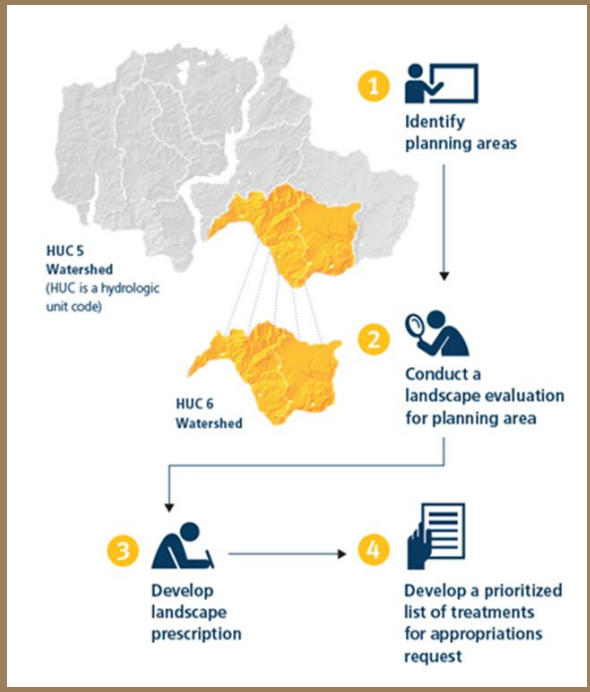
20-Year Forest Health Strategic Plan



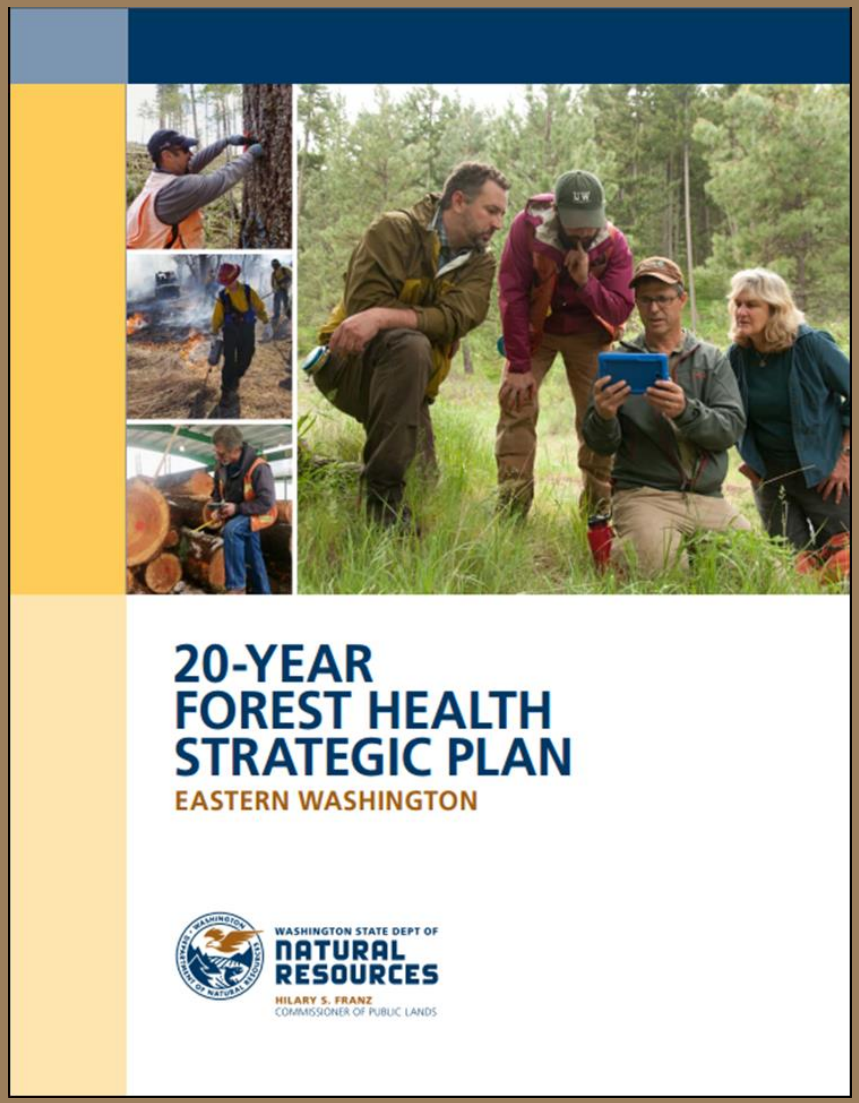
Forest Practices Board

February 2018

DNR was tasked by the state Legislature to:

"…develop a twenty-year strategic plan to treat areas of state forest land that have been identified by the department as being in poor health."

20-Year Forest Health Plan



Released in October 2017

- **Treat 1,250,000 acres by 2037: (62,500 acres per year)**
- **Sets vision, guiding principles, & process for moving forward**
- **All lands approach**
- **Science based**
- **Social license: over 30 organizations involved.**

DNR's Forest Health Strategic Plan:

VISION:

Washington's forested landscapes are in an ecologically functioning and resilient condition and meet the economic and social needs of present and future generations.

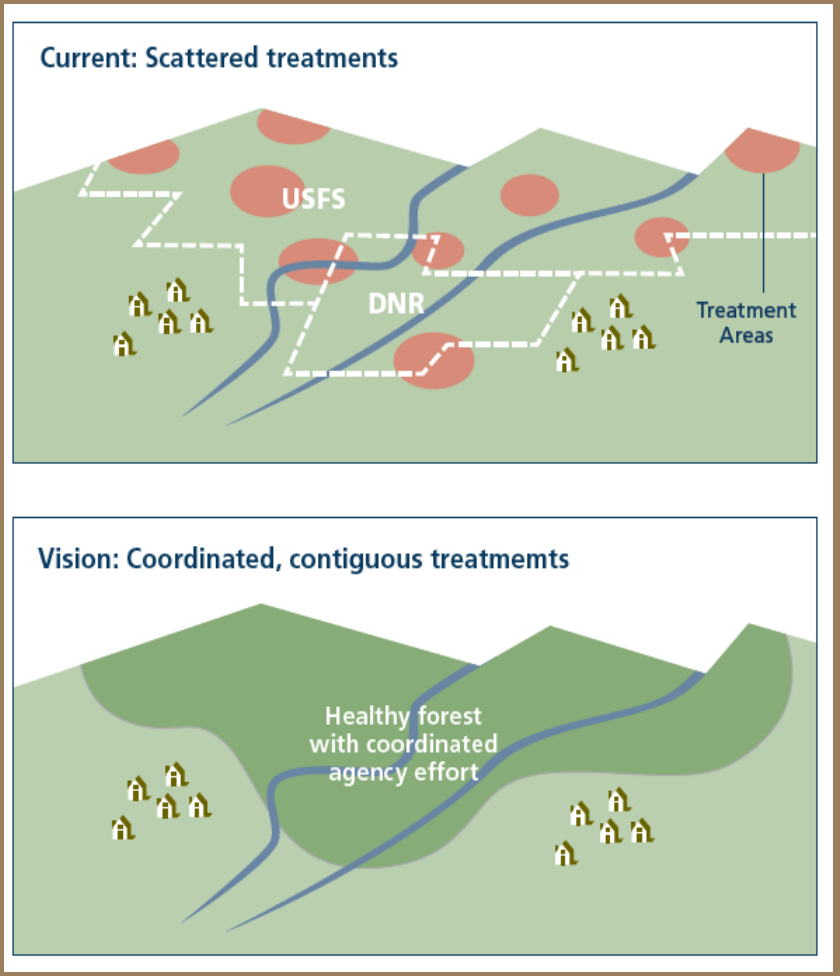
MISSION:

