FPA Rule Analysis for Marbled Murrelets

PROJECT UPDATE

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Focus of Today's Presentation

- Summary of work conducted to date
- Overview of draft technical report content
- Expert review process
- Expert review feedback

Project History

Action	Date
Petition submitted to Board	June 2016
Board direction to work on rule analysis	November 2016
Board presentation—review of petition	March 2017
Board presentation—checklist and timeline	April 2017
Completion of draft Technical Report	April 2018
Expert review of Technical Report	November 2018

Division 680 Rules

- Technical report is required for rule analysis

- Required content
  - 1) Identify the resource site (RS)
  - 2) Identify forest practices that conflict with RS
  - 3) Evaluate biological consequences of conflicts
  - 4) Propose protection requirements

Draft Technical Report Content

- Life history
- Population status and trends
- Habitat characteristics
- Information gaps

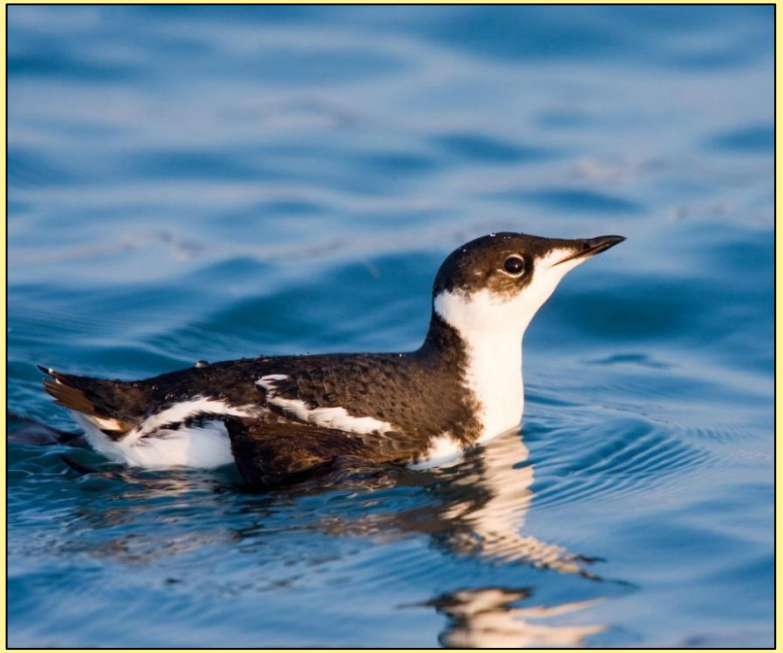
- Required content (as per OAR 629-680-0100)

