PINCHOT INSTITUTE FOR CONSERVATION

Oregon Forestlands and the Programme for the Endorsement of Forest Certification (PEFC): An Assessment of the Process & Basis for Eligibility

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Final Report

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Glossary of Acronyms

AFF	American Forest Foundation
ANAB	ANSI-ASQ National Accreditation Board
ATFS	American Tree Farm System
C&I	Criteria and Indicators (refers Montreal Process)
CoC	Chain of Custody
CSA	Canadian Standards Association
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FSC	Forest Stewardship Council
FPFO	Forestry Program for Oregon
ISO	International Standards Organization
MCPF	Ministerial Conference on the Protection of Forests
MHNF	Mount Hood National Forest
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NIPF	Non-industrial private forestland
NWFP	Northwest Forest Plan
OAR	Oregon Administrative Rules
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
OFPA	Oregon Forest Practices Act
ORS	Oregon Revised Statute
OSHA	Occupational Safety and Health Administration
OWEB	Oregon Watershed Enhancement Board
PEFC	Programme for the Endorsement of Forest Certification
PEOLG	Pan-European Operational Level Guidelines
SFB	Sustainable Forestry Board
SFM	sustainable forest management
SFI	Sustainable Forestry Initiative
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

1.0 Executive Summary

In spring of 2005 the Pinchot Institute began work with the Oregon Department of Forestry to consider how well the forest management requirements for *all* public and private lands in Oregon align with the requirements of the Programme for the Endorsement of Forest Certification (PEFC). The underlying rationale for this project was as follows: "Were Oregon to develop its own certification system based primarily on the body of laws and programs that set the standard for forestry practices in the state, would this standard be endorsable by PEFC? And, what would this take?" This is an interesting proposition and perhaps a valuable way for Oregon wood growers to compete in international markets and receive recognition for standards of practice that stand out among U.S. states.

The PEFC Council is an independent, non-profit, non-governmental organization, founded in 1999 which promotes sustainably managed forests through the endorsement of nationally and regionally developed forest certification programs. These national schemes must build upon the inter-governmental processes for the promotion of sustainable forest management, a series of on-going mechanisms supported by 149 governments in the world covering 85% of the world's forest area.

The PEFC system is an umbrella program that endorses nationally and regionally certification programs that meet the PEFC's internationally recognized criteria (**Figure 1**). The certification programs eligible for endorsement by PEFC encompass more than a set of standards for forestry practice—they include an array of institutions, policies, procedures that compose a certification scheme, such as the Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) systems in the U.S. In other words, the proposition Oregon is considering would involve the development of a standards setting body and procedures, a certification standard appropriate for eligible landowners, verification procedures and qualifications (i.e. accreditation for verifiers), label and logo use rules, and dispute and appeals procedures.



Figure 1. Schemes Recognized by the Programme for the Endorsement of Forest Certification (PEFC).

A, B, C, & D represent four hypothetical certification schemes that meet the requirements of PEFC, and are therefore endorsable. Endorsement is based on more than 200 requirements covering standards development, forest management requirements, chain-of-custody, and accreditation requirements. Certification standards endorsed by the PEFC therefore are not assessed as equivalency, but can differ in rigor and scope so long as they meet PEFC requirements.

The PEFC Council provides four *Minimum Requirements Checklists* which must be completed as part of an application for endorsement. The checklists detail how standards must be developed (e.g. transparency, inclusiveness, impartiality, etc.); what the standards are to contain (e.g. social, ecological, and economic issues); what chain-of-custody requirements must be followed, how they should substantiate, protect, and promote claims relative to the use of PEFC claims and logos; and finally, how qualified independent verification should be assured through independent credentialing and accreditation processes.

First among the institutions that Oregon would need to develop is a standards setting body. This can be a working group, committee, or council formed by the certification organization (whether ODF or another newly formed independent institution) that has the support of all the major forest owners' organizations in Oregon. The process of developing the standard would need to be open to all interested, including. . . *forest owners, forest industry, environmental and social non-governmental organizations, trade unions, retailers and other relevant organizations.*¹ PEFC also has a number of requirements on how the standards setting process is carried out. It is to be an open transparent process, which involves solicitation and thorough consideration of comments, and arrives at decisions through consensus. A similar process is required for developing *chain-of-custody* standards, which determine how certified forest products are to be tracked and sorted. Alternately, an organization can opt to endorse the PEFC CoC Standard rather than develop a new one. Both the Canadian Standards Association (CSA) and SFI have decided to adhere to the CoC standards provided by PEFC (Annex 4).

In Oregon's case the standard could originate from all relevant laws, regulations, legal requirements, and policies. However, the compendium of policies and programs that serve as the basis for implementation would need to be translated into a standard that is auditable. In seeking endorsement Oregon would need to show how the standard addresses the elements of forest management encompassed by forty-five indicators set out in the Pan European Operational Level Guidelines (PEOLG).

PEFC Governance & Endorsement

The Program for the Endorsement of Forest Certification schemes (PEFC) is a members-funded umbrella organization that sets requirements for the endorsement (and *recognition*) of national and regional forest certification programs. Organizations representing a standard seeking PEFC endorsement are usually the members representing each country. There are a number of members whose national schemes have not yet been endorsed by PEFC, or which have not yet submitted an application for endorsement.

A PEFC *member with an endorsed standard* is a national or sub-national forest certification scheme that has been evaluated by an independent assessor and endorsed by the PEFC council based on the assessment report and member support. Their certification scheme is reviewed at least every five years in order to incorporate new experiences and scientific knowledge in the standard. All member countries are in a position to participate in an informed vote as to whether they recognize other applicant schemes or not (based on the application submitted and the assessor's findings of the application).

Without a change to the PEFC Council Statutes, Oregon cannot become a member of the PEFC Council. PEFC statutes limit representation to one seat per country/territory, and an SFI designee currently represents the United States. The Sustainable Forestry Board (SFB), which controls the SFI Standard (SFIS), was recently approved as the official National Governing Body for the United States. There may be multiple PEFC-endorsed national and sub-national standards in each country. So if Oregon were to develop a certification standard they would send it to the SFB, which would then forward it to the PEFC Council, thereby triggering the application process. The SFB's involvement in the endorsement of a potential Oregon scheme would be the same as any other PEFC national governing body. They could respond during the 60-day open comment period for the application, they could comment on the assessment report that reviews the certification scheme, and finally they could vote in favor and or against the endorsement of the proposed certification program.

¹ PEFC Technical Documentation, Annex 2: Rules for Standard Setting



Figure 2. PEFC Endorsement Process for a Hypothetical Oregon Certification Scheme. (PIC)

Forest Practices Required by PEFC & How a Standard is Evaluated

One of the underlying rationales for ODF's consideration of developing an Oregon certification scheme is the high bar of forestry practices requirements relative to other states. The requirements of the Oregon Forest Practices Act, Board strategies and programs in the Forestry Program for Oregon, and other mandatory and voluntary procedures help uphold a this standard of practice. However, the overall result of these policies and programs represented in the forestry practices of landowners is not readily apparent as a *standard* for sustainable forest management (SFM).

A major component of the Institute's evaluation for ODF is to clarify how well the *standards of practice* exerted though Oregon statutes and programs align with the requirements for PEFC endorsement. The PEFC evaluates field-level implementation requirements of a certification program (i.e. the standard) against a set of *operational level* guidelines that they have developed. These are termed the Pan-European Operational Level Guidelines, or PEOLG.

The PEOLG define the scope of essential forest practices required for an endorsable certification program (Appendix A). The PEOLG were originally developed to encompass the economic, environmental and social aspects of sustainable forest management defined by the Ministerial Conference on the Protection of Forests in Europe (MCPFE), which is the European version of the Montreal Process C&I. No operational level guidelines have been developed for the Montreal C&I. The original intent was that certification programs seeking PEFC endorsement would meet the scope of operational guidelines developed for each continent. In the absence of these operational level guidelines for North America the PEFC has reviewed applicant certification schemes relative to the scope of the PEOLG for Europe. However, an applicant could encourage the development of PEOLG equivalents for North America, for use in guiding and evaluating North American certification schemes. Also, it is reasonable for an applicant system to assert that certain elements of the PEOLG may be inappropriate in the North American context.

To date there are two North American certification schemes that have sought and received endorsement the Canadian Standards Association (CSA) and the Sustainable Forestry Initiative (SFI). Similar to other nations that have sought PEFC endorsement in the absence of national operational level guidelines, the review of SFI and CSA certification programs was conducted relative to the PEOLG. Both the CSA and SFI certification schemes had already been developed and widely implemented well before deciding to seek endorsement by PEFC. The process of endorsement for their certification standard required them to show how the elements of the PEOLG were adequately addressed.

The recently completed SFIS review by the PEFC is valuable for Oregon to consider, both as a benchmark for U.S. certification schemes considering PEFC endorsement, and as a guide to how the PEOLG are interpreted. As is required by the PEFC endorsement process, the SFI program was reviewed by an outside firm, in this case ITS Global. Their overall opinion is that the 2005-2009 SFI Standard conforms with the PEOLG. This does not mean there is complete conformance, or total alignment, with the PEOLG. Of the 45 indicators under the PEOLG, SFI fully *conformed* with 39 and *partially-conformed* with the remaining six. Partial conformance can certainly prevent a PEFC endorsement, however if adequate justification is provided to demonstrate that, for example, either the requirement is not relevant in a North American context, and/or that the requirement is addressed through a regulatory requirement or other obligatory requirement, then the justification will be considered by the assessor, the PEFC Board, and PEFC country members, and a decision will be made as to whether the endorsement should be granted.. The areas of partial conformance included aspects of the PEOLG that are also not fully addressed for the small private landowners of Oregon. They include landscape conservation planning approaches like managing to conserve representative forest structure and composition.

For SFI, the main hurdles to clear for endorsement were not PEOLG-relate (i.e. operational-level aspects of the standard). Rather SFI needed to adopt a CoC requirement, and assure that all certification bodies conducting SFI forest certification and SFI CoC certification audits are accredited by ANSI/ANAB – US national accreditation bodies that are members of the International Accreditation Forum (IAF). The Sustainable Forestry Board has committed as a condition of endorsement to resolving all areas where their certification scheme does not conform with PEFC requirements, and adjustments are nearly complete.

The Pinchot Institute compared required practices for public and private lands in Oregon relative to the PEOLG. The findings are not a definitive statement of conformance, rendering a qualified judgment for the purposes of PEFC endorsement. Nor do the findings assess the efficacy of the Oregon Forest Practices Act and other statutes and programs in achieving their intended aim. Rather, the findings advise the ODF on the areas of the PEOLG that may not be fully addressed in Oregon, and would therefore not immediately be captured by a standard reflecting current practices.

The study considers forest management requirements on Federal, state and private lands. As would be expected, the level of conformance with the PEOLG differs on these three land bases. The scope of management objectives, planning and monitoring activities on the sample national forest conforms with all the requirements of the PEOLG². State forests management fully conformed with most of the PEOLG (86%) and partially-conformed with all but one of the rest (**Table 1**). The requirements of private forestland management fully conform with 45% of the PEOLG, and partially conform with the rest. However, as with other SFM standards in the U.S., and as evidenced by the certification schemes that have been endorsed by PEFC so far, scale-appropriate implementation is accepted.

² The evaluation considered the documentation directing management of the Mount Hood National Forest (MHNF): including the MHNF management plan and environmental impact statements, the Northwest Forest Plan and revisions, the Forest Service Manual and handbooks for the National Forest System, and federal statutes affecting management objectives and activities of the National Forest System.

	Private Lands		Sta	ate Lan	ds	Federal Lands			
PEOLG Criterion	С	Р	Ν	С	Р	Ν	С	Р	Ν
1.1 Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles: Guidelines for Management Planning	1	3	0	4	0	0	4	0	0
1.2. Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles: Forest management practices	1	2	0	2	0	1	3	0	0
2.1. Maintenance of forest ecosystem health and vitality: Guidelines for forest management planning	2	1	0	2	1	0	3	0	0
2.2. Maintenance of forest ecosystem health and vitality: Guidelines for forest management practices	2	1	0	3	0	0	3	0	0
3.1 Maintenance and encouragement of productive functions of forests (wood and non-wood): Guidelines for Forest Management Planning	1	3	0	4	0	0	4	0	0
3.2 Maintenance and encouragement of productive functions of forests (wood and non-wood): Guidelines for Forest Management Practices	2	2	0	4	0	0	4	0	0
4.1. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems: Guidelines for forest management planning	0	2	0	1	1	0	2	0	0
4.2. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems: Guidelines for forest management practices	3	4	0	6	1	0	7	0	0
5.1. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water): Guidelines to enhance forest management planning.	2	0	0	2	0	0	2	0	0
5.2. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water): Guidelines to enhance forest management practices.	3	0	0	3	0	0	3	0	0
6.1. Maintenance of other socio-economic functions and conditions: Guidelines to enhance forest management planning.	1	3	0	4	1	0	5	0	0
6.2 Maintenance of other socio-economic functions and conditions Guidelines to enhance forest management practices.	1	2	0	2	1	0	3	0	0
Total	19	23	0	37	5	1	43	0	0
Percentage Total	45%	55%	0%	86%	12%	2%	100%	0%	0%

Table 1. Summary ratings for conformance with	ith the PEOLG Criteria.	(C = full conformance,	P = partial conformance; N
= does not conform)			

Options for Oregon

The Oregon Department of Forestry faces a number of important questions in considering how they can best facilitate the participation of all landowners in the state in global markets for wood products. Their approach to start with the first and one of the most developed statutory frameworks as the basis of a statewide certification scheme is novel and promising. However, it is an open question as to the costs and benefits of creating the institutions and processes, as well as introducing additional forestry practice standards necessary to become a credible certification scheme.

There are several ways Oregon could move forward, which will differ in the level of commitment on the part of the state and the value to landowners. Two of the options that are suggested below actually involve the creation of a standard and certification scheme. A third could simply mean allocating additional resources to a program of assistance for landowners wishing to seek certification by other existing certification schemes. The forth option is the status quo, and no action would be taken to either develop a certification scheme or an assistance program to facilitate voluntary certification by other systems.

1. Development of an Oregon certification program for all landowners to be submitted for PEFC endorsement;

Oregon could opt to develop a full certification scheme for which all landowners in the state are eligible. This could be designed for applicability on forestlands managed by the federal government, the state, forest products companies, First Nations, and non-industrial private forest landowners. In this case ODF, under the direction of the Oregon Board of Forestry, could embark on the development of an *Oregon forestry standard* and associated certification and accreditation programs to meet the PEFC requirements. As described above (**Figure 2**) the Oregon certification scheme would then be tested and packaged for endorsement by the PEFC. When endorsed, becoming certified under PEFC would be a matter of achieving certification in the Oregon system through a certification audit.

2. Development of a certification program for private landowners for PEFC endorsement; or,

Oregon could decide to focus on developing a certification scheme for just one category of landowner in the state—small non-industrial private forest landowners³. Becoming certified is especially challenging for smaller landowner due in part to the higher cost per unit area for both the assessment process, and maintaining conformance with certification standards. For this reason certification systems in the U.S. offer different approaches for NIPF forestland wishing to sell certified products.

PEFC has endorsed certification schemes that include a streamlined approach for enrolling small individual landowners. The Finish Forest Certification System (FFCS) scheme is a good example. In this scheme, landowners belonging to *Regional Forestry Centers*, or a local Forest Management Association are certified as a group. The Centers (at the regional level) and Forest Management Associations (local) provide education, technical support, and other services to landowners. These institutions apply to the FFCS to become certified, and in turn members of the association who have opted for certification as part of their membership are also certified. The landowners must meet certification standards tailored for groups, and consistent with the guidelines of the FFCS, which is endorsed by the PEFC. In Finland there are 13 regional group certifications constituting 95% of the forestland base.

The standards for the group certification in Finland are well-supported by statutory requirements and national programs, as well as data and services provided by both the national government and associations. Other operational requirements are the responsibility of companies operating on these lands.

Prior to undertaking such an initiative, Oregon could consult with the American Tree Farm System(ATFS or Tree Farm), as they are represented on the PEFC Board (internationally). Tree Farm may consider a group certification approach that could be endorsed by the PEFC, an option under consideration by ATFS. Independent of any consideration of PEFC, the state of Wisconsin has developed a statewide Tree Farm group certification approach.

3. Development of a "Certification Assistance Program" standard to support landowners in seeking certification.

If the Oregon Department of Forestry and others in the state deem that the relative costs and benefits do not merit the development of an independent scheme, they could still choose to enhance the eligibility of landowners for other schemes already in existence. In many ways, by maintaining the current standard of practice ODF is already doing this. The analysis conducted by the Institute did not consider the alignment

³ Many of Oregon's larger private landowners are already certified under either FSC or SFI. Companies interested in marketing their products using the PEFC logo are likely to do so via SFI, which is now PEFC endorsed. In such case these companies would simply adopt the PEFC logo-use rules, which are now included as an option in the SFI program.

of this effective standard of practice with other certification schemes. However, the assessment against PEOLG that was part of the Institute evaluation suggests that there are some elements of widely accepted SFM standards that that are not currently required of Oregon landowners, which would be required by certification programs. The ODF could identify these gaps and develop programs to help landowners address them. A program for facilitating eligibility of landowners for existing certification systems could be accompanied by goals set for achieving benchmark levels of enrollment in these programs.⁴

4. Continue with development and implementation of current policies and programs and let landowners independently pursue a certification system of their choosing.

This is essentially a *no-action* alternative, whereby the state would not embark on any new efforts to facilitate landowner adoption of certification. As is presently the case, landowners desiring to become certified by any system would need to initiate and undergo the certification process independently.

Stakeholder Consultation

As part of the project the Institute interviewed Oregon forestland stakeholders to capture perspectives on the project and the level of interest in four potential options for the state (*see* above). In all, in-depth comments were received from 16 individuals/organizations, including:

Box 1. Respondents for stakeholder interviews

- **Certification organizations**: Sustainable Forestry Board (the governing Board for SFI); & Metafore (a market-based conservation NGO)
- **Conservation Non-Governmental Organizations**: Oregon Natural Resources Council; Sustainable Northwest; Pacific Forest Trust
- Non-industrial Private Forest (NIPF) landowners: Starker Forests; Oregon Small Woodlands Association (OSWA); White Oak Natural Resource Service (via communication through OSWA);
- **NIPF forestland managers familiar with certification:** Trout Mountain Forestry [three separate forestland managers--Barry Simms, Scott Ferguson, Mark Miller]
- Industry stakeholders: Weyerhaeuser (two interviews), Potlatch Corporation, Columbia Forest Products, Roseburg Forest Products
- Academic institutions: Oregon State University
- **First Nations**: The Confederated Tribes of the Grand Ronde

Prior to interviews stakeholders received a copy of the project summary, including background on the PEFC. Each respondent was asked to consider the following five questions:

- 1. Does the idea of a PEFC-endorsed Oregon certification scheme sound promising?
- 2. What would the benefits be to developing a PEFC-endorsed Oregon certification scheme?
- 3. What would be the barriers to developing a PEFC-endorsed Oregon certification scheme?
- 4. If an Oregon certification scheme sounds promising, should the ODF serve as the oversight entity to get this done?

⁴ For example, the state of Maine has made a commitment to having 10 million acres in the state certified, and is striving to make this happen.

5. Could the ODF as constituted serve as the standards setting body for a certification scheme for all forest landowners in the state?

The feedback gained through the interviews provide key insights into perspectives both on the desired role of an independent certification organization like PEFC, and that of the state in facilitating landowner participation in certified markets. The perspectives are not considered, and should not be interpreted as the representative views of the stakeholder types listed in **Box 1**. The main insights that emerged from interviews with key stakeholders in Oregon, based on the above questions, are summarized below. More detailed findings are presented in the full report.

- Despite varying perspectives on how the ODF should be involved in opening up better access to certification for private forestland owners in the state, there was uniform agreement that the state did have an important role to play in this arena.
- Overall, there was general consensus that tying Oregon's Forest Practices Act to an existing voluntary certification scheme has real merit. However, opinions differed on which system might best serve the needs of private landowners in the state. This is likely an important survey response, as the discussion on certification has clearly shifted from *if it should happen* to *how it will happen* and *what should the role of ODF be.* A "take no additional action" approach appeared to be the least-favored option.
- The biggest barrier to capturing stakeholder views on the value of a PEFC-endorsed, OFPA-based, certification program was the lack of knowledge about PEFC. This held true for stakeholders engaged with the FSC and SFI certification systems. However, familiarity with PEFC may change with the endorsement of the SFI program in December 2005, prior to which no forest products in Oregon could be marketed with PEFC claims.
- Stakeholders consistently emphasized the importance of developing a *voluntary* protocol that was *streamlined* and *easy to access* for Oregon NIPF landowners. There was general consensus that existing certification schemes are still perceived as cumbersome, costly, and difficult to access.
- The interviewed industry stakeholders were critical of PEFC-endorsement approach. Top reasons included lack of demonstrated markets for PEFC-certified product (save for some engineered wood products in the European markets), uncertainty as to how the state would establish a chain of custody to meet PEFC requirements, and direct competition with systems in which some industry players have already invested (e.g. SFI and FSC). In fact, three of the four companies are certified by FSC, the only major trans-global competitor with PEFC in the marketplace for certified products. Additionally, two of the four companies are certified to the SFI standard, which is primarily marketed domestically under the SFI brand, but now has been endorsed by PEFC.
- In contrast, the interviewed conservation groups appeared to be the most interested in encouraging the state to consider next steps in this process. Perhaps more than others interviewed, these stakeholders consistently asserted the need for a system that increased performance on the ground (compliance with the OFPA), plus the necessity for streamlining access to bring certification to more NIPFs.
- While the interviewees dealing with management on NIPF lands were less certain about a PEFCendorsed scheme for Oregon (lack of knowledge about the system), they seemed supportive of a linkage to a well-recognized certification scheme. In particular, they saw potential to 1) help get more assistance on the ground, 2) provide an alternative to the American Tree Farm System, other

existing schemes, and approaches requiring increased paperwork and 3) help "re-boot" of management and sales coops to assist NIPFs.

- All stakeholders questioned whether a PEFC-endorsed scheme *only for private lands* would have credibility. The respondents felt that the developing a statewide scheme, especially including state lands, would be preferable and enhance credibility.
- Interestingly, there appeared to be general agreement among stakeholders that the ODF may not be the most suitable institution for *oversight* or *standards setting* for a PEFC-endorsed scheme. Respondents wondered whether the Board of Forestry encompasses the required diversity and balance of interests to be the governance body for a certification scheme, and pursue PEFC-endorsement. As an oversight entity virtually all stakeholders interviewed commended the ODF staff for their technical competency to perform this role, but questioned whether landowners and others would clearly distinguish between the ODF functions on mandatory requirements, versus the voluntary requirements of a certification scheme.

Conclusion

The principal challenge for Oregon is to decide whether developing the institutions and processes necessary to oversee a credible certification scheme is worth the benefits. Presently the benefits are uncertain both in terms of the markets PEFC would open for Oregon forest products, and the level of adoption among producers. Both the global markets for certified products and export markets for Oregon are dynamic, and the large changes in North American certified acreage endorsed by PEFC (CSA and SFI) could be a factor Oregon producers exporting to Canada, Europe, Russia, and Asia.

Within the state, the implementation of an Oregon certification scheme could strengthen implementation of forest practice requirements, since a PEFC endorsed scheme would necessarily involve comprehensive independent verification. A PEFC-endorsed Oregon certification scheme is also likely to include additional operational-level requirements—introduced both to fully align with the PEOLG and in response to stakeholder input required through the standards-setting process.

The evaluation of the practices requirements relative to the PEOLG that was part of this study revealed some expected differences between the three land bases that were considered—federal, state, and private. These differences reflect the extent of legislated and otherwise mandatory requirements faced by these three different land bases. The evaluation did not consider implementation or effectiveness of implementation, just the extent of what is *required*.

Should Oregon decide to seek PEFC-endorsement for an independent scheme, a challenge will be to decide which of the identified gaps could be effectively addressed through novel approaches. Oregon could opt to aggregate some functions at the state or other scale (e.g. group certification). Some gaps might simply be resolved by documenting practices/functions already occurring. Others may not need to be addressed at the small landowner scale, should Oregon provide the justification.

The sixteen respondents in interviews conducted for this study expressed clear interest in the state playing some role to advance the adoption of certification by Oregon landowners. Several reasons for this interest are cited, including strengthening the OFPA, accessing new markets, and lessening the burden of engaging in current systems, among others. The study also documents differences in support for a variety of potential roles for the Oregon Department of Forestry. The findings in this study are intended to advance dialogue in Oregon on how sustainable forestry in can be encouraged and rewarded in a changing global marketplace.

