

BOARD ISSUES WORK PLAN

Issue #3: Forest Vitality

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BACKGROUND

Time is of the essence. Oregon, particularly some areas of eastern Oregon, faces both deteriorating forest health and disinvestment in forestland ownership and manufacturing capacity. Allowed to continue, recovery from these losses will be very difficult. Family forestland owners are particularly affected. As nearby mills close, log transportation costs increase and the value of their timber goes down as a result. Alternative investments become more attractive and the incentive to actively invest and manage their lands as working forests begins to evaporate.

The *Forestry Program for Oregon* highlights the importance of Oregon's diverse forest ownerships and their varied management objectives as potential assets to help ensure the environmental, economic, and social values Oregonians want from our public and private forests are sustainable. Keys to sustaining these benefits are maintaining and enhancing productive and healthy forests and creating conditions where public and private landowners are willing to invest in their forestlands. This Board Work Plan is designed to focus on the most urgent short-term objectives and projects for promoting the continued vitality of our forests, forest landowners, and the forest products sector. Some of the challenges and barriers have been years in the making. They will require long-term solutions and may take years to resolve. Some of the opportunities proposed are not new but have been stymied in the past by a lack of political and public consensus or a lack of institutional capacity. There are also new issues to be resolved and new opportunities that need to be explored.

Through the *Forestry Program for Oregon*, staff already has direction to complete forest assessment work related to improving economic contributions of the forest sector. The Board has included actions in the *Forestry Program for Oregon* to promote improvement of the forest land base and long-term forest investments through forest products market development and appropriate incentives. Further work to implement some of the specific recommendations likely to be presented to the Board will require authorizing legislation from the 2007 Legislative Assembly.

In 2004, the Oregon Forest Resources Institute (OFRI) commissioned a study called *Oregon Forest Sector Contributions & Potential (E.D. Hovee & Co)*, which identified needs for further research into Oregon's forest cluster for the 21st century, taking a broader view of both historically allied and emerging growth industries.

OFRI is currently conducting additional research focused on identifying what is needed by Oregon's forest cluster in order to become more competitive and to benefit non-forest sectors of the state's economy.

A common theme among the five objectives in this Work Plan is the need to provide increased leadership, coordination, and organizational capacity on a variety of fronts to ensure the continued vitality of Oregon forests and forest landowners. If the objectives of the Work Plan are achieved, Oregon will make significant progress towards achieving the vision of the Board of Forestry and the strategies of the *Forestry Program for Oregon*.

More background information can be found in the *Forestry Program for Oregon* under Strategies B, C, and G.

Goal

**To encourage public and private landowners to continue to willingly make investments to create economically and environmentally healthy forests.
(Based on Board of Forestry Vision Statement #2.)**

Objective 1: Develop forest policies that ensure the sustainability of Oregon's forest resources while improving the forest sector's long-term contribution to national, state, and local economies.

Historical Context

(Forestry Program for Oregon Actions B.1, B.2, B.4, B.5, B.6, B.7, B.12, G.4, G.5, G.6, G.7)

Governor Kulongoski has directed the Board of Forestry to be the lead agency, in collaboration with Oregon Economic and Community Development Department, for developing a strategy for the sustainability of Oregon's forest sector, including its role in Oregon's future. The Governor charged the Board with developing an action plan to enhance the forest sector's sustainable economic, social, and environmental contributions.

Oregon's forest sector is rebounding from a decade-long decline. Forest sector employment and income has fallen since the late 1980s, coincident with large declines in federal harvest levels, improvements in mill efficiency, and weak domestic and foreign markets. Timber harvest on all Oregon's forestlands fell from 8.7 billion board feet in 1986 to a modern-history low of 3.4 billion board feet in 2001 (Figure 1).

Since then, overall harvests are rebounding, fueled by increased cutting on private, federal, and state forests, according to data compiled for the Oregon Department of Forestry's annual timber harvest report. Increased salvage harvesting and forest restoration efforts helped contribute to the federal increase.

An increase in demand for stumpage and logs fueled by a strong national housing market increased harvest on state, federal, and private lands. Weak log exports from Oregon's ports providing more raw material to lumber and plywood mills and the import of logs from out of state has resulted in increased production and employment in the forest sector (Figures 2 and 3), reversing the downward trend forecasted by many. Employment in the industry overall increased in 2004 and 2005. Employment in the secondary wood products industry, sometimes called value-added wood processing, has also turned around over the last several years from a downturn caused by the recent recession.

Figure 1: Oregon Timber Harvests
1962-2004
in Billion Board Feet

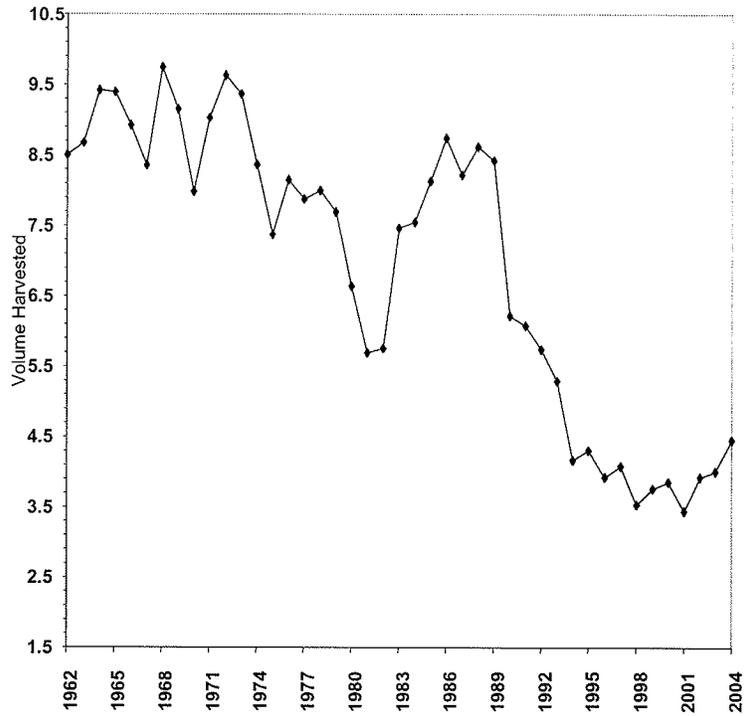
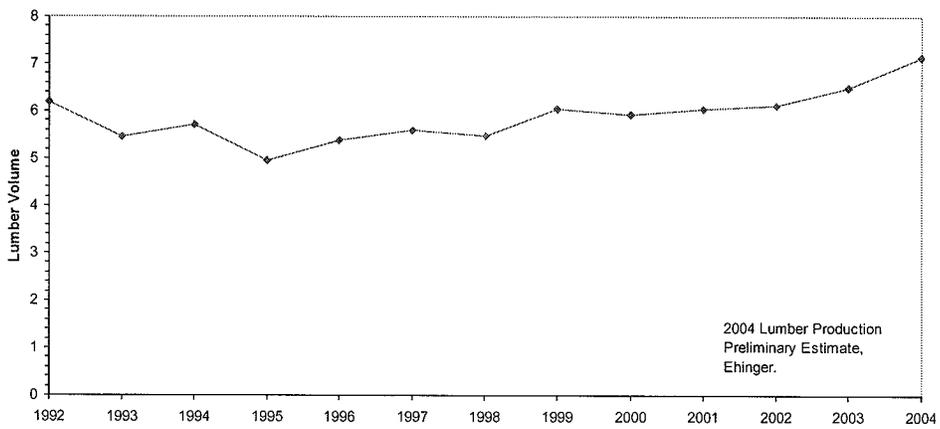


