), other sources indicate that Congress anticipated an eventual reduction in the amount of revenues counties would receive under the Act. Relating to the Revised Oregon and California Railroad and Reconveyed Coos Bay Wagon Road Grant Lands Situated in the State of Oregon: Hearings on H.R. 5058 Title I Before the Committee on the Public Lands, 75th Cong., 1st Sess. 4 (1937).

<sup>52</sup> FOREST SERVICE ET AL., U.S. DEP'T OF AGRICULTURE, FOREST ECOSYSTEM MANAGEMENT: AN ECOLOGICAL, ECONOMIC, AND SOCIAL ASSESSMENT (Report of the Forest Ecosystem Management Team) (1993).

<sup>53</sup> *Id.*

<sup>54</sup> H. Michael Anderson, *Reforming National Forest Policy*, ISSUES IN SCI. AND TECH., Winter 1993-94, at 44.

<sup>55</sup> See full reference to The Northwest Forest Plan documents in note 182, *infra*. See also Anderson, *supra* note 54, at 40-44.

the impact the Northwest Forest Plan would have on production payments to counties, in 1993 Congress authorized substitute payments to counties out of the general treasury for a ten year period.<sup>56</sup> Payments are generally based on an average of the amount counties received from 1986 through 1990.<sup>57</sup>

Prior to the implementation of the Northwest Forest Plan, about 12% of the overall commercial timberland base was reserved from harvest for one reason or another. While the vast majority of this was on public land, almost 20% of the timberland base on tribal forests was reserved. Both the Forest Service and the BLM reserved slightly less than 20% of their commercial timberlands from production. As we will discuss in greater detail in Section II, this situation radically changed with approval of The Northwest Forest Plan in 1994 and its subsequent incorporation into federal forest management plans for forests within the range of the northern spotted owl. While the percentage of federal lands in congressional and administrative reserves stayed about the same (21%), new land allocations to late-successional reserves (36%), and riparian reserves (14%) meant that only about 23% of federal forest lands were available in the "matrix" for more traditional timber-oriented management.

### *C. Common School Lands*

The Oregon State Land Board owns 785,868 acres of trust lands with the Common Schools (K-12) as the beneficiary. About 130,000 acres are forested Common School lands, principally 85,000 acres in one block that encompasses the majority of the Elliott State Forest in southwestern Oregon. These lands, while owned by the State Land Board, are managed under contract by the Oregon Department of Forestry.

#### *1. Acquisition*

Land grants to Oregon originated in the federal Act that created the Territory of Oregon in 1848.<sup>58</sup> This Act reserved sections 16 and 36 of every township, and granted them to the state,

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<sup>56</sup> Oregon and California Railroad and Coos Bay Wagon Road Grant Lands Act, Pub. L. No. 103-66, Title XIII, § 13983, 107 Stat. 682 (1993), as amended by Pub. L. No. 103-443, § 1(b), 108 Stat. 4631 (1994) (codified at 43 U.S.C. § 1181f).

<sup>57</sup> *Id.*

<sup>58</sup> Act of August 14, 1848, ch. 177, 9 Stat. 323.

“for the use of schools.”<sup>59</sup> In 1853, Congress further authorized Oregon to receive sections “in lieu” of the original grants if those lands had been claimed or reserved for other purposes prior to land surveys.<sup>60</sup> Oregon acceded to Congressional conditions on the land grants which were made in the 1859 Admissions Act,<sup>61</sup> primarily that the grants would be used “for the use of schools” in its 1859 Constitution.<sup>62</sup>

## 2. *Current Management Framework*

Common School lands are a unique form of public lands granted to all states at the time of statehood. While each state’s Enabling Act and constitutional provisions are unique, general principles apply to the management of these lands. Courts have defined the relationship created by the state’s Enabling Act and related state constitutional and statutory provisions as being in the nature of a trust.<sup>63</sup>

Although Congress did not describe its action in Oregon’s Enabling Act as establishing a trust, a 1992 Oregon State Attorney General Opinion which evaluated the legal status of the Common School lands concluded: “The important point is that the obligations [to the schools] are binding. They cannot be disregarded. Oregon must use the Admission Act lands for schools and not for any purpose that is inconsistent with such use.”<sup>64</sup> This obligation has been characterized by Oregon courts as “an absolute grant. . .for a special purpose,”<sup>65</sup> and as a “trust for the benefit for public education.”<sup>66</sup>

As a result of this obligation, the Department is required to obtain full market value for any use of the grant lands and to take actions necessary to preserve the long term productivity of the land.<sup>67</sup> This duty to protect the long term productivity of the lands gives the Department discretion to make decisions that

<sup>59</sup> *Id.* § 20, 9 Stat. at 330.

<sup>60</sup> Act of January 7, 1853, ch. 6 §§ 1, 2, 10 Stat. 150.

<sup>61</sup> Act of February 14, 1959, ch. 33, 11 Stat. 383.

<sup>62</sup> *Id.* at § 4, 11 Stat. at 383.

<sup>63</sup> See Sally K. Fairfax, et al., *The School Trust Lands: A Fresh Look at Conventional Wisdom*, 22 ENVTL. L. 797, 854-55 (1992).

<sup>64</sup> See 46 Op. Att’y Gen. 468 (Or. 1992).

<sup>65</sup> *Schneider v. Hutchinson*, 35 Or. 253, 258, 57 P. 324, 326 (1899); see also 46 Op. Att’y Gen. 468 (Or. 1992).

<sup>66</sup> See 46 Op. Att’y Gen. 468, n.10 (Or. 1992).

<sup>67</sup> This is similar to protecting the corpus of the trust. See 37 Op. Att’y Gen. 569, 574 (Or. 1975); 46 Op. Att’y Gen. 468, 474-75 (Or. 1992).

may increase current management costs or reduce present revenues or productivity if such action is done to maximize productivity over the long term.<sup>68</sup>

Within these constraints, the Department may use grant lands for a wide range of purposes. Uses that may produce revenues are not limited to timber production, mineral leasing, or other current revenue producing uses. In addition, uses that do not produce revenue may nevertheless be permitted on grant lands so long as allowing such use does not reduce the reasonable long term economic return. For example, lands with little current commercial value may be used for another purpose that will obtain the greatest benefit for the people of the state under more general management guidelines.<sup>69</sup> In addition, these lands are subject to applicable state and federal environmental laws, including the Endangered Species Act.<sup>70</sup>

#### ***D. Board of Forestry (Chapter 530) Forest Lands***

The nearly 800,000 acres of Oregon state forest land owned by the Board of Forestry (Board of Forestry lands) are clustered mostly within five state forests: the Tillamook, Clatsop, and Santiam State Forests in the northwest part of the state; the Elliott State Forest in Coos and Douglas counties; and the Sun Pass State Forest in Klamath county.<sup>71</sup> Today, this once privately held forest land in fifteen counties is managed by the Board of Forestry.

##### ***1. Acquisition***

To address the problem of the tax forfeited lands, in 1931 the Oregon Legislature enacted a state forest acquisition act which provided the Board with the authority to acquire state forest lands by gift, purchase, or the transfer of title from the counties.<sup>72</sup> Lands qualifying for acquisition were those which, in the judg-

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<sup>68</sup> 46 Op. Att'y Gen. 468, 477-80 (Or. 1992).

<sup>69</sup> *Id.*

<sup>70</sup> See 1990 Ore. AG LEXIS 13 (June 22, 1990). A 1990 Attorney General letter of advice concluded that state laws apply to the extent they do not impede constitutional duties. See Letter of Advice from Don Arnold, Oregon Dep't of Justice to Randy Fisher, Jim Brown, and Martha Pagel (July 1990) (on file with authors).

<sup>71</sup> Press Release Dec 1995, Public Affairs Office, Oregon Dep't of Forestry.

<sup>72</sup> The first land acquisition bill was enacted in 1925. Although it required lands to have clear title and many of the county lands had tax liens against them, no land passed to the state under this act. See LANDMAN HISTORY, *supra* note 14, at 12.



ment of the Board of Forestry, were chiefly suitable for "growing" forest crops, water conservation, watershed protection, and recreation.<sup>73</sup> Under the 1931 Act, counties were to receive five cents per acre annually, and 12.5% of all revenues produced from the land.<sup>74</sup> The first transfers did not occur until 1936.<sup>75</sup>

Ongoing concerns with property and fire patrol tax delinquencies in 1939 led to a new acquisitions act. The 1939 Acquisition Act allowed the Board of Forestry to acquire from counties lands "which by reason of their location, topographical, geological or physical characteristics, are chiefly valuable for the production of forest crops, watershed protection and development, erosion control, grazing, recreation or forest administration."<sup>76</sup> Chapter 530 was again amended in 1941 to expand the Board's acquisition authority and the counties' revenue sharing. Also, the 1941 Act contained an explicit requirement that the Board of Forestry manage these lands to "secure the greatest permanent value . . . to the state."<sup>77</sup> Most transfers of forest land from the counties followed enactment of the 1941 Act.<sup>78</sup>

Counties could have chosen to retain and manage the lands, similar to counties in some of the midwestern states, (discussed later in this Article). County retention and management was expressly authorized by the 1937 Oregon Legislature. For a variety of reasons, most counties lacked the financial resources or technical expertise to reforest and manage large tracts of cut-over or burned forest lands.<sup>79</sup> However, Coos County manages about 27,000 acres of its tax-reverted lands for timber production.<sup>80</sup>

Under these early acquisition acts, the Board was given authority to manage state forest lands for "any or all of the following purposes: (a) continuous forest production and so far as practicable to promote sustained yield forest management for the forest units of which such lands are a part; (b) water conservation

<sup>73</sup> 1931 Or. Laws ch. 93, § 3.

<sup>74</sup> 1931 Or. Laws ch. 93, § 5.

<sup>75</sup> A requirement that the county have clear title to tax forfeited lands, and the negligible returns expected by counties, contributed to a slow start to the transfer of county forest lands to the state under this act.

<sup>76</sup> 1939 Or. Laws ch. 478, § 1.

<sup>77</sup> 1941 Or. Laws ch. 236, § 5.

<sup>78</sup> LANDMAN HISTORY, *supra* note 14, at 19.

<sup>79</sup> LANDMAN HISTORY, *supra* note 14, at 15-16.

<sup>80</sup> Based on land ownership maps in Coos County District Office, Oregon Dep't of Forestry.

or watershed protection; (c) recreation.”<sup>81</sup> The 1939 Act called for management according to the “best grazing and forest management practices” and allowed for other consistent uses.<sup>82</sup>

The percentage of revenue to be paid to the counties changed over time. Under the 1931 law, counties received a flat five cents per acre plus 12.5% of all revenues produced.<sup>83</sup> This was changed in 1939 to give the counties 90% of the revenue, with 10% going to the state.<sup>84</sup> In 1941, the state portion was increased to 25%.<sup>85</sup> Current statutory provisions set out a formula for distribution of the revenue; it provides for the majority of the revenue to go to the county after a maximum of 25% of the gross is retained for management expenses.<sup>86</sup>

## 2. *Current Management Framework*

In the current management of Board of Forestry lands, the Department is obligated to follow statutory provisions specifically governing these lands. Like the Common School lands, the Board of Forestry lands are subject to laws of general applicability, such as state and federal environmental laws.<sup>87</sup>

Current statutory provisions governing these lands state that, “except as otherwise provided for the sale of forest products,” the Board of Forestry shall manage the lands “so as to secure the greatest permanent value of such lands to the state, and to that end may” carry out timber management and fire prevention, sell timber products, and enter mineral leases and contracts.<sup>88</sup> The Board also has authority to permit the use of lands for other purposes “when, in the opinion of the board, such use is not detrimental to the best interest of the state.”<sup>89</sup> Such uses include, but are not limited to, forage and browse for livestock and wildlife

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<sup>81</sup> 1931 Or. Laws ch. 93, § 3.

<sup>82</sup> 1939 Or. Laws ch. 478, §§ 3-4.

<sup>83</sup> 1931 Or. Laws ch. 93, § 5.

<sup>84</sup> 1939 Or. Laws ch. 478, § 6.

<sup>85</sup> 1941 Or. Laws ch. 236, § 9.

<sup>86</sup> OR. REV. STAT. §§ 530.110, 530.115.

<sup>87</sup> 1991 Letter from Melinda Bruce, Oregon Dep't of Justice, to Martha Pagel, Governor's Office (July 17, 1991) [hereinafter Pagel Letter]; *see also* 1990 Ore. AG LEXIS 13 (June 22, 1990) at 6-10, 21-23.

<sup>88</sup> OR. REV. STAT. § 530.050. The qualifying phrase in section 530.050 “except as otherwise provided for the sale of forest products” likely refers to section 530.055, which sets out procedures that must be followed once a decision is made to offer forest products for sale.

<sup>89</sup> OR. REV. STAT. § 530.050(3).

habitat, landscape aesthetics, protection against floods and erosion, recreation, and protection of water supplies.<sup>90</sup>

While it is arguable that this grouping of "other uses" with a condition attached implies that these uses are secondary to all other authorized management purposes, the history of this statute makes any clear construction difficult. For example, the 1967 amendments to Oregon Revised Statutes (ORS) Chapter 530 for the first time used the phrase "such use is not detrimental to the best interest of the state"; this language replaced the earlier phrase "detrimental to other purposes of the act."<sup>91</sup> But at that time, the other purposes of the Act were timber production, watershed protection, and recreation.<sup>92</sup> In addition, the current statute, in ORS § 530.075, suggests that the purposes for which the land may be acquired (in ORS § 530.010) are also purposes for which the land may be used. This provision reaffirms the land's three general purposes: timber production, watershed protection, and recreation.<sup>93</sup>

Other management activities also authorized include granting easements, permits, and licenses for surface access; collecting fees for the use of state forest roads; and generally "all things and make all rules, not inconsistent with law, necessary or convenient for the management, protection, utilization and conservation of the lands."<sup>94</sup>

Land exchanges are allowed under two provisions of the statutes. First, the Board of Forestry is given authority to acquire lands from any public or private owner by exchange when such lands are "by reason of their location, topographical or physical characteristics . . . chiefly valuable for the production of forest crops, watershed protection and development, erosion control, grazing, recreation or forest administration purposes."<sup>95</sup> Second, once acquired, Board of Forestry lands, or the timber on the lands, may be exchanged "wherever possible," with recognition that the management of state forests will be more economically feasible through such consolidation.<sup>96</sup> Exchanges must be for land of approximately equal aggregate value and situated in the

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<sup>90</sup> *Id.*

<sup>91</sup> LANDMAN HISTORY, *supra* note 14, at 27.