Restore and manage forested landscapes at a pace and scale that reduces the risk of uncharacteristic wildfires and increases the health and resilience of forest and aquatic ecosystems in a changing climate for rural communities and the people of Washington State.

OVERARCHING STRATEGY:

To maximize effectiveness, coordinate and prioritize landowners' treatments activities across all forest owners in a landscape.

There was consensus among committee participants to advance a **landscape-scale, cross-boundary** strategy to achieve forest health and **coordinate** project planning and implementation across landownership boundaries.



DNR's Forest Health Strategic Plan: Goals

Goal 1

- Conduct 1.25 million acres of scientifically sound, landscape scale, cross-boundary management and restoration treatments in priority watersheds to increase forest and watershed resilience by 2037.

Goal 2

- Reduce risk of uncharacteristic wildfire and other disturbances to help protect lives, communities, property, ecosystems, assets and working forests .

Goal 3

- Enhance economic development through implementation of forest restoration and management strategies that maintain and attract private sector investments and employment in rural communities.

Goal 4

- Plan and implement coordinated, landscape-scale forest restoration and management treatments in a manner that integrates landowner objectives and responsibilities.

Goal 5

- Develop and implement a forest health resilience monitoring program that establishes criteria, tools, and processes to monitor forest and watershed conditions, assess progress, and reassess strategies over time.

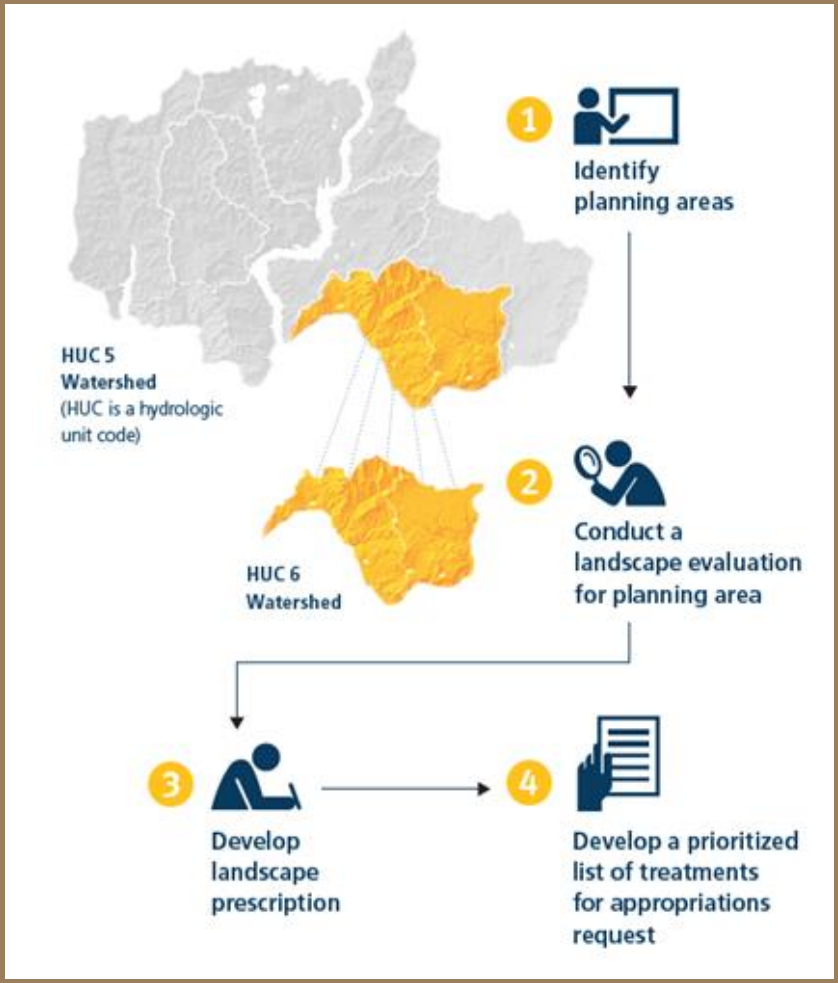
Goal 1

- Conduct 1.25 million acres of scientifically sound, landscape scale, cross-boundary management and restoration treatments in priority watersheds to increase forest and watershed resilience by 2037.

Strategies

- **Prioritize** forest health treatments in landscapes with the highest need and relative risk.
- Conduct landscape evaluations to efficiently prioritize and design forest health treatments to improve forest conditions and enhance ecosystem values across **landscapes**.
- **Coordinate** treatment activities across boundaries to maximize effectiveness.
- Work with forest **collaboratives** to build social license, address barriers, and leverage resources.
- Increase **capacity** to implement landscape-scale **cross boundary management** approaches through existing authorities and programs such as GNA.

