

20-Year Forest Health Strategic Plan and SB 5546 Implementation Update

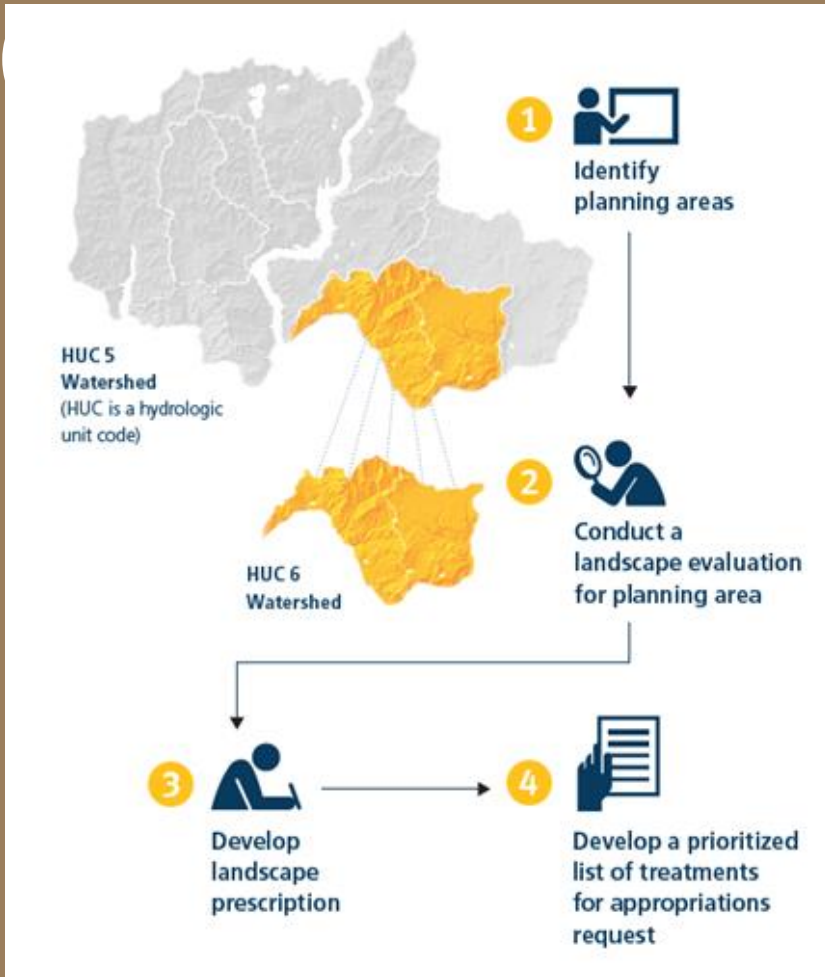


Forest Health Advisory Committee

May 23, 2018



Making Landscape-Scale Restoration a Reality: SB 5546 Implementation



-Assess 200,000 acres of fire prone lands per year for forest health treatment (all lands)

-Develop a prioritized list of treatments for appropriations request.

-Report on forest health treatment accomplishments and outcomes.

These steps will be done in coordination with local forest collaboratives, major landowners and the Forest Health Advisory Committee.



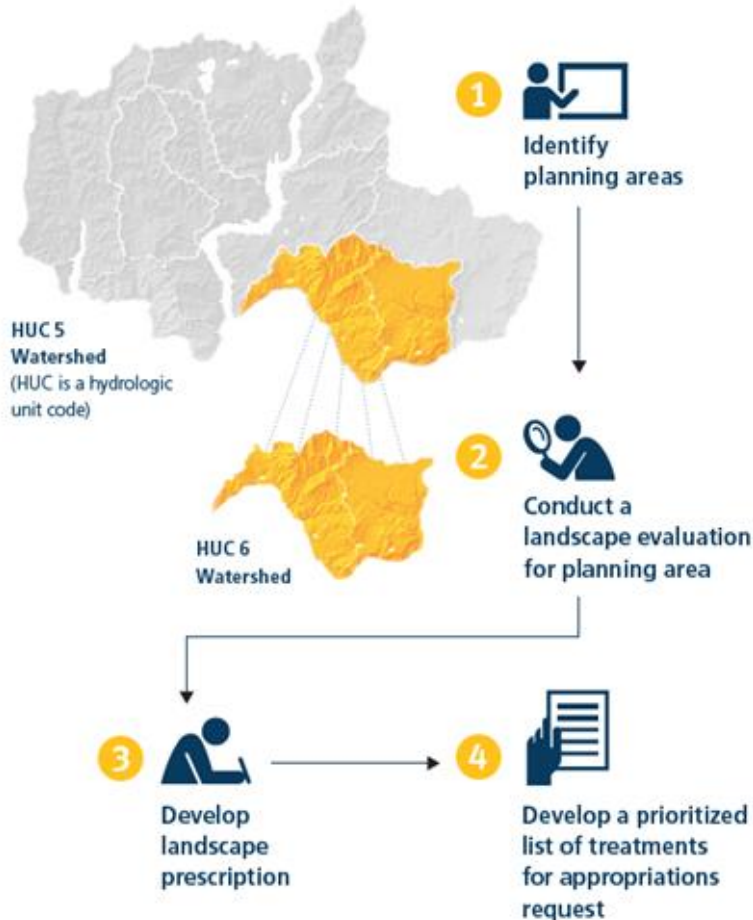
20-Year Forest Health Strategic Plan/SB 5546

Planning Areas

2018 and 2020



Planning Areas



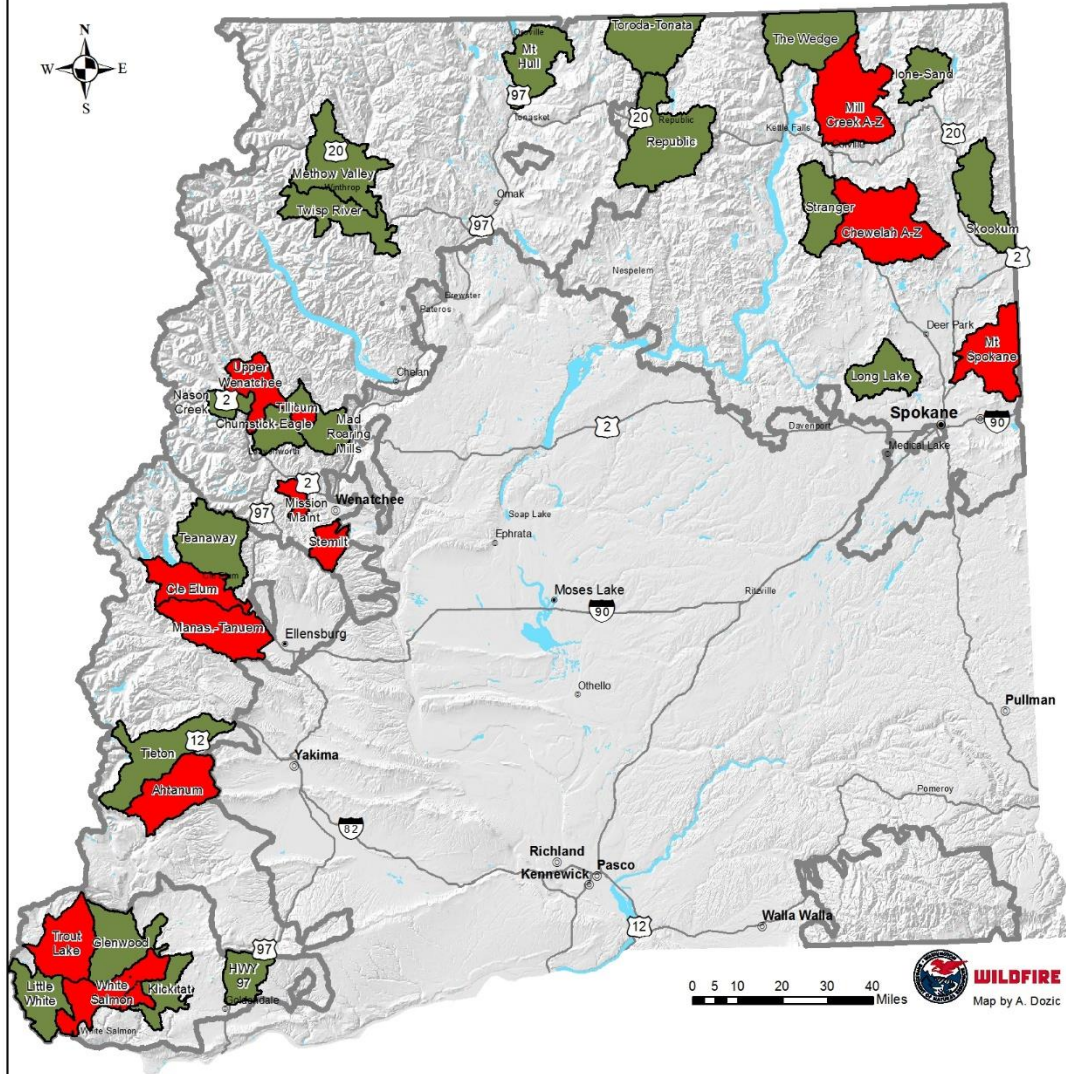
-DNR has selected planning areas to assess forest health treatment needs.

