STAFF REPORT

Agenda Item No.:	7
Work Plan:	Private Forests Work Plan
Topic:	Forest Practices Act (FPA) Rule Policy Review
Presentation Title:	Updating Private Forests' Monitoring Strategy
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SUMMARY

This agenda item presents the Final Monitoring Strategy of the Private Forests Division to the Board for their approval.

CONTEXT

The Board of Forestry's (Board) 2011 *Forestry Program for Oregon* supports an effective, science-based, and adaptive Oregon Forest Practices Act (FPA) as a cornerstone of forest resource protection on private lands in Oregon (Objective A.2). It also strives to integrate adaptive forest management, monitoring and assessments into learning, planning and decision-making processes (Objective A.3). The Board's guiding principles and philosophies include a commitment to continuous learning, evaluating and appropriately adjusting forest management policies and programs based upon ongoing monitoring, assessment, and research (Value Statement 11).

The overall goal of the Private Forests Division's monitoring efforts is to assess the implementation and effectiveness of rules and measures to achieve resource protection goals on non-federal forestlands. Updating the Monitoring Strategy will guide the Board's adaptive management process and ensure an effective and science-based FPA.

BACKGROUND

The Monitoring Unit of ODF's Private Forests Division conducts monitoring to assess the effectiveness and implementation of rules promulgated under the Forest Practices Act (FPA) to protect natural resources, and other related programs (e.g., Oregon Plan Voluntary Measures). The Monitoring Unit used the previous Monitoring Strategy to create a deliberate approach to adaptive management. The updated Strategy provides a description of the Unit's monitoring approach and articulates a list of prioritized monitoring questions. The Strategy supports the Monitoring Unit's mission because it addresses monitoring questions in a methodical and rational process with opportunity for input and direction by stakeholders and decision-makers. The Monitoring Unit brings results of monitoring efforts to the Board as part of its adaptive management approach to forest practices rules. Monitoring results also help guide training efforts, administration of the FPA, and delivery of other related programs. The Strategy will help fulfill the goals of the Monitoring Unit, which include:

- Provide the Board, legislature, and other stakeholders timely, pertinent, and sound information at multiple temporal and spatial scales regarding the effectiveness, implementation and assumptions associated with forest practices rules and best management practices, and outcomes on the ground;
- Coordinate with other monitoring and research efforts to ensure efficient use of state resources and contribute to enterprise, integrated monitoring at the state level;
- Determine if rules, regulations or other programs are being implemented in accordance with expectations and whether they are effective in meeting resource protection goals;
- Address highest priority FPA monitoring questions for the Private Forests Division;
- Work collaboratively with technical experts and stakeholders to produce high quality, transparent monitoring results; and
- Provide technical advice and support to other natural resource agencies engaged in baseline monitoring efforts (e.g., forest and stream conditions).

The Department developed the current Strategy in 2002 (ODF 2002[1]). Since then, the Unit has addressed many of the plan's priority questions, and the Board has updated their own strategic plan, the 2011 *Forestry Program for Oregon.* During discussion on their water quality topic, the Board has expressed interest in future monitoring projects and priorities. At their January 2015 meeting, the Board directed the Department to use an approved charter work plan to guide the process of updating the Strategy. The Department is updating the Strategy to ensure it reflects current needs and priorities.

ANALYSIS

To update the Strategy, we designed a three-phase process, as follows:

(1) **Monitoring question list development and organization.** This first list of questions was based on three sources of information: Stakeholder input, the 2002 Monitoring Strategy, and ODF internal discussions. Questions were grouped based on their type and theme. Two key monitoring question types were considered in this process: effectiveness[2] and implementation[3].

(2) **Prioritization of questions.** Questions were sent to stakeholders, and we requested that they prioritize only their high-priority questions (as opposed to prioritizing all questions in the list).

(3) **Strategy development.** Based on this information, a draft Strategy with prioritized questions was sent to Stakeholders for their input. Stakeholder input is addressed in the Final Draft Monitoring Strategy (Attachment 1).

[1] Oregon Department of Forestry. 2002. Forest Practices Monitoring Program Strategic Plan. April 2002.

[2] Effectiveness monitoring: the process of evaluating whether voluntary measures and legal obligations (i.e., FPA and other requirements), when implemented as intended, achieve the desired goals for resource protection.

[3] Implementation monitoring: the process of evaluating whether voluntary or regulatory measures were implemented as intended. Compliance monitoring is a subset of implementation monitoring related to regulatory measures.

Question priorities

Top priority implementation questions

- What are compliance rates with rules for riparian areas in forest operations?
- What are the compliance rates with the water protection rules?
- What are compliance rates of riparian buffer requirements designed to prevent or minimize stream sedimentation and/or meet water quality standards and TMDL load allocations in Type F streams?
- What are the compliance rates for rules designed to protect significant and other wetlands?
- What are the compliance rates for rules designed to protect threatened and endangered fish and wildlife species that use resource sites on forestlands (i.e., northern spotted owl nesting sites, bald eagle[4] nesting sites, bald eagle roosting sites, and bald eagle foraging perches)?
- What are the compliance rates with juvenile fish passage requirements and guidelines?
- What are the compliance rates with BMP requirements for roads, skid trails, and high risk sites?
- What fraction of culverts in forest operation areas currently meet FPA standards? For the fraction that does not meet standards, what are the causes (e.g., legacy, recent storms, insufficient FPA compliance)?
- Are pesticide rules being followed?
- How consistently are streams typed using the applicable physical criteria?