Making Landscape-Scale Restoration a Reality: SB 5546 Implementation

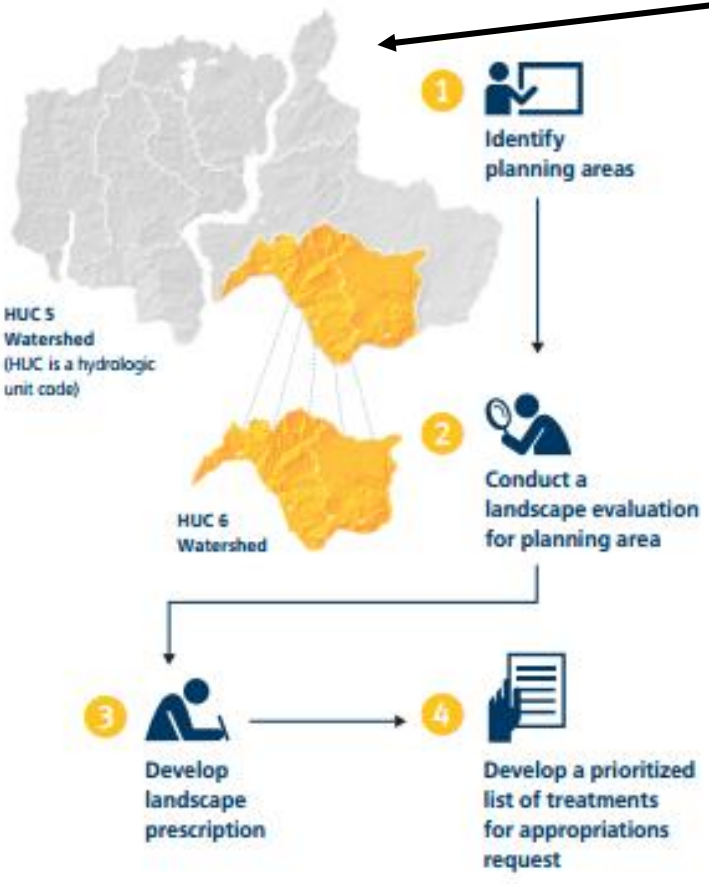


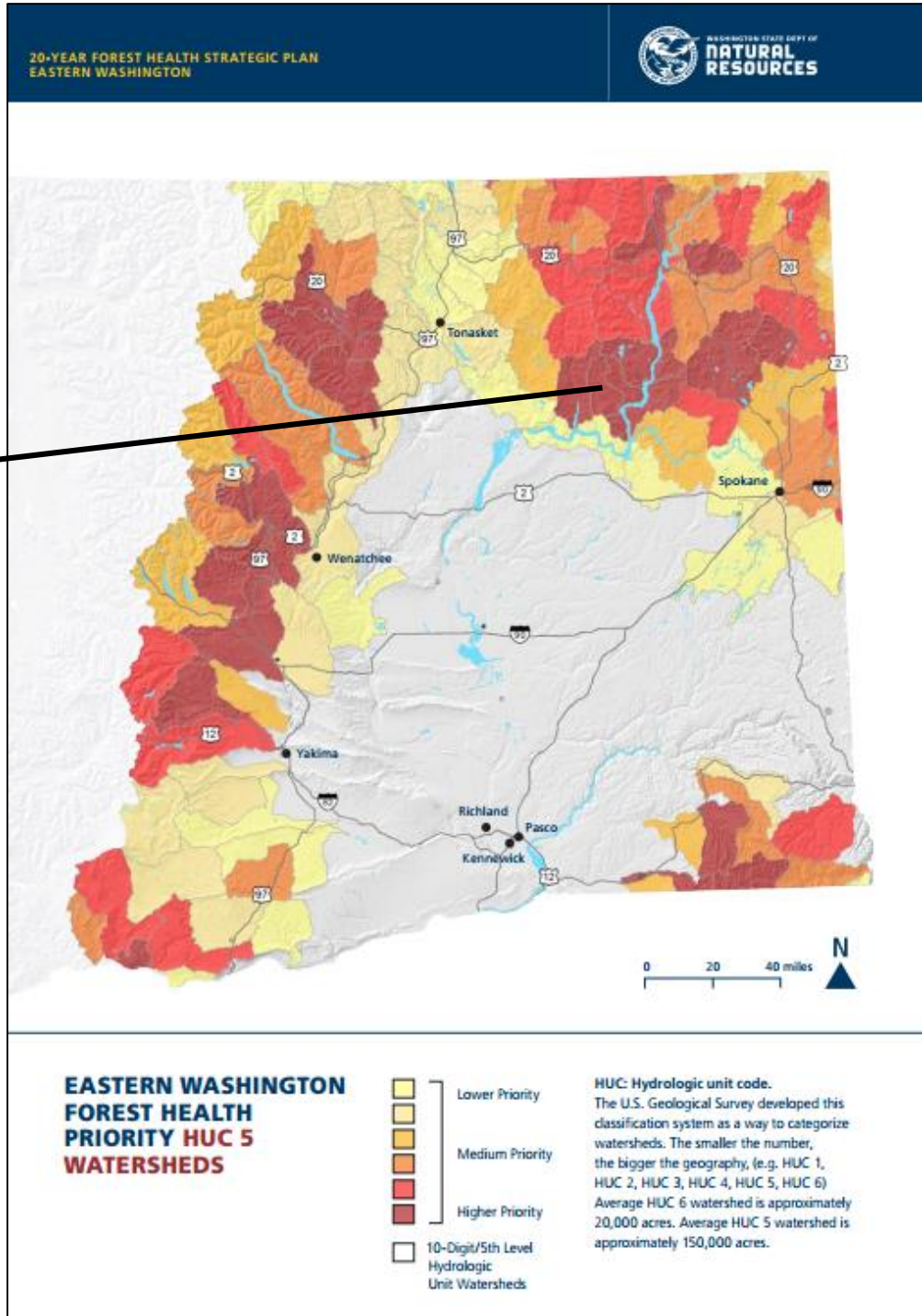
These steps will be done in coordination with local forest collaboratives, major landowners and the Forest Health Advisory Committee.

Process & Timeline

	Jan	Feb	March	April	May	June	July	August	Sept - Oct
Select Planning Areas									
Landscape Evaluations									
Landscape Rx & Treament Areas									
Appropriations Request									

Next steps: Select planning areas & conduct landscape evaluations





Step 1: Identify Planning Areas within a HUC 5 Watershed

❶ Local Consultation

- Public land managers, Collaboratives, Tribes, other stakeholders
- DNR conducts data driven prioritization to help select planning areas
- Select 1-? planning areas per collaborative area
- Based on combination of prioritization scores, local input and priorities, and agency planning efforts.