-In January 2018, DNR met with USFS staff, forest collaboratives and other partners to get feedback on local forest health priority watersheds.

-DNR received feedback at February Forest Health Advisory Committee as well more feedback from agencies and stakeholders in February and March to finalize planning areas.



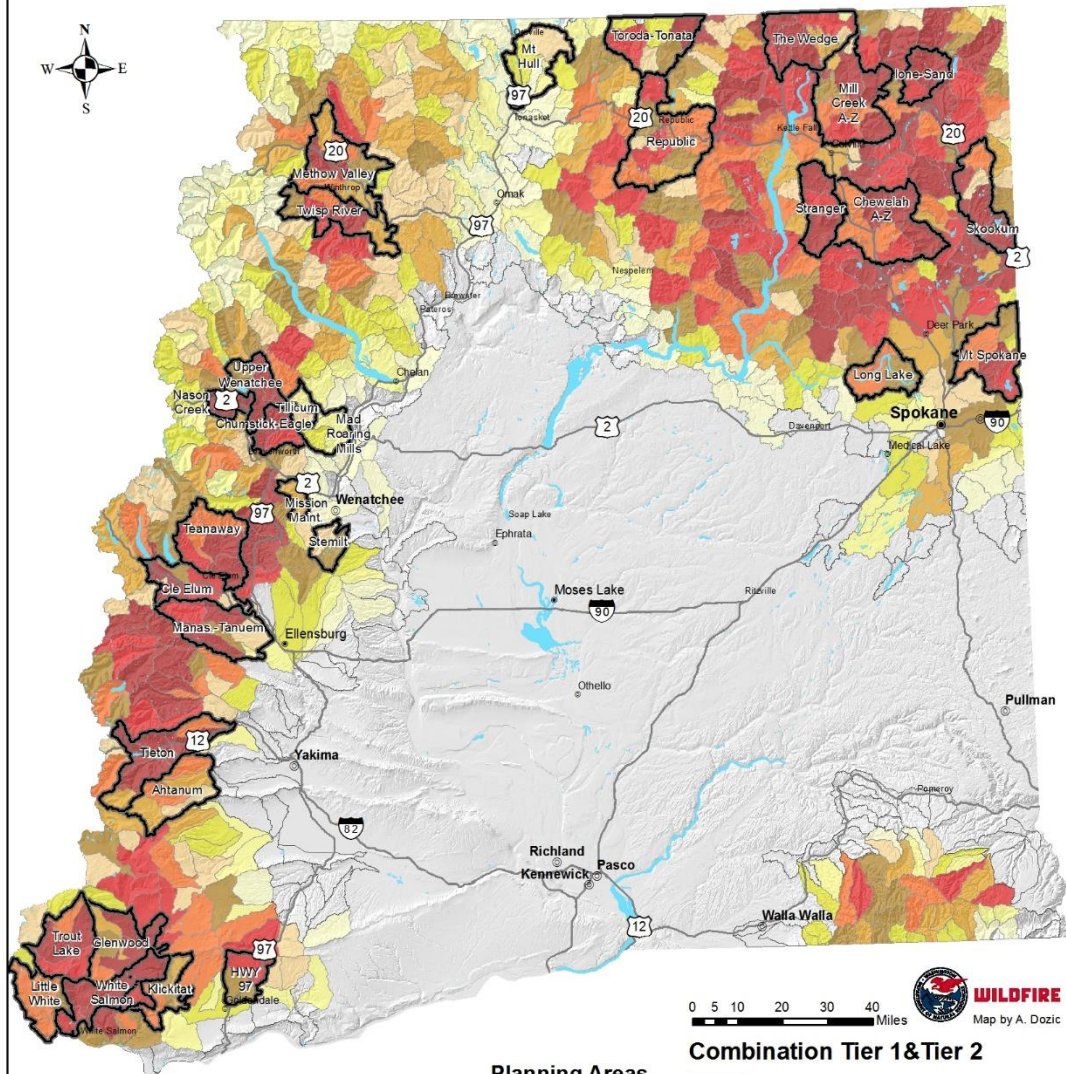
**Planning Areas for 20-Year Forest Health Strategic Plan / SB5546
Eastern WA
-March 2018 Version 2-**



Planning Areas

- 2018
- 2020
- Collaborative area

**Planning Areas for 20-Year Forest Health Strategic Plan / SB5546
Eastern Washington Forest Health Priority HUC6 Watersheds
-March 2018-Version 2-**



**HUC 6
Watersheds**

Planning Areas
 2018, 2020

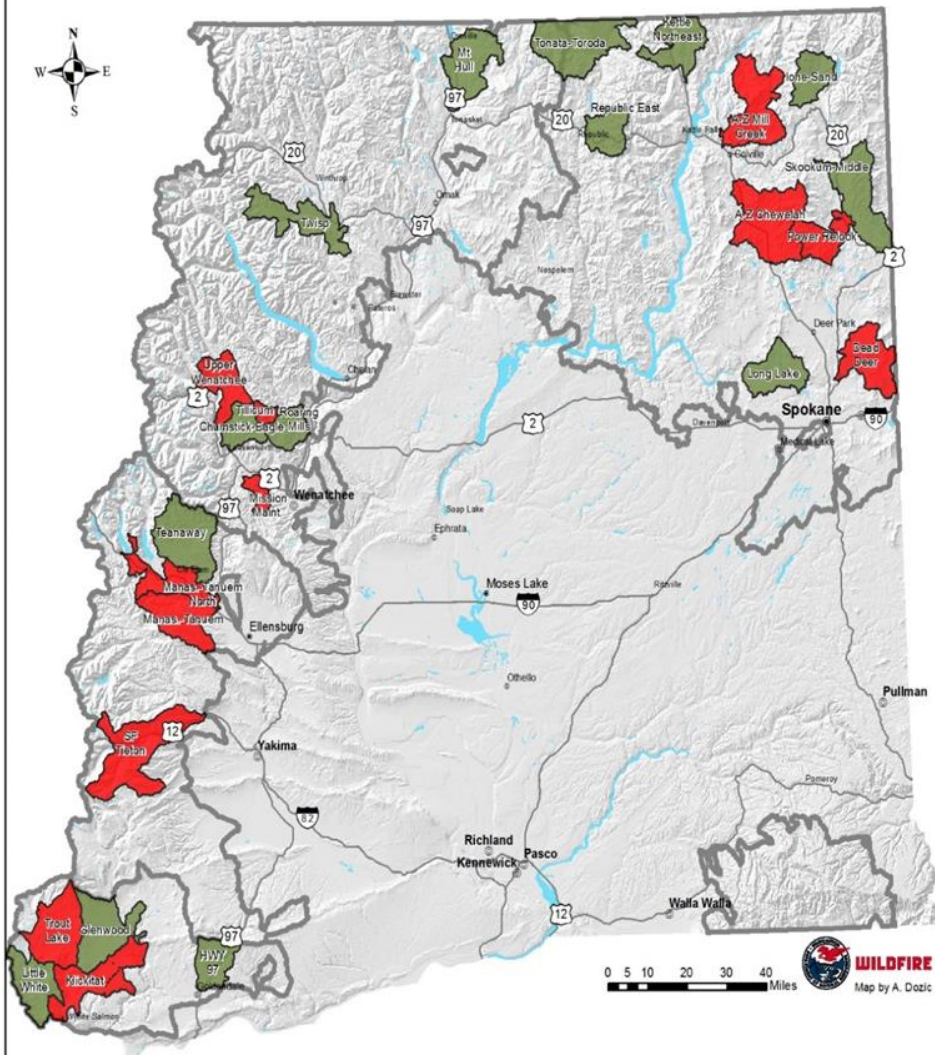
This priority map is a composite reflecting the overlap of forest health/wildfire risks (Tier 1) and the values at risk (Tier 2). Tier 1 and Tier 2 scores were normalized on a 0-1 range and then added together, this ensured equal weight for each tier in the final composite. A low score does not mean a watershed has no forest issues or values at risk. Instead, it means that the metrics and overall needs are lower relative to other watersheds.