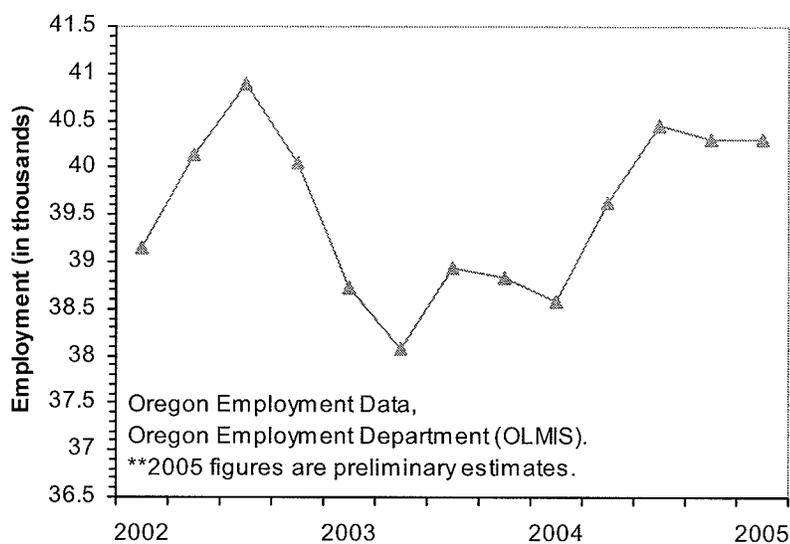
Figure 2: Oregon Lumber Production

Oregon Lumber Production, 1992-2004
in Billion Board Feet



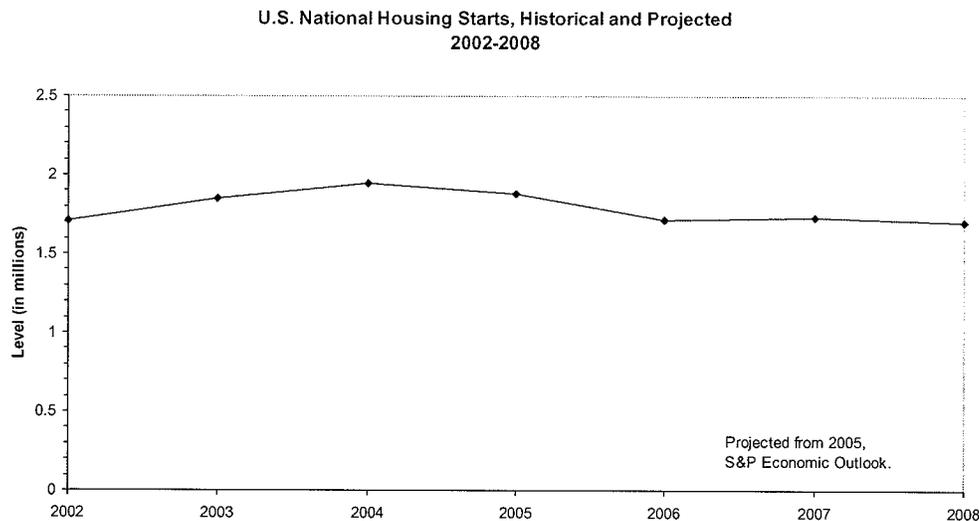
Oregon's forest products industry remains highly competitive and could enhance its contribution to national, state, and local economies. Competitive strengths include the State's highly productive forests, an effective timber tax system, strong industry infrastructure in western Oregon, proximity to rapidly growing markets, excellent forestry research and teaching institutions (notably the US Forest Service Pacific Northwest Research Station and the Oregon State University College of Forestry), a stable forestland base, and effective laws regulating forest practices.

Figure 3: Oregon Lumber and Wood Products Employment, Quarterly 2002-2005



The future is uncertain, however, as Oregon's forest sector continues to rely primarily on production of lumber, plywood, and paper products. Although there is continued growth in engineered wood products and other newer technologies, growth in knowledge-based industries, which includes many secondary-manufacturing enterprises, remains well below its potential. With increasingly strong overseas competition and new products continually coming into the market, there is concern about the state's future competitiveness if the housing market softens as projected (Figure 4).

Figure 4: U.S. National Housing Starts



It is also uncertain whether family forest landowners will be able to increase their contribution to timber supply in Oregon. With the decline in federal timber sales and the resulting decline in the volume of unharvested wood under contract on federal lands, the family forest landowner has become the default supplier of additional raw materials to Oregon's lumber and plywood mills. Forest industry lands and State Forests are already being harvested to capacity for their particular goals and objectives. It is not certain whether family forest landowners can supply enough wood to meet increased demands for their timber, or whether they can effectively market and receive fair prices for their wood.

Current Issues

As the *Forestry Program for Oregon* points out, Oregon lacks a coordinated policy on the role of wood-products industries in the overall economy:

“Several current federal and state actions are aimed at enhancing the economic and social contributions of forests to local and state economies. These actions, however, lack a consistent policy basis. There is no coordinated state and federal policy regarding community stability and the contributions of lumber and wood products industries to the economy. These efforts do not fulfill their potential to contribute to increase supplies of forest products, greater environmental benefits, and greater economic benefits to state and local economies. We have every reason to expect that better coordinated, well-funded approaches based on clearer policy would help Oregon generate additional environmental, economic, and social benefits from its forests.” (*Forestry Program for Oregon*, p. 33)

Board Products

1. The Board will be asked to evaluate laws, policies, education, and other factors and suggest changes that may improve the institutional capacity of Oregon state government to coordinate with businesses and with federal and local governments on forest sector economic development initiatives. Although we await completion of a study by the Oregon Forest Resources Institute on this topic, it is clear that public policies and state agencies in Oregon do not effectively facilitate investment in Oregon's forest industries. Therefore, the Board will be asked to commission an Institutional Capacity Work Group to look at how laws, policies, education, and agency responsibilities might be changed to assist economic development of Oregon's forest industries. Products resulting from the work group would include: 1) a list of recommendations for necessary changes in laws, policies, education, agency responsibilities and other factors; and 2) proposed legislation for the 2007 Oregon Legislative Assembly to consider.
2. The Board will be asked to work to ensure that Oregon becomes the country's leader for forestry research, science, technology, and marketing and will work to ensure that potential synergies between the wood products sector and other sectors of Oregon's economy are utilized. The first step in this process is for the Board to immediately commit to supporting a public-private collaborative research partnership, such as the proposed Wood Innovation Center at the Oregon State University College of Forestry.
3. The Board will be asked to direct the creation of Forest Products Industries Task Force to work with the Department of Forestry, the Economic and Community Development Department, and other partners to develop strategies to increase production of value-added and specialty wood products. The task force charter will call for an assessment of the strengths, weaknesses, opportunities, and likely behavior of current and prospective competitors and cooperators to Oregon's forest industries.

Recommendations from the Forest Products Industries Task Force will focus on increasing economic contributions from new and expanding forest product manufacturing, increasing in-state value added to primary forest products, market expansion, new products and technology, industrial recruitment, and infrastructure planning and development. The task force will evaluate potential economic contributions from various parts of Oregon's forest cluster, including but not limited to: forestry services, the pulp and paper industry, lumber and plywood manufacturers, engineered wood products, secondary wood products manufacturers (molding, doors, furniture, etc.), logging and milling machine and equipment manufacturers, makers of automation and control devices, chemical manufacturers, the packaging industry, the printing industry, energy production and biofuel generation, composite product manufacturers, supporting services (engineering, logistics and transportation, consulting, forest inventory, etc.), and higher education.

Products resulting from the task force would include: 1) a list of recommendations for necessary changes in laws, policies, education, agency responsibilities, and other factors needed to improve competitiveness of the industry and facilitate development of the proposed Wood Innovation Center; 2) proposed legislation for the 2007 Oregon Legislative

Assembly to consider; 3) revision of the Forest Assessment Project study plan to better facilitate economic development; and 4) recommendations on how to best analyze economic development opportunities in the 2010 Oregon Forest Assessment.

4. The Board will be asked to continue to work through Department programs and the Committee for Family Forestlands, and use other methods to help family forestland owners improve their ability to manage and market their timber and other forest products.
5. The Board will also be asked to provide state government leadership in coordinating with federal land managers to accelerate forest restoration, where needed, on federal lands and thereby improve their economic contribution to local communities. The Board will be asked to direct Department staff to implement a plan for carrying out the provisions of 2005 Senate Bill 1072 related to state government participation in federal forest land management planning. (Also see Objective 2.)
6. The Board will be asked to assume a leadership role in sponsoring and coordinating a process to harmonize Department of Forestry, Economic and Community Development Department, Department of Agriculture, and federal policies and research initiatives to best improve the contributions to Oregon's state and local economies from utilization of small diameter forest biomass. The Board will be asked to direct Department staff to implement a plan for carrying out the provisions of 2005 Senate Bill 1072 related to biomass utilization and draft recommendations for developing additional policies and legislation needed to make reducing fuel loading in overstocked stands more cost-effective. (Also see Objective 4.)
7. The Board will be asked to direct the Department of Forestry to continue work with the Department of Energy and other partners to promote developing policies encouraging wood-based bioenergy and biochemical products; 2) directing the Department to immediately improve coordination with researchers involved with the Pacific Northwest Sustainable Wood Production Initiative, Oregon State University researchers, and others to identify opportunities for state and federal agencies and private landowners to cost-effectively utilize small diameter forest biomass to produce lumber, biofuels, bioenergy, wood-plastic composite materials, and other commercial products; and 3) depending upon research results, propose state policies or legislation for the 2007 Oregon legislature to promote opportunities for, or removal of barriers to, the use of small diameter forest biomass for commercial products. (Also see Objective 4.)

Research and Information Gathering

1. The State Forester will meet with the Dean of the Oregon State University College of Forestry, the Bureau of Land Management (BLM) Regional Director, the US Forest Service (USFS) Regional Forester, the Pacific Northwest (PNW) Station Director, and the Director of the Oregon Economic and Community Development Department to facilitate coordination of economic development policies amongst these and other state and federal agencies, local governments, and Oregon's universities. Products from the meeting of the agency heads would include: 1) a list of agency policies that need to be coordinated or changed to facilitate economic development; 2) recommendations for proposed State and Federal

legislation; and 3) a list of agency budget and program changes that could facilitate economic development.