❷ Forest Health Advisory Committee Recommendations

- Review local recommendations
- Make statewide recommendations to Commissioner

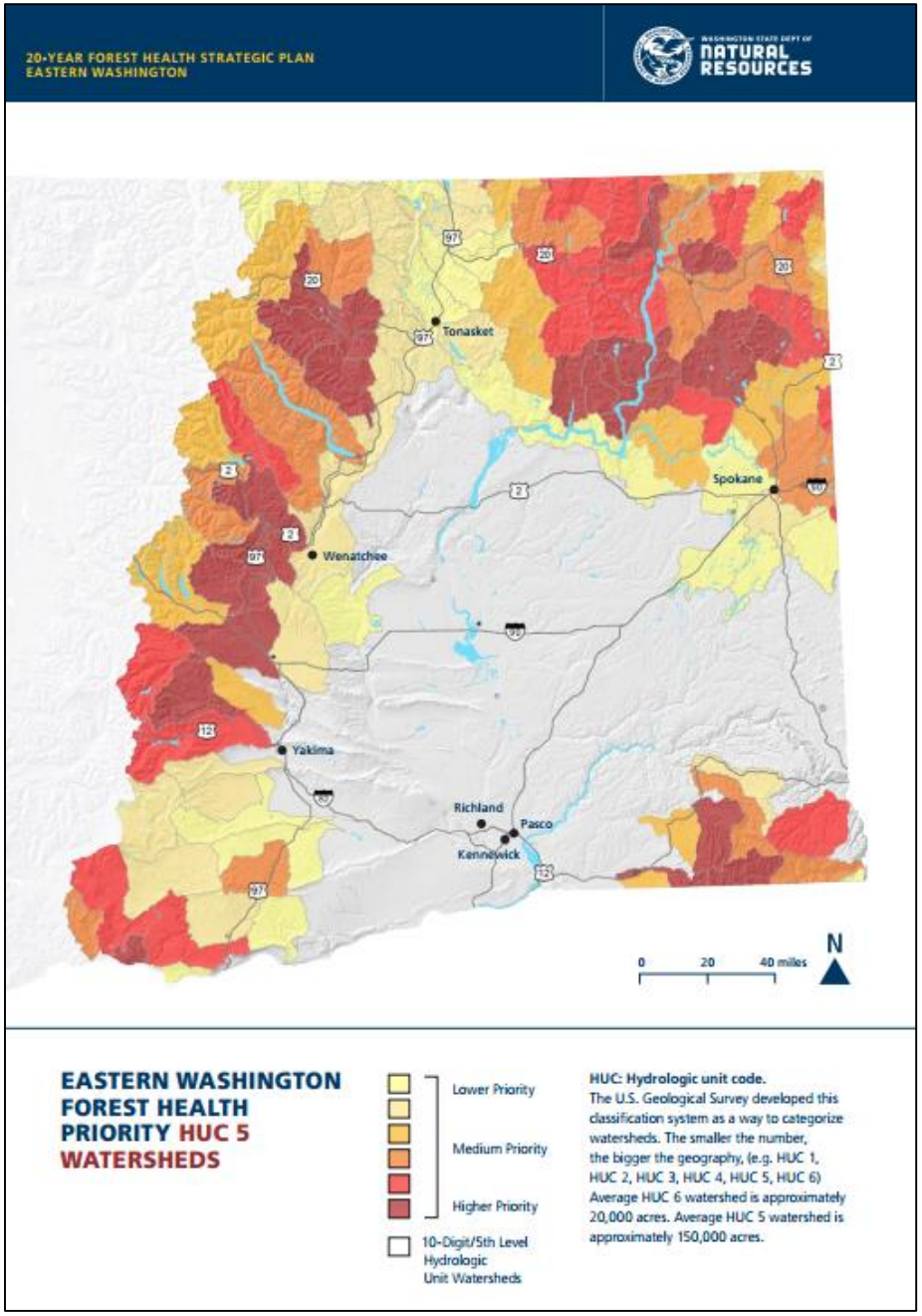
❸ Commissioner of Public Lands Selection

- Final selection

1. Select planning areas

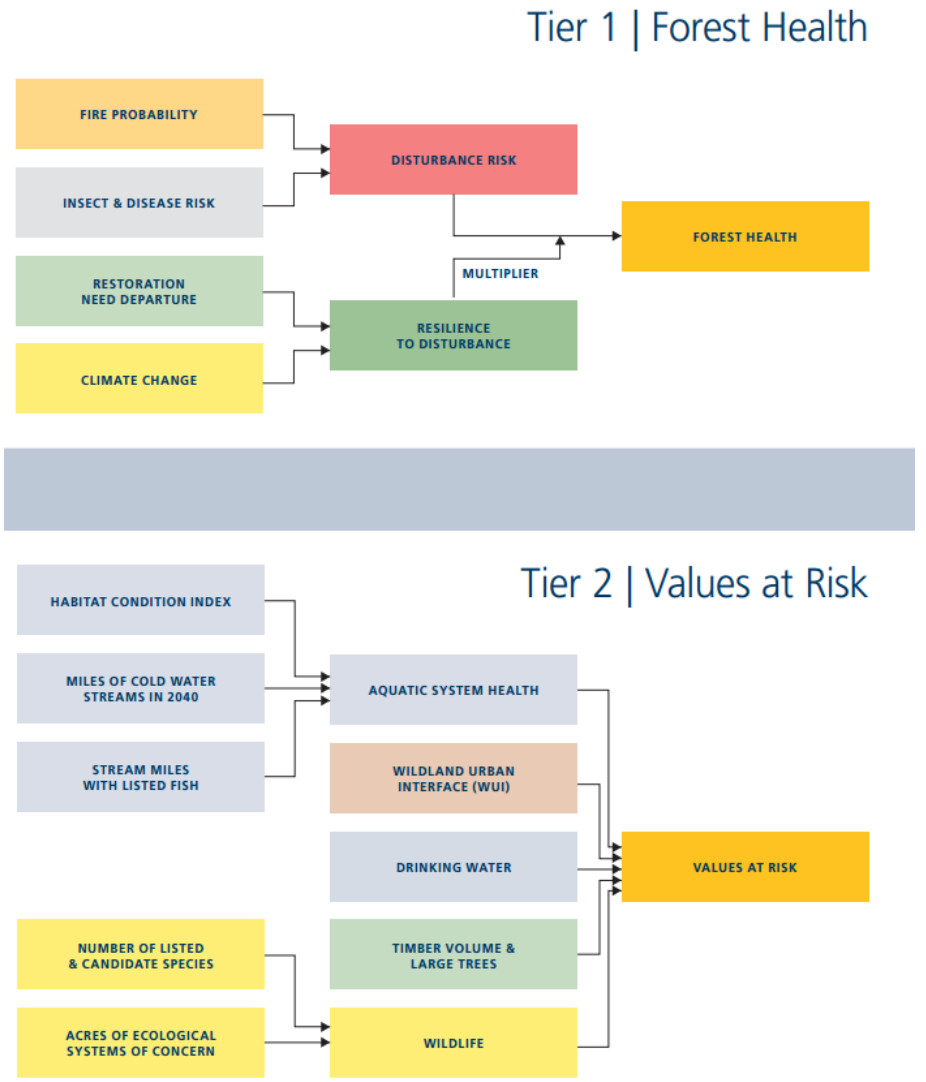
- 1 or more HUC 6 watersheds
- Data driven prioritization: HUC 6 level
  - Same framework and methods as HUC 5 prioritization
  - Most of the same datasets, but several changes and additions
  - All datasets and scores available to local stakeholders. Report sent to committee.
- **Combine with Local input**