Combination Tier 1&Tier 2

 1 Low	 6 Mod
 2 Low	 7 High
 3 Low	 8 High
 4 Mod	 9 High
 5 Mod	 12-digit/6th level HUC <2,500 ac of Forest



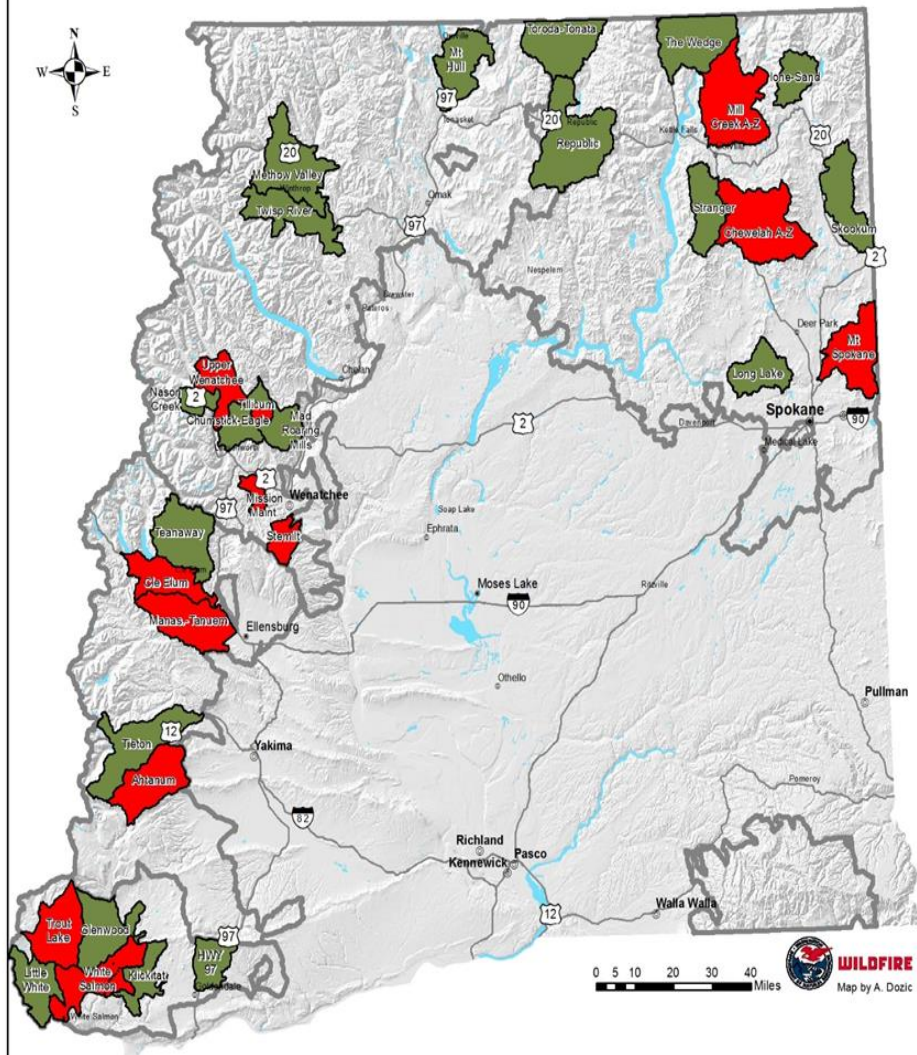
Proposed Planning Areas for 20-Year Forest Health Strategic Plan / SB5546 Eastern WA



Proposed Planning Areas

- 2018
- 2020
- Collaborative area

Planning Areas for 20-Year Forest Health Strategic Plan / SB5546 Eastern WA -March 2018 Version 2-



Planning Areas

- 2018
- 2020
- Collaborative area

DNR – Forest Service Engagement

Project Area Types

1. New Planning Area or very early USFS planning

- DNR → All lands landscape evaluation
Potentially request funding for NEPA planning. Request funding for non-federal treatments.

2. Mid course NEPA planning

- DNR → Evaluate non-USFS lands to complement analysis, Coordinate treatments planning
Evaluate to ensure achievement risk reduction goals
Request funding for non-federal treatments.

3. NEPA completed. Implementation Phase

- DNR → Evaluate non-USFS lands to complement analysis, Evaluate to ensure achievement risk reduction goals
Request funding for USFS and non-federal treatments.

Timeline and Process for Evaluating Forest Health Needs



Making Landscape-Scale Restoration a Reality: SB 5546 Implementation Timeline

20-YEAR FOREST HEALTH STRATEGIC PLAN
EASTERN WASHINGTON

NEAR-TERM ACTIONS

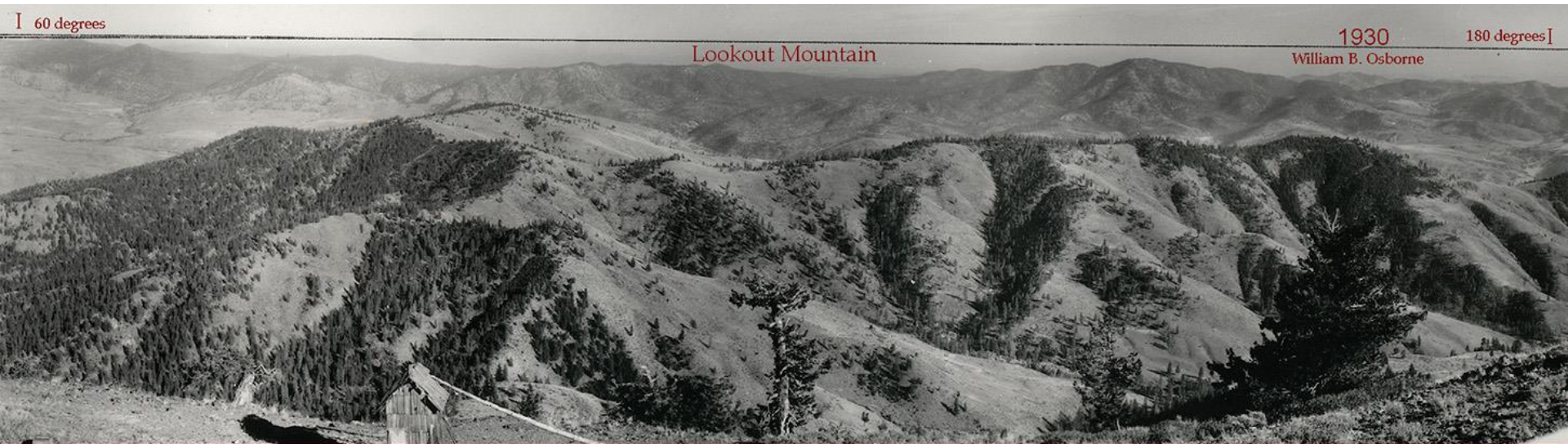
	Jan	Feb	March	April	May	June	July	August	Sept - Oct
1 Identify Planning Areas	█	█	█						
2 Conduct Landscape Evaluations		█	█	█	█	█			
3 Develop Landscape Prescriptions						█	█	█	█
4 Develop a Prioritized List of Treatments for Appropriations Request									█

These steps will be done in coordination with local forest collaboratives, major landowners and the Forest Health Advisory Committee.

