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Forestry Program for Oregon

A Strategy for Sustaining Oregon's
Public and Private Forests

2011 Edition

Oregon Board of Forestry

October 2, 2010 Public Review Draft

1 *“Oregon’s forests still constitute, next to the land itself, her greatest natural resources. Though*
2 *ravaged for centuries by destructive fires and insect pests, and though some four million acres,*
3 *nearly one-sixth of the present forested area of the State, has been denuded through lack of*
4 *protection, there still remains a wealth of timber far surpassing that of any other state in the*
5 *Union.*

6
7 *“Viewed from any standpoint Oregon’s forests are worthy of every protection with which they*
8 *can be surrounded, and in affording this protection the Government, State, and private owners*
9 *must work harmoniously together.”*

- 10
11
 - Report of the Oregon Conservation Commission to the Governor, 1912.

12
13 *“. . . [D]espite the harvesting of about 582 billion board feet of timber over almost 200 years,*
14 *mostly by clearcutting, and the loss of countless more billions of board feet to fire insects, and*
15 *disease, Oregon’s forests are thriving. They are vigorously producing not only raw material*
16 *needed to supply the wood products industry and a broad range of wildlife habitat, but also*
17 *scenery and recreational opportunities valued by tourists, as well as people and business*
18 *looking to put down roots in Oregon.”*

- 19
20
 - John H. Beuter, Revised and Updated Legacy and Promise: Oregon’s Forests and
- 21 Wood Products Industry, 1998.
- 22

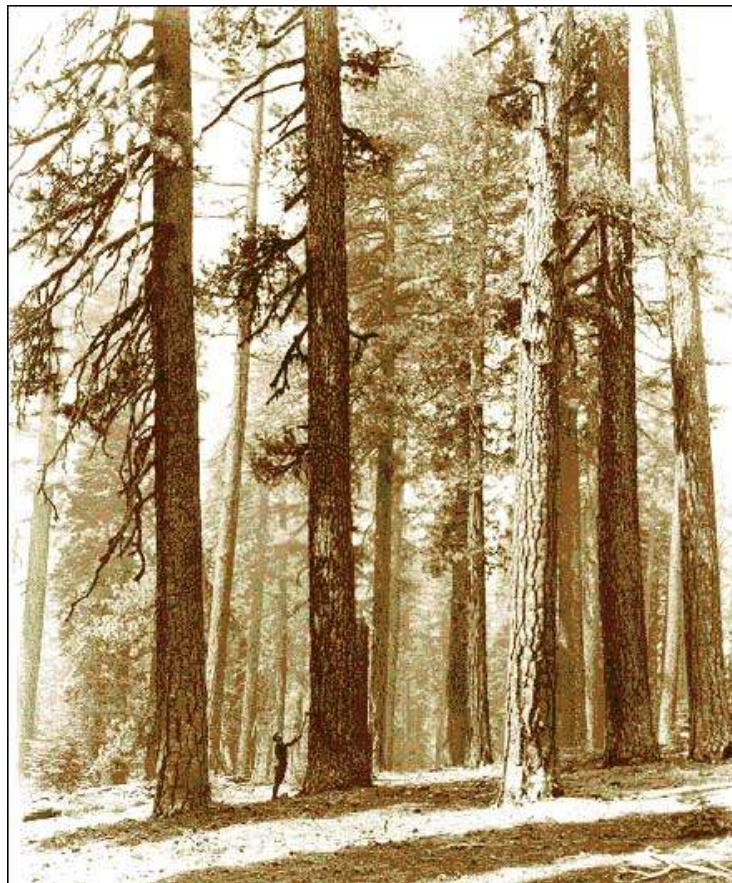


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46		

1 **An invitation from the Chair of the Oregon Board of Forestry to**
2 **help promote sustainable forests:**

3
4 Welcome to the 2011 edition of the *Forestry Program for Oregon*.

5
6 I know I speak for my fellow Board members in saying it is our honor to serve the
7 people of Oregon. Our mission as the Board of Forestry is to promote environmentally,
8 economically, and socially integrated and sustainable management of Oregon's public
9 and private forests.

10
11 Forests help make Oregon special, and we all benefit from their sound management.
12 Forests cover half of the state. They provide most of our drinking water – the cleanest
13 water from any land use. Oregon is the nation's top lumber producer. Forests provide
14 clean air, fish and wildlife habitat, jobs, a climate change buffer, beauty, recreation,
15 renewable energy. Urban and suburban forests increase land value, and help keep
16 communities healthy and livable.

17
18 Forestry in Oregon has evolved significantly as each generation decides what set of
19 values it wishes to emphasize and what pathway it will follow. Over the past 150 years,
20 this emphasis has changed from unmanaged forest exploitation, to forest conservation,
21 to managed forests as a source of wood for the post-World War II housing boom, to
22 wilderness and environmental protection, to today's interest in sustainable forestry. In
23 the same way, the *Forestry Program for Oregon* has changed over time to incorporate
24 new scientific information and to reflect changing public concerns. Still, the *Forestry*
25 *Program for Oregon* has always been centered on the theme of sustainability.

26
27 It is sometimes assumed that forests cannot equally achieve environmental, economic,
28 and social goals—that what is gained in one sector is necessarily lost in another. The
29 Board of Forestry believes, on the contrary, that sustainable forest management can
30 and must succeed in all three sectors. To be truly sustainable, forest management must
31 be economically viable, environmentally robust, and socially acceptable. If
32 environmental values are not protected, forest health and productivity will suffer. If
33 economic values are not honored, society cannot afford to protect the environment or
34 provide social benefits from forests. If social values are not accommodated, the license
35 to manage forests for any purpose will be lost. Acknowledging this interdependence
36 among values is key to supporting sustainability.

37
38 Integrating the environmental, economic, and social sectors is critical to Oregon's future.
39 Different landowners emphasize different values – wood production, conservation,
40 residential, or mixed uses – producing diverse forests and a range of benefits. This
41 combination of management styles, in the right proportions and in the right locations,
42 can provide sustainable forests.

43
44 Oregon's forests face major challenges today. Forests are being fragmented, converted
45 to other uses, and encroached upon by development. The rising expense of owning
46 private forestland means more pressure to sell. Invasive species, climate change, and

1 larger more damaging fires threaten our forests. Based on Oregonians' own indicators
2 of sustainable forest management, there is evidence Oregon's forests, in total, are not
3 currently being managed sustainably.

4
5 However, there are solutions. In the 2011 *Forestry Program for Oregon*, the Board of
6 Forestry has developed a vision, goals, objectives, and indicators to address the current
7 challenges and make progress on the pathway to sustainably managing all of Oregon's
8 public and private forests. Keeping forests healthy and in forest use will require an
9 informed public supporting and investing in forestry and resource protection. It will
10 require financial incentives to encourage landowners to keep and improve their
11 forestlands. And we will need sound management plans and strategies that examine
12 the challenges and opportunities affecting all of Oregon's forested ownerships and
13 landscapes.

14
15 I strongly encourage all Oregonians to work with the Board of Forestry and with each
16 other to achieve these outcomes.

17
18
19 _____
20
21 John Blackwell, Chair



22
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24
25
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29
30
31 Board of Forestry Members



32
33 Sybil Ackerman Peter Hayes Calvin Mukumoto Jennifer Phillippi Gary Springer Steve Wilson
34
35
36
37

1 **Executive Summary:**

2
3 The Board of Forestry is a seven-member citizen board appointed by the Governor and
4 confirmed by the state senate. It is empowered by the Oregon Legislature to oversee all
5 forest policy within the jurisdiction of the State of Oregon. The current Board of Forestry
6 defines its mission as:

7
8 *Leading Oregon in implementing policies and programs that promote*
9 *environmentally, economically, and socially integrated and sustainable*
10 *management of Oregon's public and private forests.*

11
12 Strategic planning strengthens the Board's ability to be an effective policy-maker in
13 partnership with all Oregonians. The *Forestry Program for Oregon* is a central element
14 of the Board of Forestry's framework for strategic planning. It describes the Board's
15 mission, values, vision, goals, objectives, and indicators of sustainable forest
16 management. The ongoing challenge for the Board is to work both within and outside
17 state government to implement the *Forestry Program for Oregon* goals and objectives to
18 make its vision for the future a reality.

19
20 The Board of Forestry has established seven *Forestry Program for Oregon* goals for
21 achieving the sustainable management of Oregon's public and private forests. The
22 Board believes all the issues, challenges, and opportunities surrounding Oregon's forest
23 resources can be organized and discussed within these seven goals (see page 16).

24
25 Under each goal, the Board has developed a list of objectives; short-term actions upon
26 which it intends to focus its efforts. These objectives will be reviewed and updated, as
27 needed, on a two-year cycle.

28
29 The 19 Oregon indicators of sustainable forest management combined with the biennial
30 Board issue scan process, Board Work Plans, and other information all inform the
31 *Forestry Program for Oregon* development and update processes. The indicators and
32 the Oregon Roundtable on Sustainable Forests provide a forum for Oregonians to share
33 common interests and information, to address high priority challenges to sustaining our
34 forest resources, and promote broad agreement about how to address forest issues.

35
36 This *Forestry Program for Oregon* is not an end-product. It is the foundation for
37 discussion and planning over the next eight years. The Board hopes to show a clear
38 connection among Board goals and objectives, Board work plans and meeting agendas,
39 Department of Forestry programs, and the policies of other natural resource agencies
40 with responsibilities that affect forestlands.

41 Following Board adoption of the 2011 *Forestry Program for Oregon*, all Oregonians are
42 encouraged to work with the Board through its business meetings, the Oregon
43 Roundtable on Sustainable Forests, and other forums to:

- 1 ▪ Update and implement Board Work Plans;
- 2 ▪ Use, review and, if necessary, revise the Oregon indicators of sustainable forest
- 3 management along with desired trends and targets for the indicators;
- 4 ▪ Participate in future Board issue scans; and
- 5 ▪ Update the *Forestry Program for Oregon* objectives on a two-year cycle.

6 Information about all of these processes will be accessible through the Board of
7 Forestry website: www.oregonforestry.gov

8
9

10 *“We need to pursue greater national recognition of, and commitment to, the notion that*
11 *sustainable forests are essential to the very well-being of our society. This commitment could*
12 *lead to a national strategy to promote sustainable forests and help us clarify, enhance, and*
13 *better coordinate the roles of federal, state, and local governments; respect the critical roles that*
14 *private forest landowners play; promote new and creative ways to provide education, research,*
15 *and technical assistance; realize needed revisions to forest and tax policies; and identify global*
16 *influences that affect the management of forests in the United States.”*

17

- 18 • Marvin Brown, Oregon State Forester and Secretary to the Board of Forestry

19

1 **What is the Oregon Board of Forestry?**
2

3 The Board of Forestry is a seven-member citizen board appointed by the Governor and
4 confirmed by the state senate. It is empowered by the Oregon Legislature to oversee all
5 forest policy within the jurisdiction of the State of Oregon. The Board appoints the State
6 Forester, adopts rules regulating forest practices and other forestry programs, and
7 provides general supervision of the State Forester's management of the Department of
8 Forestry.
9

10 The Board's leadership helps shape public debate and policy on state, private, and
11 federal ownerships, addressing sustainable management of all of Oregon's public and
12 private forests. Issues such as environmental incentives and regulations, management
13 of state-owned forests, federal forest management, assistance to private forest
14 landowners, and wildland fire management are common topics of discussion and action
15 at the Board's public meetings.
16

17 The Board is charged by law to represent the public interest. No more than three
18 members may receive any significant portion of their income from the forest products
19 industry. At least one member must be appointed representing each of the three major
20 forest regions of the state. The term of office is four years, and no member can serve
21 more than two consecutive full terms.
22
23

24 **What is the Oregon Board of Forestry's mission?**
25

26 The current Board of Forestry defines its mission as:
27

28 *Leading Oregon in implementing policies and programs that promote*
29 *environmentally, economically, and socially integrated and sustainable*
30 *management of Oregon's public and private forests.*
31
32

33 **What is sustainable forest management?**
34

35 It is important that Oregonians agree about what sustainable forest management means
36 and about how to evaluate our forests' performance in meeting environmental,
37 economic, and social needs. In this context, the Board of Forestry defines "sustainable
38 forest management" as meaning:
39

40 *Forest resources across the landscape are used, developed, and*
41 *protected at a rate and in a manner that enables people to meet their*
42 *current environmental, economic, and social needs, and also provides that*
43 *future generations can meet their own needs [based on Oregon Revised*
44 *Statute 184.421].*
45
46

1 On a statewide basis, sustainable forest management will provide:

- 2 • Healthy and diverse forest ecosystems that produce abundant timber and other
3 forest products;
- 4 • Habitat to support healthy populations of native plants and animals;
- 5 • Productive soil, clean water, clean air, open space, and recreational
6 opportunities; and
- 7 • Healthy communities that contribute to a healthy state economy.

8

9 **What values form the basis for Oregon Board of Forestry decisions?**

10

11 The following value statements identify the current Board of Forestry’s guiding principles
12 and philosophies.

13

14 The Board of Forestry values:

15

16 1. A global context. We believe Oregon's forests are important to the global
17 environment, economy, and society, and that forest landowners, managers, government
18 agencies, interest groups, and all other Oregonians should consider the impact of their
19 decisions at local, state, national, and international levels.

20

21 2. The dynamic nature of Oregon's forests. We recognize that Oregon's forests are
22 diverse, dynamic, and resilient ecosystems at a landscape scale. A broad range of
23 forest conditions exists naturally, and various forest values, in proper proportion, are
24 mutually compatible over time.

25

26 3. The intrinsic value of Oregon forest resources. We believe that while Oregon’s
27 native forest plants, animals, and ecosystems provide economic, scientific, cultural,
28 recreational, and aesthetic values, their existence alone warrants their stewardship and
29 enhancement.

30

31 4. Active management. We believe Oregon's forests should be actively managed to
32 maintain forest health, to conserve native plant and animal species, and to produce the
33 products and benefits people value. In this context, we define "active management" as
34 the application of practices through planning and design, over time and across the
35 landscape, to achieve site-specific forest resource goals. Active management uses an
36 integrated, science-based approach that promotes the compatibility of most forest uses
37 and resources over time and across the landscape.

38

39 5. Meeting current and future needs. We believe forest resources should be used,
40 developed, and protected at a rate and in a manner that enables people to meet their
41 current environmental, economic, and social needs, and also provides that future
42 generations can meet their own needs.

43

44

1 6. Landowners and the public sharing responsibility for sustainable forests. We believe
2 forest sustainability depends on the contributions of both landowners and the public. We
3 support the private landowner's right to practice forest management in a manner that
4 meets or exceeds Oregon's Forest Practices Act. The public must also play an active
5 role by supporting incentives and other non-regulatory methods that encourage
6 continued investment in Oregon's forests to maintain and enhance the public values
7 provided by private forests.

8
9 7. Forests that contribute to quality of life. Oregon's forests and the state's rural and
10 urban populations are interdependent. We believe Oregon's forests play a significant
11 role in providing all Oregonian's a high quality of life, including products, jobs, water and
12 other ecosystem services, recreation, tax revenues for community well-being, and a
13 quality environment.

14 8. Healthy rural Oregon. We believe a healthy rural Oregon, which relies on working
15 landscapes, is vital to the quality of life enjoyed by all Oregonians.

16 9. Different landowners playing different roles. We believe different land ownerships
17 play different roles in achieving the full suite of environmental, economic, and social
18 needs met by the forested landscape. Private forest landowners play unique and
19 valuable roles in Oregon's forest landscape, and their continued vitality must be assured
20 in the face of threats by development, regulation, and economic challenges.

21 10. Informed public participation. We value broad-based, informed public participation
22 and consensus-based decision-making whenever possible.¹

23 11. Continuous learning. We are committed to continuous learning. The results of forest
24 management policies and programs should be evaluated and appropriately adjusted
25 based upon ongoing monitoring, assessment, and research.

26

¹ The Board's decision-making processes are informed by the *Principles for Environmental Management in the West* adopted as a policy resolution by the Western Governors' Association in 1999, 2002, 2005 and 2008. See <http://www.westgov.org/wga/policy/08/enlibra8-15.pdf>.

1 **What is the *Forestry Program for Oregon*?**

2
3 The *Forestry Program for Oregon* is a central element of the Board of Forestry’s
4 framework for strategic planning. Strategic planning strengthens the Board’s ability to
5 be an effective policy-maker in partnership with all Oregonians. The primary purposes of
6 Board strategic planning are to:

- 7 • Clearly define and communicate what the Board of Forestry is and what it does;
- 8 • Establish the board’s fundamental guiding values and priorities;
- 9 • Direct the Department of Forestry in implementation of the Board of Forestry
10 goals and objectives in the *Forestry Program for Oregon*;
- 11 • Focus resources and efforts on the most important issues and priorities that will
12 promote and create the desired future;
- 13 • Measure and report performance (both successes and setbacks); and
- 14 • Provide an improvement cycle that allows both the board and the department to
15 make informed changes when necessary.

16 The *Forestry Program for Oregon* describes the Board’s mission, values, vision, goals,
17 objectives, and indicators of sustainable forest management. The Board’s mission
18 statement establishes the overall purpose of the Board of Forestry. Values identify the
19 Board’s guiding philosophies related to forestry. The vision describes conditions the
20 Board wants to establish, looking at a 20-year horizon. The goals identify what the
21 Board of Forestry wants to achieve over the next eight years. Viewed together, the
22 mission, values, vision, and goals describe the future the Board is striving to achieve.
23 In this context, the Board’s objectives are a set of short-term actions upon which it
24 intends to focus its efforts.

25
26 The Oregon indicators of sustainable forest management measure specific quantitative
27 and qualitative attributes and help monitor trends in the sustainability of forest
28 management over time. The indicators, combined with the biennial Board issue scan
29 process and Board Work Plans, all inform the *Forestry Program for Oregon*
30 development and revision processes. Other forest assessment and monitoring
31 information is also used.