<sup>92</sup> LANDMAN HISTORY, *supra* note 14, at 26-27.

<sup>93</sup> OR. REV. STAT. § 530.075(2).

<sup>94</sup> OR. REV. STAT. §§ 530.050(4)-(5), (10).

<sup>95</sup> OR. REV. STAT. § 530.010(1).

<sup>96</sup> OR. REV. STAT. § 530.040(1).

same county, although exchanges in different counties are permitted with the approval of each county involved.<sup>97</sup>

Leasing of state forest lands by the State Forester is permitted if approved by the Board of Forestry "for purposes deemed by the board to be more in the public interest than the purposes for which the land was acquired."<sup>98</sup> This language suggests that leases may not be made for timber production, watershed protection, recreation, or any other purpose for which the lands were acquired.

The state's obligation to manage so as to provide revenues to the counties has been discussed in only one recent court decision. The statutory provision authorizing counties to convey tax-forfeited lands to the state provides that such conveyance is "in consideration of the payment to such county of the percentage of revenue derived from such lands" pursuant to a formula set out in the statute.<sup>99</sup> In *Tillamook County v. State Board of Forestry*,<sup>100</sup> the county asserted that the state obligation to produce revenues was based on a trust or contract relationship, and the trial court agreed. On appeal, the Oregon Supreme Court found it unnecessary to reach this conclusion: "We deem it unnecessary to describe the relationship in contract or trust terms. Rather, we look to the statutes to determine what flows from them."<sup>101</sup>

Looking to the statutes, the court found that the county has, as a result of having conveyed to the state its tax reverted forest lands, a right to revenue derived from the land, characterized as "a protected, recognizable interest" that can be asserted against the state.<sup>102</sup> In remanding the case to the trial court, the Oregon Supreme Court stated that the proposed exchange (which would have placed forest board lands into a state park to preserve old growth) could not go forward unless the county received forest land in return, or its right to revenue from the land was otherwise protected.<sup>103</sup> The opinion suggests that the state cannot take any actions with regard to this type of forest land that would totally

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<sup>97</sup> OR. REV. STAT. § 530.040. The Board of Forestry is expressly permitted to receive or provide monetary compensation as part of an exchange if necessary to equalize the exchanged property values. OR. REV. STAT. § 530.040(2).

<sup>98</sup> OR. REV. STAT. § 530.055.

<sup>99</sup> OR. REV. STAT. § 530.030 (1988).

<sup>100</sup> 302 Or. 404, 730 P.2d 1214 (1986).

<sup>101</sup> *Id.* at 416, 730 P.2d at 1221.

<sup>102</sup> *Id.*

<sup>103</sup> *Id.* at 417 n.8, 730 P.2d at 1221 n.8.

deprive a county of its right to revenue. The opinion also implies that some reduction in revenue may be acceptable, or that a substitute form of compensation to the county that would "protect" the county's "right to revenues" might be sufficient.<sup>104</sup> Neither the statute, case law, nor other materials reviewed suggests that the Board has an obligation to produce a certain *level* of revenue.<sup>105</sup>

The meaning of the phrase "to secure the greatest benefit for the people of the state" is not defined in ORS Chapter 530 or case law interpreting this statute. However, there is an indication of what it might mean in Oregon Attorney General opinions construing similar language in other Oregon statutory and constitutional provisions. The constitution requires the Board of Forestry to manage Common School lands "with the object of obtaining the greatest benefit for the people of this state, consistent with the conservation of this resource under sound techniques of land management."<sup>106</sup> The Oregon Attorney General has found that the phrase "greatest benefit" is not itself an objective, but rather requires identification of the objectives that would be the greatest benefit for the people, "e.g., production of income, recreation, conservation."<sup>107</sup> This opinion and an earlier letter on which it relies, asserts that this standard requires the Board of Forestry to "seek methods for accommodating the broader public interest" if that can be done while still meeting other constitutional and statutory obligations governing the management of the lands.<sup>108</sup> Examples given include exploring innovative methods of securing environmental and social benefits through habitat preservation for endangered or threatened species.<sup>109</sup> This standard may also be consistent with securing the best permanent value to the state to protect the counties interest in revenue production. This is particularly true because a portion of the revenues from Board of Forestry lands that go to support schools substitute for other monies from the state General Fund.<sup>110</sup>

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<sup>104</sup> *Id.*

<sup>105</sup> Pagel Letter, *supra* note 87, at 4.

<sup>106</sup> OR. CONST. art. VIII, § 5 (1997).

<sup>107</sup> 46 Op. Att'y Gen. 468, 481 (Or. 1992).

<sup>108</sup> *Id.*

<sup>109</sup> *Id.* at 482.

<sup>110</sup> See Oregon Measure 5, regarding limitations on property taxation (codified at OR. REV. STAT. 310.140-310.170).

An important limitation of this standard is that management for the "greatest benefit to the state" must be done while still meeting other legislative and constitutional mandates. For Oregon's Common School lands, the obligation is to protect "prudent long-term economic return."<sup>111</sup> Management of Board of Forestry lands may be subject to the same limitation, given the land's distinct management obligations. The statute defines these obligations to include timber production, protecting watersheds, and recreation, among other purposes. However, the Board is obligated under the *Tillamook* decision to protect the counties' interest in revenues from these lands. What is clear under this decision is that the Board of Forestry may not transfer land without in some manner protecting this interest. It is less clear whether management decisions that reduce the level or timing of timber receipts will be permissible.

## II

### COMPARISON OF COUNTY BOARD FOREST LANDS WITH TAX REVERTED FOREST LANDS IN OTHER STATES

The authors reviewed the history and investigated the current management framework for forest lands in Washington, Wisconsin, Minnesota, and Michigan that have a history similar to Oregon's Board of Forestry lands. In these states, as in Oregon, privately held forest lands were cut-over and/or burned and abandoned in the early part of this century. This practice led to widespread tax forfeitures. Unique attributes in the ownership status of these lands precluded their direct application to the management of Board of Forestry lands. For example, most of the once forfeited lands in Wisconsin today are owned by the counties. Nevertheless, their background and current management framework, which include consideration of the counties' relationship with the state, offer lessons or insights for management of Oregon's lands. In Table 1, tax reverted forest lands in these four states are compared with Oregon's Board of Forestry lands in the following ways: (1) current ownership and management; (2) revenues these lands generate for the counties from production and other sources; (3) state regulation beyond regulation of private forest land; (4) whether management is focused on partic-

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<sup>111</sup> 46 Op. Att'y Gen. 468, 483 (Or. 1992).

**TABLE 1. COMPARISON OF TAX-REVERTED FOREST LAND IN OREGON (OR), WASHINGTON (WN), WISCONSIN (WI), MICHIGAN (MI), AND MINNESOTA (MN).**

State	Current Ownership and Management	Revenue to Counties or other local gov't (approximate %)	State Regulation (beyond private regulation)	Dominant Use — Timber or Other Production?	Non-Production Use Within Production or Set Aside For Non Production (compensation for set aside lands)
OR	State owns and manages	66% of production (based on a formula)	Yes	Three purposes specified in statute: timber production, watershed protection, recreation.	Yes, if greatest permanent value to the state (cannot exchange or otherwise take all production value without protecting counties' interest)
WA	State owns and manages	75% of production	Yes	Timber	Yes; may lease if in best interest of the state (may have obligation to protect counties' interest in revenue).
WI	Counties own and manage with significant state technical assistance (35 man years).	70-90% of production and grants for county forester; PILT \$.30/a.; interest-free loans for forest project and operations	Yes	Production (timber and mineral).	Yes; if other use prevents production then taken out of county forest program and classified as "special use" (may be compensation to counties on case-by-case basis).
MI	State owns and manages	No production %; PILT \$.25/a.; if sold, proceeds to counties	No	Timber and other designated uses, including recreation	Yes — state designated uses other than timber (no compensation except PILT).
MN	"Forfeited" land: state owns and counties manage; "Con-Con" land: state owns and manages	50% of production for "Con-Con" land; 0% for "Forfeited" land; PILT \$.375 (Con-Con) and \$.75 (Forfeited).	Yes	"Forfeited" lands: allow production/non-production uses; "Con-Con" lands: for conservation, including timber production, wildlife protection.	Yes for Con-Con land: state has no authority for "Forfeited" land but county may change use (state continues to make PILT payment).

Source: Statutory provisions and interviews cited in report.

ular forest values, such as timber production; and (5) whether lands are managed for other forest values in the context of production.

### A. *Washington*

The State of Washington owns and manages approximately 600,000 acres of tax reverted forest lands, and refers to them collectively as Forest Board lands. This name derives from the fact that, until 1957, the lands were managed through the State Forest Board, predecessor to the Department of Natural Resources. These lands are composed of two distinct categories of tax reverted forest lands.

About 44,000 acres are known as Trust Board "purchase" lands and Forest Board "transfer" lands. Purchase lands were acquired beginning in 1921 when the legislature authorized the Department of Conservation and Development to acquire the cutover lands for purposes of reforestation. The State Forest Board was established in 1923 and vested with authority to continue acquisitions.

The state also owns about 545,000 acres of tax forfeited forest land known as Forest Board "transfer" lands. Legislation enacted in 1927 authorized counties to transfer or deed to the state tax foreclosed forest lands. Changes to the law in 1935 allowed the State Forest Board to require counties to transfer these forfeited lands.<sup>112</sup>

#### 1. *Current Management Framework*

Forest Board lands are held to "promote generally the interests of reforestation."<sup>113</sup> Once conveyed, the lands may not be sold, although timber and other products may be sold and the lands may be leased.<sup>114</sup> Statutory language calls for the lands to be held "in trust" and administered and protected by the Department as other state forest lands.<sup>115</sup> Proceeds derived from the

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<sup>112</sup> DON LEE FRASER, 100 YEARS OF FOREST MANAGEMENT ON STATE OWNED LANDS—STATE OF WASHINGTON (draft manuscript) (on file with authors) [hereinafter FRASER].

<sup>113</sup> WASH. REV. CODE § 76.12.020 (1994).

<sup>114</sup> WASH. REV. CODE § 76.12.120.

<sup>115</sup> Washington also holds forest lands which were acquired from counties by outright gift or purchase. These lands, referred to as forest board purchase lands, provide revenues to counties and other taxing districts. However, unlike the lands acquired under WASH. REV. CODE § 76.12.030, the statutes referring to these lands



lease of such land, or from the sale of forest products, oils, gases, coal, minerals, or fossils, are distributed to the county in which the land is located; this distribution is made to the county after up to 25% is paid to the state for administration costs. Counties in turn must distribute the revenues from these lands to various funds in the same manner as general property taxes are distributed.<sup>116</sup> A recent Washington State Attorney General's Opinion discussing management obligations for Forest Board lands concluded that the language in this provision, in particular its phrase "to be held in trust," creates a statutory trust.<sup>117</sup> Because it is a statutory trust, the terms of the trust are primarily defined by statutes directing the administration and protection of these lands.<sup>118</sup> The opinion goes further to conclude that common law fiduciary obligations governing common trusts generally do not apply to Forest Board lands.<sup>119</sup> One example of what this means as a practical matter is that Forest Board land managers are not necessarily required to act with "undivided loyalty" toward any particular beneficiary, as they must with the beneficiaries of the Common School lands. Instead, statutory directives govern management decisions and, for example, the sale or lease of products from the land may be permissible if the manager finds such sale or lease to be in the best interests of the state.<sup>120</sup>

Additionally, the Washington Attorney General found no obligation to manage lands with separate obligations to each county. Instead, the statutes authorize management as an undivided whole.<sup>121</sup> This conclusion was based on several factors. First, there is an absence of any language in the governing statutes indicating a separate obligation. This contrasts with the management of other state trust lands, where statutes specify separate accounts or obligations for each beneficiary.<sup>122</sup> Second, the opinion considered the circumstances under which the counties took title to the lands. The counties acquired them through tax foreclosure. They held the lands for the benefit of various taxing dis-

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do not provide that they are held in trust. WASH. REV. CODE §§ 76.12.020, .080, .120.

<sup>116</sup> WASH. REV. CODE § 76.12.030.

<sup>117</sup> See 11 Op. Att'y Gen. 153 (Wash. 1996).

<sup>118</sup> See J. Souder, et al., *Is State Trust Land Timber Management 'Better' Than Federal Timber Management? A Best Case Analysis* (forthcoming 1997), at 23.

<sup>119</sup> 11 Op. Att'y Gen. 153.

<sup>120</sup> *Id.* at 165.

<sup>121</sup> *Id.* at 169.

<sup>122</sup> WASH. REV. CODE § 76.12.030 (1994).

tricts, whose boundaries may not be aligned with county boundaries.<sup>123</sup>

While Washington's Forest Board lands are most analogous to Oregon's, three other states—Wisconsin, Minnesota, and Michigan—all have tax-reverted lands that provide contrasts. Table 2 shows the land ownerships patterns for these three states.

### **B. Wisconsin**

Most of the 2.3 million acres of county forest land in Wisconsin is owned and managed by twenty-eight counties in the northern one-third of the state. Almost all of these lands were acquired through tax forfeiture in the 1920s and 1930s, following widespread cutting and fires. By 1925, forest lands totaling 1,650,000 acres had reverted to twenty-five counties. As in other states, when the lands were abandoned the counties remained liable to the state and to the towns for their share of levied property taxes even though they collected no taxes from these lands. Counties were thus anxious to remove the lands from their assessment roll.<sup>124</sup>

Wisconsin's 1927 Forest Crop Law authorized private and county owners of forest lands to "enroll" lands in the program.<sup>125</sup> In exchange for enrolling, declaring that the lands are "best suited for timber growing," and agreeing to manage their forest lands for reforestation and protection, landowners received certain benefits from the state. In addition to providing technical assistance, landowners had to commit to a twenty-five or fifty year contract period which reduced their property tax on cut-

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<sup>123</sup> 11 Op. Att'y Gen. at 170-71 (citing Op. Att'y Gen. No. 10 (1987)).