2. Department staff will complete a review of the ongoing OFRI research and will evaluate OFRI's findings about what is needed by Oregon's forest cluster in order to become more competitive and to benefit non-forest sectors of the state's economy. Department staff will produce a white paper melding findings from the OFRI report, Institutional Capacity Work Group recommendations, and results from the meeting of the agency heads. The white paper will make recommendations about how to best implement Board products proposed under this Objective. Specific actions to be recommended could include: 1) maintain and improve public information programs and education programs at OFRI and the Oregon State University College of Forestry (OSU) to improve the business climate for forest-related businesses in Oregon; 2) develop strategies to ensure stable harvest levels from private forest lands; 3) develop strategies to ensure full implementation of State Forest Plans, the Northwest Forest Plan, and the Healthy Forests Restoration Act on federal forests; 4) develop and promote models for integrated forest health and wildfire management such as the Lakeview Biomass Project and the Forest Health/Wildland Fire Program at OSU.
3. A white paper produced by staff will summarize and evaluate Board's Forest Products Industries Task Force recommendations. Specific staff recommendations could include: 1) strategies for revitalizing forest products industries in rural areas by integrating mills with biomass energy, biofuel, plastic-composite, and other product production; 2) direction for development of the Oregon Wood Innovation Center at OSU to develop and improve markets, products, and forest products industry business practices; 3) suggestions for minimizing regulatory costs and improving regulatory benefits through innovative and targeted research programs such as the ongoing work at Hinkle Creek; 4) enhance programs for boosting long-term forest productivity and value through programs such as OSU's Center for Planted Forest Productivity and Value Enhancement; 5) promote development of markets for public benefits and environmental services delivered by forests such as water, biodiversity, carbon sequestration, recreation, and tourism.
4. Through Objective 2 of this Work Plan, the Board will ask Department staff to produce a background assessment prior to developing a State of Oregon Guidance Document for federal land management. For identifying opportunities to increase benefits from nonindustrial private forest lands, products will include: 1) summarized input from the Committee for Family Forestland and other organizations; 2) revision of the Forest Assessment Project study plan to better facilitate understanding of how to increase the social, environmental, and economic contributions from nonindustrial forest lands; and 3) recommendations on how to best analyze economic development opportunities from nonindustrial forest lands in the 2010 Oregon Forest Assessment.
5. Harmonizing state and federal policies regarding economic development and utilization of small diameter forest biomass will be on the agenda for the meeting between the State Forester and the Dean of the Oregon State University College of Forestry, the BLM Regional Director, the USFS Regional Forester, the PNW Station Director, the Director of the Oregon

Economic and Community Development Department, Director of the Department of Energy, and the Director of the Oregon Office of Rural Policy.

6. ODF staff will review completed and ongoing studies about the economic, environmental, and social benefits and costs of treatments of overstocked stands in Oregon; 2) develop proposed legislation for the 2007 Oregon Legislative Assembly to consider removal of barriers to cost-effectively reduce fuel loading in overstocked forest stands; and 3) revise the Forest Assessment Project study plan to better synthesize information about current and emerging technologies and other information which could be used to develop recommendations on how to better treat these stands.

Stakeholder/Public Involvement

Department staff will coordinate with Oregon Forest Resources Institute, Oregon Forest Industries Council, Oregon Small Woodlands Association, Oregon Economic and Community Development Department, PNW Research Station and others to gather and present pertinent information and to develop alternative policies which address forest sector barriers and opportunities. Staff will also coordinate a work group tasked with developing 1) a list of recommendations for necessary changes in laws, policies, education, agency responsibilities, and other factors; and 2) proposed legislation for the 2007 Legislative Assembly to consider.

Timeframe With Milestones

Prior to October 1, 2006 the State Forester will meet with the Dean of the Oregon State University College of Forestry, the BLM Regional Director, the USFS Regional Forester, the PNW Station Director, and the Directors of the Oregon Economic and Community Development Department and the Department of Energy.

The proposed work group to look at how laws, policies, education, and agency responsibilities might be changed to assist economic development of Oregon's forest industries would commence its work in the fall of 2006 and complete its work by July, 2007. A progress report will be delivered to the Board as a consent agenda item.

The Forest Products Industries Task Force will be formed and chartered in July 2008. Task Force recommendations will be finalized by January 2009 and a progress report delivered to the Board of Forestry as a consent agenda item.

By August 2008, Department staff will complete review of the ongoing OFRI research, present a list of recommendations for necessary changes in laws, policies, education, agency responsibilities and other factors, and submit to the Board of Forestry for consideration of proposed legislation, if possible, for the 2009 Oregon Legislative Assembly.

Milestones include:

- Completion of synthesis of information from work groups, agency heads, OFRI, and other sources.
- Board recommendations to the 2009 Legislative Assembly for passage of proposed legislation and implementation of other legal and policy initiatives.

- Measurable improvements in the business climate, public perceptions, and contributions to state and local economies.

Resources Required

Short-term work can be completed with existing Department resources. However, long-term implementation of an Oregon forest sector economic development strategy will require dedicated organizational capacity with the Department of Forestry and/or Oregon Economic and Community Development Department of at least two FTE.

Monitoring Achievement of This Objective

Staff will report to the Board annually on progress in completing the Work Plan and achieving project objectives. To the degree feasible, Staff will use Oregon Progress Board benchmarks and BOF core indicators to measure progress in achieving project objectives. Where necessary, other indicators will be used.

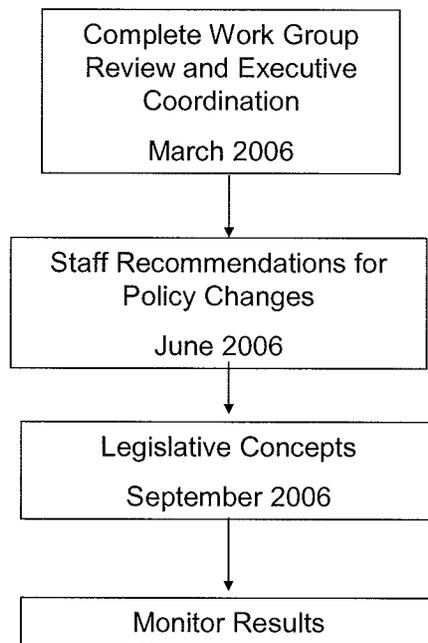


Figure 5

Objective 2: Create a unified vision of how federal forestlands should contribute to the environmental, economic, and social sustainability of all Oregon forest resources.

Historical Context

(*Forestry Program for Oregon* Actions A.2, A.4, A.8, A.10, B.1, B.5, B.8, B.12, C.3, E.1, E.5, F.1, F.2, F.5)

Federal forestlands make up 57 percent of Oregon's forests. Even though federal forests are critical to Oregon's environment, economy and quality of life, state government has historically had very little influence or control over how these lands are managed. Many Oregon private forest landowners are very concerned with current federal policies. They see them as a threat to the viability of their forests, as wildfire and insects from federal forests do not stop at ownership boundaries. The current level of management on federal lands has increased the risk of fire and insect outbreak on these lands. These threats from federal lands discourage private landowners in making long-term forest management and milling investments. They also see a federal "passive management" policy in conflict with their policies of promoting forest health through active management.

Federal forest land management policies not only impact the management of private forests, they also have a major impact on the state's rural communities. A united voice and coordinated strategy is needed to increase the effectiveness of the Governor's Office, Legislature, Congressional delegation, state agencies, and federal agencies when dealing with federal forest policy issues. To be effective, the state's strategy should be based on sound environmental, economic, and social principles that are applicable to the diverse set of issues facing Oregon's forests and communities. As a citizen body representing the public, the Oregon Board of Forestry is the appropriate place to develop a coordinated state strategy and has been charged by both the Governor and the Oregon Legislature to play that role.

At its October 2004 meeting, Governor Kulongoski admonished the Board to actively lead Oregon toward its goal of sustainable forests. To reach that goal, the Governor recommended that the Board take the following steps:

"First – create a unified vision of how federal lands should contribute to the sustainability of our state forests. And don't be reluctant to share that vision with the public – or timid in coming up with proposals to make this vision a reality.

"Make your vision action-oriented – and comprehensive. Don't stop at the first or second steps. Go all the way to the last step, including implementation. I believe states must be more actively involved in the implementation of policy on federal lands.

"Second – maintain Oregon's position as a global leader in the use of sound, science-based, carefully considered forest practices on private lands. That includes giving landowners the opportunity to add value to their private land in exchange for helping to achieve sustainability."

Current Issues

Oregon state government needs a unified vision and action plan for how Oregonians would like to see federal forestlands in the state managed in the future -- a vision that will spell out the actions in detail and a plan that will turn this vision into reality. With this "action-based" plan, the Governor, the Board, and Oregon's other state agencies and key policymakers can work in unison to affect the kind of changes that would be necessary at the federal level for this vision to be realized.

Senate Bill 1072, signed into law following the 2005 Legislative Session, provides direction for greater state government involvement in federal forest planning and management.

Board Products

Department of Forestry staff recommends that the Board produce a document for the Governor's adoption that articulates the State's vision for, and provides guidance on, how federal lands should be managed to contribute to the sustainability of Oregon's forests. The Board's Federal Forests Management Guidance Document should have two general sections: the first section should provide a vision and clearly articulated goals for how federal lands in Oregon should be managed to contribute to sustaining important environmental, economic, and social forest values. The second section should deal with specific recommendations for policy changes needed on pressing issues to achieve the Board's vision.

Research and Information Gathering

Research and information gathering will be done by the workgroup through the use of a joint fact finding exercise.