32
33 The ongoing challenge for the Board is to work both within and outside state
34 government to implement the *Forestry Program for Oregon* goals and objectives to
35 make its vision for the future a reality. The Board understands that economic
36 conditions, agency budgets, and other short-term factors may limit its ability to fully
37 implement the *Forestry Program for Oregon*. To address these potential constraints,
38 the Board will review and, if necessary, revise its objectives every two years. The
39 Board can then refocus its work on areas where it believes immediate emphasis is
40 needed through policy development, agency actions, budgeting, legislation, and
41 coordination with partners and stakeholders.

42 The Board of Forestry has developed the 2011 *Forestry Program for Oregon* based on
43 its broad statutory authority. However, the *Forestry Program for Oregon* is not itself a

1 statute or administrative rule. Rather, it provides a coherent foundation for future board
2 policy deliberation.

3
4 Background information about Oregon forest resource conditions and trends that
5 support the *Forestry Program for Oregon* objectives can be found in the following
6 companion references:

7
8 The 2003 *Forestry Program for Oregon*
9 <http://egov.oregon.gov/ODF/BOARD/fpo2003.shtml>

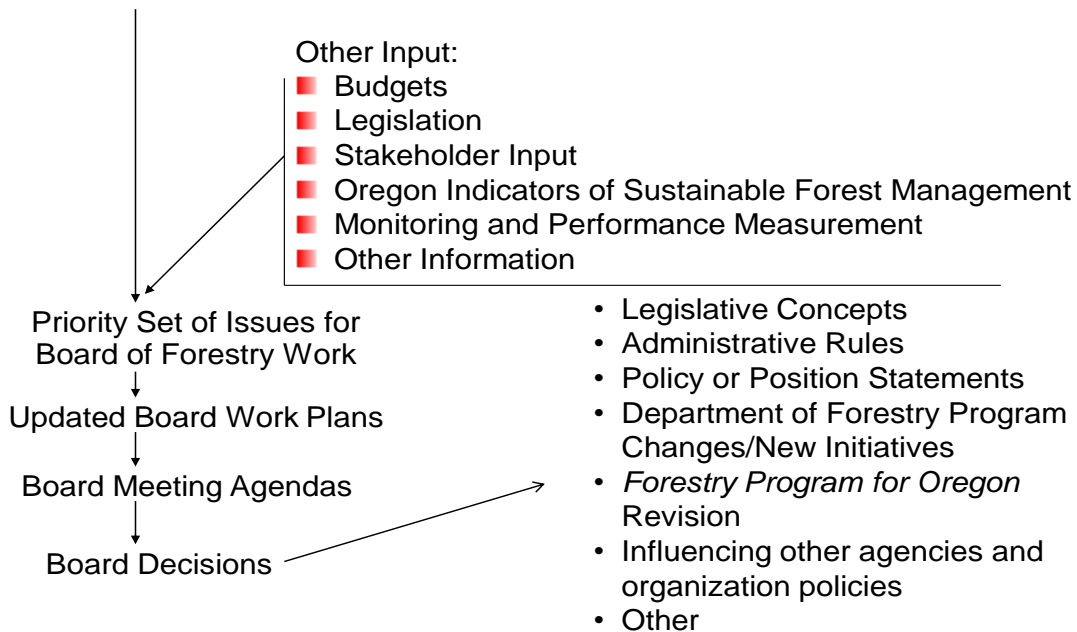
10
11 The Oregon Indicators of Sustainable Forest Management
12 <http://www.oregon.gov/ODF/indicators/index.shtml>

13
14 Oregon's 2010 Forest Atlas
15 http://egov.oregon.gov/ODF/RESOURCE_PLANNING/forestatlas.shtml

16
17 The 2010 Oregon Statewide Forest Assessment and Resource Strategy
18 http://egov.oregon.gov/ODF/RESOURCE_PLANNING/2010fars.shtml

19
20 2010 Oregon Forest Values and Beliefs Survey and Focus Group Report
21 <http://www.oregon.gov/ODF/BOARD/ofri2010study.shtml>
22

Forestry Program for Oregon Goals and Objectives



23
24 Figure 1. The *Forestry Program for Oregon* is an integral part of the Board of Forestry's strategic
25 planning, implementation and monitoring processes.
26

1 **What is the Oregon Board of Forestry’s vision for the future?**
2

3 If the *Forestry Program for Oregon* is implemented successfully, the Board of Forestry’s
4 vision is that Oregon will have:
5

6 1. Healthy forests providing an integrated, sustainable flow of environmental, economic,
7 and social outputs and benefits.
8

9 2. Public and private landowners willingly making investments to create and maintain
10 healthy forests.
11

12 3. Statewide forest resource policies that are coordinated among natural resource
13 agencies.
14

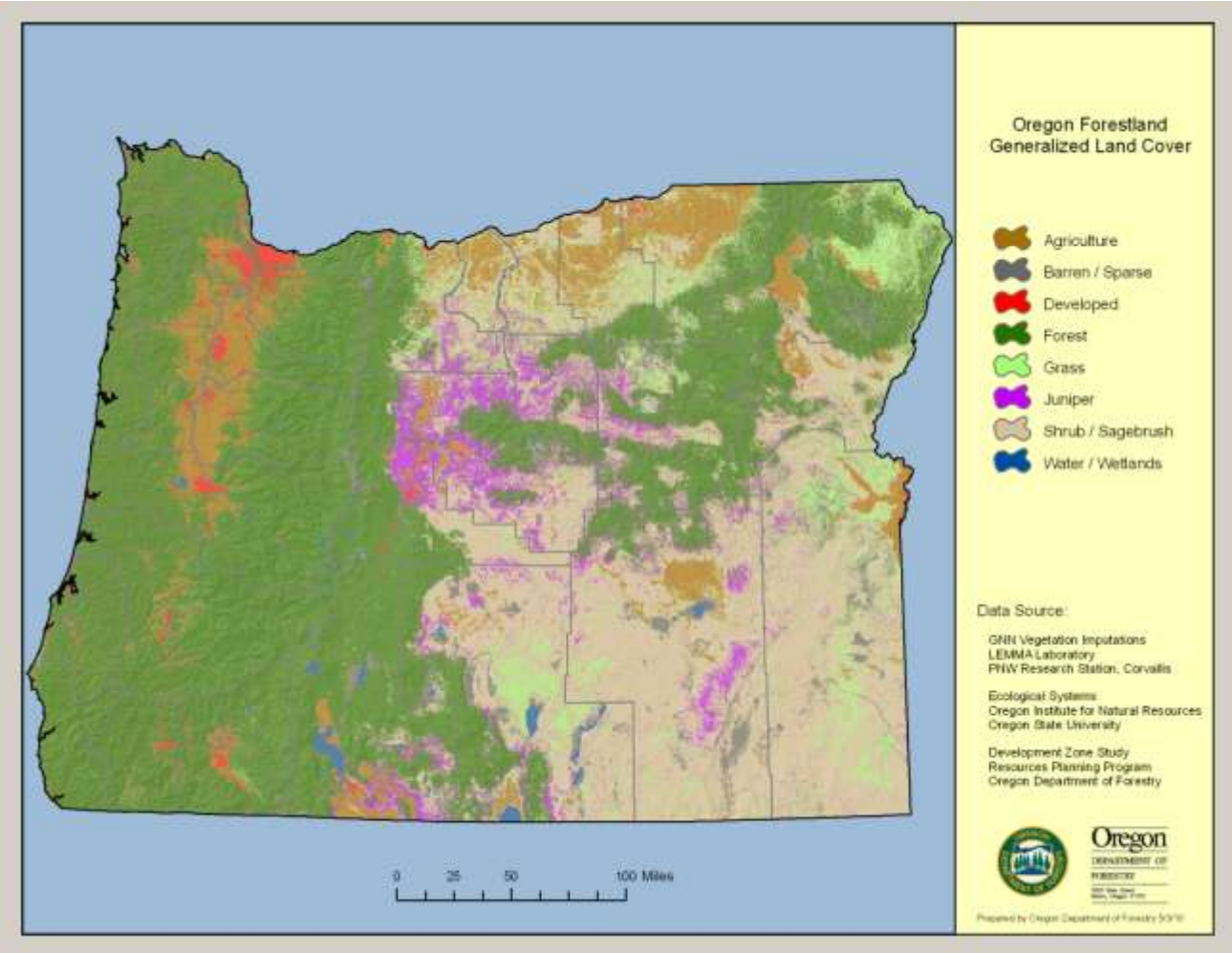
15 4. The Board of Forestry recognized as an impartial deliberative body operating openly
16 and in the public interest to achieve the Board’s mission.
17

18 5. Citizens who understand, accept, and support sustainable forestry and who make
19 informed decisions that contribute to achievement of the vision of the *Forestry Program*
20 *for Oregon*.
21

22 6. Adequate funding for the Department of Forestry to efficiently and effectively
23 accomplish the mission and strategies of the Board of Forestry, and department
24 personnel policies that encourage and recognize employees, allowing them to meet
25 their full potential in providing excellent public service.
26

27
28 *"Angry as one may be at what heedless men have done and still do to a noble habitat, one*
29 *cannot be pessimistic about the West. This is the native home of hope. When it fully learns that*
30 *cooperation, not rugged individualism, is the quality that most characterizes and preserves it,*
31 *then it will have achieved itself and outlived its origins. Then it has a chance to create a society*
32 *to match its scenery"*
33

- 34 ● Wallace Stegner, *The Sound of Mountain Water: The Changing American West*, 1969
35



1
 2 Figure 2. Oregon has experienced reductions in the extent of forest cover—largely influenced by
 3 development to non-forest uses—as well as increases in forest cover—through tree-planting and
 4 aggressive fire suppression.

1 **A strategy for sustaining Oregon’s public and private forests: Oregon**
2 **Board of Forestry goals, objectives, and indicators**

3
4 **The goals of the 2011 *Forestry Program for Oregon***
5

6 The Board of Forestry has established seven *Forestry Program for Oregon* goals for
7 achieving the sustainable management of Oregon’s public and private forests. The
8 Board believes all the issues, challenges, and opportunities surrounding Oregon’s forest
9 resources can be organized and discussed within these seven goals. The goals are:

10 **Goal A:** Promote a sound legal system, effective and adequately funded government,
11 leading-edge research, and sound environmental, economic, and social policies.
12

13 **Goal B:** Ensure that Oregon’s forests make a significant contribution towards meeting
14 the nation’s wood product needs and provide diverse social and economic outputs and
15 benefits valued by the public in a fair, balanced, efficient, and sustainable manner.
16

17 **Goal C:** Protect, maintain, and enhance the productive capacity of Oregon’s forests to
18 improve the economic well-being of Oregon’s communities.
19

20 **Goal D:** Protect, maintain, and enhance the physical and biological quality of the soil
21 and water resources of Oregon’s forests.
22

23 **Goal E:** Contribute to the conservation of diverse native plant and animal populations
24 and their habitats in Oregon’s forests.
25

26 **Goal F:** Protect, maintain, and enhance the health and resiliency of Oregon’s dynamic
27 forest ecosystems, watersheds, and airsheds.
28

29 **Goal G:** Enhance carbon storage and reduce carbon emissions in Oregon’s forests and
30 forest products.

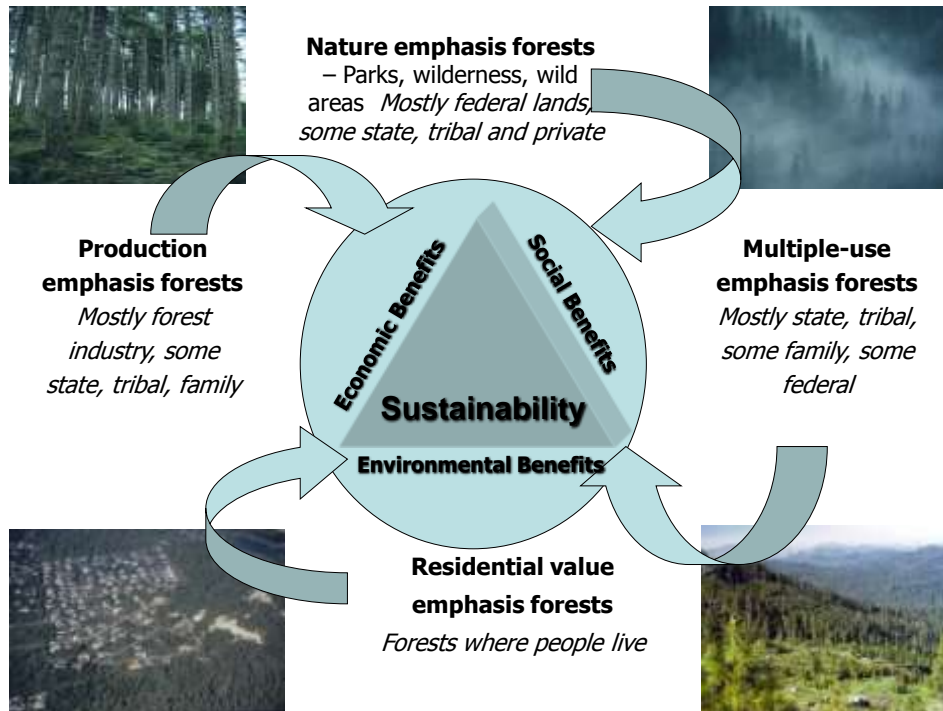
31 It is important that the seven goals of the *Forestry Program for Oregon* be viewed and
32 understood as a whole. There is a built-in integration and tension among these goals,
33 and the 2011 *Forestry Program for Oregon* is designed to recognize and address that
34 integration and tension in a manner that best serves Oregonians.
35

36 Please note the order in which the seven goals of the 2011 *Forestry Program for*
37 *Oregon* are listed is not intended to indicate priority, nor is it intended that all strategies
38 should be applied equally on every forest ownership. Instead, the goals should be
39 viewed from a statewide, landscape perspective, with different landowners making
40 different contributions.
41



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Figure 3. Oregon's framework of sustainable forest management goals



6
7
8

Figure 4. The diversity of Oregon's forest landowner objectives, in the appropriate proportions and locations, can contribute to the sustainable management of the state's forest resources.

1 **What information is needed to determine if Oregon’s forests, in total, are being**
2 **managed sustainably?**
3

4 To answer this question, the Board of Forestry endorsed 19 Oregon indicators of
5 sustainable forest management recommended by a diverse advisory committee of
6 Oregonians in 2007. These indicators represent a way to share common interests, and
7 to promote agreement about forest issues. The indicators are a key tool for measuring
8 progress toward achieving the seven goals in the *Forestry Program for Oregon*.
9

10 These indicators are intended to address all Oregon public and private forestlands.
11 They belong not just to the Board but to all Oregonians, regardless of their values and
12 perspectives. Oregon indicators may also provide valuable linkages to other
13 sustainability conversations and forest resource assessments at community, regional,
14 national and international scales.
15

16 Well-designed sustainable forest management indicators can:
17

- 18 • Convey critical and complex information more simply to build public confidence
19 and facilitate better communication and cooperation among all parties interested
20 in forest resources;
- 21 • Inform social understanding of forests and the forces that influence them;
- 22 • Provide a framework around which natural resource inventory, assessment,
23 planning, and management can be better coordinated;
- 24 • Provide citizens interested in forests with a tool to encourage society to better
25 address and communicate what it needs from forests; and
- 26 • Help to repair a fragmented administrative landscape by providing a common
27 language for measurement and discussion.
28

29 The 19 indicators are organized and listed under the seven *Forestry Program for*
30 *Oregon* goals.
31

32 By linking together the desired trend statements for each of the 19 Oregon indicators, a
33 clearer picture emerges about what sustainable forestry looks like to Oregonians:
34

35 Oregon will be making progress in sustainably managing its forests if:
36

- 37 • There is no net loss in the area of Oregon non-federal wildland forest in 2020
38 compared to 2010 levels (Oregon Benchmark 82).
- 39 • Oregon timber harvest levels are 90 to 110 percent of planned and projected
40 levels (Oregon Benchmark 83) and the potential to grow timber is stable or
41 increasing.
- 42 • Forest-related revenues are a significant and predictable funding source for state
43 and local public services dependent on those revenues.
- 44 • Forest-related employment and compensation are stable or increasing.
- 45 • Forest ecosystem services produced are stable or increasing and are sustainable.

- 1 • Production and commercial value of Oregon wood and paper products and forest
2 industry equipment are stable or increasing.
- 3 • Water quality index values in forested watersheds are stable or improving.
- 4 • The aquatic biological integrity of forested watersheds is stable or improving.
- 5 • An increasing proportion of sampled forest roads are determined to pose a low
6 risk to soil and water resources.
- 7 • Following establishment of a statewide plant and animal conservation policy, the
8 composition, diversity, and structure of forest vegetation are within, or growing
9 towards, desired future condition ranges.
- 10 • Following establishment of a statewide plant and animal conservation policy,
11 allocations of forest cover types to protected area categories are consistent with
12 desired future conditions.
- 13 • A decreasing number of native forest plant and animal species at risk (extinction,
14 extirpation, endangered, threatened, or potentially endangered or threatened).
- 15 • There are stable or decreasing long-term levels of dead and dying forest trees.
- 16 • No invasive species on Oregon's 100 most dangerous list are uncontained in the
17 state's forests, and a stable or decreasing forest acreage is affected by invasive
18 species.
- 19 • There are increasing rates of effective forest fuel treatments to improve resiliency
20 to wildfire and an increasing area of Oregon forestland resilient to wildfire.
- 21 • Rates of carbon storage in Oregon forests and forest products are stable or
22 increasing.
- 23 • Oregon student and family forest landowner participation in forest education
24 programs is increasing and forest research funding, higher education forest
25 instruction, natural resource professional society membership, and forestry
26 extension staffing are maintained or increasing.
- 27 • There are high levels of compliance with management plan standards and
28 guidelines on Oregon federal forestlands. Voluntary compliance with Oregon
29 Forest Practices Act requirements for reforestation and other activities on private
30 lands is high. Public policy expectations for private forest landowners'
31 contributions to the protection and maintenance of public forest resource values
32 are clear.
- 33 • Data for all Oregon indicators of sustainable forest management are increasingly
34 current, complete, and reliable.

35
36 See Appendix 3 for information on how indicator data are evaluated to draw conclusions
37 about conditions, trends, and information quality.