<sup>124</sup> It was the vision of an interim legislative committee that, because tax delinquent lands revert to the counties, the county is the "chief governmental unit around which the program of public forests in Wisconsin must be built." F.G. Wilson, *Wisconsin County Forests*, reprinted from *Proceedings Society of American Foresters' Meeting*, 1947.

<sup>125</sup> Legislation in 1927 also authorized counties to engage in forestry. The county forest reserve law enabled the counties to take tax deed to tax delinquent forest lands, to designate them as county forests, and to spend public funds for their management. At that time, the issue of improving the productivity of the cut-over lands was secondary to the financial problems of the associated counties and towns. County forest lands could be entered in the Forest Crop Program and, once a 1929 law exempted county lands from paying even the ten cent per acre tax, many county forests were enrolled. See Wilson, *supra* note 124.

over lands. In other words, no tax was assessed on the timber during the contract term.<sup>126</sup>

The declaration of the suitability of the lands by the owner carried with it the responsibility to manage the lands for timber growth that would eventually reach commercial maturity.<sup>127</sup> The state expected to be repaid for its tax deferrals in part from a yield tax. The state assessed this tax at 10% on private lands and 50% on county-owned forest lands, and levied it on the stumpage value of the timber at the time of harvest.<sup>128</sup> As of 1928, about ten years into the program, 400,000 acres of private and nearly two million acres of county forest lands were enrolled in the state's Forest Crop Program.<sup>129</sup>

**TABLE 2. FOREST LAND OWNERSHIP IN WISCONSIN (WI), MICHIGAN (MI) AND MINNESOTA (MN) (1,000s ACRES).**

Ownership Class	WI		MI		MN	
	(Forested)	(%)	(Forested)	%	(Forested)	(%)
All timberlands	18,566		14,552		14,583	
National Forest	2,542	(14%)	1,821	(13%)	1,242	(9%)
BLM			26	(<1%)		
Tribal Trust Lands	15	(<1%)	484	(3%)	354	(2%)
State	3,728	(24%)	3,063	(21%)	569	(4%)
County & Municipal	256	(1%)	2,503	(17%)	2,180	(15%)
Forest Industry	1,514	(8%)	751	(5%)	1,156	(8%)
Non-industrial Private	10,511	(57%)	5,904	(41%)	9,082	(62%)

Source: U.S.D.A. Forest Service, Forest Inventory Assessment database ([www.srsfia.usfs.msstate.edu](http://www.srsfia.usfs.msstate.edu)). Data for Michigan is 1993, Minnesota is 1990, and Wisconsin is 1983.

Counties received other financial assistance over the years of the Forest Crop Program. Laws in 1931 provided "acreage aid" funds (equivalent to payment in-lieu of taxes) from the state general fund to the towns, and also provided an additional ten cents per acre to the counties to help with the costs of forest management and development.<sup>130</sup> Between 1932 and 1961, the state

<sup>126</sup> A nominal ten cent per acre tax was assessed and the state contributed an additional ten cents per acre during this fifty year term, paid over to township taxing entities. The University & Wisconsin Forestry, Science Inquiry, Publication VII, Bulletin of the University of Wisconsin (June 1938) at 24-25 [hereinafter Wisconsin Forestry]. Telephone Interview with Bob Mather, County Forest Specialist, Bureau of Forestry, Wisconsin Dep't of Natural Resources (June 2, 1997) [hereinafter Mather Interview].

<sup>127</sup> Wisconsin Forestry, *supra* note 126, at 25.

<sup>128</sup> Wisconsin Forestry, *supra* note 126, at 25.

<sup>129</sup> Wisconsin Forestry, *supra* note 126, at 24-25.

<sup>130</sup> Wisconsin Forestry, *supra* note 126, at 22-23.

paid nearly five million dollars in acreage aid funds to the towns for distribution between counties, towns, and school districts.<sup>131</sup>

A small amount of Wisconsin's abandoned forest land was purchased by the state through legislative authorizations to establish state forests. These state forests, which today encompass approximately 442,000 acres, are generally managed for a wide range of purposes "to benefit the present and future generations of residents of this state, recognizing that the state forests contribute to local and statewide economies and to a healthy natural environment."<sup>132</sup>

### 1. *Current Management Framework*

The creation of a viable and effective working partnership between the state and the counties was lauded as one of the major accomplishments of the Wisconsin County Forest Crop Program (Forest Crop Program).<sup>133</sup> Although the structure of the relationship has changed over time as more counties acquire forestry expertise and rely less on state foresters, the relationship appears to remain solid. By statute, the purposes of the Forest Crop Program are broad:

To provide a basis for a permanent program of county forests and to enable and encourage the planned development and management of the county forests for optimum production of forest products together with recreational opportunities, wildlife, watershed protection and stabilization of stream flow, giving full recognition to the concept of multiple-use to assure maximum public benefits; to protect the public rights, interests and investments in such lands; and to compensate the counties for the public uses, benefits and privileges these lands provide; all in a manner which will provide a reasonable revenue to the towns in which such lands lie.<sup>134</sup>

The relationship between the state and the counties is defined by statutory provisions and administrative rules. Counties are responsible for managing the forest lands, with the state Department of Natural Resources playing a significant support and

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<sup>131</sup> County Forests In Transition, Report of the Forest Crop Advisory Committee to Governor Gaylord A. Nelson, Madison, Wisconsin (1962).

<sup>132</sup> 1995 Wisc. Act 257, 1995 Assembly Bill 575. One reason for the small amount of forest land owned by the state is the state legislators' decision in the 1920s to have the counties retain title to the abandoned forest lands while the state financed and protected the timber crop. Wisconsin Forestry, *supra* note 126, at 23.

<sup>133</sup> Mather Interview, *supra* note 126.

<sup>134</sup> WIS. STAT. § 28.11(1) (1989).

oversight role.<sup>135</sup> Most day-to-day management authority is vested in committees selected by county boards.<sup>136</sup> Counties receive various forms of financial support from the state to do this. In return, counties make severance payments of not less than 20% of stumpage value to the state to repay state contributions for earlier development costs.<sup>137</sup> State acreage aid payment is presently fifteen cents per acre in recognition of the increased public use of county forest lands.<sup>138</sup>

Statutory provisions governing county and state forest lands are distinct from those governing private forest land. Counties may remove lands from the Forest Crop Program only for the purpose of achieving a higher land use and only with approval from the county board and the state. Adding lands to the program remains relatively easy. Additionally, as discussed below, counties are subject to management requirements that do not apply to private forest landowners.

In the initial application process for entry in the Forest Crop Program, counties may identify which lands they think are best suited for timber production and which land is more valuable for recreation or multiple use.<sup>139</sup> The state then has the option of designating the land as county forest land (timber production) or county special use land (recreation, multiple use).<sup>140</sup> The Department is given broad authority to manage land in the program for fire protection, and the public is given the right to enter the land for recreational use.<sup>141</sup>

County Forestry Committees are required by statute to prepare a county forest management plan every ten years.<sup>142</sup> The plan must address the following management issues: land use designations, land acquisition, forest protection, annual allowa-

<sup>135</sup> WIS. STAT. §§ 28.10-11. The administrative rules applying to county forest lands are WIS. ADMIN. CODE §§ 47.60, 47.70, ch. 48 (1998).

<sup>136</sup> The boards are given express authority to enact an ordinance designating a committee, which the board appoints, to oversee county forests. The powers, duties, procedures and functions of such a committee are set out in the statutes, and include management for other forest values in addition to timber production. Committees can establish regulations for use of the county forests by the public. WIS. STAT. § 28.11(3).

<sup>137</sup> WIS. STAT. § 28.11(9).

<sup>138</sup> Bob Mather, *The Development of the County Forest Crop Program* (June 1997) (on file with authors).

<sup>139</sup> WIS. STAT. § 28.11(4)(a).

<sup>140</sup> WIS. STAT. § 28.11(4)(b-c).

<sup>141</sup> WIS. STAT. § 28.11(4).

<sup>142</sup> WIS. STAT. § 28.11(5).

ble timber harvests, recreational developments, fish and wildlife management activities, roads, silviculture operating policies and procedures, and a complete inventory of the county forest.<sup>143</sup> An annual work plan and budget based upon the plan must also be prepared by the County Forestry Committee.<sup>144</sup>

In practice, these plans are developed jointly between the state and the counties. Plans must recognize and allow for multiple use management of the forests. When conflicts arise with specific parcels of land, the state attempts to work out some sort of management agreement with the affected county. In one example provided to the authors, the state agreed to lease sensitive lands from the county to provide the county with about one-half the revenue that could have been realized from harvesting the timber.<sup>145</sup>

Statutory provisions also provide guidelines for timber harvest methods and sales procedures. Only trees marked for cutting by qualified staff may be harvested.<sup>146</sup> Appraisal methods and procedures must be approved by the Department.<sup>147</sup> Sales over \$1,000 must be by sealed bid or auction, and sales exceeding \$2,500 must be approved by the state.<sup>148</sup>

Counties keep the majority of the revenues produced from their timber harvesting operations and are able to do this in part due to a statewide tax. For every dollar of timber revenues taken in, twenty cents goes to the state to repay any outstanding state loans, ten cents goes to the township in which the land is located, and seventy cents goes to the county.<sup>149</sup> The Wisconsin Constitution allows the state to appropriate moneys for the forests, "not to exceed two-tenths of one mill of the taxable property of the state."<sup>150</sup> This tax helps to support almost all of the operations and programs of the Bureau of Forestry in the Department of Natural Resources.<sup>151</sup>

Counties also receive financial assistance through several state-administered grant programs. One program authorizes direct

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<sup>143</sup> *Id.*

<sup>144</sup> *Id.*

<sup>145</sup> Mather Interview, *supra* note 126. The lease covered about 10,000 acres.

<sup>146</sup> WIS. STAT. § 28.11(6).

<sup>147</sup> *Id.*

<sup>148</sup> *Id.*

<sup>149</sup> WIS. STAT. § 28.11(9).

<sup>150</sup> WIS. CONST. art. 8, § 10.

<sup>151</sup> Mather Interview, *supra* note 126.

payments to the townships to offset lost property tax revenues. The present annual payment is thirty cents per acre of county forest land in the township.<sup>152</sup> If counties need further assistance to manage their forests, noninterest bearing loans of up to fifty cents per acre are available.<sup>153</sup> Another program provides grants of up to 50% of the annual salary to hire a professional county forester.<sup>154</sup>

Since 1963, counties have had limited ability to withdraw lands previously enrolled in the Forest Crop Program.<sup>155</sup> Tighter restrictions followed state concerns over increasing withdrawals and the difficulty of operating the County Forest Crop Program with a fluctuating land base. Presently, withdrawals of county forest land from the state Forest Crop Program must first be approved by the County Board of Supervisors after referral from the County Forestry Committee; consultation with a Department of Natural Resources representative is required prior to referral to the Board.<sup>156</sup> The Department makes its decision whether to allow a withdrawal weighing the benefits to the people of the state as a whole in keeping lands in the program against the benefits from the proposed use.<sup>157</sup>

The Wisconsin Bureau of Forestry staff has highly praised county timber management operations. Positive changes have occurred over the past quarter century. Prior to 1970, the state played a much more active oversight role in managing county

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<sup>152</sup> WIS. STAT. § 28.11(8).

<sup>153</sup> WIS. STAT. § 28.11(8)(b).

<sup>154</sup> WIS. STAT. § 28.11(5m).

<sup>155</sup> WIS. STAT. § 28.11(11). Prior to 1962, counties were permitted to sell lands, take them out of the county forest program, and add new lands to the program with relative ease. One large sale was to the federal government, which helped create the Nicolet National Forest. This shifting nature of the land base was a concern to the state. At the same time, the state had extended loans to the counties for timber management operations, and these loans, in some counties, accumulated a large interest debt. Mather Interview, *supra* note 126.

<sup>156</sup> WIS. STAT. § 28.11(11).

<sup>157</sup> A Wisconsin Attorney General's Opinion reached the conclusion that this provision, added in 1963, evinces a strong legislative purpose to discourage the withdrawal of lands from the county forest program. Under applicable administrative provisions, the Department must also consider the existence of endangered or threatened species. Other factors include environmental impacts of the withdrawal, impacts on multiple use benefits, and impacts on production of forest products. If the lands withdrawn remain in the ownership of another unit of government, the state will transfer any outstanding obligations to the state associated with that land to other county lands. See Op. Att'y Gen. (Wis. Apr. 5, 1977); WIS. ADMIN. CODE NAT. RESOURCES § 48.06 (1996).

forests, due in part to the lack of technical expertise within the counties. Since that time, the counties have improved their technical staff, with most now having at least one professional forester. As a result, the state role has been reduced, prompted also by shrinking agency budgets.<sup>158</sup>

In contemporary Wisconsin forest management, a major focus is on protecting biodiversity and ecosystem management. This emphasis is encouraged by the state working with the counties through various programs. These include the development of the ten-year plans, the awarding of grants and loans, and state-sponsored training sessions which are attended by county forest staff. The state is currently involved in developing a Habitat Conservation Plan for the Karner Blue Butterfly which is found on county forests. The state will periodically relocate the reserve areas in an effort to reduce the impact on timber revenues to the local taxing entities.<sup>159</sup>

### C. Michigan

Being north of the Ohio River and East of the Mississippi River, the lands in northern Michigan were once a part of the so-called Northwest Territory. By 1890, all lands in the state, with the exception of about 500,000 acres, had been transferred to private interests.<sup>160</sup> Timber lands were cut and abandoned in northern Michigan as in other parts of the country. As early as the 1890s, it was believed that if the state could take over the title to the vast acreages of cut-over land, it could be homesteaded for agricultural use by the many new, unemployed immigrants. This plan led to the enactment of the General Property Tax Law of 1893.<sup>161</sup> Under this law, if taxes were delinquent, and if, when the land was offered at tax sale (for the price equivalent to five years of taxes) no purchase or redemption was made, then title vested in the state.<sup>162</sup>

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<sup>158</sup> Mather Interview, *supra* note 126.