Landscape Evaluations for Each Planning Area

1. Identify zones & ownerships with different primary management objectives:
2. Departure Analysis:
 - ➔ Hessburg-PI or Modeling w/ LiDAR-phoDAR
3. Fire Behavior & Risk Analysis:
 - ➔ QRC products: Stratton et al.
 - ➔ Existing community wildfire protection plans
4. Current & Future Drought Stress and Biophysical Alignment
 - ➔ Moisture deficit vs. current vegetation
5. Aquatic Evaluation
6. Assessment of Focal species habitat, insect risk, cultural sites, other resources
7. Economic and operational analysis

Departure Assessment



60 degrees

Lookout Mountain

1930
William B. Osborne

180 degrees



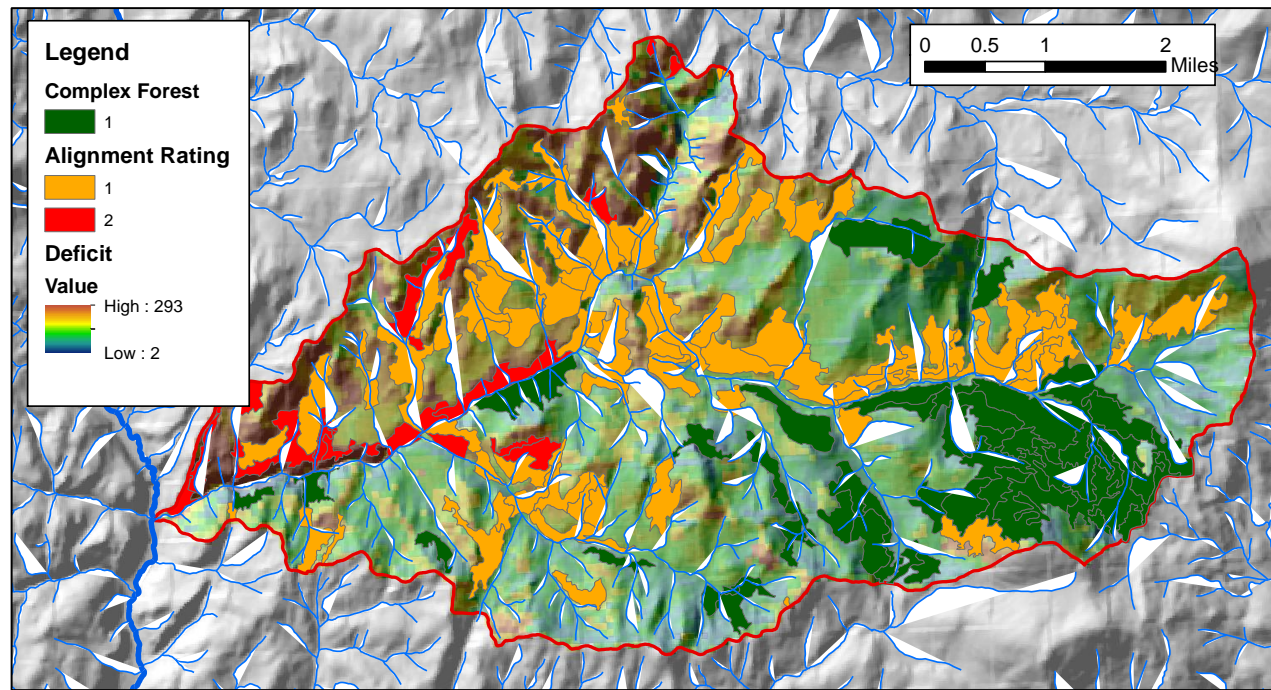
2011
John F Marshall

Historic image from National Archives and Records Administration
Seattle, WA.

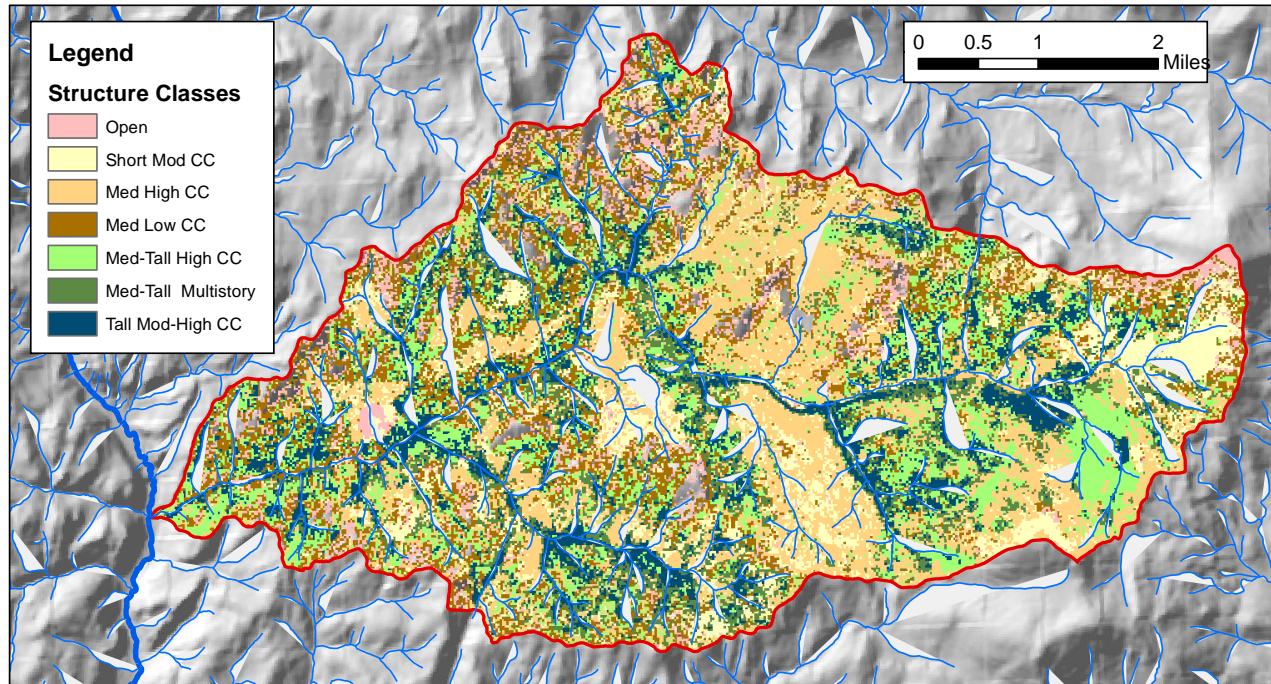
2011 Image by John F Marshall.
Okanogan-Wenatchee National Forest
Wenatchee Forestry Sciences Lab

Drought Stress and Biophysical Alignment

Moisture Deficit



Structure Classes



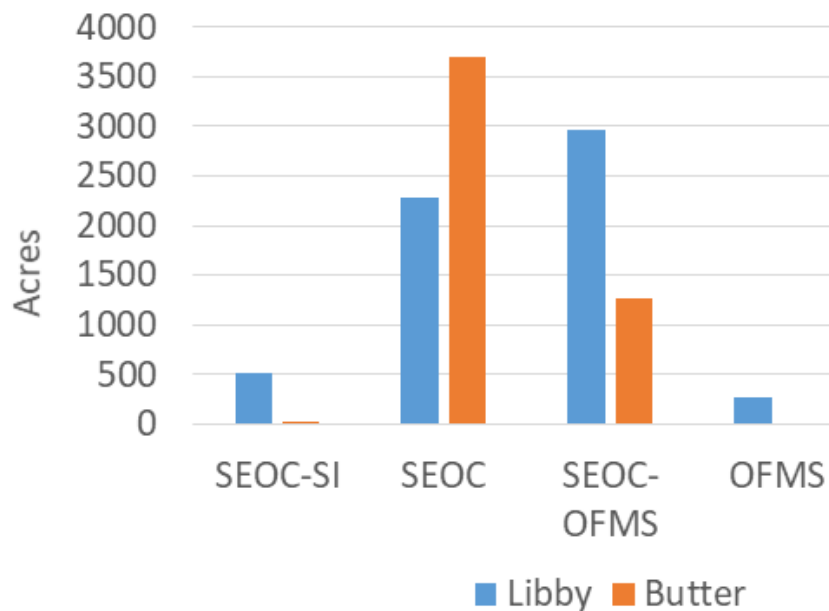
Landscape Prescription for Each Planning Area

Combine information from Landscape Evaluation to generate:

1. Overall treatment targets for watershed (forest health need benchmarks)
2. Potential treatment locations & types of treatments.
3. Work with local managers and stakeholders to select and recommend specific treatments to package for budget request to legislature