2.0 Introduction and Background

Certification, PEFC, and Oregon forest products

The PEFC provides a framework for the mutual recognition of national or sub-national forest certification schemes that have been developed locally according to internationally recognized requirements for sustainable forest management. It also seeks to provide an assurance mechanism to purchasers of wood and paper products that they are promoting the sustainable management of forests. PEFC documentation states that it "contributes to the environmentally appropriate, socially beneficial and economically viable management of forests for present and future generations and aim at strengthening and improving the positive image of forestry and wood as a renewable raw material."

PEFC has in its membership 30 independent national forest certification schemes of which 21 have been endorsed/recognized to date by the PEFC. The PEFC certification system now has the largest volume of certified forestland in the world. As of December 2005, the PEFC had endorsed about 460 million acres (mma) of certified forestland in 19 different countries, including the US and Canada (**Table 2**). This, compares to 180mma (certified by the Forest Stewardship Council (FSC), 130mma certified by the Sustainable Forestry Initiative (SFI), 171mma certified by the Canadian Standards Association (CSA), and 24.5mma certified by the American Tree Farm System (ATFS) (**Table 3**). The PEFC endorsement of the CSA and SFI schemes occurring in the last 2 years, account for over 55% of the global PEFC-certified volume. Certified forests in Finland, Norway, Germany, and Sweden collectively constitute much of the remaining PEFC-endorsed lands (25%). All other remaining countries contribute between 1%-2% of total land area, and are primarily located in Europe (**Table 2**).

Country	Area (ha)	% of total	Country	Area (ha)	% of total
Canada (CSA)	69,209,277	37 (56)*	Belgium	24,4270	<1
USA (SFI in NA)	54,376,769*	29 (10)*	Denmark	1,3617	<1
Finland	22,367,196	12	Chile	1,552,420	<1
Norway	9,231,700	5	Italy	607,345	<1
Germany	7,024,371	4	Latvia	37,860	<1
Sweden	6,648,752	4	Luxemborg	16,627	<1
Australia	5,166,190	3	Portugal	50,012	<1
Austria	3,924,000	2	Spain	393,498	<1
France	3,980,989	2	UK	9,125	<1
Czech. Rep.	1,944,560	1	TOTAL	186,798,578	

Table 2. Certified land area endorsed by PEFC (12/05, http://www.pefc.org/internet/html/)

As a certification program, CSA contributes 37% to global PEFC endorsed certifications and SFI 29%. However, as countries, Canada contributes 56% to global PEFC endorsed certifications and the USA 10%. This is because SFI operates in both the USA and Canada, and of the 54.3 million hectares certified to the SFI in NA, 36.1 million hectares are in Canada. Hence, Canada's total % of certified land endorsed by the PEFC is 69.2 million hectares (CSA) + 36.1 million hectares (SFI) = 105.3 million hectares or 56% of total PEFC endorsed certifications globally.

Certification Scheme	Total certified land area (million acres)
Program for the Endorsement of Certification Schemes (PEFC) (includes CSA and SFI certified acreage listed below)	461
Canadian Standards Association (CSA)	171
Forest Stewardship Council (FSC)	180
Sustainable Forestry Initiative (SFI)	130
American Tree Farm System (ATFS)	24.5

Table 3. Land area certified/endorsed by the largest schemes	3
(12/05, certification program websites)	

*Please note: SFI certified area represents certified land in both the USA and Canada

The worldwide distribution of PEFC-endorsed chain of custody (CoC) certificates (2,362 worldwide in 12/05) and number of PEFC logo users (15,822 worldwide in 12/05) is focused in Europe. (**Table 4**). Wood product producers in France and Germany comprise almost 60% of all CoC systems accepted by PEFC, and represent over 90% of PEFC logo users. Certified forestland in France constitutes 2% of PEFC global acreage, yet France leads the world in the number of companies with PEFC approved CoC systems (34.5%) and number of PEFC logo users (47%). Similarly, PEFC-endorsed certified acreage in Germany amounts to 4% of the global total, however Germany's global share of approved CoC systems (23.5%) and logo use (46%) is substantial.

PEFC-Endorsed Certified Land Area	% of total	PEFC-Endorsed Chain of Custody	% of total	PEFC Logo Use on Certified Products	% of total
Canada (CSA)	37%	France	34.5%	France	47%
USA (SFI)	29%	Germany	23.5%	Germany	46%
Finland	11%	Austria	12%	Latvia	1.6%
Norway	4.0%	Czech Rep.	9%	Czech Rep.	1%
Germany	3.7%	Sweden	5%	Austria	0.9%
Sweden	3.5%	Finland	4%	Sweden	0.8%

 Table 4. Certified land area endorsed by PEFC (http://www.pefc.org/internet/html/)

Government purchasing preferences and market activities in France and Germany have significantly shaped the growth of PEFC chain of custody certification and logo use. In January 2005, the French government declared that France will only use eco-certified wood in large public construction projects, and that by 2010 this requirement will be extended to cover all public procurement. The French government published guidance for French local, regional, and national government entities to ensure that procurement of all timber and timber products would be from sustainably-managed forests. PEFC is explicitly referenced as a means of assuring these claims. Similarly, in November 2005, the German government declared that it supports the certification of sustainably managed forests. The government also announced that it would choose only certified wood in public procurement. Currently, about two thirds of all German forests are certified through the German PEFC-endorsed certification system.

With European markets currently offering most of the opportunities for PEFC-endorsed products from Oregon, it is important to consider how certified product suppliers throughout the world market their PEFC-endorsement. In particular, how often is PEFC marketed alone versus alongside other

environmental performance certification schemes (either endorsed by PEFC, or independent, such as FSC)? For this analysis, the Pinchot Institute evaluated wood product supplier information from over 600 companies listed in the FORDAQ directory. FORDAQ, an organization present in 145 countries, manages an online market for wood product professionals (e.g. log producers, sawmills, veneer mills, panel producers, importers and large industrial users). The organization has almost 10,000 members worldwide and represents many of the largest wood product companies in Europe. Analysis of its online membership information reveals the following (Table 5).

	Single market claim Companies Countries		Multiple market claims Companies Countries		<i>Country of origin for single market claims</i> (% of listings)		
PEFC (n=303)	208	33	95	29	France 54% Romania 10%	Germany 9% Others ~1% each	
FSC (n=306)	264	61	42	21	Romania 16% Netherlands 8% Germany 7% Belgium 6% France 5%	Italy 5% Spain 4% UK 4% Others 1% to 2% each	

Table 5. FORDAQ listings for PEFC and FSC market claims (02/06 http://www.fordag.com/)

A query of the FORDAQ directory on companies with PEFC claims returned 303 companies in 33 countries offering to sell products (Table 5). Of those 303 companies, 208 (69%) listed PEFC as their only market claim. The remaining 95 companies (31%) in 29 countries listed PEFC in addition to other claims (predominately FSC and ISO). More than 70% of the 208 companies listing only PEFC claims were located in France (54%), Romania (10%), or Germany (9%). When queried for FSC claims, the FORDAQ directory provided information on 306 companies in 61 countries. Of the 306 companies, 264 (86%) listed only FSC claims, and another 42 companies (14%) in 21 countries listed FSC in addition to other claims (almost exclusively ISO). However the claims in FORDAQ assuredly do not yet fully reflect the endorsement of CSA (3/054) and SFI (12/15), which now account for the vast majority of PEFC endorsed certifications.

This analysis does not consider how market activity represented in the FORDAQ exchange reflects the broader market for certified products. However, given the number of companies using FORDAQ it is an indication of how FSC and PEFC claims are used comparatively, and relative to other national schemes. PEFC is the only market claim for many companies, mostly in Europe, and the majority in France. Other companies in Europe, Asia, and Central and South America appear to use PEFC market claims in addition to other schemes.

Due to the rapid change, uneven reporting, and sometimes limited disclosure characteristic of markets for certified products, data is often more anecdotal than statistically verifiable. However, pairing the most recent data for Oregon wood product exports (2004) is interesting in light of PEFC acreage worldwide. More than half of the top 15 importers of wood and wood articles from Oregon, (Table 5-bold italics) have PEFC endorsed forestlands that collectively represent ~45% of all PEFC-endorsed certified land area. Moreover, between 2003 and 2004, the dollar value of wood product exports to these countries increased. Similarly, of the top 15 countries Oregon supplies paper and paperboard products paper product to, only three countries have PEFC-certified forestlands. But these three collectively represent over 49% of all PEFC-certified supply in the world. Oregon's largest trading partners in wood and paper products have made commitments to PEFC endorsement, the most significant being Canada, which now accounts for over 55% of PEFC endorsed certifications globally. However, Canadian companies selling

to Oregon would most likely continue to make CSA and/or SFI certification claims, and retain any PEFC claims for Europe and emerging Asian markets.

Rank	Country	Export Value (2004)	Change (since '03)	Rank	Country	Export Value (2004)	Change (since '03)
1	Canada	36 %	+19 %	9	French Polynesia	1.2 %	-20 %
2	Japan	34 %	+16 %	10	Spain	1.1 %	+51 %
3	China	5.3 %	+25 %	11	Philippines	1.0 %	-0.5 %
4	Mexico	5.2 %	+24 %	12	Taiwan	1.0 %	+10 %
5	Italy	3.7 %	+34 %	13	Germany	0.8 %	+46 %
6	Korean Republic	1.9 %	+92 %	14	Australia	0.7 %	+16 %
7	UK	1.7 %	+166 %	15	Malaysia	0.6%	+89 %
8	Hong Kong	1.3 %	+15 %				

Table 6. U.S. Exports via Oregon: wood, articles of wood, & wood charcoal (http://www.census.gov/foreign-trade/www/statistics.html)

Table 7: U.S. exports via Oregon of paper & paperboa	ırd
(http://www.census.gov/foreign-trade/www/statistics.html)	

Rank	Country	% Export Value (2004)	% Change (since '03)	Rank	Country	% Export Value (2004)	% Change (since '03)
1	Canada	35.8 %	+8.2 %	9	Malaysia	2.71%	-28.6 %
2	China	18.9 %	+48.8 %	10	Hong Kong	2.3 %	-44.4 %
3	Japan	7.8 %	+34.8 %	11	Indonesia	2.3 %	-12.8 %
4	Korean Republic	5.3 %	+13.9 %	12	Vietnam	1.8 %	+38.0 %
5	Taiwan	5.0 %	-17.7 %	13	Thailand	0.7 %	-49.6 %
6	Singapore	4.8 %	+52.1 %	14	Guatemala	0.7 %	+34.3 %
7	Mexico	4.8 %	+17.2 %	15	Finland	0.5 %	-12.9 %
8	Philippines	3.2 %	+30.4 %				

In 2001, less than 42 million acres of Canadian forestland had become certified. By December 2005, almost 300 million acres of forestland was certified under the FSC, SFI/PEFC, and/or CSA/PEFC. In total, more than ³/₄ of land most likely subject to forest management activities in Canada is now certified. The impact of Canada's supply on markets for certified products, and their competitiveness with US producers remains to be seen. Canada is the main competitor with Oregon producers in the global markets, but also a key trade partner—importing \$188 million (USD) of forest products in 2004. Oregon exports to Canada included \$70 million in paper and paperboard, and \$42 million in plywood and wood building materials. The recent PEFC endorsement of SFI may affect Canada's competitive advantage relative to Oregon through marketing PEFC supply. SFI certified lands in Oregon include several million acres of industrial forestland owned and managed by companies such as Weyerhaeuser, Forest Capital Partners, and Hampton Industries, and significant potential mill output should these and other SFI companies undergo PEFC-CoC certification.

Beyond Canada, there may be growth in demand for PEFC supplies from other Oregon export markets. Although Japan has no PEFC-certified forests, they do have ten wood processing companies that are PEFC-CoC certified and seven companies that currently employ the PEFC label on wood products they manufacture. Most recently, the *Japanese Association for Building Healthy Houses – Fir Wood House*, organized a seminar in 2005 to lay out the superior characteristics of European fir use as interior material for home construction and the benefits of using PEFC-certified fir from Europe. The Japanese Fir Wood Network now advocates for PEFC-endorsed products for use in housing construction in Japan, and the

PEFC Asia Promotions Office in Japan is supporting these and other avenues for expanding PEFC preferences among companies and consumers.

PEFC endorsed certified products are also making inroads into some hardwood markets. A July 2005 report issued by the Timber Trade Federation and the UK Department of International Development, reported that European beech is now in demand for product manufacturers in the UK. European beech is beginning to compete with alder in domestic markets. US imports of European beech from Germany increased from 913 cubic meters in 1999 to 15,443 cubic meters in 2003. Manufacturers in the US are seeing European beech as a substitute for cherry, birch, and maple hardwoods in some uses.

Competition for Oregon wood products may also come from Russia. The amount of FSC-certified softwood lumber supplies from Russia is increasing rapidly in UK and China markets. The Russian Ministry of Natural Resources has stated their intent to certify the entire forest area of Russia and supply only certified timber to western markets by 2007. The introduction of Russian national standards of voluntary forest certification will begin this year, with application for endorsement by the PEFC by the end of the year. Russia provides a substantial amount of wood to China for product manufacturing. As China is a major trading partner to Oregon, both in solid wood product and in paper products (**Table 6 &** 7), the increase in volume from Russia, and in particular PEFC-endorsed volume, may significantly affect Oregon exports.⁵

Interviews with several Oregon wood product producers suggest that, for them, relevant markets for SFI/PEFC-certified product are still mainly in Europe for engineered wood products (e.g. finger-jointed product, composite panels, laminated veneer lumber, glulam beams, etc.) They also seem to feel that PEFC endorsement is not yet a major factor for them. The few companies interviewed indicated that they are able to supply between 50%-60% of their volume from fee-lands, and the CoC protocols in place for the SFI/PEFC program positions them to enter these markets. How this will evolve over the coming years is hard to project. Certainly other governments are intent to help assure that their producers have market claims that will help sustain and enhance their exports. In several cases this is happening through FSC adoption, in others through PEFC endorsement of a national scheme.

⁵ Both Russian and Chinese governments have demonstrated an interest in PEFC and developing certification standards that could ultimately seek PEFC endorsement. This is an important development for these nations that are increasingly being called upon to demonstrate that their products are from legal and well-managed sources.

3.0 Governance for a PEFC-endorsed certification program

Membership of Oregon in the PEFC

The Program for the Endorsement of Forest Certification schemes (PEFC) is a members-funded umbrella organization that sets requirements for the endorsement of national and regional forest certification programs. Any nation can be a member but only one member per nation is allowed. Organizations tend to become members when they represent a standard that some day they would like to have endorsed by the PEFC.

A PEFC member has a national or sub-national forest certification scheme to be assessed and then endorsed by the PEFC Council after being developed in an open and transparent way through a multistakeholder process. A PEFC member with an endorsed standard is a national or sub-national forest certification scheme that has been assessed and endorsed by the PEFC council. Their certification scheme is reviewed at least every 5 years in order to incorporate new experiences and scientific knowledge in the standard. Canada's CSA Sustainable Forest Management Standard from CSA International is an example of a PEFC member with an endorsed standard. All member countries are in a position to participate in an informed vote as to whether or not they recognize other applicant's schemes.

Without a change to the PEFC Council Statutes, it is not likely that Oregon would become a member of the PEFC Council. That is because the statutes include the principle that there can be no two members representing the same territory, and right now the U.S. seat is secured by the Sustainable Forestry Board. However, a PEFC member can bring forward an application on another's behalf. In other words, there is an option in the PEFC statutes that allows members to bring national and/or sub-national forest certification programs forward—and members are allowed to submit more than one certification program for endorsement. Hence, the PEFC US member could therefore submit an *Oregon Forestry Standard* and any other US-based regional certification standard for endorsement.

PEFC has in its membership 32 independent national forest certification systems of which 21 to date have been through an evaluation process involving public consultation and the use of independent consultants to provide the assessments on which endorsement decisions are made. These 21 endorsed national certification programs account for over 186 million hectares (approximately 460 million acres of certified forests producing millions of tonnes of certified timber to the market place making PEFC the world's largest certification scheme.⁶ The other national members schemes are at various stages of development and are working towards mutual recognition under the PEFC processes.

⁶ April 2006, PEFC Council web-site.

Table 8. PEFC Members, Certification Programs & Endorsement Status. The table summarizes PEFC member countries, associated certification programs and endorsement status. Certification programs with a check mark (\checkmark) have been endorsed by the PEFC Council as meeting the PEFC Council's requirements for forest certification schemes.

	Member Country	Member Name	Certification Program Name	Endorsed by PEFC
1	Australia	Australian Forestry Standard Limited	Australian Forest Certification Scheme	 Image: A second s
2	Austria	PEFC Austria	Austrian Forest Certification Scheme Revised Austrian Forest Certification Scheme (2005)	<
3	Belarus	Belarusian Association of Forest Certification		
4	Belgium	WoodNet – Commission PEFC Belgique	Belgian Forest Certification Scheme	 V
5	Brazil	National Institute of Metrology, Standardization	Cerflor – Brazilian Program of Forest Certification	 V
6	Canada	CSA International Forest Products Group	CSA Sustainable Forest Management Program	<
7	Chile	CertforChile Forest Certification Corporation	CertforChile	 Image: A second s
8	Czech Republic	PEFC Czech Republic	Czech Forest Certification Scheme	<
9	Denmark	PEFC Denmark	Danish Forest Certification Scheme	×
10	Estonia	Estonian Forest Certification Council	Estonian Forest Certification Scheme	
11-	Finland	Finnish Forest Certification Council	Finnish Forest Certification Scheme Revised (2004)	✓
12	France	PEFC France	French Forest Certification Scheme Revised French Forest Certification Scheme	~
13	Gabon	PAFC Gabon		
14	Germany	PEFC Germany e.V	Revised German Forest Certification Scheme (2005)	 V
15	Ireland	PEFC Council of Ireland		
16	Italy	PEFC Italy	Italian Forest Certification Scheme	4
17	Latvia	PEFC Latvia Council	Latvian Forest Certification Scheme	×
18	Lithuania	PEFC Lietuva (PEFC Lithuania)	Lithuanian Forest Certification Scheme	
19	Luxembourg	PEFC Luxembourg	Luxembourg Certification Scheme for Sustainable Forest Management	
20	Malaysia	Malaysian Timber Certification Council		
21	Norway	PEFC Norway	Norwegian Forest Certification Scheme and Living Forest Standard	×
22	Poland	PEFC Polsaka	Polish Forest Certification Scheme	
23	Portugal	Portuguese Forestry Sector Council	Portuguese Forest Certification Scheme	
24	Russia	National Voluntary Forest		

	Member Country	Member Name	Certification Program Name	Endorsed by PEFC
		Certification Council in Russia		
25	Slovakia	Slovak Forest Certification Association	Slovak Forest Certification Scheme	1
26	Slovenia	Institute of Forest Certification Slovenia	Slovenian Forest Certification Scheme	
27	Spain	PEFC Espana	Spanish Forest Certification Scheme	<
28	Sweden	Swedish PEFC Co-operative	Swedish Forest Certification Scheme	√
29	Switzerland	PEFC Switzerland and HWK- Zertifizierungsstelle	Swiss "Q-Label Holz" Scheme	
30	United Kingdom	PEFC UK Ltd.	UK Scheme for Sustainable Forest Management	 ✓
31	United States	SFI and ATFS	Sustainable Forestry Initiative Program & American Tree Farm System	(SFI)

*as at February 28, 2006

Requirements that would be placed on Oregon and its forest landowners to obtain PEFC membership

Based on the current organizational structure and membership, Oregon would not become a PEFC member since according to the statutes there is only one member allowed per nation, and the US member seat is already filled. However, the issue of endorsement is separate. A hypothetical *Oregon Forestry Standard* that meets the requirements of the PEFC could obtain PEFC endorsement; it would just need to be filed by the US member in the PEFC Council, i.e. the PEFC U.S. Governing Body). The requirements faced by landowners would likely need to encompass additional measures beyond those faced to comply with Oregon forest practices regulations. These are covered in **Section 5.0** of this report.

Requirements that would be placed on Oregon and its forest landowners to obtain PEFC recognition that the state has a credible certification initiative

Oregon would have to meet the same requirements as any other applicant seeking PEFC endorsement/recognition. The PEFC Council Minimum Requirements Checklist, GL 2/2006, Adopted on January 26 2006 (revised), must be completed as part of an application for endorsement. The PEFC Checklist covers 4 key parts and covers approximately 200 questions. The parts are:

- Part I– Minimum Requirements Checklist for Standard Setting Process
- Part II Minimum Requirements Checklist for Certification Schemes and their Implementation
- Part III Minimum Requirements Checklist for Scheme Specific Chain of Custody Standards
- **Part IV** Minimum Requirements Checklist for Certification and Accreditation Procedures.

The official text found in the PEFC Checklist under the topics of Objective and Scope follows:

The objectives of these guidelines are (i) to assist bodies, which develop or revise their forest certification schemes and preparation of an application for PEFC Council endorsement, and (ii) to facilitate the assessment of the compliance of a national or sub-national forest certification scheme against the PEFC Council requirements carried out by the PEFC Council as a part of its endorsement and mutual recognition process (Annex 7 Endorsement and Mutual Recognition of National Schemes and their Revision).

These guidelines cover the PEFC Council minimum requirements, which shall be met by national and sub-national schemes and standards applying for PEFC Council endorsement and mutual recognition as per chapter 4, Annex 7 (Endorsement and Mutual Recognition of National Schemes and their Revision), and are a part of the application for the PEFC Council endorsement and mutual recognition as defined by chapter 5, Annex 7 (Endorsement and Mutual Recognition of National Schemes and their Revision)

While it is important to review the full PEFC Minimum Requirements checklist to understand what requirements would be placed on Oregon and its forest landowners to obtain PEFC recognition, the most basic components that need to be developed to address each part of the PEFC are outlined below.

Part I- Minimum Requirements Checklist for Standard Setting Process:

There needs to be a standard developed, and in Oregon's case this standard could potentially be an umbrella document that references all relevant laws, regulations, legal requirements, and policies that meet the PEFC minimum checklist requirements relevant to standards content (i.e. Part II of the checklist). However, the document would need to read like a standard as requirements need to be auditable, and not just a compendium of legislation and policies. Also, an *Oregon Forestry Standard* would need to be developed in an open-transparent, multi-stakeholder process with the decisions made in a consensus-building process – this is a very important component of Part I of the Minimum Requirements Checklist.

There are 39 questions in Part I of the PEFC Minimum Requirements Checklist, the following is a sample of the first questions in the checklist to give the reader a sense of the requirements. As can be seen, the applicant is also referred to PEFC <u>Annex 2: Rules for Standard Setting</u> to adequately respond to the questions.

No.	Question	Reference (PEFC doc)	Y/N	Application Doc. Reference
	Has the development of the certification standards been			
1	independent from the certification and accreditation process? [*1]	Annex 2, 3.2		
2	Has the standard setting process been carried out at national and/or sub-national levels?	Annex 2, 3.3		
3.	Has the standard setting process been co-ordinated by the PEFC National Governing Body? ^[*1]	Annex 2, 3.3		
4.	Has the certification standard been drafted to be applied at individual and/or group and/or regional level?	Annex 2, 3.3		
	Has the development of certification criteria been initiated by	-		
5	national forest owners' organisations or national forestry	Annex 2,		
5.	sector organisations having support of the major forest owners' organisations in that country? ^[*1]	3.5.1		

Table 9. Excerpt of PEFC Annex 2--Rules for Standard Setting

Part II – Minimum Requirements Checklist for Certification Schemes and their Implementation:

The focus of Part II of the checklist is to determine whether the applicant's standard conforms with the inter-governmental process C&I and associated operational level guidelines that relate to the region where the applicant's standard applies. So for the case of European-based countries, the expectation is that the applicant demonstrates how the standard addresses each of the Pan European Operational Level Guidelines (PEOLG).

For a US-based application for endorsement to the PEFC, the problem is that the Montreal Process (unlike the European process) has not yet developed operational level guidelines like the PEOLG. In such situations, as per PEFC Annex 3 "Basis for Certification Schemes and their Implementation", the applicant has essentially two choices:

- 1. "If such documentation is not indicated the PEOLG shall be used as a reference basis in the endorsement and mutual recognition assessments". OR
- 2. PEFC Annex 3 Section 3.1.3. states, "As the Montreal Process has not produced operational level guidelines the applicant shall indicate documentation equivalent to the PEOLG and have it approved by the PEFC Council prior to the endorsement and mutual recognition assessment".

In summary, for Oregon this means:

- 1. Conduct an assessment of an *Oregon Forestry Standard* (once developed) against the requirements of the PEOLG; OR
- 2. Demonstrate how an *Oregon Forestry Standard* (once developed) meets the requirements of a PEOLG equivalent for the Montreal Process C&I, which in turn entails developing a PEOLG equivalent for the Montreal Process C&I.

