



Associated Oregon Loggers, Inc. • P.O. Box 12339, Salem, OR 97309
503/364-1330 • fax 503/364-0836 • email: rstorm@oregonloggers.org
"Representing the logging industry since 1969"

Methods for Riparian Rule Analysis

Comments by Rex Storm, Certified Forester
Forest Policy Manager, Associated Oregon Loggers, Inc.
before the Oregon Board of Forestry – April 22, 2015

Chair Imeson and Board members, my name is Rex Storm, Forest Policy Manager for Associated Oregon Loggers (AOL). I make these comments on behalf of the 1,000+ member companies of AOL, representing logging, transportation, construction, and allied forest management businesses working across Oregon. AOL member companies not only manage private and public forests on a contract basis, many also own and operate forestlands. Your consideration of changed Oregon Forest Practices riparian rules is of critical concern to our work.

AOL recommends that your methods consider small, simple, incremental rule changes, to address the relatively small variance concerning Protecting Cold Water criterion (PCW). As an “operator” stakeholder among the regulated community, AOL urges Board consideration of our professional recommendations concerning your evaluation methods for the riparian rulemaking.

We believe that several “maximum extent practicable” factors offer the Department and Board sufficient discretion to craft a number of small riparian rule changes that would be very responsive to settle the Board’s previous PCW degradation finding, responding to the landowner/ operator regulated community, as well as enriching a sustainable forest riparian resource. Existing RMA widths have achieved broad acceptance among the regulated community—such that increasing these customary widths (for the relatively small PCW variance) would likely be poorly received.

This rulemaking presents a paradox of factors that disagree—yet Board members have a clear path toward resolution. The Board certainly has legal and professional discretion to apply the MEP factor to resolve the existing paradox between the myopic expectations of a singular forest water quality criterion, versus: contradicting fish use, plus harm to voluntary contributions, plus clashing economic impacts, and diverging rulemaking tests. Application of *the maximum extent practicable (MEP)* logically points toward small rule changes as an optimal rulemaking solution.

In the pages to follow, we aim to offer several suggestions regarding important factors that may inform your MEP consideration addressing the small PCW variance that RipStream-identified. We offer the following comments borne from our years of professional operational experience in managing Oregon forest riparian areas:

- A. **Questions to help evaluate rulemaking.** This comment paper describes six critical questions concerning your assessment of RMA rulemaking methods presented by the Department. These questions may serve as evaluation criteria to help address the spirit and intent of Oregon’s Forest Practices Act administration to seek continuous improvement in Oregon’s forest streams, subject to the various statutory OFPA rulemaking tests.

B. Foster the existing “cooperative stewardship.” I call your attention to our first suggested question to help evaluate the rulemaking: *“What combination of regulatory and non-regulatory measures would best encourage the willing cooperation and fiscal investment of forest landowners & operators to both the following?”*

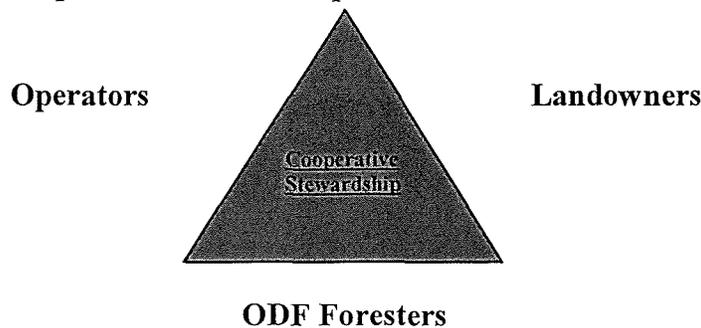
- a) Willing compliance with the RMA Rules similar to the current; and
- b) Voluntary contribution of abundant additional stewardship enhancements to private land forest streams.

The sum total of both these investments in forest streams are valuable assets that have together led to improving Oregon forest streams, more than anywhere in America. It behooves us—agencies, landowners, and operators alike—to mutually set RMA policy that would foster continuous improvement of voluntary private investments in forest streams.