Marbled Murrelet

Seabird

- Spends most of its life on the ocean
- Flies inland to nest in trees

Plumage

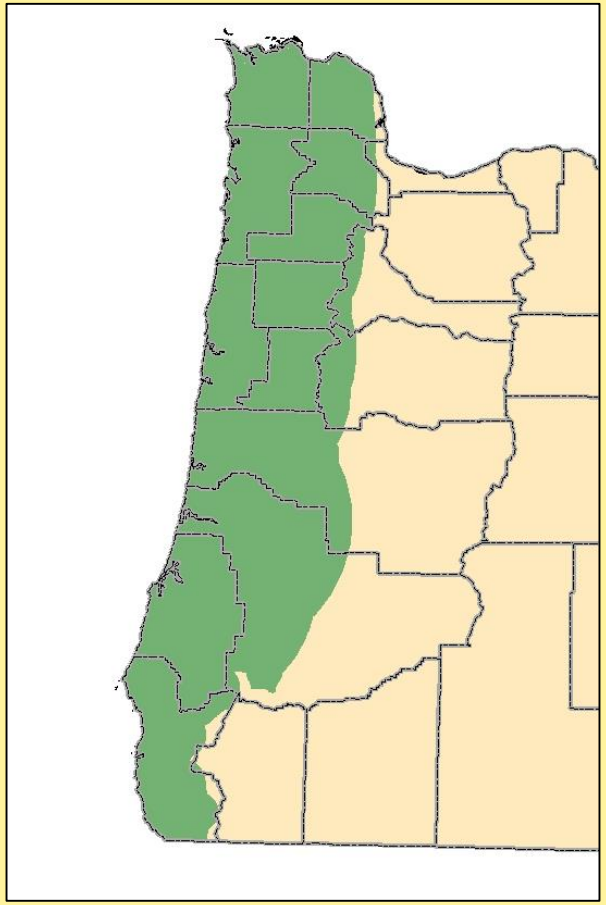


Non-breeding Plumage—black & white

Breeding Plumage—mottled brown

Range in Oregon

- Within 50 miles of ocean
- < 50 miles in SW OR
- Most nests within 25 miles



Green shows inland range of the murrelet

Reproduction

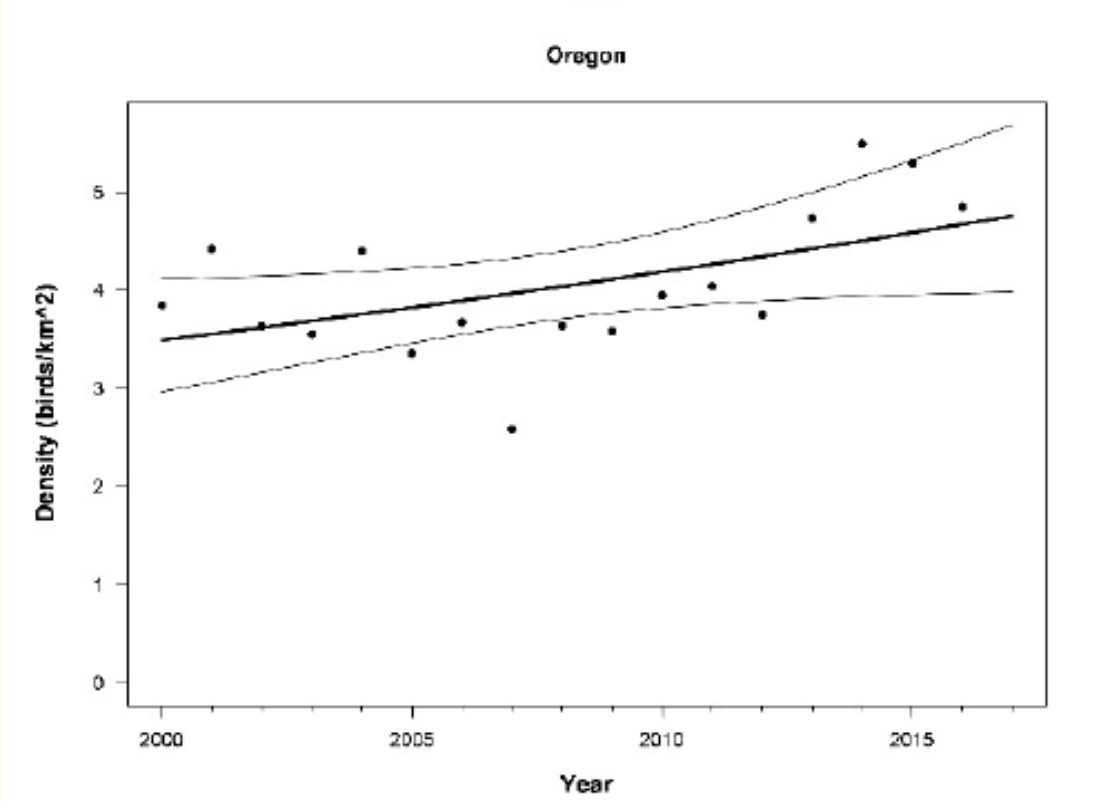
- Lays 1 egg
- Adults take turns incubating egg—24 hour shifts
- Young mostly left unattended after hatching
- Young fly to sea on their own—no parental assistance