While assessing an *Oregon Forestry Standard* against the PEOLG requirements would be the easiest route, and the route taken by Australia, Canada, Chile and the USA with the current SFI application (non-European endorsed members), it may prove politically challenging for a US-based government body to assess against the Pan-European rather than the Montreal Process C&I structures.

There are 166 questions in Part II of the PEFC Minimum Requirements Checklist; the following is a sample of the first questions in the checklist to give the reader a sense of the requirements. As can be seen, the applicant is also referred to PEFC <u>Annex 3: Basis for Certification Schemes and their</u> <u>Implementation</u> to adequately respond to the questions. While the vast majority relate to the PEOLG requirements, there are also requirements around International Labour Organization (ILO) conventions and other specifics that can be best understood by reviewing the checklist.

No.	Question	Reference (PEFC doc)	Y/N Application Doc. Reference
	Basis for criteria for development (only for schemes l	based on MCPFE)
1	Are certification criteria used in the national or sub-national scheme based on Pan European Criteria and Indicators for SFM as a common framework?	Annex 3, 3.1.1	
2	Have the Pan European Operational Level Guidelines (PEOLG) formed the reference base when the national and regional criteria were elaborated, amended or revised?	Annex 3, 3.1.2	
	Compatibility with the PEOLG (only for s	chemes to be asse	ssed against the PEOLG)
3		PEOLG 1.1.a	
4	Criterion 1: Maintenance and appropriate	PEOLG 1.1.b	
5	enhancement of forest and their contribution	PEOLG 1.1.c	
6	to global carbon cycle	PEOLG 1.1.d	
7	-	PEOLG 1.2.a	

 Table 10. Excerpt of PEFC Annex 3—Basis for Certification Schemes and Their Implementation

The checklist as noted above does provide the full criteria for the Pan European Criteria and Indicators; however it refers the reader to a separate document for each of the PEOLG requirements (**Appendix 7.1**). An example of the PEOLG requirements for the Pan European Criterion # 1 is provided above. Hence, an *Oregon Forestry Standard* (once developed) would have to show how its requirements address 1.1 a-d and 1.2 a-c for Criterion #1 and so forth through the 6 Pan European Criterion and associated PEOLG.

Part III - Minimum Requirements Checklist for Scheme Specific Chain of Custody Standards

In addition to *The Oregon Forestry Standard* there would need to be a chain-of-custody standard to track the wood flows from the certified forest through to the end user/buyer/consumer. Chain-of-custody is essentially a wood flow accounting/tracking methodology or a segregation process. The PEFC Council issued a revised Chain of Custody Standard in June 2005 for any entity to use, and using this standard meets the PEFC Council Part III Checklist requirements for the standard's content.⁷ However, this does not preclude Oregon from developing its own Chain of Custody standard provided the content of it meets the PEFC requirements outlined in Part III of the checklist.

There are 21 questions in Part III of the PEFC Minimum Requirements Checklist; the following is a sample of the first questions in the checklist to give the reader a sense of the requirements. As can be seen, the applicant is also referred to PEFC <u>Annex 4: Chain of Custody Certification of Wood</u> to adequately respond to the questions.

No.	Question	Reference to PEFC Council doc.	YES / NO*	Reference to application documents
	Requirements for chain of custody pr	ocess-physical	separati	on method
	Does the national C-o-C standard require	Annex 4,		
1.	identification and verification of the category of origin for all procured products in compliance with chapter 2.2.1 and 2.2.2?	2.2.1, 2.2.2		
2.	Does the national C-o-C standard require separation of the certified raw material in compliance with chapter 2.3?	Annex 4, 2.3		
	Does the national C-o-C standard require	Annex 4,		
3.	of sale of certified products in compliance with chapter 2.4.1 and 2.4.2?	2.4.1, 2.4.2		
4.	Does the national standard require that usage of the logo or label shall be carried out according to the terms and conditions of the logo / label copyright owner?	Annex 4, 2.4.3		

 Table 11. Excerpt of PEFC Annex 4—Chain of Custody Certification for Wood

 $^{^7}$ In the USA, this PEFC Chain-of-Custody was endorsed by SFI proponents to serve the purposes of a SFI Chain-of-Custody

In order to meet PEFC Checklist Part IV requirements, certification audits to an *Oregon Forestry Standard*, would need to be conducted by an independent certification body that fulfills the requirements defined in ISO Guide 62, 66, or 65 and other requirements for certification bodies defined by the national accreditation body, in the US case, ANSI or ANAB. ANSI is the accreditation body for Guide 65-based programs and ANAB for Guide 66-based programs. Certification bodies would need to be accredited by ANSI/ANAB to conduct audits and within their accreditation ANSI includes the *Oregon Forestry Standard*, which would likely entail ANSI setting up a program to have this done, presumably either as a separate program, or as an extension to an ISO 14001 EMS program. By way of example, the latter is the route taken in Canada, with regards to certification audits to the CSA SFM Standard, CAN/CSA-Z809.

Chain-of-custody audits would also need to be conducted by certification bodies accredited by ANSI or ANSI equivalents in other nations. In the end, if a certification audit does not result in a certificate issued by the certification body with the logo of the certification/registration body, and the seal of ANSI or an equivalent of ANSI in another nation, then it does not meet PEFC requirements.

There are 25 questions in Part IV of the PEFC Minimum Requirements Checklist; the following is a sample of the first questions in the checklist to give the reader a sense of the requirements. As can be seen, the applicant is also referred to PEFC <u>Annex 6: Certification and Accreditation procedures</u> to adequately respond to the questions.

No.	Question	Reference to PEFC Council doc.	YES / NO*	Reference to scheme documentation
	Certificatio	on Bodies		
1.	Does the scheme documentation require that certification shall be carried out by impartial, independent third parties that cannot be involved in the standard setting process as governing or decision making body, or in the forest management and are independent of the certified entity?	Annex 6, 3.1		
2.	Does the scheme documentation require that certification body for forest management certification or chain of custody certification against a scheme specific chain of custody standard shall fulfil requirements defined in ISO Guide 62, or ISO Guide 66, or ISO Guide 65 or EC Regulation 761/2001 and other requirements for certification bodies defined by the national accreditation body?	Annex 6, 3.1		
3.	Does the scheme documentation require that certification body chain of custody certification against Annex 4 shall fulfil requirements defined in ISO Guide 65?	Annex 6, 3.1		
4.	Does the scheme documentation require that certification bodies carrying out forest certification shall have the technical competence in forest management on its economic, social and environmental impacts,	Annex 6, 3.1		

Table 12. Excerpt of PEFC Annex 2-Certification and Accreditation Procedures

No.	Question	Reference to PEFC Council doc.	YES / NO*	Reference to scheme documentation
	Certificatio	n Bodies		
	and on the forest certification criteria?			
5.	Does the scheme documentation require that certification bodies carrying out C-o-C certifications shall have technical competence in timber procurement and processing and material flows in different stages of processing and trading?	Annex 6, 3.1		

All PEFC Technical Documents including the full Minimum Requirements Checklist, the Annexes, the Statutes and so forth are available on-line at no cost at <u>www.pefc.org</u>. However, completing the minimum requirements checklist in all its four parts is the first part to the endorsement process.



Figure 3. PEFC Council Endorsement Process (*PEFC*.)

The PEFC endorsement process essentially comprises six steps:

- 1. **Application -** The applicant completes the application for endorsement which is a checklist consisting of 4 parts covering over 200 questions and submits the certification program with the completed checklist in paper and electronic form to the PEFC Council.
- 2. **Assessor Determined** -The PEFC Secretariat makes an invitation for an independent assessment by PEFC-approved assessors/consultants. The PEFC Board of Directors appoints an independent assessor based on a review of the tenders. Criteria used to determine the assessor is a combination of independence, expertise, competitiveness of the bid in relation to the application.
- 3. Assessment Process & Report The independent assessor starts the certification program assessment by reviewing the submitted application documentation, establishing contact with the applicant, establishing site visit choices, interview choices and a schedule of activities is drawn up. In addition, any interested party including the general public is invited to comment (minimum

60 days) on the submitted application and send those comments directly to the consultancy conducting the assessment. The consultancy writes an assessment report, ideally within the target time of 7 weeks and this report is submitted to the Board of Directors with a recommendation for or against endorsement.

- 4. **Panel of Experts** The Board then exercises its option to have a peer review of the documentation submitted by the PEFCC Panel of Experts (independent experts with technical understanding of forest certification programs and the PEFC checklist requirements) who are available to the board for the endorsement of minor revisions and amendments to an already endorsed and recognized scheme. Hence in an *Oregon Forestry Standard* endorsement process, this step will not take place, as it is a full application for endorsement, not a revision application.
- 5. **The Board of Directors** review the assessment report and recommendations and decides based on a 2/3 majority whether a certification program conforms to the PEFC requirements and makes a recommendation to the PEFC Council (national governing bodies/members) on the schemes approval/rejection. (The applicant is advised at this point in time as to the Board's decision and, if negative, the applicant can either choose to revise the certification program or appeal against the PEFC Council Board of Director's decision and have the General Assembly reconsider the scheme at its next meeting.)
- 6. The PEFC General Assembly is provided the consultancy's assessment report and the recommendation from the Board of Directors via postal ballot arranged by the PEFC Council Secretariat and delegates who are authorized to vote on behalf of the PEFC national governing bodies have 4 weeks to respond. If there is a 2/3 majority vote in favor of a scheme via the postal ballot, the scheme will be deemed approved, and the certification program is endorsed and mutually recognized by members of the PEFC Council and the official announcement is made on the PEFC Council web page, <u>www.pefc.org</u>. If rejected the applicant can make the necessary revisions to the scheme and resubmit OR it the applicant can appeal against the Board of Directors' decision and have the scheme reconsidered at the next General Assembly.

Unique challenges with respect to the inclusion of federal forestlands in Oregon in any statewide PEFC recognition

If an *Oregon Forestry Standard* and the associated certification and accreditation programs are developed and meet the PEFC Minimum Requirements Checklist and that Oregon package is endorsed by the PEFC, then it is just a matter of achieving certification to that Standard. Through individual certifications, or group certifications, private, state, or Federal lands in Oregon would need to be certified in accordance with that Standard which in turn has been endorsed by the PEFC.

PEFC does not rule out certification to any forest area or forest type or forest jurisdiction for that matter provided that the certification program meets the array of requirements associated with PEFC recognition. However, the present Forest Service policy on certification requires that Forests "...*refrain from making any commitments to, or pursuing any agreements with, third-party certifying organizations on national forest lands* (1997, in a memo from NFS Associate Deputy Chief Janice McDougle to the Regional Foresters). However, in a 1998 memo to the Forest Stewardship Council the Forest Service allowed that they would cooperate with outside parties who wished to evaluate individual forests against certification requirements. The Forest Service would then consider the results of these efforts in amending or upholding their current policies.

Required process for Oregon to maintain PEFC membership and recognition once they were obtained

As discussed above, Oregon would not be maintaining PEFC membership, as membership currently resides with the Sustainable Forestry Board (SFB). However, if Oregon and the SFB came to an agreement on ensuring Oregon input was provided to the PEFC Council, then perhaps there would be some actions/requirements/collaboration to maintain that working relationship with the current US-PEFC member, the SFB. For example human and financial resources are spent by the PEFC members to pay membership fees on an annual basis, to travel to PEFC General Assemblies and other special workshops and meetings open to PEFC members.

However, to understand how to maintain a hypothetical PEFC recognition of the *Oregon Forestry Standard*, it is recommended that interested parties refer to PEFC Technical Document, <u>Annex 7:</u> <u>Endorsement and Mutual Recognition of National Schemes and their Revision</u>. The PEFC is a moving target, in that it is subject to continual improvement. This is not unique to the PEFC certification program. All certification and endorsement programs are subject to continual improvement and when the requirements are revised, the endorsed standards also need to demonstrate alignment with those revisions as per details provided in transition documents. When the hypothetical *Oregon Forestry Standard* is revised, the revisions will also need to be resubmitted and the endorsement renewed by the PEFC (provided of course the PEFC requirements are met.)

Fostering mutual recognition with other forest certification systems

The international forest certification playing field is essentially a duopoly with the majority of regional and national certification programs aligning with either PEFC or FSC. The following table reflects Canada's contribution to the global significance of both PEFC and FSC in terms of hectares certified.





Hence, an Oregon endorsement by PEFC would align itself with those forest certification programs under the PEFC umbrella and would be consistent with the positioning of CSA and SFI certification programs in N.A through this alignment.

Nonetheless, there are similarities across the PEFC and FSC in terms of structure but distinct standards development and endorsement processes exist. Both the PEFC and FSC are international non-governmental bodies that endorse national and regional certification standards. The PEFC endorses those standards that meet its core certification program requirements as does the FSC. Both programs have the following requirement areas for both the forest management standards and the chain of custody standards that they endorse: standards development processes; the content of the standard; the certification to the standard; accreditation of the certification bodies (those entities conducting the certification audit); and, product claims (including chain-of-custody and labeling).

In the PEFC context, mutual recognition is a multilateral agreement among forest certification programs which acknowledges that endorsed certification programs all meet certain PEFC established common level requirements. (Note: these common level requirements can change and become more rigorous over time as part of a continual improvement process. The PEFC Minimum Requirements were for example thoroughly overhauled in 2003, and since then certain requirements have changed through a member vote/ballot process.⁸

While the PEFC documentation states that a positive vote by the General Assembly of an applicant scheme means it is deemed approved/endorsed and mutually recognized by members of the PEFC Council, it does not mean that the endorsed standard is automatically deemed equivalent to all other schemes in the PEFC umbrella. The endorsement of a scheme means that the members of the PEFC Council have determined that the scheme meets the requirements of the PEFC Council. The election procedure ensures that each scheme votes on each other. Therefore the schemes mutually recognize each other under the PEFC Council mutual recognition umbrella as meeting those common level requirements, but not as being equivalent to one another.

Using a hypothetical case study where the *Oregon Forestry Standard* has just become endorsed by the PEFC, mutual recognition in the PEFC context simply means that the *Oregon Forestry Standard* along with all other certification programs endorsed under the PEFC umbrella have past the hurdle of the PEFC common level requirements. Therefore *Oregon Forestry Standard* proponents and the other certification program proponents now have the advantage of making claims to PEFC endorsement and benefiting from policies that specify PEFC certified products. Also organizations with fiber coming from a *Oregon Forestry Standard* certified forest (and meeting the PEFC CoC requirements) can now pool their certified fiber with another PEFC endorsed standard's certified fiber to make PEFC claims, and seek PEFC label use if that is desired. However, it does not mean that another certification program in the PEFC umbrella can use a hypothetical *Oregon Forestry Standard* label or claims associated with it. In other words, any program endorsed by PEFC can make the appropriate PEFC claims, but for example, CSA can not make claims about CSA just because they are both PEFC endorsed. However, CSA and SFI wood can be pooled to make PEFC claims based on a PEFC endorsed CoC.

And indeed, there is also other types of recognition that takes place in the marketplace for both FSC and PEFC endorsed standards. For example, the 2005 Environmental Sustainability Index (ESI), which is an internationally recognized tool to measure a country's environmental progress, uses forest certification as an indicator of environmental sustainability, and it does so by measuring the % of total forest area certified to FSC and PEFC endorsed standards as the means to measure this forest certification progress.

⁸ This study uses the PEFC Minimum Requirements checklist dated April 28, 2005, however since then a new checklist was approved in January 26, 2006 and it is available at <u>www.pefc.org</u>.

4.0 Comparison of Forest Management in Oregon with the PEOLG.

Extent to which required management practices in Oregon meet or exceed current Pan European Operational Level Guidelines (PEOLG)

A substantive part of the PEFC endorsement relies on national or regional forest certification standard having criteria, and operational level guidelines that are consistent with the eight inter-governmental processes for sustainable forest management Criteria & Indicators (C&I)⁹. For the 13 countries with temperate and cold-climate forests, such as the United States, Canada, Japan and Australia, seven criteria were chosen as assessment starting points. Under each criterion, specific measurable forest indicators would be researched in order to paint a holistic picture of the state of the nations' forests. The Montreal Process is an internationally sponsored initiative that identified seven criteria as essential components of sustainable forest management. Sixty-seven indicators are used to describe these seven criteria.

Oregon's First Approximation Report for Forest Sustainability outlines the availability of data needed to describe the indicators in the context of Oregon Forestry. The report demonstrates Oregon's alignment with each indicator through real data and trends, however the report does not stipulate how the Oregon legislative and policy framework are responsible for this performance. It is precisely this underlying information that can potentially form the requirements of a hypothetical *Oregon Forestry Standard*. Where statutes and administrative rules directly link with these C&I, they can be turned into standards language and be embodied in the standard. Where no such legislative requirements are found, the *Oregon Forestry Standard* itself would need to include those "additional" requirements, over and above the existing legislative norms.

Comparing the requirements of the PEOLG

Understanding this need, the ODF requested an assessment of how well current standards of practice, established by policies and programs already in place, conform with the PEFC requirements. As described above the PEFC has developed a tool to help perform this sort of analysis, but designed originally for the European setting. However, the Pan-European Operational Level Guidelines have now been used to evaluate many certification schemes outside of Europe, one of these being the SFI standards in the U.S.

In contrast with the process PEFC uses to evaluate certification schemes, this study is much more expansive. It is a comparison of the requirements of PEFC with the standard of practice for all types of landowners. For this reason, a wide range of source documentation was referenced to determine conformance. For private forestlands the analysis references:

- State statutes and administrative rules (especially the Oregon Forest Practices Act);
- Voluntary programs for which Oregon landowners are eligible

For the State Forests the analysis references:

- State statutes and administrative rules; and,
- The Forestry Program for Oregon.

For the Forest Service management direction is drawn from several sources, including:

- Federal regulations;
- The Forest Service Manual and handbooks;

 $^{^9}$ A series of on-going mechanisms supported by 149 governments in the world covering 85% of the world's forest area.

- The Land Resource Management Plans (LRMP, or Forest Plans, or plans)
- Assessments (e.g. FEIS) supporting the Plans
- Regional Management Direction (provided they significantly affect management within the scope of the certification programs, e.g. Northwest Forest Plan.)
- Biological Opinions issued by NOAA Fisheries and US Fish and Wildlife Service in response to the federal action (i.e. Forest Plan).

The PEOLG criteria are broad in scope and often an individual criterion encompasses several concepts. FSC and SFI standards tend to be more prescriptive as to what needs to happen at the *operational level*. Compared with the standards used in the North America the requirements of individual criterion are sometimes redundant.

The way in which each of the three landowner bases meet the intent of PEOLG criteria is different. Federal and state lands are subject to very clear and detailed guidance as to what policies and procedures need to be in place. In fact the mode of delivery is more clearly evident than the purpose of doing so, which is often most directly stated in the language of the original statute that gave rise to the rules for implementation. The situation with private lands is somewhat different. In the case of Oregon, guidance to landowners is principally focused on where and in what manner certain activities can take place. The objectives, or rationale for doing so are not incorporated in documented plans and objectives for individual landowners, but in the state statutes. Oregon has clearly stated statewide objectives in the Forestry Program for Oregon, which lays out the priorities of the Board of Forestry, strategies to address these priorities, and actions that support those strategies. This approach engages the different types of landowners in different ways.

The evaluation therefore required distilling from the different types of reference documents unambiguous statements of intent that are within the scope of the PEOLG. The rating process was then carried out with the rationale of treating the forest management systems that are required and supported by policies and programs, as an effective certification standard. In other words, the analysis compared the scope of what *must* happen on each land base, with what the PEOLG intends *should* happen through a certification standard. Eventually, the challenge for Oregon should the state choose to move towards developing a certification program, will be do distill these statements of intent and required practices into an auditable standard.

Fundamentally, determining conformance with the PEOLG is subjective, based on independent judgment of how well the intent of the PEOLG criteria is met by the expected standard of practice for the landowner under consideration. The stated intent of a PEOLG criterion is often associated with an appropriate approach for achieving success. For example, a criterion can require that exotic species are controlled, and a criterion can also state that there is a process or instrument designed to control exotic species. These two criteria have different implications for what needs to be in a standard and how it will be verified. In almost all cases, the PEOLG does both. In fact the PEOLG is structured to recognize this distinction. For almost all of the topics addressed the PEOLG framework includes requirements *planning* (i.e. capacities, institutions, and processes), and for *practices*. A rating system was used that is comparable to what is employed in the review of certification systems applying for endorsement with the PEFC: (**C**) Fully Conform; (**P**) Partially Conform; (**N**) Do not Conform.

4.1 Summary of Conformance Ratings

The following table summarizes the conformance ratings for lands in Oregon for which the Oregon Department of Forestry bears principal administrative responsibility for forest practices oversight (Table 13). In the larger analysis, which is provided as a separate document by the Oregon Department of Forestry, evidence of conformance for a sample Federal land base is also included. Based on this analysis, the requirements directing the management of the sample national forest conform with all PEOLG criteria. The analysis considered the combined requirements of the National Forest System Manual (FSM) and handbooks (FSH), the Northwest Forest Plan, and the body of statutes and directives guiding inventory, planning, and project activities.

The Federal land analysis, as well as the state and private land analyses, considered the requirements which *must* be satisfied—i.e. *what is on the books*—and not an evaluation of whether or not they are actually implemented. Also, this was an analysis performed independently by the Pinchot Institute project team, and is not associated with the PEFC. The process for PEFC endorsement includes an analysis of the components of an entire forest certification scheme, carried out by a firm commissioned and qualified to do so.

PEFC Pan European Operational Level Guidelines (PEOLG)	Private Landowners in Oregon	State Forests
1.1 Maintenance and appropriate en for Management Planning	hancement of forest resources and their contr	ibution to global carbon cycles: Guidelines
1.1.a. Forest management planning should aim to maintain or increase forest and other wooded area, and enhance the quality of the economic, ecological, cultural and social values of forest resources, including soil and water. This should be done by making full use of related services such as land-use	 (C) Conformance [ORS 527.670(3)]; (see 1.1.a for state forests on comprehensive land use planning) Planning requirements for operations in specified resource sites. Plans required for reforestation approaches through natural regeneration and use of plantings of non-local provenance. Inventory and monitoring conducted by ODF Participation in Forest Stewardship Program 	 (C) Conformance [OAR 629-035-0010] Planning for state forests based on assuring greatest permanent value, which established wide ranging objectives supported by management strategies on economic, ecological and cultural values. Each county must adopt a comprehensive plan that protects important forest and other resource lands. Through the comprehensive land use planning in Oregon, counties have inventoried every acre and designated zoning for appropriate use.

Table 13. Summary matrix of conformance of lands managed or regulated by the state with the Pan-European Operational Level Guidelines.¹⁰

¹⁰ Federal lands are not included in the Table 13 matrix. The primary reason is the both the difficulty and the uncertain value of relating individual PEOLG criteria to the scope of directives, statutory and otherwise, for federal lands. The individual PEOLG criteria encompass multiple topics, and therefore invoke a multitude of different management responsibilities addressed for federal lands. Often the PEOLG do not define the way in which a certain objective (e.g. social, ecological, or economic value of some kind) needs to be addressed—just that it is to be a consideration in management. The "considerations in management" addressed by federal lands in Oregon are too numerous to be usefully lumped in the matrix. Requirements on the sample national forest conform with the scope of the PEOLG. In one author's opinion a more important measure from the standpoint of certification on a federal land base, is not whether a certain type of statute exists, but how effectively federal land managers balance a multitude of objectives and requirements to achieve independent standards for sustainable forest management.

The reference matrix in Appendix 7.3 cites management requirements for a sample federal land base in Oregon, the MHNF, for a more finely divided set of individual topics. The framework used to organize these topics approximates the scope Montreal C&I. Another effort on National Forests has looked at more detailed, unit level, criteria based on the Montreal C&I-Forest Service Local Unit Criteria and Indicators Development (LUCID) project.

1.1.b. Inventory and mapping of forest resources should be established and	(P) Conformance	(C) Conformance
maintained, <i>adequate to the local and</i> <i>national conditions</i> , and in correspondence with the topics described in these Guidelines.	 (see 1.1.a) Nonconformance Landowners not required to establish and maintain inventories and mapping for managed forestlands 	 [OAR 629-035-0045] The ODF is required to develop land-base designation maps. ODF policies require maps for all operations.
1.1.c. Management plans or their equivalents, appropriate to the size and use of the forest area, should be elaborated and periodically updated. They should be based on legislation as well as existing land use plans, and adequately cover the forest resources.	 (P) Conformance (see 1.1.a) Nonconformance Landowners are not required to independently develop (<i>elaborate</i>) and periodically update management plans. 	 (C) Conformance [629-035-0020] The focus of management must be reviewed at least every ten years, taking into account the most current social, economic, and silvicultural considerations.