Operators currently cooperate in a continuing education program to improve OFPA compliance, through a voluntary formal agreement between ODF & AOL—this education program fosters willing compliance and improved riparian benefits during operations (refer to attached, *‘2014 Annual Report: Memorandum of Agreement for Operator Education’*);

High rule compliance is fostered by the willing voluntary performance of informed landowners and operators to conduct sound forestry. Operations commonly occur with minimal or no oversight by ODF stewardship foresters. Yet, the ODF stewardship foresters indeed offer important value-added to operations through their accepted assistance roles in education, engineering/design, and enforcement. The AOL-ODF operator education program serves to support these roles.

Strengthening rule awareness and compliance yields positive outcomes that are shared amongst our three primary forest operating partners: 1. Operators; 2. Landowners; and 3. ODF Foresters. We often refer to this triad of operations partners who willingly do good forestry, as **“Cooperative Stewardship.”**



C. AOL recommended rule upgrades. Then, we recommend changes to Oregon’s Forest Practices Rules and administration, which would continue to foster the necessary long-term stream condition improvements sought to address the small PCW variance. We urge you to thoughtfully continue Oregon’s current effective and practicable riparian rules, by supplementing them with those enhancements that would continue to encourage a robust contribution of future voluntary improvements and willing compliance during streamside operations—by both operators and landowners.

Questions to help Evaluate RMA Rulemaking for PCW

We urge your consideration of six critical questions concerning the RMA rulemaking package of options presented to the Board of Forestry. These questions serve as evaluation criteria to help address the spirit and intent of the Oregon Forest Practices Act BMPs meeting Oregon water quality standards to the “maximum extent practicable” [ORS 527.765], as well as the proposed rulemaking “facts and standards” tests (a) to (f) [ORS 527.714(5)].

Upon considering the following six questions, I have identified several relevant factors/answers identified via our Oregon forest professional operations experience with riparian area management. We are confident that the most favorable outcome of this rulemaking would be to adopt simple and small adjustments that address the small PCW variance identified by RipStream.

1. Encourage More Cooperative Stewardship

What combination of regulatory and non-regulatory measures would best encourage the willing cooperation and fiscal investment of forest landowners & operators to both the following:

- a) Willing compliance with the RMA Rules similar to the current; and*
- b) Voluntary contribution of abundant additional stewardship enhancements to private land forest streams?*

The sum total of both these investments in forest streams are valuable assets that have together led to improving Oregon forest streams, more than anywhere in America. It behooves us—agencies, landowners, and operators alike—to mutually set RMA policy that would foster the continuous improvement of these voluntary private investments in forest streams.

Cooperative Stewardship:

- a) “Cooperative stewardship” is the willing investment of Oregon forest landowners and operators to improve forest resources during their daily operations. The three participating cooperators are landowners, operators, and ODF stewardship foresters.
- b) Because landowners & operators agree that current rules are commensurate with protected & beneficial resources, they voluntarily contribute and participate in robust cooperative stewardship and enhancements to improve riparian conditions;
- c) Under a rulemaking paradigm where wider *overreaching* RMA buffers would be suddenly mandated—such added width would be perceived by landowners as unreasonable—then, private investment in voluntary riparian enhancements would predictably decline;
- d) Consider that existing RMA Rules afford the earned landowner & operator acceptance that fosters their voluntary riparian contributions—riparian benefits that would otherwise be unattainable solely through regulatory means;
- e) Operational experience has shown that landowners and operators willingly contribute further stream enhancements, when it is their choice, and when regulations are not *overreaching*;
- f) Proposed RMA rulemaking must encourage and foster the ongoing positive willing contributions of riparian vegetation in-growth, voluntary landowner RMA contributions, and the continued high OFPA rule compliance by landowners and operators (demonstrated in the 2013 OFPA Compliance Audit);
- g) Operators currently cooperate in a continuing education program to improve OFPA compliance, through a voluntary formal agreement between ODF & AOL—this education program fosters willing compliance and improved riparian benefits during operations (refer to attached, ‘2014 Annual Report: Memorandum of Agreement for Operator Education’);

- h) Rulemaking should intentionally avoid the unintended consequence of a detrimental *overreaching* rule change—where such overreach would harm this existing unique stewardship relationship that for twenty years has proven to leverage the greatest cumulative investment in RMAs through cooperative stewardship voluntary contributions to streams.