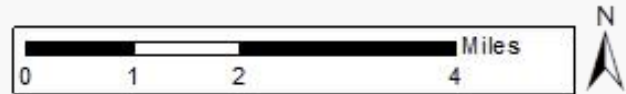
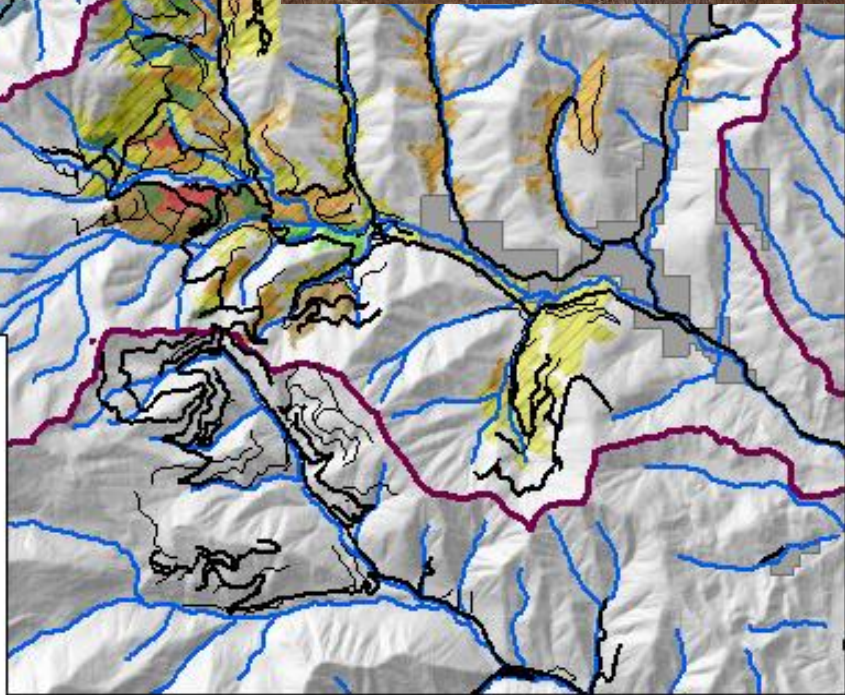
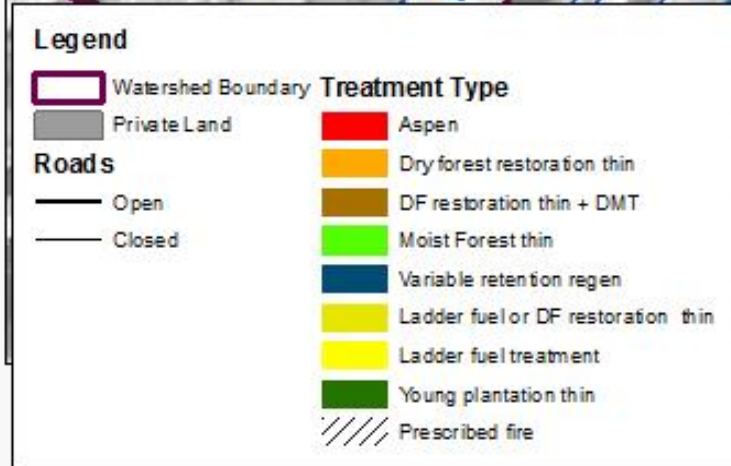
Treatment Targets

Treatment Structure Class Targets



Treatment	Buttermilk	Libby
Dry Forest Restoration Thin	923	1,835
DF Restoration Thin + Dwarf Mistletoe Reduction		
Aspen Release	37	100
Variable Retention Regen	134	0
Moist Forest Thinning	80	0
Ladder Fuel or Dry Forest Thin	136	1,023
Ladder fuel / Large Tree Release (small diameter)	1,098	1,179
Young plantation thin (small diameter)	181	263
Commercial	1,525	2,341
Non Commercial	1,279	1,442
Either	136	1,023
Prescribed Fire	3,123	4,292

Treatment Locations



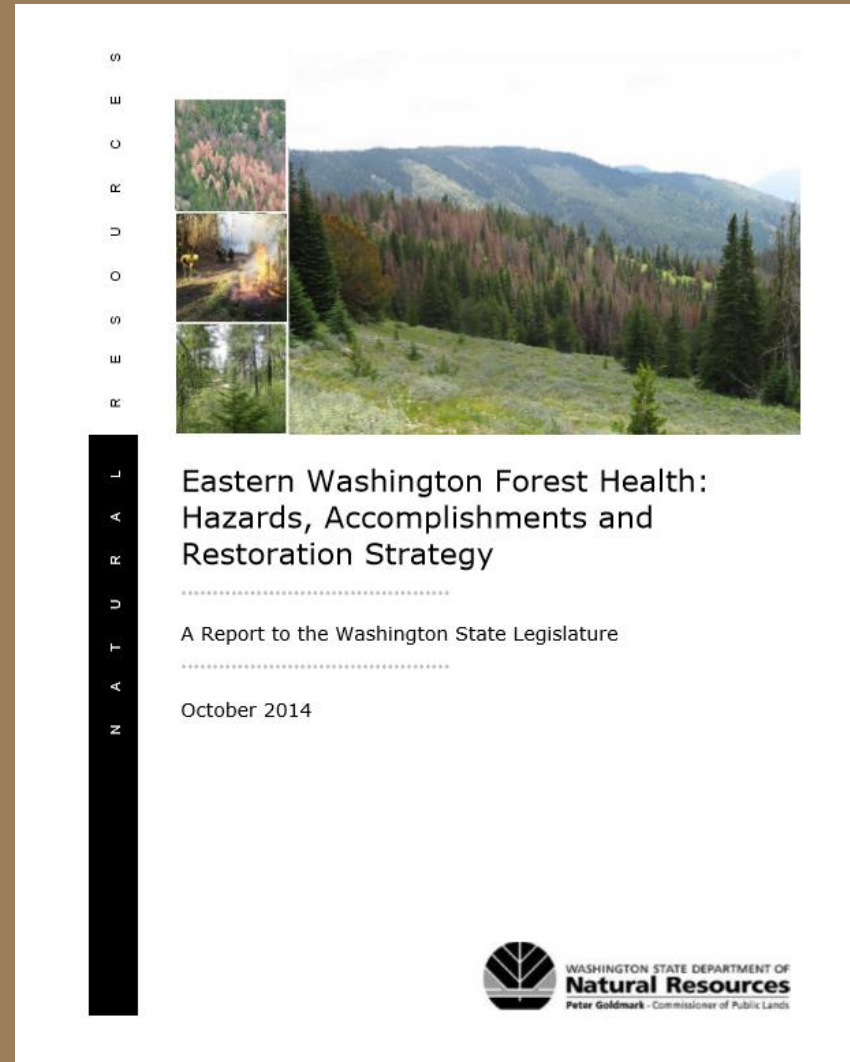
2015-2017 Forest Health Treatment Accomplishments



2015-2017 Forest Health Treatment Accomplishments

-2014 DNR Forest Health Legislative Report summarized commercial and non-commercial treatments across all lands in eastern WA.

-DNR needs similar information for 2015, 2016 and 2017 to include in report to legislature in October 2018.



2015-2017 Forest Health Treatment Accomplishments

-DNR needs to summarize commercial and non-commercial treatments on all lands, including prescribed fire.

-Focus on “footprint acres”

-Tabular data summarizing treatments and spatial data.

-Deadline for submittal to DNR:
June 30, 2018.

Table 4: Eastern Washington Average Annual Commercial Timber Harvest and Non-Commercial Forest Treatments, 2009 to 2014

Landowner ¹	Commercial Harvester (Avg. acres/yr)	Non-commercial thinning (Avg. acres/yr)	Total (Avg. acres/yr)
US Forest Service ²	7,930	13,038	20,968
Bureau of Land Management ³	879	315	1,194
Washington State Dept. of Natural Resources	10,940 ⁴	5,287	16,227
Washington State Dept. of Fish and Wildlife	910 ⁵	100	1,010
Private Industrial	24,223 ⁵	Not available	24,223
Small Forest Landowners (non-industrial private)	49,326 ⁵	5,893 ⁶	55,219
Yakama Tribe ⁷	12,249	4,548	16,797
Colville Confederated Tribes ⁸	9,170	Not available	9,170
Total	115,627	29,181	144,808



Preliminary Draft Outline

Forest Collaborative Infrastructure Pilot



Forest Collaborative Infrastructure Pilot

Purpose

Enhance the ability of Washington Forest Collaboratives to find agreement on design and implementation of landscape-scale forest restoration in support of statewide forest health priorities by providing financial support for collaborative facilitation, technical analysis and other activities.