1.1.d. Monitoring of the forest resources and	(P)	(<i>C</i>)
evaluation of their management should be	Conformance	Conformance
<i>periodically</i> performed, and their results should be fed back into the planning process.	[OAR 629-625-0600, OAR 629-610-0030, OAR 629- 635-0110]	[629-035-0030]
	 635-0110] Monitoring reforestation success subsequent to operations Informal monitoring occurring to assure compliance of operations with provisions of OFPA FPFO strategy to conductoutreach, monitoring, assessments, research, and evaluation Statewide assessment and monitoring of forest health, forest disease, forest pests, fire-risk, occurrence of species listed in MOU with USFWS and ODFW, occurrence of biological sites and other key forest resources. ODF inspection and re-inspection of certain forest operations in special resource sites. Statewide monitoring of water bodies, biological water quality, and habitat maintenance for salmonids <i>Nonconformance</i> Landowners are not required to conduct monitoring and evaluation of forest management and consider results of operations in future planning.	 Forest management plans pursuant to statutes must include guidelines on the process for monitoring and research, and adaptive management. These guidelines an approach for evaluating strategies and validity of assumptions that underlie these strategies.
1.2. Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles: Forest		
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management practices 1.2.a. Forest management practices should safeguard the <i>quantity</i> and <i>quality</i> of the forest resources in the medium and long term by balancing harvesting and growth rates, and by preferring techniques that <i>minimise</i> <i>direct or indirect damage to forest, soil or</i> <i>water resources.</i>	 (P) Conformance [ORS 527.755] Reforestation rules & stocking-level guidelines Retention rules for live and dead trees Minimizing direct and indirect damage to 	 (C) Conformance [629-035-0030] Forest management plans must specify sustained yield Timber product outputs are to produced in the
	 forest, soil, and water resources extensively and adequately covered through harvest rules and other guidelines on operability of certain sites. <i>Nonconformance</i> Landowners not required to balance harvesting and growth rates through planned operations. 	context of maintaining, enhancing, and protecting forest resources.
1.2.b. Appropriate silvicultural measures should be taken to maintain the growing stock of resources at - or bring to - a <i>level</i> <i>that is economically, ecologically and</i> <i>socially desirable.</i>	 (C) Conformance [OAR 629-610-0020 to OAR 629-610-0060] Reforestation rules require landowners to promptly reforest through planting or natural regeneration, with guidance on achieving representative, and commercial species re- stocking Stocking guidelines ensure that adequate growing stock is achieved to perpetuate forests that are of ecological, economic, and social value. Incentives encourage landowners to afforest barren lands suitable for forest cover 	 (C) Conformance [629-035-0030] State reforestation standards meet or exceed those for private lands under the Forest Practices Act. Reforestation is not explicitly listed as a silvicultural practice in division 35, on management of state forestlands, however it is certainly required and conducted to achieve greatest permanent value. Stocking control is based inventories and structure-based stand management prescriptions. Thinning is a common tool in structure based management.

1.2.c. Conversion of abandoned agricultural	(<i>C</i>)	(N)
and treeless land into forest land should be	Conformance	Nonconformance
taken into consideration, whenever it can add	[ORS 526.490]	• While the statutes governing state forestlands,
value.	• Afforestation incentive rules encourage the	include authorize the Board of Forestry to acquire
	conversion to forests of barren lands suitable and/or	lands, and the purposes thereof, there is no explicit
	historically appropriate for forest cover.	intent to acquire and arrorest neeless failds.
2.1. Maintenance of forest ecosystem	1 health and vitality: Guidelines for forest man	agement planning
2.1.a. Forest management planning should	(P)	(P)
aim to maintain and increase the health and	Conformance	Conformance
rehabilitate <i>degraded</i> forest ecosystems	[OAR 629-625-0600, OAR 629-610-0030, OAR 629-	[OAR 629-035-0030]
whenever this is possible by silvicultural	635-0110]	• There are numerous referencesboth in the
means.	Afforestation incentive rules promote the	guiding principles for state lands, and the
	appropriate	planning—for maintaining healthy forest
	Nonconformance	ecosystems
	Active planning to maintain and increase the	Nonconformance
	health and vitality of forests and to rehabilitate	• There are few references in statutes for state
	degraded ecosystems is not required.	lands rehabilitating degraded ecosystems, with the
		exception of restoring properly functioning
		aquatic habitat for salmonids.
2.1.b. Health and vitality of forests should be		
<i>and abjotic factors</i> that potentially affect	Conformance	Conformance
health and vitality of forest ecosystems, such	[ORS 477.005]; [OAR 629-042, 043 & 044]; [OAR 629 620 620 620 620 620 620 620 620 620 620	[OAR 629-035-0030]; [ORS 477.005]; [ORS 527.315]
as pests, diseases, overgrazing and	0100 to 0800].	• Forest management plans must include
overstocking, fire, and damage <i>caused by</i>	• Statewide monitoring and assessment	and how they will change based on the best
management operations.	determines risks of harm to Oregon's forests	available science.
	resulting from outbreaks of pests, diseases, and	• Plans must include guidance for monitoring
	fire, and are used as the basis for interventions.	research and adaptive management.
	• Landowners are required to provide access to	• State forests are protected under the same
	and are provided assistance for mitigation.	policies as private lands under [ORS 477.005]
	Oregon regulates the use of forest chemicals	concerning monitoring and assessment and mitigation of threats posed by outbreaks of pests
	and other hazardous materials.	diseases and fire.

2.1.c. Forest management plans or their equivalents should specify ways and means to minimize the risk <i>of degradation of and</i> <i>damages to forest ecosystems</i> . Forest management planning should make use of those policy instruments set up to support these activities.	 (C) Conformance Written plans required for operation in specified resource sites Plans must conform with guidance on appropriate activities with potential to affect the qualities of the site Rules are designed to prevent harm to water bodies, habitat for listed species, and otherwise prevent degradation and damages to forest ecosystems. 	 (C) Conformance [OAR 629-035-0030] Management plans must include strategies for providing healthy forests, taking into impacts of management, threats posed by pests and diseases. State forests must provide for healthy forests by managing for insects and diseases through an integrated pest management approach
2.2. Maintenance of forest ecosystem	health and vitality: Guidelines for forest mana	agement practices
2.2.a. Forest management practices should make best use of natural structures and processes and use preventive biological measures wherever and as far as economically feasible to maintain and enhance the health and vitality of forests. Adequate genetic, species and structural diversity should be encouraged and/or maintained to enhance stability, vitality and resistance capacity of the forests to adverse environmental factors and strengthen natural regulation mechanisms.	 (P) Conformance [OAR 629-610-0050]; [ORS 527.676]. OFPA requires retention of downed and standing dead trees, and green trees to retain wildlife habitat and other ecosystem functions. Rules maintain critical elements supporting species, genetic, and structural diversity. Landowners must replant with species genetically adapted and ecologically appropriate to the site, unless a written plan presents a rationale for successful reforestation strategy with other species that will not pose introduce other risks to Oregon's forests. Landowners are required to participate in actions necessary to arrest outbreaks of disease, pests and catastrophic fire. Nonconformance Landowners are not explicitly encouraged to manage for genetic, species, and structural diversity 	 (C) Conformance [OAR 629-035-0030] Forest management plans include provisions directing the conservation of the genetic diversity of forest tree species. State forests must provide for healthy forests through the use of appropriate genetic sources of forest tree seed and species in regeneration programs. Structure-based management utilized on all state forestlands contains provisions for retention of important stands and structural components within stands.

2.2.b. Appropriate forest management	(<i>C</i>)	(<i>C</i>)
practices such as <i>reforestation</i> and	Conformance	Conformance
<i>afforestation</i> with tree species and provenances that are suited to the site conditions or the use of <i>tending</i> , <i>harvesting</i> <i>and transport</i> techniques that <i>minimise</i> tree and/or soil damages should be applied.	 (see 1.2.b, 2.1.c, 2.2.a, 5.2.b) Landowners are required to reforest harvested stands, and to use species that are ecologically suited to the site. Landowners are required to conform with harvest rules, which include guidance on protecting soils. 	 State forests must provide for healthy forests through the use ofappropriate genetic sources of forest tree seed and species in regeneration programs. See 2.2.b, for private lands, harvest rules Administrative rules directing the management of state forests do no explicitly reference the operational-level practices of tending and harvesting. However the practices supporting objectives and strategies required of plans support harvest prescriptions and operational guidance that avoids damages to forest resources. More specificity would be required in the rules to serve as a standard.
2.2.c. The use of pesticides and herbicides should be minimised, taking into account appropriate silvicultural alternatives and other biological measures.2.2.d. In case fertilisers are used they should be applied in a controlled manner and with due consideration to the environment.	 (C) Conformance [OAR 629 Division 620, ORS Chapter 634]; [OAR Chapter 603-057]; Forest chemicals, including pesticides, regulated in order to avoid detrimental impacts to air, water, and soil quality. Landowners are encouraged to use IPM 	 (C) Conformance [OAR 629 Division 620, ORS Chapter 634]; [OAR Chapter 603-057]; Chemical use on state lands must conform with the requirements established for private lands.

3.1 Maintenance and encouragement of productive functions of forests (wood and non-wood): Guidelines for Forest			
Management Planning.			
3.1.a. Forest management planning should	(P)	(<i>C</i>)	
aim to maintain the capability of forests to	Conformance	Conformance	
<i>produce a range of wood and non-wood</i> <i>forest products and services</i> on a sustainable basis.	 Reforestation, retention, and harvest rules direct practices to maintain <i>wood</i> and <i>non-wood services</i>, and plans are required in for particular areas and/or to provide a justification that operations will be successful to these ends (e.g. natural regeneration as a means to reforest). <i>Nonconformance</i> Landowners are not required to develop plans with an aim of maintaining both non-wood and wood forest products and services. The objectives of individual operations are determined by the landowners, but guided by regulation. 	 [629-035-0030] Management planning requirements address the overarching principle of achieving greatest permanent value. The State Forester is directed to include a wide array of stewardship principles in management plans, which include sustainable forestry practices for both wood and non-timber goods and ser vices. 	
3.1.b. Forest management planning should	(P)	(<i>C</i>)	
aim to achieve sound economic performance	Conformance	Conformance	
taking into account possibilities for new markets and economic activities in connection with all relevant goods and services of forests.	 Oregon statewide strategies (FPFO), which underlie current and future programs seek to strengthen and diversify forest-based economic opportunities for Oregon. Landowners are required to reforest with 	 [OAR 629-035-0055] Forests that are designated for active management are those that can support, and will be managed foreconomic value over the long-term. 	
	species that will maintain the economic, ecological, and social value of forests—planted species must be commercially valuable and ecologically suited to the site.	• Certain areas, which may be designated as Focused Stewardship Lands, may be designated as appropriate to generate non- timber forest products.	
	 Nonconformance Landowners may or not take into account new markets, or even achieve sound economic performance, based on their own discretion. 	• Forest management planning is not explicitly directed to account for the emergence of new markets. However the charge to manage for greatest permanent can drive consideration of new market opportunities.	

3.1.c. Forest management plans or their	(P)	(<i>C</i>)
equivalents should take into account the	Conformance	Conformance
different uses or functions of the managed	(see 3.1.b)	[OAR 629-35-0010]
should make use of those policy instruments set up to support the production of merchantable and non-merchantable forest goods and services.	 Plans required by rule will safeguard the different <i>functions</i> of the managed forest area in regard to values preserved through maintaining healthy water bodies, wildlife habitat, and forests. <i>Nonconformance</i> Other functions and values that are beyond the scope of OFPA precautionary measures, are not required of individual landowners. 	• Consistent with the strategy of achieving greatest permanent value the State Forester is directed to permit the use of forestlands for other goods and services, when appropriate and not detrimental to the condition of the resource (e.g. grazing and recreation)
3.2 Maintenance and encouragemen	t of productive functions of forests (wood and	non-wood): Guidelines for Forest
Management Practices	•	
3.2.a. Forest management practices should be	(P)	(C)
and improve the forest resources and to	Conformance	Conformance
encourage a diversified output of goods and	(see 3.1.b, 3.1.c, and 3.2.b)	[OAR 629-035-0030]; [629-035-0055]
services over the long term.	 Forest management practices must conform with OFPA rules, which are designed to steward forest, water, and soil resources. <i>Nonconformance</i> Forest management practices required of landowners do not assure a diversified output of goods and services. 	 To achieve permanent value, statutes require plans to include many strategies intended to maintain and improve forest resources, and attendant benefits. The definition of greatest permanent value includes <i>the predictable production of forest products</i>. Non-timber forest products are specifically mentioned as an output for focused and special stewardship lands.

3.2.b. Regeneration, tending and harvesting	(<i>C</i>)	(<i>C</i>)
operations should be carried out in time, and	Conformance	Conformance
in a way that do not reduce the productive	[OAR 629-630-0000 through 629-630-0800]	[629-35-0020]; [629-35-0055]
damage to retained stands and trees as well as to the forest soil, and by using appropriate systems.	 Oregon landowners are required to undertake forest management operations in a manner that does not diminish the productive capacity of the site. OFPA rules address the use of harvesting systems appropriate for specific areas. OFPA rules pay particular attention to operations in specified resource sites, which are important to particular species, certain water bodies, and areas susceptible to erosion and land for the site. 	 The state forester is required to classify lands, and through supporting assessments that consider sensitivity of the resources will determine which lands are silviculturally capable. An appropriate range of management activities are designated for silviculturally-capable lands. Management activities <i>must [protect] soil, air, and water.</i> See 3.2.b for private lands, <i>harvest rules</i>
3.2 c. Harvesting levels of both wood and	(P)	(C)
non-wood forest products should not exceed	Conformance	Conformance
a rate that can be sustained in the long term,	[ORS 527.630]; [ORS 627.676]	[629-35-0030 (3) (c)]; [629-035-0030 (2) (c)]
and optimum use should be made of the harvested forest products, with due regard to nutrient offtake.	• Reforestation rules ensure that forest management perpetuates forests that are of economic ecological and social value over the	• OAR's that apply to private lands also apply to state forests.
	long-term.	 Management plans for state forests are required to employ strategies that [produce] sustainable
	Nonconformance	levels of timber consistent with protecting,
	• Landowners are not required to regulate volume growth and yield over the long-term.	maintaining, and enhancing other forest resourcesThe goals of forest management plans must
	• Landowners are not required to make optimum use of harvested products.	include sustained yield.
	• There are no current rules about nutrient offtake, although FPFO policy is to maintain soil productivity.	

3.2.d. Adequate infrastructure, such as roads,	(C)	(<i>C</i>)
skid tracks or bridges should be planned,	(see 3.2.b)	Conformance
established and maintained to ensure efficient delivery of goods and services while at the	Conformance	• Infrastructure requirements on state lands are
same time minimising negative impacts on	[OAR 629-630-0000 through 629-630-0800]	the same as those on private lands.
the environment.	• OFPA rules provide detailed guidance on	
	appropriate design of infrastructure associated with harvest operations.	

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4.1. Maintenance, conservation and	appropriate enhancement of biological diversit	y in forest ecosystems: Guidelines for forest
management planning		
4.1.a. Forest management planning should	(P)	(<i>C</i>)
aim to maintain, conserve and enhance	Conformance	Conformance
biodiversity on ecosystem, species and genetic level and where appropriate	[ORS Chapter 496]; [ORS Chapter 564]; [OAR 629-	[OAR 629-35-0030 (3)(b)(A-D)]
diversity at <i>landscape level</i> .	665]; [ORS 541.360 to 541.405]	• Management plans must include strategies to
	• OFPA rules as well as the management of extensive state and federal lands constitute a statewide strategy for enhancing conserving listed species and forest resources on which they depend.	contribute to <i>biological diversity of stand types</i> and structures at the landscape level and over time; and, create conditions that serve to maintain and restore habitat functions for terrestrial and aquatic wildlife species native to Oregon.
	• Landowners must develop written plans that document how forest operations are designed such that they will not to degrade habitat of listed species.	• Strategies for contributing to biological diversity in management plans should also address <i>maintaining and conserving genetic diversity of forest tree species.</i>
	• OFPA rules on retention help to maintain habitat elements and genetic legacies in Oregon forests.	
	• Public lands play a complementary role in the landscape by conserving a wider array of ecosystem functions and elements than regulated on private lands.	
	Nonconformance	
	• Landowners are not required to plan and manage for biodiversity at the landscape scale.	
	• None of the OFPA rules regulating the management of private forestlands explicitly address species, genetic, and ecosystem diversity.	

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4.1.b. Forest management planning and	(P)	(P)
terrestrial inventory and mapping of forest	Conformance	Conformance
resources should include ecologically	(see 4.1.a)	(see 4.1.a)
important forest biotopes, taking into account protected, rare, sensitive or representative forest ecosystems such as riparian areas and wetland biotopes, areas containing endemic species and habitats of threatened species, as defined in recognised reference lists, as well as endangered or protected genetic in situ resources.	 Statewide assessments carried out cooperatively between state, federal, and non-governmental organizations, are the basis for: Monitoring the condition of Oregon's forest resources relative to threats from disease, pests, and fire; Establishing recognized reference lists that help designate resources and areas directly addressed through OFPA rules (harvest rules, areas and mode of operations, operations for which management plans and inspections are required, etc.); and, Establishing areas containing <i>rare</i>, <i>sensitive</i>, <i>or representative ecosystems</i> (e.g. biological sites); Where statewide assessments have established a specified resource site, landowners must submit plans for operations occurring within or near those 	 (see 4.1.a) [OAR 629-35-0055 (3) (b&c)]; Land classifications include Focused and Special Stewardship lands for which integrated management is modified or precluded, respectively, which in some cases is based on the provisions of a habitat conservation plan designed to protect <i>species on recognized reference lists</i>. Small-scale Focused and Special Stewardship areas may be designated to protect certain plant species and communities, aquatic species and habitat, and wildlife habitat. <i>Nonconformance</i> Management planning requirements established by statutes do not explicitly address the reference to representative ecosystems in this PEOLG criterion. Mapping and inventory of ecologically important biotopes is not directed by statutes on
	sites.	management of state forest lands (Div. 35)
	Nonconformance	
	• Landowners are not required to independently identify through inventory and mapping, nor plan, in manner that accounts for the all elements identified in PEOLG criterion 4.1.b.	

4.2. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems: Guidelines for forest		
management practices		
4.2.a. Natural regeneration should be preferred, provided that the conditions are adequate to ensure the quantity and quality of the forests resources and that the existing provenance is of sufficient quality for the site.	 (P) Conformance (see 1.2.b and 4.2.b below) Landowners are required to reforest in a manner that perpetuates forests of ecological, economic, and social value based on the use of appropriate species and achieving target stocking levels. Landowners are required to justify choice of natural regeneration as an appropriate means to 	 (P) Conformance [OAR 629-35-0020] Reforestation rules which affect state forests include the acceptability of natural regeneration as an alternate strategy. Strategies supporting greatest permanent value, promote the retention of genetic resources on state forestlands
	 achieve <i>reforestation</i> as an appropriate means to achieve <i>reforestation</i> stocking levels with appropriate species (<i>see</i> above). <i>Nonconformance</i> Natural regeneration is not preferred by the reforestation rules. 	 Nonconformance There is no explicit reference to the preferential use of natural regeneration as a preferred reforestation strategy.
4.2.b. For reforestation and afforestation, origins of native species and local provenances that are well adapted to site conditions should be preferred, where appropriate. Only those introduced species, provenances or varieties should be used whose impacts on the ecosystem and on the genetic integrity of native species and local provenances have been evaluated, and if negative impacts can be avoided or minimised.	 (C) Conformance [OAR 629-610-0050]; [OAR 629-610-0060] (see 4.2.a.) Reforestation rules require the use of plantings that are of local provenance, which are ecologically well-suited to the site. State-supported seedling nurseries provide seedling stock well-suited to planting in reforestation operations. 	 (C) Conformance [OAR 629-35-0020] Statutes establish that all references to forest tree species in plans mean three State forests are subject to the same requirement on reforestation as private lands, which include requirements on the use of plantings that are ecologically suited to the site.

4.2.c. Forest management practices should,	(P)	(<i>C</i>)
where appropriate, promote a diversity of both horizontal and vertical structures such as uneven-aged stands and the diversity of species such as mixed stands. Where appropriate, the practices should also aim to maintain and restore landscape diversity.	 <i>Conformance</i> Retention rules require landowners to maintain biological legacies and structural features on the landscape. Protection measures for specified resource sites, water bodies, and biological sites help to retain key structural elements. Specified resource sites, and rules govern operations within or adjacent to these areas, integrate objectives formulated and carried out at the landscape scale by the state in cooperation with outside organizations. <i>Nonconformance</i> Landowners are not required to consider structural diversity as a guiding factor in designing silvicultural treatments. Individual private landowners are not expected to consider landscape diversity as a factor in forest management. 	 <i>Conformance</i> [FPFO E.4]; [OAR 629-35-0030]; [OAR 629-35-0010] The Forest Program for Oregon directs the state to use structure based management on state forestlands, supported by science-based monitoring and evaluation. Structure-based management is employed in state forests, with aim of maintaining natural forest ecosystems through management approaches that retain a diversity of structures in the landscape. Statutes require that Management plans must contain strategies to contribute to the biological diversity of forest stand types and structures at the landscape level over time.
4.2.d. Traditional management systems that have created valuable ecosystems, such as coppice, on appropriate sites should be supported, when economically feasible.	(N/NA)	(N/NA)

4.2.e. Tending and harvesting operations	(P)	(<i>C</i>)			
should be conducted in a way that does not	Conformance	Conformance			
<i>cause</i> lasting damage to ecosystems.	[OAR 629-625-0600, OAR 629-610-0030, OAR 629- 635-0110]	(<i>see</i> 4.1.b and 4.2.c)			
be taken to improve or maintain biological		[OAR 629-035-0030]; [OAR 629-035-0030]			
 be taken to improve or maintain biological diversity. OFPA rules are designed to ensure that all harvest operations will not result in lasting damage to ecosystems. OFPA rules provide guidance on how, in practice, landowners are to protect specified resource sites. Nonconformance Landowners are not required or explicitly encouraged to incorporate all practice measures to improve biological diversity. 	 The state is required to manage forest conditions to maintain and restore properly functioning aquatic habitatsprotecting, maintaining, and enhancing wildlife habitats, Land classification guidance includes direction on the designation of Special and Focused Stewardship both on the large-scale and small where appropriate to protecting key ecosystem components; as well as instances for exempting silviculturally-capable lands from active management based on the sensitivity of the resource. 				
4.2.f. Infrastructure should be planned and	(C)	(<i>C</i>)			
constructed in a way that <i>minimises damage</i>	 <i>Conformance</i> OFPA rules comprehensively address the planning and layout of infrastructure, with the objective that all operations in Oregon minimize degradation of forest, soil, and water resources in the state. OFPA rules pay particular attention to construction activities that can potentially impair fish passage. 	Conformance			
representative ecosystems and genetic reserves, and that takes threatened or other key species - in particular their migration patterns - into consideration.		• Roads on state forestlands are subject to the same regulations as private lands.			
		• Forest management plan strategy seven for approved plans specifies road locations and practices to minimize negative impacts on aquatic/riparian areas.			
		• Harvest sites are protected under contract provisions on a sale by sale basis and meet and exceed the same regulations on private lands.			
		• Landscape, aquatic, and riparian strategies of approved forest management plans specifies conduct of harvest operations to protect resources on the harvest sites and adjacent sites.			

4.2.g. With due regard to management objectives, measures should be taken to balance the pressure of animal populations and grazing on forest regeneration and growth as well as on biodiversity.	(C) Conformance Reforestation requirements under the OFPA put the responsibility for controlling domestic and wild animal damage to young trees on the landowner.	 (C) Conformance Land classifications address the use of Focused and Special Stewardship Areas for grazing use.
4.2.h. Standing and fallen dead wood, hollow trees, old groves and special rare tree species should be left in <i>quantities</i> and <i>distribution</i> necessary to <i>safeguard biological diversity</i> , taking into account the potential effect on health and stability of forests and on surrounding ecosystems.	 (P) Conformance [OAR 629-680-0420] Landowners are required to protect areas designated as special resource sites, which will include many sites that would be considered <i>old</i> <i>groves</i>. OFPA rules require retention of standing and downed dead trees, in quantities and in a distribution intended to safeguard biological diversity and retaining biological legacies, habitats, and ecological functions. Rare trees and stands constituting old groves may be considered and designated biological sites. <i>Nonconformance</i> Landowners are not required to set aside old groves as a precautionary measure the safeguard biodiversity, unless otherwise designated through a statewide assessment. 	 (P) Conformance [OAR 629-035-0030] Land management plans are required to encompass measures that will contribute to biological diversity of forest stand types and structures at the landscape level; and retain conditions enhancing and protecting habitat for aquatic and terrestrial species. Retention rules are addressed in practices on state forests (see requirements for private lands.) Nonconformance While required strategies and supporting plans would do so to a great extend, there is no explicit reference to retaining old-groves or old-growth in the statutory guidance.