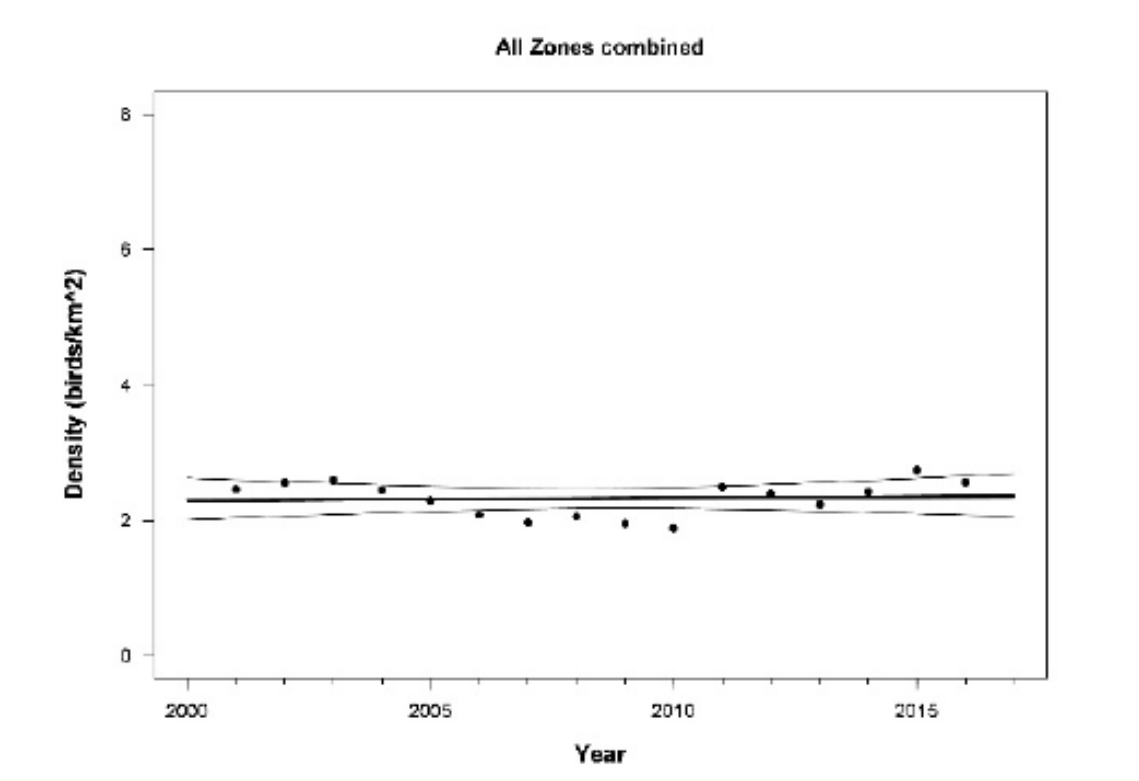
Hatchling murrelet on nest

Diet & Feeding Behavior

- Feed mostly on small forage fish
- Fly inland to feed young
  - 1 fish per feeding
  - 1-8 feedings per day

Oregon Population Trends





- Annual marbled murrelet population numbers (from Pearson et al. 2018)

Listing Status

- Federal Endangered Species Act (ESA)
  - Threatened—1992
- Oregon ESA
  - Threatened -- 1995
    - Advisory survival guidelines enacted 2018

Habitat--General

- Old-Growth or very mature conifer forests
- Younger forests with a old-tree residual component
- Mature hemlock forests with dwarf mistletoe infection

Habitat--Nest

- Platforms important component of habitat
- Horizontal, fat limbs
- Moss or other debris
- Vegetative cover
- Nest high in trees

Habitat--Landscape

- Conflicting information on fragmentation
- Birds may select nest sites near edges or gaps
- Nests near hard edges have higher rates of nest depredation

Photo by Rollin Bannow

Photo by Tim Moore

Challenging to Study

- Adapted to be cryptic & secretive—avoid notice
- Finding nests is very challenging
- Only 75 nests ever found in Oregon
- New study in Oregon is providing new data—now 80+ nests documented.