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Forest Collaborative Infrastructure Pilot

Eligibility

- Open to all forest collaboratives in WA State
 - Use NFF Definition of Collaborative
 - Collaborative must be in existence for 2 years
 - Collaborative must be comprised of diverse interests

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Forest Collaborative Infrastructure Pilot

Funding

- Total program funding: \$250,000

- Currently considering two funding tracks:

- Track 1: Collaborative Grants, \$200K

- Maximum award: \$25,000

- Track 2: Statewide Collaborative Coordination, \$50K

- Maximum award: \$50,000

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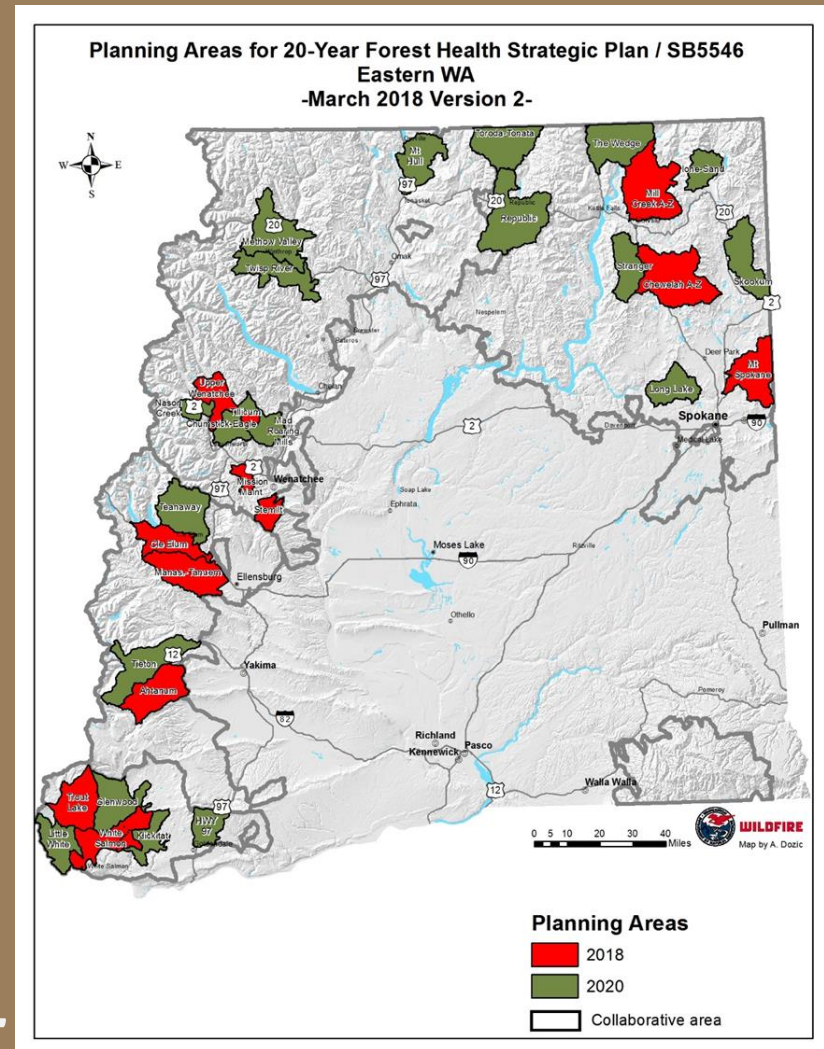
Forest Collaborative Infrastructure Pilot

Track 1 Requirements

-No match required

-For eastern WA, proposal must include activities that support 20-Year FH Planning Areas

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Forest Collaborative Infrastructure Pilot

Track 1 Requirements

-Proposals need to include an assessment of the Collaborative's developmental goals and describe how the activities in the proposal will help the Collaborative achieve its goals.

-How will these funds contribute to the Collaborative taking the next step towards its developmental goals?

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Forest Collaborative Infrastructure Pilot

Track 1 Eligible Activities

- Facilitation and coordination of workplans for 20-Year FH Planning Areas
- Organizational and staff support, including facilitation, technical assistance, and networking
- Outreach/Communication
- Development of Zones of Agreement, action plans, and project proposals.
- Workshops and trainings

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Forest Collaborative Infrastructure Pilot

Track 2 Statewide Coordination Eligible Activities

- Communication and storytelling
- Networking, training and shared learning
- Coordination between Collaboratives

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Forest Collaborative Infrastructure Pilot

Timeline

- RFP Available: Estimate early June 2018
- Proposals Due: July 2018
- Contracts awarded: August 2018
- Work completed by: June 30, 2019

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Preliminary Draft Outline

Cross-Boundary Competitive Grant Program

April 2018



Cross-Boundary Competitive Grant Program

Purpose

Provide funding for the planning, implementation and monitoring of landscape-scale forest restoration and management activities that support statewide forest health priorities.

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Cross-Boundary Competitive Grant Program

Funding

- Total program funding: \$1.4 million
- Current thought is to have a Westside pool and an Eastside funding pool
- Maximum award limit: approx. \$400K

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Cross-Boundary Competitive Grant Program

Eligible Activities

- Aquatic evaluations and data acquisition (no funding for aquatic treatments)
- Landscape evaluations
- Data acquisition (LiDAR), surveys, etc..
- Planning (pre-NEPA and full NEPA including contract NEPA)
- Vegetation treatments (prescribed fire, thinning, etc...)
- Post-implementation monitoring
- Coordination with landowners and stakeholders

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Cross-Boundary Competitive Grant Program

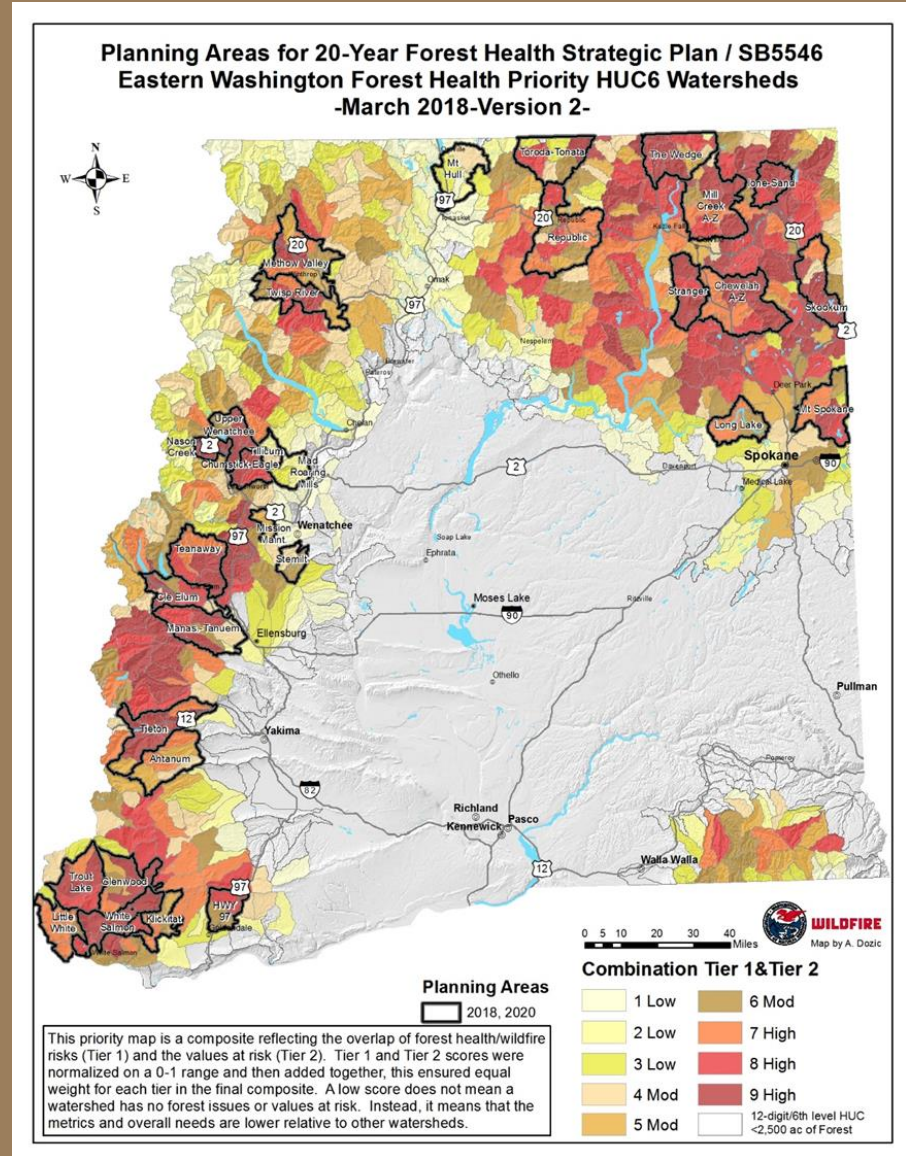
Considerations

-Projects should either be cross-boundary or adjacent to recently completed work.