HUC 5 Prioritization from 20 Year Plan

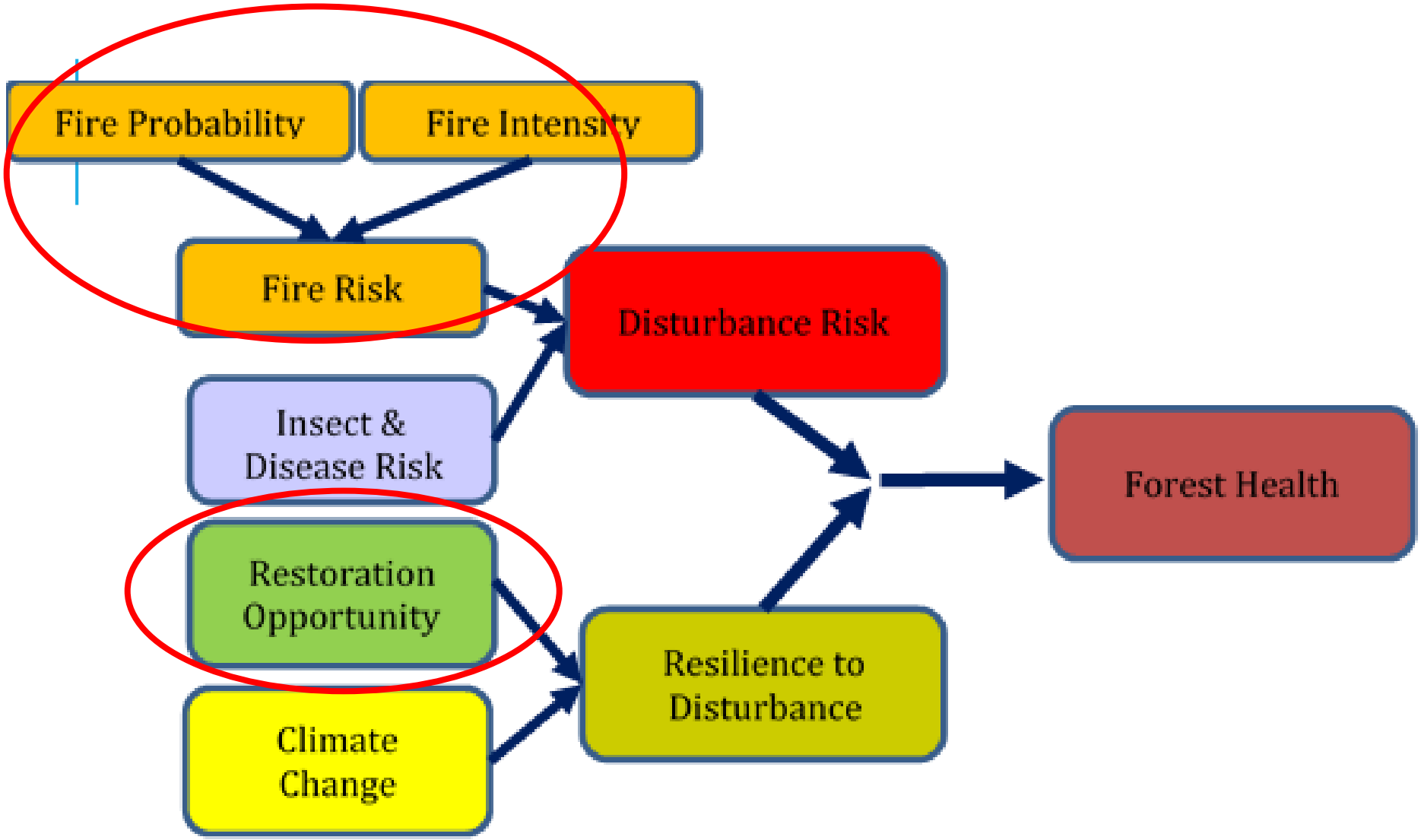


Data Driven HUC 6 Prioritization

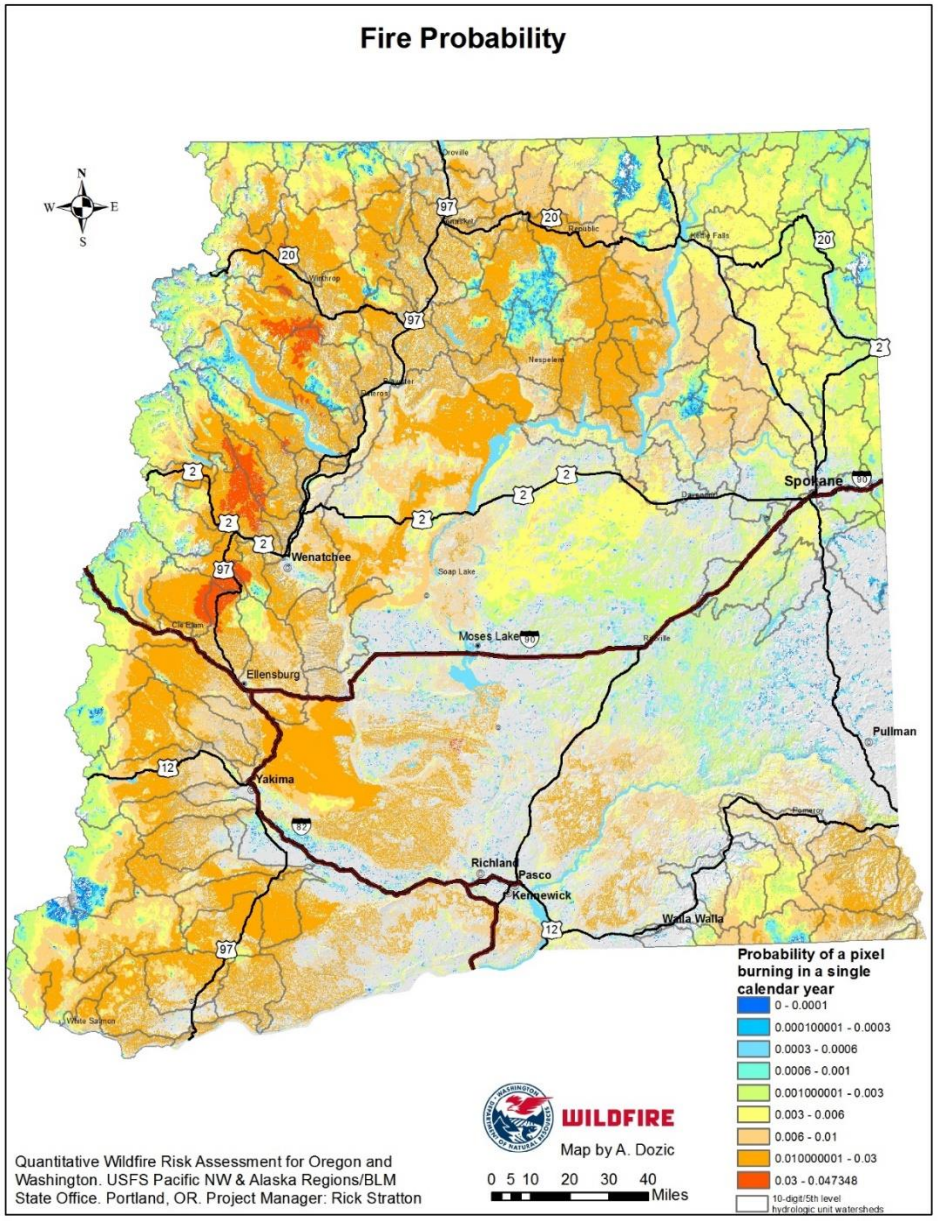
- HUC 6 level, but planning areas may cover more than one HUC 6.
- Same framework and methods as HUC 5 prioritization
- Most of the same datasets, but several changes and additions: **Access**
- All datasets and scores available to local stakeholders