The following steps are recommended:

1. Consistent with the requirements of 2005 Senate Bill 1072, the Board will sponsor a broad-based, representative working group to assist the Board and Governor in creating a vision for Oregon's federal forestlands and examining federal forest issues. In consultation with the Governor's office and the workgroup, staff will develop a collaborative, agreement seeking process whereby the members of the workgroup focus on identifying solutions that meet the interests for all members. The workgroup members will interact openly and in good faith to identify common ground. Consensus recommendations from the workgroup will be powerful recommendations that the Board will adopt, or strongly consider adopting, as written. If consensus is not achieved on an issue, then the workgroup will describe the key areas of agreement and disagreement among the workgroup members. The Board will use the information to develop informed decisions on the issue.
2. The working group will develop a vision and principles for the management of federal lands in Oregon.
 - a. Agency staff and researchers will present information on the current conditions and trends of forest resources and, using the *Forestry Program for Oregon* as an organizing framework, highlight the contributions federal lands are making to sustain the production of a range of environmental, economic, and social forest values.
 - b. Workgroup members will develop a vision for federal forestlands and identify the points where agreement exists. The vision should clearly articulate a small number of

goals that are useful in crafting policy at national, regional, and state scales. The goals should also be useful for reviewing on the ground projects to see if they are consistent with the state's vision. The vision will be provided to the Governor, Congressional Delegation, and Board of Forestry.

3. Identify Issues.
 - a. The Board, Governor's office, and Congressional delegation will suggest potential issues to be considered by the workgroup in the guidance document.
 - b. The workgroup will add to the issue list and identify the most pressing issues (i.e., top 10) that need to be resolved to meet the vision.
4. Drafting Guidance on specific recommendations for policy changes.
 - a. ODF staff will write up recommendations for policy changes on each issue based on agreements at the workgroup meetings.
 - b. Workgroup members will review the write up for consistency with agreements made at the meetings and forward to the Board of Forestry.
5. Final Vision and Guidance Document.
 - a. A draft of the vision and guidance document will be sent out for public review and comment.
 - b. In consultation with the workgroup, Board, Congressional Delegation, and Governor's office, staff will make final changes to the vision and guidance document.
 - c. The Board and Governor will adopt the final product.

Stakeholder/Public Involvement

In addition to stakeholder and public involvement in the workgroup process:

The Board will hold work session(s) on the vision and, if necessary, address areas where the workgroup could not develop consensus, consider additional public testimony and adopt a final vision. All workgroup members that want to represent a position may testify before the Board.

The Board will hold work session(s) on the recommendations and, if necessary, assess areas where the workgroup could not develop consensus, consider additional public testimony and adopt a decision on the recommendation. All workgroup members that want to represent a position may testify before the Board.

Timeframe With Milestones

At this stage in the work plan development, all times are approximate. The final timeframes will be developed after the workgroup is formed and able to agree on a meeting schedule.

2006

- August: Workgroup members are identified. COMPLETED
- September: Charter finalized and accepted by workgroup. COMPLETED

2007

- March: Draft vision is developed. COMPLETED
- April: Board holds hearing on vision and, if necessary, resolves workgroup disputes.

- July: Board work session on vision and goals; draft list of issues is created.
- October: Joint fact finding on issues.

2008

- March: Board holds hearing on issues, policy recommendations, and guidance and, if necessary, resolves workgroup disputes.

2009

- April: Draft guidance document developed.
- September: The guidance document is finalized and adopted by the Board and Governor.

Resources Required

The resources needed to complete this project include:

- .25 FTE Oregon Department of Forestry Policy Analyst
- .25 FTE Oregon Department of Forestry GIS Analyst
- .1 FTE Office Specialist
- Budget of approximately \$71,400 for Mediation/Facilitation services
- Logistic support (travel, lunches, etc.) \$ 25,000
- Staff support from other state and federal agencies

Monitoring/Measuring Proposal

16 U.S.C. § 1610 requires that “in carrying out this subchapter, the Secretary of Agriculture shall utilize information and data available from other Federal, State, and private organizations and shall avoid duplication and overlap of resource assessment and program planning efforts of other Federal agencies.” The new Forest Service planning rule also requires “the current social, economic, and ecological conditions and trends, and substantial changes from previously identified conditions and trends must be described [in the planning process] based on available information, as appropriate, and used in the evaluation process.” §219.6(a)(1)(ii)

The Board is currently working with the federal agencies to develop an agreed upon set of base indicators to use in assessing the sustainability of forests across the State. Coordinating the collection and use of a small set of indicators would benefit the Forest Service, BLM, and state agencies. These indicators should be coordinated with the indicators being developed to monitor implantation of the *Forestry Program for Oregon*.

Under the new planning rules (§219.5), managers of each of the national forests must adopt an “environmental management system” (EMS) under ISO 14001. EMSs require conducting periodic reviews of EMS performance in order to revise the EMS at appropriate intervals. The state should coordinate assessments with the EMS reviews.

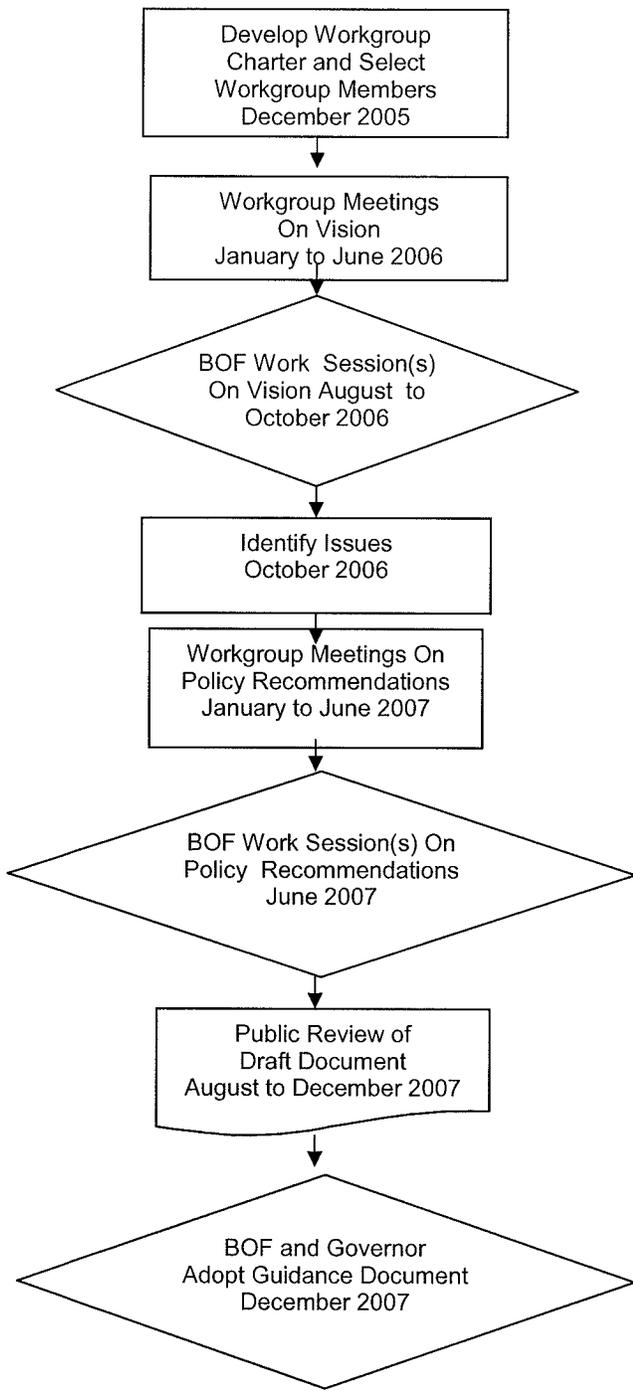


Figure 6

Objective 3: Keeping working forests working.

Historical Context

(Forestry Program for Oregon Actions A.6, A.9, B.12, C.1, D.7, G.1)

Rural Community Stability: Declining timber harvesting on federal forest land in eastern Oregon has affected rural community stability. The average federal harvest in 2000-03 is only 12 percent of the average harvest in 1986-89. In the 2000-03 period, harvesting on federal lands totaled only 44 percent of the harvested volume on private forest lands, despite comprising 70 percent of the land base east of the Cascade Mountains.

This reduction in harvesting forced a decrease in the number of operating forest products mills in eastern Oregon – from 68 in 1980 to just 18 in 2004. This number is expected to drop further in the next 5 years. During this 24-year period, eastern Oregon unemployment rates averaged 40 percent higher than the state as a whole.

Real per capita income across Oregon grew by 30 percent from 1980 to 2003, while per capita income rose by only 1 percent in eastern Oregon. This increase included Deschutes County, which has done much better than most of eastern Oregon.

Both unemployment and the loss of real income have contributed to less revenue for local governments to provide services. This leaves the counties most in need with few assets to address problems.

Forestland Conversion: With the federal government owning over 70 percent of the forests in eastern Oregon, the reduction in harvest and forest management on these federal lands has drastically reduced the number of mills and jobs. These reductions have threatened the basic forest sector infrastructure and have created conditions for the potential conversion of forestland from working forest to other uses, further straining the long-term viability of mills in eastern and central Oregon. The most dramatic example of forest land conversion is in central Oregon. Since 1990, 60 percent of the industrial forest land in Deschutes and Jefferson counties has been sold or exchanged with landowners that have little experience or invest in managing the land for timber production. Much of this land is now being sold in 240-acre lots for home sites. Some 26 percent of the non-industrial land was converted to residential development between 1975 and 2001.

Residential development near industrial forestland expands the wildland urban interface that can lead to additional land use conflicts, changes in wildlife populations, and increased issues for preventing and suppressing wildfires.