Top priority effectiveness questions

- When implemented, how effective are (new) riparian prescriptions (voluntary or regulatory) at protecting water quality, providing large wood recruitment and attaining desired future conditions?
- What fraction of riparian areas in forest operation areas are currently on track to meet FPA riparian "desired future condition" targets? For the fraction that is not on this track, what are the causes (e.g., due to legacy, blow-down, lack of hardwood-to-conifer conversion, insufficient FPA compliance)? Do DFC targets translate into mature forest conditions that meet water quality standards and other goals?
- Are forest practice rules effectively protecting headwater (small Type N) streams such that local and downstream beneficial uses are protected? Key issues include effects on stream temperature, large wood recruitment, stream flow, sediment delivery, mass wasting initiation and debris torrent processes, macroinvertebrates, and how those effects are translated downstream.
- How effective are leave tree requirements (ORS 527.676) at overall maintenance of wildlife, nutrient cycling, moisture retention and other resource benefits of retained wood? Is there a difference in effectiveness of clumped vs. scattered patterns?
- Are forest practices, including roads, under current rules effective in meeting all

[4] Note: On August 9, 2007, the bald eagle was removed from the federal list of threatened and endangered species. The Oregon Fish and Wildlife Commission delisted the bald eagle from the State List of Threatened and Endangered Species in 2012. In July 2016 the Oregon Board of Forestry decided to move bald eagle rules to the sensitive species rules section of the Forest Practices Act and to retain modified protections for bald eagle nest sites but rescind protections for roosting and foraging perches, with rules to become effective sometime in 2017.

applicable water quality criteria established by DEQ, including those established by TMDLs, for water quality parameters affected by forest practices on fish and non-fish bearing water bodies?

- Are culvert replacement projects effective in restoring conditions beneficial to fish? What factors such as upstream habitat length and conditions, channel gradient, culvert design, etc. correlate with effectiveness?

Implementing the Monitoring Strategy

The Final Draft Monitoring Strategy (Attachment 1) clarifies the following elements of implementing the Strategy:

- The purpose and methods for including external partners in monitoring projects;
- Enterprise Monitoring efforts with whom ODF will coordinate;
- The process for addressing monitoring questions and subsequent responses to monitoring studies;
- Staff capacity and maintaining focus on priority projects; and,
- Communicating Monitoring results.

In the "Staff Capacity" section (Section 4.C), ODF monitoring staff have provided an estimate of the unit's total workload capacity. Using a coarse assessment of project size (large, medium, small) and experience with project management over time, we estimate the monitoring unit can accommodate one (1) large, two (2) medium, or three (3) small projects at any given time with current resources (or an equivalent combination of projects).

Over the next 2-3 years, the monitoring unit anticipates being at full workload capacity with the following projects (in addition to regular work, such as ongoing compliance audit support):

Implementation Monitoring

- Compliance Audit expansion: Select one or more high priority questions from 2016 Strategy for protocol and contract in collaboration with Compliance Audit External Review Team.
    - High priority, 2016 Strategy (question(s) TBD)
    - Project size: Medium to large
    - Project planning will begin upon approval of 2016 Strategy, implementation by 2018
- Oregon Plan Voluntary Measures in the Coast Range Implementation and Survey Project: Complete ongoing work
    - Top priority 2002 Strategy, low priority 2016 Strategy
    - Project size: Medium
    - Project already initiated, estimated completion fall 2016

Effectiveness Monitoring

- RipStream Desired Future Condition and Large Wood Recruitment: Work with the Ripstream External Review Team to plan and complete analysis of desired future condition and large wood recruitment using Ripstream data.
    - High priority, 2016 Strategy: What fraction of riparian areas in forest operation areas are currently on track to meet FPA riparian "desired future

condition" targets? For the fraction that is not on this track, what are the causes (e.g., due to legacy, blow-down, lack of hardwood-to-conifer conversion, insufficient FPA compliance)? Do DFC targets translate into mature forest conditions that meet water quality standards and other goals?
  - Project Size: Medium to Large
  - Estimated completion: First quarter 2019

The workload of the monitoring unit will be re-evaluated at least annually as part of the Private Forests Division fiscal year operating plan. New monitoring projects will be initiated, with preference for high priority questions in the 2016 Monitoring Strategy, as monitoring unit workload capacity allows.

Future updates to the Monitoring Strategy

This Strategy, while designed to guide the Unit's work over the next decade, will need to be revisited as new issues and questions arise. Such mid-stream assessment(s) will be tied to the Division's fiscal year operating plans and/or Board workplan. At a minimum, the update will involve a decision as to whether a given monitoring question warrants immediate action of the Monitoring Unit or re-evaluation and placement of the question within the current list of prioritized monitoring questions (prioritized as high, medium, and low). A full update of the Monitoring Strategy is anticipated in approximately a decade.

RECOMMENDATION

The Department recommends the Board approve the Final Draft Monitoring Strategy (Attachments 1 and 2), and direct the Department to begin implementing this Strategy.

NEXT STEPS

Begin or complete the following monitoring projects over the next 2-3 years:

- Regular workload as described in the Division's integrated fiscal year budget and operating plan
- Compliance Audit expansion (audit implementation by 2018)
- Completion of Oregon Plan Voluntary Measures in the Coast Range Implementation and Survey Project (Fall 2016)
- RipStream Desired Future Condition and Large Wood Recruitment Analyses (First quarter 2019)

REFERENCES

Oregon Department of Forestry, 2002. "Forest Practices Monitoring Program Strategic Plan." Salem, Oregon.

ATTACHMENTS

1. Final Draft Monitoring Strategy
2. Appendices for Final Draft Monitoring Strategy (available upon request)