4.2.i. Special key biotopes in the forest such	(<i>C</i>)	(<i>C</i>)
as water sources, wetlands, rocky outcrops	Conformance	Conformance
and <i>ravines</i> should be protected or, where	[OAR 629-680-0000]; [OAR 629-680-0410 through	[OAR 629-035-0055]; [OAR 629-35-0030 (3)(b)(A-D)]
practices.	 0430, Biological Sites] Assessments for Biological Sites are conducted by the state or other organizations with appropriate expertise, which determines the degree of protection merited and management activities appropriate the maintaining the qualities of the site. 	 All state forests are classified as General Stewardship, Focused Stewardship, or Special Stewardship. These categories take into account special uses and features relative to integrated land management. <i>see</i> 4.1.a <i>see</i> biological sites for private lands OAR 629- 680-0410 Non-conformance Designation, protection, and restoration of a sites conceptually equivalent to "special key biotopes" (as opposed to listed species and associated habitat) are not explicitly referenced in statutes directing state forest management.
5.1. Maintenance and appropriate en	hancement of protective functions in forest ma	anagement (notably soil and water):
Guidelines to enhance forest manage	ment planning.	-
5.1.a. Forest management planning should	(C)	(<i>C</i>)
aim to maintain and enhance protective	Conformance	Conformance
functions of forests for society, such as	(see 4.2.f)	[OAR 629-035-0010]
soil erosion, protection of water resources and from adverse impacts of water such as floods or avalanches.	• OFPA rules provide comprehensive guidance on appropriate measures undertaken in forest management operations to safeguard the soil and water resources.	• Statutory guidance establishes that a central purpose of state lands, and objective in planning, must be to [provide economic revenue to the state, native wildlife habitat, protections and improvements in soil and water resources, and outdoor recreation opportunities.]

5.1.b. Areas that fulfill specific and recognised protective functions for society should be registered and mapped, and forest management plans or their equivalents should take full account of these areas.	 (C) Conformance (see 1.1.b) Statewide assessments provide identification, delineation and determine appropriate management considerations for areas that serve recognized protective functions to society. 	 (C) Conformance [OAR 629-035-0045] The state forester is required to develop and maintain land base designation maps, based on the applicability of integrated management and relative dominance of certain uses.
5.2. Maintenance and appropriate en Guidelines to enhance forest manage	hancement of protective functions in forest ma ment practices.	anagement (notably soil and water):
5.2.a. Special care should be given to silvicultural operations on sensitive soils and erosion prone areas as well as on areas where operations might lead to excessive erosion of soil into watercourses. Inappropriate techniques such as deep soil tillage and use of unsuitable machinery should be avoided on such areas. Special measures to minimise the pressure of animal population on forests should be taken.	 (C) Conformance (see 3.2.b) Harvest rules establish regulate operations to prevent the erosion of soils into watercourses and other damage to harvest sites and other areas affected by forest management operations (infrastructure including waste/fill areas, stream crossings, roads, etc.) 	 (C) Conformance [OAR 629-035-0010]; [OAR 629-035-0030] Statutory guidance establishes that a central purpose of state lands, and objective in planning, must be to [protect and improve soil and water resources.] The broader management context set by achieving greatest permanent value requires that planning and management focus on functioning aquatic systems (un affected by erosion) and protection of soil resources. see 5.2.a, private lands.

5.2.b. Special care should be given to forest	(<i>C</i>)	(<i>C</i>)
management practices on forest areas with	Conformance	Conformance
<i>water protection function</i> to avoid adverse effects on the quality and quantity of water resources. Inappropriate use of chemicals or other harmful substances or inappropriate	[OAR 629 Divisions 620, 625, 630, 630, 635, 640, 645, 650, 655]; ORS 527.765 and 527.770]; [OAR 629-640-0300 and 0400].	[OAR 629-035-0055 (v)]; [OAR 629 Divisions 620, 625, 630, 630, 635, 640, 645, 650, 655]; ORS 527.765 and 527.770]; [OAR 629-640-0300 and 0400].
silvicultural practices influencing water quality <i>in a harmful way</i> should be avoided.	• OFPA rules pay particular attention to the protection of water bodies. The water protection requirements in the harvest rules encompass Oregon's Best Management Practices (BMPs), which provide protection for water bodies by	 Domestic water use is a focus of integrated management on state forest lands. <i>See</i> 5.2.b, for private lands. State forests are subject to water resource protection measures in the state
	controlling sources of non-point pollution.	ule state.
	 Harvest restrictions and modified operations apply for Riparian Management Areas (RMA) 	
	 Rules address the location, design, and construction of infrastructure associated with forest management (e.g. skid trails, stream crossings, landings, waste-fill areas, roads, etc.). 	
	 Rules include considerations of harvest practices (e.g. directional felling, setbacks, and design for yarding systems). 	
	• Programs sponsored by the state such as the Oregon Watershed Enhancement Board, facilitate voluntary efforts of individual landowners in collaboration with outside groups to enhance water quality and ecological functions of rivers and streams, especially in regard to habitat for migratory salmonids.	
5.2.c. Construction of roads, bridges and	(C)	(<i>C</i>)
other infrastructure should be carried out in a	Conformance	Conformance
avoids the introduction of soil into	(see 5.2.b.)	[OAR 629-035-0020]
watercourses and that preserve the natural level and function of water courses and river beds. Proper road drainage facilities should be installed and maintained.	• Harvesting rules provide comprehensive guidance on the construction of roads, bridges and other infrastructure, and including design specifications and maintenance to ensure proper drainage, in order to preserve the <i>natural function</i> of watercourses.	 Forest management plan strategy 7 for approved plans specifies that road locations and practices minimize impacts on aquatic/riparian areas. (<i>see</i> 5.2.b, for private lands)

6.1 Maintenance of other socio-economic functions and conditions: Guidelines to enhance forest management planning.						
6.1.a. Forest management planning should aim to respect the multiple functions of forests to society, have due regard to the role of forestry in rural development, and especially consider new opportunities for employment in connection with the socio- economic functions of forests.	 (P) Conformance [OAR Chapter 471] Objectives of the FPFO, and programmatic functions of ODF other agencies support a sustainable forest products economy intended to enhance rural economic opportunities. Nonconformance Planning by landowners is not required to consider new opportunities for employment or the role of forestry in rural development. 	 (C) Conformance [OAR 629-035-0010]; [OAR 629-035-0020] State forest lands are dedicated to achieving greatest permanent value, which meanshealthy, productive, and sustainable ecosystemsthat provide a full range of social, economic, and environmental benefits[which include]sustainable and predictable production of forest products that generate revenues for the benefit of the state, counties, and local taxing districts" Forest management plans are required to be devised in a science-based manner that meets the above objectives through management strategies that integrate multiple resource values. Forest management plan goals in turn consider an array of societal benefits from state forest lands, including economic support for local communities and the state economy 				
6.1.b. Property rights and land tenure arrangements should be clearly defined, documented and established for the relevant forest area. Likewise, legal, customary and traditional rights related to the forest land should be clarified, recognised and respected.	 (C) Conformance [OAR 629-625-0600, OAR 629-610-0030, OAR 629-635-0110] Survey and titling of land is well addressed in state law, and includes provisions for competing claims. 	 (C) Conformance [ORS 270-275, 526 & 530] All state forestlands are held according to clear titles and deed, as vested in Federal law. The State Forester is required to establish and maintain maps of state forests. 				

(NA)	(<i>C</i>)			
	Conformance			
	[OAR 629-035-0000-0070]; [ORS 530.010 – 530-050]			
	• The management focus established through the purpose of greatest permanent value, includes management objectives to integrate recreational use of state forests.			
	• Legally-accessible lands under the jurisdiction of the State Land Board are open to public recreation, to the extent that such use does not interfere with the established legal rights of others, or damage the cultural, economic, and natural resources of the lands, or pose a danger to public safety.			
(P)	(<i>C</i>)			
Conformance	Conformance			
[ORS 358.905 – 920];[ORS 97-740-760] [ORS 97.740 to 97.760]	[ORS 358.905 – 920];[ORS 97-740-760] [ORS 97.740 to 97.760]			
• Oregon supports a number of institutions and program that identify, recover, interpret and protect sites of historical, cultural and spiritual	• The State Historic Preservation office has broad authority to ensure protection of historical sites and uses, including indigenous rights and uses.			
 significance. Oregon law requires that<i>human remains, a funerary object, sacred object or object of cultural patrimony</i> discovered on private or public lands shall be protected. 	• (<i>see</i> 6.1.d, for private lands) State lands have additional restrictions, and permitting procedures, for the discovery, study, and transportation of objects found on public lands.			
	 (NA) (P) Conformance [ORS 358.905 – 920];[ORS 97-740-760] [ORS 97.740 to 97.760] Oregon supports a number of institutions and program that identify, recover, interpret and protect sites of historical, cultural and spiritual significance. Oregon law requires thathuman remains, a funerary object, sacred object or object of cultural patrimony discovered on private or public lands shall be protected. 			

6.1.e. Forest managers, contractors,	(P)	(P)			
employees and forest owners should be	Conformance	Conformance			
provided with sufficient information and encouraged to keep up to date through continuous training in relation to sustainable	[OAR 629-625-0600, OAR 629-610-0030, OAR 629- 635-0110]	• ODF personnel policies specify required skills and preparation, and provide on-the-job training for employees.			
Torest management.	must have a license, which requires written communications of employment conditions, compensation, and workers' rights and remedies	• Labor contracts for state employees require proper preparation and on-the-job training for workers.			
	under state and federal law.	• (<i>see</i> 6.1.e, private lands)			
	Nonconformance	Nonconformance			
	• Landowners may be exempted from requirements affecting forest workers, and are not required to assure/promote the provision of information related to training in sustainable forest management.	• Statutes do not explicitly reference training and information related to sustainable forest management.			
6.2 Maintenance of other socio-econo	omic functions and conditions Guidelines to enl	nance forest management practices.			
6.2.a. Forest management practices should	(P	(P)			
make the best use of <i>local forest related</i>	Conformance	Conformance			
communities, forest owners, NGOs and local	• Statewide assessments used to determine extent	[OAR 629-035-0080]			
people.	 and management approaches suitable for specified resource sites (including biological sites) reference external expertise as appropriate. Nonconformance Private landowners are not required to consult outside expertise, local or related, to inform management practices, excepting notification requirements pursuant to the OFPA 	 Statutes require opportunities for public involvement, <i>appropriate</i> to planning decisions under consideration. The goals of outside input include seeking insight and data on planned management actions. Assessments of special resource sites, which determine appropriate management practices associated with the site, include consultation with outside expertise. 			
		Nonconformance			
		• Statutes do not explicitly reference making use			

6.2.b. Working conditions should be safe, and guidance and training in safe working practice should be provided.	 (P) Conformance [OAR 629-605-0400] (see 6.2.b, for state lands) Nonconformance Private landowners are not required to ensure that operators/contractors meet these requirements. 	 (C) Conformance [OAR 629-605-0400]; Occupational Safety and Health Administration (OSHA) rules, federal & state. OR-OSHA guidance to employers includes extensive requirements essential to ensuring the safety of operators and their employees. Safety training is required of employers. Oregon administrative rules include provisions for safety in forestry-related operations including harvesting and fire control.
6.2.c. Forest management operations should take into account all socio-economic functions, especially the <i>recreational</i> function and <i>aesthetic</i> values of forests by maintaining for example varied forest structures, and by encouraging attractive trees, groves and other features such as colours, flowers and fruits. This should be done, however, in a way and to an extent that does not lead to serious negative effects on forest resources, and forest land.	 (P Conformance [ORS 527.755] Statutes require modified management practices to address visual quality, for a 150' buffer area in visually sensitive corridors. Nonconformance Aesthetic considerations, beyond statutory visual corridors, are not explicitly addressed under the OFPA provisions affecting forest management operations on private lands. 	 (C) Conformance [ORS 527.755]; [OAR 629-035-0055] Oregon law requires the adherence to special management considerations within "visually sensitive corridors" along thirty major state & interstate highways. Special Stewardship lands include areas where visual quality objectives take precedence over objectives in integrated management approaches. Forest management plan goals and strategies for Board-approved plans include considerations of scenic resources.

4.2 Discussion of Conformance Ratings

The following section discusses the ratings assigned by the Pinchot Institute for conformance with the requirements of the Pan-European Operational Level Guidelines. This discussion focuses on the common requirements for all Oregon landowners, primarily addressed through the Oregon Forest Practices Act. These are the baseline requirements in the state, and are therefore the core for conformance with a statewide certification scheme. More detailed information on conformance for lands with additional direction (state & federal) are available in the reference matrix accessible on the Oregon Department of Forestry website as a separate document, and for state lands, by referencing **Table 13**.

Table 14. Summary ratings for conformance with the PEO	LG Criteria. (C	= full (conformance, P = par	tial
conformance; $N = does not conform$)				

	Private Lands		State Lands			Federal Lands			
PEOLG Criterion	С	Р	Ν	С	Р	Ν	С	Р	Ν
1.1 Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles: Guidelines for Management Planning	1	3	0	4	0	0	4	0	0
1.2. Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles: Forest management practices	1	2	0	2	0	1	3	0	0
2.1. Maintenance of forest ecosystem health and vitality: Guidelines for forest management planning	2	1	0	2	1	0	3	0	0
2.2. Maintenance of forest ecosystem health and vitality: Guidelines for forest management practices	2	1	0	3	0	0	3	0	0
3.1 Maintenance and encouragement of productive functions of forests (wood and non-wood): Guidelines for Forest Management Planning	1	3	0	4	0	0	4	0	0
3.2 Maintenance and encouragement of productive functions of forests (wood and non-wood): Guidelines for Forest Management Practices	2	2	0	4	0	0	4	0	0
4.1. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems: Guidelines for forest management planning	0	2	0	1	1	0	2	0	0
4.2. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems: Guidelines for forest management practices	3	4	0	6	1	0	7	0	0
5.1. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water): Guidelines to enhance forest management planning.	2	0	0	2	0	0	2	0	0
5.2. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water): Guidelines to enhance forest management practices.	3	0	0	3	0	0	3	0	0
6.1 . Maintenance of other socio-economic functions and conditions: Guidelines to enhance forest management planning.	1	3	0	4	1	0	5	0	0
6.2 Maintenance of other socio-economic functions and conditions Guidelines to enhance forest management practices.	1	2	0	2	1	0	3	0	0
Total	19	23	0	37	5	1	43	0	0
Percentage Total	45%	55%	0%	86%	12%	2%	100%	0%	0%

1.1 Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles: Guidelines for Management Planning

1.1.a. Forest management planning should aim to maintain or increase forest and other wooded area, and enhance the quality of the economic, ecological, cultural and social values of forest resources, including soil and water. This should be done by making full use of related services such as land-use. (Private Lands – C; State Lands – C; Federal Lands – C)

1.1.b. Inventory and mapping of forest resources should be established and maintained, adequate to the local and national conditions, and in correspondence with the topics described in these Guidelines. (Private Lands – P; State Lands – C; Federal Lands - C)

1.1.c. Management plans or their equivalents, appropriate to the size and use of the forest area, should be elaborated and periodically updated. They should be based on legislation as well as existing land use plans, and adequately cover the forest resources. (Private Lands – P; State Lands – C; Federal Lands - C)

Oregon provides incentives, assistance and oversight for sustainable forest management on private lands. Planning requirements for forestry-related operations are designed to maintain specified resources. Landowners can receive assistance for planning, and planned outcomes and approaches are reviewed and frequently inspected.

Under the Oregon Forest Practices Act private landowners in Oregon are not *required* to develop and update a forest management plan, conduct inventory, or produce maps unless they are conducting commercial activities pertaining to the harvest of trees. However operations require notification, and in certain areas designated as *specified resource sites* induce state requirements for written plans. These sites include a proscribed area near designated streams and significant wetlands, and the habitat of listed wildlife species, and biological sites determined by assessments to contain unique occurrences of special ecotypes.

Resource sites concerning wildlife species are specified in a "Cooperative Agreement between the Board of Forestry and the (Oregon) Fish and Wildlife Commission." Forestland resource sites for threatened and endangered species are those defined by the Oregon Fish and Wildlife Commission and U.S. Fish and Wildlife Service. Landowners will need to submit plans prior to operations. Provided that planned activities are consistent with the provisions of these requirements, the intent of this PEOLG criterion will be met.

Comment and written approval from the State Forester (SF) is not required prior to commencing operations. However these plans allow for the state to advise on the possibility that planned activities violate enforceable requirements, and therefore may result in penalties. Other activities for which written plans are required mainly concern operations near water bodies, and where there is higher risk of land-failure and erosion. In particular, plans should address activities that may result in erosion affecting stream water quality or pose a safety risk downstream, including: stream crossings, placement of landings, general harvesting operations, yarding across water bodies, addition of coarse woody debris or stone to stream channels for restoration, removing beaver dams, and/or road construction in watersheds or in proximity to streams where such risks exist. The plan that is submitted should contain specific information on the operation and planned mitigation and stabilization strategies.

The SF may also waive the requirement to submit a written plan for these activities. A plan prepared for notification of operations in designated sensitive resource areas must contain elements such as a map, and a detailed description of sites needing protection, practices that could degrade the protected qualities, and measures that will be undertaken to safeguard the protected resources.

Landowners seeking eligibility for technical assistance, or cost-share funds for planning, through the Forest Stewardship Program are also required to have a ten-year forest management plan. The FSP plan, which is typically prepared by a qualified forester and always reviewed by the state, must include a description of the resources, goals, and objectives, and how management will maintain the quality of

wildlife, aquatic, and forest resources. A map is also required. The stewardship plan. . . *provides* guidelines for a sound strategy that reflects the landowner's commitment to a land stewardship ethic that focuses on the integration of all resources in the management of the property as a valuable legacy for future generations. A large portion of the non-industrial private acreage, composed of large ownerships engaged in forestry on an ongoing basis, have a stewardship plan reviewed by the state.

The planning requirements of landowners, and the attendant use of plans in forest management, are extensive and cover most aspects of maintaining many of the important *ecological, economic, social* and *cultural* values of Oregon forests. The plans are based on inventory and assessment carried out by the state, with risks to important resources verified through onsite inspections and review of planned activities. However the scope of the PEOLG requirements for individual landowners (as a requirement for the certification of those individual landowners) are beyond what must be in place for all Oregon private landowners practicing forestry. The stated objective of statutory plan requirements is not to *enhance* ecological, economic, social, and cultural values of the forest. Also, individual landowners are not required to establish their own system of inventory and mapping, or commit to a long-term plan that is periodically updated. In this respect landowners participating in the Forest Stewardship Program will fully address this PEOLG.

1.1.d. Monitoring of the forest resources and evaluation of their management should be periodically performed, and their results should be fed back into the planning process. (Private Lands – P; State Lands – C; Federal Lands - C)

Oregon's Forest Practices Act/Rules include some requirements or inferences related to landowner/operator monitoring. These include inspections for maintenance of roads drainage before the rainy season [OAR 629-625-0600], and a plan for evaluating reforestation success [OAR 629-610-0030], especially when natural regeneration is the chosen and approved method.

The landowner may also cooperate with a number of monitoring activities conducted by the state (e.g., Water Protection Rules – OAR 629-635-0110). For example, ODF Stewardship Foresters examine each notification of operations submitted and are responsible for monitoring any operations that may pose a significant risk of resource damage or those requiring a plan for alternate practice. Additionally, the state bears the responsibility for conducting inventory and monitoring of native and exotic pests and other forest health risks. While participation by individual landowners is by permission, access to forestlands may be granted by court order in cases of emergency.

A statewide commitment to monitoring is also asserted as a key action in the FPFO (i.e. *The board will promote active, adaptive forest management and the outreach monitoring, assessments, research, and evaluations that support it as a continuous learning and improving process for all seven strategies.*) Presently, monitoring activities carried out by the state document the trends in factors affecting the health of Oregon's forests. Findings inform actions the state may take, or assist the landowner in undertaking to avoid or limit outbreaks of native and exotic pests.

There are no requirements for private landowners to conduct systematic monitoring, and make adjustments due to findings. However, many of the provisions introduced by harvest planning notification requirements could require informal monitoring of operations and results. Also, as mentioned above, the natural reforestation requires a plan for tracking and evaluating success. Monitoring activities of the state are designed to prevent damage to specified resource sites, water bodies, and maintain the health of Oregon's forests, and cover much of what would otherwise occurs at the landowner level in a successful monitoring program.

Certification systems typically require that monitoring programs inform management practices. The degree to which statewide monitoring detects the impacts of landowner forest practices and the condition of forests and water bodies throughout the state—and then directs management responses at the

landowner level--will be paramount for asserting this approach as a key component of a certification program.

1.2. Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles: Forest management practices

1.2.a. Forest management practices should safeguard the quantity and quality of the forest resources in the medium and long term by balancing harvesting and growth rates, and by preferring techniques that minimise direct or indirect damage to forest, soil or water resources. (Private Lands – P; State Lands – C; Federal Lands - C)

Oregon law makes no specific reference to private landowners maintaining sustained yields through regulated harvest. However, some requirements have outcomes that may affect sustained yields by ensuring large areas are not left in an unforestated state. These include requirements on: maximum clearcut size (120 acres) and clearcut "green-up" requirements; harvesting in riparian zones (RMA's); retention of green (live) trees and snags in clearcuts larger than 25 acres (2 per acre); retention of trees and overall harvest patterns along scenic highways/corridors [ORS 527.755]; retention of trees in high risk sites; and most importantly, reforestation to achieve set stocking levels of acceptable species.

None of these requirements necessarily and directly compel the landowner to balance harvest and growth rates. In Oregon private landowners have incentives to reforest, mitigate damage, and retain site productivity, but not necessarily to plan for *medium*-term balance of harvest and growth rates on an ownership as specified in the PEOLG criterion. Reforestation requirements will provide for forest cover over the *long term*.

The other provision of this PEOLG criterion addresses damage to forest resources (i.e. soil, water resources and the rest of the forest ecosystem.) These same considerations are addressed in numerous other PEOLG criteria (i.e. 1.2.a, 2.2.b, 3.2.b, 5.1.a, 5.2.c). Provisions of the OFPA provide an incentive for landowners to prefer techniques that minimize the impact of operations, especially on water bodies. Poorly executed forest operations that damage water bodies and result in soil erosion may lead to citations and fines.

1.2.b. Appropriate silvicultural measures should be taken to maintain the growing stock of resources at - or bring to - a level that is economically, ecologically and socially desirable. (Private Lands – C; State Lands – C; Federal Lands - C)

The OFPA establishes reforestation and stocking guidelines for different types of sites. The rules require use of commercial species ecologically suited to the site. For example, since conifers are the dominant component of Oregon's timberlands, sites generally may not be reforested with hardwoods (or allowed to afforest more than 20% with hardwoods) without an approved plan. An approved plan is also needed for natural regeneration or use of non-native species. The plan must document that the species is ecologically adapted to the site, and is capable of producing merchantable raw materials for the foreseeable future.

Rules provide some incentive for afforestation of certain idle lands [OAR 629-611-0000] by allowing timber harvest in otherwise restricted areas, under a one-time exemption from most tree retention requirements (e.g., within stream RMA except for the first 20 feet from most stream designations, specified resource sites other than during annual critical period of use). (*see* 1.2.C below)

Rules do not require stocking control to maintain or enhance forest productivity (e.g., pre-commercial or commercial thinning), except when stocking control results in basal area or tree counts below specified numerical limits for various site classes; such situations trigger local reforestation requirements due to understocked conditions [OAR 629-610-0020, *see* regeneration section].

1.2.c. Conversion of abandoned agricultural and treeless land into forest land should be taken into consideration, whenever it can add economic, ecological, social and/or cultural value. (Private Lands – C; State Lands – N; Federal Lands - C)

The *afforestation incentive rule* ORS 526.490 ". . .provide[s] an incentive for landowners to convert parcels of idle land or land in other uses to commercial forest use." The incentive is an assurance that the state will not prohibit the harvest of trees--excepting within a defined proximity to designated water bodies or through an operation that would violate the Endangered Species Act—within the first crop rotation. This assurance engenders support for expenditures by landowners to plant and convert suitable barren lands with the intent of harvesting.