Marbled Murrelet Surveys

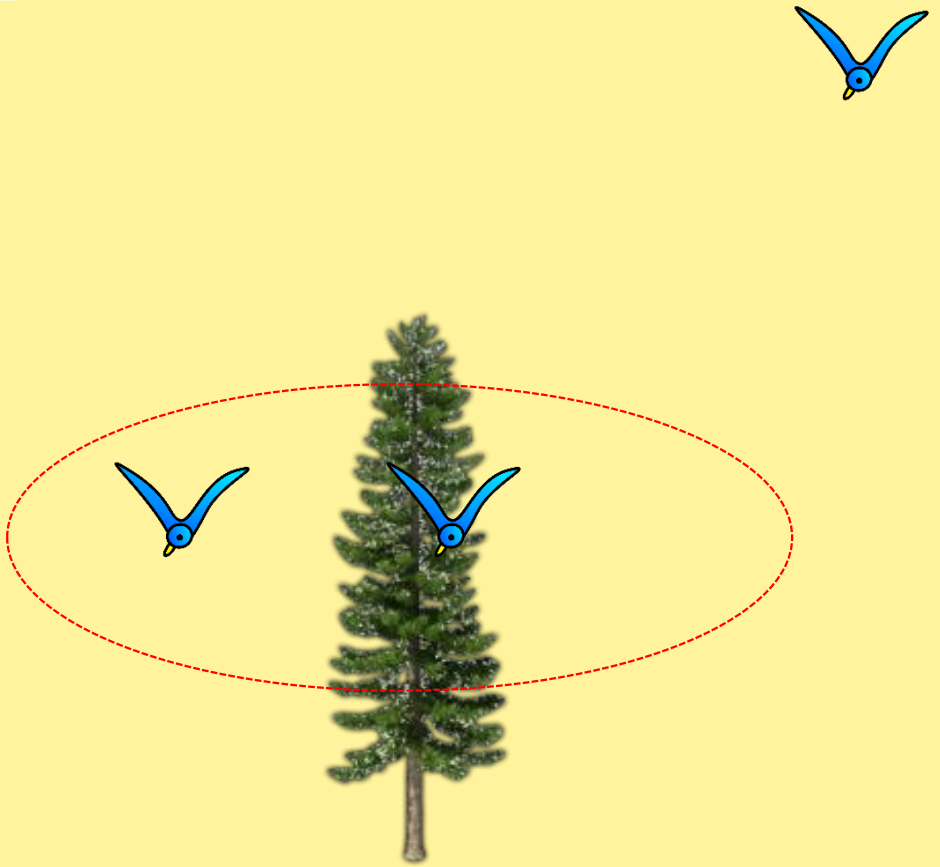
Standard Survey Methods

- Survey methods look for general use—not nests
- Surveys conducted at dawn—when birds most active
- Look/listen for murrelets @ survey stations

Although murrelets can be loud and obvious, they also often fly into a stand silently.

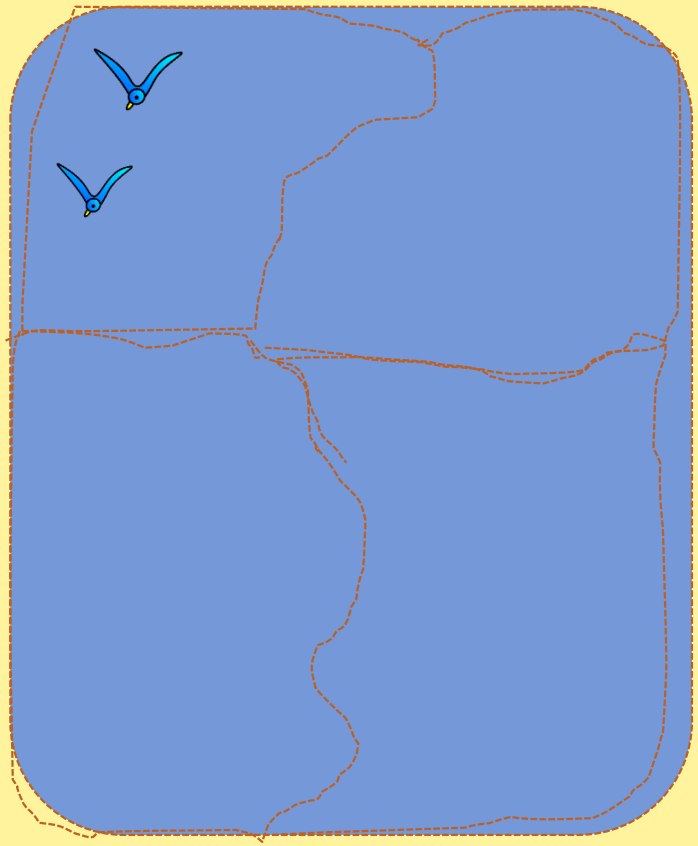
Marbled Murrelet Surveys

- Presence
  - Murrelets in the area
- Occupied
  - "area" likely used for nesting or other life history traits such as courtship



Marbled Murrelet Surveys

- Occupied Sites & Occupied Area
  - Site being surveyed is designated as occupied by murrelets
  - Protocol recommends entire area surveyed be designated as occupied even if birds only detected in one site



Information Gaps

- Survey-related questions
  - What is the probability that birds are actually nesting when occupied detections observed?
  - What is the spatial relationship between location of occupied detections and actual nests?