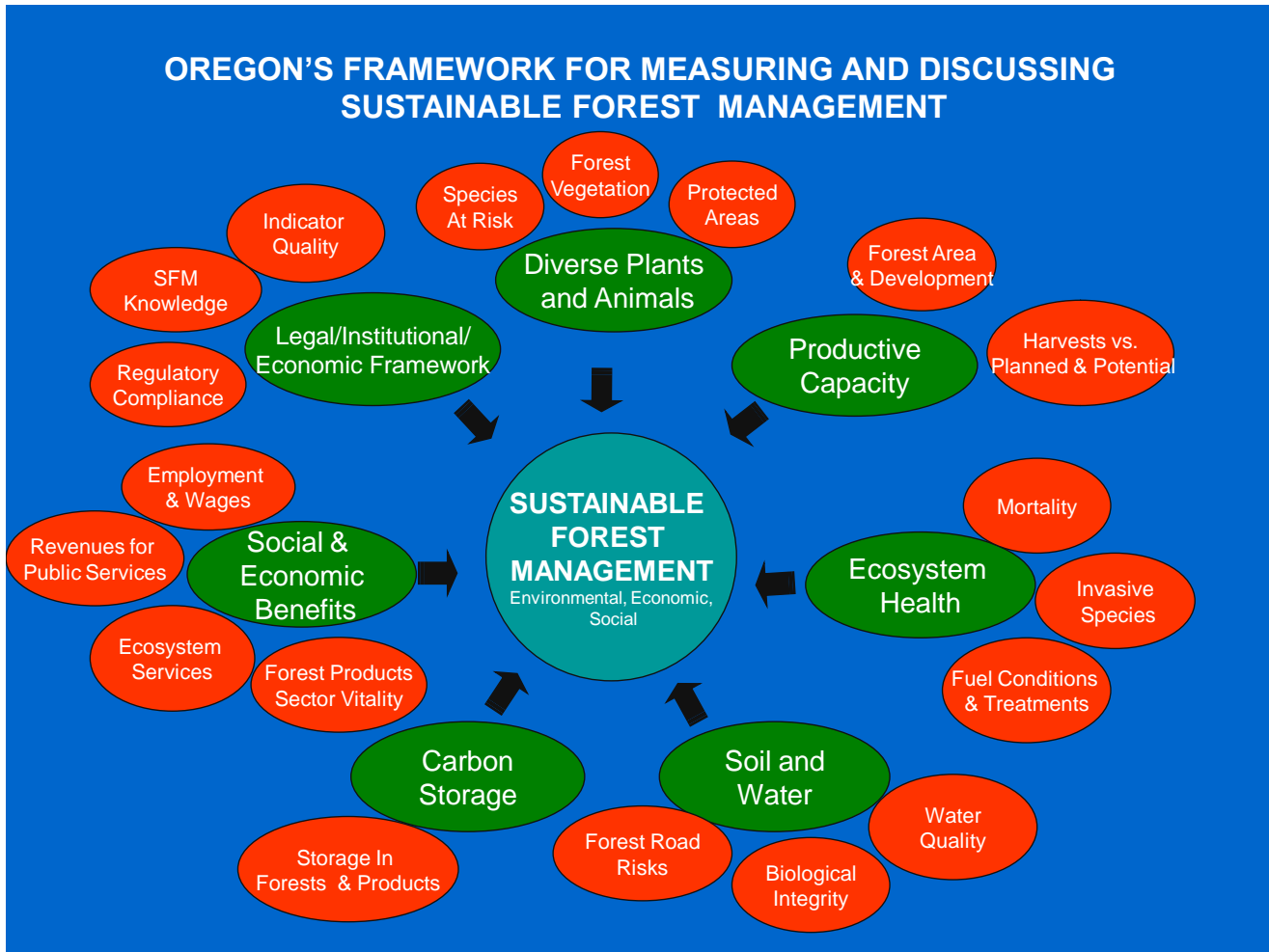


Figure 5. Oregon's 19 indicators are organized around the seven goals of sustainable forest management

We get into trouble only if we see the tree in the garden as wholly artificial and the tree in wilderness as wholly natural. Both trees in some ultimate sense are wild; both in a practical sense now require our care. We need to reconcile them, to see a natural landscape that is also cultural, in which city, suburb, countryside and wilderness each has its own place. We need to discover a middle ground in which all these things, from city to wilderness, can somehow be encompassed in the word "home." Home, after all, is the place we try to sustain so we can pass on what is best in it (and in ourselves) to our children.

- William Cronon, *The Trouble With Wilderness*, 1995.

1 The following section provides more information on the seven *Forestry Program for*
2 *Oregon* goals and proposes objectives to guide Board Work Plans and to become the
3 focus of the Board’s strategic decision-making. This list of objectives will be reviewed
4 and revised, as needed, on a two-year cycle.

5
6 **Goal A: Promote a sound legal system, effective and adequately**
7 **funded government, leading-edge research, and sound**
8 **environmental, economic, and social policies.**

9
10 **Why is this goal important?**

11
12 The institutional framework in place outside the forest greatly affects what happens
13 within it. The soundness and effectiveness of our laws, government processes,
14 research institutions, and policies will determine our success or failure to define and
15 achieve sustainability. If we fail to provide an adequate and appropriate institutional
16 framework for the management of our forests, we will significantly reduce our ability to
17 achieve any of the other goals proposed in this *Forestry Program for Oregon*.

18
19 **The Board of Forestry will work to achieve the following *Forestry Program for***
20 ***Oregon* Objectives for Goal A:**

- 21
22 1. Explore alternative, more stable funding mechanisms for the department budget
23 directed at maintaining and increasing public and private investments in forests and
24 in keeping forests in forest use.
25
26 2. Support an effective, science-based, and adaptive Oregon Forest Practices Act and
27 a strong, but flexible, Land Use Planning Program as the cornerstones of forest
28 resource protection on private lands in Oregon. The Board will use non-regulatory
29 methods as much as feasible to achieve public-policy goals on private forestlands,
30 and consider the use of additional regulatory methods only when non-regulatory
31 methods are either not feasible or are not likely to achieve the desired outcome.
32
33 3. Integrate adaptive forest management, monitoring, assessments, systematic
34 evidence reviews, and research, particularly research regarding the scientific
35 principles of ecosystem dynamics, into learning, planning and decision-making
36 processes.
37
38 4. Active federal forestland management is very important to sustainable forestry in
39 Oregon. The Board will consider national, state, and local opportunities to promote
40 federal forest policies and management that are consistent with advancing the
41 recommendations in its January 2009 report, *Achieving Oregon’s Vision for Federal*
42 *Forestlands*. These opportunities may include influencing federal national forest
43 policies and budgets, interagency cooperative efforts, and local collaborative groups.
44

- 1 5. Support a comprehensive State of Oregon forest cluster economic development
2 strategy and work to build and maintain state government resources needed to
3 successfully implement the strategy.
4
- 5 6. Forestlands managed by the Board of Forestry consistent with its statutory authority
6 will be promoted as an example of multiple resource management, and a practical
7 demonstration of one forest ownership's contributions to the Board's statewide goals
8 for environmental, economic, and social forest sustainability.
9

10 **Key challenges and opportunities**

11
12 While Oregon has well-developed legal, institutional, and economic systems, some
13 elements of our current framework with regard to forest policy and practice are
14 inadequate and coordination among levels of government is sometimes less than ideal.
15 These shortcomings make it difficult to address larger landscape-scale forestry issues
16 or issues that cross jurisdictional boundaries. Our laws, policies, and economic
17 traditions have not always kept pace with scientific advancements, and many
18 progressive efforts are under-funded. Because it has evolved to meet changing
19 objectives over time, our institutional forestry framework contains internal contradictions.
20 Perhaps most important, many components of this framework have been based largely
21 on an unrealistic ideal of maintaining static conditions in forest ecosystems that are
22 actually highly dynamic.
23

24 *Government -- Federal*

25
26 The major federal statutes governing forestlands (i.e. Endangered Species Act (ESA),
27 National Environmental Policy Act, Clean Water Act, National Forest Management Act,
28 Federal Land Policy and Management Act, etc.) have remained relatively unchanged in
29 recent years.
30

31 A serious weakness of federal legal frameworks is that recent laws have not been well
32 integrated with older ones. For example, the federal Clean Water Act and Endangered
33 Species Act conflict in some respects with earlier legislation, such as the 1897 Organic
34 Act and the 1937 Oregon and California Land Act, which mandate a continuous supply
35 of timber from federal lands.
36

37 The purpose of the ESA is to protect and recover imperiled species and the ecosystems
38 upon which they depend. While private landowners are not responsible for the recovery
39 of threatened or endangered species, the ESA makes it unlawful for a person to 'take' a
40 federally listed plant or animal species without a permit. The definition of take includes
41 a broad range of activities, such as harassment and harm to actually killing the animal.
42 The broad definition of take and potential for regulation creates uncertainty for
43 landowners concerned about how their property may be affected by or play a role in
44 species protection and recovery. This uncertainty can change landowner management
45 strategy, and in some cases lead to preemptive harvesting or not engaging in

1 restoration activities to avoid habitat conditions that could benefit (attract) a listed
2 species.

3
4 Inter-agency collaboration and landowner incentive programs have a role in alleviating
5 this uncertainty. For example, the Department of Forestry has recently entered into a
6 Programmatic Safe Harbor Agreement for the Northern Spotted Owl with the Natural
7 Resources Conservation Service and the U.S. Fish and Wildlife Service. The regulatory
8 assurances provided under the Agreement may encourage landowners to engage in
9 activities that would potentially encourage owls to inhabit their properties. As an
10 additional incentive, cost-share and conservation easement monies may be available to
11 qualified landowners through Natural Resources Conservation Service's Healthy Forest
12 Reserve Program.

13
14 Healthy federal forests are needed to sustain social, environmental, and economic
15 values, Federal agencies manage 60 percent of the total forestland in the state, and
16 Oregon cannot chart a sustainable, productive future for its forests and citizens without
17 considering federal forestlands. However, in the current system of governance,
18 Oregonians have relatively little direct influence on how these forests are managed and
19 used.

20
21 A national discussion is needed to resolve the tension between national interests and
22 local interests in the management of federal forestlands. People living near federal
23 forests need to be empowered to take part in decisions affecting the forest's future, so
24 intimately tied up with their own. Good faith efforts are already taking place to improve
25 local and national discussions about forest management on federal lands, and more
26 cross-cutting work among many interest groups is encouraged to find common ground
27 on federal forest policies.

28
29 In October 2004, Governor Kulongoski directed the Board of Forestry to create a unified
30 vision of how federal forestlands should contribute to environmental, economic, and
31 social sustainability. In response, the Board created the Federal Forestlands Advisory
32 Committee. Composed of a diverse group of stakeholders, the committee produced a
33 set of findings and recommendations adopted by the Board in 2009 as a way to move
34 forward on federal land management issues. Work is continuing to implement these
35 recommendations.

36 37 *Government – State*

38
39 The Oregon Legislature has delegated significant policy-making authority to various
40 boards and commissions. The Legislative and Executive branches of both state and
41 federal levels of government are subject to swings in political power that can create
42 problems for a long-term activity like forest and other natural resources management.
43 The board-and-commission system provides some policy stability by mitigating these
44 political shifts.

45
46 The Oregon Forest Practices Act remains the predominant regulatory mechanism that

1 supports landowners meeting their management objectives while protecting non-timber
2 values on private and state forestlands. The Forest Practices Act includes a set of best
3 management practices to meet state water quality standards. Land uses on private
4 lands not under the jurisdiction of the Forest Practices Act are not subject to the same
5 extensive requirements. This creates issues of equity and may create a disincentive to
6 retain private forestland for forest uses.

7
8 A key challenge for the Board of Forestry is developing and funding a new vision for the
9 state programs that interact with private forest landowners. With reduced resources,
10 such programs must be as effective as possible in keeping forestlands in forest use,
11 and in meeting specific needs in the full range of landscapes: industrial and investment
12 forests, family forestlands, and forests in cities, suburbs and the urban interface.

13
14 Oregon's land use planning laws have been the primary tool limiting development and
15 keeping land in forest production. Recent voter-approved ballot measures have
16 resulted in changes to the administration of these laws that may result in more
17 conversion of forestlands. Conversely, land conservation tools such as easements,
18 transferable development rights, and rural reserves provide new opportunities to
19 encourage the retention of private forestlands.

20
21 There has been a political shift towards taking aggressive action to reduce carbon
22 emissions and mitigate climate change. The 2007 Legislature mandated a reduction in
23 Oregon's greenhouse gas emissions to 10 percent below 1990 levels by 2020 and to 75
24 percent below 1990 levels by 2050. Future changes to federal or state laws may create
25 cap-and-trade systems to meet carbon emissions goals and may provide increased
26 opportunities for biomass power and fuel production or a system of carbon credits for
27 growing timber.

28
29 Work continues to revise and improve management of state-owned forests to produce
30 optimal levels of environmental, economic and social benefits. These forests comprise
31 only three percent of the Oregon forest land base, but for several years they have been
32 the focus of public debate regarding their future management. Oregon's state forests
33 have the potential to serve as a demonstration for a "third path" of forest management
34 that differs from both the industrial model on many large private forest ownerships and
35 the reserves-based model employed on federal forestlands.

36
37 Federal forest health and sound stewardship of federal lands are critical to Oregon's
38 current and future well-being, but in the current system of governance, Oregonians have
39 relatively little direct influence on how these forests are managed and used. Federal
40 agencies manage 60 percent of the total forestland in the state, and Oregon cannot
41 chart a sustainable, productive future for its forests without considering federal
42 forestlands. In 2005, the Oregon Legislature and Governor Kulongoski, with strong
43 bipartisan support, directed the Board of Forestry to create a forum for interagency
44 cooperation and collaborative public involvement regarding federal forest management
45 issues. With the assistance of its Federal Forestlands Advisory Committee, the Board
46 of Forestry adopted a report, *Achieving Oregon's Vision For Federal Forestlands*, in

1 January 2009 that establishes a unified vision of how federal lands should contribute to
2 sustainability. The 2005 Oregon Legislature also provided authority for the state to
3 enter into a stewardship contract agreement with federal agencies to carry out forest
4 management activities on federal lands.

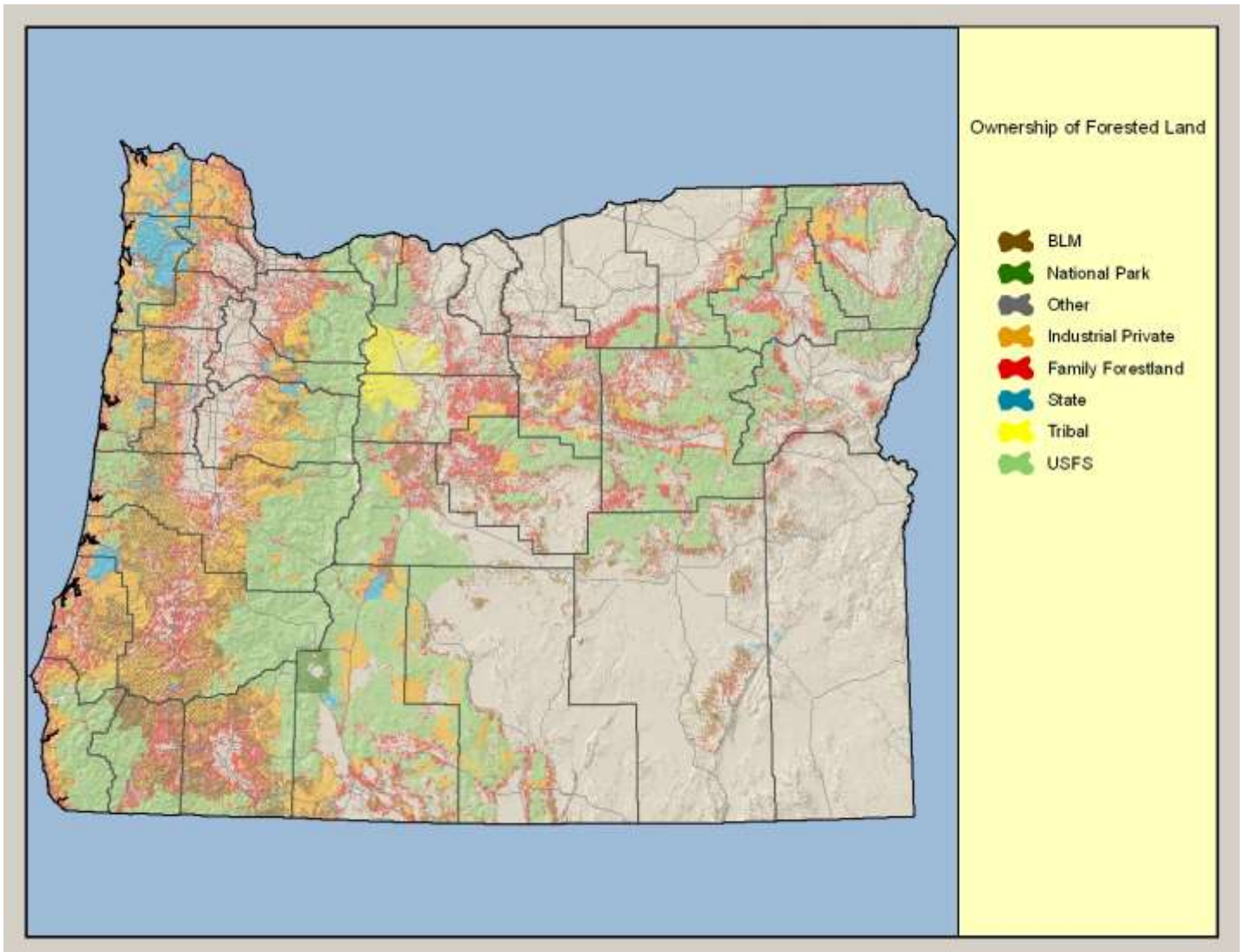
5
6 *Government – Tribal*
7

8 Nine federally recognized Indian tribal governments are located in Oregon. Many
9 Oregon tribes manage their own forest resources. Oregon has formalized its
10 relationship with tribal governments in law to provide a process to resolve potential
11 conflicts, optimize intergovernmental relations, and enhance the exchange of ideas and
12 resources. State agencies are required to consult with tribal governments in developing
13 state policies that may affect tribes.

