Trends in Biodiversity Indicators
Significant Technical Help:

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Northern Spotted Owl
1996
Northern Spotted Owl
Base Policy - 2046
Northern Spotted Owl
Base Policy - 2096
Western Bluebird
1996
Western Bluebird
Base Policy - 2046
Western Bluebird
Base Policy - 2096

Photo by David Rintoul
Olive-Sided Flycatcher
1996
Olive-Sided Flycatcher
Base Policy - 2046
Olive-Sided Flycatcher
Base Policy - 2096
Old-Growth Habitat
1996
Old Growth Habitat
Base Policy - 2046
Old Growth Habitat
Base Policy - 2096
Change in Indicators for Coast Range for 100 Year Simulation under Base Practice

Moderate-High Habitat Quality for Owls, Old Growth, and Canopy Lichen Indices

Percent of Coast Range

Model Year

1996 2021 2056 2071 2096

NSO
OG
Lichen
Low-Moderate Habitat Quality for Western Bluebird and Olive-sided Flycatcher Indices

Change in Percent of Habitat for Coast Range for 100 Year Simulation under Base Practice
Thinning effects at Landscape Scales

Simulate Federal Lands With and without Thinning
Comparison of Federal Thin and No-Thin Alternatives
Entire Coast Range

Area of Stands with Mean Diameter > 75 cm (30 in)

Simulation Age

Hectares

Base
NFT

58,000 ha
143,000 ac
Wildlife Tree Retention Effects

Simulate Increased Retention on Private Lands
Comparison of Alternatives

Northern Spotted Owl

Western Blue Bird

Old Growth Index

Olive-sided Flycatcher

- BSE
- NFT
- RET
Ownership Patterns
Area of Habitat by Ownership and Quality at 100 years for Base Practice
Area of Bluebird Habitat by Ownership and Quality at 100 years for Base Practice
Area of Flycatcher Habitat by Ownership and Quality at 100 years for Base Practice
Area of Habitat by Ownership and Quality at 100 years for Base Practice

Canopy Lichen Potential

Ownership

Area (ha)

high
moderate
low

Fed
PI
PNI+other
State

[Bar chart showing area of habitat by ownership and quality for Canopy Lichen Potential]
Area of Old Growth Habitat by Ownership and Quality at 100 years for Base Practice
Age Class Distribution
Current and After
100 years--Base Practice
Distribution of Old-Growth Index in 1996 for Coast Range
Distribution of Old-Growth Index in 50 years for Base Practice Simulation for Coast Range
Distribution of Old-Growth Index in 100 years for Base Practice Simulation for Coast Range
Landscape Patterns
Vegetation Classes
2096 – Projected Base Policy

Not Simulated
Open Forest
Broadleaf
Mixed Small
Mixed Medium
Mixed Large
Mixed Very Large
Conifer Small
Conifer Medium
Conifer Large
Conifer Very Large
Conifer Very Small
Mixed Very Small
Remnants
Vegetation Classes
2096 – Projected Base Policy

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Remnants
Conclusions

Area of mature and old-growth forest and habitat for associated Species is expected to increase strongly over the next 100 years

Despite 100 years amounts of older forest and structural conditions still probably below historical range of variation

Low amounts of habitat for species requiring open structurally Diverse forests—trends are flat

Species diversity associated with hardwoods is projected to strongly decline
Conclusions

Alternative policies may alter condition of biological diversity but further analysis is needed.

New landscape patterns developing that have particular ecological characteristics.