-Projects should be part of a landscape-scale effort

-Eastern WA: Projects need to be in a 20-Year FH Planning Area

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Cross-Boundary Competitive Grant Program

Considerations

- No match required, although proposals with significant match will be more competitive.
- Good Neighbor Authority: points potentially awarded for proposals that make effective use of the Good Neighbor Authority.
- Document additionally: (Project is not part of current schedule or move up at least two years, etc...)

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Cross-Boundary Competitive Grant Program

Timeline

-RFP Available: Estimate June 2018

-Proposals Due: July 2018

-Contracts awarded: August 2018

-Work completed by: August 2020, two years
(contingent on reappropriation)

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Forest Health Appropriations Request for the 19-21 Biennium



17-19 DNR Forest Health Capital Budget

- \$13 million total
- \$4.1 million for state land forest health treatments eastern WA, including at least 1 prescribed burn
- \$4 million DNR Landowner Assistance Program for private lands cost-share treatments in eastern WA
- \$1 million Firewise activities and WCC crews implement forest health treatments in eastern WA
- \$500K Good Neighbor Authority State Contributions (new)
- \$250K Forest Collaborative Infrastructure Grant Pilot-*statewide* (new)
- \$1.4 million Cross-Boundary Competitive Grant Program-*statewide* (new)
- \$450K for State Lands implementation of HB 1711 (new)
- \$1 million reforestation of burned state trust lands (new)



19-21 DNR Forest Health Budget Request

-Currently in early stages of developing forest health budget request for 19-21 BN (July 1, 2019 to June 30, 2021)

-Final budget request due in October 2018

-Will likely make both a capital budget and operating budget forest health request

-Will likely include several components from previous requests as well as potentially some new components to further goals of the 20-Year Forest Health Strategic Plan.



Discussion

What things should DNR consider requesting funding for in the 19-21 biennium to help achieve the goals and strategies of the 20-Year Forest Health Strategic Plan?

Who from the FHAC would like to work on a Forest Health Budget Request subcommittee?



Landscape Forest Health Monitoring Metrics



20-Year Plan Monitoring

Goal 5	Strategies
1	Collect, map, analyze, and report on forest health conditions, forest restoration and management activities, and trends in forest health and wildfire risk over time across all land ownerships.
2	Identify metrics to measure progress against specific management goals and objectives.
3	Create a forest health tracking system that includes spatial and tabular data describing forest health treatments conducted by federal agencies, state agencies, tribes, and other willing landowners.
4	Support effective fire management actions and integrate Qualitative Risk Assessment (QRA) and treatment data into the Wildland Fire Decision Support System (WFDSS).
5	Provide regular forest health treatment progress reports to the legislature and communicate results to partner agencies, county governments, communities, conservation groups, timber industry, tribes, and other stakeholders.
6	Complete comprehensive mapping of current forest structure, wildlife habitat, and fuel conditions across eastern Washington by 2020. Update forest inventory data on a regular basis to reflect changes in forest conditions from wildfires, insects, disease, and management.
7	Develop standardized, science-based mapping of wildland urban interface (WUI) zones in Washington State, including better characterization of current land use within WUI zones.

1. Implementation

2. Effectiveness



20-Year Plan Monitoring

Goal 5	Strategies
1	Collect, map, analyze, and report on forest health conditions, forest restoration and management activities, and trends in forest health and wildfire risk over time across all land ownerships.
2	Identify metrics to measure progress against specific management goals and objectives.
3	Create a forest health tracking system that includes spatial and tabular data describing forest health treatments conducted by federal agencies, state agencies, tribes, and other willing landowners.
4	Support effective fire management actions and integrate Qualitative Risk Assessment (QRA) and treatment data into the Wildland Fire Decision Support System (WFDSS).
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7	Develop standardized, science-based mapping of wildland urban interface (WUI) zones in Washington State, including better characterization of current land use within WUI zones.

1. Implementation

Progress reports to legislature



20-Year Plan Monitoring

Goal 5	Strategies
1	Collect, map, analyze, and report on forest health conditions, forest restoration and management activities, and trends in forest health and wildfire risk over time across all land ownerships.
2	Identify metrics to measure progress against specific management goals and objectives.

2. Effectiveness

Uncertainties in science, social disagreements, etc



20-Year Plan Monitoring

1. Implementation Topics and Questions:

- Treatments & acres completed.
- Vegetation change
- Fire and insect risk change
- Habitat change
- Economic outputs

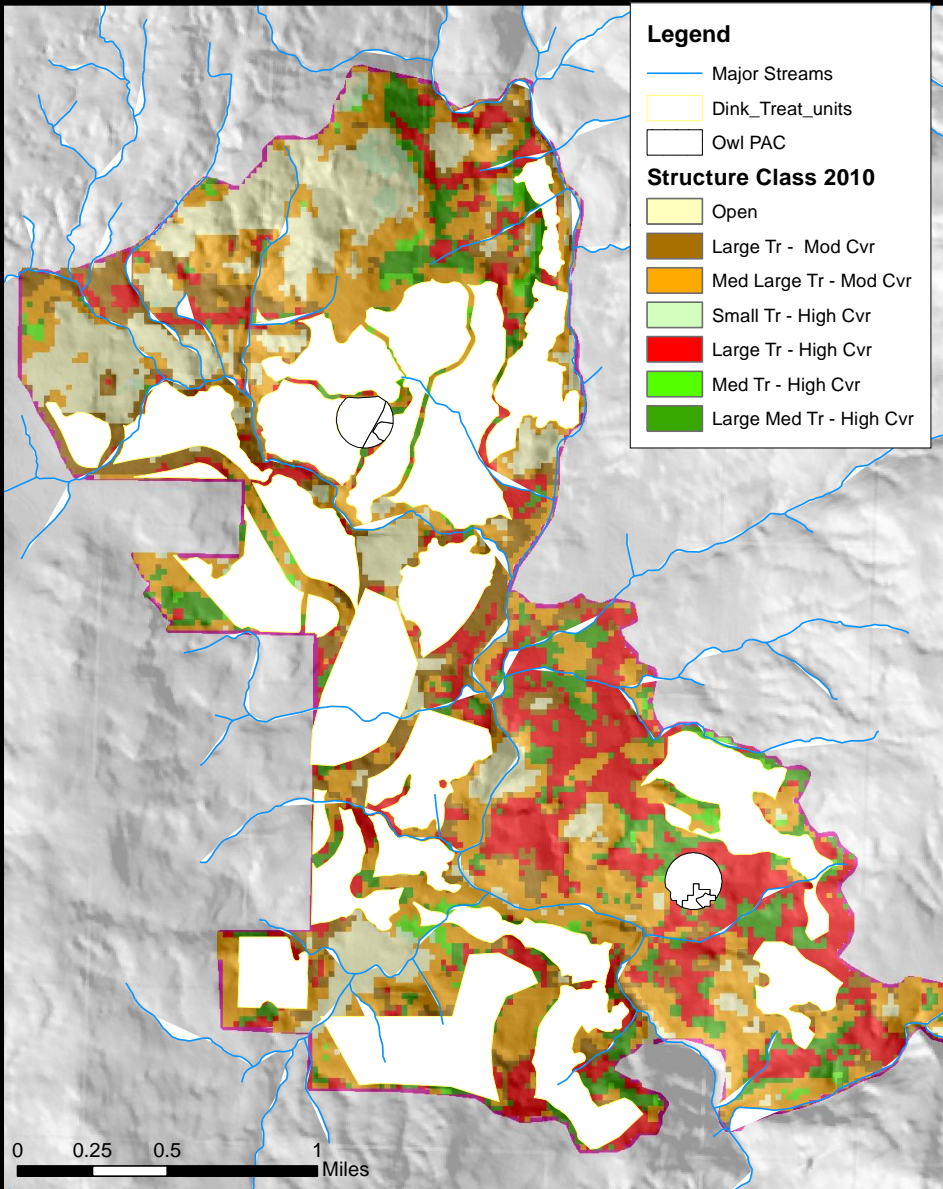
Metrics & Data Sources:

- Tracking of terrestrial and aquatic treatments
- Map Forest structure & comp every 2 yrs: phoDAR, LIDAR, GNN
 - Are we meeting targets from Landscape Evaluations?
 - Derive fuel, insect, habitat, carbon, etc metrics
- Updated fire models (QRA) to quantify changes in risk
- Quantify wood volume produced, revenues, jobs
- WUI Mapping & changes in vegetation and fire risk