2. Assure Improving Trends – for Forest Stream Water Quality & Fish

What thoughtful rule changes would foster continued improvement in forestland stream trends for shade (PCW)— as well as improved fish use, large wood, water quality, and riparian habitat?

Consider the combined existing mechanisms where landowners & operators participate in riparian enhancement contributions, including regulatory, non-regulatory and voluntary accomplishments.

Improving Trends:

- a) Fish and water quality trends are improving, while the regulated community continues to willingly contribute voluntary extra fish and water enhancement investments—which would otherwise be unavailable through any other regulatory means;
- b) Fish beneficial use of forest streams is now benefitting from existing RMA and water-related Rules, as indicated by Oregon’s Watershed Research Cooperative preliminary findings;
- c) Many of today’s managed riparian areas on private lands are the product of a bygone era of the previous regeneration harvest—when streamsides saw no protection and were completely clearcut. Today’s RMA buffer Rules date only to 1994, therefor current riparian in-growth and mature tree structure is currently building in a positive trend. Rulemaking should foster this continued positive trend, rather than stifle current improvements by dictating unwanted or punitive added RMA buffers (as proposed by US EPA and others).

3. Applied Science to fulfill Water Quality Standards and ORS 527.714 Rule Analysis

What blend of science findings can reasonably inform decisions about remedies to the small identified PCW variance, and the base amount of reasonable and practical PCW improvement?

Although much past research on stream temperature has narrowly focused on just the treed riparian buffer width, we suggest a number of alternative science-based findings are pertinent to Oregon’s unique forest riparian scenario. The following science considerations can guide your evaluation.

Science about Water Standards and Rule Analysis:

- a) PCW variance identified with the limited RipStream study were relatively small in scope, consequence, duration, and downstream influence;
- b) Designated fish use of forest streams cannot be isolated from any meaningful riparian protection decision concerning PCW or any other water quality criterion. Remedies to a small PCW variance must regard the biological basis of fish use;
- c) Oregon’s flawed forest water quality standard fails to accommodate naturally dynamic forest stream temperatures. Oregon’s forest water quality standard (originally 4 criterion) is rendered scientifically dysfunctional by the court-ordered elimination of the former natural conditions criterion—which severely diminishes the relevance of the RipStream-measured variance in PCW. Without any baseline of the local natural temperature regime of a specific stream (warmer/ cooler/ variable), the PCW one-size-fits-all criterion becomes an artificial square peg that rulemakers are wrongly attempting to jam into a smaller round hole. Whereas, considering the natural realities of dynamic forest stream temperature regimes, the state’s current PCW forest water standard must be accordingly discounted and materially devalued for its failure to accommodate natural and dynamic temperature regimes;