2.1. Maintenance of forest ecosystem health and vitality: Guidelines for forest management planning

2.1.a. Forest management planning should aim to maintain and increase the health and vitality of forest ecosystems and to rehabilitate degraded forest ecosystems, whenever this is possible by silvicultural means. (Private Lands – P; State Lands – P; Federal Lands - C)

The rules do no require that landowners rehabilitate degraded forest ecosystems. However, the afforestation incentives encourage the conversion of suited barren lands (*see* PEOLG 1.2.C).

2.1.b. Health and vitality of forests should be periodically monitored, especially key biotic and abiotic factors that potentially affect health and vitality of forest ecosystems, such as pests, diseases, overgrazing and overstocking, fire, and damage caused by climatic factors, air pollutants or by forest management operations. (Private Lands – C; State Lands - C; Federal Lands – C)

The State Forester is required . . .to conduct surveys and evaluations on nonfederal forestlands to determine the presence, extent, trend and impact of native and exotic pests. . . This responsibility includes all non-federal lands in the state. In cases of emergency a court may require a landowner to grant access to their land, otherwise access is by permission. The state is also authorized to assist landowners in mitigating threats to Oregon's environmental, social and economic well-being arising from pests. Additionally, rules governing forest operations recognize slash treatment as necessary tool for the protection of reproduction and residual stands from the risk of fire, insects, and disease [OAR 629-615-0000].

Rules encourage the voluntary use of integrated pest management practices and also state that pesticides use is one of a variety of integrated pest management strategies that forest landowners may implement to minimize forest pest impacts in an environmentally and economically sound manner [OAR 629-620-0000]. In circumstances when pesticide use is appropriate, it is carefully monitored by Oregon Department of Forestry, with licensing of operators done by Oregon Department of Agriculture. All applications must be according to US EPA label instructions, except where Oregon FPA standards are more restrictive.

Overall, specific directives in using chemicals that include pesticides focus on requirements for safety and protection of air and water quality [OAR 629-620-0100 to 0800]. Extensive state and federal laws exist for transporting, storage and disposal of these materials. The Department of Environmental Quality and the Oregon Department of Transportation primarily regulate these materials, but federal agencies can become involved when materials cross state boundaries.

2.1.c. Forest management plans or their equivalents should specify ways and means to minimize the risk of degradation of and damages to forest ecosystems. Forest management planning should make use of those policy instruments set up to support these activities. (Private Lands – C; State Lands – C; Federal Lands - C)

Landowners are required to submit written plans before operations commence that may affect, or occur in specified areas. These areas are sensitive resources sites for species identified by the Department of Forestry, as listed by the Oregon Fish and Wildlife Commission and the U.S. Fish and Wildlife service. They include areas within 300 feet of nesting, roosting, and watering sites for listed birds, and 100 feet of certain types of streams (Type F and Type D streams and large lakes).

Landowners may also be required to submit plans for certain activities that could result in damage to forest ecosystems and water bodies, or endanger public safety. Specified activities requiring plans include establishing waste/fill areas and landings, road construction, stream crossings, and in-stream structural enhancement (e.g. placing boulders and coarse woody debris.)

Written plans induced by these requirements must include a description and map of the activity, with details on how the operation will be carried out and afford adequate protection. The SF is directed to review and comment on submitted plans, and advise on whether they conform with the OFPA. A landowner may commence with operations once it has, or within 21 days of submittal if no comments are forthcoming. Directives contained in the Manual and handbooks are explicit on measures required to protect the forest from exotic species, pests and pathogens, hazardous waste, and erosion and other forms of soil degradation due to harvest operations and other activities. The approach required in directives as described in the Manual and handbooks and supported by NEPA, NFMA, HFRA and other legislation, require thorough knowledge on threats, and multitude of approaches to carry out prevention and mitigation. These approaches include research, training, and mitigation activities designed to eliminate pests and pathogens—which in aggregate significantly shape management direction on each forest. In comparison, certification standards do not require steps to fully understand and address threats posed by pests, pathogens, fire, and road and trail construction and use.

2.2. Maintenance of forest ecosystem health and vitality: Guidelines for forest management practices

2.2.a. Forest management practices should make best use of natural structures and processes and use preventive biological measures wherever and as far as economically feasible to maintain and enhance the health and vitality of forests. Adequate genetic, species and structural diversity should be encouraged and/or maintained to enhance stability, vitality and resistance capacity of the forests to adverse environmental factors and strengthen natural regulation mechanisms. (Private Lands – P; State Lands – C; Federal Lands - C)

The reforestation rules require that species used as natural or artificial reforestation are ecologically suited and genetically adapted to the site. Additionally, landowners are encouraged to use species mixes that will promote stand diversity, and enhance resistance and reduce losses to disease and pest outbreaks.

Oregon law requires retention of some down logs or trees and standing snags or green (live) trees in harvest units greater than 25 acres in size where timber harvest is extensive enough to require reforestation and which leaves less than the minimum number of trees of a specified diameter [ORS 527.676]. Log and tree retention is intended for wildlife habitat, nutrient cycling, moisture retention and other resource benefits. Several other requirements are intended to help maintain soil and site productivity (*see* Soil Resource section). In addition, Oregon landowners must retain larger trees in riparian management areas along type F streams, and in buffer areas around significant wetlands, both of which contribute to structural diversity of the overall landscape.

The reforestation stocking requirements are principally designed to assure that there harvesting does not result in major shifts in species composition away from a stand of economic, ecological, and social value.

Statutory guidance on the retention of downed and standing dead trees, as well as green trees, on sizable harvest areas helps to ensure continuity of ecological function. Although they may have a the effect, reforestation and retention requirements are not explicitly designed to *enhance stability, vitality and resistance capacity* of forests in all parts of the landscape, nor do they ensure the *best use of natural structures* and processes for forest health.

2.2.b. Appropriate forest management practices such as reforestation and afforestation with tree species and provenances that are suited to the site conditions or the use of tending, harvesting and transport techniques that minimise tree and/or soil damages should be applied. (Private Lands – C; State Lands – C; Federal Lands - C)

(see 1.2.b, 2.1.c, 2.2.a, 5.2.b)

2.2.c. The use of pesticides and herbicides should be minimised, taking into account appropriate silvicultural alternatives and other biological measures. (Private Lands – C; State Lands – C; Federal Lands - C)

2.2.d. In case fertilisers are used they should be applied in a controlled manner and with due consideration to the environment. (Private Lands – C; State Lands – C; Federal Lands - C)

Pesticide licensing is done through the US-EPA and Oregon Department of Agriculture. In general, State [OAR 629 Division 620, ORS Chapter 634] and Federal [FIFRA] laws and rules regulate use of forest chemicals such as pesticides, and fertilizers. Operators are also subject to laws of ODA, DEQ, OSHD (OR – OSHA), WRD, OHO, and EPA. Commercial and public applicators and consultants must be credentialed (i.e. training and licensing) for handling restricted use pesticides. This licensing is administered by the Oregon Department of Agriculture [OAR Chapter 603-057]. Notification is required for all chemical applications – chemical type, method of application, location, date, material to be used.

Regulation of the use of forest chemicals is intended to ensure that soil, air, water, wildlife or aquatic organisms are not directly or indirectly harmed. Numerous directives regulate the use of forest chemicals. The rules require that spills and leaks must be controlled and reported; water is protected during mixing by appropriate siting; water is protected during application; chemical containers are properly handled and disposed; daily records care kept of chemical applications; notification of water system operators; aerial applications are subject to approval and a 15 day waiting period. Operators are also encouraged to use integrated pest management (IPM) strategies. Pesticides are mentioned as only one effective tool, implying that other methods should be considered and used where appropriate.

3.1 Maintenance and encouragement of productive functions of forests (wood and non-wood): Guidelines for Forest Management Planning

3.1.a. Forest management planning should aim to maintain the capability of forests to produce a range of wood and non-wood forest products and services on a sustainable basis. (Private Lands – P; State Lands – C; Federal Lands - C)

Written plans are required of Oregon landowners to conduct many types of forest management operations. Reforestation plans are based on the objective to ensure that forestry maintains economically, ecologically, and socially valuable forests. They are not explicitly intended to maintain the capability of forests to produce a range of non-wood forest products. However the guidance on how operations are to be carried out, while not the intent, will serve to maintain this capability.

3.1.b. Forest management planning should aim to achieve sound economic performance taking into account possibilities for new markets and economic activities in connection with all relevant goods and services of forests. (Private Lands – P; State Lands – C; Federal Lands - C)

Management planning requirements are not designed to encourage landowners to ...[take] into account the possibilities of new markets. However, the FPFO establishes Board-level, statewide commitments for promoting and diversifying the value of Oregon's forests. Strategy B of the FPFO is intended to... Ensure that Oregon's forests; provide diverse social and economic; outputs and benefits valued by the; public in a fair, balanced, and efficient; manner. This strategy includes several actions and key actions to assure the competitiveness of the forest-based industry, the resiliency and vitality of communities that depend on forest-related products, and the overall health of Oregon's forests.

In the context of individual private landowners, the rules of the OFPA do not *take into account the possibilities for new markets and economic activities for goods and services [from the forest]*. For example, forest-based recreation is an important part of the economy in the state--public recreational use occurs primarily on public lands. Sustaining recreational opportunities on private ownerships is not an explicit requirement, nor priority established for private landowners.

Required plans that emanate from notification requirements for forest management operations need not consider participation in new markets for goods and services, and as a rule do not. However, they are designed around the maintenance of functioning aquatic and forest ecosystems statewide, and in this respect serve to sustain the goods and services underpinning many of types of economic activities important to the state.

Additionally the Board of Forestry has established several strategies that are focused on other goods services by forestry. Specified actions and key actions will be taken up and developed as discrete initiatives and requirements when possible and in the most effective manner. For example one of the strategy focuses on opportunities for carbon sequestration in forests and forest products to mitigate climate change. Action B5 establishes a goal of promoting sustainable production of other forest products and benefits such as renewable energy, water, non-timber forest products, and recreational and cultural opportunities. None of these commitments and priorities have been incorporated as requirements in written plans prepared by private landowners as suggested by this PEOLG criterion.

3.1.c. Forest management plans or their equivalents should take into account the different uses or functions of the managed forest area. Forest management planning should make use of those policy instruments set up to support the production of merchantable and non-merchantable forest goods and services. (Private Lands – P; State Lands – C; Federal Lands - C)

The written plans required by the state are designed to safeguard *different uses and functions of the managed forest area*, beyond timber value. As described above, the aggregate affect of the requirements promulgated through the forest rules is to sustain both merchantable and non-merchantable goods and services. However, these are not objectives of the plan for an individual landowner.

3.2 Maintenance and encouragement of productive functions of forests (wood and non-wood): Guidelines for Forest Management Practices

3.2.a. Forest management practices should be ensured in quality with a view to maintain and improve the forest resources and to encourage a diversified output of goods and services over the long term. (Private Lands – P; State Lands – P; Federal Lands - C)

(*see* 3.1.b , 3.1.c, and 3.2.b)

3.2.b. Regeneration, tending and harvesting operations should be carried out *in time, and in a way* that do not reduce the productive capacity of the site, for example by avoiding damage to retained stands and

trees as well as to the forest soil, and by using appropriate systems. (Private Lands – C; State Lands – P; Federal Lands - C)

The harvest rules of the Oregon Forest Practices Act comprehensively address the methods of tending and havesting in a manner appropriate for safeguarding the health and productivity of Oregon's forests. (Methods of regeneration are covered by the reforestation rules discussed for criteria 1.2.a, 1.2.b, and 2.2.a.) As stated in the 629-630-0000. . .*The purpose of the harvesting rules is to establish standards for forest practices that will maintain the productivity of forestland, minimize soil and debris entering waters of the state, and protect wildlife and fish habitat.* Harvesting rules 629-630-0100 through 629-630-0180, and 629-640-000 establish guidelines for how to carry out operations . .*. in a way that [does not reduce] the productive capacity of the site.* They include guidance on: the layout and construction of roads, skid trails, and landings; installing and maintaining drainage systems to reduce erosion and protect water bodies; how and when to conduct ground-based and cable yarding operations; treatment of waste materials; how to conduct all activities near water features; and vegetation management to reduce erosion and buffer water bodies.

3.2.c. Harvesting levels of both wood and non-wood forest products should not exceed a rate that can be sustained in the long term, and optimum use should be made of the harvested forest products, with due regard to nutrient offtake. (Private Lands-P, State Lands-C, Federal Lands-C)

In ORS 527.630 asserts a policy to encourage the sustained capacity of forestlands to support the *continuous growing and harvesting* of trees over the long term, and that this is intended to be the leading use of private forestlands in the state. To this end, the reforestation rules are designed to assure that forest management activities retain productive timberlands through successive harvests. Landowners are not required to balance growth and yield in a manner that would fully meet this PEOLG criterion.

While state policy also asserts the intention to encourage efficient use of forests, there are no explicit requirements to ensure that optimum use is made of harvested forest products. However the Rules on management of slash and leaving down logs are intended to enhance *(soil) nutrient cycling and moisture retention* [ORS 527.676].

3.2.d. Adequate infrastructure, such as roads, skid tracks or bridges should be planned, established and maintained to ensure efficient delivery of goods and services while at the same time minimising negative impacts on the environment. (Private Lands – C; State Lands – C; Federal Lands - C) (*see* 3.2.b)

The harvest rules provide comprehensive guidance on the development, maintenance, and minimizing the negative impact of infrastructure. Guidance on road and trail maintenance and construction is extensive for Federal Lands. Directives address the layout of roads and trails in the landscape in a manner necessary to not only deal with erosion, but also to ensure the connectivity of habitats, and minimization of conflicts in resource use.

4.1. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems: Guidelines for forest management planning

4.1.a. Forest management planning should aim to maintain, conserve and enhance biodiversity on ecosystem, species and genetic level and, where appropriate, diversity at landscape level. (Private Lands – P; State Lands – C; Federal Lands - C)

Oregon statutes require conservation of fish, wildlife (ORS Chapter 496) and plant species. Rules include goals, procedures and directives for protecting sensitive bird nesting, roosting and watering sites and important resource areas for threatened and endangered fish and wildlife species [OAR 629-665]. Detailed requirements provide protection for osprey, great blue heron, northern spotted owls and bald eagles; these measures include protection of nesting, roosting and watering sites during specific critical

periods and restrictions on operations within specified distances of such sites. Presence of active nests of threatened or endangered species may prompt a landowner to prepare a detailed Habitat Conservation Plan (HCP) and seek its approval by the U.S. Fish and Wildlife Service prior to any operations within a specified distance of the nest.

The Oregon Plan, the Oregon Watershed Enhancement Board, and Watershed Improvement Grant Fund provide direction and support for voluntary efforts by landowners to maintain or enhance habitat for aquatic species [ORS 541.360 to 541.405]. Although law does not require participation, the scope of these statute-based programs is such that significant actions are taking place on private lands throughout Oregon.

Oregon also has state laws to protect threatened and endangered species and certain sensitive species, which complements federal law, and directs state policies and programs. The Oregon Department of Fish and Wildlife has responsibility for threatened and endangered fish and wildlife species [ORS Chapter 496], whereas the Oregon Department of Agriculture addresses plant species [ORS Chapter 564]. Oregon law also authorizes the Oregon Natural Heritage Program, which helps maintain a comprehensive database of the status and locations of rare, threatened and endangered species throughout the state. Extensive threatened and endangered habitat protection is provided through legal requirements placed on state and federal forestlands. Threatened and endangered anadromous fish species receive special protection via the voluntary Oregon Plan for salmon and steelhead.

The directives for federal lands deal extensively with the maintenance of habitat necessary for the protection and recovery of listed species, as well as habitat management to prevent the listing of additional species whose status is uncertain. Forest managers are required to conduct extensive assessment to understand species status on the forest and how management activities can ensure protection, recovery, and prevention of listing. They are also required to consult with other agencies, especially the USFWS in carrying out these activities

4.1.b. Forest management planning and terrestrial inventory and mapping of forest resources should include ecologically important forest biotopes, taking into account protected, rare, sensitive or representative forest ecosystems such as riparian areas and wetland biotopes, areas containing endemic species and habitats of threatened species, as defined in recognised reference lists, as well as endangered or protected genetic in situ resources. (Private Lands – P; State Lands – P; Federal Lands - C)

(see 4.1.a)

4.2. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems: Guidelines for forest management practices

4.2.a. Natural regeneration should be preferred, provided that the conditions are adequate to ensure the quantity and quality of the forests resources and that the existing provenance is of sufficient quality for the site. (Private Lands – P; State Lands – A; Federal Lands - A)

(see 1.2.b and 4.2.b below)

4.2.b. For reforestation and afforestation, origins of native species and local provenances that are well adapted to site conditions should be preferred, where appropriate. Only those introduced species, provenances or varieties should be used whose impacts on the ecosystem and on the genetic integrity of native species and local provenances have been evaluated, and if negative impacts can be avoided or minimised. (Private Lands – C; State Lands – C; Federal Lands - C)

(see 1.2.b) Oregon landowners are required to reforest harvested stands in a manner that results in forests of economic, ecological, and social value. Reforestation guidelines are comprehensive, and include

requirements on ecological suitability of planting stock, and assurances for achieving adequate natural regeneration.

A landowner must submit a plan justifying the adequacy of natural reforestation in meeting the reforestation requirements. The justification is principally based on whether natural reforestation will meet specified stocking levels, and whether the species returned to the site will be of commercial value.

In practice the planting stock that used for reforestation will be of known provenance local to the region. However, if the the landowner opts to plant trees that are not native to the site, a plan must be submitted that describes the suitability of the species being used [629-610-0060]. The rules explicitly state that. . *Seedlings or seeds used for artificial reforestation should be from seed sources that are genetically adapted to the growing site* [629-610-0050]. Again the criteria for suitability documented in the plan, intended to assure that reforestation will succeed in stocking with commercially valuable species.

4.2.c. Forest management practices should, where appropriate, promote a diversity of both horizontal and vertical structures such as uneven-aged stands and the diversity of species such as mixed stands. Where appropriate, the practices should also aim to maintain and restore landscape diversity. (Private Lands – P; State Lands – C; Federal Lands - C)

Oregon regulations for private landowners does not explicitly address landscape-scale environmental concerns. However, various laws and related requirements landscape level issues or values, including:

- Oregon's land use planning and zoning laws [ORS Chapter 197], which help maintain forestlands over large areas by limiting property subdivision or conversions to other land uses;
- Riparian Management Areas required along streams, which provide continuity and consistency in riparian conditions among different forest landowners;
- Fire and pest protection requirements, which provide some continuity and consistency in protection measures among landowners;
- Restrictions on the size of clearcut harvests and harvests along scenic highways, which help maintain forest cover in large areas; and,
- Assistance programs (Oregon Plan, Oregon Watershed Improvement Grants, etc.) promote planned, voluntary actions across ownerships within watersheds, etc. Although participation is not mandatory, the scope of these programs is such that landscape-scale actions on private lands are significant and unique in Oregon.

These requirements and voluntary programs will promote the objectives of PEOLG criterion 4.2.c. However requirements of the OFPA do not explicitly direct landowners to encourage a diversity of horizontal and vertical structures, or consider how operations affect diversity of forests at the landscape scale. Landowners are required to retain downed, dying and live trees on the landscape. The results of retention requirements will contribute to horizontal and vertical structure. A mixture of age classes will also result due to maintaining forest cover adjacent to water bodies. However, the intent of this PEOLG criterion is not fully met as an objective of planning and management.

The reference to landscape diversity is not fully explained in the PEOLG. Additionally there is a caveat that landscape scale approaches ought be considered when appropriate. Other certification systems, including SFI, which has been endorsed by PEFC, have formally accepted that landscape-scale management planning may not be as appropriate for landowners managing smaller tracts. Current approaches to considering management practices in the context of ecological function at the landscape scale rely on understanding the occurrence of indicator species/communities, the distribution of representative forest ecosystems, the connectivity of certain habitats and ecological functions, etc. These are concepts that the state has operationalized in statewide assessments for biological sites [OAR 629-680-0420], and uses to notify landowners of the presence of the specified resource sites. Additionally, state and federal lands take into account the representation of species, communities, and ecosystems in the

entire landscape, which encompasses private ownership. To this end, private landowners may not need to bear the responsibility for management at the landscape scale unless provided prior notification by the State Forester.

4.2.d. Traditional management systems that have created valuable ecosystems, such as coppice, on appropriate sites should be supported, when economically feasible. (Private Lands – NA; State Lands – NA; Federal Lands - NA)

The requirements of PEOLG criterion may not be relevant in the context of forestry in Oregon, especially on private lands. Overall, it is worth noting that there are no restrictions on type of silvicultural system utilized by individual landowners. Restrictions apply when use of a silvicultural system makes forest changes (such as a clearcut larger than 120 acres) that are specifically prohibited, or require additional treatment (slash abatement, reforestation).

4.2.e. Tending and harvesting operations should be conducted in a way that does not cause lasting damage to ecosystems. Wherever possible, practical measures should be taken to improve or maintain biological diversity. (Private Lands – P; State Lands – C; Federal Lands - C)

(*see* 3.2.b) Harvest rules are designed to assure that tending and harvesting operations do not cause lasting damage to ecosystems, through the guidance on manner and design and manner of conducting skidding, yarding, road construction, stream crossings, site preparation, installing stream crossings, waste treatment, slash management, and water body protection. Written plans for operating in specified resource sites are reviewed and expected as warranted, and must document how damage to the specified resource is prevented.

The broad reference in this PEOLG to pursuing all possible opportunities for improving and maintaining biodiversity exceeds the intent of the OFPA and other requirements on landowners. However it is the stated intent of the Board in the FPFO to enhance and maintain the biological diversity of Oregon's forestlands. The Department of Forestry, in cooperation with other state and federal agencies, conservation groups, tribes and other landowners pursue the intent of this criterion through statewide assessment, which informs planning for public lands, and notification to private landowners.

4.2.f. Infrastructure should be planned and constructed in a way that *minimises damage* to ecosystems, especially to *rare, sensitive or representative ecosystems and genetic reserves*, and that takes threatened or other key species - in particular their migration patterns - into consideration. (Private Lands – C; State Lands – C; Federal Lands - C)

(*see* 3.2.b, 4.2.b, 4.2.e) Written plans required for operation in specified resource sites must specify how infrastructure will prevent damage to certain species and their habitat, significant wetlands, and biological sites. However, presently the listed sites for which landowners are notified may not include *genetic reserves*, unless they meet the biological sites criteria. Additionally, resource sites may of may not include migration patterns for many taxa. However, the integrity of streams and rivers used by migratory salmonids is well-addressed statewide.

4.2.g. With due regard to management objectives, measures should be taken to balance the pressure of animal populations and grazing on forest regeneration and growth as well as on biodiversity. (Private Lands – C; State Lands – C; Federal Lands – C)

4.2.h. Standing and fallen dead wood, hollow trees, old groves and special rare tree species should be left in quantities and distribution necessary to safeguard biological diversity, taking into account the potential

effect on health and stability of forests and on surrounding ecosystems. (Private Lands – P; State Lands – P; Federal Lands - C)

There are provisions under the voluntary initiative for all landowners (Natural Heritage Conservation Areas) that may lead to designation and protection of *old groves*. Additionally, provisions aimed at the protection of species with OG habitat requirements would affect encompass these areas, and are addressed as specified resource sites. Board-level strategies in the FPFO could also lead to further designation and protection of these areas. However, the PEOLG requirements would suggest a need to have explicit objectives to retain ". . *.old groves*. . ." as a pre-cautionary measure to safeguard biodiversity. This is not contained in the requirements placed on all private landowners.

4.2.i. Special key biotopes in the forest such as *water sources*, *wetlands*, *rocky outcrops* and *ravines* should be protected or, where appropriate, restored when damaged by forest practices. (Private Lands – C; State Lands – C; Federal Lands - C)

Special key biotopes are addressed statewide in the Resource Site Inventory and Protection Rules [629-680-0000]. Private landowners are required to protect the qualities of specified resource sites, based on a plan detailing how forest management activities will prevent degradation. In circumstances when management activities violate OFPA rules resulting in in damage to the specified resource site, landowners must restore, and/or will be held liable for expenses incurred by the state.

OFPA also includes a process for the inventory and protection of Biological Sites, which are areas that include. . .*naturally occurring native communities of plants or populations of wildlife that are rare or uncommon.* An assessment is conducted by the state or other organization with appropriate expertise, which determines the degree of protection merited and management activities appropriate the maintaining the qualities of the site.

5.1. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water): Guidelines to enhance forest management planning.