14
15 *Government -- Local*
16

17 The Oregon Legislature has established clear limits on the ability of local governments
18 to regulate forest practices. Local government may regulate forest practices only within
19 Urban Growth Boundaries. Some counties own and manage forestland of their own, but
20 management of these forests is also regulated under the Forest Practices Act.

21
22 Local governments play an important role in implementing the state's land use planning
23 program. Local governments also manage urban and community forests, the mosaic
24 forest of the planted landscape and the remnants of native forest retained as our cities
25 developed. These are forests where people are not just visitors, but where most
26 Oregonians live. Urban and community forests make very important contributions to the
27 environmental, economic, and social health of the state. They help conserve energy and
28 maintain water quality. These forests increase property values and generally enhance
29 the quality of community life. Among other benefits, forests in and near cities absorb
30 carbon dioxide and air pollution while releasing oxygen.
31



1 Figure 6. Oregon's forests are held by a variety of owners - federal, tribal, state, and local governments,
 2 as well as private industrial owners and family forest or small woodland landowners. Note that federal
 3 agencies are the majority owners of forestland in Oregon, particularly in eastern Oregon.
 4

5 *Research*

6
 7 State government maintains forest research and extension programs through its land-
 8 grant university, Oregon State University. Forest research has generated key
 9 information for policy-making as well as for land management. Oregon State University
 10 forestry extension education provides a means of transferring knowledge to forest
 11 landowners and others concerned with the field application of research. The federal
 12 Pacific Northwest Research Station and the private landowner community have also
 13 been important forestry research partners with the state. Research and extension at the
 14 state level are coordinated with the companion federal effort.
 15

16 Besides leading in research, Oregon State University, along with other Pacific
 17 Northwest universities, has the capacity to educate natural resource specialists such as
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1 biologists, geologists, hydrologists, soil scientists, forest managers, and engineers to
2 meet the growing demands of managing our forests.

3
4 Oregon's Watersheds Research Cooperative is currently conducting a series of long-
5 term paired watershed studies throughout Oregon to evaluate the environmental effects
6 on water and fish of contemporary forest management practices now in use on younger
7 intensively managed forests.

8 9 *Private Sector*

10
11 Private forest landowners, both industrial and nonindustrial, have a long-standing and
12 important role in the evolution of Oregon's forest policies. In recent years, vertically-
13 integrated Oregon private forest products companies have divested themselves of their
14 forestlands as a result of changes in federal tax law. These lands are now
15 predominantly managed by either timber management investment organizations or real
16 estate investment trusts. Nonindustrial owners are a diverse group of individuals,
17 families, and organizations that own forestland for a diversity of purposes. Both
18 industrial and nonindustrial owners have associations to represent their political
19 interests.

20
21 Nonprofit institutions, with their range of views, objectives, and methods, are also
22 important in developing forest policy. Most nonprofit groups work at the public policy
23 level or through judicial actions to achieve their goals. Others are more directly involved
24 in land management, acquiring lands or easements to fulfill their organizational mission.

25
26 Various forest certification systems represent a new type of nongovernmental institution.
27 Certification is evolving as a market-based incentive, encouraging products that are
28 guaranteed to have met certain environmental, economic, and social standards in their
29 production.

30
31 Finally, working outside the framework of legal institutions and collaborative processes,
32 some activist groups and individuals have engaged in civil disobedience and unlawful
33 activities to promote their interests.

34 35 *Other Environmental, Economic, and Social Policy Frameworks*

36
37 As Oregon becomes increasingly urbanized, there is a perception that urban
38 populations may view traditional forest economic values as a low priority. It is true there
39 has been a decline in political support for active forest management on federal lands,
40 and declining public investment in state programs that contribute to sustaining economic
41 values on private forestlands. However, recent surveys of both urban and rural
42 Oregonians' values and beliefs about forestry issues indicate a potential for
43 considerable agreement on a range of important topics.

44
45 Under current land management policies and projections of population growth,
46 Oregonians within the next several decades could consume more wood products than

1 are harvested from the Oregon's forests. This could potentially shift timber harvesting
2 from Oregon's forests to areas with less environmental protection and lower
3 productivity. Oregon's forest resource policies should be looked at in a global context
4 and should not result in unintended adverse effects to the global environment or place
5 Oregon forest landowners and businesses at a disadvantage in the global marketplace.
6 Policies should instead encourage local forest land managers to harvest timber in ways
7 that increase social, economic and environmental benefits to Oregonians and which
8 provide incentives to keep forestland in forest uses.

9
10
11
12
13 *". . . [P]eople who live and work, raise their families and build their communities, on a particular
14 landscape cannot be and will never be persuaded by any amount of purely legal reasoning that
15 people who have no such dependence on or knowledge of those landscapes should have an
16 equal say in their governance. In the end, sovereignty cannot be a matter of raw legal
17 jurisdiction. Unless the way people actually live in a given place--their living relationship with
18 land and landscape--is made a part of the pattern of sovereignty, that pattern cannot be
19 sustained over time."*

- Daniel Kemmis, This Sovereign Land, 2001

24 **How are we doing?**

25
26 The following Oregon Indicators of Sustainable Forest Management address Goal A.

27
28 Indicator A.a. Ability to measure and report on all other Oregon sustainable forest
29 management indicators

30
31 *Desired trend: Data for all Oregon indicators are increasingly current, complete,
32 and reliable.*

33 **Condition**



35
36 **Mixed or Fair**

33 **Trend**



37
38 **Uncertain**

33 **Information**



39
40
41
42 **Partial**

1 Indicator A.b. Development and maintenance of sustainable forest management
2 knowledge
3

4 *Desired trend: Oregon student and family forest landowner participation in forest*
5 *education programs is increasing and forest resource research funding, higher*
6 *education forest resource instruction, natural resource professional society*
7 *membership, and forestry extension staffing are maintained or increasing.*
8

9 **Condition**



10
11 **Mixed or Fair**

Trend



12 **Uncertain**

Information



13 **Partial**

14 Indicator A.c. Compliance with forestry regulations
15

16 *Desired trend: High levels of compliance with management plan standards and*
17 *guidelines on Oregon federal forestlands. High levels of voluntary compliance*
18 *with Oregon Forest Practices Act requirements for reforestation and other*
19 *activities on private lands. Clear public policy expectations for private forest*
20 *landowners' contributions to the protection and maintenance of public forest*
21 *resource values.*
22

23 **Condition**



24
25 **Good**

Trend



26 **No change, but . . .**

Information



27 **Partial**

28 Reports for these indicators are available at:

29 <http://www.oregon.gov/ODF/indicators/indicatorsA.shtml>
30
31

1 **Goal B: Ensure that Oregon's forests make a significant contribution**
2 **towards meeting the nation's wood product needs and provide**
3 **diverse social and economic outputs and benefits valued by the**
4 **public in a fair, balanced, efficient, and sustainable manner.**

5
6 **Why is this goal important?**
7

8 Forests are important to people in part because they offer a range of social, cultural,
9 and economic values. Some of the values that come from forests are obvious. Forests
10 provide direct social and economic benefits that include wood products, recreation, jobs,
11 incomes, and timber sale and tax revenues to governments and school districts. Other
12 values are less tangible, such as solitude, scenic beauty, habitat for plants and animals,
13 and spiritual renewal. Oregon's forests also provide environmental benefits such as
14 purifying the state's air and water resources. These forest ecosystem service values
15 may not be measurable in dollars and cents, but they have an economic impact. They
16 contribute to Oregon's high quality of life and help the state attract desirable industries
17 and skilled workers. This contribution in turn generates additional jobs, incomes, and tax
18 revenues.

19
20 If forests continue to provide the social and economic values and environmental
21 services that people want and need, it is likely they will be sustained. If forests cease to
22 provide these benefits, they will be perceived as increasingly unimportant and risk being
23 converted to other uses.

24
25 **The Board of Forestry will work to achieve the following *Forestry Program for***
26 ***Oregon Objectives for Goal B:***
27

- 28 1. Continue to assess the unique challenges and opportunities facing federal, state,
29 local government, tribal, industrial, investment, and family forest landowners and
30 promote policies that result in economic returns sufficient to encourage continued
31 retention of, and investment in, forestlands in each of these ownership groups.
32
- 33 2. Promote the understanding, development, monetizing, and support of non-timber
34 markets, such as biomass, carbon sequestration, and other ecosystem services that
35 reward landowners for maintaining their lands as forests.
36
- 37 3. Promote employment, economic activity, and revenue contributions from
38 management of forestlands throughout the state to support appropriate state and
39 local government social services, such as health care and education.
40
- 41 4. Promote long-term strategic investments to support Oregon's forest industry, to
42 maintain Oregon's competitive advantage in a diversity of forest products and
43 markets, and to remain a net exporter of wood products. The Board will also

1 encourage work to strengthen relationships between Oregon’s forest cluster and
2 green building cluster.

- 3
- 4 5. Promote fulfillment of the shared responsibilities of homeowners, road users,
5 forestland owners, and state and local governments for any additional action to
6 reduce public safety risks with respect to landslides.
- 7
- 8 6. Develop and implement forest policies potentially affecting federally-recognized
9 Oregon tribes in consultation with those affected tribes in a government-to-
10 government relationship, consistent with state statutes.
- 11
- 12 7. Support programs that enhance urban and community forest values and that
13 increase Oregonians' understanding of the important role urban and community
14 forests play in providing environmental, economic, and social benefits. The Board
15 will also promote greater understanding of the dynamics of forest ecosystems and
16 their interaction with urban areas.
- 17
- 18 8. Widely communicate Oregon forest health and forest cluster and rural community
19 economic vitality as priorities of the State of Oregon and will work with other
20 organizations to revitalize the economy and social fabric of rural communities and to
21 promote that the values they provide to all Oregonians are maintained and
22 compensated. The Board will consider the social effects on rural communities from
23 forest management policies and practices.

24

25 **Key challenges and opportunities**

26

27 *Economic Trends*

28

29 Recent national and international economic downturns are examples of external factors
30 beyond the control of Oregonians that will continue to impact our forest resources and
31 forest-based economy. However, Oregon remains well-positioned to benefit
32 economically from its forest resources. Our native forests are a resource regenerated
33 and maintained essentially free by the sun. The shelter and fiber our forests provide
34 meet basic human needs. Unlike other areas of the world, Oregon enjoys stable land
35 tenure. Our well-developed and highly efficient primary and secondary wood products
36 manufacturing sectors provide high-wage jobs, and high employment multipliers.
37 Oregon is located ideally to supply expanding markets in the western United States and
38 throughout the Pacific Rim.²

39

40 A key to sustaining the values Oregonians want from our forests is creating a social
41 and economic environment where public and private landowners are willing to invest in
42 their forestlands and retain them in forest uses. Unfortunately, Oregon faces
43 deteriorating forest health, disinvestment in forestland ownership, and eroding

² Based remarks by Bettina Von Hagen of Ecotrust at an April 6, 2010 Starker Lecture at Oregon State University. <http://www.cof.orst.edu/starkerlectures/>
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1 manufacturing capacity, particularly east of the Cascade Range. For example, declining
2 timber harvesting in eastern Oregon has affected rural community stability. Total
3 eastern Oregon harvests in 2008 were 17 percent of those in 1986. Federal timber
4 harvests were seven percent of 1986 harvest levels while private harvests declined to
5 45 percent of 1986 harvests. The reduction in harvesting forced a decrease in the
6 number of operating forest products mills in eastern Oregon—from 68 in 1980 to just 15
7 in 2009. This number could drop further by 2015. This has resulted in the erosion of
8 well-paying mill jobs and jobs in local communities supplying these mills and their
9 employees.

10
11 Recovery from these losses will be very difficult. While improving demand for lumber
12 and other wood products could result in some increase in timber harvest levels, lack of
13 mature timber on private lands, legal constraints on federal forestland, and lack of mills
14 to cost-effectively process logs could keep timber harvests in eastern Oregon at
15 relatively low levels for decades.

16
17 Family forestland owners are particularly affected. As nearby mills close, log
18 transportation costs increase, stumpage prices decline, and the value of their timber
19 goes down. Alternative investments become more attractive. The incentive to actively
20 invest and manage their lands as working forests begins to evaporate and the
21 probability of conversion to other uses increases.

22
23 Many conventional, vertically integrated forest products companies – those that own
24 mills as well as lands to supply them – have disappeared from the landscape. There are
25 no such large companies in Oregon today. The largest forest tracts in Oregon now are
26 held primarily as land investments (timberland investment management organizations
27 and real estate investment trusts). A key driver of this trend has been a set of federal
28 tax law changes that have made it less advantageous for single companies to hold land
29 and mills together. The owners of large tracts may seek various economic opportunities
30 – timber supply contracts with mills, investment gain through appreciation and resale,
31 and selling the most profitable parcels, often those with exceptional scenic value or near
32 populated areas, for residential use.

33
34 The landscape is also changing among smaller ownership parcels. Family woodlands
35 that have historically been managed as forests may move into residential or real estate
36 use as they pass to a new generation. People seeking to move from more developed
37 settings into forested landscapes may fuel the demand for relatively small forested
38 parcels.

39
40 Five years ago, Oregon lacked a coordinated policy on the role of wood-products
41 industries in the overall economy. Now there is better coordination among state and
42 federal agencies focusing on improving the health of Oregon’s forest cluster. The
43 Oregon Department of Forestry, Oregon Business Development Department (formally
44 the Oregon Economic and Community Development Department), Oregon Forest
45 Resources Institute, the Wood Innovation Center at Oregon State University, and the
46 Oregon Department of Energy, along with private-sector partners have worked together

1 as an Oregon Forest Cluster Economic Development Strategy Project Team to develop
2 a consistent statewide approach to improving the vitality of Oregon's forest cluster. This
3 approach has included outreach to federal partners and to private companies and
4 associations representing them.³

5
6 The loss of funds to local governments through potential termination of the federal
7 Secure Rural Schools and Community Self-Determination Act of 2000 poses major
8 budgetary problems for many Oregon local governments. Resolution of these budget
9 issues may require a reexamination and renegotiation of the social contract between the
10 federal government and state and local governments where federal forestlands are
11 located.

12 13 *Urban and Community Forests*

14
15 Oregon's urban and community forests are major contributors to the health and well-
16 being of its citizens. They contribute strongly to one of Oregon's major economic
17 advantages, the perception of unsurpassed livability. This quality-of-life advantage helps
18 attract desirable businesses and highly qualified workers. Urban and community forests
19 also provide numerous health and environmental benefits: they help purify our air and
20 water, control stormwater runoff, provide shade, reduce soil erosion, create wildlife
21 habitat, and enhance the health of riparian areas. In recent decades, as Oregon has
22 become more populated and more urban, resources to manage the urban forests have
23 lagged.

24 25 *Tribal Forests*

26
27 Nine federally recognized Indian tribal governments are located in Oregon. These tribes
28 have a unique legal status and play a unique role in Oregon's society and culture. The
29 tribes and the State of Oregon work together in an atmosphere of mutual respect for the
30 sovereign interests of both parties. The government-to-government relationship that
31 exists between Oregon's Indian tribes and the State of Oregon has been formalized in
32 state law, providing a process that can help resolve conflicts, maximize
33 intergovernmental relations, and enhance an exchange of ideas and resources.

34 35 *Ecosystem Services*

36
37 Ecosystem services provide very important social and economic benefits such as: clean
38 air and water; fish and wildlife habitat; spiritual spaces; and scenery. These benefits are
39 not part of a traditional economic market but remain critical to meeting Oregonians'
40 environmental, social and economic needs. Frameworks for comprehensively and
41 credibly valuing ecosystem services and products and for understanding tradeoffs do
42 not exist. Efforts to begin valuing and developing markets for these benefits are
43 underway at the regional, national and international levels. Often, they are indirectly

³ For more information on Oregon forest cluster economic development visit
http://www.oregon.gov/ODF/RESOURCE_PLANNING/forestclusterstrategy.shtml
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1 addressed by regulation, purchase of easements and other mechanisms outside of
2 markets. While they currently may not be monetized as a social and/or economic asset,
3 they would cost significant amounts of money to replace or restore. By recognizing
4 these forest resource outputs and benefits as assets with high social and potential
5 economic value, policy-makers and forest managers would begin to better integrate
6 them in their decision-making.

7 8 *Public Safety*

9
10 Continued policy discussions are needed regarding forest landslides and public safety.
11 Effective protection of the public requires shared responsibilities among homeowners,
12 road users, forestland owners, and state and local governments to reduce the number
13 of persons living in or driving through locations prone to shallow, rapidly moving
14 landslides during periods when they are likely to occur.

15
16
17 *"The threats facing private working forests are traceable to a complex set of drivers, none of*
18 *which act independently. These drivers interact in ways that put stress on private working*
19 *forests and the benefits they provide to owners and the public. For example, in addition to*
20 *affecting forest ecosystems directly, climate change is affecting the policy environment, spurring*
21 *mitigation and adaptation responses that, in turn, affect markets and economic regulations.*
22 *Similarly, a lack of social license to practice forestry (on both private and public lands) has direct*
23 *impacts on the health and resilience of private working forests and is contributing to the decline*
24 *of the forest products industry in the Western U.S. A clear understanding of these cause-and-*
25 *effect relationships can lead to the development of solutions that do more than simply treat*
26 *symptoms."*

- 27
28 • Western Forestry Leadership Coalition in its 2010 report: *Threats to Western Private*
29 *Forests*

1 **How are we doing?**

2
3 The following Oregon Indicators of Sustainable Forest Management address Goal B.

4
5 Indicator B.a. Forest-related revenues supporting state and local government public
6 services

7
8 *Desired trend: Forest-related revenues are a significant and predictable funding*
9 *source for Oregon state and local government public services dependent on*
10 *those revenues.*

11
12 **Condition**



13
14 **Good**

Trend



15
16 **Uncertain**

Information



17
18 **Adequate**

19
20 Indicator B.b. Forest-related employment and wages

21
22 *Desired trend: Forest-related Oregon employment and compensation are stable*
23 *or increasing.*

24
25 **Condition**



26
27 **Poor**

Trend



28
29 **Deteriorating**

Information



30
31 **Adequate**

32
33 Indicator B.c. Forest ecosystem services contributions to society

34
35 *Desired trend: Oregon forest ecosystem services produced are stable or*
36 *increasing and are sustainable.*

37
38 **Condition**



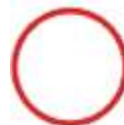
39
40 **Mixed**

Trend



41
42 **Uncertain**

Information



43
44 **Inadequate**

45
46 Indicator B.d. Forest products sector vitality
47 October 2, 2010 Public Review Draft

1

Desired trend: Production and values of Oregon wood and paper products and forest industry equipment are stable or increasing.