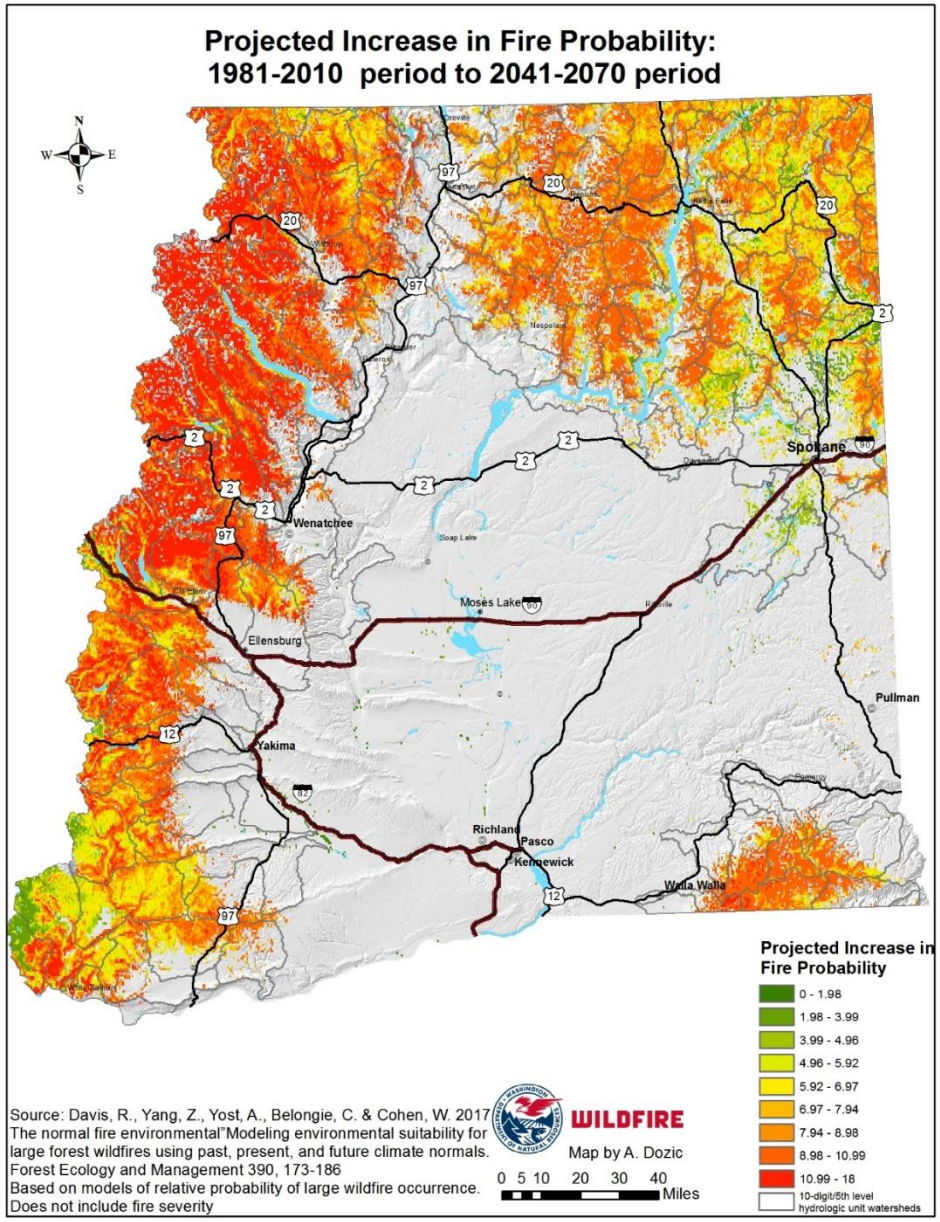


Tier 1: Forest Health

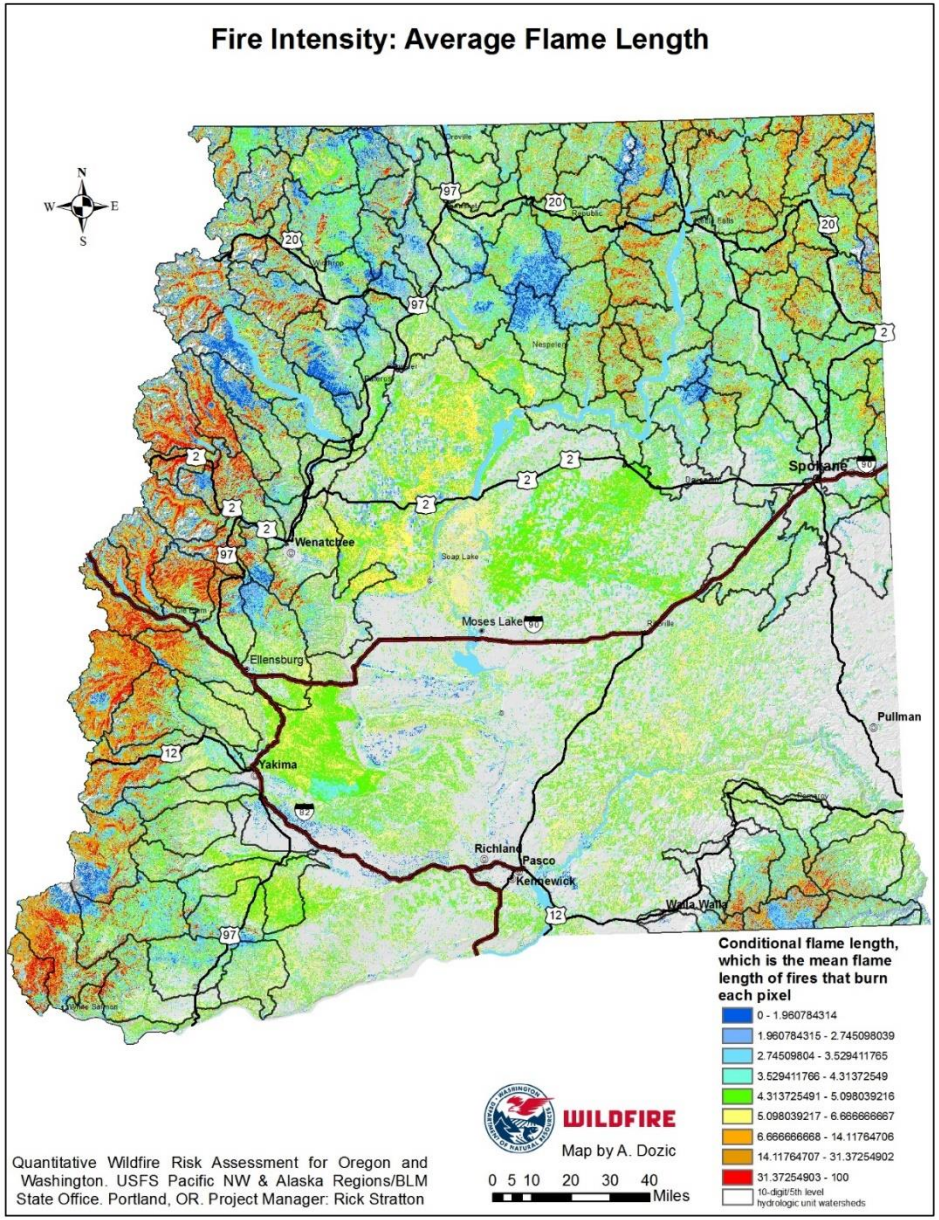