- d) RipStream study design fails to answer further important needed metrics about stream cooling. When RipStream was initiated, the State of Oregon had not yet defined the PCW threshold as being so unrealistically minute (0.3 degree C); and the threshold was prudently expected to be 1.0 degree C. Had the small PCW outcome been known at the onset of the RipStream study, its design would have markedly shifted to further examine hypotheses surrounding natural cooling via effects from downstream, tributary, and vegetation ingrowth;
- e) The small RipStream PCW warming variance is indeed temporary, isolated, and generally not transferred downstream. RipStream was not designed to test or inform this fact. RipStream-observed cooling did occur within 350 meters downstream of sampled streams. There is strong indication that significant post-harvest stream temperature cooling and rapid RMA shade recovery is known to reach compliant PCW levels within less than a half mile downstream, and a few short years after even the most significant harvesting. Hyporheic flow of subsurface water is known to cause material cooling exchange of a natural stream's ground and surface waters. RipStream also biased stream reach selection by excluding reaches absent of tributary inputs, such natural inputs which are known to cool temperature. And, significant riparian vegetation in-growth is known to occur naturally within 3-5 years following harvest—another factor known to cool temperature rapidly;
- f) The Watershed Research Cooperative preliminary findings (current) should be a leading science testimony, to best inform the stream small PCW variance rulemaking decision. Early WRC findings indicate that current RMA rules sufficiently maintain the designated fish use of Oregon forest streams, regarding the biological basis of fish use;
- g) The small RipStream-measured variance in PCW cannot be accurately inferred through predictive analysis to estimate RMA widths that would reach compliant PCW levels (due to compounding error of tiered assumptions, limited sample design, and other limitations);
- h) While RIPSTREAM indicates a small immediate and short-term temperature variance, the rulemaking would be best informed by science-grounded Oregon forest information that demonstrates current RMA rules and voluntary contributions, including: 2013 Oregon Forest Practices Compliance Audit; OWEB monitoring reports, 1998-2014; Oregon Land Use Change on Non-Federal Land in OR and WA (2013); Forests, Farms, and People: Land Use Change on Non-Federal Land in OR 1973-2009 (2012); Threats to Western Private Forests: A Framework for Conserving and Enhancing the Benefits from Private Working Forests in the Western US (2010); and the Department's comprehensive proposed RMA rule analyses subject to ORS 527.765 and 527.714.

4. Minimize Economic Cost to Landowners and the Department

What RMA shade enhancements would afford the least economic impact to forest landowners, operators, and Department administration of the Oregon Forest Practices Rules, while achieving the base amount of reasonable and practicable PCW improvement?

Rulemaking demands a thorough determination of the least burdensome remedy that is commensurate to resolve the identified small PCW problem. Considering that riparian trees and land acreage are both fiscal and private property assets, any rule that would take a significant amount of either of those two values from the landowner is an economic cost. The use prohibitions upon a landowner's trees and acreage are a real economic impact, which should be minimized by this RMA rulemaking.

Economic Costs:

- a) Opportunity cost of foregone voluntary private riparian contributions no longer made. Landowners & operators respect the economic appropriateness of current OFPA practices to address current fish and water protection needs. There would be a calculated real opportunity cost of foregone voluntary riparian contributions no longer made—in the form of private landowner and operator stream enhancements—if, an *overreaching* rule change were implemented that would harm the existing unique stewardship relationship that for twenty years has proven to leverage the greatest cumulative investment in RMA improvement;
- b) Under a rulemaking paradigm where wider *overreaching* RMA buffers would be suddenly mandated—such added excessive width would be perceived by landowners as unreasonable—then, private investment in voluntary riparian enhancements would predictable decline;
- c) Opportunity cost of land use change from forest to non-forest land uses (agriculture or development). Non-forest land uses fail to provide the riparian or ecological values afforded by forest land use. Landowners respect the economic appropriateness of current OFPA practices to assure that their current investments in forestry will be afforded the certainty of future forestry income. There would be a calculated real opportunity cost of forest land use conversions—in the form of private landowners clearing forestlands or non-forest uses—if, an *overreaching* rule change were implemented that would devalue the forestland and timber asset, such that it devalues the landowner's existing assurance that growing and harvesting of forest trees is the best use for forestlands. If forestlands cannot be profitably managed long-term, then landowners would choose to seek alternate non-forest land uses—land uses which fail to offer the riparian and ecological values sought from forests by Oregonians. This is a unique relationship (assurance for growing and harvesting of forest trees) that for forty years has proven to leverage the greatest cumulative investment in forestland management and investment;
- d) Under a rulemaking paradigm where wider *overreaching* RMA buffers would be suddenly mandated—such added excessive width could reduce the land's productive capacity to the degree that forestry was (or perceived) to be unprofitable by landowners—then, land use change from forest to non-forest land uses (agriculture or development) would predictably increase. This cost/loss of forest riparian areas would need to be calculated as an impact;
- e) Productive forestland acreage in Oregon has economic real property value, subject to Oregon's real property statutes. A new rulemaking that materially precludes forestland use through no-harvest RMA buffers (growing and harvesting of trees), may be subject to potential private property takings compensation. A potentially *overreaching* added RMA rulemaking could consider this economic impact—in the form of compensation and/or damage claim litigation.
- f) Rulemaking necessitates a thorough benefit/cost assessment to landowners, because any rule change should produce the desired effect with a minimum of expense, effort, waste, or unintended consequence;
- g) Conduct a benefit/cost impact assessment for the Department, because any rule change could impact Forest Practices administration expense and efforts;
- h) Conduct a benefit/cost impact assessment for the Forest Practices program rate payers, because any rule change could impact Forest Practices administration expense and efforts;