Funding for Higher Education: The cost of higher education is becoming much harder to afford in Oregon. When comparing tuition cost at the University of Oregon to real Oregon per capita personal income, the cost of higher education was 8 percent of an Oregonian's income in 1980. The cost had grown to 17 percent in 2003. When looking only at eastern Oregon counties, tuition costs are 22 percent of the average income. This does not include all other associated costs of higher education that have also risen dramatically. During this same period, tuition has

risen by 166 percent. Aid to students through grants, work study, and scholarships has risen by only 66 percent. Most of this difference is being made up through loans. Between 2000 and 2003, loans increased by 154 percent.

SB 1061, introduced at the request of the Governor's Office in the 2005 Legislative Session, would have allowed the acquisition of forestland to be managed under the Board of Forestry. The bill proposed giving the state the ability to acquire forestland and manage these lands as working forests to produce revenue for an endowment fund and produce other environmental and social values. This endowment fund would be used to assist Oregonians wishing to attend Oregon institutions of higher education.

Managed as a working forest, the primary purpose of these acquired lands would be to generate revenue through the harvesting of forest products. These working forests would be managed for the long term under a management plan. If some cause prevented the Department of Forestry (ODF) from being able to manage these lands as a working forest, then the Act allows the State Forester to dispose of the lands. Revenue from the disposal would go through the normal revenue distribution process established in the Act.

Although direct revenue is the primary emphasis, working forests are also extremely important to the rural communities of Oregon. Working forests help provide jobs and contribute to the tax base of the local area. Important values such as recreation, fish and wildlife, and water quality will also be provided as outcomes from such forest management.

The Department of Forestry's experience with the Tillamook, Elliott, and Sun Pass State Forests shows that the working forests concept can provide a significant source of funding for the Higher Education Fund or to support community forest revenue bonds. The Sun Pass State Forest was purchased in much the same manner. The Sun Pass was purchased in the 1940s from a private lumber company. The land had been heavily cut over with little merchantable volume being available for 20 plus years. Today the Sun Pass stands as an outstanding example of eastside uneven aged management.

This bill was withdrawn by the Governor from further action during the session with the expectation that further work will occur during the interim.

Current Issues

The Board and Department of Forestry staff have been working closely with the Governor and others on legislation to promote retaining working forestland that (1) might otherwise change to another land use, and that (2) might change from a working forest ownership to an ownership not interested in active forest management, and/or that (3) could be managed in trust for the benefit of higher education.

Several related concepts were introduced in the 2005 Legislature. House Bill 2729 was passed into law. HB 2729 authorizes a city or county government to create a community forest authority that may issue revenue bonds or other revenue obligations to acquire and maintain private working forestlands.

In addition, a number of existing programs related to land acquisition and conservation easements may favorably or unfavorably impact this objective. A number of state agencies manage funds for the acquisition of lands or easement for conservation. In many cases, such acquisition has resulted in working forests being purchased and moved to a reserve emphasis strategy. Considerable concern has been expressed by some parties about the lack of a state policy about the role of acquisition and easements. This concern in the past has limited the opportunity to consider tools such as the Forest Legacy Program that could be used to support the Governor's concept of community forests. Limited authorization to use the Forest Legacy Program within Urban Growth Boundaries was provided by the 2005 Legislature.

Board Products

1. The Board will be asked to adopt a policy regarding the use of conservation acquisition and easements on working forests. A draft policy will be developed by the Department and other key agencies with involvement of a range of interests. The Board's adoption of this policy will support the additional work described below.
2. The Board will be asked to approve a modification of the 2005 Senate Bill 1061 concept for acquisition of forestland for introduction into the 2007 Legislative Session. The Board will need to determine if the legislative concept proposal is consistent with state statutes, is acceptable to local governments and the public, is financially sound, and is otherwise in the best interests of the State of Oregon.

Research and Information Gathering

1. Any legislative concept would need to give great flexibility to purchase forestland either in its entirety or to purchase a component in partnership with others. This flexibility would provide purchasing options that may help the Oregon Department of Forestry attract potential partners that may have differing values and specialized objectives. An example would be the State acquiring some land and getting a contribution for carbon credits for holding timber longer than is currently practiced by the current landowner. Potential partners or federal programs are wide ranging, but could include the counties and local government, conservation groups, Forest Legacy, Oregon Parks, Oregon Department of Fish and Wildlife, or other timber managers.
2. A detailed business plan would have to be developed prior to the purchase of any lands. This would show the investment period and expected returns over time. The business plan would also show other partners and what their contributions and expected outcomes would be. The business plan would have to show the available volumes and when other timber is expected to become available for harvest. All of these factors would need to be analyzed to determine if the purchase is viable or not.
3. The Department will assume a leadership role in sponsoring and coordinating a process to harmonize Department of Forestry, Oregon Watershed Enhancement Board, Oregon Parks and Recreation, and Oregon Department of Fish and Wildlife policies and initiatives to best use acquisition and easement authority to maintain working forests while also supporting other objectives.

4. The Department will need to develop a “due diligence” methodology on how to quickly analyze acquisition proposals when opportunities arise. This methodology can also assist local government to consider the community forests options. Due to potential tax revenue and management cost implications, the acquisition or community forest proposals will need to obtain local support and have a sound financial plan for purchase and planned management levels. The Treasurer’s office will need to be involved on approving bonding request to fund state acquisitions.
5. To ensure operational efficiency, any state forestland purchase legislation should either be within Department of Forestry districts that already manage existing state forests or be large enough to be independent operating units. In eastern Oregon, an independent operating unit should consist of at least 30,000 acres of forestland to be economically efficient.

Stakeholder/Public Involvement

Public involvement will take place following development of a draft acquisition/easement policy with the Oregon Watershed Enhancement Board (OWEB), Oregon Parks and Recreation, and Oregon Department of Fish and Wildlife. During a field trip with OWEB and Oregon Department of Forestry in July 2005, this topic was discussed.

The “due diligence” process to be developed will describe the amount of public involvement that will be used for acquisitions and easements, much as the Board’s current land exchange policy does. The Board will need to review the amount of public involvement and determine its adequacy.

Timeframe With Milestones

Draft policy development will be completed by March 2006. The timeframe and milestones for the remaining elements for this objective are dependent on passage of legislation in 2007 and by opportunities to acquire forestland offered for sale. This objective should be reviewed during the annual issues scan.

Resources Required

The Private and Community Forests Program will lead the effort on policy development. No additional resources are required until acquisition authority is obtained and serious consideration of potential forestland acquisitions occurs.

Monitoring Achievement of This Objective

Further work on this objective is awaiting authorizing legislation. Once statutory authority is in place, the Board will be kept informed of acquisition opportunities and processes. Once new state forestlands are acquired, new Board work plans will develop management plans for these forestlands.

Progress to date on this objective: The State Forests Program drafted a new legislative concept titled, “State Purchase of Forestland for Higher Education scholarships for introduction into the 2007 legislative session. The concept provides for a new funding source to assist future citizens of Oregon who wish to attend Oregon institutions of higher education. This can be accomplished by acquiring working forests – managed for the long-term production of timber – to generate

revenue for the Higher Education Fund. These working forests also would provide for other social values and contribute to the quality of life that sustains rural communities in Oregon.

Objective 4: Promote incentives for sound sustainable forest health restoration practices, including the development of market-based solutions to reduce the risk of catastrophic wildfires and insect and disease outbreaks.

Historical Context

(Forestry Program for Oregon Actions A.9, B.4, B.8, C.1, F.1, F.2, G.4, G.5, G.7)

Over 21 million acres of Oregon's forestland, primarily in drier forest types, are overstocked and in Fire Regime Condition Classes II and III. This presents a serious threat to the health of these forests and adjacent communities. These risks threaten a range of values including air and water quality, fish and wildlife habitat, and local economies involving a sustainable supply of wood to support Oregon's mills. Throughout the dry forest types of Oregon, comprehensive and integrated efforts are underway with the goals of forest health restoration, reduction of threat from catastrophic wildfires, and sustainability of the forest ecosystem and surrounding communities. These efforts involve several strategies and techniques to address the issues and consequences of degraded forest health and past management practices. The scope of these efforts is limited by the ability to capture economic value for the residues of fuel reduction and forest health treatments. Initiatives to deal with this problem (National Fire Plan, Healthy Forests Restoration Act) will likely result in large quantities of forest biomass¹ requiring disposal.

For the most part, forest residues, because of their low economic value, are burned on-site or left to naturally degrade. Open burning of these fuels can have adverse impacts on air quality and presents opportunities for the fire to escape control. Additionally, more stringent air quality standards are resulting from increased emphasis on alternatives to burning and are reducing opportunities for prescribed burning. Leaving the residues onsite and untreated is also problematic, as this can result in more severe burning conditions if a fire enters the area.

Oregon annually produces in excess of 9 million bone dry tons of biomass from forest fuel residues (timber harvesting, thinning, restoration, etc.), land clearing waste, sawmill residues, urban wood waste (pallets, buildings, limbs, branches, etc.), log yard waste, industrial wood waste, etc. Much of this biomass is either open burned, potentially impacting air quality and human health, stockpiled on site, or is disposed of in one of Oregon's rapidly filling landfills.

A potential solution addressing both the need to increase the economic value for small diameter forest biomass to support needed treatment and the vast quantities of the waste stream from forest health restoration practices, is to convert these residues (biomass) into energy. Creating the circumstances in which forest biomass can be economically converted to energy also

¹ In the context of this Work Plan, forest woody biomass is defined as material from trees and woody plants, including limbs, tops, needles, leaves and other woody parts, grown in a forest, woodland, farm, rangeland or wildland-urban interface environment that is the by-product of forest management, ecosystem restoration or hazardous fuel reduction treatment. The focus of this issue is on underutilized woody material for which commercial value is low and markets are currently small to nonexistent.

addresses directly or indirectly many social, economic, and ecological issues associated with the forest ecosystem and surrounding communities.