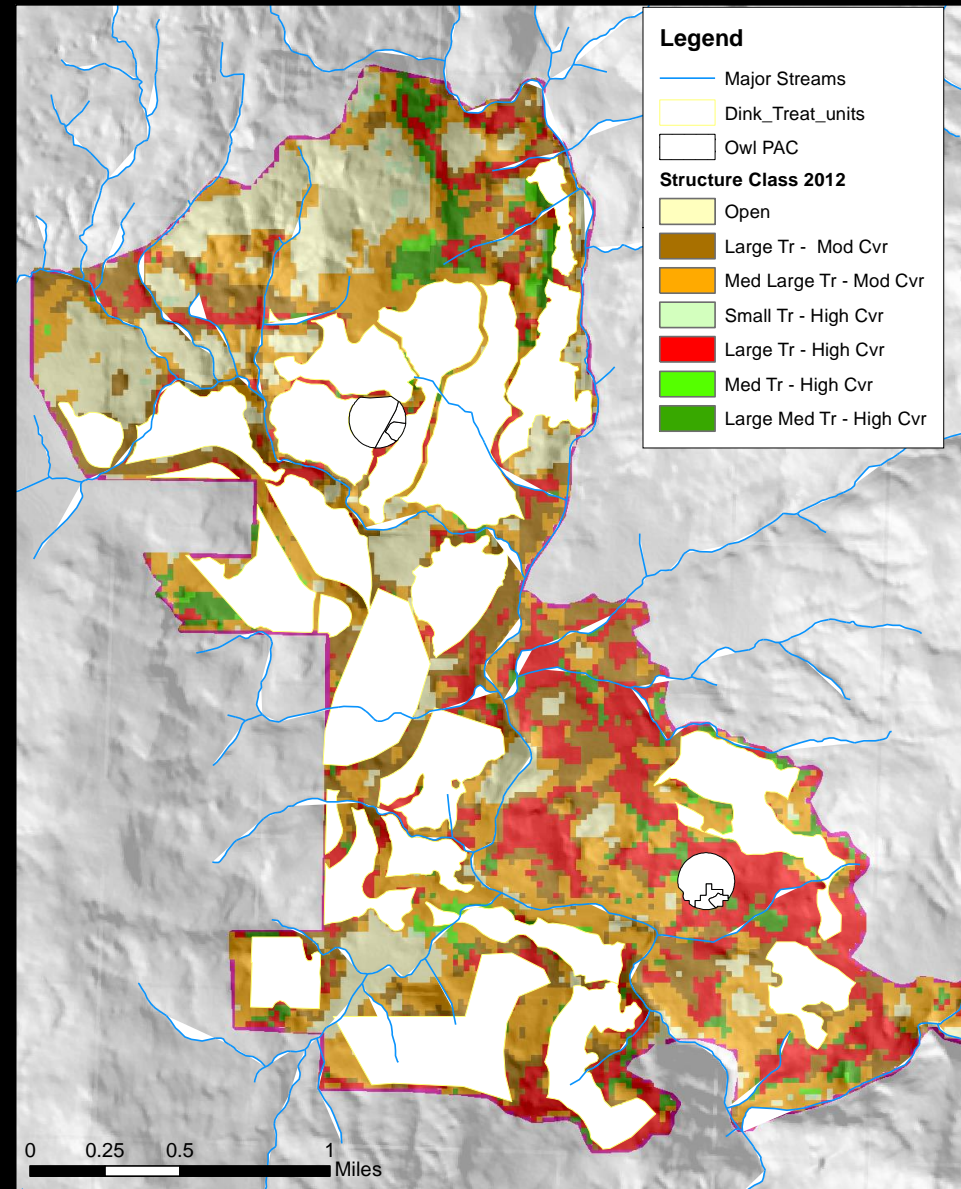


Change in Forest Structure

Pre - Treatment

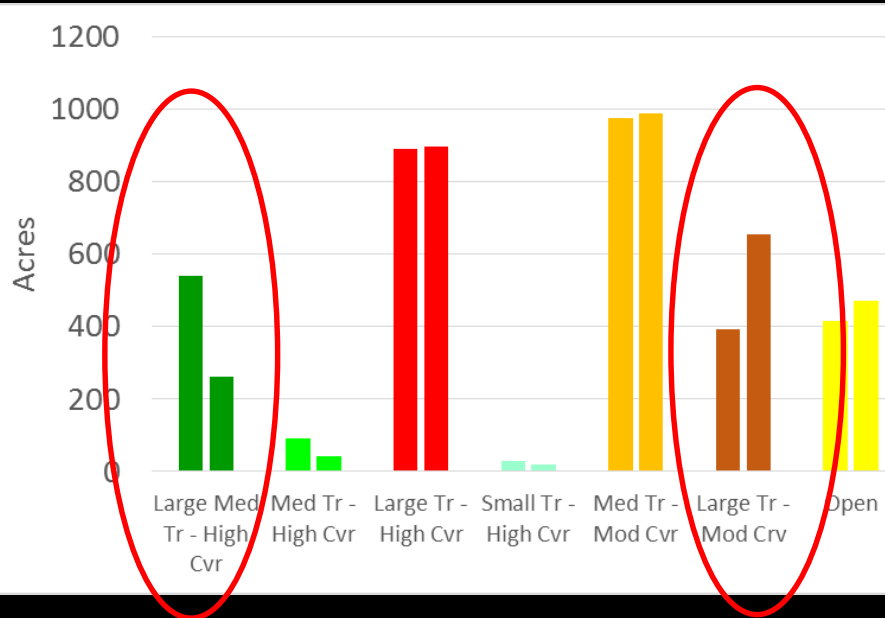


Post - Treatment

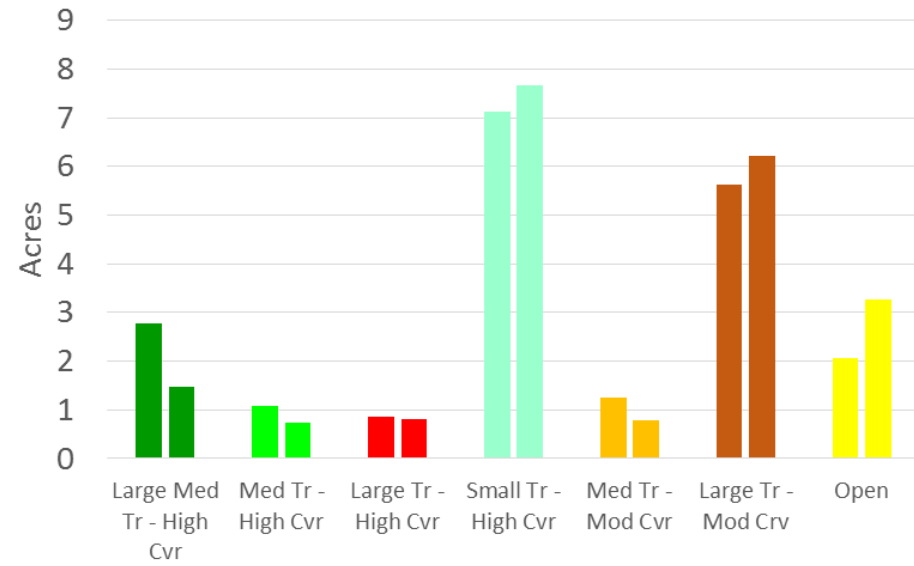


Change in Forest Structure

Total Area



Mean patch size



Are we meeting targets to change risk profiles?

20-Year Plan Monitoring

2. Effectiveness related Topics & Questions:

- Do landscape scale treatments reduce severity of large wildfires?
- Do treatments reduce drought/insect related mortality?
- Changes in stream flow, water temperature, and yield
- Treatment longevity and future treatment needs & wood production
- Vegetation type change (forest loss) after wildfires? (Climate change)
- **Others?**

Metrics & Data Sources:

- Remote sensing, modeling, and field base studies
- Post fire or drought (opportunistic)
- Leverage existing data sources and studies
- Will require investment and partnerships



20-Year Plan Monitoring

Resources and Partnerships

- DNR Forest Health and State Lands are working on forest structure and composition mapping updates every 2 years. PNW, UW, other are partners.
- DNR is building system to tracking treatments
- Align and work with CFLRP monitoring programs on CNF and OWNF, as well as other USFS monitoring programs.
- UW partnership, and other research institutions, for science questions
- Existing studies and research efforts
- Tribes, collaboratives, NGOs.

Leverage, Align, and Coordinate existing efforts!