Information Gaps

Some additional information gaps:

- Long-term temporal relationships in habitat use
- Are individual birds strictly tied to their nesting stand (high site fidelity) or do they exhibit some level of plasticity in their habitat use?

Technical Report—Policy Information

- Required content as per OAR 629-680-0100
- Information to help inform policy decisions

Technical Report Content

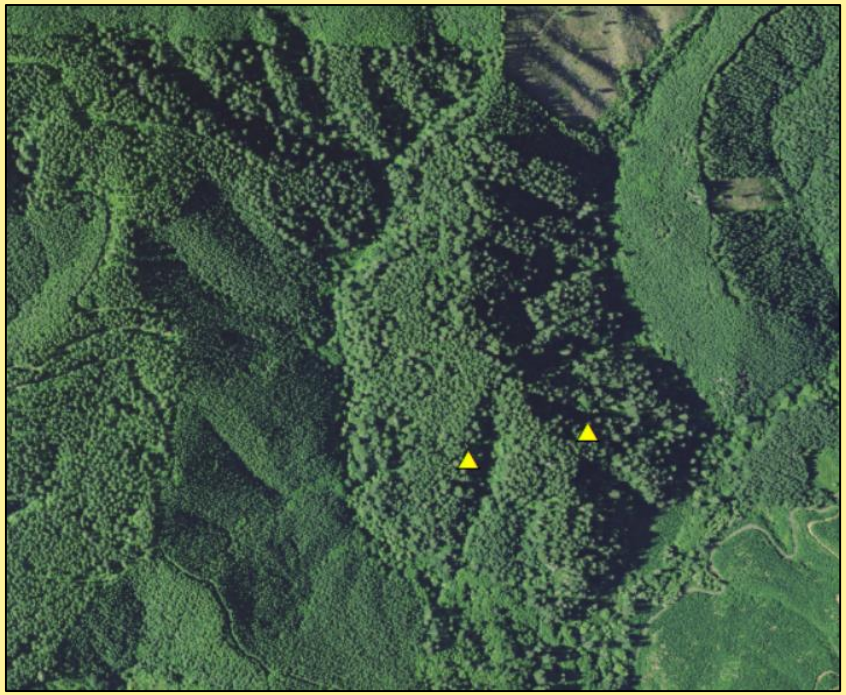
- Technical report required Content
  - 1) Identify the resource site (RS)
  - 2) Identify forest practices that conflict with RS
  - 3) Evaluate biological consequences of conflicts
  - 4) Propose protection requirements

Identification of the Resource Site

- Additional work & Board direction will be needed on this topic
- Range of options included in Technical Report
- Decision on preferred approach will occur at a later date

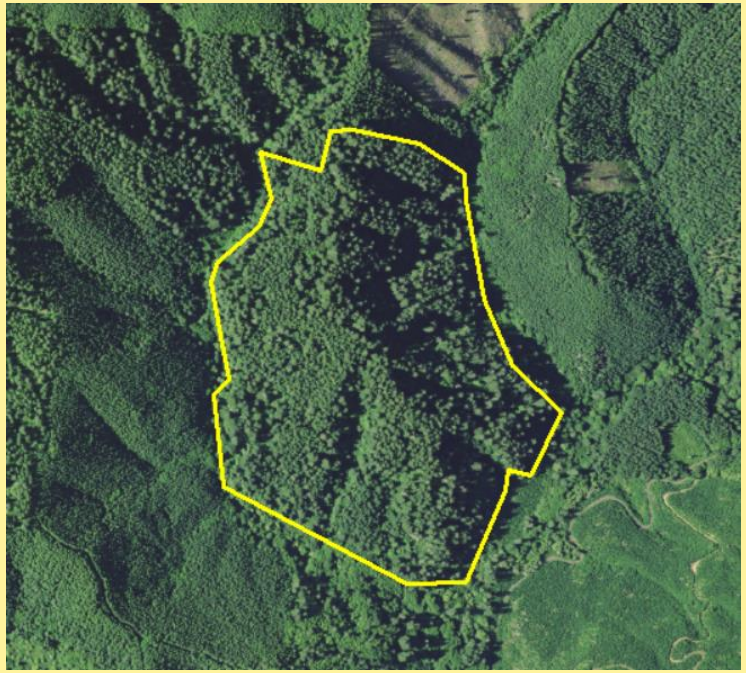
Identification of the Resource Site

- Range of Options
  - 1) Known nest sites only
  - 2) Known nest sites and locations of occupied detections