5.1.a. Forest management planning should aim to maintain and enhance protective functions of forests for society, such as protection of infrastructure, protection from soil erosion, protection of water resources and from adverse impacts of water such as floods or avalanches. (Private Lands – C; State Lands – C; Federal Lands - C)

(*see* 4.2.f)

5.1.b. Areas that fulfill specific and recognised protective functions for society should be registered and mapped, and forest management plans or their equivalents should take full account of these areas. (Private Lands – C; State Lands – C; Federal Lands - C)

(*see* 1.1.b) Statewide assessments are carried out to identify, delineate, and monitor special resource sites. These include areas encompassing certain water bodies, and areas that are especially prone to erosion and land-failure where forest operations pose dangers to the health of water bodies and public safety. Additionally the state monitors fire and disease risk statewide based on forest conditions, which informs the need for management intervention either requested--or in some circumstances—undertaken by the state. These areas are mapped by the state. For operations requiring notification maps of resource sites showing extent of operations potentially affecting these areas must be included in written plans submitted by the landowner.

5.2. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water): Guidelines to enhance forest management practices.

5.2.a. Special care should be given to silvicultural operations on sensitive soils and erosion prone areas as well as on areas where operations might lead to excessive erosion of soil into watercourses. Inappropriate techniques such as deep soil tillage and use of unsuitable machinery should be avoided on such areas. Special measures to minimise the pressure of animal population on forests should be taken. (Private Lands – C; State Lands – C; Federal Lands - C)

(*see* 3.2.b) Harvest rules ensure that operations are carried out in a manner that avoids excessive erosion into watercourses. Protection measures include guidance for types of operations and allowable proximity to streams and other water features. OFPA rules also direct operators to minimize compaction and other negative impacts to soil resources in site preparation.

5.2.b. Special care should be given to forest management practices on forest areas with water protection function to avoid adverse effects on the quality and quantity of water resources. Inappropriate use of chemicals or other harmful substances or inappropriate silvicultural practices influencing water quality in a harmful way should be avoided. (Private Lands – C; State Lands – C; Federal Lands - C)

Oregon laws and administrative rules provide numerous references to protecting water resources, and include many specific requirements. Several major sections of Oregon's Forest Practices Rules focus explicitly on water resource protection [OAR 629 Divisions 620, 625, 630, 635, 640, 645, 650, 655, 660], and others include guidance for water resource protection in forest operations (e.g., use of forest chemicals, road construction, and timber harvesting).

The Forest Practices Act and Rules represent Oregon's primary mechanism for meeting other state and federal laws and directives (e.g., water quality standards, Clean Water Act) for water resource protection on forestlands. For example, the Act and rules identify the "Best Management Practices" (BMP's) to be used to maintain water quality and adequately meet existing legal standards [ORS 527.765 and 527.770].

Specific features include:

- Most streams and larger wetlands and lakes on forestlands require "Riparian Management Areas" (RMAs) where timber harvest and other practices are significantly restricted or modified [OAR Divisions 635, 640, 645, 650]. Harvest restrictions in stream RMA's typically include a 20-foot nocut zone and maintenance of conifers of minimum basal area and diameter. These quantitative guidelines vary with stream size, fish or domestic water use, and geographic region.
- Some modification of the standard RMA tree and vegetation retention requirements is allowed [OAR 629-640-0300 and 0400] where: (C) Stream habitat enhancement projects are implemented; (b) there is catastrophic tree mortality; (c) hardwood dominated sites are converted to conifers; or, (d) site specific conditions and plans are appropriate.
- There are several rules regarding the location, design, construction and maintenance of forest roads, primarily for water resource protection [OAR 629, Division 625]. Examples include restrictions and design requirements for stream crossings and road fills, and maintenance of road surfaces and drainage systems.
- Several rules for water resource protection focus on timber harvesting practices, including felling, yarding, and skid trails [OAR 629 Division 630]. Examples include requirements for felling away from water bodies, and minimum spacing of cable corridors and yarding through RMA's, skid trail setbacks from streams, and water bars.
- There are rules regarding the use of mechanical site preparation practices and use of chemicals [OAR 629 Division 615 and 620] for the purpose of water resource protection. These are discussed elsewhere in this report, under these two specific headings in the Forest Management Practices and Environmental Considerations sections.

The Oregon Watershed Enhancement Board is a state agency led by a policy oversight board. Together, they promote and fund voluntary actions that strive to enhance Oregon's watersheds. The Board fosters

the collaboration of citizens, agencies, and local interests. OWEB's programs support Oregon's efforts to restore salmon runs, improve water quality, and strengthen ecosystems that are critical to healthy watersheds and sustainable communities.

OWEB administers a grant program funded from the Oregon Lottery as a result of a citizen initiative in 1998. The grant program supports voluntary efforts by Oregonians seeking to create and maintain healthy watersheds. To accomplish this OWEB: funds projects that restore, maintain, and enhance the state's watersheds; supports the capacity of local watershed-based citizen groups to carry out a variety of restoration projects; promotes citizen understanding of watershed needs and restoration ideas; provides technical skills to citizens working to restore urban and rural watersheds; and, monitors the effectiveness of investments in watershed restoration.

5.2.c. Construction of roads, bridges and other infrastructure should be carried out in a manner that minimises bare soil exposure, avoids the introduction of soil into watercourses and that preserve the natural level and function of water courses and river beds. Proper road drainage facilities should be installed and maintained. (Private Lands – C; State Lands – C; Federal Lands - C)

(*see* 5.2.b)

6.1. Maintenance of other socio-economic functions and conditions: Guidelines to enhance forest management planning.

6.1.a. Forest management planning should aim to respect the multiple functions of forests to society, have due regard to the role of forestry in rural development, and especially consider new opportunities for employment in connection with the socio-economic functions of forests. (Private Lands – P; State Lands – C; Federal Lands - C)

The scope of forest management plans set by state requirements does not explicitly include socioeconomic factors. Planning by landowners is not required to consider new opportunities for employment or the role of forestry in rural development. However stated objectives in the FPFO, programmatic functions of ODF other agencies profess to support a sustainable forest products economy intended to enhance rural economic opportunities.

Employees in the forestry sector are protected in the same manner as employees in other sectors. Contribution to unemployment insurance is required of all Oregon employers. Employees whose employment has been terminated are eligible for compensation under OAR Chapter 471. Extensive rules exist for collection of these insurance fees, eligibility and distribution of insurance payments.

6.1.b. Property rights and land tenure arrangements should be clearly defined, documented and established for the relevant forest area. Likewise, legal, customary and traditional rights related to the forest land should be clarified, recognised and respected. (Private Lands – C; State Lands – C; Federal Lands - C)

Oregon and federal law is extensive in establishing the right of ownership of and title to private lands. The federal government also has legally binding treaties that recognize sovereign lands of Native American tribes within Oregon's borders. Other than eminent domain provisions for forest rights of way or patrol or communication sites [ORS 526.168], Oregon law does not specifically create or address significant forestland tenure issues. In addition, unlike federal tax law, Oregon has no estate taxes to affect forest ownership or management by mandating tax payments by heirs based on current market values of land and standing commercial timber.

Oregon's land use planning laws [ORS Chapter 197] include provisions that help maintain forestland use over time, even with changes in property ownership. These laws facilitate local zoning of lands specifically for forest use, and Oregon's tax codes provide options for low or deferred taxes for such
lands. A substantial permit and review process also generally discourages zoning changes that allow development or other major land use changes. Even when development permits are granted, landowners may be required to pay several years of back taxes under the revised zoning category.

6.1.c. Adequate public access to forests for the purpose of recreation should be provided taking into account the respect for ownership rights and the rights of others, the effects on forest resources and ecosystems, as well as the compatibility with other functions of the forest. (Private Lands – NA; State Lands – C; Federal Lands - C)

Oregon Department of Fish and Wildlife has a special program called *Habitat and Access*, which offers landowners funding for wildlife and fish habitat development projects in exchange for letting public recreationists, including hunters and fishers access to their private lands. Additionally, Oregon Economic Development Department has programs to assist entrepreneurs develop new forest based recreational businesses. These programs are voluntary, and private landowners are not required to allow recreationists to access their land. Such requirements would be inconsistent with the recognized and well-established rights of private landowners in the U.S. State, federal and other public lands in Oregon offer substantial opportunities for recreationists throughout the state.

6.1.d. Sites with recognised specific historical, cultural or spiritual significance should be protected or managed in a way that takes due regard of the significance of the site. (Private Lands – P; State Lands – C; Federal Lands - C)

Oregon supports a number of institutions and program that identify, recover, interpret and protect sites of historical, cultural and spiritual significance. In the forests Oregon cultural and spiritual sites of Native Americans are of special importance. Oregon law requires that . . *.human remains, a funerary object, sacred object or object of cultural patrimony* discovered on private or public lands shall be protected. Only items unassociated with a others or a site, such as arrowheads, baskets and tools or portions thereof discovered on the surface, and which can be recovered without use of tools, can be removed and kept by private landowners. Other sites shall be re-interred at the owners expense under the supervision of the Indian tribe to which the items/site are most closely connected. If the tribe wishes to remove the items they can do so at their expense, restoring the land to the condition prior to removal.

6.1.e. Forest managers, contractors, employees and forest owners should be provided with sufficient information and encouraged to keep up to date through continuous training in relation to sustainable forest management. (Private Lands – P; State Lands – P; Federal Lands - A)

A license is required for forest labor contractors who provide workers for landowners. Licensing requires the contractor to follow various directives, including record keeping and written communications of employment conditions, compensation, and workers' rights and remedies under state and federal law [ORS Chapter 658]. Individual landowners and small-scale reforestation contractors may be exempt from some or all of these requirements. Additionally, Associated Oregon Loggers maintains a voluntary, "prologger" program where certified loggers are required to maintain a schedule of continuing education.

Forest engineers, and contractors are licensed by the state of Oregon. Other forest workers and professionals associated with forest management are generally not under mandatory credentialing. One exception to this is for pesticide applicators and consultants, who must pass an exam and become licensed before they can apply or advise others to apply pesticides on forest lands. Forty hours of professional training is required every five years, or the exam must be retaken. Licensing is administered by the Oregon Department of Agriculture.

6.2 Maintenance of other socio-economic functions and conditions Guidelines to enhance forest management practices.

6.2.a. Forest management practices should make the best use of *local forest related* experience and knowledge, such as of local communities, forest owners, NGOs and local people. (Private Lands – P; State Lands – C; Federal Lands - C)

The development of statewide planning instruments of all kinds (e.g. definition and identification of biological sites, design of operability constraints in other specified resource sites, designation of cultural resource areas, etc.) occurs through consultation with appropriate expertise. Public, private, non-profit organizations are included in some of these processes. These processes define appropriate forest management practices and areas of operation. A landowner is not required to independently seek additional expertise unless doing so will be necessary for conformance with the OFPA.

6.2.b. Working conditions should be safe, and guidance and training in safe working practice should be provided. (Private Lands – C; State Lands – P; Federal Lands - C)

In general, worker safety is regulated by the Federal Occupational Safety and Health Administration (OSHA), which is administered in Oregon by OR-OSHA. OR-OSHA guidance to employers include extensive requirements essential to ensuring the safety of operators and their employees. Safety training is required of employers and penalties are stiff for violators.

OSHA requirements are equally applicable for employers in the natural resource industries. However, Oregon statutes also include detailed rules to promote worker safety specifically during forest activities such as logging, fire fighting, and transport of workers and timber [OAR 437, Division 6]. Compliance with applicable state and federal safety requirements is also reiterated in Oregon's forest practice rules, which allow some discretion in administration of certain rules (e.g., snag and green tree retention) to promote worker safety. An example of a forest rule that deals with worker safety is [OAR 629-605-0400 Forest Activity Safety]. OSHA directives are an overriding consideration in the workplace, and regulation of forest practices must be achieved in a manner allowing operators to comply with applicable federal and state safety requirements.

6.2.c. Forest management operations should take into account all socio-economic functions, especially the *recreational* function and *aesthetic* values of forests by maintaining for example varied forest structures, and by encouraging attractive trees, groves and other features such as colours, flowers and fruits. This should be done, however, in a way and to an extent that does not lead to serious negative effects on forest resources, and forest land. (Private Lands – P; State Lands – C; Federal Lands - C)

Oregon law requires the adherence to special management considerations within "visually sensitive corridors" along thirty major state & interstate highways. These considerations apply for the area within a 150-foot slope distance from edge of the designated roadways [ORS 527.755], and include: regulated harvest and/or reforestation practices to maintains or establish forest cover (10 feet or taller) in the corridor and/or area immediately adjacent; and clearing of major harvest debris within 30-60 days of harvest or cessation of harvest activity if harvest is not complete. Other aesthetic considerations are not explicitly addressed nor seem appropriate in the context of private land management in Oregon.

5.0 Stakeholder responses: development of an Oregon Certification Standard & PEFC endorsement

Stakeholder Consultation

As part of the project the Institute interviewed Oregon forestland stakeholders to capture perspectives on the project and the level of interest in four potential options for the state (*see* above). In all, in-depth comments were received from 16 individuals/organizations, including:

Box 2. Respondents for stakeholder interviews

- **Certification organizations**: Sustainable Forestry Board (the governing Board for SFI); & Metafore
- **Conservation Non-Governmental Organizations**: Oregon Natural Resources Council; Sustainable Northwest; Pacific Forest Trust
- Non-industrial Private Forest (NIPF) landowners: Starker Forests; Oregon Small Woodlands Association (OSWA); White Oak Natural Resource Service (via communication through OSWA);
- **NIPF forestland managers familiar with certification:** Trout Mountain Forestry [three separate forestland managers--Barry Simms, Scott Ferguson, Mark Miller]
- **Industry stakeholders**: Weyerhaeuser (two interviews), Potlatch Corporation, Columbia Forest Products, Roseburg Forest Products
- Academic institution: Oregon State University
- First Nation: The Confederated Tribes of the Grand Ronde

Prior to interviews stakeholders received a copy of the project summary, including background on the PEFC. Each respondent was asked to consider the following five questions:

- 1. Does the idea of a PEFC-endorsed Oregon certification scheme sound promising?
- 2. What would the benefits be to developing a PEFC-endorsed Oregon certification scheme?
- 3. What would be the barriers to developing a PEFC-endorsed Oregon certification scheme?
- 4. If an Oregon certification scheme sounds promising, should the ODF serve as the oversight entity to get this done?
- 5. Could the ODF as constituted serve as the standards setting body for a certification scheme for all forest landowners in the state?

Interviews also covered other relevant topics as time permitted, ensuring that the above questions were discussed. Several respondents provided detailed written responses. The feedback gained through the interviews provide key insights into perspectives both on the desired role of an independent certification organization like PEFC, and that of the state in facilitating landowner participation in certified markets. The perspectives are not considered, and should not be interpreted as the representative views of the stakeholder types listed in **Box 2**. The following table (**Table 15**) displays key responses for each of the question, grouped by stakeholder type. More detailed responses are found in **Appendix 7.2**.

Summary of Responses	NIPF	Foresters	Industry	Certification Org.	ENGO	Education Inst.	Conf. Tribes of Grande Ronde
Does tying the OFPA to a PEFC system sound promising?	<i>Not sure</i> – need some tie-in to recognized system but PEFC may not be the right one.	<i>Not sure</i> – need some tie-in to recognized system but PEFC may not be the right one.	<i>No</i> – stay with the knowns (FSC, SFI).	<i>Unclear</i> – not sure of the gains with PEFC.	<i>Possibly</i> – if continuous improvement were made a mandate.	<i>Yes</i> – possibly as a pilot.	<i>No</i> – see no value for Indian Nations.
What would be the benefits to a PEFC- endorsed Oregon certification system?	More on-the- ground assistance to NIPFs. More public support. Catalyst for re- booting Oregon marketing programs.	Might be used as an effective stepping stone to achieve FSC certification of NIPF lands.	Good if servicing European markets. Encourages large landscape-scale certification. Provides good recognition to other countries.	Any benefits appear elusive.	Encourages increased performance in the field. Streamlines access to certification for NIPFs. Veers from SFI connection (more credibility).	Good case study information. Potential for generating real benefits to NIPFs.	No benefits seen.
What would be the barriers to a PEFC- endorsed Oregon certification system?	Public lands would need to be involved. Costs and paperwork. Increases confusion.	Demand for FSC- certified supply growing. Group certification already growing in other established systems.	Competition! Too costly to ramp up and too slow response time. State needs their own lands certified first. CoC – how to handle? No environmental support.	Lack of credibility with the envntl. community.	Unfamiliarity with PEFC requirements. Application to public lands? Connection to SFI. Cost and time to undertake.	How to handle requirement for increased stakeholder input? Landowners not asking for this. Baggage around sustainability. Confusion factor.	Indian nations act autonomously. Would not respect or value outside audit.
<i>If a good idea, should ODF serve as the standard setting and oversight entity?</i>	<i>Yes, and No.</i> Key factors to consider are proper stakeholder balance, and voluntary vs. mandatory messaging.	Yes – standards setting body, but No - oversight body. Voluntary vs. mandatory messaging also a real concern.	<i>No!</i> Composition of the current Board not right and not a wise move.	No opinions on this.	<i>No</i> – ODF not the right entity to undertake these roles – even though technical competency is there.	<i>Maybe.</i> Leadership from state forester ok, but larger pool of stakeholders required.	No comments given.

 Table 15. Key comments from interviewed stakeholders

The main insights that emerged from interviews with key stakeholders in Oregon, based on the above questions, are summarized below.

- Despite varying perspectives on how the ODF should be involved in opening up better access to certification for private forestland owners in the state, there was uniform agreement that the state did have an important role to play in this arena.
- Overall, there was general consensus that tying Oregon's Forest Practices Act to an existing voluntary certification scheme has real merit. However, opinions differed on which system might best serve the needs of private landowners in the state. This is likely an important survey response, as the discussion on certification has clearly shifted from *if it should happen* to *how it will happen* and *what should the role of ODF be.* A "take no additional action" approach appeared to be the least-favored option.
- The biggest barrier to capturing stakeholder views on the value of a PEFC-endorsed, OFPA-based, certification program was the lack of knowledge about PEFC. This held true for stakeholders engaged with the FSC and SFI certification systems. However, familiarity with PEFC may change with the endorsement of the SFI program in December 2005, prior to which no forest products in Oregon could be marketed with PEFC claims.
- Stakeholders consistently emphasized the importance of developing a *voluntary* protocol that was *streamlined* and *easy to access* for Oregon NIPF landowners. There was general consensus that existing certification schemes are still perceived as cumbersome, costly, and difficult to access.
- The interviewed industry stakeholders were critical of PEFC-endorsement approach. Top reasons included lack of demonstrated markets for PEFC-certified product (save for some engineered wood products in the European markets), uncertainty as to how the state would establish a chain of custody to meet PEFC requirements, and direct competition with systems in which some industry players have already invested (e.g. SFI and FSC). In fact, three of the four companies are certified by FSC, the only major trans-global competitor with PEFC in the marketplace for certified products. Additionally, two of the four companies are certified to the SFI standard, which is primarily marketed domestically under the SFI brand, but now has been endorsed by PEFC.
- In contrast, the interviewed conservation groups appeared to be the most interested in encouraging the state to consider next steps in this process. Perhaps more than others interviewed, these stakeholders consistently asserted the need for a system that increased performance on the ground (compliance with the OFPA), plus the necessity for streamlining access to bring certification to more NIPFs.
- While the interviewees dealing with management on NIPF lands were less certain about a PEFCendorsed scheme for Oregon (lack of knowledge about the system), they seemed supportive of a linkage to a well-recognized certification scheme. In particular, they saw potential to 1) help get more assistance on the ground, 2) provide an alternative to the American Tree Farm System, other existing schemes, and approaches requiring increased paperwork and 3) help "re-boot" of management and sales coops to assist NIPFs.
- All stakeholders questioned whether a PEFC-endorsed scheme *only for private lands* would have credibility. The respondents felt that the developing a statewide scheme, especially including state lands, would be preferable and enhance credibility.

Interestingly, there appeared to be general agreement among stakeholders that the ODF may not be the most suitable institution for *oversight* or *standards setting* for a PEFC-endorsed scheme. Respondents wondered whether the Board of Forestry encompasses the required diversity and balance of interests to be the governance body for a certification scheme, and pursue PEFC-endorsement. As an oversight entity – virtually all stakeholders interviewed commended the ODF staff for their technical competency to perform this role, but questioned whether landowners and others would clearly distinguish between the ODF functions on mandatory requirements, versus the voluntary requirements of a certification scheme.

The idea of developing an Oregon certification program in absence of a tie-in with some recognized certification scheme was not the preferred option of the interviewed stakeholders. This does not mean that development of an Oregon certification label is not an attractive option for NIPF landowners. Rather – it speaks to an understanding that an Oregon label as a stand-alone option (for environmental performance vs. place-based emotion) would lack market impact without the endorsement of a known certification scheme.

6.0 Conclusion

The principal challenge for Oregon is to decide whether developing the institutions and processes necessary to oversee a credible certification scheme is worth the benefits. Presently the benefits are uncertain both in terms of the markets PEFC would open for Oregon forest products, and the level of adoption among producers. Both the global markets for certified products and export markets for Oregon are dynamic, and the large changes in North American certified acreage endorsed by PEFC (CSA and SFI) could be a factor Oregon producers exporting to Canada, Europe, Russia, and Asia.

Within the state, the implementation of an Oregon certification scheme could strengthen implementation of forest practice requirements, since a PEFC endorsed scheme would necessarily involve comprehensive independent verification. A PEFC-endorsed Oregon certification scheme is also likely to include additional operational-level requirements—introduced both to fully align with the PEOLG and in response to stakeholder input required through the standards-setting process.

The evaluation of the practices requirements relative to the PEOLG that was part of this study revealed some expected differences between the three land bases that were considered—federal, state, and private. These differences reflect the extent of legislated and otherwise mandatory requirements faced by these three different land bases. The evaluation did not consider implementation or effectiveness of implementation, just the extent of what is *required*.

The chosen federal lands example is subject to a comprehensive array of requirements asserted through the laws governing the use of National Forests, provisions of the Northwest Forest plan, and the detailed operational guidance contained in Forest Service's manual and handbooks, among others. The combined scope of these requirements exceeds PEFC requirements on what must be addressed by a certification scheme.

The review state forests suggests that strategies and requirements set by statute for the management of these lands also conform with most (86%) of the PEOLG requirements. State forests partially-conformed with another five criteria. These included gaps relative to the PEOLG concerning: the scope and intent of terrestrial inventory, use of natural regeneration, and use of local expertise.

The state forests must meet the harvest, reforestation, and other practice requirements established by the OFPA. These requirements of all landowners in Oregon are relatively extensive compared to most other states, and as a consequence private landowners at least partially meet all of the PEOLG criteria. The evaluation suggested the standard of practice for all landowners, established by statute, fully conforms with 45% of the PEOLG, and partially conforms with the rest.

Should Oregon decide to seek PEFC-endorsement for an independent scheme, a challenge will be to decide which of these gaps could be effectively addressed by approaches such as aggregating functions at the state or other scale (e.g. group certification). Some gaps might simply be resolved by documenting practices/functions already occurring. Others may not need to be addressed at the small landowner scale, should Oregon assert a credible rationale in a PEFC application.

The sixteen respondents in interviews conducted for this study expressed clear interest in the state playing some role to advance the adoption of certification by Oregon landowners. Several reasons for this interest are cited, including strengthening the OFPA, accessing new markets, and lessening the burden of engaging in current systems, among others. The study also documents differences in support for a variety of potential roles for the Oregon Department of Forestry. The findings in this study are intended to advance dialogue in Oregon on how sustainable forestry in Oregon can be encouraged and rewarded in a changing global marketplace.

7.1 Appendix: Pan-European Operational Level Guidelines

1.1 Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles: Guidelines for Management Planning

1.1.a. Forest management planning should aim to maintain or increase forest and other wooded area, and enhance the quality of the economic, ecological, cultural and social values of forest resources, including soil and water. This should be done by making full use of related services such as land-use

1.1.b. Inventory and mapping of forest resources should be established and maintained, adequate to the local and national conditions, and in correspondence with the topics described in these Guidelines.

1.1.c. Management plans or their equivalents, appropriate to the size and use of the forest area, should be elaborated and periodically updated. They should be based on legislation as well as existing land use plans, and adequately cover the forest resources.

1.1.d. Monitoring of the forest resources and evaluation of their management should be periodically performed, and their results should be fed back into the planning process.

1.2. Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles: Forest management practices

1.2.a. Forest management practices should safeguard the quantity and quality of the forest resources in the medium and long term by balancing harvesting and growth rates, and by preferring techniques that minimise direct or indirect damage to forest, soil or water resources.

1.2.b. Appropriate silvicultural measures should be taken to maintain the growing stock of resources at - or bring to - a level that is economically, ecologically and socially desirable

1.2.c. Conversion of abandoned agricultural and treeless land into forest land should be taken into consideration, whenever it can add economic, ecological, social and/or cultural value.