Condition



Poor

Trend



Uncertain

Information



Partial

2

Reports for these indicators are available at:

3

<http://www.oregon.gov/ODF/indicators/indicatorsB.shtml>

4

5

6

1 **Goal C: Protect, maintain, and enhance the productive capacity of**
2 **Oregon's forests to improve the economic well-being of Oregon's**
3 **communities.**

4
5 **Why is this goal important?**

6
7 Maintaining the productive capacity of Oregon's forests means maintaining the amount
8 of forestland and making sure harvest rates for timber and non-timber forest products
9 do not exceed growth rates. Maintaining and enhancing the timber economy and
10 developing the economic potential for non-timber forest products and recreation could
11 diversify Oregon's economy and add to the growth contributed by Oregon's high-
12 technology and other sectors. It could also encourage forest landowners to invest in
13 management practices that ensure a large and sustainable stream of forest products
14 and other forest values from their lands. Such investments help them both to become
15 competitive in global markets and to maintain their land in forest uses.

16
17 The economic productivity of Oregon's forests contributes to a diversified statewide
18 economy that can better weather downturns in the national economy. Economic
19 productivity of forestlands provides incentives to maintain the forestland base, which in
20 turn provides a host of values other than economic ones. Most of the economic activity
21 generated by Oregon's forests occurs in rural areas, where it is most needed. This
22 economic activity is vital to rural communities, which are an essential component in the
23 richness of Oregon's character.

24
25 **The Board of Forestry will work to achieve the following *Forestry Program for***
26 ***Oregon Objectives for Goal C:***

- 27
28 1. Support land-use planning and policies to promote a stable forestland base, to
29 encourage long-term investments in forestland, and to keep working forests working.
30
31 2. Encourage the federal government land management agencies to achieve their
32 statutory objectives by actively managing federal forestlands, including the use of
33 commercial timber harvests and stewardship contracts where appropriate.
34
35 3. Develop policies that better address forest operations within residential emphasis
36 forests.
37
38 4. Consider the acquisition of forestland as a tool for retaining Oregon's forest land
39 base.
40
41 5. Promote a policy framework and land management assistance programs that
42 recognize the diverse management objectives of Oregon's public and private forest
43 land owners can provide a suite of benefits which collectively, in appropriate
44 proportions and locations, will meet Oregon's environmental, economic, and social
45 needs.

- 1
- 2 6. Promote consideration of alternate climate change adaptation and mitigation
- 3 scenarios when planning reforestation and vegetation management, particularly
- 4 when managing plant species of specific climate and fire regimes.
- 5
- 6 7. Encourage forest landowners to manage their forests in a manner that is consistent
- 7 with a goal of long-term wood volume growth in Oregon equaling or exceeding rates
- 8 of timber harvest and mortality across all ownerships.
- 9

10 **Key challenges and opportunities**

11 *Maintaining the Forest Land Base*

12

13

14 New forces are reshaping Oregon's forests in ways more significant than any wildfire,

15 windstorm, or disease outbreak. Fueled by factors including development pressures,

16 population growth, depleted merchantable timber inventories, changing private

17 landowners' financial objectives, and changes in the forest products and real estate

18 markets, forestland is being threatened by conversion to non-forest uses.

19

20 This is not just an urban or rural problem. It affects Oregon's largest cities and smallest

21 communities, and some of our most prized forested landscapes.

22

23 Oregon is following a national trend away from industrial forest ownerships that manage

24 their land to provide a continuous flow of wood to their own mills, towards timberlands

25 that are either being managed as a separate profit center, or sold to timber investment

26 and management organizations and real estate investment trusts. These organizational

27 structures may be more responsive to market demand for land development or other

28 purposes. This trend may increase parcelization, shifting land from industrial to non-

29 industrial owners.

30

31 Many family forestlands are now going through a shift of ownership to the next

32 generation of family members. These landowners have a broad array of values and

33 objectives for ownership, but they often lack the knowledge to implement their

34 objectives and are generally less able to make long-term investments in wood

35 production. Studies indicate that the new generation of family forest landowners often

36 view the land differently than the previous generation and are much more likely to

37 consider selling rather than managing the land for income or other values.

38

39 Unaddressed, these forces stand to change Oregon's environmental, social and

40 economic quality of life. Consider the following consequences:

- 41
- 42 1. The presence of development in forested areas changes everything about
- 43 wildfire—placing homes at risk, making firefighting more complicated, and
- 44 increasing firefighting costs.
- 45 2. Fragmentation and parcelization of forests, combined with the development of
- 46 roads and residences, can degrade the “green infrastructure” of a forested

1 watershed, including clean water, the diversity of fish and wildlife species, and their
2 habitat.

- 3 3. Conversion from forest use dramatically changes the way the surrounding
4 landscape is managed, limiting the range of traditional forestry practices. In many
5 areas, the notion of producing a timber value from the lands—even in the context
6 of sustainable forestry practices—is no longer acceptable to new nearby residents
7 or landowners.
- 8 4. When formerly productive timberlands are converted to non-forest uses,
9 surrounding economies and supporting industries are affected as forest products-
10 related jobs and infrastructure are no longer viable. Harvest taxes are no longer
11 available to support local government services and education.

12
13 Taken together, trends in forestland ownership and development, combined with
14 projected population increases, could have major effects on Oregon’s forests, their
15 health, and the benefits they provide. However, a variety of solutions are emerging.
16 Many conservation groups recognize the value of working forests. Some purchase land
17 at risk of fragmentation and hold it or facilitate its transfer to other entities that then
18 manage it for an array of values. Additionally, interest is growing in a number of tools,
19 including conservation easements, transfer of development rights, and markets in
20 carbon storage and other environmental services, that can help landowners derive
21 sufficient economic benefit to keep their land in forest use. Development of these
22 methods could benefit from public policy support.

23 24 *Forest Tree Growth, Harvest, and Mortality*

25
26 Oregon timber harvests have declined over the last two decades. Timber harvest on all
27 Oregon forestlands fell from 8.7 billion board feet in 1986 to 4.5 billion board feet in
28 2004 and to an estimated 2.7 billion board feet in 2009, the lowest level since 1934.

29
30 Private harvest levels have been between 82 percent and 107 percent of sustainable
31 levels based on current management objectives over the last five years, averaging 98
32 percent of sustainable levels. Harvests from corporate landowners have remained
33 relatively stable while timber harvesting on family-owned forestland has declined
34 dramatically over the last several years. Family forestland owners are very price-
35 responsive and their timber harvests have been declining following declines in
36 stumpage prices related to a weak housing market. Demand for housing is projected to
37 recover slowly followed by a rebound in stumpage prices.

38
39 Public harvests are well below levels considered to be sustainable even though public
40 sustainable target levels have been reduced several times to account for changing
41 plans and policies. Difficulties in planning, offering, and harvesting timber sales on
42 federal lands have resulted from budget constraints and the continued threat of
43 litigation. Public lands are now harvesting approximately 11 percent of their potential for
44 growing timber. Private forests harvested between 73 and 96 percent of private forest’s
45 potential for growing timber over the last decade, averaging 86 percent of potential
46 harvest levels targeted in plans.

1
2 Harvests from Oregon’s federal forests have recovered from their record 2001 lows, but
3 still remain well below planned levels. Little change in timber harvest volumes is
4 expected from Oregon’s national forests. The Bureau of Land Management’s (BLM)
5 Western Oregon Plan Revision (WOPR) offered the potential of substantially increased
6 timber harvests in western Oregon but has been withdrawn. It is uncertain if another
7 BLM plan will produce timber volumes shown in the draft WOPR alternatives.

8
9 Oregon’s timber harvests will likely increase over the next decade. Oregon’s forest
10 products industry remains highly competitive and could enhance its contribution to
11 national, state, and local economies. Oregon’s strengths include its highly productive
12 forests, an effective timber tax system, strong industry infrastructure in western Oregon,
13 proximity to rapidly growing markets, excellent forestry research and teaching
14 institutions (notably the US Forest Service Pacific Northwest Research Station and the
15 Oregon State University College of Forestry), a stable forestland base, and effective
16 laws regulating land use and forest practices.

17
18
19 *“As the state’s population continues to escalate, pressures on forestry profitability encourage*
20 *landowners to sell, fragment, and potentially convert forest land to alternate uses—heightening*
21 *calls to reform Oregon’s land use system. . . . The public values provided by forests are*
22 *increasingly understood—indeed, many prominent conservation organizations now actively*
23 *manage forests to support environmental, social, and economic objectives—and*
24 *conservationists across the country are working with forest businesses and policymakers to*
25 *protect working forests.”*

- 26
27 • Matthew W. Donegan, Forest Capital Partners, LLC, 2007

28
29
30

1 **How are we doing?**

2
3 The following Oregon Indicators of Sustainable Forest Management address Goal C.

4
5 Indicator C.a. Area of non-federal forestland and development trends

6
7 *Target: No net loss in 2020 in the area of Oregon non-federal wildland forest*
8 *compared to 2009 levels. (Also recommended new target for identical Oregon*
9 *Progress Board Benchmark 82)*

10
11 **Condition**



12
13 **Good**

Trend



14 **Improving, but . . .**

Information



Adequate

15 Indicator C.b. Timber harvest trends compared to planned and projected harvest levels
16 and the potential to grow timber

17
18 *Target and desired trend: Oregon timber harvest levels are 90 to 110 percent of*
19 *planned and projected levels (Oregon Progress Board target for Oregon*
20 *Benchmark 83) and the potential to grow timber is stable or increasing.*

21
22
23 **Condition**



24
25 **Mixed**

Trend



26
27 **Uncertain**

Information



Adequate

28 Reports for these indicators are available at:

29 <http://www.oregon.gov/ODF/indicators/indicatorsC.shtml>

1 **Goal D: Protect, maintain, and enhance the physical and biological**
2 **quality of the soil and water resources of Oregon's forests.**

3
4 **Why is this goal important?**

5
6 Soil and water are basic elements of forest productivity. Forest soils are also important
7 for the regulation of surface and groundwater flow. The interaction of soil and water
8 plays an important role in the health of the streams and rivers flowing through Oregon's
9 forests. Clean water is critical to our quality of life. More than half of Oregon's population
10 depends on water supplies that originate on or are protected in part by forestlands.
11 Oregonians also depend on high-quality water for fisheries, industry, recreation, and
12 agriculture.

13
14 **The Board of Forestry will work to achieve the following *Forestry Program for***
15 ***Oregon Objectives for Goal D:***

- 16
17 1. Use the Forest Practices Act as the primary means to protect soil productivity and
18 water quality on non-federal forestlands.
19
- 20 2. Promote understanding, acceptance, and support across all land uses for relevant
21 evaluations of water quality conditions based on beneficial uses, and the use of
22 these evaluations to develop stream protection policies that result in consistent
23 application of state water quality standards across land uses.
24
- 25 3. Promote continued long-term watershed research to study the effectiveness of the
26 most current forestry best management practices in providing protection for soil and
27 water resources and promote the sharing and application of new knowledge.
28
- 29 4. Promote the maintenance of forestland in forest uses and promote the establishment
30 of new forests as key elements in promoting high quality water and protection of soil
31 productivity.
32
- 33 5. Promote forest management that perpetuates the ecological processes—including
34 disturbance dynamics—that contribute to desired aquatic habitat and water quality
35 using a landscape level approach.
36
- 37 6. Support and contribute to continuing statewide efforts under the Oregon Plan for
38 Salmon and Watersheds to enhance, restore and protect Oregon's native salmonid
39 populations, watersheds, water quality, and fish and wildlife habitat, while sustaining
40 a healthy economy.
41
- 42 7. Recognize that private forest landowners' contribution to providing Oregonians with
43 high quality drinking water is achieved through compliance with state non-point
44 source water quality standards.

1
2 8. Promote management practices that protect forest soil productivity from losses due
3 to human-induced landslides, soil erosion, and soil compaction.
4

5 **Key challenges and opportunities**

6 Forestlands generally produce the highest quality surface water in the state. The loss of
7 forestland to other land uses directly reduces the amount of forested watersheds and
8 potentially increases the intensity of management on remaining forests.
9

10 Some of the most productive tree-growing soils in the world are located in parts of
11 western Oregon. Undisturbed forest soils in western Oregon have a high capacity to
12 absorb rain--up to three feet per hour. Therefore, surface erosion is usually not a major
13 source of sediment in these forests. Forest soils can also store significant amounts of
14 carbon.

15 *Dynamic Forest Ecosystems*

16
17 Efforts to protect and manage water and soil resources from fire must also take into
18 account the dynamic nature of forests. Fire causes significant changes in sediment
19 deposition and streamflow, altering the condition of forest soils and water at the
20 watershed or even the landscape scale. These periodic, long-term natural disturbances
21 are critical in maintaining the forest's aquatic habitat features over time. To reduce
22 long-term risks to soil and water quality from unnaturally intense fires, fire suppression
23 can be coupled with active vegetation management.
24

25 Severe storm effects observed between 2006 and 2008 have highlighted the impact of
26 stream crossings on the movement of woody debris and the negative impacts of
27 crossing failures (blow-outs) on fish and aquatic life. Climate change effects on
28 streamflows in the Pacific Northwest may invalidate past assumptions hydrologists and
29 others have used to determine sufficient stream passage measures.
30

31 There is significant landslide risk on very steep slopes regardless of forest age,
32 especially in certain geological formations in which major storms and landslide
33 processes are the dominant means by which the landscape is shaped. Timber
34 harvesting can affect the occurrence of shallow, rapidly moving landslides on steep
35 slopes with a high inherent risk of landslides.
36

37 Managing for the outcomes we expect from Oregon's streams and rivers, including
38 clean water and salmon habitat, will require acceptance of considerable variation in
39 the structure, function and composition of the riparian environment in response to
40 natural disturbances. Dramatic changes in streams—including what we might consider
41 degradation—are necessary and desirable over time and across the landscape.
42 Managers need to perpetuate the ecological processes—including disturbance
43 dynamics—that contribute to desired habitat and water quality. A landscape level
44 approach is needed.

1
2 An appropriate vision statement for stream management is not returning streams to pre-
3 European settlement conditions, but rather to manage for a range of stream conditions
4 that provide for self-sustaining populations of native species and contribute to a healthy
5 and productive landscape.

6
7 *Forest Practices Act Requirements*
8

9 A variety of activities occurring on forestlands, including forest management (timber
10 harvesting and road construction and use), fire suppression, recreation, livestock
11 grazing, and natural disturbances (wildfire, floods, landslides, etc.) can affect soil and
12 water resources.

13
14 Oregon's forest practice rules require operators to reduce soil disturbance during and
15 after logging operations. Using cable yarding on steeper slopes, for example, can
16 significantly reduce the impact of timber harvest. Reforestation is also required after
17 timber harvest to ensure that trees promptly reoccupy the land and help protect the soil.
18 Increases in stream temperatures from forest management were a concern in the days
19 when logging was allowed down to the edges of streams. For four decades, however,
20 forest operators have been required to leave buffer strips of trees and other vegetation
21 along most streams.

22
23 *Comprehensive Monitoring and Riparian Management Policies*
24

25 Long-term watershed-scale monitoring of the physical and biological characteristics of
26 forests is beginning to provide a stronger foundation for understanding both human and
27 natural-caused changes in forest soils and water. The Oregon Watershed Cooperative⁴
28 and the Oregon Department of Forestry's "RipStream" monitoring project both provide
29 information on the effects of timber harvest on water quality and fish habitat. Research
30 is finding that best management practices can be effective in reducing potential impacts
31 of forest management and road systems on forest soils and water quality. Analysis of
32 data collected over time and space on forests managed by the State of Oregon has
33 verified that current road construction practices have resulted in reduced miles of road
34 with ditches draining directly runoff into streams and improved fish passage on working
35 forest roads. More monitoring is needed to draw conclusions about conditions on
36 federal and private forestlands. For example, forest road repairs under the Oregon Plan
37 for Salmon and Watersheds have been carried out at many locations, but Oregon
38 currently lacks information on the benefits achieved by the repairs.

39
40 Oregon has no comprehensive riparian or stream corridor management policy or
41 program. The various state programs that influence the management and use of
42 riparian areas were created to achieve a variety of objectives, and their efforts today are
43 not always well coordinated across land uses. In order to achieve water quality and
44 aquatic habitat objectives across Oregon, riparian areas will need to be protected and

⁴ <http://watershedsresearch.org/>

1 enhanced not only on forestlands but on other lands as well. Oregon also needs
2 ongoing comprehensive state-wide aquatic monitoring information across all land uses.