Identification of the Resource Site

- Range of Options
  - 3) Suitable marbled murrelet habitat
    - Would be a new approach
    - Assume habitat occupied until documented otherwise
    - Significant additional work needed to vet this option



Forest Practices Conflicts

- There is potential for forest practices to cause conflicts
- Potential conflicts
  - Harvesting
  - Equipment use (heavy equipment, chainsaws)
  - Blasting & rock crushing
  - Road construction
  - Tree-climbing

Consequences of Conflicts

- Felling of nest trees
- Increased risk of windthrow
- Increased exposure of nest (to nest predators)
- Disturbance of normal nesting behaviors
  - Flushing of adults or young from nests
  - Disruption of feeding attempts

Protection

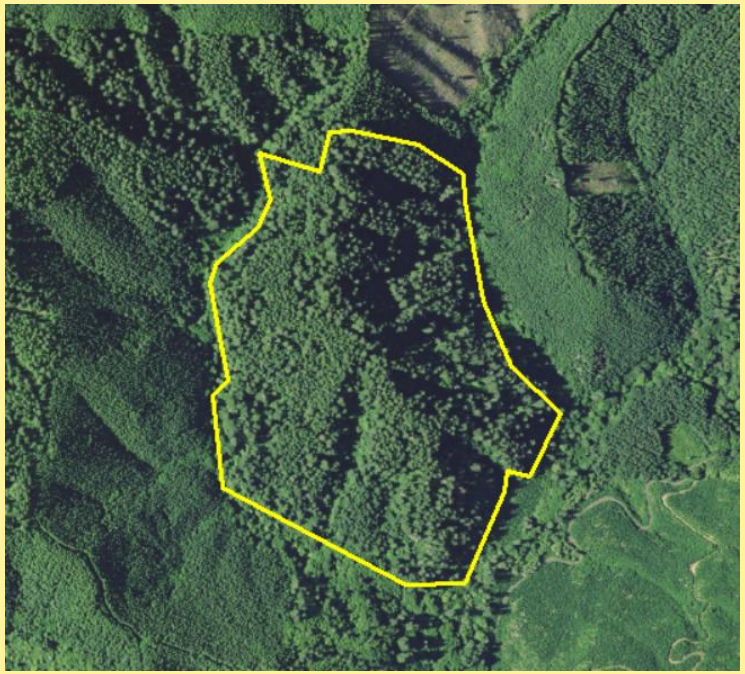
- Additional work needed prior to determining protection strategy for this species
- Definition of the resource site needs to be determined
- Technical Report includes a range of options

Protection—Prescriptive BMPs

- Point-based resource site (e.g., nest or occupied detection)
  - Protect resource site and key components
  - One key component likely to include habitat around resource site
    - Amount & extent would need to be determined
  - Seasonal restrictions within a set distance of resource site during nesting season

Protection—Prescriptive BMPs

- If resource site = suitable habitat
  - Protection might apply to the suitable habitat itself
  - New concept – much additional work anticipated to determine protection strategy