Ten years ago, 20 percent of Oregon's electrical energy came from wood and wood wastes. Since that time, energy production from this source has dropped by half. This reduction is due primarily to the decline in the Oregon forest products industry but is also a residual effect of relatively low energy prices.

There is potentially sufficient biomass from forests and other sources for a sustainable supply from all regions within the state. A wide range of capacities and types of processing facilities can be built to appropriate scale based on known and sustainable wood biomass available for a particular region or market area. Some regions may only be able to supply small power and heat generating facilities that heat and provide power to schools, universities, or other institutional buildings, while other areas can provide a sustainable supply of waste products to support large capacity power plants (10-50 megawatts).

Development of a biomass fueled energy industry would benefit Oregonians on several levels. The value of forest residues would increase, which could help fuel reduction and forest health projects become profitable. With expanding restoration work comes healthier ecosystems at a lower risk of disturbance. Converting these fuels to energy under controlled conditions lessens the release of greenhouse gasses and other pollutants. Also, other biomass waste streams (e.g., urban and agricultural) could be diverted from landfills and used in common energy facilities.

The economic benefits of biomass utilization can be substantial and include creation and retention of local jobs in a rural economy. For biomass power systems, it is estimated that six full-time jobs are created for each megawatt of installed capacity. Depending upon plant capacity, 15-20 or more jobs may be created at each site. This does not include jobs involved in fuel processing and delivery. Payroll at the power plant is made up of various administrative, maintenance, and fuel-handling positions at salaries of approximately \$20,000 to \$35,000 per year and plant management positions in the \$60,000 to \$100,000 range. Fuel procurement and transportation workers are generally paid hourly wages that range from \$10/hour to \$30/hour, depending on the skill level of the position. Total employment levels (excluding biomass fuel procurement) are presented in the table below.

Category	25-MW Power Plant	5-MW Power Plant
Plant Manager (number)	1	1
Deputy (number)	1	1
Operators (number)	8	8
Fuel Handling (number)	3	2
Maintenance (number)	3	3
Administration (number)	1	0.5
Total number of employees	17	15.5
Total payroll	\$ 475,000	\$443,000
Benefits	\$ 166,250	\$155,050
Annual payroll	\$ 641,250	\$598,050

Source: *Biomass Resource Assessment and Utilization Options for Three Counties in Eastern Oregon*, Oregon Department of Energy, 2003

Other potential uses of small diameter forest biomass to address these opportunities also need to be examined. Understanding market barriers to produce composite products, oriented strand board, transportation fuels, and other value-added products here in Oregon should be looked at. However, in terms of addressing the catastrophic fire issue, biomass to energy appears to be the best option that deals with enough quantity of waste stream material to be a viable solution.

Current Issues

Through the Governor's Renewable Energy Action Plan, the Department of Forestry has already publicly committed to several actions to help the State achieve the objectives of generating 25 percent of the State's electrical needs from renewable resources by 2010 and 100 percent by 2025. This includes development of twenty-five megawatts of new biomass capacity by 2006.

The draft report of the Governor's Global Warming Advisory Committee recommends utilization of forest residues as a source of material for biomass energy as a means to avoid carbon dioxide emissions from controlled or uncontrolled burning and to improve carbon sequestration in the treated forest area. In addition, new regional haze rules from the EPA have led to increased emphasis on alternatives to burning and will further limit burning opportunities available through Oregon's Smoke Management Plan.

There is a lack of information regarding forest biomass inventories, supply sustainability, and locations. This information is critical for the development of bio-energy industry infrastructure. The Department has committed to conduct such inventories in the State's Renewable Energy Action Plan. Also currently lacking is the ability to establish long-term contracts for feed stock off of federal lands. Long-term contracts would encourage the expensive start-up investments needed for biomass plant development.

The cost of producing energy from forest biomass is currently not competitive with other energy alternatives. The cost to produce electrical energy from biomass is higher than the market value of the electricity. This is largely due to relatively inexpensive hydro-power. However, the supply of hydro-power is fixed and price will increase commensurate with demand. Other

sources of energy such as wind, solar, and geothermal are considered "renewable" and thus eligible for grants, tax credits, and/or low interest loans, while bio-energy has limited access to these tools under some of the same policies. The economic value of environmental benefits resulting from the use of renewable biomass energy are not included when this source of energy is compared to others. More inclusive economic thinking that considers both environmental and social benefits show biomass energy to be economically competitive.

Senate Bill 1072, signed into law following the 2005 Legislative Session, provides direction for greater state government involvement in promoting forest biomass utilization. A state Forest Biomass Working Group, comprised of public and private partners, has been formed for this purpose.

Board Products

1. Consistent with the requirements of 2005 Senate Bill 1072, the Board will be asked to assume a leadership role in sponsoring and coordinating a process to harmonize Department of Forestry, Economic and Community Development Department, Department of Agriculture, and federal policies and research initiatives to best improve the contributions to Oregon's state and local economies from utilization of small diameter forest biomass. This topic would be on the agenda for the meeting between the State Forester and the Dean of the Oregon State University College of Forestry, the BLM Regional Director, the USFS Regional Forester, the PNW Station Director, and the Directors of the Oregon Economic and Community Development and Energy Departments to be held prior to January 1, 2006. (See also Objective 1.)
2. The Board will be asked to produce a State of Oregon Guidance Document for federal land management. (See Objective 2.) The sustainable supply of raw materials for biomass energy production will be included in the issues section of this document with the intent of ensuring that planning of forest health restoration practices include consideration of opportunities to provide a sustainable and predictable supply of biomass.
3. The Board will be asked to develop position statements supporting federal legislation and policies which advance the development of a biomass energy industry in Oregon. The position statements will be communicated to the state's Congressional Delegation as needed. The Board will also provide educational opportunities for members of Congress and their staffs on the environmental, economic, and social benefits of biomass energy.
4. Consistent with the provisions of 2005 Senate Bill 1072, the Board will be asked to direct Department staff to work with the OSU College of Forestry and PNW Research Station to assess the current state of knowledge regarding the environmental impacts of large-scale biomass removal on sensitive forest resources. The priority for these efforts will be directed to dry, fire dependent forests.

Research and Information Gathering

1. Work under this objective may result in proposals that the Board recommend or endorse statutory and or policy changes. These changes may not always be directly related to forest policy or management but would have impacts on forest health and productivity. Proposals

may also include changes to Department administrative rules or policies. The Board will need to determine if the proposals are consistent with the strategies within the *Forestry Program for Oregon*.

2. Any biomass-fueled energy production facilities resulting from this Work Plan should be sized in proportion to the sustainable supplies of biomass that can be cost-effectively obtained once fuel reduction levels reach a maintenance phase, along with consideration of other forest values. Extensive research has been done throughout the West on the topics of wildfire, forest restoration, fuel reduction, and biomass utilization. Enough information exists to evaluate both short- and long-term risks associated with possible management actions or inactions. Large and small biomass projects have already been implemented or are in process in California, New Mexico, and in Oregon in Medford, Warm Springs, Wallowa County, Lakeview, and elsewhere. The Lakeview Oregon Solutions Project currently under development is a great example of the type of work that could be promoted in other parts of Oregon.
3. Department field personnel will participate in the federal planning process at the local level to identify opportunities for biomass recovery and utilization concurrent with proposed forest health restoration projects.
4. Department staff will participate on the Forest Biomass Working Group, a subgroup of the state Biomass Coordinating Group. One of the key tasks of the Forest Biomass Working Group is to identify economic barriers to biomass utilization and propose specific solutions to remove these barriers. OFRI is working with the Working Group independently and has commissioned a report to support this work.
5. Department staff, independently and through participation on the state Forest Biomass Workgroup, will collect and present information on the current status of biomass energy in Oregon and other parts of the country, and will include barriers to expansion and opportunities to overcome them. This work will be done concurrently and in cooperation with similar efforts of the Oregon Forest Resources Institute and will likely include possible recommendations for policy changes and legislative concepts for the 2007 Legislative Assembly.
6. Department staff will continue to monitor developments in federal energy legislation and impacts on biomass energy development in Oregon. Staff will present recommendations on positions the Board may adopt to influence efforts at the federal level.

Stakeholder/Public Involvement

Department staff will fill a leadership role on the State Forest Biomass Working Group. The proposed list of participants includes representatives from local, state, and federal government, academia, non-governmental organizations, and the forest products and energy industries. Primary communications between the Board and the working group will be through staff. There may be occasions when other working group members are asked to present information to the Board.

Timeframe With Milestones

Department efforts to promote biomass energy development and coordinate with cooperators and stakeholders are ongoing. Legislative proposals will be presented to the Board in time for bills to be introduced at the 2009 Oregon Legislative Assembly.