3
4
5 *“Americans often assume that our health and well-being are separate from the health of the*
6 *natural world. But, I return again to the simple act that we Americans take for granted everyday:*
7 *turning on our water faucets. The clean water that emerges is made possible in large part by*
8 *stewardship of our rural lands, and of our forests in particular. My hope is that together we can*
9 *foster a greater appreciation for our forests and that all Americans, regardless of where they*
10 *live, see the quality of their lives and the quality of our forests as inseparable.”*

- 11
12 • Secretary of Agriculture Tom Vilsack, 2009

15 **How are we doing?**

17 The following Oregon Indicators of Sustainable Forest Management address Goal D.

19 Indicator D.a. Water quality of forest streams

21 *Desired trend: Water quality index values in forested Oregon watersheds are*
22 *stable or improving.*

24 **Condition**



25
26 **Good**

Trend



27
28 **Uncertain**

Information



29
30 **Partial**

32 Indicator D.b. Biological integrity of forest streams

34 *Desired trend: Index of biotic integrity values in forested Oregon watersheds are*
35 *stable or improving.*

36 **Condition**



37
38 **Mixed or Fair**

Trend



39
40 **Uncertain**

Information



Partial

1 Indicator D.c. Forest road risks to soil and water

2

3 *Desired trend: Increasing proportion of sampled Oregon forest roads are*
4 *determined to pose a low risk to soil and water resources.*

5

6 Partial data for this indicator are expected beginning in 2012.

7

8 Reports for these indicators are available at:

9 <http://www.oregon.gov/ODF/indicators/indicatorsD.shtml>

10

11

12

13

14

15

1 **Goal E: Contribute to the conservation of diverse native plant and**
2 **animal populations and their habitats in Oregon's forests.**

3
4 **Why is this goal important?**
5

6 Oregonians value native forest plants and animals for the economic, scientific,
7 educational, cultural, recreational, and aesthetic values that they provide. Maintaining
8 healthy forest habitat and healthy native plant and animal communities is essential to
9 economic vitality and environmental quality of life. In addition, the federal Endangered
10 Species Act and other federal and state regulations require biological resource issues to
11 be addressed.
12

13 Human activities can reduce, maintain, or enhance biological diversity. Forest
14 management activities can have a negative effect on certain native forest-dependent
15 plants and animals and a positive effect on others. Both natural disturbances and
16 human actions need to be considered collectively to assess whether native plant and
17 animal populations and their habitats are being adequately protected, maintained, and
18 enhanced in Oregon's forests.
19

20 **The Board of Forestry will work to achieve the following *Forestry Program for***
21 ***Oregon Objectives for Goal E:***
22

- 23 1. Manage its forestlands in a manner that supports and enhances statewide efforts to
24 conserve native plant and animal populations and their habitats.
25
- 26 2. Promote policies that will lead to a reduction in the number of at-risk Oregon native
27 forest plant and animal species. The Board will rely on existing forest practice rule
28 standards, combined with federal and state Endangered Species Act protections, to
29 meet *current* (baseline) public expectations for special resource site benefits from
30 private forestlands. The Board will look to non-regulatory and market-based
31 approaches to provide *additional* public benefits that may be desired in the future.
32
- 33 3. Promote policies to prevent and control introductions of damaging, invasive,
34 nonnative species on forestlands that threaten the conservation of native plant and
35 animal populations and their habitats.
36
- 37 4. Promote the development of a coordinated, statewide Oregon native plant and
38 animal conservation policy addressing all land uses and ownership classes. The
39 policy should clearly state public expectations for base-line resources site protection,
40 as well as broader contributions of private land owners to achieve state conservation
41 goals. The policy should also clarify that private forestlands will be held to the same
42 standards as other private land uses.
43

- 1 5. Promote a variety of non-regulatory tools, such as landowner recognition, incentives,
2 easements, exchanges, and technical assistance, to help implement the state native
3 plant and animal habitat conservation policy.
4
- 5 6. Advocate that local collaborative groups define and delineate the amount and
6 characteristics of older forests that should be conserved and re-established on
7 federal lands to maintain ecological sustainability and resiliency as part of their
8 landscape assessment.
9
- 10 7. Identify fire-dependent or fire-sensitive ecosystems of high biological diversity
11 significance and evaluate the interactions between changing vegetation and fire to
12 encourage their long-term conservation.
13

14 **Key challenges and opportunities**

15
16
17 Diverse forest ecosystems are productive, provide a range of ecosystem functions, and
18 provide habitat for a wide array of rare species. Current management strategies,
19 primarily on federal forests, could lead to a significant increase in the extent of older,
20 diverse forests in Oregon. However, past forest management has in some cases
21 reduced forest diversity. For example, in areas of western Oregon, there is no shortage
22 of young stands of trees, but there has been a reduction in the amount of young-forest
23 types (successional stages) containing shrub communities, remnant snags, and down
24 wood, which are important for some wildlife species.
25

26 Large areas of Oregon forestland are at risk of losing key ecosystem components from
27 uncharacteristic wildfire. Large-scale issues, like planning for fire risk reduction and
28 maintaining desired future forest conditions, require planning across multiple ownership
29 boundaries.
30

31 “Protecting” species and habitat will succeed only if areas reserved for this purpose are
32 actively managed to provide for the disturbance processes that perpetuate desired
33 habitat and associated species.
34

35 Although government policies affect plant and animal conservation in many ways,
36 Oregon does not have an integrated set of policies to address this topic equitably
37 across all land uses. Government regulations can sometimes make the retention of
38 desired species a liability for private landowners.
39

40 Agency resources can be focused on educational programs and collaborative
41 conservation partnerships with landowners. Conservation of forest habitat and
42 associated species can be enhanced through regional-scale planning that restores
43 complex, heterogeneous landscape patterns.
44

45 The Oregon Department of Fish and Wildlife completed a comprehensive review of
46 Oregon’s fish and wildlife and their habitats in 2006. The goals and scope of the
October 2, 2010 Public Review Draft

1 *Oregon Conservation Strategy* include: maintaining healthy fish and wildlife populations
2 by maintaining and restoring functioning habitats, preventing declines of at-risk species,
3 and reversing any declines where possible. It outlines how and where the state and its
4 conservation partners, including landowners and land managers, can best focus this
5 work. The Conservation Strategy is not regulatory. It works within the existing legal
6 structure through voluntary efforts. The Conservation Strategy can form the basis for
7 developing statewide native plant and animal conservation policy addressing all land
8 uses and ownership classes.

9
10 The growing interest in ecosystem services markets has the potential to help forest
11 managers achieve established native plant and animal conservation objectives.

12
13 Looking into the future, climate change and invasive non-native plants will likely change
14 Oregon forestlands and may irreversibly alter native plant and animal populations.
15 Ecosystem resilience may be disrupted by climate-driven changes in species
16 behavior, such as changes in the population, behavior and distribution of birds and
17 insects, which exert a strong control on forest composition and productivity.
18 To monitor these effects, Oregon needs better information regarding native plant and
19 wildlife population trends and changes in the geographic ranges of native forest
20 species.

21
22
23 *Biodiversity underpins the functioning of the ecosystems on which we depend for food and fresh*
24 *water, health and recreation, and protection from natural disasters. Its loss also affects us*
25 *culturally and spiritually. This may be more difficult to quantify, but is nonetheless integral to our*
26 *well-being.*

27
28 *Current [global] trends are bringing us closer to a number of potential tipping points that would*
29 *catastrophically reduce the capacity of ecosystems to provide these essential services.*

- 30
31
 - Ban Ki-moon, Secretary-General, United Nations

32
33 *One of the greatest obstacles to the conservation of biodiversity is the lack of easily accessible*
34 *information about the overall distribution and condition of the plants, animals, and ecosystems*
35 *that sustain them. The problem is twofold: huge data gaps and poorly organized, inconsistent,*
36 *and often unintelligible information that isn't useful to policy makers or the public.*

- 37
38
 - Defenders of Wildlife, Northwest Office

1 **How are we doing?**

2
3 The following Oregon Indicators of Sustainable Forest Management address Goal E:

4
5 Indicator E.a. Composition, diversity, and structure of forest vegetation

6
7 *Desired trend: Following establishment of a statewide plant and animal*
8 *conservation policy, the composition, diversity, and structure of Oregon forest*
9 *vegetation are within, or growing towards, desired future condition ranges.*

10
11 Data evaluation for this indicator is expected in 2011.

12
13 Indicator E.b. Extent of area by forest cover type in protected area

14
15 *Desired trend: Following establishment of a statewide plant and animal*
16 *conservation policy, allocations of Oregon forest cover types to protected area*
17 *categories are consistent with desired future conditions.*

18
19
20 **Condition**



21
22 **Mixed**

Trend



23 **Mixed**

Information



Adequate

24 Indicator E.c. Forest plant and animal species at risk

25
26 *Desired trend: Decreasing number of Oregon native forest plant and animal*
27 *species at risk (extinction, extirpation, endangered, threatened, or potentially*
28 *endangered or threatened).*

29
30
31 **Condition**



32
33 **Fair**

Trend



34 **Mixed**

Information



Adequate

35
36 Reports for these indicators are available at:

37 <http://www.oregon.gov/ODF/indicators/indicatorsE.shtml>

1 **Goal F: Protect, maintain, and enhance the health and resiliency of**
2 **Oregon's dynamic forest ecosystems, watersheds, and airsheds.**

3
4 **Why is this goal important?**
5

6 Forest health is a social value based on both public perception and scientific
7 information. The Board defines a healthy, vital forest landscape as one that maintains
8 its functions, diversity, and resiliency within the context of natural disturbances and is
9 capable of providing people with the array of values, uses, and products desired now
10 and in the future. Forests are "unhealthy" when potential disturbances, such as fire or
11 pest outbreaks, are unusually frequent, severe, or widespread and when desired
12 outputs such as wood fiber, special forest products, and recreational opportunities
13 cannot be provided or sustained. Healthy forests are preferable to unhealthy ones
14 because they are resilient and because they are capable of providing the goods, values,
15 services and habitat upon which humans and plant and animal species depend.
16

17 Perceptions about forest health have evolved from a focus on preventing tree death
18 from insects, disease, or wildfire to a concept of "forest ecosystem health" that ties
19 together physical, terrestrial, aquatic, and human aspects of the landscape. The
20 ecosystem concept also recognizes that forests are dynamic and that disturbance is an
21 important element in maintaining desired forest conditions. (Note: In this document,
22 policies for protecting, maintaining, and enhancing the health of forest aquatic and
23 riparian systems are more thoroughly discussed under Goal D.)
24

25 **The Board of Forestry will work to achieve the following *Forestry Program for***
26 ***Oregon Objectives for Goal F:***
27

- 28 1. Promote active fuels and vegetation management, along with aggressive wildfire
29 suppression on public and private forestlands as key tools to promote forest
30 landscape conditions that are resilient to natural disturbances.
31
- 32 2. Promote policy and technology changes to control the cost of wildfire suppression
33 efforts and will promote shared public and landowner funding to maintain the most
34 efficient level of fire protection and other forest health activities on non-federal
35 forestland.
36
- 37 3. Promote wildfire risk reduction and forest ecosystem enhancement through policies,
38 technology, and liability relief for increased prescribed fire use and mechanical
39 treatments where appropriate at the landscape scale in fire-dependent ecosystems.
40 Direct State of Oregon participation in the use of thinning and prescribed fire on fire-
41 prone dry federal forests will also be encouraged.
42
- 43 4. Promote programs to prepare and protect private property within the forestland
44 urban interface from wildfire, insects, and diseases risks and promote strong local
45 accountability for community fire planning and prevention.

- 1
- 2 5. Implement a policy to encourage wildfire suppression actions in all of Oregon's
- 3 forests reflect the following protection priorities: (1) human lives, (2) forest resources,
- 4 (3) dwellings and other developments.
- 5
- 6 6. Promote integration of climate change mitigation and adaptation strategies into
- 7 planning, decision-making, management, restoration, and public information efforts.
- 8
- 9 7. Promote resilient forest landscape conditions and management practices that will
- 10 lead to reductions in the adverse impacts from forest insects and diseases.
- 11
- 12 8. Promote smoke management programs that maintain and improve air quality while
- 13 allowing sufficient opportunities for prescribed burning, fuel reduction, and forest
- 14 health improvements if alternatives prove insufficient to alleviate need for burning.
- 15
- 16

17 **Key challenges and opportunities**

18
19 Oregon's forests are shaped by natural disturbance in the form of fire, storms, climate
20 change, wildlife, volcanic activity, insect outbreaks, and diseases. Prior to European
21 settlement, natural and human disturbances created a range of forest types, age
22 classes, and structures across the landscape.

23 *Fire*

24
25
26 Today, almost a century of fire suppression in Oregon, coupled with reduced vegetation
27 management on federal lands in recent years, has produced forests that are, across the
28 landscape, more susceptible to catastrophic fire and insect and disease problems than
29 those that existed before European settlement. Fire prevention and suppression without
30 vegetation management to remove fuels will result in more uncharacteristic stand-
31 replacing wildfires, particularly in eastern and southwestern Oregon. These wildfires will
32 be more difficult and expensive to control.

33
34 There are many forest vegetation types in Oregon where fuel reduction treatments will
35 increase forest resilience while addressing fire risk. Wildfire in these vegetation types
36 that undermines long-term forest resiliency is just one consequence of failing to
37 proactively treat fuels. Other impacts include loss of certain ecologically important
38 vegetation communities, exacerbation of drought-induced mortality, and insect
39 outbreaks. In other forest vegetation types, there may be no ecological rationale for fuel
40 treatments, but fire risk may still be a pressing policy issue because of risk to property.

41
42 Where there is an overwhelming and urgent need for aggressive fuel reduction
43 treatments in fire-prone areas, current treatment levels do not come close to meeting
44 this need. There will be serious ecological and social consequences if managers,
45 especially federal managers, fail to act to meet this need. Strategic, landscape-level
46 treatments are needed to correct past errors and adapt to future expected conditions.

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1
2 Prescribed fire can be used to achieve desired future forest conditions. However, very
3 large acreages need to be burned annually. The costs associated with controlled
4 burning are high, and considerable controversy surrounds prescribed fire because of
5 the risk that fires will escape and burn onto other ownerships and because of air-quality
6 problems associated with smoke. Silviculture is another pathway to achieving forest
7 health goals. Combinations of tree thinning and prescribed fire can be designed to
8 reduce fuels and wildfire risk on a site-specific basis. These combined treatments may
9 often be the best choice if both short- and long-term risks to forest resources are
10 evaluated and managed. Past forest management, changing public values, a lack of
11 clear and widely accepted goals, repeated court challenges, reduced federal agency
12 budgets, and the inability to implement decisions have led to a lack of trust between
13 stakeholders and federal forestland management and regulatory agencies.
14

15 Bold action will be required to implement management that responds to our emerging
16 understanding of fire and fuel dynamics. The failure to act to appropriately manage fuels
17 in Oregon's forests is not just a policy failure. It is also a political failure that requires
18 political leadership to resolve.
19

20 The federal Endangered Species Act is a valuable tool for protecting imperiled forest
21 species. However, long-term habitat degradation and associated negative direct
22 impacts to these species from landscape-scale changes in forest conditions— such as
23 wholesale changes in historic wildfire regimes in fire-dependent forests—are often
24 discounted in the analysis of forest management projects.
25

26 Under current federal fire-suppression policy, homes in the wildland-urban interface
27 receive fire-suppression priority, even though most homes are insured and homeowners
28 can take action on their own lands to mitigate the fire hazards and risk to their homes.
29 Insurance is not usually available for investments in private forestlands managed for
30 timber and other values. However, these managed forests are often at high risk from
31 wildfire spreading from adjacent federal lands. Thus wildfire originating on, or spreading
32 through, federal lands presents underappreciated yet significant risks to private forest
33 management investments. Future wildfire policies should better balance the risks to
34 private forestlands with risks to homes and other structures in the interface.
35

36 *Insects and Tree Diseases*

37

38 Outbreaks of native forest insects such as the Douglas-fir tussock moth or western
39 spruce budworm generate relatively more public interest than forest diseases, though
40 diseases kill or damage more trees and thus have a more significant effect on timber
41 management. Aggressive fire-suppression policy without accompanying vegetation
42 management has sometimes created conditions that favor increased insect and disease
43 outbreaks. Overstocked stands grow less vigorously and become increasingly
44 susceptible to pest infestations. Changes in species composition from fire suppression
45 also make stands more susceptible to root diseases and stem decays. Increased tree
46 death from insect and disease infestations and other agents over the last two decades

1 has increased the potential for catastrophic, stand-replacing fires.

2
3 Stands with a mix of species that approximates the composition of native forests are
4 usually more resilient to insects and diseases than single-species stands. Stands with
5 species that are not genetically well adapted to the site or to the local climate are also
6 more susceptible to insect and disease outbreaks. In western Oregon, coastal clearcuts
7 often have been replanted with Douglas-fir on sites previously stocked with western
8 hemlock and Sitka spruce. This has resulted in a severe problem with Swiss needle
9 cast disease. Native root diseases also spread in areas planted with tree species poorly
10 adapted to the growing site. Planting root disease-resistant or -tolerant species and
11 using local seed sources can reduce insect and disease damage and also contribute to
12 native plant and animal habitat.

13 14 *Invasive Species*

15
16 In the last century, the introduction of non-native pathogens, plants, and insects has
17 impaired forest health in Oregon. White pine blister rust, for example, has virtually
18 eliminated western white pine from areas in the Coast Range and Cascades. Insect and
19 disease introductions during the last century that have had significant impacts on the
20 forest ecosystem also include Port-Orford-cedar root disease and balsam woolly
21 adelgid. Eradicating an established population of European gypsy moth during the
22 1980s required an effort costing millions of dollars.

23
24 The detection of sudden oak death disease in southwestern Oregon exposes a new
25 threat to several important tree and shrub species. The introduction and spread of
26 invasive plants like Scotch broom, gorse, English ivy, and Himalayan blackberry to
27 forestland poses an indirect threat. These non-native plants typically reduce native-plant
28 diversity on a site and prevent or delay the regeneration of trees.

29
30 Increased commerce, a mild climate, and a continuous influx of people make western
31 Oregon particularly vulnerable to the introduction and establishment of exotic insects,
32 pathogens, and plants. Increasing levels of international and interstate trade in logs and
33 wood products, in particular, make it likely that new pests will be introduced in the
34 future. The introduction of exotic insects and diseases is increasingly becoming a
35 serious threat to the health and vitality of forest ecosystems.

36 37 *Air Pollution*

38
39 Air-pollution damage to vegetation is an important indicator of forest ecosystem health,
40 but one that has so far had little impact here. Oregon has only recently documented air-
41 pollution impacts to sensitive lichen species downwind of major urban areas. Because
42 of a relatively small urban industrial sector in the region and dominant marine air
43 currents passing over Oregon from the west, our forests have had little exposure to
44 airborne pollutants, compared to other areas of the country and the world. However, air-
45 pollution effects on forest vegetation will probably increase with Oregon's population
46 and may also result from increasing industrial emissions originating in other parts of the

1 world.

2

3

Climate Change Adaptation

4

5 Creating and maintaining diverse forests with heterogeneous forest structure,
6 composition and function is the most important silvicultural adaptation to climate
7 change. This approach also improves the resiliency of forest ecosystems to natural
8 disturbance from wildfire, insects, disease, drought, flooding and wind/ice.