- i) The proposed rule analysis must complete comprehensive economic impact analysis [ORS 527.714(7)]. A proposed rulemaking must be designed to minimize economic impacts in seven categories: 1) current timber value; 2) bare land value [net present value of timber growth]; 3) land improvements/asset value; 4) unintended consequence impact [negative value] of diminished landowner voluntary contribution/cooperative stewardship within RMAs; 5) impact of extra landowner operational cost for addressing further rule complexities; 6) impact of forest sector market cost/loss resulting from reduced timber supply, reduced infrastructure, reduced employment; and 7) impact of added administration cost for OR Forest Practices Rules (paid by the Department and harvest tax rate payers);
- j) The high economic cost alone of an *overreaching* RMA rule change would be enough to derail such a large proposed change. We oppose any “large” RMA changes, because any such *overreach* would fail the first five evaluation questions—trigger the sixth compensation debacle—and likely reverse the positive trend of fish and water quality improvements now occurring.

5. Rulemaking Meets PCW to the Maximum Extent Practicable (MEP)

What simple and small rulemaking solutions would exercise the Department and Board of Forestry’s considerable policy discretion to design and authorize sufficient—yet practical—RMA measures, practices and policies, thereby accomplishing the small reasonable and practicable PCW improvement?

A thorough Department and Board MEP assessment of these six questions—as well as an assessment of FPA rulemaking tests—should result in a Board RMA rulemaking decision that approves narrowly-focused small/temperate rule adjustments. We are confident that the Board can respect the cumulative strength of the forest community’s continued record of cooperative stewardship, plus high compliance with strong RMA Rules, to continue improving riparian conditions. This strong record cooperative stewardship accomplishment can be augmented through a few new small/temperate rule adjustments, without the Board thrusting unwieldy or *overreaching* new rules onto this prospering relationship among forest cooperators.

Maximum Extent Practicable:

- a) To the maximum extent practicable, the scale of the solution should fit the problem’s scale. Existing RMA widths have achieved broad acceptance among the regulated community—such that increasing these customary widths (for the relatively small PCW variance) would likely be poorly received. So-called *overreaching* new rules would be detrimental, as they would be construed as too wide, generic regulations, excessive bureaucratic mandates, costly no-harvest RMA buffers—such as Small Type F-- no-harvest RMA of 50’ or wider; and Medium Type F-- no-harvest RMA of 70’ or wider.
- b) This rulemaking presents paradoxical factors that disagree—yet Board members have a clear path toward resolution. The Board certainly has legal and ethical discretion to apply the MEP factor to resolve the existing paradox between the myopic expectation of a singular forest water quality criterion versus contradicting fish use, harm to voluntary contributions, clashing economic impacts, and diverging rulemaking tests. Application of the MEP logically points to a number of small rule changes being the optimal rulemaking resolution—which AOL recommends later in this letter.