2.1. Maintenance of forest ecosystem health and vitality: Guidelines for forest management planning

2.1.a. Forest management planning should aim to maintain and increase the health and vitality of forest ecosystems and to rehabilitate degraded forest ecosystems, whenever this is possible by silvicultural means.

2.1.b. Health and vitality of forests should be periodically monitored, especially key biotic and abiotic factors that potentially affect health and vitality of forest ecosystems, such as pests, diseases, overgrazing and overstocking, fire, and damage caused by climatic factors, air pollutants or by forest management operations.

2.1.c. Forest management plans or their equivalents should specify ways and means to minimize the risk of degradation of and damages to forest ecosystems. Forest management planning should make use of those policy instruments set up to support these activities.

2.2. Maintenance of forest ecosystem health and vitality: Guidelines for forest management practices

2.2.a. Forest management practices should make best use of natural structures and processes and use preventive biological measures wherever and as far as economically feasible to maintain and enhance the health and vitality of forests. Adequate genetic, species and structural diversity should be encouraged and/or maintained to enhance stability, vitality and resistance capacity of the forests to adverse environmental factors and strengthen natural regulation mechanisms.

2.2.b. Appropriate forest management practices such as reforestation and afforestation with tree species and provenances that are suited to the site conditions or the use of tending, harvesting and transport techniques that minimise tree and/or soil damages should be applied.

2.2.c. The use of pesticides and herbicides should be minimised, taking into account appropriate silvicultural alternatives and other biological measures.

2.2.d. In case fertilisers are used they should be applied in a controlled manner and with due consideration to the environment.

3.1 Maintenance and encouragement of productive functions of forests (wood and non-wood): Guidelines for Forest Management Planning

3.1.a. Forest management planning should aim to maintain the capability of forests to produce a range of wood and non-wood forest products and services on a sustainable basis.

3.1.b. Forest management planning should aim to achieve sound economic performance taking into account possibilities for new markets and economic activities in connection with all relevant goods and services of forests.

3.1.c. Forest management plans or their equivalents should take into account the different uses or functions of the managed forest area. Forest management planning should make use of those policy instruments set up to support the production of merchantable and non-merchantable forest goods and services.

3.2 Maintenance and encouragement of productive functions of forests (wood and non-wood): Guidelines for Forest Management Practices

3.2.a. Forest management practices should be ensured in quality with a view to maintain and improve the forest resources and to encourage a diversified output of goods and services over the long term.

3.2.b. Regeneration, tending and harvesting operations should be carried out in time, and in a way that do not reduce the productive capacity of the site, for example by avoiding damage to retained stands and trees as well as to the forest soil, and by using appropriate systems.

3.2.c. Harvesting levels of both wood and non-wood forest products should not exceed a rate that can be sustained in the long term, and optimum use should be made of the harvested forest products, with due regard to nutrient offtake.

3.2.d. Adequate infrastructure, such as roads, skid tracks or bridges should be planned, established and maintained to ensure efficient delivery of goods and services while at the same time minimising negative impacts on the environment.

4.1. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems: Guidelines for forest management planning

4.1.a. Forest management planning should aim to maintain, conserve and enhance biodiversity on ecosystem, species and genetic level and, where appropriate, diversity at landscape level.

4.1.b. Forest management planning and terrestrial inventory and mapping of forest resources should include ecologically important forest biotopes, taking into account protected, rare, sensitive or representative forest ecosystems such as riparian areas and wetland biotopes, areas containing endemic species and habitats of threatened species, as defined in recognised reference lists, as well as endangered or protected genetic in situ resources.

4.2. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems: Guidelines for forest management practices

4.2.a. Natural regeneration should be preferred, provided that the conditions are adequate to ensure the quantity and quality of the forests resources and that the existing provenance is of sufficient quality for the site.

4.2.b. For reforestation and afforestation, origins of native species and local provenances that are well adapted to site conditions should be preferred, where appropriate. Only those introduced species, provenances or varieties should be used whose impacts on the ecosystem and on the genetic integrity of native species and local provenances have been evaluated, and if negative impacts can be avoided or minimised.

4.2.c. Forest management practices should, where appropriate, promote a diversity of both horizontal and

vertical structures such as uneven-aged stands and the diversity of species such as mixed stands. Where appropriate, the practices should also aim to maintain and restore landscape diversity.

4.2.d. Traditional management systems that have created valuable ecosystems, such as coppice, on appropriate sites should be supported, when economically feasible.

4.2.e. Tending and harvesting operations should be conducted in a way that does not cause lasting damage to ecosystems. Wherever possible, practical measures should be taken to improve or maintain biological diversity.

4.2.f. Infrastructure should be planned and constructed in a way that minimises damage to ecosystems, especially to rare, sensitive or representative ecosystems and genetic reserves, and that takes threatened or other key species - in particular their migration patterns - into consideration.

4.2.g. With due regard to management objectives, measures should be taken to balance the pressure of animal populations and grazing on forest regeneration and growth as well as on biodiversity.

4.2.h. Standing and fallen dead wood, hollow trees, old groves and special rare tree species should be left in quantities and distribution necessary to safeguard biological diversity, taking into account the potential effect on health and stability of forests and on surrounding ecosystems.

4.2.i. Special key biotopes in the forest such as water sources, wetlands, rocky outcrops and ravines should be protected or, where appropriate, restored when damaged by forest practices.

5.1. Maintenance and appropriate enhancement of protective functions in forest

management (notably soil and water): Guidelines to enhance forest management planning.

5.1.a. Forest management planning should aim to maintain and enhance protective functions of forests for society, such as protection of infrastructure, protection from soil erosion, protection of water resources and from adverse impacts of water such as floods or avalanches.

5.1.b. Areas that fulfill specific and recognised protective functions for society should be registered and mapped, and forest management plans or their equivalents should take full account of these areas.

5.2. Maintenance and appropriate enhancement of protective functions in forest

management (notably soil and water): Guidelines to enhance forest management practices.

5.2.a. Special care should be given to silvicultural operations on sensitive soils and erosion prone areas as well as on areas where operations might lead to excessive erosion of soil into watercourses. Inappropriate techniques such as deep soil tillage and use of unsuitable machinery should be avoided on such areas. Special measures to minimise the pressure of animal population on forests should be taken.

5.2.b. Special care should be given to forest management practices on forest areas with water protection function to avoid adverse effects on the quality and quantity of water resources.

Inappropriate use of chemicals or other harmful substances or inappropriate silvicultural practices influencing water quality in a harmful way should be avoided.

5.2.c. Construction of roads, bridges and other infrastructure should be carried out in a manner that minimises bare soil exposure, avoids the introduction of soil into watercourses and that preserve the natural level and function of water courses and river beds. Proper road drainage facilities should be installed and maintained.

6.1. Maintenance of other socio-economic functions and conditions: Guidelines to enhance forest management planning.

6.1.a. Forest management planning should aim to respect the multiple functions of forests to society, have due regard to the role of forestry in rural development, and especially consider new opportunities for employment in connection with the socio-economic functions of forests.

6.1.b. Property rights and land tenure arrangements should be clearly defined, documented and established

for the relevant forest area.

Likewise, legal, customary and traditional rights related to the forest land should be clarified, recognised and respected.

6.1.c. Adequate public access to forests for the purpose of recreation should be provided taking into account the respect for ownership rights and the rights of others, the effects on forest resources and ecosystems, as well as the compatibility with other functions of the forest.

6.1.d. Sites with recognised specific historical, cultural or spiritual significance should be protected or managed in a way that takes due regard of the significance of the site.

6.1.e. Forest managers, contractors, employees and forest owners should be provided with sufficient information and encouraged to keep up to date through continuous training in relation to sustainable forest management.

6.2 Maintenance of other socio-economic functions and conditions Guidelines to enhance forest management practices.

6.2.a. Forest management practices should make the best use of local forest related experience and knowledge, such as of local communities, forest owners, NGOs and local people.

6.2.b. Working conditions should be safe, and guidance and training in safe working practice should be provided.

6.2.c. Forest management operations should take into account all socio-economic functions, especially the recreational function and aesthetic values of forests by maintaining for example varied forest structures, and by encouraging attractive trees, groves and other features such as colours, flowers and fruits. This should be done, however, in a way and to an extent that does not lead to serious negative effects on forest resources, and forest land.

Appendix 7.2: Responses to Interview Questions

1. Does the idea of PEFC-endorsed Oregon certification scheme sound promising?

NIPFs

- Oregon needs to help landowners by adding value and getting the existing OFPA acknowledged or partially acknowledged within different certification schemes.
- Most folks say they don't care which system so long as they don't have to do any more in the management of their lands.
- The American Tree Farm (ATF) system is morphing into a money system and getting away from private landowners, so something new is needed.
- Having this added acknowledgement for complying with the OFPA may prove a valuable tipping point for offspring who will inherit the land.

NIPF foresters

- Interesting to pursue as a means of getting landowners more engaged in the options of certification; and
- NIPFs are asking more and more about becoming certified, but not sure of next steps; but
- PEFC may not be best route. Oregon should focus on FSC group certification through stewardship planning process and Stewardship Foresters. Oregon will just be announcing the largest FSC group certification undertaken in the US: 60 landowners; 20,000 acres.
- Doesn't really work unless it's an umbrella for Oregon as a whole (not just NIPF lands).
- A statewide certification system is appealing. But needs to be a streamlined system for landowners to be interested and no additional paperwork or requirements.
- Tying the OFPA to an existing forest certification system as a voluntary option is a good idea. The ATF is one option that could be connected with the "re-booting" of the Oregon Management and Sales Cooperative to be completed by the end of 2006.

Industry

- In general, NIPFs not asking for this because the mills are not asking for it. PEFC is a non-issue in North America. Is only evident in market demand in Europe primarily for engineered wood products. FSC and SFI fulfill market needs for North American suppliers.
- Would caution that Oregon not move ahead without a clear mandate about who is requesting this PEFC component.
- Interesting proposal but not a good idea. It simply adds to the confusion already at place with SFI and FSC.
- Not sure of how PEFC will help address certification `drivers' like LEED certification. How would an Oregon scheme help?
- Timing is very poor for anything new. Plug into existing recognized systems is best way to go.
- This could be a good move for Oregon, but could also turn into another large bureaucratic effort. Wouldn't want it to be the basis for changing forest practices without scientific evidence.
- If PEFC is a standard we are already meeting through the OFPA, then could be a good thing but as a country recognition benefit and not a market access benefit.
- Much of industry not familiar with PEFC; much more familiar with FSC and SFI. Best to work with systems industry has already invested in.

- Industry players not interested in having other systems cloud the existing picture that now includes FSC and SFI. ATF may be a good option, but still has serious performance and audit deficiencies.
- Other states have tried similar activities, but with little success. Only the intellectual forestry crowds see the value of pushing this.

Certification organizations

- Not sure what Oregon gains by this statewide approach, rather than working through existing national schemes for access to PEFC (i.e. through SFI certification).
- Now include PEFC coverage for certification resource centers in order to expand global information.
- PEFC just now coming across some purchasers desks (Norm Thompson & Nike).

Conservation NGOs

- The overall objective in doing this is unclear. Is it a strategy for improving international market access for Oregon forest landowners? Is it to improve environmental credibility of Oregon forest landowners both domestically and abroad? Is it to enhance local recognition for Oregon landowners?
- It is unclear what we gain from a new scheme that will require substantial investment in standards, assessment, and markets development. A better way to support forestland owners is to use existing certification systems that have established credibility, market recognition, and environmental backing. Stick with an existing system that has already done the work!
- An Oregon Certification system must have environmental credibility to be able to add value in the marketplace. The diverging opinions of Oregon's FPA make such endorsement unlikely.
- Is an interesting idea. Oregon has a ways to go to achieve sustainable forest practices across all lands. If this effort were used to set status quo in stone we are not interested. But if it has continuous improvement as a baseline, then mya be of interest. This is worth exploring, but needs a "go" or "no go" step. Is Oregon willing to take a leap forward to change standards? If not, then don't move forward with this effort.
- Overall, we see it as a good idea to allow the biggest users NIPF landowners streamlined access to certification.
- What's the motivation for landowners to be interested in this? Financial would be a clear motivator, so would need to document this as a clear benefit.

Academic Institutions

- Scheme does sound promising; to take advantage of the distinct identity Oregon has. Alaska moved in this branding direction with some level of success. Such an effort could generate benefits for people that own the resource.
- Would encourage the state to move forward on this as a leaning experience. Positions Oregon as a leader in policy development options for consideration. Might provide for improved market access for private landowners.
- Can the implementation be done on a pilot project basis?

First Nations

• We see no value in this for First Nations or for NIPF landowners in general. Not convinced that certification overall has value for our Indian forests.

What would be the benefits to a PEFC-endorsed Oregon Certification System?

NIPFs

- Landowners would really like more `boots in the field' to help make sure they are complying with the OFPA in Oregon. A PEFC component may help accomplish this by providing more assistance and monitoring on the ground through a ramped-up in-field assistance and audit program.
- Most landowners who would like to participate in certification see it as a futile effort unless the participation is at landscape scale. Can't be done on small piece by small piece basis. A PEFC approach may help provide that landscape scale management and monitoring approach.
- Landowners would expect some reasonable expectation of broad public acceptance and appreciation for what they do if state were to go with PEFC endorsement. Additional monetary benefits always make sense as well.
- Some landowners expressed they are likely to make the shift from being SFI-certified to just ATF certified. They do not see the value in retaining SFI certification. PEFC may be a competitive option to ATF if streamlining access and reduction of paperwork has occurred.
- Connection with a national recognized scheme could help bolster the "re-booting" of the Oregon Management and Sales Cooperative to serve the management and marketing needs of NIPF landowners. A USDA Rural Business Cooperative Grant has been acquired to accomplish the following:
 - 1. Acquire a solid base of forest product supply from Cooperative members;
 - 2. Prepare and/or update member management plans;
 - 3. Analyze market conditions that are appropriate for the inventory/supply and management plan intentions, with volumes and delivery schedules for the next 5-10 years; and
 - 4. Prepare a business plan to achieve the goals of the Cooperative.

NIPF foresters

- Don't believe there would be many benefits for PEFC-endorsed system, but do believe a FSC-group certification route would benefit landowners the best.
- Oregon should strengthened its' outreach efforts to NIPF landowners through the use of their Stewardship Foresters who should be educated on the working details of group certification under the FSC systems.
- PEFC might be used as a stepping stone to FSC group certification as an end goal.
- The recently merged roles of OFPA foresters and Stewardship foresters offers unique opportunity to inspect properties for compliance and encourage landowners to go through stewardship planning. Can serve as a good baseline for PEFC-endorsement as a stepping stone to FSC group certification.

Industry

- The key markets for PEFC-certified product are in the engineered wood product markets and only for the European markets.
- Not many industrial players outside of those that move product in the European markets are PEFCcertified. Of those that are, the PEFC endorsement is viewed as an "adder" to a baseline certification used by the company (FSC, SFI, CSA, etc.)
- PEFC might have been an attractive option had not industrial players already invested in other systems that came to the market at an earlier stage: namely FCS and SFI.
- Industry players do appear to find value in the basic theme of PEFC certification: management at large scale that can be certified. This would be particularly interesting if the PEFC component would be applied to all lands within an Oregon landscape (including all public lands federal, state, county, BLM). However, most do not believe this can be achieved in Oregon at least not without significant cost. And applying this only to NIPF lands has significantly less value for industry players

- Many industry players are simply unaware of the details of PEFC certification and what it would entail. Some were not even familiar with the name PEFC.
- A positive benefit to pursuing this would be the recognition Oregon would receive from other countries as a leader in sustainable forest management. Although these players are not sure if that would transition to any market benefit for resource and product suppliers.
- Overall industry players seem to lack sufficient information to evaluate whether actual benefit can be derived from Oregon pursing a PEFC direction.

Certification organizations

- PEFC requests just now coming across some purchasers desks, but only recently and not in significant volume.
- Certification information sourcing centers have only recently added PEFC information to their website library, but more as a means to illustrate "global feel" for the information services being offered by the certification resource centers rather than responding to growing market forces for PEFC certified product.
- Other certification organizations question the benefit of an Oregon PEFC-endorsed system as venue already exists through SFI certification to achieve PEFC endorsement.
- Overall for this group of players, the benefits to having Oregon's FPAs become PEFC-endorsed appear elusive.

Conservation NGOs

- Interestingly, these stakeholders appeared the most enthused about Oregon moving in this direction, with some caveats. They underscore that being tied to a SFI label to achieve PEFC endorsement is not desireable, and the state moving forward to offer landowners access to the PEFC system sans a SFI label might be quite attractive.
- These stakeholders repeatedly underscored the value of looking at any system that could `streamline' access to certification for NIPF landowners. They acknowledge that other systems (SFI and FSC) still have difficult systems in place that require large amounts of time, energy, and cost to document compliance to the standards for NIPF landowners.
- From the Pinchot's cross-walk summary Oregon's FPAs to meet PEFC requirements, these stakeholders did underscore the finding that Oregon would need to do more within the OFPAs to achieve PEFC certification. This was viewed as a positive step forward by Conservation NGOs. This process of not just certifying status quo, but certifying immediate improvements in the OFPAs that would transfer to better performance on the land appeared appealing.
- An Oregon certification scheme endorsed by PEFC might be a compelling strategy in terms of a `buy local' marketing effort. There are several examples of local and regional efforts exploring this niche. Things to consider however: 1) most `place-based ' market schemes are more focused on a community/social/and sense-of-place story associated with the forest products, with less focus on the environmental performance. If the goal is to achieve international market access for Oregon landowners based on environmental performance, then a local marketing scheme may not be suitable.
- Other states such as Minnesota have gone down a similar path, but with unfavorable results. Oregon should review lessons learned from other states regarding accrued benefits to this action before rendering a final decision.

Academic Institutions

- It PEFC-endorsement were a tangible goal, the likelihood of it generating real benefits for the people who own the resource might be strong.
- This effort also contributes to a better understanding of the possibilities of what will and will not work. So from an academic standpoint regardless of success on the ground the `lessons learned' by proceeding with this exercise are valuable contributions to the certification case study arena.

• These stakeholders suggest Oregon ask the question: If you proceed with this venue, what will be different in a few years? What will the `net gainers' be?

First Nations

• No benefits seen.

What would be the barriers to a PEFC-endorsed Oregon Certification System?

NIPFs

- Not sure if NIPFs are really asking for this. Requests from NIPFs tend to be for a simplified system they can tap into with the least amount of headache and paperwork.
- To make a PEFC system work, all landowners would have to participate to realize landscape scale performance. This would include public lands as well as private lands. It is likely that all public lands would need to have their own lands under the PEFC system for credibility purposes.
- Most NIPFs are leery if a PEFC system would require added performance in the field. If PEFC can endorse status quo, then ok.
- Costs to bring PEFC to the plate in Oregon uncertain, but perception is that it would be costly and divert funds from other current program needs.
- NIPF landowners would need to see the market demand for this endorsement. Many of their buyers are mills in and around their area that operate under SFI and are already endorsed by the PEFC. Why the need for a new one for Oregon?
- NIPFs are already frustrated with the new paperwork requirements for the ATF system in order to be certified. Any new system would need to truly streamline access for these landowners.
- Inherently, there is a fear that anything placed on the docket by ODF would end up prescriptive and not voluntary.
- Such an effort would increase the already high state of confusion that exists for NIPF landowners when it comes to understanding the various certification options.

NIPF foresters

- Right now the demand for certified FSC wood exceeds supply. Shouldn't Oregon be fostering access to markets through an already accepted and in-demand system then trying to introduce a new one into the North American markets?
- NIPFs are asking for more information about getting certified, but are unsure of next steps. A tie-in to compliance with Oregon's FPAs makes real sense if the end goal were to achieve FSC status.
- Other certification systems are beginning to figure out the mechanisms and protocol for bringing group certification to the plate. FSC has just recently merges several separate certifications into a large group certification encompassing ~ 60 landowners and covering ~ 20,000 acres in Oregon. We should build off of these existing efforts.

Industry

- The big barrier is the fact that industry has already invested a sizeable amount of energy, time, and money into becoming either SFI certified or FSC certified. They remain extremely uncomfortable with the state initiating yet another certification system that could be competitive to their efforts. "Why should the state subsidize those who have not made a commitment to certification?"
- These stakeholders believe the effort to ramp up a PEFC-endorsement on OFPAs would be too costly an endeavor, with payments likely made through the forest harvest tax. Should not sacrifice existing activities in order to allow for a PEFC overlay to come on board.

- When states get involved in these types of efforts, the transaction costs usually escalate as well, and response times tend to diminish. Bottom line: ODF has lots going on right now in the Montreal C&I process. Why should we take on more? Such an effort would raise more questions than answers!
- ODF is not in the certifying business; it's in the regulatory business. The value to the NIPF landowner to offer a certified service is very low, and the increase in confusion would be counterproductive.
- No one care's if a Brand Oregon stamp is created for Oregon wood product. It would have no impact in the marketplace.
- The state should not step to the plate on this unless they have their own lands certified and are able to use themselves as examples to NIPF landowners. Most states OFPAs could not meet PEFC endorsement requirements.
- Industry stakeholders are very confused as to how the State would handle Chain-of-Custody protocol from participating private lands. Would it take on the form of what the SFI designed in order to achieve PEFC endorsement?
- Industry stakeholders are concerned that a PEFC-endorsed effort would not meet with environmental support.

Certification organizations

• Biggest barrier referenced is the lack of credibility with both the environmental community and the industry players who may view this effort as competitive to the certification programs they have already invested in.

Conservation NGOs

- Biggest barrier is that Oregon Conservation NGOs are very unfamiliar with PEFC requirements. If a PEFC-endorsed program is doable with achieving status quo within the OFPAs, these organizations will not be in favor of this effort.
- Would want to know whether the effort would extend to all public lands especially USFS lands. If so the metrics for standards would certainly change and the level of support would also be questionable.
- The fact that the SFI has a direct endorsing relationship with PEFC already places some environmental groups on guard. There is a basic distrust of industry in the certification system arena; a sentiment that is shared by proximity.
- Developing a Oregon certification system endorsed by the PEFC would take "a significant amount of financial resources, and will require that diverse stakeholders agree on the certification scheme. Even with all this in place, these stakeholders question whether the end-result will be a desirable end result.

Academic Institutions

- The PEFC process has just increased the protocol for stakeholder input for system endorsements. What exactly does this mean to a system designed to service provate lands? What must NIPFs agree to in order to allow for stakeholder input of the management practices on their own forests? Nothing is very clear on these critical points important to NIPF landowners.
- Landowners are not asking for this. Those that seek certification have found other ways to make it work for them.
- Baggage around sustainability: the perception that there is something wrong that needs to be corrected through an independent verification process. Landowners have already found a level of satisfaction through the ATF system.
- Confusion relative to the proliferation of the many systems that are out there.

First Nations

• The biggest barrier is a cultural one: First Nations act autonomously – even in the management of their own forestlands. The thought of a third party auditor outside of tribal ranks simply does not sit well with them.

Is ODF the right entity for standards setting and oversight?

NIPFs

- Depends on whom you ask. Some NIPFs feel the ODF doesn't have a broad enough stakeholder representation to assume a standards setting role. Others feel the existing composition is adequately balanced.
- Some NIPF are concerned about the keeping a voluntary approach for PEFC participation far removed from the OFPA regulatory approach. They worry having ODF in the PEFC role could be very confusing to NIPF landowners who would fear that what was initially established as voluntary could quickly become mandatory.

NIPF foresters

- Feel pretty strongly that ODF cannot serve in the standards setting and implementation roles at the same time. Could serve as a standards setting body, but implementation would have to be carried out by another auditing body.
- As with NIPFs, foresters are also concerned over the potential for confusing NIPF landowners where voluntary and mandatory lines get murky.

Industry

- Across the board, industry stakeholders expressed concerns about ODF assuming the roles of a standard setting and oversight body for this effort. The composition of the Board of Forestry would need to be reconstituted to represent all stakeholders in the process.
- Assuming a membership balance could occur, industry stakeholders did not consider it a wise role for ODF to assume. Rather, if this were to move forward, a separate entity would need to be established to undertake both the standards setting and oversight roles.
- As with NIPFs and foresters, industry stakeholders expressed concern over the ability of the ODF to separate voluntary activity from regulatory activity.

Certification organizations

• Had no opinions or recommendations on this question

Conservation NGOs

• Uniformly – all Conservation NGOs suggested that the ODF is not the entity to serve in the standards setting role or oversight role. This recommendation should not be confused with confidence in the technical ability of the ODF to carry out each role, but rather is reflective of the perceived conflict NIPF landowners would have between voluntary and regulatory compliance.

Academic Institutions

• Maybe. Leadership might come from the state forester, but participation would need to come from a larger pool of stakeholder participation.

First Nations

• No comments given here.