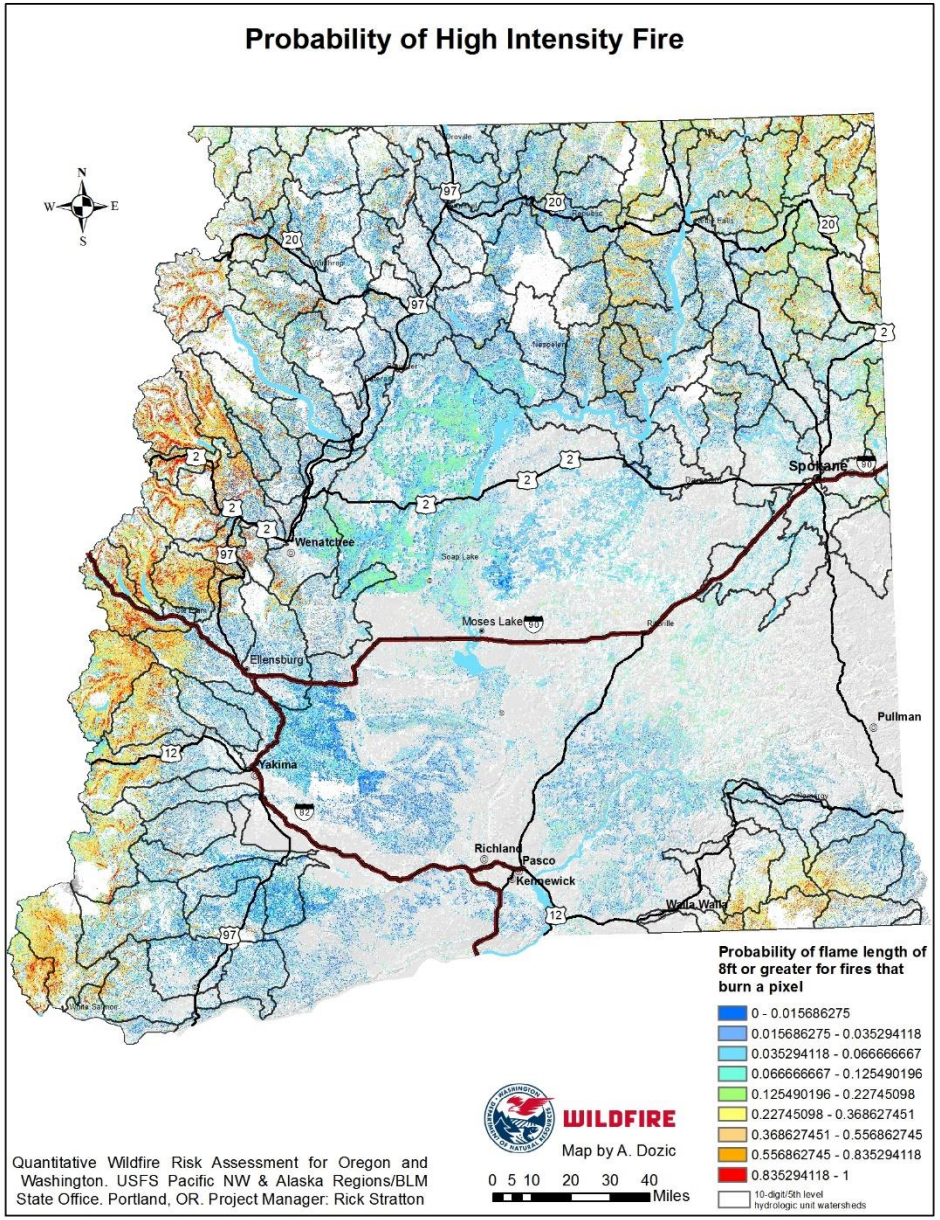
Tier 1: Fire Probability