RMA Rulemaking Paradox

<u>Degradation</u>	V	<u>Rule Conflicts</u>
Oregon's forest	E	i) Designated fish use improvement;
water quality standard,	R	ii) Continued voluntary private RMA contribution;
singular PCW criterion	S	iii) Economic cost to private landowners;
<i>(absent a natural conditions criterion)</i>	U	iv) FPA rulemaking tests; and
Small PCW variance	S	v) Unintended consequences/property takings.

- c) Optimal resolution of this RMA rulemaking paradox indicates small incremental rule changes (refer to AOL recommendations, to follow).

6. Oppose Wide No-Harvest RMA Buffers; Wider Would Necessitate Compensation

If the Board's rulemaking chose to approve excessively-wide, regulatory, no-harvest RMA buffers—that are determined by the regulated community to be overreaching—what private property takings compensation paid to landowners would be supported by the Board and Department in the Oregon Legislature?

Current Oregon forestland regulations mandate riparian protections—and contribute a positive record of far more private riparian enhancements—as compared to other land use categories (agriculture, suburban, urban, public infrastructure). Insofar as private forestland streams already contribute their share (or more) of riparian protection across all land uses, the rulemaking notion of overreaching forest RMA protection mandates—that surpassed the MEP threshold—would reasonably be considered private property takings. AOL is opposed to any overreaching forest RMA protection proposal that would mandate wide no-harvest RMA buffers—widths exceeding those recommended in this letter.

Oppose Overreaching RMA Rules; Wider Buffers Due Compensation:

- a) Productive forestland acreage in Oregon has economic real property value, subject to Oregon's real property statutes. A new rulemaking that materially precludes forestland use through no-harvest RMA buffers, may be subject to potential private property takings compensation. A potentially overreaching added RMA rulemaking could consider this economic impact—in the form of compensation and/or damage claim litigation.
- b) An RMA conservation tax credit may be the only viable mitigation to fairly compensate forest landowners for newly-mandated as no-harvest RMA buffer overreach, which exceeds MEP current RMA widths. Such a tax credit would necessarily calculate credit for the full-value of the additional RMA acreage, as follows: bare land value; plus existing timber volume; plus net present value of growth for next rotation; plus the proportional per acre value of tract improvements. The tax credit could be annualized, or a one-time credit.
- c) State-backed loans and insurance to conserve or purchase government qualified forestland *would not* be an effective compensation means for newly-mandated RMA buffer width overreach. The notion of state-funded loan programs for riparian enhancements and land acquisition are not helpful, as an offset to overreaching riparian protections. Such a scheme would be detrimental because it would add more unwanted: government bureaucracy, political mischief and inefficiency; private forest market interference; landowner administrative burdens; divisions among landowners; and tax burden on existing forestlands and Oregon citizens (proposed SB. 204 is an example).



2014 ANNUAL REPORT

Memorandum of Agreement for Operator Education



STEWARDSHIP IN FORESTRY

Associated OR Loggers, Inc. and OR Dept. of Forestry
Oregon Professional Logger Program (OPL)
December 31, 2014

Since 2000, Associated Oregon Loggers, Inc. (AOL) and Oregon Dept. of Forestry (ODF) have cooperated under a formal Agreement to provide effective operator education that aims to increase understanding and ensure high compliance with forestry regulations—including: forest practices rules; industrial fire prevention rules; and burning regulations. This Memorandum of Agreement for Operator Education, between AOL and ODF (MOA), also delivers required continuing education credit for qualified logging professional companies participating in AOL's Oregon Professional Logger program (OPL).

AOL and ODF mutually strive to keep education programs effective at informing operators about current forestry regulations, guidance and compliance issues, areas for improvement, as well as encouraging communication between contractors and local ODF foresters/fire officers. ODF foresters observe better forest rule compliance by those professional operators who understand the rules involved in their day-to-day forest management work.