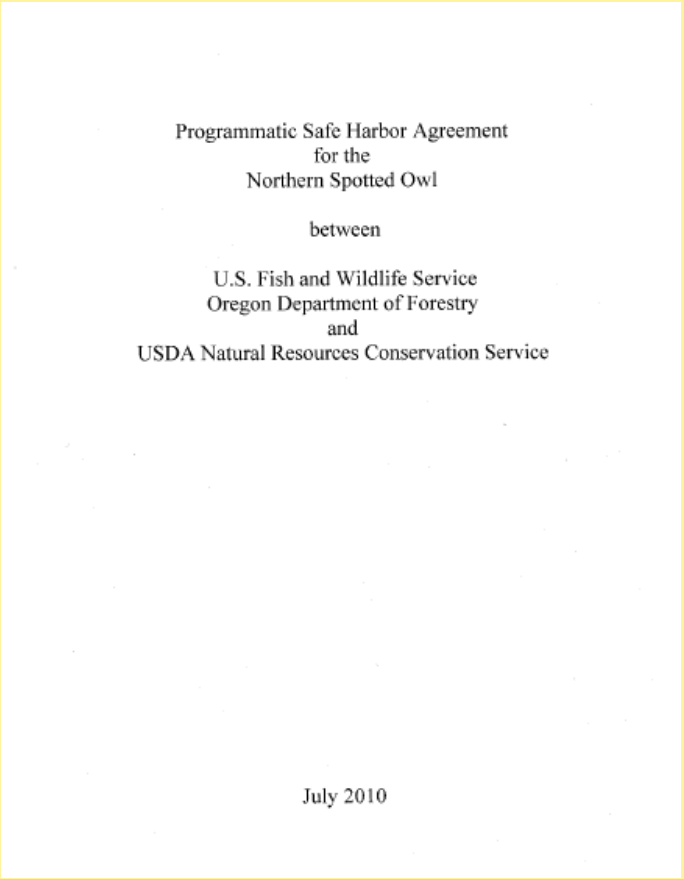


Protection—Prescriptive BMPs

- Regulatory
- Voluntary measures
- Combination of approaches

Protection—Programmatic approaches

- Programmatic Safe Harbor Agreement with the USFWS
  - USFWS program, but ODF would administer
  - Approach to encourage voluntary protection of murrelet habitat
  - Gives landowner's federal regulatory assurances



Programmatic Safe Harbor Agreement
for the
Northern Spotted Owl

between

U.S. Fish and Wildlife Service
Oregon Department of Forestry
and
USDA Natural Resources Conservation Service

July 2010

Protection—Programmatic approaches

- Stewardship Agreements
  - ODF program to encourage voluntary actions to conserve habitat for fish and wildlife
  - Allows for streamlining implementation of the FPA
  - Possibility for state-level regulatory assurances for existing FPA rules

Expert Review

- Desired Outcome:
  - To have a well-rounded, unbiased summary of science to inform decision-making to be conducted by the Board

- Goal—review of science use in Technical Report
  - Identify any missing, pertinent literature
  - Review interpretation of science for accuracy
  - Scientific merit of policy options

Expert Review Process

- Six individuals from a spectrum of backgrounds
  - Research—USFS PNW Research Station/ Academic
  - Research—NCASI
  - Private Landowners
  - Government Landowner (counties)
  - Conservation Interest
  - Tribal

Expert Review Process

- Project Charter Document
  - FPA Background
  - Project Background
  - Describe feedback “in-scope” and “out of scope”
  - Set timeline, etc.

Expert Review Feedback

- "Themes" of the review feedback
  - Missing publications
  - Missing Topics
  - Misinterpretation of the Science/ Added clarity needed
  - Scientific merit of the policy options
  - Conflicting input

Expert Review Feedback

- Missing Publications
  - 33 citations to add to the report
  - Most citations are to supplement existing content
  - Two citations new publications

Expert Review Feedback

- Missing Topics
  - No major missing topics
  - Recommended added information
    - Some out of scope
    - Some related to topics already addressed in TR

Expert Review Feedback

- Misinterpretation of Scientific Information/ Added Clarity
  - A range of feedback in this category
  - Most feedback relates to areas where added clarity may be needed in the report
  - We will look further at topic areas where reviewers indicated science may have been misinterpreted or needs further details

Expert Review Feedback

- Scientific Merit of Policy Options
  - Some feedback in this theme for both resource site and protection
  - Feedback varied widely between reviewers

Expert Review Feedback

- Conflicting Input
  - Areas of conflicting input identified both technical topics and policy options.
  - Points to the fact that opinions on the science of murrelets vary and not everyone agrees on the interpretation of information

Expert Review Feedback

- Conflicting Input
  - "Where data is lacking, a precautionary approach is warranted. Lack of data should not be viewed as license to continue the status quo"
  - "More work is needed prior to adopting definition of a resource site and/ or protection."

Expert Review

- Recommended citations to add
- No major missing topics
- Minor additions to existing subject areas
- Range of comments on scientific merit of options
  - Resource Site
  - Protection

Next Steps

- Finalize Technical Report
- January—OSU presentation
- April—Present final tech report
  - Accept or reject report