<sup>159</sup> Mather Interview, *supra* note 126.

<sup>160</sup> Charles Rademacher, *History of State Lands* (1983) (on file with authors) [hereinafter *Rademacher History*].

<sup>161</sup> *Id.*

<sup>162</sup> C.E. RADEMACHER, LANDS DIVISION, MICHIGAN DEP'T OF NATURAL RESOURCES, REPORT PREPARED FOR A BACKGROUND OF PAST PRACTICES IN THE TAX FORECLOSURE OF LAND AND A STUDY OF POSSIBLE ALTERNATIVES FOR FUTURE (Jan. 30, 1984).



The state initially acquired about eighteen to twenty million acres from private entities through tax foreclosure procedures. In 1899, the legislature appointed a Forestry Commission and authorized the reservation of lands for a Forest Reserve.<sup>163</sup> By 1913, over two million acres of foreclosed land had been deeded to the state and subsequently reconveyed. Over 1.8 million went back to private ownership through homesteading and sales. Of the eighteen to twenty million acres of tax reverted forest lands initially retained for state forests or other uses, the state today holds about three million acres.<sup>164</sup> Most of the forests that the state retained are located within the six state forests situated in the northern two-thirds of the state.<sup>165</sup>

Counties were involved in the disposition of this tax reverted forest land. Land Use Planning Committees—made up of local officials—review these reverted lands (and all other state lands in their county) and make recommendations as to which acres should be retained by the state for forests or recreational purposes, which should be transferred and managed by the local entities, and which should be sold to private interests. Most of the reverted land was offered for private sale, and about 130,000 acres were transferred to local governmental units for local forests, parks, and other projects.<sup>166</sup>

A 1931 Act provided for the establishment of municipal forests, which by definition included counties and other local taxing entities.<sup>167</sup> Local entities were authorized to acquire and manage lands for forestry purposes, even lands outside of their jurisdiction. Local representatives appointed a three-member forest commission, giving them powers and duties under the Act.<sup>168</sup>

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<sup>163</sup> Rademacher History, *supra* note 160, at 3.

<sup>164</sup> This estimate may include a small number of acres of federal swamp land grants. The Federal government granted the state of Michigan about thirty-six million acres for various purposes. Much of this land was subsequently granted by the state to railroads and other entities. However, some lands, due to their poor quality for development purposes, were never conveyed away and are still held by the state. Telephone interview with Gary Hartsuff, Property Specialist, Tax Reversion and Land Records, Real Estate Division, Michigan Dep't of Natural Resources (May 28, 1997) [hereinafter Hartsuff Interview].

<sup>165</sup> Rademacher History, *supra* note 160, at 5.

<sup>166</sup> Hartsuff Interview, *supra* note 164.

<sup>167</sup> 1931 Mich. Pub. Acts 217, § 2 (repealed by 1995 Mich. Pub. Act 57).

<sup>168</sup> Hartsuff Interview, *supra* note 164.

Under this authority, counties acquired about 300,000 acres of once-forfeited forest land.<sup>169</sup>

### 1. *Current Management Framework*

Most of the original tax forfeited forest lands that are publicly held are now owned by the state. The state has no obligation to produce revenue from these lands for the benefit of the counties, other than making a \$2.50 per acre payment in lieu of taxes (PILT) to the counties.<sup>170</sup> The only other action with regard to these lands that appears to trigger a state financial obligation to the counties is the sale of the land. Upon sale, proceeds go to the county that originally foreclosed on the property.<sup>171</sup>

The state retained little management authority for those few acres (about 300,000) of tax forfeited forest lands that were transferred back to the counties. The Department must cooperate with the Municipal Forest Commission, and the Commission must submit annual reports to the Department and local entity.<sup>172</sup> Counties must comply with the same forest practice laws applicable to private forest land.<sup>173</sup>

## **D. *Minnesota***

Minnesota holds title to two types of land that were at one time foreclosed upon by counties. One type is commonly called "Con-Con" lands (referring to "consolidated conservation" lands). These lands, which today total about 1.5 million acres, were acquired in the late 1920s and early 1930s from seven counties. These counties had floated bonds to finance the construction of drainage ditches in order to promote private settlement. As the bonds became delinquent, the state of Minnesota, pursuant to statutory authority, bought out the bonds. In exchange, the state was given fee title to all the lands within the counties that were forfeited for failure to pay taxes.<sup>174</sup>

A second type of county lands in Minnesota are referred to as "Tax Forfeited" lands. These lands, which today total about 2.8 million acres in parts of eighty-seven counties, were acquired

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<sup>169</sup> *Id.*

<sup>170</sup> MICH. COMP. LAWS § 324.2150 (Supp. 1998).

<sup>171</sup> Hartsuff Interview, *supra* note 164; see MICH. COMP. LAWS §§ 324.511, .513.

<sup>172</sup> MICH. COMP. LAWS § 324.52705.

<sup>173</sup> Hartsuff Interview, *supra* note 164.

<sup>174</sup> MINN. STAT. ANN. § 84A.26.

pursuant to state law when private parties defaulted on tax payments.<sup>175</sup> As with similar lands in Oregon and Washington, counties could not afford to manage these lands, and also wanted to obtain some revenue from the lands. Unlike Oregon and Washington, in Minnesota, the transfer of title to the state reserved to the counties the right to manage the lands under statutory guidelines, with most revenue going to the counties.

The 1.5 million acres of "Con-Con" lands are managed under distinct statutory provisions. These provisions give the Commissioner of Natural Resources broad authority to manage forest protection and production, regulate the waters of lakes and streams, protect and preserve wildlife, and oversee recreational uses.<sup>176</sup> Counties receive 50% of income derived from any of the authorized management activities.<sup>177</sup> Counties also receive a PILT payment of \$0.375 per acre.<sup>178</sup> The designation of lands for preserves, authorized under the statutes, does not alter the state's financial obligation to the county for these lands.<sup>179</sup> If the lands are sold, the proceeds go to the counties.<sup>180</sup>

County management of the 2.3 million acres of "Tax Forfeited" lands is subject to statutory provisions that govern use and provide for state oversight. Counties are authorized to manage the lands for the purposes of forestry, water conservation, flood control, parks, game refuges, controlled game management areas, public shooting grounds, or other public recreational or conservation uses.<sup>181</sup> Timber sales are specifically limited on forests near lakes and other water courses.<sup>182</sup> Timber sales must follow detailed statutory guidelines, which include state approval of "the appraised value of the timber and the forestry practices to be followed in the cutting of said timber."<sup>183</sup> Proceeds from the sale of the land, or any products from the land, including timber, are retained by the county and distributed under a statutory formula. The formula includes authority to allocate a portion of these proceeds for timber development as well as parks and rec-

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<sup>175</sup> MINN. STAT. ANN. § 84A.57.

<sup>176</sup> MINN. STAT. ANN. § 84A.55.

<sup>177</sup> MINN. STAT. ANN. § 84A.51.

<sup>178</sup> MINN. STAT. ANN. § 84A.51.

<sup>179</sup> MINN. STAT. ANN. § 84A.57; telephone interview with John Helmberger, Minnesota Dep't of Natural Resources (June 28, 1997).

<sup>180</sup> MINN. STAT. ANN. § 84A.53, subdiv. 2.

<sup>181</sup> MINN. STAT. ANN. § 282.01, subdiv. 2.

<sup>182</sup> MINN. STAT. ANN. § 282.018.

<sup>183</sup> MINN. STAT. ANN. § 282.04.

reational facility acquisition.<sup>184</sup> Counties with "Tax Forfeited" land also receive a PILT payment of \$0.75 per acre.<sup>185</sup>

### III

#### COMPARING STATE AND FEDERAL FOREST MANAGEMENT

Differences in history and current laws mean that forest land management between different owners will not always share the same priorities and objectives. While their overarching management goals may be similar—for example sustainability of the resource and healthy watersheds—methods of achieving these objectives may be quite distinct and influenced by other, underlying management purposes.

This section focuses on what we believe are critical elements that affect the amounts of forest land available for different types of timber harvests and the resulting volume and value of this production. Our discussion focuses on standards and guidelines to emphasize that their development has significant effects. The discussion here necessarily simplifies an extremely complex issue. However, the authors wish to address the critical points raised in the context of administrative forest management. Three key criteria underscore the differences in management strategies: (1) establishment of late-successional reserves to protect species that require old-growth habitat; (2) creation of riparian management areas to protect fish and other stream habitats; and (3) forest practices during harvesting to protect non-timber values. These three criteria create different allocations of land to different dominant management objectives. The final part of this section compares and discusses the resulting allocations among the four different forest land managing agencies.

Federal policies for the Forest Service and the BLM within the range of the northern spotted owl are assumed to be based on the President's Northwest Forest Plan.<sup>186</sup> State forest manage-

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<sup>184</sup> MINN. STAT. ANN. § 282.08.

<sup>185</sup> MINN. STAT. ANN. § 84A.51(4).

<sup>186</sup> Information on Federal policies came from the U.S. FOREST SERVICE, U.S. DEP'T OF AGRICULTURE, FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT ON MANAGEMENT OF HABITAT FOR LATE-SUCCESSIONAL AND OLD-GROWTH FOREST RELATED SPECIES WITHIN THE RANGE OF THE NORTHERN SPOTTED OWL (1994) [hereinafter FSEIS]; the U.S. FOREST SERVICE, U.S. DEP'T OF AGRICULTURE RECORD OF DECISIONS FOR AMENDMENTS TO FOREST SERVICE AND BUREAU OF LAND MANAGEMENT PLANNING DOCUMENTS WITHIN THE RANGE OF THE NORTHERN SPOTTED OWL [hereinafter OWL ROD]; the U.S. FOREST SERVICE, U.S. DEP'T

ment polices are compared between the Washington Department of Natural Resources' (DNR), Habitat Conservation Plan for the west side of the Cascades (excluding the Olympic Experimental State Forest),<sup>187</sup> and the Oregon Department of Forestry's Habitat Conservation Plan for management of the Elliott State Forest.<sup>188</sup> A final comparison is made between these public ownerships and the standards required by the Forest Practice Act and its rules for both state and private lands in Oregon.<sup>189</sup> A matrix providing specific comparisons is included as Table 3.

### A. *Late-successional Reserves*

Late-successional reserves serve as habitat for species, including the northern spotted owl, that require mature or old-growth stand structures. These stands are characterized by large trees with large lateral branches, multi-layered canopies of different species, large amounts of snags (standing dead trees), and large woody material on the forest floor. Beyond just the structural requirements for individual trees or stands (groups of trees), the late-successional reserves provide sufficient area to support spe-

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OF AGRICULTURE STANDARDS AND GUIDELINES FOR MANAGEMENT OF HABITAT FOR LATE-SUCCESSIONAL AND OLD-GROWTH FOREST RELATED SPECIES WITHIN THE RANGE OF THE NORTHERN SPOTTED OWL (April 1994) [hereinafter STANDARDS AND GUIDELINES]; and for Bureau of Land Management land allocations in Oregon, U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MANAGEMENT, EXECUTIVE SUMMARY, WESTERN OREGON PROPOSED RESOURCE MANAGEMENT PLANS/FINAL ENVIRONMENTAL IMPACT STATEMENTS (Nov. 1994); BUREAU OF LAND MANAGEMENT, U.S. DEP'T OF INTERIOR, COOS BAY DISTRICT FINAL PROPOSED RESOURCE MANAGEMENT PLAN ENVIRONMENTAL IMPACT STATEMENT (1994) [hereinafter COOS BAY FRMP], its BUREAU OF LAND MANAGEMENT, U.S. DEP'T OF INTERIOR, RECORD OF DECISION AND RESOURCE MANAGEMENT PLAN (1995) [hereinafter COOS BAY ROD & RMP].

<sup>187</sup> WASHINGTON DEP'T OF NATURAL RESOURCES, DRAFT AND FINAL ENVIRONMENTAL IMPACT STATEMENTS, HABITAT CONSERVATION PLAN (Mar. 1996 and Oct. 1996, respectively) [hereinafter WDNR, DRAFT HCP]; WASHINGTON DEP'T OF NATURAL RESOURCES, FINAL FOREST RESOURCE PLAN (July, 1992) [hereinafter WDNR FOREST RESOURCE PLAN]; telephone interviews with Dave Vagt, June 10 and 12, 1997 [hereinafter Vagt Interview], and with Lanny Ouackenbush, June 12, 1997.

<sup>188</sup> OREGON DEP'T OF FORESTRY, COOS DIST. ELLIOTT STATE FOREST MANAGEMENT PLAN, DRAFT PLAN (Dec. 1993); ELLIOTT STATE FOREST HABITAT CONSERVATION PLAN (May 1995) [hereinafter ELLIOTT HCP]; U.S. FISH & WILDLIFE SERVICE, ELLIOTT STATE FOREST ENVIRONMENTAL ASSESSMENT FOR THE HABITAT CONSERVATION PLAN.

<sup>189</sup> OR. REV. STAT. §§ 527.610-527.770, 527.990(1), 527.992; OR. ADMIN. R. ch. 629 (reprinted as *Oregon Forest Practice Administrative Rules and Abridged Forest Practice Act* (January, 1997)).

cies that do well only in the interior, rather than the edge, of these dense, old forests. Late-successional reserves are tied together by other protected areas and dispersal habitat to allow species to migrate from one reserve to another, allowing interaction among populations.