This continuing education is a required element of the Oregon Professional Logger (OPL)—a professional certification program administered by AOL. OPL-FP education instruction involves ODF-AOL forestry and/or fire professionals (includes fire patrol staff). Although referred to as "Forest Practices credit," OPL education programs that qualify for OPL-FP credit include contact education about awareness and compliance with three important Oregon regulations:

- A. Forest practices rules
- B. Industrial fire prevention rules, and/or
- C. Burning and use of fire rules

OPL-FP TRAINING PROGRAM ATTENDANCE HISTORY – 15 YEAR

Forest Practices Education for Operators -- Co-Sponsored by ODF & AOL – FP Initiated 2000

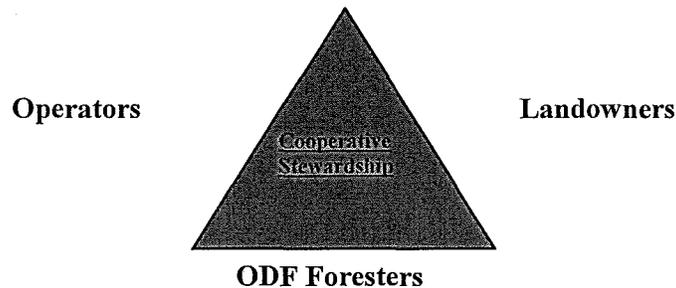
Year	# Other FP Programs	Other FP Attendance	# BFPW	BFPW Attendance	Total # Programs	Total Attendance
2000	15	906	11	351	26	1,257
2001	21	1,062	12	570	33	1,632
2002	32	1,603	9	405	41	2,008
2003	30	2,031	4	175	34	2,206
2004	23	1,661	5	190	28	1,851
2005	26	1,599	5	210	31	1,809
2006	28	1,569	3	79	31	1,648
2007	33	1,823	3	96	36	1,919
2008	26	1,715	3	83	29	1,798
2009	42	1,863	2	55	45	1,918
2010	26	1,403	2	83	28	1,486
2011	25	1,623	3	112	28	1,735
2012	39	2,215	3	105	42	2,320
2013	49	2,808	3	121	52	2,929
2014	42	2,857	3	124	45	2,981
15-YR TOTAL	457	26,738	71	2,759	500	29,497
2015*projected	42*	2,900*	4*	140*	46*	3,040*

* Projected attendance figures

BENEFITS of COOPERATIVE EDUCATION to PARTNERS

This 15-year-long cooperative education program affords many benefits toward strengthening forest rule compliance and nurturing the important relationships among the people involved throughout these in-forest operations. Good rule compliance results largely due to the willing voluntary performance of informed landowners and operators to conduct sound forestry. Operations commonly occur with minimal or no oversight by ODF stewardship foresters. Yet, the ODF stewardship foresters indeed offer important value-added to operations through their accepted assistance roles in education, engineering/design, and enforcement. The operator education MOA serves to support these roles.

Strengthening rule awareness and compliance yields positive outcomes that are shared amongst our three primary forest operating partners: 1. Operators; 2. Landowners; and 3. ODF Foresters. We often refer to this triad of operations partners who willingly do good forestry, as “Cooperative Stewardship.”



There are no less than nine benefits observed over the 15-year history of this operator cooperative education program. Future success of this MOA partnership between AOL and ODF will rely upon our mutual efforts to continue delivering operator education that strengthens forest rule compliance and fosters good relationships—leveraging the following benefits:

<u>Partnership Benefit</u>	<u>How Benefit Adds Value to Compliance</u>
Customary Delivery Mechanism	Forest practices training is customary part of every OPL operator company’s routine annual business
Communication Among Parties	Impress upon operators importance to communicate early and often with landowner, steward forester, purchaser, subcontractors
Stewardship Forester Role – 3 E	Increased operator appreciation of Stew Forester’s value toward assisting operator succeed (through <u>E</u> ducation/ <u>E</u> ngineer/ <u>E</u> nforce)
Planning First	Encourage advance planning on every job to accommodate the unique challenges, designs, schedules, compliance, and costs
Continuous Improvement	Recurring forest practices training is a vehicle reinforce ongoing improvement in compliance: e.g. reminders, new ideas, sharing
New Rules	Established venue to institute and inform about rule changes
Alerts/ Warnings!	Avenue to reach operators about vital new-found compliance issues or problems to avoid; key corrections needed
Audit Reports	Inform operators about lessons identified in forest practices audit findings – work on those low and high compliance topics
Recognition & Climate-building	Occasions to recognize and promote operations for good results; share superior performance with policymakers & opinion-leaders