9

10 Current federal forest management policies are currently ineffective in improving the
11 resiliency of federal forests to unwanted disturbance. Accelerated forest restoration
12 work is needed.

13

14 Forest restoration could result in biomass byproducts. Development of a biomass-fueled
15 energy industry would benefit Oregonians on several levels. The value of forest
16 residues would increase, which could help fuel reduction and forest health restoration
17 projects become profitable. With expanding restoration work comes healthier
18 ecosystems that are more resilient to natural and human-caused disturbances.

19 Converting these fuels to energy under controlled conditions lessens the release of
20 greenhouse gasses and other pollutants. Also, other biomass waste streams (e.g.,
21 urban and agricultural) could be diverted from landfills and used in common energy
22 facilities. Finally, a biomass industry could help in maintaining a local and diverse forest
23 products manufacturing infrastructure.

24

25 Forestland managers need to revisit reforestation strategies in anticipation of
26 contemporary forests and forest seed sources being maladapted to future site
27 conditions. Plans for assisted migration of species should be developed. Modifying
28 seed zones and genetics of seedling propagation for reforestation and forest restoration
29 activity will be important challenges as Oregon's forests are adapted to a changing
30 climate.

31

32

33 *"Forest health depends on the dynamic diversity of plants and animals, including humans, to*
34 *perpetually maintain resilience. Sustainable forest health is a collaborative interdependent effort*
35 *between our ecosystems and society."*

36

- 37 • Western Governors' Association Policy Resolution 10-08: Assessment and Management
38 of Western Forests

39

40

41

42

43

44

45

46

1 “We as land managers must pursue a ‘no regrets’ approach and base fire management
2 decisions on scenarios that assume greater variability in climate and the potential for abrupt
3 change. . . . [I]f fire and forest managers restore forests as a means to increase ecosystem
4 resiliency to climate change, they will also be improving biodiversity and protecting important
5 forest resources.”

- 6
- 7 • The San Diego Declaration on Climate Change and Fire Management by the
8 Association for Fire Ecology and the Third International Fire Ecology Management
9 Congress, 2006

10

11

12 **How are we doing?**

13

14 The following Oregon Indicators of Sustainable Forest Management address Goal F:

15

16 Indicator F.a. Tree mortality from insects, diseases, and other damaging agents

17

18 *Desired trend: Stable or decreasing long-term levels of Oregon forest tree*
19 *mortality.*

20

21 **Condition**



22

23 **Fair**

Trend



24

25 **Uncertain**

Information



26

27 **Partial**

28

29 Indicator F.b. Invasive species trends on forestlands

30

31 *Desired trend: No invasive species on Oregon’s 100 most dangerous list are*
32 *uncontained in the state’s forests, and a stable or decreasing forest acreage is*
33 *affected by invasive species.*

34

35 **Condition**



36

37 **Fair**

Trend



38

39 **Uncertain**

Information



40

Partial

1 Indicator F.c. Forest fuel conditions and trends related to wildfire risks

2

3 *Desired trend: Increasing rates of effective forest fuel treatments to improve*
4 *resiliency to wildfire and an increasing area of Oregon forestland resilient to*
5 *wildfire.*

6

7 Data evaluation for this indicator is expected in 2011.

8

9 Reports for these indicators are available at:

10 <http://www.oregon.gov/ODF/indicators/indicatorsF.shtml>

11

12

13

1 **Goal G: Enhance carbon storage and reduce carbon emissions in**
2 **Oregon's forests and forest products.**

3 **Why is this goal important?**
4

5 There is increasing international concern about greenhouse gas emissions and global
6 climate change. Forests have been recognized as very important components of the
7 global carbon cycle and maintaining productive forests is often cited as one of the key
8 solutions to the climate change problem. Climate change also affects forests. We need
9 to understand how to best manage today's forests for tomorrow's climate.

10 There is tremendous opportunity to increase the carbon storage ability of Oregon's
11 forests. Planting trees along city streets and neighborhoods, converting marginal
12 agricultural and pasture land back into forests, extending forest rotations, reducing
13 stand density and wildfire fuels, and increasing the size and complexity of forest
14 structures, all would contribute to carbon storage in forests and help Oregon's forests
15 mitigate and adapt to climate change.

16
17 The utilization of harvested timber for wood products transfers stored carbon from the
18 forest to homes, buildings, and furniture and continues the carbon storage benefits
19 beyond the timber harvest rotation. The use of forest biomass to produce energy may
20 also directly offset the use of fossil fuels.

21
22 **The Board of Forestry will work to achieve the following *Forestry Program for***
23 ***Oregon Objectives for Goal G:***
24

- 25 1. Encourage maintaining and increasing Oregon's forestland base and promoting
26 urban forests to enhance carbon storage and reduce greenhouse gases.
27
- 28 2. Promote increased public and forest landowner understanding of the potential
29 contributions of trees and forests in storing carbon.
30
- 31 3. Promote the continued refinement of tools to predict how forest management and
32 wildfire affect carbon pools and calculate the amount of carbon stored in these pools
33 and the development of principles and standards relating to the creation,
34 measurement, accounting, marketing, verifying, registering, transferring, and selling
35 of forestry carbon offsets from nonfederal forestlands.
36
- 37 4. Promote climate change mitigation through forest carbon-offset markets and
38 ecosystem services markets and provide landowners information on participating in
39 these markets.
40
- 41 5. Encourage greater consumer awareness of the environmental advantages of using
42 Oregon forest products.

- 1
- 2 6. Advocate for public and private forestland biomass to be considered on an equal
- 3 basis with other renewable energy sources and as key component of Oregon's
- 4 strategy for meeting state greenhouse gas reduction and renewable energy portfolio
- 5 standard policy goals.
- 6
- 7 7. Continue to support research and develop policies and incentives that will drive the
- 8 growth of the biomass/ bioenergy/ bio-based products industry in the state.
- 9
- 10 8. Promote research and innovation towards increasing energy efficiency and reducing
- 11 the use of fossil fuels in the Oregon forest sector.
- 12

13 **Key challenges and opportunities**

14

15 Oregon forests have significant potential to offset national carbon emissions by

16 storing carbon. The most effective way of storing carbon in forests is afforestation and

17 longer timber harvest rotations. With proper management, Oregon's forests, in total, can

18 be sustainably managed as net carbon sinks with respect to both above- and below-

19 ground forest carbon as well as harvested wood products, all while also providing the

20 full array of other environmental, economic, and social goods and services these forests

21 provide to Oregon.

22

23 Keeping forests in forest use (i.e., maintaining/increasing the forest land base) is

24 foundational to any Oregon approach to addressing forest carbon storage and

25 sequestration. Many other environmental, economic, and social challenges must be

26 addressed to achieve that outcome (See Goal C).

27

28 Many state, regional, and national initiatives have emerged to address reducing

29 greenhouse gas emissions, including the development of forest management carbon

30 offset project protocols. There is broad conceptual understanding but a lack of

31 agreement on policy choices for including forest management and wood products in

32 proposed regulatory greenhouse gas compliance schemes such as cap and trade.

33 Some consensus exists on including afforestation, avoided forest conversion, and urban

34 forestry as offsets, but more work is needed to establish offset protocols for other forest

35 management activities.

36 Regulations that require longer harvest rotations or lower the efficiency of production by

37 requiring lower stand densities could make the Oregon timber industry less competitive

38 in the global forest products market. Paradoxically, although these sorts of regulations

39 may achieve important ecological objectives, they may also have a significant and

40 important negative environmental effect by encouraging forestland owners to convert

41 forestland to urban and rural residential uses, an effect that will be exacerbated by

42 increasing population pressures.

43

44 The challenge for policy makers is to encourage diverse, resilient forest systems while

45 maintaining the competitiveness of Oregon's forestry industry and the economic viability

1 of private forest ownership. This will be aided by ecosystem services transactions that
2 compensate landowners for practices that achieve desired ecological outcomes while
3 maintaining the timber industry’s economic vitality.

4
5 Woodlands Carbon was established in 2008 by the Oregon Small Woodlands
6 Association in partnership with the American Forest Foundation. Woodlands Carbon
7 aggregates and trades sequestered carbon credits from certified family woodland
8 owners that are traded on the Chicago Climate Exchange. The goal is to create yearly
9 revenue for family woodland owners from carbon markets.

10
11 Oregon’s forest sector, along with all other sectors of the state’s economy, has
12 opportunities to examine how wood products are harvested, transported, and
13 manufactured to increase energy efficiency and reduce the use of fossil fuels.

14
15
16 *“If we want to make a difference in terms of carbon we have to add forest.”*

- 17 ● Mark Harmon, Professor and Richardson Chair in Forest Science, Oregon State
18 University

19
20 *“Despite the recent ups and downs in the market, the initiative to control greenhouse gas
21 emissions will not disappear anytime soon. Imminent federal legislation, coupled with increased
22 confidence in other programs, suggests growth in activity and opportunities for forests and
23 forest landowners alike in coming years.”*

- 24 ● Matthew Smith, Director of Ecosystem Services for Forecon Inc.

25
26 *“Foresters are chief players in a drama which may determine the fate of the earth”*

- 27 ● Leon Minckler, USDA Forest Service, retired

1 **How are we doing?**

2
3 The following Oregon Indicators of Sustainable Forest Management address Goal G:

4
5 G.a. Carbon stocks on forestlands and in forest products

6
7 *Desired trend: Rates of storage of carbon in Oregon forests and Oregon forest*
8 *products are stable or increasing.*

9
10 Data evaluation for this indicator is expected in 2011.

11
12
13 A preliminary report for this indicator is available at:
14 <http://www.oregon.gov/ODF/indicators/indicatorsG.shtml>

15
16
17
18
19
20
21

1 **What's next?**

2 This *Forestry Program for Oregon* is not an end product. It is the foundation for
3 discussion and planning over the next eight years. The Board hopes to show a clear
4 connection between its goals and objectives, Board work plans and meeting agendas,
5 Department of Forestry programs, and the policies of other natural resource agencies
6 with responsibilities that affect forestlands.

7
8 Following Board adoption of the 2011 *Forestry Program for Oregon*, all Oregonians are
9 encouraged to work with the Board of Forestry through its business meetings, the
10 Oregon Roundtable on Sustainable Forests (See Appendix 1), and other forums to:

- 11
12 • Update and implement Board Work Plans
13 • Review and, if necessary, revise the Oregon Indicators of Sustainable Forest
14 Management along with desired trends and targets for the indicators
15 • Participate in future Board issue scans

16
17 The Board understands that economic conditions, agency budgets, and other short-term
18 factors may limit its ability to fully implement all elements of the *Forestry Program for*
19 *Oregon*. Also, new issues may emerge during the eight-year life of the 2011 edition of
20 this strategic plan that require immediate Board attention. To address these potential
21 dynamics, the Board intends to review and update the *Forestry Program for Oregon*
22 objectives on a two-year cycle.

23
24 Information about all of these processes will be accessible through the Board of
25 Forestry website: www.oregonforestry.gov

26
27
28 *Learning to honor the wild, learning to acknowledge the autonomy of the other, means striving*
29 *for critical self-consciousness in all our actions. It means that reflection and respect must*
30 *accompany each act of use, and means we must always consider the possibility of nonuse. It*
31 *means looking at the part of nature we intend to turn towards our own ends and asking whether*
32 *we can use it again and again and again, sustainably, without diminishing it in the process. Most*
33 *of all, it means practicing remembrance and gratitude for the nature, culture, and history that*
34 *have come together to make the world as we know it.*

- 35
36 • William Cronon, *The Trouble With Wilderness*, 1995.

37

1 **References**

2
3 Association for Fire Ecology. 2006. *The San Diego Declaration*
4 *on Climate Change and Fire Management*. Presented at the Third International Fire
5 Ecology and Management Congress. November 13-17, 2006. 5 p.
6 http://fireecology.net/docs/San_Diego_Declaration_on_Climate_Change.pdf

7
8 Beuter, John H. 1998. *Legacy and Promise: Oregon's Forests and Wood Products*
9 *Industry*. Oregon Business Council and the Oregon Forest Resources Institute.
10 Revised and Updated, 1998. 56 p.

11
12 Convention on Biological Diversity. 2010. Global Biodiversity Outlook 3.
13 [http://gbo3.cbd.int/the-outlook/gbo3/foreword/foreword-by-the-united-nations-secretary-](http://gbo3.cbd.int/the-outlook/gbo3/foreword/foreword-by-the-united-nations-secretary-general.aspx)
14 [general.aspx](http://gbo3.cbd.int/the-outlook/gbo3/foreword/foreword-by-the-united-nations-secretary-general.aspx) Last accessed July 19, 2010.

15
16 Cronon, William. 1995. The Trouble With Wilderness. New York Times Sunday
17 Magazine. August 13, 1995.

18
19 Fitzgerald, Stephen (compiler). 2002. *Fire in Oregon's Forest: Assessing the Risk,*
20 *Effects, and Treatment Options, A Synthesis of Current Issues and Scientific Literature*.
21 Oregon Forest Resources Institute, Portland. 162 p.

22
23 Hubler, S., S. Miller, L. Merrick, R. Leferink, A. Borisenko. 2009. *High Level Indicators*
24 *of Oregon's Forested Streams*. Oregon Department of Environmental Quality,
25 Laboratory and Environmental Assessment Division, Hillsboro, Oregon. 77 p.
26 [http://www.oregon.gov/ODF/indicators/docs/High_Level_Indicators_DEQ09_LAB_0041](http://www.oregon.gov/ODF/indicators/docs/High_Level_Indicators_DEQ09_LAB_0041_TR.pdf)
27 [_TR.pdf](http://www.oregon.gov/ODF/indicators/docs/High_Level_Indicators_DEQ09_LAB_0041_TR.pdf) Last consulted May 18, 2010.

28
29 Institute for Natural Resources. 2009. *Managing Dynamic Forest Ecosystems: Final*
30 *Report of the Dynamic Ecosystems Project*. December 1, 2009. 25p.
31 http://www.oregon.gov/ODF/RESOURCE_PLANNING/docs/FinalDEPReport.pdf
32 Last consulted May 17, 2010.

33
34 Kemmis, Daniel. 2001. *This Sovereign Land: A New Vision for Governing the West*.
35 Island Press, Washington, DC.

36
37 Lettman, Gary J. (coord). 2009. *Forests, Farms, and People: Land Use Change on Non-*
38 *Federal Land in Oregon 1974-2005*. Oregon Department of Forestry, Salem. 74 p.
39 [http://www.oregon.gov/ODF/RESOURCE_PLANNING/docs/Low_Res_Forest_farms_8_](http://www.oregon.gov/ODF/RESOURCE_PLANNING/docs/Low_Res_Forest_farms_8_9_09.pdf)
40 [9_09.pdf](http://www.oregon.gov/ODF/RESOURCE_PLANNING/docs/Low_Res_Forest_farms_8_9_09.pdf) Last consulted May 18, 2010.

41
42 Oregon Board of Forestry. 2003. *Forestry Program for Oregon*. 76 p.
43 <http://egov.oregon.gov/ODF/BOARD/fpfo2003.shtml> Last consulted May 17, 2010.

1 Oregon Board of Forestry. 2009. *Achieving Oregon's Vision for Federal Forestlands*.
2 January 2009. 59 p.
3 [http://egov.oregon.gov/ODF/BOARD/docs/FFAC_Color_Report_and_Cover_for_Web.p](http://egov.oregon.gov/ODF/BOARD/docs/FFAC_Color_Report_and_Cover_for_Web.pdf)
4 [df](http://egov.oregon.gov/ODF/BOARD/docs/FFAC_Color_Report_and_Cover_for_Web.pdf) Last consulted May 17, 2010.

5
6 Oregon Conservation Commission. 1912. *Report of the Oregon Commission to the*
7 *Governor*. November 1912.

8
9 Oregon Department of Fish and Wildlife. 2005. *The Oregon Conservation Strategy*.
10 Oregon Department of Fish and Wildlife, Salem, Oregon. 374 p.
11 <http://www.dfw.state.or.us/conservationstrategy/contents.asp> Last consulted May 18,
12 2010.

13
14 Oregon Department of Forestry. 2000. *Oregon's First Approximation Report for Forest*
15 *Sustainability*. 222 pages.
16 http://www.odf.state.or.us/Divisions/Resource_policy/Resource_Planning/far/far/ Last
17 consulted May 17, 2010.

18
19 Oregon Department of Forestry, 2007. *Oregon Indicators of Sustainable Forests*
20 *Management*. Endorsed by the Oregon Board of Forestry January 3, 2007 with August
21 7, 2007 technical edits. 108 p.
22 [http://www.oregon.gov/ODF/RESOURCE_PLANNING/docs/Oregon_Indicators_of_SFM](http://www.oregon.gov/ODF/RESOURCE_PLANNING/docs/Oregon_Indicators_of_SFM_FINAL.pdf)
23 [_FINAL.pdf](http://www.oregon.gov/ODF/RESOURCE_PLANNING/docs/Oregon_Indicators_of_SFM_FINAL.pdf) Last accessed May 17, 2010.

24
25 Oregon Department of Forestry. 2009. *Concepts and Principles for Developing an*
26 *Oregon Roundtable on Sustainable Forests*. Oregon Department of Forestry, Forest
27 Resources Planning Program. Endorsed by the Board of Forestry January 6, 2010. 13
28 p. http://egov.oregon.gov/ODF/BOARD/docs/January_2010/Jan_6_meeting/2.Att.1.pdf
29 Last consulted May 17, 2010.

30
31 Oregon Department of Forestry. 2009. Oregon Annual Timber Harvest Reports.
32 [http://www.oregon.gov/ODF/STATE_FORESTS/FRP/RP_Home.shtml#Annual_Timber](http://www.oregon.gov/ODF/STATE_FORESTS/FRP/RP_Home.shtml#Annual_Timber_Harvest_Report)
33 [Harvest_Report](http://www.oregon.gov/ODF/STATE_FORESTS/FRP/RP_Home.shtml#Annual_Timber_Harvest_Report) Last consulted May 17, 2010.

34
35 Stegner, Wallace. 1969. *The Sound of Mountain Water: The Changing American West*.
36 Penguin Group USA. 1997 Edition. 288 p.