Milestones include:

- October 2005: First meeting of Forest Biomass Working Group. COMPLETED
- January 2006: Strategic issues identified by Forest Biomass Working Group. COMPLETED
- **November 2006:** Staff provides the Board with progress report and OFRI assessment and findings of environmental impacts of biomass removal. (Consent agenda) COMPLETED
- **March 2007:** Biomass Coordinating Group to submit report to Legislature covering Forest, Agriculture, and Urban aspects to Bioenergy development needs. Progress report to the Board. (Consent agenda) COMPLETED
- **June 2007:** Forest Biomass Work Group ends with final recommendations on resources and actions needed to address the work that remains. Progress report to the Board.
- **February 2008:** 2009 legislative concepts developed on small diameter biomass utilization and forest health restoration. Progress report to the Board

Resources Required

One additional FTE is required to coordinate Department of Forestry polices on forest biomass issues and to represent the agency in forums with public and private partners. A position was approved by the 2005 Legislature but funding has not been obtained.

Monitoring Achievement of This Objective

Beginning in 2006, Department staff will present to the Board an annual report on biomass energy achievements. These will include:

- Change in megawatts of power and combined heat and power generated using forest biomass as the fuel source.
- Change in forest acres in Fire Condition Class 3.
- Progress on Oregon Department of Forestry actions relating to forest biomass in the Renewable Energy Action Plan.

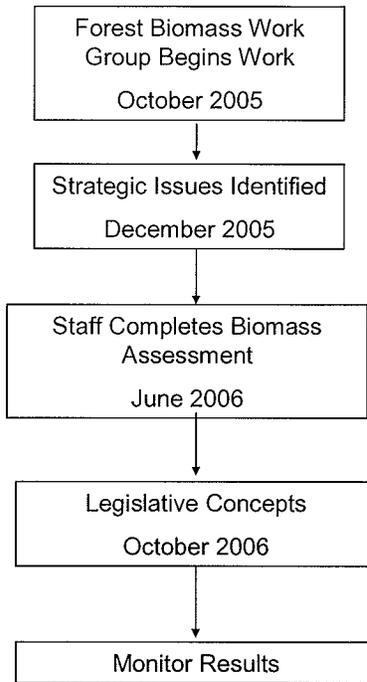


Figure 8

Objective 5: Promote the development of forestry carbon-offset markets as an incentive for managing forests, utilizing wood products and maintaining the forestland base.

Historical Context

(Forestry Program for Oregon Actions G.2, G.3, G.4)

A forestry carbon offset is a transferable certificate or note representing a measured amount of carbon dioxide removed from the atmosphere and stored as carbon. Markets for exchanging carbon-offsets have the potential to create a number of incentives to encourage the management of forests, utilization of forest products, and maintaining other environmental, economic, and social benefits of the forestland base. This issue is tied closely to the biomass energy and forest health issues.

Oregon is viewed as both a regional and national leader in the adoption of policies designed to reduce greenhouse gas emissions. Oregon has been inventorying sources of greenhouse gas emissions since the early 1990s and developed its first report on reducing greenhouse gas emissions in 1995. In 1997, the Oregon State Legislature adopted a carbon standard for citing new, non-utility, regulated power plants in Oregon (ORS 469.503; OAR 345-024-0500 through 345-024-0720).

Board of Forestry Agency Action to Date

In the adoption of Administrative Rules for the Forest Resource Trust's Stand Establishment Program, the Board of Forestry recognized that reforesting underproducing lands could be considered as giving rise to carbon offsets. These offsets could be used to comply with air quality objectives or regulations, or otherwise compensate for carbon dioxide emissions from other sources. Ownership of the carbon offsets from Stand Establishment Program projects funded by the Forest Resource Trust was assigned to the Board (OAR 629-22-700). In 1999, the Forest Resource Trust received \$1.5 million dollars in carbon dioxide emission mitigation funding from the City of Klamath Falls' Klamath Cogeneration Project.

In 2001, the Oregon State Legislature passed Board-sponsored legislation that recognizes the beneficial role forests play in reducing atmospheric levels of carbon dioxide through carbon sequestration (ORS 526.780 to 789). The statutes anticipate that markets will emerge for forestry carbon offsets. The law builds on the success of the Forest Resource Trust in getting carbon dioxide emission offset monies and using these monies as an incentive to create new forests on under-producing lands. The law establishes two new Department programs for marketing forestry carbon offsets:

- From state forestlands on behalf of state forestland beneficiaries, and
- On behalf of participating non-federal landowners who make their own investments in forestry carbon offset generating activities.

Agency Actions to Date

The Department manages the Forest Resource Trust. To date, 1,320 acres have been enrolled in the Forest Resource Trust's Stand Establishment Program including 895 acres still under active long-term contracts.² Landowner interest and participation in the Forest Resource Trust is well below the Department's 2004 performance measure of 600 acres per year. Lien and contractual requirements of the Stand Establishment Program have not been well accepted by non-industrial private forestland owners. The lack of performance of the Stand Establishment Program jeopardizes the acceptance of forest-based carbon sequestration activities as mitigation for carbon dioxide emissions. Staff is currently in the process of drafting a Department issue paper on performance and implementation issues facing the Forest Resource Trust's Stand Establishment Program.

The Department is a member of the West Coast Regional Carbon Sequestration Partnership (WESTCARB). WESTCARB was formed in 2003 for the purpose of identifying the best regional carbon sequestration opportunities for keeping carbon dioxide out of the atmosphere. The Department is an active participant of WESTCARB and is providing in-kind staff time support to the partnership by having served as the partnership's Phase I Terrestrial Sequestration Work Group Task Leader and in contributing to the development of carbon supply curves for terrestrial sequestration opportunities. Further, the Department has agreed to provide the partnership a measurement and monitoring protocol for reporting carbon offsets from forestation activities such as Forest Resource Trust Stand Establishment Program projects. Completion of WESTCARB's Phase I terrestrial sequestration work for Oregon will contribute to the next assessment of Oregon's forests with respect to trends in carbon stocks and opportunities to increase Oregon carbon stocks in forests.

The Department will continue to participate in WESTCARB during Phase II over the 2006-2010 period. The purpose of Phase II is to demonstrate regional approaches to carbon sequestration - both geologic and terrestrial - through pilot projects. A key component of the terrestrial portion of the Phase II work is \$1.19 million of WESTCARB funding over a 4-year period beginning in federal Fiscal Year 2006 to the Oregon Solution's Lakeview Biomass Project, which includes funding to the Lake County Resources Initiative, Oregon State University, Oregon Forests Resources Institute, The Climate Trust, Winrock International, as well as the Department. Completion of the Phase II work will inform the Board about what types of forest activities are eligible for market payments for their carbon offset value and the accounting and verification rules for their sale.

Current Issues

Markets for carbon offsets are not well developed and tend to be grant based (i.e., not true markets where carbon offsets are exchanged at a market price). For example, The Climate Trust, a qualifying organization for handling mitigation funds under Oregon's carbon dioxide emission standard, releases Requests for Proposals for projects that will produce carbon offsets and then funds the projects based on a competitive grant award. Other entities offer no exchange or sale for carbon offsets but serve as registries for offset activities. Examples include the U.S.

² Landowners have the option of buying out of Forest Resource Trust contracts. To date, landowners have exercised the buy out option on 359 acres originally enrolled in the Forest Resource Trust.

Department of Energy, Energy Information Agency, Voluntary Reporting of Greenhouse Gases under Section 1605(b) of the 1992 Energy Policy Act and regional registries such as the California Climate Action Registry. The most developed markets for carbon offsets are tied to the implementation of the Kyoto Protocol, but these markets exclude United States participation because the U.S. is not a ratifier of the protocol. Perhaps the closest “market” currently within the United States is the Chicago Climate Exchange – but market exchange can only occur between exchange members.

Current and emerging policies for the sale or exchange for carbon dioxide emission offsets require that activities giving rise to the offsets are additional to baseline activities – what is referred to as “additionality.” Additionality unfairly penalizes forest landowners who have already made voluntary investments in forest management or who have voluntarily committed themselves to maintaining the forestland base because additionality sets a higher baseline for these landowners than those who have forestlands in an unmanaged, non-forest, or otherwise degraded condition.

Family forest landowners are not well positioned to take advantage of markets for forestry carbon offsets due to their small ownership size, the fixed costs associated with carbon accounting and verification, and the complexity in following market opportunities as they arise.

The Board, through the State Forester, has the authority to sell forestry carbon offsets from state forestlands on behalf of state forestland beneficiaries. The first step to acting on this authority is to conduct an assessment of the amount of carbon dioxide emission reduction benefits accruing to state forestlands as a result of implementing current forest management plans and strategies. The second step is to conduct the carbon accounting system for measuring, monitoring, and reporting carbon dioxide emission reduction benefits available for sale in carbon mitigation markets. The link to family forest landowners is that the infrastructure for the state forestlands accounting system, once developed, could be extended by the Board under ORS 526.780 to 789 for use by any non-federal forest landowner, thereby allowing the Department to serve as an aggregator for carbon dioxide emission reduction projects arising from family forestlands. Lack of development here could keep family forest landowners from accessing these markets.