Late-successional reserves provide the basis for much of the federal government's conservation strategy for the northern spotted owl (see Figure 2 for land allocations). These reserves are intended to provide late-successional and old-growth ecosystems to support the hundreds of species that require this habitat, including northern spotted owls and marbled murrelets. Generally, the types of silvicultural practices allowed in the reserves are limited to those that contribute toward creating forest structures that develop late-successional and old-growth characteristics, such as thinning stands less than eighty years old.<sup>190</sup> However, the amount of these stands that can be treated in any one year is limited to 5%. No timber harvests, including thinning, are allowed in stands older than eighty years.<sup>191</sup>

The Washington DNR's strategy in its HCP was to designate nesting-roosting-foraging (NRF) habitat for spotted owls adjacent to federal late-successional reserves.<sup>192</sup> Where federal "owl circles" extend into state lands, the DNR established NRF areas and protected nest areas. The protected nest sites are the closest equivalents to the federal late-successional reserves in that they are "set-aside" with thinning limited to younger stands. On the Elliott State Forest in Oregon, late-successional reserves are called Habitat Conservancy Areas. These areas are intended to protect sensitive wildlife habitat areas within each management unit, by providing permanent protection for threatened and endangered species, as well as contribute to the overall biodiversity.<sup>193</sup>

### ***B. Riparian Management Areas***

Riparian management areas (RMA), zones, and reserves are established to conserve aquatic and riparian-species dependent

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<sup>190</sup> FSEIS, *supra* note 186, at 2-23.

<sup>191</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-12.

<sup>192</sup> WASHINGTON DEP'T OF NATURAL RESOURCES, IDENTIFYING AND PROTECTING HABITAT OF THE NORTHERN SPOTTED OWL IN ALL HCP PLANNING UNITS INTERIM PROCEDURE PR-HCP-021, 1 (May 1997).

<sup>193</sup> ELLIOTT HCP, *supra* note 188, at E-12, E-13.

habitats. Habitat values that are protected include: shading streams (to maintain cooler water temperatures); recruiting large, downed trees into the stream (to provide cover for fish and create pools); protecting trees that overhang streams (as perch sites for fish-eating birds); and providing food (such as insects) and nutrients (detritus) for both riparian and aquatic habitats. RMAs are also used as part of larger forest management plans to provide habitat that connects late-successional reserves (see discussion above).

RMAs are designated by establishing a specified width on each side of the active channel (or in the case of Washington, the 100-year flood plain) between the stream and adjacent matrix areas where timber is harvested according to more traditional methods. These widths are commonly identified by either a fixed distance (measured by either horizontal or slope distance) or by a multiple of a site-potential tree (i.e., the height of the tallest dominant tree on a specific land type at specified age, usually either 100 years for the states, or 200 years or older on federal lands). The width generally depends upon the type of stream (i.e., fish-bearing versus nonfish-bearing, perennial versus intermittent, and whether it provides domestic water supply), its size (usually measured by either flow or width), and sometimes by stream gradient (how steeply it drops). Slope distance is effectively shorter than the equivalent horizontal distance in all cases, except where the land is completely flat (for example, a one hundred foot slope distance is equal to ninety-eight feet of horizontal distance if the slope is 20%).

Riparian reserves within the Northwest Forest Plan for the federal lands depend upon whether the stream is perennial and/or fish-bearing. For perennial, fish-bearing streams, the riparian reserve width is the slope distance of the greater of twice the height of a site-potential tree, or 300 feet. For nonfish-bearing perennial streams, the width is the slope distance of the greater of the height of a site-potential tree, or 150 feet. For intermittent streams, the Northwest Forest Plan standard width is the greater of a site-potential tree, or one hundred feet slope distance.<sup>194</sup>

The Washington DNR measures its riparian management area widths on a horizontal basis and then varies them according to

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<sup>194</sup> STANDARDS AND GUIDELINES, *supra* note 186, at 30-31.

the size of the stream.<sup>195</sup> Generally, the riparian buffer width for most streams is the greater of the height of one site-potential tree, or 150 feet. For smaller streams (Type 4), the width is reduced to one hundred feet. For Type 1 to 3 streams, in areas that are susceptible to windthrow, an additional one hundred feet horizontal distance is added to the windward side.

The RMA for the Common School lands in the Elliott State Forest is a minimum of one hundred feet of slope distance, while the Oregon Forest Practice Act distinguishes zones by stream size. Under the Forest Practice Act,<sup>196</sup> large fish-bearing streams (greater than ten cubic feet per second flow) have a one hundred foot slope distance buffer, medium fish-bearing streams (two to ten cubic feet per second flow) require a seventy foot buffer, and small fish-bearing streams have a fifty-foot buffer. Riparian management zones are reduced for streams that are nonfish-bearing: seventy feet for large streams, fifty feet for medium streams, and zero to ten feet for small streams. No RMAs are required under the Oregon Forest Practice Act for intermittent streams.

With the exception of the Oregon Forest Practice Act, forest management activities within RMAs are limited or proscribed. Under the Northwest Forest Plan, federal agencies are allowed to selectively harvest trees in the RMAs if the quality of the aquatic and riparian habitat is improved through cutting. All other timber harvests are prohibited. The Washington DNR's HCP allows no cutting within twenty-five feet of the stream, while harvests in the remaining area are allowed if they maintain or improve salmonid habitat. No harvest is permitted in RMAs on the Elliott State Forest. Oregon's Forest Practice Act provides limits on harvesting and minimum residual stocking standards within RMAs. For fish-bearing perennial streams, all vegetation must be left within ten feet of the channel, and all trees within twenty feet (for nonfish-bearing streams this requirement applies only to large- and medium-sized trees).<sup>197</sup> Timber harvesting can occur outside the initial twenty feet as long as residual stocking levels are maintained. These are, for fish-bearing perennial streams,

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<sup>195</sup> WASHINGTON DEP'T OF NATURAL RESOURCES, IDENTIFYING AND PROTECTING RIPARIAN AND WETLAND MANAGEMENT ZONES IN THE WEST-SIDE HCP PLANNING UNITS, EXCLUDING THE OESF PLANNING UNIT PR-HCP-001 (May 1997).

<sup>196</sup> OR. ADMIN. R. 629-635-310.

<sup>197</sup> OR. ADMIN. R. 629-640-100.



forty live trees per one thousand feet on large streams and thirty live trees per one thousand feet on medium streams; for nonfish-bearing perennial streams, the requirement is reduced to thirty trees per one thousand feet for large streams and ten live trees per one thousand feet for medium streams.<sup>198</sup> In addition, all downed wood within the Riparian Management Area must remain.

### C. *Timber Harvest Practices in the Forest Matrix*

The "matrix" defines that area outside of reserves and set-asides that is available for traditional forest management practices and timber harvests. The term "matrix" came into general recognition with the 1990 *Interagency Scientific Committee Conservation Strategy for the Northern Spotted Owl* (ISC Report).<sup>199</sup> In the ISC Report, the matrix consisted of forests surrounding "owl circles" that set aside habitat in the home range of nesting northern spotted owls. The size of the spotted owl home ranges varies considerably: in Washington they vary between a 1.8 mile to 2.7 mile radius from the nest site. The ISC Report recommended that timber harvests be allowed in matrix lands as long as 50% of the forest stands on federal lands in every quarter township (nine square miles) had an average tree diameter of eleven inches and a canopy closure of 40%.<sup>200</sup> This requirement became known as the "50-11-40 Rule" and formed the basis for federal forest management requirements in non-reserved areas until the President's Northwest Forest Plan was completed in 1994. The 50-11-40 rule is still commonly used by other forest managers.

#### 1. *Overall Matrix Management Objectives*

Objectives for forest management in the matrix are: (1) create and manage late-successional habitat; (2) provide timber by creating early-successional habitat; and (3) provide dispersal habitat for northern spotted owls in mid-successional habitat.<sup>201</sup>

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<sup>198</sup> *Id.*

<sup>199</sup> Thomas et al., *A Conservation Strategy for the Northern Spotted Owl*, Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl, Portland, Or., May 1990, at 28-29, 309-10, 317-18, 326-27.

<sup>200</sup> FSEIS, *supra* note 186, at 2-27.

<sup>201</sup> See generally FSEIS, *supra* note 186, at 2-41 to 2-83.

Management agencies identify two general types of forest management goals for their matrix lands: (1) create and manage older stands to provide habitat suitable for species needing late-successional and old-growth forest conditions (including nesting, roosting, and foraging habitat for the northern spotted owl); and (2) manage shorter- and medium-aged stands to provide economically-efficient timber supplies (generally fifty to seventy years old), but also to include dispersal habitat for the northern spotted owl (usually defined by the 50-11-40 rule where stands are usually seventy years of age or older).

## 2. *Federal Lands*

Management of the matrix on federal lands by the Forest Service and the BLM is intended to produce commercial timber, retain moderate levels of large green trees, snags and down woody material, and to provide early-successional habitat.<sup>202</sup> Depending upon agency and geographic location, the amount of the matrix available for intensive forest practices differs. Because of the large amount of riparian reserves in the Oregon Coast Range Province, virtually the entire National Forest is unavailable for harvest in this region. Matrix areas are still subject to additional watershed and unmapped late-successional reserve analyses and limited by traditional land suitability considerations under the National Forest Management Act. For example, in the West Cascades, Willamette, and Klamath Provinces in Oregon, 15% of each stand must be retained during timber harvests (but not thinning).<sup>203</sup>

The BLM has different matrix management requirements from the Forest Service north of Grants Pass in Oregon. Because BLM's land holdings are more commonly in a "checkerboard" pattern that reduces the possibility for large late-successional reserves, longer rotation "Connectivity/Diversity Blocks" are designed to provide dispersal habitat between the late-successional reserves. In these 640 acre Blocks, at any given time 25% to 30% of the stands must be maintained in late-successional tree structures. Rotation ages are at least 150 years, and twelve to

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<sup>202</sup> U.S. FOREST SERVICE, STANDARDS AND GUIDELINES FOR THE MANAGEMENT OF HABITAT FOR LATE SUCCESSIONAL AND OLD-GROWTH FOREST RELATED SPECIES WITHIN THE RANGE OF THE NORTHERN SPOTTED OWL, at B-5 to B-6 (1994).

<sup>203</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-41.

eighteen green trees per acre must be retained in these Connectivity/Diversity Blocks.<sup>204</sup>

### 3. Washington

Because state lands in both Washington and Oregon have comparatively less area in reserves—thus more in the matrix—both states' strategy is to make available sufficient habitat and stand structure to provide for the needs of late-successional and old-growth dependent species through management. The Washington DNR's objective is to generate income for the trusts while at the same time providing wildlife habitat.<sup>205</sup> Approximately 15% of the DNR's west-side planning units will be managed for NRF habitats, while another 17% will be managed as owl dispersal habitat.<sup>206</sup>

The DNR maintains NRF habitat by managing the best 50% of the areas as late-successional habitat through longer rotations. If the 50% threshold cannot be met, then the best 50% is manipulated through thinning and partial cuts (limited to 5% of the 50% area per year) to create the needed structure.<sup>207</sup> This structure comprises stands at least seventy years old, with very large diameter residual trees (200+ years old), large diameter younger trees along with snags, and large woody debris.<sup>208</sup>

Dispersal habitat, at any one time, requires 50% of the area in a watershed to have 70% canopy cover, with stands having a mean diameter breast height (d.b.h.) of eleven inches (equivalent to a 50-11-70 Rule), a top canopy height of at least 135 feet (measuring the average height of forty trees in the largest diameter class), and at least four green trees per acre retained in the largest size class.<sup>209</sup> After riparian management areas and other HCP requirements (such as marbled murrelet habitat) are met, the remaining DNR lands can be managed on economic rotations, at approximately sixty years of age.<sup>210</sup>

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<sup>204</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-42.

<sup>205</sup> WDNR, DRAFT HCP, *supra* note 187, at 1-3.

<sup>206</sup> WDNR, DRAFT HCP, *supra* note 187, at 45.

<sup>207</sup> Vagt Interview, *supra* note 187.

<sup>208</sup> WDNR, DRAFT HCP, *supra* note 187, at G16.

<sup>209</sup> WDNR, DRAFT HCP, *supra* note 187, at G5.

<sup>210</sup> Vagt Interview, *supra* note 187.

#### 4. Oregon

The Oregon Department of Forestry uses a similar, zoned, strategy for their Elliott State Forest Habitat Conservation Plan. The goal for their long-rotation management basins is to provide nesting-roosting-foraging habitat on 43% of the Elliott State Forest through rotations of 160 years to 240 years.<sup>211</sup> The remaining areas will provide suitable habitat through rotation ages of at least eighty years while maintaining the 50-11-40 Rule requirements.<sup>212</sup>

#### **D. Forest Practice Requirements**

Forest management activities within matrix areas have five requirements that limit the extent of timber harvests and specify what can be taken and what has to be left. Forest Practice requirements within the matrix specify: (1) maximum allowable sizes for clearcuts; (2) number of green (live) trees retained after harvest; (3) number and quality of standing dead trees (snags) to remain after harvest; (4) amount of large, down, woody material on the forest floor that must be left; and (5) retention of, and seasonal restrictions adjacent to, spotted owl activity centers. While these five requirements are not all inclusive (for instance marbled murrelet protection is not included), they represent the most common current management constraints on matrix lands.

##### 1. Harvest Size Limitations

Limitations were initially placed on the size of individual harvest units to prevent large areas from becoming devoid of trees. Before a unit can be harvested, specific tree stocking standards must be met on adjacent, previously-harvested units. While size limitations for individual clearcut harvest units are not identified in the the Northwest Forest Plan, Forest Service planning under the NFMA, and BLM harvest planning under the O&C policies, generally follow state Forest Practice Act standards for maximum areas.<sup>213</sup> In Oregon the maximum area is 120 acres, unless an exception is approved by the State Forester, in which case the maximum size is 240 acres.<sup>214</sup> The Washington Forest Practice

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<sup>211</sup> ELLIOTT HCP, *supra* note 188, at IV-33.

<sup>212</sup> ELLIOTT HCP, *supra* note 188, at IV-33.

<sup>213</sup> BUREAU OF LAND MANAGEMENT, U.S. DEP'T OF THE INTERIOR, COOS DISTRICT FINAL PROPOSED RESOURCE MANAGEMENT PLAN, vol. II at 28-29 (1994).

<sup>214</sup> OR. REV. STAT. §§ 527.740(1), 527.750 (Supp. 1996).