37
38 Western Forestry Leadership Coalition. 2010. *Threats to Western Private Forests: A*
39 *Framework for Conserving and Enhancing the Benefits from Private Working Forests in*
40 *the Western U.S.* April, 2010. 31 p. http://www.wflccenter.org/news_pdf/359_pdf.pdf
41 Last consulted May 17, 2010.

42
43 Western Governors' Association. 1999. Policy Resolution 99-013: *Principles for*
44 *Environmental Management in the West*.
45 <http://www.westgov.org/wga/policy/08/enlibra8-15.pdf> Last consulted May 17, 2010.

46

- 1 Western Governors' Association. 2010. Policy Resolution 10-08: *Assessment and*
- 2 *Management of Western Forests*.
- 3 http://www.westgov.org/index.php?option=com_wga&view=resolutions&Itemid=53 Last
- 4 consulted July 19, 2010.

1 **Appendices**

2
3 **Appendix 1. Getting involved: Building a network of cooperators through the**
4 **Oregon Roundtable on Sustainable Forests**

5
6 The Board of Forestry has endorsed a charter for an Oregon Roundtable on
7 Sustainable Forests. The Roundtable’s purpose is to use collaborative efforts to
8 advance sustainable forests across all forest ownerships in Oregon. The Roundtable
9 will advance understanding, assessment and reporting of forest sustainability, and
10 encourage forest management that integrates environmental, economic and social
11 considerations within the framework provided by the *Forestry Program for Oregon*, and
12 in consideration of the values and policies of the Roundtable’s contributors.

13
14 The Oregon Roundtable will be part of a dynamic social process whereby Oregonians
15 shape an evolving vision of what constitutes science-based sustainable forest
16 management and what it means in Oregon. Ideally, the Oregon Roundtable will
17 produce high quality public dialogue that will result in greater understanding of
18 sustainable forest management among Oregon individuals, communities, academia,
19 businesses, and government. Shared learning about Oregonians’ economic,
20 environmental, and social values and the potential outcomes of sustainable forest
21 management can then inform subsequent discussions on how forestry can be
22 encouraged and implemented to meet the expressed needs of Oregonians.

23
24 Near-term objectives for the Roundtable are to:

- 25
- 26 • Receive briefings on the empirical data used to evaluate Oregon Indicators of
27 Sustainable Forest Management conditions and trends and make collective findings
28 on the reasonableness of those evaluations available to the Board of Forestry and
29 interested parties.
 - 30 • Advance greater use of the *Forestry Program for Oregon*.
 - 31 • Expand the public dialogue around sustainable forests.
 - 32 • Provide a forum where organizations and individuals addressing sustainable forests
33 can work together.
 - 34 • Provide a forum where technical and scientific knowledge can be shared.
 - 35 • Link with and learn from the efforts of business, governmental and non-profit
36 sustainability initiatives.
 - 37 • Seek a better understanding of the contributions that each of Oregon’s forest estates
38 makes to sustainability of Oregon’s forests.
 - 39 • Promote state and federal government coordination in discussing, implementing,
40 and measuring sustainable forest management.
- 41

1 More information about the Oregon Roundtable on Sustainable Forests can be found at:
2 <http://www.oregon.gov/ODF/indicators/roundtable.shtml>

3
4 More information on the work of the Oregon Board of Forestry can be accessed at
5 www.oregonforestry.gov

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7
8 *“The dialogue around Oregon’s forests should be a robust engagement among diverse points of*
9 *view and experiences for all forests - public and private. The people involved should reflect and*
10 *honor the diversity of our society and communities. Wider agreement among citizens and*
11 *agencies within the state on the meaning of sustainable forest management could result in more*
12 *public support, promotion of substantial economic, environmental, and social benefits to*
13 *Oregonians and to the nation, greater coherence of forest administration, and the perpetuation*
14 *and enhancement of Oregon’s forest land base.”*

- 15
16
 - Concepts and Principles for Developing an Oregon Roundtable on Sustainable Forests,

17 2010

18
19 *“Collaboration – An unnatural act between unconsenting adults.”*

- 20
21
 - James Honey, Sustainable Northwest

22
23

1 **Appendix 2. Glossary**

2
3 For the purpose of the *2011 Forestry Program for Oregon*, the Board of Forestry uses
4 the following key definitions:

5
6 “Active management” means the application of practices through planning and design,
7 over time and across the landscape, to achieve site-specific forest resource goals.
8 Active management uses an integrated, science-based approach that promotes the
9 compatibility of most forest uses and resources over time and across the landscape.
10 “Active management” should not be equated with “intensive timber management.”
11 Instead, it refers to taking proactive steps to achieve whatever management objectives
12 have been established for a forest site. [Based on OAR 629-035-000 (1).]

13
14 “Adaptive management” means a formal, systematic, and rigorous approach to learning
15 from the outcomes of operational programs (management actions), accommodating
16 change, and continuously improving management policies.

17
18 “Aggressive fire suppression” means the proactive and immediate application of
19 activities necessary to extinguish undesired forest fires, beginning with fire detection
20 and continuing until fires are completely controlled and extinguished.

21
22 “Best management practices” means a combination of practices that are determined to
23 be the most effective and practical means (considering current technology, economics,
24 and institutional frameworks) of preventing forest resource damage or degradation
25 consistent with environmental policy goals.

26
27 “Biological diversity” means the presence of various kinds and types of living organisms.
28 Maintaining biological diversity requires maintaining a diversity of habitats and
29 ecological processes at various spatial scales, from entire landscapes to specific
30 localized habitats. It also includes maintaining populations of individual species and
31 maintaining the genetic diversity of these species.

32
33 “Conservation” means management of a renewable natural resource with the objective
34 of sustaining its productivity in perpetuity while providing for sustainable human uses.

35
36 “Ecosystem” means a spatially defined, relatively homogenous area that includes all
37 interacting organisms and components of the abiotic environment within its boundaries.

38
39 “Enhance” means to make greater in value.

40
41 “Forest” means an ecosystem characterized by a more or less dense and extensive tree
42 cover, often consisting of stands varying in characteristics such as species composition,
43 structure, age class, and associated processes, and commonly including meadows,
44 streams, fish, and wildlife. Forests include special kinds such as industrial forests,
45 nonindustrial private forests, plantations, public forests, protection forests, and urban
46 forests, as well as parks and wilderness.

1
2 “Forest cluster” means firms and organizations that support production of and benefits
3 from primary and secondary wood products and a broad spectrum of forest ecosystem
4 services and includes geographically concentrated and interconnected economic
5 activities and linkages to customers and suppliers. Organizations engaged in forest
6 resource management, education, and research are also considered part of the forest
7 cluster.

8
9 “Forest health” means a healthy, vital forest landscape that maintains its functions,
10 diversity, and resiliency within the context of natural disturbances and that is capable of
11 providing people with the array of values, uses, and products desired now and in the
12 future. Forests are “unhealthy” when potential disturbances, such as fire or pest
13 outbreaks, are unusually frequent, severe, or widespread and when desired outputs
14 such as wood fiber, special forest products, and recreational opportunities cannot be
15 provided or sustained.

16
17 “Green building cluster” means firms and organizations supporting non-traditional
18 building designs, building materials, and construction practices to minimize negative
19 effects on the natural environment and to integrate more environmentally-friendly
20 products and services into the built environment. The cluster includes geographically
21 concentrated and interconnected economic activities and linkages to customers and
22 suppliers. Organizations engaged in education, research, standards agreements, and
23 trade associations are also considered part of the green building cluster.

24
25 “Maintain” means to keep in an existing state.

26
27 “Multiple resource management” means managing two or more available tangible or
28 intangible natural resources for two or more products or values on a specific area, over
29 a specific period of time, and using a system for maintaining or improving those
30 resources.

31
32 “Non-timber forest products” means all forest products except timber, including resins,
33 oils, leaves, bark, plants other than trees, fungi, and animals or animal products.

34
35 “Protection” means the management of short-term and long-term risks to a forest
36 resource in a manner that enables people to meet their current environmental,
37 economic, and social needs for that resource, and also provides that future generations
38 can meet their own needs.

39
40 “Residential emphasis forests” means forestlands where the residential values dominate
41 all other forest values. They generally include lands that are within cities, urban growth
42 boundaries, or “rural residential” zones. They may or may not be taxed as forestlands.
43 They may or may not be within a structural fire protection district. The owners may or
44 may not have forest management expertise or interest. There is a continuum of
45 residential uses of these forests reflecting urban, suburban, exurban and rural
lifestyles.

1 “Sustainable forest management” means forest resources are used, developed, and
2 protected at a rate and in a manner that enables people to meet their current
3 environmental, economic, and social needs, and also provides that future generations
4 can meet their own needs. [Based on ORS 184.421 (4).]
5

6 “Systematic evidence review” means a rigorous, transparent literature review technique
7 that focuses narrowly on a single question and uses an explicit protocol for finding,
8 screening, grading and integrating all primary research relevant to that question.
9

10 “Working forest” means private or public forestlands that are actively managed for
11 goods or services having monetary value in the market place such as timber and
12 recreation.
13
14

1 **Appendix 3. Oregon indicators of sustainable forest management ratings**
2 **explanations**

3
4 **Indicator Condition:**



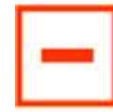
Good

Desired trend or target is being achieved



Mixed or Fair

Conflicting factors are affecting the status in both positive and negative ways



Poor

Desired trend or target is not being achieved

Indicator Trend:



Improving

Current status is an improvement compared to previous data



Mixed, Uncertain, or No Change

There are either conflicting (mixed) trends, trend direction is uncertain, or there is no significant change compared to previous data



Deteriorating

Current status is a deterioration compared to previous data

Quality of Indicator Information:



Adequate

Data coverage, frequency, currency, sources, and reliability are sufficient to draw conclusions with high confidence



Partial

Data coverage, frequency, currency, sources, and reliability are of mixed quality which affects the ability to draw conclusions



Inadequate

Data coverage, frequency, currency, sources, and reliability are of insufficient quality to draw conclusions

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6
7
8

1 **Appendix 4. The Board of Forestry’s intent for use of the Oregon indicators of**
2 **sustainable forest management**

- 3
- 4 • The use of indicators can lead to clear, unambiguous, consensual public policy
- 5 decisions.
- 6 • The indicators are a tool for society to learn to make informed decisions and to
- 7 take sound actions as it steers toward environmental, economic and social
- 8 sustainability.
- 9 • The indicators should be used to focus and prioritize forest-related monitoring,
- 10 assessments and research, so that limited resources can be allocated most
- 11 effectively and efficiently.
- 12 • Desired indicator trends and targets are intended to support public dialogue and
- 13 promote greater consensus among Oregonians about the meaning of sustainable
- 14 forest management. While the indicators and their metrics may remain fairly
- 15 constant, trends and targets for the indicators may be updated as more
- 16 information becomes available, as interplay between indicators is better
- 17 understood, and as societal values evolve.
- 18 • Neither the indicators nor the desired trends and targets should be viewed as
- 19 policy objectives. Instead, they should be used to evaluate current policies
- 20 already established, and to help interpret the effects of those policies.
- 21 • Implementation of the 19 indicators will require integrating a wide variety of data
- 22 from a number of sources. Most indicators build on current data and historic
- 23 policy concerns. For some indicators, new data collection methods will need to
- 24 be developed, existing funding will require reallocation, or new funding will be
- 25 needed.
- 26 • For the indicators to remain credible, policy-makers and the public will need to
- 27 see clear links between indicator reports and more detailed technical and
- 28 scientific information supporting them.
- 29 • All users of data associated with the indicators must understand that the
- 30 indicators function as an integrated set of measures of environmental, economic
- 31 and social performance. All indicators should be used together to provide a
- 32 sustainable forest management picture for the State of Oregon. Absent this
- 33 broader, integrated context, discussion of the performance of individual indicators
- 34 is less productive and less desired. The indicators provide the basis for a
- 35 sustainability view at a statewide scale. To be meaningful, some indicators may
- 36 need to report trends at smaller scales, such as counties, timbersheds,
- 37 watersheds, forest cover types or ecoregions. This state-level effort will
- 38 complement smaller-scale assessments such as county, national forest or
- 39 community levels, as well as regional and national assessments.
- 40 • Indicators are intended to complement - not replace or diminish - other important
- 41 performance measures such as the Oregon Progress Board Benchmarks and
- 42 Department of Forestry performance measures. Within this broader hierarchy of
- 43 performance measurement, the indicators should be viewed as the "vital signs"
- 44 Oregon uses to track the environmental, economic and social benefits and

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values of Oregon's forests, as well as our progress on the journey towards sustainability.

- Future users of data produced by the indicators should understand that factors outside the direct control of Oregonians might significantly affect indicator trends. External factors may include: global economic cycles and forest products market forces; climate change; population growth, and invasive species.
- The dynamic, disturbance- driven nature of Oregon forest ecosystems will also affect indicator trends potentially in both positive and negative ways. Therefore, indicators should be viewed within the context of dynamic forest ecosystems, rather than from a static ecosystem perspective.

1 **Appendix 5. A comparison of the 2011 *Forestry Program for Oregon* goals with**
2 **nationally and internationally recognized criteria for the conservation and**
3 **sustainable management of temperate and boreal forests.**
4

5 In 1992, at the United Nations Conference on the Environment and Development held in
6 Rio de Janeiro, the United States committed itself to forest sustainability. In 1994, the
7 United States participated in the Working Group on Criteria and Indicators for the
8 Conservation and Sustainable Management of Temperate and Boreal Forests (known
9 as the Montreal Process group). The working group was charged with developing
10 internationally recognized criteria and indicators for the conservation and sustainable
11 management of temperate and boreal forests at the national level. The United States
12 was a signatory, along with 11 other nations, to the *Montreal Process Santiago*
13 *Declaration* in 1995. This group of countries represents 83 percent of the world's
14 temperate and boreal forests, 49 percent of all the world's forests, 40 percent of the
15 world's trade in wood and wood products, and 33 percent of the world's population.⁵
16

17 A "criterion" is defined as a category or process by which sustainable management may
18 be assessed. An "indicator" is defined as a measure (or measurement) of an aspect of a
19 criterion.
20

21 The seven criteria are:
22

- 23 1. Conservation of biological diversity
- 24 2. Maintenance of productive capacity of forest ecosystems
- 25 3. Maintenance of forest ecosystem health and vitality
- 26 4. Conservation and maintenance of soil and water resources
- 27 5. Maintenance of forest's contribution to global carbon cycles
- 28 6. Maintenance and enhancement of long-term multiple social and economic benefits to
29 meet the needs of societies
- 30 7. Legal, institutional, and economic framework for forest conservation and sustainable
31 management
- 32

33 The criteria and indicators are not legally binding on any of the participating countries
34 and are intended to serve only as guidelines. The list of indicators has evolved over
35 time. There are currently 64 indicators arrayed beneath the seven criteria. The twelve
36 Montreal Process countries have produced national reports on sustainable forestry
37 using the criteria and indicators in 2003 and 2010.⁶
38

39 Within the United States, a national Roundtable of Sustainable Forests has been in
40 place for more than ten years. The national Roundtable is an open and inclusive
41 process committed to the goal of sustainable forest management on public and private
42 lands in the United States.⁷ Roundtable participants include public and private

⁵ <http://www.rinya.maff.go.jp/mpci/>

⁶ The 2010 United State National Report on Sustainable Forests can be accessed at:

<http://www.fs.fed.us/research/sustain/>

⁷ <http://www.sustainableforests.net/>

1 organizations and individuals committed to better decision-making through shared
 2 learning and increased understanding. The National Association of State Foresters has
 3 produced an online publication titled *Principles and Guidelines for a Well-managed*
 4 *Forest*. These principles and guidelines are also built on the Montreal Process criteria.⁸
 5 Twenty states in the northeastern United States are cooperating in collecting and
 6 reporting forest resource data using 18 sustainable forestry indicators.⁹
 7
 8 In 2000, Oregon became the first state in the nation to publish a "first approximation
 9 report" to assess the status and trends of the state's forest resources as measured
 10 against the Montreal Process criteria and indicators. The states of Oregon, Wisconsin,
 11 and Maryland are regularly cited as leaders in bringing the international sustainable
 12 forest management framework down to state-level technical and policy applications.
 13
 14 The seven goals listed in the 2011 *Forestry Program for Oregon* are directly related to
 15 the Montreal Process criteria (see below).
 16

2011 <i>Forestry Program for Oregon</i> Goals	Comparable Montreal Process Criteria
GOAL A – Promote a sound legal system, effective and adequately funded government, leading-edge research, and sound environmental, economic, and social policies.	Criterion 7-- Legal and institutional framework for forest conservation and sustainable management.
GOAL B – Ensure that Oregon's forests make a significant contribution towards meeting the nation's wood product needs and provide diverse social and economic outputs and benefits valued by the public in a fair, balanced, efficient, and sustainable manner.	Criterion 6-- Maintenance and enhancement of long-term multiple socio-economic benefits to meet the needs of societies.
GOAL C – Protect, maintain, and enhance the productive capacity of Oregon's forests to improve the economic well-being of Oregon's communities.	Criterion 2-- Maintenance of productive capacity of forest ecosystems.
GOAL D – Protect, maintain, and enhance the physical and biological quality of the soil and water resources of Oregon's forests.	Criterion 4-- Conservation and maintenance of soil and water resources.
GOAL E – Contribute to the conservation of diverse native plant and animal populations and their habitats in Oregon's forests.	Criterion 1-- Conservation of biological diversity.
GOAL F – Protect, maintain, and enhance the health and resiliency of Oregon's dynamic forest ecosystems, watersheds, and airsheds.	Criterion 3-- Maintenance of forest ecosystem health and vitality.
GOAL G – Enhance carbon storage and reduce carbon emissions in Oregon's forests and forest products.	Criterion 5-- Maintenance of forest's contribution to global carbon cycles.

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⁸ <http://www.stateforesters.org/files/2003Principlesand%20Guides.pdf>
⁹ <http://na.fs.fed.us/sustainability/base/base.shtm>

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For more information on the Oregon Board of Forestry and its strategic planning, visit

www.oregonforestry.gov



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