The forestation of underproducing lands (converting marginal agricultural, pasture, or brush land back into forest use) is the best opportunity for developing current and future markets for carbon offsets. Therefore, demonstrating the success of forestation activities in offsetting carbon dioxide emissions is key to developing market opportunities for other forest-based activities such as structure-based management, forest health and fuel reduction treatments, and preventing forest lost to non-forest conversion. The Forest Resource Trust’s Stand Establishment Program is the Board’s current program in place that can demonstrate how the conversion of underproducing lands back into healthy, productive forests is a viable carbon dioxide emission reduction opportunity. However, even in this case, the demonstration is limiting in that landowners are not receiving direct payments for the value of the carbon sequestration; rather they receive favorable financial repayment terms of monies provided by the Forest Resource Trust³ in exchange for the

³ The repayment principle is that landowners are under no obligation to repay the trust except in the case where landowners (or their successors) benefit monetarily from the Forest Resource Trust investment in their lands by harvesting the forest created through the Forest Resource Trust. If timber harvesting should occur, then the state

Board receiving ownership of the carbon offsets arising from Forest Resource Trust funded projects.

In recognition of this limitation, the Department is currently investigating how an additional stand establishment program could be developed under the Forest Resource Trust that could leverage the strengths of Oregon's 50% reforestation tax credit such that landowners creating forests using the tax credit could receive direct monetary payments for the carbon sequestration value of these forests.

The results of this investigation could come to the Board (through the Forest Resource Trust Advisory Committee – a standing Board committee) in the form of additional program options for the Board to consider for the Forest Resource Trust. In addition, once the Board has developed the Forest Resource Trust as a exemplary carbon dioxide emissions reduction program, the Board will be positioned to consider developing additional programs under the Forest Resource Trust that expand the concept of mitigation markets to other resource benefits beyond carbon dioxide emission reduction benefits such as water quality and fish and wildlife habitat restoration and conservation.

The vision for developing carbon offset markets for forestry activities beyond the forestation of underproducing lands comes from ORS 526.780 to 789. This statute gives the Board the opportunity to link carbon accounting for the Forest Resource Trust's Stand Establishment Program with two additional carbon sequestration programs identified in the statute: 1) the sale of carbon offsets arising from state-owned forestlands on behalf of state-owned forestland beneficiaries, and 2) using the infrastructure of the state-owned forests program to serve as carbon offset aggregator for other non-federal landowners. Central to developing this link is the authority given to the Board under the statute for adopting administrative rules setting voluntary standards for forestry carbon offsets and principles for carbon accounting. The rule adoption process requires the convening of an advisory committee to make rule recommendations to the Board pursuant to ORS 526.786. The statute identifies several quality assurances that the adopted rules must meet so that the forest activities considered eligible for carbon accounting result in no unintended consequences and result in measurable, long-term reduction in carbon dioxide emissions. Examples of eligible forest activities are reforestation of underproducing lands, forest health/hazard, fire/fuel mitigation treatments, structure-based management, etc.

Board Products

1. The Board will be asked to reconvene the Forest Resource Trust Advisory Committee (a standing committee to the Board) and charter the committee to develop recommendations for retooling the Forest Resource Trust Stand Establishment Program as a leading carbon dioxide emission mitigation program. As part of the retooling, share at least a portion of the monetary value of the carbon dioxide emission offset reductions to the participating

shares in this investment return by receiving a portion of the net revenues at the time of harvest based on the amount of the Forest Resource Trust's original investment. As a result, depending on a participating landowner's (or successor's) harvest objectives, the Forest Resource Trust can be treated as a venture capital arrangement (if timber harvest occurs) or as a grant (if timber harvest does not occur for 200 years) or some combination. Landowners do have the option to buy out of their revenue sharing obligation and treat the Forest Resource Trust investment as a loan for the first 25 years of the project.

landowners and investigate how to leverage Oregon's reforestation tax credit program to increase the number of forestation acres eligible to receiving direct carbon offset payments.

2. Appoint and convene the Board's Forestry Carbon Offset Advisory Committee set forth in ORS 526.786 to investigate Board the need for, and if a need is identified to develop options for, setting voluntary standards for forestry carbon offsets and principles for carbon accounting.

Research and Information Gathering

1. The Department will continue participation in the West Coast Regional Carbon Sequestration Partnership, WESTCARB. The Phase I WESTCARB Report will provide a statewide assessment of the status and trends of carbon stocks on Oregon's forest, range, and agricultural lands. The Phase I report will also contain an economic "supply curve" evaluation of possible forestry actions to increase carbon sequestration through increased rotation lengths, riparian protection, and the reforestation of underproducing lands. Phase II of WESTCARB will establish a terrestrial sequestration demonstration project in Lake County, Oregon, as part of the Lakeview Biomass Project. This demonstration project will focus on the measurement and monitoring of the carbon dioxide emission reduction benefits of reducing forestland risks of catastrophic fire and improving forest health. This research will include an evaluation of hazardous fuel models and projections of fire risk based on stand conditions. The Lake County pilot project will also include a feasibility analysis of hybrid-poplar plantations as a carbon dioxide emission reduction strategy. Both activities (fuels treatment, hybrid-poplar plantations) will be coupled with utilization of wood biomass for energy. As a result of this work, staff will provide the Board a report on WESTCARB Phase I work and provide annual reports on WESTCARB Phase II activities.
3. Department staff will participate as an author in the development of a background science publication on forests, carbon, and climate change being developed by the Oregon Forest Resources Institute and the Oregon State University College of Forestry.
4. The Department will complete the carbon accounting system for measuring, monitoring, and reporting carbon offsets arising from the forestation of underproducing lands and use projects within the Forest Resource Trust's Stand Establishment Program as a means to test the protocol. As a result of this work, staff will provide the Board a report on carbon accounting system for the forestation of underproducing lands.
5. The Department will monitor emerging markets for carbon offsets and direct staff to continue to support market development at the technical level by developing carbon accounting protocols for measuring, monitoring, and reporting forestry carbon offsets. As a result of this work, staff will provide the Board annual updates on the status and policy implications of emerging carbon offset markets.

Stakeholder/Public Involvement

Stakeholder composition on the Forest Resource Trust Advisory Committee is set forth in ORS 526.700. Also, the Oregon Forest Resources Institute has initiated the development of a background science paper on forests, carbon, and climate change and plans to hold a one-day symposium on the topic in October 2006. The Oregon Forest Resources Institute will also

release a public information Special Report based on the background science paper. The Oregon Forest Resources Institute Board and stakeholders will be asked to review a draft of the science paper. Stakeholder views will be featured in the Special Report.

Timeframe With Milestones

The timeframe of this project is 2006 to 2008.

Milestones include:

- Convening of the Forestry Resource Trust Advisory Committee to develop options for restructuring the Forest Resource Trust's Stand Establishment Program including specific administrative rule changes and legislative concepts (Fall 2005 through June 2006).
- Forest Resource Trust rule making (September 2006-January 2007)
- Presentation of Phase I WESTCARB Report (March 2006).
- Report on the carbon accounting system for measuring, monitoring, and reporting carbon offsets arising from the forestation of underproducing lands (August 2006).
- Annual reports on emerging opportunities in and markets for carbon sequestration (beginning in September 2006).
- Annual Phase II WESTCARB reports (beginning September 2006).
- Report to the Board on the Oregon Forest Resource Institute and Oregon State University College of Forestry symposium on forests, carbon, and climate change (January 2007).
- Tours of the WESTCARB Phase II component of the Lakeview Biomass Project (perhaps in 2008 when milestones with that project have been met).
- Convene the Forestry Carbon Offset Advisory Committee (October 2008).

Resources Required

Funding for a full-time policy analyst position at the Natural Resource Specialist 4 level. (The Department's current Forest Resource Trust Manager position could serve in this capacity but funding is currently a limiting factor.)

Monitoring Achievement of This Objective

Annual presentations and status reports will be provided to the Board.

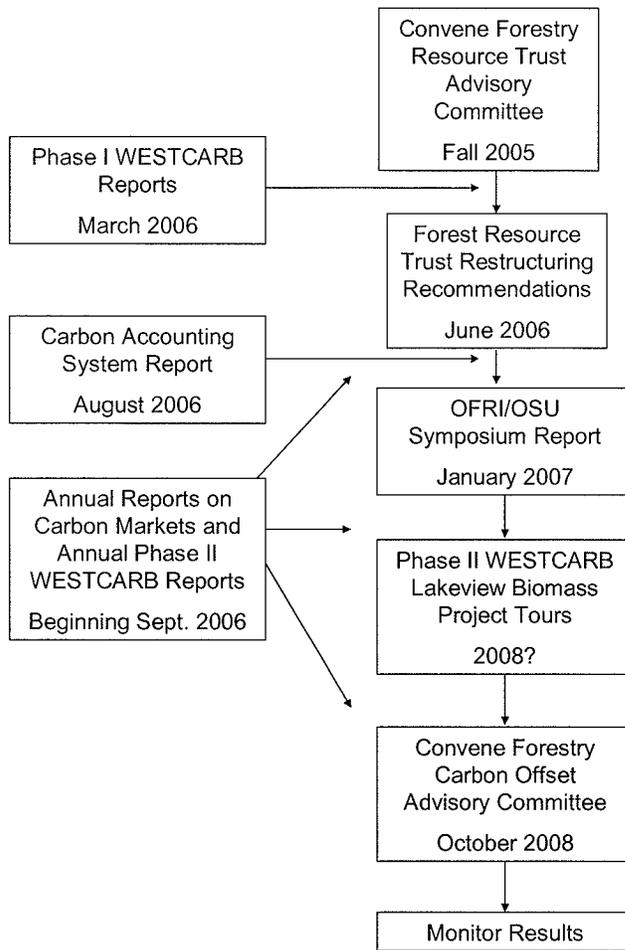


Figure 9