Rules prohibit clearcuts greater than 240 acres, and may require an interdisciplinary team review for cuts between 120-240 acres in size.<sup>215</sup> In Washington, the DNR through its Forest Resources Plan, limits clearcuts to 100 acres on its trust lands.<sup>216</sup>

## 2. *Green Tree Retention*

Green tree retention requirements are intended to provide larger, taller, and older trees in subsequent stands after the remainder is harvested. These "leave trees" provide an overstory layer under which the newer trees grow. Over time, this creates a multilayer or multistory canopy composed of the original taller trees and the new, lower trees. Silvicultural practices, such as thinning, can be used in the younger stands to develop additional canopy layers and obtain the minimum of three layers required for suitable late-successional habitat. Retained trees also provide future snags.

The number of live trees left after harvest varies considerably among the managing agencies. Under the Northwest Forest Plan, the Forest Service's standard outside the Oregon Coast Range Province requires that 15% of the area associated with each stand must be retained.<sup>217</sup> Seventy percent of these trees must be in clumps greater than 2.5 acres in size.<sup>218</sup> There is no green tree retention standard for the Oregon Coast Range Province because significant areas are removed from the matrix due to riparian reserves.<sup>219</sup> The BLM requires that six to eight live trees per acre must remain, with the exception of the Connectivity Blocks, where twelve to eighteen live trees per acre must remain.<sup>220</sup>

The Washington DNR requires that five live trees per acre be left on its west-side planning units, one of which must be in the greatest diameter class and one in the dominant canopy class; all trees must have at least one-third live canopy.<sup>221</sup> The Elliott State Forest HCP requires a minimum of three live trees per acre, while the Oregon Forest Practices Act—for Harvest Types 2 and 3 in units greater than twenty-five acres—requires either

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<sup>215</sup> WASH. ADMIN. CODE § 222-30-025 (1997).

<sup>216</sup> WDNR, FOREST RESOURCE PLAN, *supra* note 187, at 48.

<sup>217</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-41.

<sup>218</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-41.

<sup>219</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-40.

<sup>220</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-42.

<sup>221</sup> WASH. ADMIN. CODE § 222-30-020(3)(d) (1997).

two snags or two live trees, at least thirty feet high and eleven inches d.b.h. be left.<sup>222</sup>

### 3. *Snag Retention*

Snags provide habitat for numerous forest dwelling species, principally birds but also bats and other mammals. Primary cavity nesting birds create holes in snags that they use for nests, and these holes provide nest sites for secondary cavity nesting birds in the future. The bark sloughed off snag trunks provides roosting habitat for many bat species. Over time (depending upon the species, size, and wind susceptibility), snags weaken and fall to the ground where they provide large, down woody material.

Snag retention standards commonly come in two forms: (1) a specific number of stems per acre, or (2) the number of stems required to support a specific level of potential cavity-nesting bird population levels. The Northwest Forest Plan for federal lands takes the latter approach, requiring sufficient snags to support cavity-nesting birds at 40% of potential population levels.<sup>223</sup> The specific populations, by species and level, are individually determined for each management area.

The states take the former approach of specifying the number of snags needed. The Washington DNR requires that at least three snags per acre with stems at least eleven inches d.b.h. and thirty feet tall, with preference given to the largest diameter classes (diameters greater than twenty inches) and heights of at least forty feet.<sup>224</sup>

The Elliott State Forest HCP specifies that from one-half to three snags of twenty inches diameter or greater per acre remain after harvesting, or that snags of this size and quantity be created from the retained live green trees.<sup>225</sup> This compares to the Oregon Forest Practice Act requirement of two snags or live trees per acre of eleven inches in diameter and thirty feet in height.<sup>226</sup>

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<sup>222</sup> 1996 Or. Laws Spec. Sess., ch. 9, § 9(1)(a).

<sup>223</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-42.

<sup>224</sup> WASHINGTON DEP'T OF NATURAL RESOURCES, RETAINING GREEN TREES AND SNAGS IN THE WEST-SIDE HCP PLANNING UNITS AND THE OESF PLANNING UNIT (May 1997).

<sup>225</sup> ELLIOTT HCP, *supra* note 188, at IV-40.

<sup>226</sup> 1996 Or. Laws Spec. Sess., ch. 9, § 9(1)(a).

#### 4. Down Woody Material

Downed woody material provides habitat for fungi, arthropods, and bryophytes which play crucial biodiversity roles as well as cycle nutrients; it also provides habitat for fishers, martins, amphibians, and as substrate for some vascular plants. The quantity, quality (size, decay stage, and species), and distribution of downed woody material is important.<sup>227</sup> If retained in the same area as the green tree retention patches, this downed woody material creates the microclimates needed by these species. Standards for downed woody material typically specify the type (conifer or hardwood), size (diameter, length and volume), and sometimes the decay class for retained material.

Downed woody material standards under the Northwest Forest Plan for western Oregon differ depending on whether the area is in the northern or the southern portion of the state. For the north half of western Oregon (Willamette National Forest and Eugene BLM District northward), 240 linear feet of at least twenty inch diameter (large-end) and twenty feet in length logs must be left.<sup>228</sup> For the south half of western Oregon, the amount required drops in half, to 120 linear feet, with the same size requirements.<sup>229</sup>

Standards for Washington DNR lands follow their Forest Practice Rules: two logs per acre with a minimum small-end diameter of twelve inches and at least twenty feet long, or equivalent volume in other sizes.<sup>230</sup> In addition, in nesting-roosting-foraging areas, 5% of the total ground cover must be downed woody material.<sup>231</sup>

Standards on the Elliott State Forest are significantly higher than those required by the Oregon Forest Practice Act. The Elliott HCP specifies that three to six downed logs will be left per acre, with a minimum diameter of twelve inches or greater (large-end) and a length of sixteen feet or longer.<sup>232</sup> The Oregon Forest Practice Act requires only two downed logs per acre, at least one of which must be a conifer, with a length of at least six

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<sup>227</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-40.

<sup>228</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-40.

<sup>229</sup> STANDARDS AND GUIDELINES, *supra* note 186, at C-10.

<sup>230</sup> WASH. ADMIN. CODE § 222-30-020(11)(c).

<sup>231</sup> Vagt Interview, *supra* note 187.

<sup>232</sup> ELLIOTT HCP, *supra* note 188, at IV-40.

feet and a volume of at least ten cubic feet.<sup>233</sup> One larger log of either conifer or hardwood, having at least twenty cubic foot volume and at least six feet length can be substituted for the two logs.<sup>234</sup>

### 5. Owl Activity Centers

Northern spotted owl activity centers are intended to protect the nest tree itself and the best habitat surrounding the nest. The activity center concept evolved from the original protection strategy for northern spotted owls: set aside sufficient habitat around each nest site to provide for a pair of owls. Present standards protect the nest site and immediately adjacent areas from harvest. These standards also protect nesting birds from disturbance during their breeding season from March 1 to September 30 within a specified distance, usually one-quarter mile (0.7 miles for the Washington DNR). Activities during seasonal closures must not cause the birds to fly from the nest.

The principal focus for the recovery of the northern spotted owl on federal lands in the Northwest Forest Plan rests with the late-successional and riparian reserves. For nests outside these areas, standards under the Northwest Forest Plan for the Forest Service and BLM focus on protecting "activity centers" of 100 acres of the best available habitat around owl sites occupied on January, 1994. However, while these standards exist for owl activity centers in the matrix, there is no expectation that this is adequate habitat to support a pair of owls, nor that the pairs will persist over time. Rather, the standards applied to the matrix reduce the potential to "take" owls through management activities.

The Washington DNR protects 300 acres around nests (as a set-aside for the life of the HCP), with an additional 200 acre buffer that can be moved around the core 300-acre area.<sup>235</sup> The Oregon Forest Practice Act requires seventy acres of suitable habitat to be left around spotted owl nests,<sup>236</sup> which is the same standard applied to nests in the Elliott State Forest.<sup>237</sup>

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<sup>233</sup> 1996 Or. Laws Spec. Sess., ch. 9, § 9(1)(b).

<sup>234</sup> *Id.*

<sup>235</sup> WASHINGTON DEP'T OF NATURAL RESOURCES, DESIGNATING 300 ACRE NEST PATCHES AND ASSOCIATED 200 ACRE BUFFER FOR THE WEST-SIDE PLANNING UNITS, EXCLUDING THE OESF PLANNING UNIT (May 1997).

<sup>236</sup> OR. ADMIN. R. 629-665-210.

<sup>237</sup> ELLIOTT HCP, *supra* note 188, at IV-33.



### *E. Land Allocations*

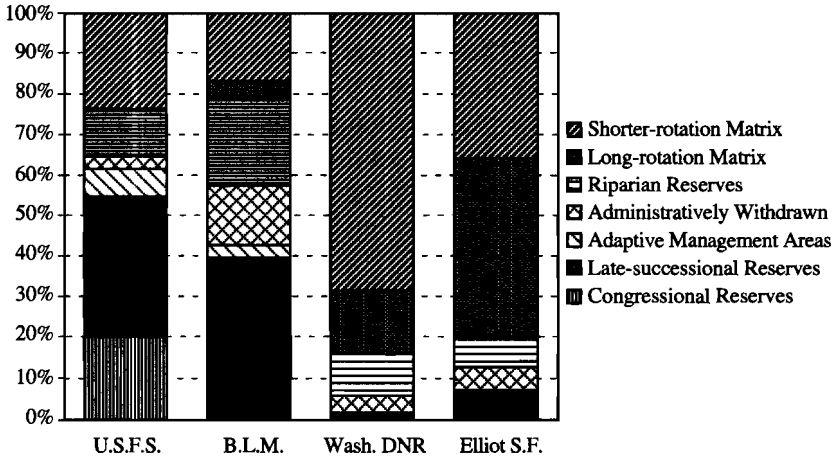
The policies discussed previously in this Article reveal that lands are allocated to dominant uses and management objectives differently among the four agencies we discussed. Using seven different categories of dominant land use, Figure 2 shows how each agencies' lands are allocated as a percentage of its holdings. The following agency managed areas are chosen for comparison because they are most similar to the Oregon Board of Forestry lands in both their characteristics and policy concerns: (1) lands that the Forest Service and BLM manage in Oregon in the range of the northern spotted owl; (2) Washington DNR lands on the west-side of the Cascade Range only (not including the Olympic Experimental State Forest); and (3) the Elliott State Forest, as an example of land allocations for forested Common School lands.

A hierarchy of the seven types of dominant land uses helps determine the relative use allocations among the different classes. The hierarchy clarifies uses between many areas that have overlapping allocations (for example, riparian management areas exist within larger late-successional reserves). Land percentages are derived in the following order: (1) congressional and administrative reserves and withdrawals are subtracted from the total land base; (2) late-successional reserves that do not occur on congressional or administrative withdrawals are identified; (3) riparian reserves not occurring in either of the above classifications are identified; and (4) the adaptive management areas are subtracted.

The lands remaining are allocated to the matrix as follows: within the matrix, lands with rotation ages of 160 years or greater are placed in the long-rotation category; and lands with rotation ages less than 160 years are classified as shorter-rotation.

Agency objectives and management approaches clearly result in vast differences in dominant land use allocations. The federal government's strategy of identifying and protecting late-successional reserves accounts for over 50% of federal lands in this status or other withdrawals. When combined with the 14% of federal lands that are in riparian reserves, about two-thirds of federal lands are effectively removed from intensive forest management and harvest. The amount of timber available for harvest from federal lands primarily results from the 30% that remains in the matrix and adaptive management units.

**FIGURE 2. LAND ALLOCATIONS AMONG THE VARIOUS MANAGEMENT AGENCIES.**



In contrast to federal conservation strategies, Habitat Conservation Plans in both Washington and Oregon have taken alternative approaches to conserving wildlife habitat and biodiversity while still providing timber harvests. Their strategies do not remove significant acreage as reserves, but instead focus on providing habitat values through moderating traditional management practices. Both states maintain larger riparian management zones—with stricter requirements—than their Forest Practices Acts require. Both states retain more live trees, snags, and downed woody material than required by Forest Practices Acts. They do this because meeting Forest Practice rules does not necessarily fulfill the requirements of federal and other state environmental laws. But by adjusting the management of state lands through their Habitat Conservation Plans, states provide an explicit alternative to the federal reserve strategy. The larger proportion of their lands that are in the matrix demonstrate this: 84% for west-side Washington DNR, and 81% for the Elliott State Forest.

However, one reason that the states are able to do this is that the federal government has committed the federal lands to play the primary role in recovering the northern spotted owl.<sup>238</sup> Direct comparison between the federal government's land alloca-

<sup>238</sup> U.S. DEP'T OF THE INTERIOR, RECOVERY PLAN FOR THE NORTHERN SPOTTED OWL-DRAFT (1992), at vii.

tions and the states' allocations are difficult because of differences in the roles that each land tenure is expected to provide. However, the closest comparison, other things being equal, is Alternative 7 in the FSEIS for federal land management in the range of the northern spotted owl.<sup>239</sup> Alternative 7 is basically a combination of the forest plans existing at the time, and incorporates the northern spotted owl recovery plan requirements.<sup>240</sup> The amount of federal matrix lands under Alternative 7 would be 34.5%, in contrast to the 16.25% in the Northwest Forest Plan, and over 80% on state lands.

#### IV

#### ANALYSIS AND CONCLUSIONS

A host of questions arose throughout our analysis of potential options for the management of Oregon's Chapter 530 lands. Does a state's obligation to protect endangered species differ according to the required magnitude, or is it proportional to its potential effects? Does the state's duty to protect endangered species differ according to whether the lands involved are owned by the state Land Board or the state Board of Forestry? Given a required level of protection, what strategies work to best avail? Is it sufficient for a state to follow its Forest Practice Act requirements? Is a state better off complying with Section 9 of the federal Endangered Species Act on a project-by-project basis, or is it preferable to use the provisions of Section 10 of the Endangered Species Act to comply through a broader Habitat Conservation Plan?

Our analysis shows that various states, and various land ownerships in Oregon, have differing legal and administrative rules for forest land management. Each type of ownership authority has a unique balance between consumptive uses and protective measures. Thus, while a tree within a state forest in Oregon is not governed by the same legal rules as a tree within a national forest in Oregon, each type of public forest land in Oregon holds opportunities and obligations to meet society's needs. The Board of Forestry has significant discretion to manage the Chapter 530 lands as long as federal and state statutory requirements are met. These bounds, and the options within them, provide the frame-

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<sup>239</sup> FSEIS, *supra* note 186, Vol. 1 at 2-19 - 2-21.