MOA -- COOPERATIVE EDUCATION DELIVERY MECHANISMS

AOL and ODF currently co-sponsor (or endorse) eleven types of programs that deliver continuing education and awareness to forest operators surrounding Oregon forest regulations. Operators have eleven types of educational programs annually to complete "Forest Practices" credit:

<u>FP Program Type</u>	<u>Frequency/Year</u>
1. Basic Forest Practices Workshop (BFPW)	3-4
2. Forest Practices Seminars (AOL-ODF co-sponsor)	3-12
3. Forest Practices Seminars (landowner/mill sponsor with ODF help)	12-20
4. ODF Operator Meetings – Spring pre-season fire	20-32
5. AOL Annual Convention, Statewide FP Seminar	1
6. OR Logging Conference, Oregon FP Seminar	1
7. OSU-forestry extension or OFRI workshops (with ODF participation)	0-2
8. Consultation with ODF forester/fire officer	numerous
9. Self-Test (AOL-produced forestry topic; independent study assignment for OPL)	1-2
10. SFT-Employee Training module (AOL-produced DVD for OPL v.2007)	each OPL company
11. ODF Operator of Year Awards program (ODF sponsors)	3-4
	44-78 events/yr

2015 PLANNED -- MOA EDUCATION DELIVERY

Statewide FP Seminars

- ✓ 2 x Completed: 1/15 AOL Statewide FP Seminar; 2/20 OLC Oregon FP Seminar

Basic Forest Practices Workshops

- ✓ 4 x Dates confirmed: 2/18- Springfield [ok]; 4/21-Grants Pass; 6/10-Salem; 11/13-Eugene
- ✓ Update & improve PowerPoint slides and instructional materials, as time allows
- ✓ Add short chapter, if possible: **FP focus on '13 FP Compliance Audit lessons**
- ✓ AOL Bernie available to assist, as needed

ODF Spring Operator Meetings (Fire topics primarily + some FP topics)

- ✓ 20 x ODF Paul C and Tom F promote FP & Fire topics for inclusion, as appropriate
- ✓ AOL co-sponsor and speak at 4/15 K.Falls; and 4/30-LaGrande
- ✓ **FP focus on '13 FP Compliance Audit lessons**

Fall FP Seminars

- ✓ 11/13-Eugene date confirmed [evening program]
- ✓ 3 x additional November dates to be determined; same repeated at all locations
- ✓ Develop content/topics; **focus on '13 FP Compliance Audit lessons**
- ✓ AOL reserve locations
- ✓ AOL Bernie available to assist, as needed

OPL SFT-Employee Training Module (*Sustainable Forestry Training for Logging Operators*)

- ✓ AOL to produce 3rd version of training DVD – during May-Sept. 2015
- ✓ Upgrade FPA & Fire content; better imagery
- ✓ Add new SFI content
- ✓ Publish 2015-16 Workbook written materials; **include '13 FP Audit lessons**
- ✓ AOL Rex & Bernie produce; seek counsel from ODF Paul & Tom

OPL Self-Tests (independent-study)

- ✓ 2 x AOL to produce written lesson, plus test (1st = **'13 FP Compliance Audit lessons**)

AOL/ODF Partner Education Resources

- ✓ ODF-Paul/FPA: Redouble local Stew Forester involve; **'13 FP Compliance Audit lessons**
- ✓ ODF-Tom/Fire: Develop/hone 2015 prevention and burning messages for operators
- ✓ AOL-Rex & Bernie: Implement and facilitate items listed above; announce & register; funds