<sup>240</sup> FSEIS, *supra* note 186, Vol. 1 at 2-19.

work within which the Board may act. Because of their importance, we provide a comprehensive analysis for each major point.

**A. *Four Management Directives Have Remained Consistent Through Time***

Although specific statutory language has changed over time, four features concerning how the Board of Forestry lands are to be managed have remained consistent: (1) the broad management goal is to secure the greatest permanent value to the state; (2) lands are to be managed for the specific purposes of growing forest crops, protecting waters and watersheds, and recreation; additional purposes since 1941 include grazing, erosion control, and since 1967, fish and wildlife environment, landscape effect, and protection of water supplies; (3) lands are to be managed under the best contemporary forest management practices; (4) when land uses generate revenues, they are to be divided between the state and the counties in which the lands are located.

It is difficult to infer from the provisions in Chapter 530 that the legislature explicitly established priorities among the various purposes for which these lands were acquired or how they are to be managed. It is clear that since 1973 the Board of Forestry has established policies under its discretionary authority that set timber production as the priority use of the Chapter 530 lands.<sup>241</sup> This priority has been controversial: the counties periodically petition the Board of Forestry to set aside lands for recreational purposes. It may be desirable, given this lack of clear legislative direction, for the Board of Forestry to revisit its 1973 policy.

**B. *Managers Have Significant Discretion Within Clear Bounds***

Under current statutes and case law, the Board of Forestry has some clear outer bounds in managing Chapter 530 lands, but it has significant discretion within these bounds. The Board of Forestry must comply with state and federal laws of general application. This provides one side of the outer bound: at a minimum, it must comply with the federal Endangered Species Act and the state Forest Practices Act. At the other bound, it is apparent from the Oregon Supreme Court's *Tillamook* decision that the state must consider the "protected, recognizable interest" of the

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<sup>241</sup> LANDMAN HISTORY, *supra* note 14 at 27-28.

counties in their land management decisions.<sup>242</sup> The Board of Forestry must protect this interest at some level, and in some manner. Actions that completely deprive the county of its right to revenue, with no substitute compensation, are not permitted under this standard. However, some reduction in the county's level of income, and substitute forms of compensation may be acceptable.

Between these two outer bounds lies considerable discretionary territory within which the Board of Forestry may legitimately operate. The Oregon Supreme Court stated in *Tillamook* that it would look to the statute to determine whether a Board of Forestry action was allowable.<sup>243</sup> The authors have reviewed the statute and find a lack of any *a priori* requirement to maximize, or even produce, revenues from every acre of Chapter 530 lands. But the statute is clear that these lands must be managed for the broad goal of obtaining the greatest permanent value to the state.

Our analysis of state and federal forest land management strategies indicates that there are various means available to meet both the original intent and current statutory requirements for Oregon's Board of Forestry lands. It is clear from the information provided in Figure 2 (land allocations among the various management agencies) and Table 3 (land allocations among different land ownership in Oregon and Washington) that differences between agency objectives and approaches have enormous impacts on land allocations. The federal government's strategy of protecting and managing for late-successional habitat accounts for the 71% of its lands on the west side of the Cascades that are set aside as reserves and not managed primarily to produce timber. The late-successional reserves, in conjunction with other reserves and riparian management areas, are designed to provide sufficient habitat over the long term to protect species that require old-growth and late-successional habitat. This strategy effectively limits traditional timber production to the 29% of federal lands in the matrix and adaptive management areas. In these areas forests are managed on shorter rotations to provide early- and mid-successional habitat.

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<sup>242</sup> *Tillamook County v. State Bd. of Forestry*, 302 Or. 404, 416, 730 P.2d 1214, 1221 (1986).

<sup>243</sup> *Id.*

In contrast, both Washington's and Oregon's Habitat Conservation Plans take alternative approaches to conserve wildlife habitat and biodiversity. Neither state sets aside significant acreage as reserves. Instead, both states focus on maintaining habitat values by modifying traditional management practices. This is a direct outcome of their strategy to provide mid-successional habitat on the majority of their lands, while only setting aside lands for late-successional habitat surrounding active spotted owl nest sites adjacent to federal reserves. So far, the states have been able to do this because their objective has been to support conservation measures on federal lands, rather than undertake the burden of recovering the species solely on their own. This strategy leaves more lands available for timber harvest but, within these areas, balances longer and shorter rotations. And both states' HCPs provide for greater protection than required by their Forest Practices Acts. This is necessary because they are required not only to meet these laws, but also the federal Endangered Species Act. Both states, through their multi-species HCPs, have crafted long term contracts with the federal government that provide certainty and reduce risks that might result from further listings under the Endangered Species Act.

***C. A Primary Management Dilemma Is In Defining  
"Greatest Permanent Value"***

Defining what is the greatest permanent value to the state is the crux of the problem faced by the Board of Forestry in making management decisions. Economic returns alone likely do not define the greatest permanent value. Other benefits, such as watershed, environmental protection, and recreation are more difficult to quantify but may be equally valid contributions to the greatest permanent value to the state. Some uses that conflict with other statutory purposes may produce less revenue yet provide other benefits. However, because the statute does not define what "greatest permanent value to the state" means, in the absence of further legislative definition it may be the Board of Forestry's responsibility to do this through administrative processes.

In many cases, there is not a black-and-white difference between state-wide and local benefits, nor between management actions that benefit one resource at the cost of others. State statutes designate multiple purposes for these lands, including timber production, watershed protection, and recreation. Managed

separately, these purposes can be mutually exclusive, and some typically produce revenues while others do not. However, statutes and case law do not provide clear guidance on how the other purposes for the Board of Forestry lands are supposed to be balanced with the traditional focus on timber production. For example, it would be very difficult to calculate benefits for water and watershed protection, although many of these benefits would be "received" in the county in which the lands are located while others would be state-wide. The appropriate measure of watershed conservation for Board of Forestry land is equally difficult to determine: does watershed protection mean that the fisheries that depend on stream conditions should be used as an indicator of good watershed protection?<sup>244</sup> Similar arguments can be made for recreation on Board of Forestry lands. It is clear that counties would share in the receipts if recreational facilities located on Board of Forestry lands produced revenues. It is not clear how other forms of recreation that do not produce direct revenues, yet produce "benefits" both locally and state-wide, should be incorporated into management practices.

The new rules fill this void by requiring in the first section of the rules that the "lands must be managed to achieve the greatest permanent value,"<sup>245</sup> and, in a later provision that has become known as "the GPV rule,"<sup>246</sup> explaining in detail the meaning of this earlier phrase. The definition incorporates more than just timber values, and views the state forests broadly in terms of landscape and time:

"[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 envi-

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<sup>244</sup> This is similar to the argument that the BLM made in their Coos Bay Resource Management Plan:

[p]rotection of watersheds and regulation of streamflow are explicit purposes of forest production under the O&C Lands Act. Riparian reserves . . . are designed to restore and maintain aquatic ecosystem functions. Together with other components of the aquatic conservation strategy, riparian reserves will provide substantial watershed protection benefits. Riparian reserves will also help attain and maintain water quality standards which are a fundamental aspect of watershed protection. Both riparian reserves and late-successional reserves will help regulated streamflows by moderating peak streamflows and attendant adverse impacts to watersheds.

COOS BAY ROD & RMP, *supra* note 186, at 2.

<sup>245</sup> OR. ADMIN. R. 629-035-0010(2).

<sup>246</sup> Telephone conversation with Jeri Chase, Oregon Dep't of Forestry (Oct. 5, 1998).

ronmental benefits to the people of Oregon. These benefits include, but are not limited to:

- (a) Sustainable and predictable production of forest products that generate revenues for the benefit of the state, counties, and local taxing districts;
- (b) Properly functioning aquatic habitats for salmonids, native fish, and other native aquatic life;
- (c) Habitats for native wildlife;
- (d) Clean soil, air, and water;
- (e) Protection against floods and erosion; and,
- (f) Recreation.<sup>247</sup>

A directive then follows, tying the active management framework into the GPV rule. "To secure the greatest permanent value. . . . the State Forester shall maintain these lands as forest lands and actively manage them *in a sound environmental manner* to provide sustainable timber harvest and revenues to the state, counties, and local taxing districts."<sup>248</sup> While revenue production may be viewed as a primary management goal, it must be achieved within the context of protecting the environment. In fact, the rule goes on to state:

This management focus is not exclusive of other forest resources, and must be pursued within a broader management context that:

- (a) Results in a high probability of maintaining and restoring [native aquatic habitats];
- (b) Protects, maintains, and enhances native wildlife habitats;
- (c) Protects soil, air, and water; and
- (d) Provides outdoor recreational opportunities.<sup>249</sup>

#### 4. *Taking a Landscape Approach Provides Greater Flexibility in Meeting Management Standards*

A broad, or landscape, approach to management is one way to provide greater flexibility to meet management standards, such as greatest permanent value. A landscape approach can also reduce long-term risk, uncertainty, and costs associated with federal law compliance.

Review of management practices on state and federal forest lands in Washington and Oregon shows that the landscape approach follows contemporary thinking in forest management practices. However, management based on a landscape perspec-

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<sup>247</sup> OR. ADMIN. R. 629-035-0020(1).

<sup>248</sup> *Id.* (emphasis added). This phrase was added in the final versions of the rule.

<sup>249</sup> *Id.*



tive is likely to lead to designating some lands for uses that reduce their revenue-generating potential. No legal obligation to produce revenue from every acre of Chapter 530 land appears to exist. The Washington State Attorney General, reviewing similar provisions governing its tax reverted forest land, found clear authority to manage the lands as an undifferentiated whole.

A broader perspective, whether within the Board of Forestry's land portfolio or in cooperation with other landowners and managers, will likely raise questions about how to meet the counties' "protected, recognizable interest" in revenues from Board of Forestry lands while considering the "greatest permanent value to the state." One aspect of the balance is the legal requirement. We have interpreted this as requiring the state to divide any revenues it receives from the land with the county where the land is located. But perhaps a more important aspect of managing the Board of Forestry lands on a broader basis is equity to the counties. Based on past history, the counties have an expectation that they will receive revenues from these lands, and they have built these expectations into their budgets and plans. Working to fulfill these expectations certainly provides value to the people of the state.

If we assume that the greatest permanent value to the state includes an element of equity for the counties where the land is located, the nexus for allowable considerations returns to forms of recreation that humans value, benefits of watershed conservation that protect downstream communities, and forests that produce timber to support local communities and supply revenues to the counties. However, the best contemporary forest management practices—which focus on ecosystem—and landscape-based decision making—go beyond single species, single ownership, or single resource considerations. For example, the Board of Forestry could choose to seek Endangered Species Act Section 9 clearance for timber sales on a sale-by-sale basis for listed species likely to be found on a specific site. This strategy has the benefit of limiting the focus of the decision primarily to a specific timber sale, but incurs the risk of new species listings or habitation between the time of the consultation is done and the timber harvested. The Board of Forestry may then also need to evaluate the cumulative effects of its programs on a sale-by-sale basis. Past experience indicates that significant uncertainty—with concomitant costs—may result from this strategy.

The difficulty, risks, uncertainty, and incremental costs associated with single species, single site planning has led other agencies to prepare broader multi-species landscape-level plans. The Washington DNR and Elliott State Forest Habitat Conservation Plans are two examples examined by the authors where states have used this strategy to reduce risks and increase certainty. Going beyond single site, single resource decisions appears to be consistent with the statutory purposes for the Board of Forestry lands. Looking at the Board of Forestry lands from a broader perspective—asking what is the reasonable contribution of these lands to the state—inevitably leads to evaluating the Board of Forestry lands in relation to surrounding lands.

Does “greatest permanent value to the state” extend beyond the boundary of the Board of Forestry lands? There are certainly precedents for cooperation across ownership, for instance in early legislation allowing the Board of Forestry to cooperate with others to fulfill the purposes of the 1939 and 1941 Acts.<sup>250</sup> Could uses on the Board of Forestry’s land—such as late-successional reserves or enlarged riparian zones—that, due to their location, provide crucial pieces in landscape level, multi-owner forest management strategies accordingly be construed as providing the “greatest permanent value”? For instance, if designation and set-aside of parcels of Board of Forestry lands took the pressure off either other Board lands or adjacent private lands, would this be consistent with providing the “greatest permanent value”?

The new rules embrace a landscape approach to management in several provisions. Preliminary provisions setting out management purposes in the rules recognize that counties have a protected and recognizable interest in receiving revenues from the forest lands.<sup>251</sup> This language directly reflects the Oregon Supreme Court’s holding in the 1986 Tillamook County decision.<sup>252</sup> However, the rules apply no obligation to produce reve-

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<sup>250</sup> 1939 Or. Laws, ch. 478, § 11 (“The board hereby is authorized to cooperate with the United States of America, or any of its agencies . . . and to enter into any contracts and agreements . . . as may be necessary, proper and convenient . . . for the purposes of carrying out any of the provisions of this act.”); 1941 Or. Laws, ch. 236, § 6 (“The board is authorized, when it deems such action in the public interest, to make cooperative agreements with other landowners for the coordinate [sic] management, including by not limited to time, rate, and method of cutting, of timber and forest growth to secure continuous forest production.”).

<sup>251</sup> OR. ADMIN. R. 629-035-0010(4).

<sup>252</sup> *Tillamook County*, 302 Or. 404, 730 P.2d 1214.

nue from every acre of these forest lands.<sup>253</sup> Management directives do require the State Forester to "consider the landscape context."<sup>254</sup> Finally, the term "landscape" is specifically defined as "a broad geographic area that may cover many acres and more than one ownership, and may include a watershed, or sub-watershed areas."<sup>255</sup> Thus, managers are given flexibility under the draft rules to meet management standards, such as greatest permanent value, while complying with federal law.

### *E. Approaches To Achieve Equity*

When specific Chapter 530 lands are allocated to non-revenue producing uses under a landscape approach, the Board of Forestry might take one of several approaches to address the issue of equity to the counties. The authors' research and analysis shows that states have used four mechanisms to address the equity issue when state lands are placed in non-revenue producing areas: purchasing fee title or cutting rights, establishing procedures to reduce fluctuations in revenue flows, creating revenue equalization mechanisms, and revising the apportionment of revenues between the counties and the state.

#### *1. Purchase Fee-title or Cutting Rights*

The State of Oregon could purchase fee-title or cutting rights to the land using the general fund to substitute for state appropriations for similar purposes, such as schools and roads. The State of Washington purchased fee title and cutting rights to tracts of Common School trust lands that had significant environmental benefits. The state made the purchases from general fund money that would otherwise have gone directly to the beneficiaries. The value of the standing timber on these lands (about 80% of the total price) was distributed directly to the beneficiaries, while the underlying land value was placed in their Permanent Fund. This arrangement worked well where the state had a fiduciary obligation to produce revenues from the trust lands.

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<sup>253</sup> OR. ADMIN. R. 629-035-0010(4).

<sup>254</sup> OR. ADMIN. R. 629-035-0020(3)(d).

<sup>255</sup> OR. ADMIN. R. 629-035-0000(12).

## *2. Reduce Fluctuations in Revenue Flows*

Reducing the annual revenue fluctuations as timber is harvested is of key concern to the counties where Chapter 530 lands are located. This concern will be particularly important if harvests shift as age-class distributions differ among the counties where the lands are located. In Washington, where Board of Forestry lands exist in sixteen counties, the DNR has evaluated and calculated sustained yields on a county-by-county basis. As a result, harvest amounts, concomitant revenues, and environmental effects are spread more equally across the Forest Board counties. Because Oregon's Board of Forestry lands are located in comparatively fewer counties, this strategy to reduce fluctuations in revenues may be less successful.

A second strategy to reduce revenue fluctuations places timber harvest receipts into a Board of Forestry Permanent Trust Account, with only the dividends and interest dispersed to the recipient counties annually (with perhaps a portion retained to offset inflation). Financial market fluctuations are generally less than those of the single industry providing the revenues from the Chapter 530 lands, thus, the overall year-to-year differences in revenues received should also be less. Capital growth in the Trust Account investments would also result in future dividend disbursements. This strategy is used by the State Land Board for receipts from the Elliott State Forest that go to the Common School Permanent Fund. However, unless there is a significant initial infusion of funds into the Trust Account, the amount available for disbursement to the counties during the early years of the Trust Account will be a fraction of the annual disbursements they would have received if the timber receipts went directly to them. If necessary, these initial amounts for the Trust Account could be obtained if the state decided to purchase fee-title or cutting rights to some Chapter 530 lands as described above.

## *3. Establish an Equalization Formula*

Another mechanism to compensate for the effects of landscape-level management is to establish a revenue equalization formula among the counties having Chapter 530 lands. The Department of Forestry could do this by calculating pre-plan sustained yield on a county-by-county basis, then dividing timber and other receipts after the plans are in effect based on the proportion of total Chapter 530 lands that are in that specific county.

For example, revenue disparities would result if one county's Board of Forestry lands were disproportionately placed in reserve or longer-rotation status, while lands in another county were allocated to intensive timber production. An equalization formula could adjust these disparities by determining the pre-plan potential harvests for each county (based on acreage and site productivity), then apportioning any receipts from the Board of Forestry lands to the counties based on their percentage of Board of Forestry lands. This strategy would require amendment of Chapter 530 by the legislature.

The Washington DNR reduces fluctuations in the flow of revenues to the counties from their Forest Board Transfer lands (similar to Oregon's Board of Forestry lands).<sup>256</sup> This policy requires the Washington DNR to evaluate and calculate sustained yield on a county-by-county basis. This reduces revenue fluctuations that result from shifting harvests among different counties where age-class distributions differ. The Washington DNR feels that calculating sustainable yield for these lands for each county separately assists in equalizing harvests, and resulting economic and environmental effects, among the sixteen western Washington counties that contain Forest Board Transfer lands.

#### 4. *Revise Apportionment of Revenues From Chapter 530 Lands*

Finally, equity between impacts on revenues and state-wide benefit can be achieved by revising the apportionment of receipts between the state and the county. The existing apportionments were established at a time when management costs and forest rehabilitation bond repayments required significant sums of money. With Chapter 530 lands coming into rotation, some of the opportunity costs to the counties of managing for statutory purposes other than timber production could be made up by increasing the counties' share of timber receipts.

The proportion of receipts the county receives, and the proportion retained by the state, has frequently shifted since the original 1931 legislation. Now that increased revenues are expected as the Board of Forestry lands come into rotation age, the legislature—with the approval of the counties—could revise the apportionment to be more favorable to the counties. This change

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<sup>256</sup> WDNR, FOREST RESOURCE PLAN, *supra* note 187, at 20 (Policy No. 6).

would have the effect of enlarging the counties' share of a potentially smaller total expected revenue.

### **CONCLUSION**

Oregon's Chapter 530 lands provide significant value to the counties in which they are located and to the people of the state generally. Arisen, phoenix-like, from the ashes of forest fires, these forests today are only recently coming into their own as economic, aesthetic, and environmental contributors. Through its rule-making process, the Oregon Board of Forestry has attempted to define forestry management and to weigh these values in the context of its duty to protect the interests of the affected counties.

**TABLE 3A. LAND ALLOCATIONS AMONG DIFFERENT LAND OWNERSHIPS IN OREGON AND WASHINGTON. (NOTE: SOME PROVISIONS ARE SIMPLIFIED; SEE SOURCE DOCUMENTS FOR COMPLETE REQUIREMENTS.)**

Allocation	Federal — President's NW Forest Plan in Oregon			Washington DNR	Oregon State Lands
	Total	Forest Service	B.L.M.	HCP (Westside)	Elliott HCP
Congressional Reserves	15%	20%		0%	0%
Late-successional Reserves	36%	35%	40%	1.7%	7.5%
Adaptive Management Areas	6%	7%	3%	0%	0%
Administratively Withdrawn	6%	3%	15%	4.2%	5.6%
Riparian Reserves	14%	12%	22%	10.1%	7.3%
Matrix	23%	24%	21%	83.9%	81.0%
Long-rotation		(0%)	(4%)	(15.4%)	(45%)
Shorter-rotation		(24%)	(17%)	(68.5%)	(36%)

**TABLE 3B. MATRIX OF FOREST MANAGEMENT PRACTICES ON DIFFERENT LAND OWNERSHIPS IN OREGON AND WASHINGTON. (NOTE: SOME PROVISIONS ARE SIMPLIFIED; SEE SOURCE DOCUMENTS FOR COMPLETE REQUIREMENTS.)**

**A. MANAGEMENT OF LATE-SUCCESSIONAL RESERVES.**

Component	Federal — President's NW Forest Plan in Oregon		Washington DNR	Oregon State Lands	Oregon
	Forest Service	B.L.M.	HCP (Westside)	Elliott HCP	Forest Practice Act
Management Direction for Late-successional Reserves.	No harvest allowed in stands older than 80 years. Thinning allowed in younger stands of trees 10"-12" d.b.h. or less. No more than 5% in first 5 years.	No harvest allowed in stands older than 80 years. Thinning allowed in younger stands of trees 10"-12" d.b.h. or less. No more than 5% in first 5 years.	No late-successional reserves as such. Two 500-acre nest patches per 5,000 acres of nesting-roosting-foraging habitat retained.	Called Habitat Conservancy Areas. No clearcutting allowed. Thinning allowed in stands <80 years old to create late-successional structure.	N/A

## B. COMPARISON OF RIPARIAN MANAGEMENT STRATEGIES.

Component	Federal—President's NW Forest Plan in Oregon Forest Service	BLM - O&C	Washington DNR HCP (Westside)	Oregon State Lands Elliott HCP	Oregon Forest Practice Act
1. Fish-bearing Perennial	Area, each side equal to 2 times a site-potential tree or 300' slope distance, whichever is greater. Timber harvesting prohibited.	Area, each side equal to 2 times a site-potential tree or 300' slope distance, whichever is greater. Timber harvesting prohibited.	Types 1, 2 and 3 streams: Area, each side equal to height of 1 site-potential tree, or 150' horizontal distance. An additional 100' on windward side in windthrow areas, Type 1 or 2 streams; 50' for Type 3. No harvest in first 25'. Harvest activities to maintain/improve salmonid habitat allowed outside 25'.	RMA is minimum 100' slope distance, each side, with no harvesting permitted.	Large streams (>= 10 c.f.s.) is 100' medium (2-10 c.f.s.) is 70'; and small (<2 c.f.s.) is 50' slope distance. Retain all understory within 10' of stream; all trees within 20'; leave 40 (large) or 30 (medium) live trees per 1000'. All downed wood in RMA retained.
2. Nonfish-bearing perennial	Area, each side, equal to height of site-potential tree or 150' slope distance, whichever is greater. Timber harvesting prohibited.	Area, each side, equal to height of site-potential tree or 150' slope distance, whichever is greater. Timber harvesting prohibited.	Type 4: Area, each side, equal to 100' horizontal distance with harvests permitted over entire width. No windthrow buffer. No harvest in first 25'. Harvest activities to maintain/improve salmonid habitat allowed outside 25'.	RMA is minimum 50' slope distance, each side, with no harvesting permitted.	Large streams (>=10 c.f.s.) is 70'; medium (2-10 c.f.s.) is 50'; and small (<2 c.f.s.) is 0'-10' slope distance. For Large & Medium streams: Retain all understory within 10' of stream; all trees within 20'; leave 30 (large) and 10 (medium) live trees per 1000'. All downed wood in RMA retained.
3. Fish-bearing Intermittent	Area, each side, equal to height of site-potential tree or 100' slope distance, whichever is greater. Harvest prohibited	Area, each side, equal to height of site-potential tree or 100' slope distance, whichever is greater. Harvest prohibited.		RMA is minimum 75' slope distance, each side, with no harvesting permitted.	
4. Nonfish-bearing Intermittent	Area, each side, equal to height of site-potential tree or 100' slope distance, whichever is greater. Harvest prohibited.	Area, each side, equal to height of site-potential tree or 100' slope distance, whichever is greater. Harvest prohibited.	Type 5: no current protection.	No RMA, only shrub and forb retention, but no constraints on harvest.	



### C. COMPARISON OF MATRIX MANAGEMENT STRATEGIES.

Component	Federal — President's NW Forest Plan in Oregon Forest Service	B.L.M.	Washington DNR HCP (Westside)	Oregon State Lands Elliott HCP	Oregon Forest Practice Act
Overall Management Objectives	The matrix is the area that will contribute most to meeting the need to produce timber products from the National Forests, while still incorporating these lands in a larger ecosystem-based management approach.	Use the approved LMP standards. Manage long-rotation blocks on 150 rotation. At least 25%-30% of each 640-acre block must be in late-successional forest at any given time.		By Basin Management Unit, apply the 50-11-40 rule: 50% of the area must have trees 11" d.b.h. or greater and 40% or more canopy closure. Long rotation basins cut at 160-240 years; Medium rotation basins cut at 80-135 years.	
1. Harvest Size Limitations	Maximum follows state Forest Practice Rules; generally much less in practice, i.e., about 10 acres.	Maximum 120 acres.	100 acres (Forest Resource Plan, Policy 32).	120 acres.	For Harvest Type 3 (clearcuts), limitation is 120 acres. Up to 240 acres allowed upon approval.
2. Green Tree Retention	Outside of Oregon Coast Range, retain at least 15% of the area associated with each stand. 70% in stands greater than 2.5 acres in size. No retention required in Coast Range.	For long-rotation blocks: 12-18 trees retained when harvested. Remainder of matrix: leave 6-8 trees per acre.	At least 5 live trees per acre. At least 1 tree of the largest diameter class and 1 tree of the dominant canopy closure class. Clumps not less than 1 per every 5 acres.	3 or more live trees per acre.	On Harvest Types 2 & 3 units exceeding 25 acres, two snags or two green trees at least 30' in height and 11" d.b.h. or larger, at least 50% of which are conifers.
3. Snag Retention	Snags retained at levels sufficient to support species of cavity-nesting birds at 40% of potential population levels.	Snags retained at levels sufficient to support species of cavity-nesting birds at 40% of potential population levels.	At least 3 snags per acre. Preference given to largest diameter hard snags. Minimum 15" d.b.h. and 30' tall, preferred 20" d.b.h. and 40' tall.	One-half to 3 snags, 20" d.b.h. or greater, per acre, created from retained live trees if necessary.	On Harvest Types 2 & 3 units exceeding 25 acres, two snags or two green trees, per acre, at least 30' in height and 11" d.b.h. or larger, at least 50% of which are conifers.

**C. COMPARISON OF MATRIX MANAGEMENT STRATEGIE (CONTINUED).**

Component	Federal — President's NW Forest Plan in Oregon Forest Service	North half of western OR: B.L.M.	Washington DNR HCP (Westside)	Oregon State Lands Elliott HCP	Oregon Forest Practice Act
4. Down Woody Material	North half of western OR: leave 240' of logs > 20" d.b.h. and 20' in length. South half of western OR: leave 120' of logs > 20" d.b.h. and 20' in length.	North half of western OR: leave 240' of logs > 20" d.b.h. and 20' in length. South half of western OR: leave 120' of logs > 20" d.b.h. and 20' in length.	Follows Forest Practice Rules: 2 logs per acre, small end minimum 12" and 20' long, or equivalent volume.	Leave 3-6 down logs per acre; 12" diameter or greater, 16' or longer.	Two downed logs or downed trees, at least 50% of which are conifers, each with 10 cu. ft. volume and no less than 6' long, or 1 log of equivalent size.
5. Owl Activity Centers	100 acres of late-successional habitat for known activity centers.	100 acres of late-successional habitat for known activity centers.	300 acre nest patches, with a 200 acre buffer. Protect area within 0.7 mile during breeding season.	70 acre core area retained for first 5 years. Protect 1/4 mi. buffer during breeding season.	70 acres of suitable habitat, encompassing the nest site; prevent disturbances between 3/1 and 9/30 that cause birds to flush.