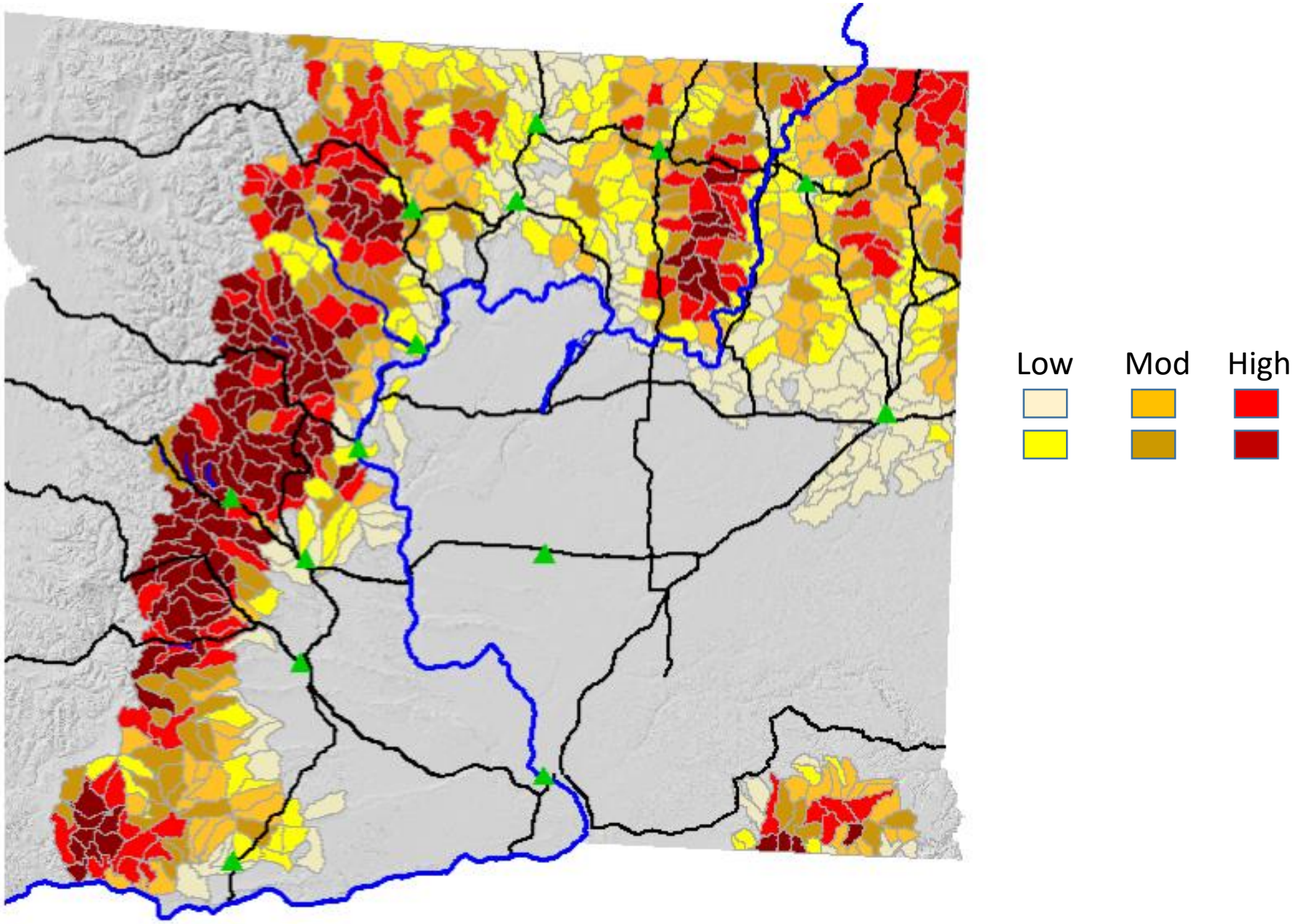


Tier 1: Fire Intensity

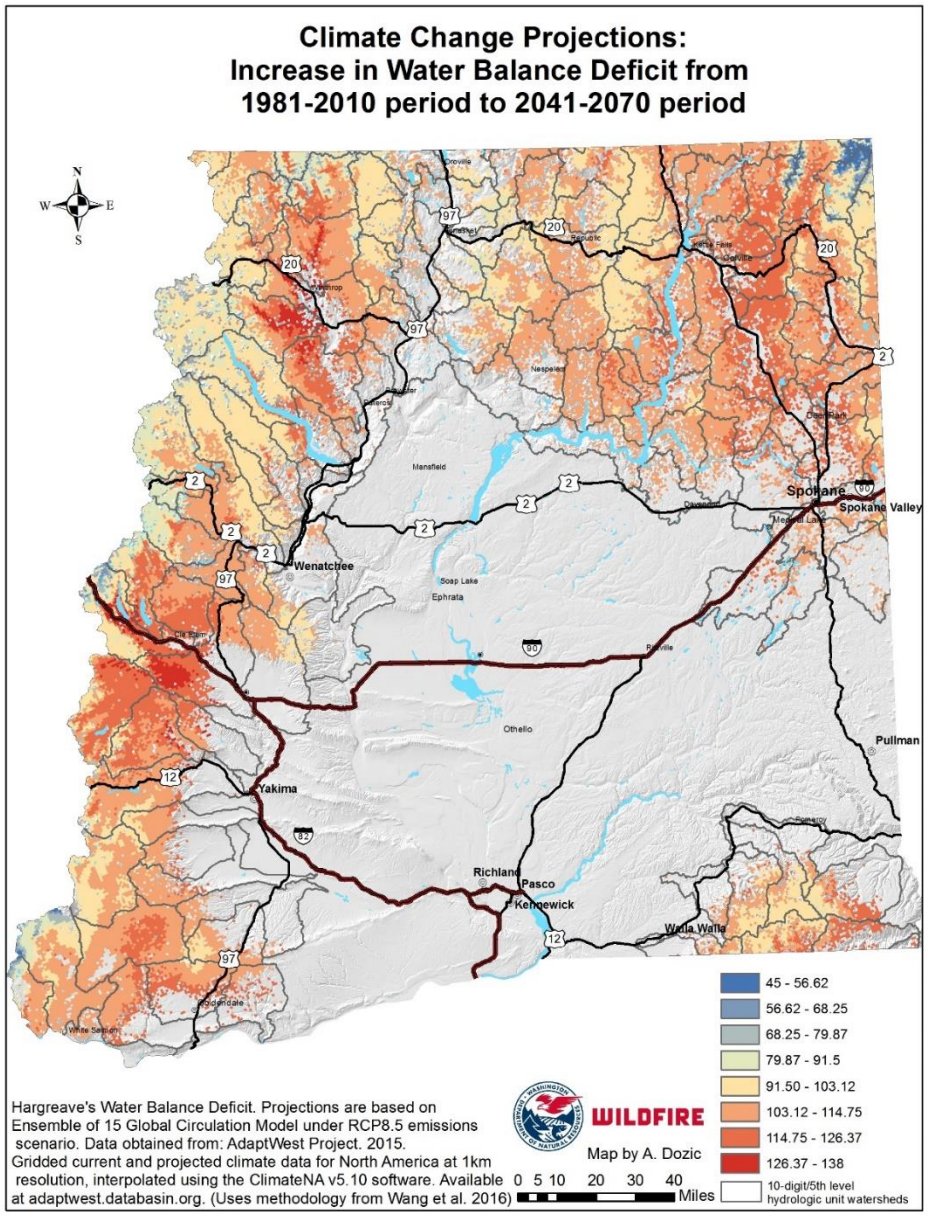


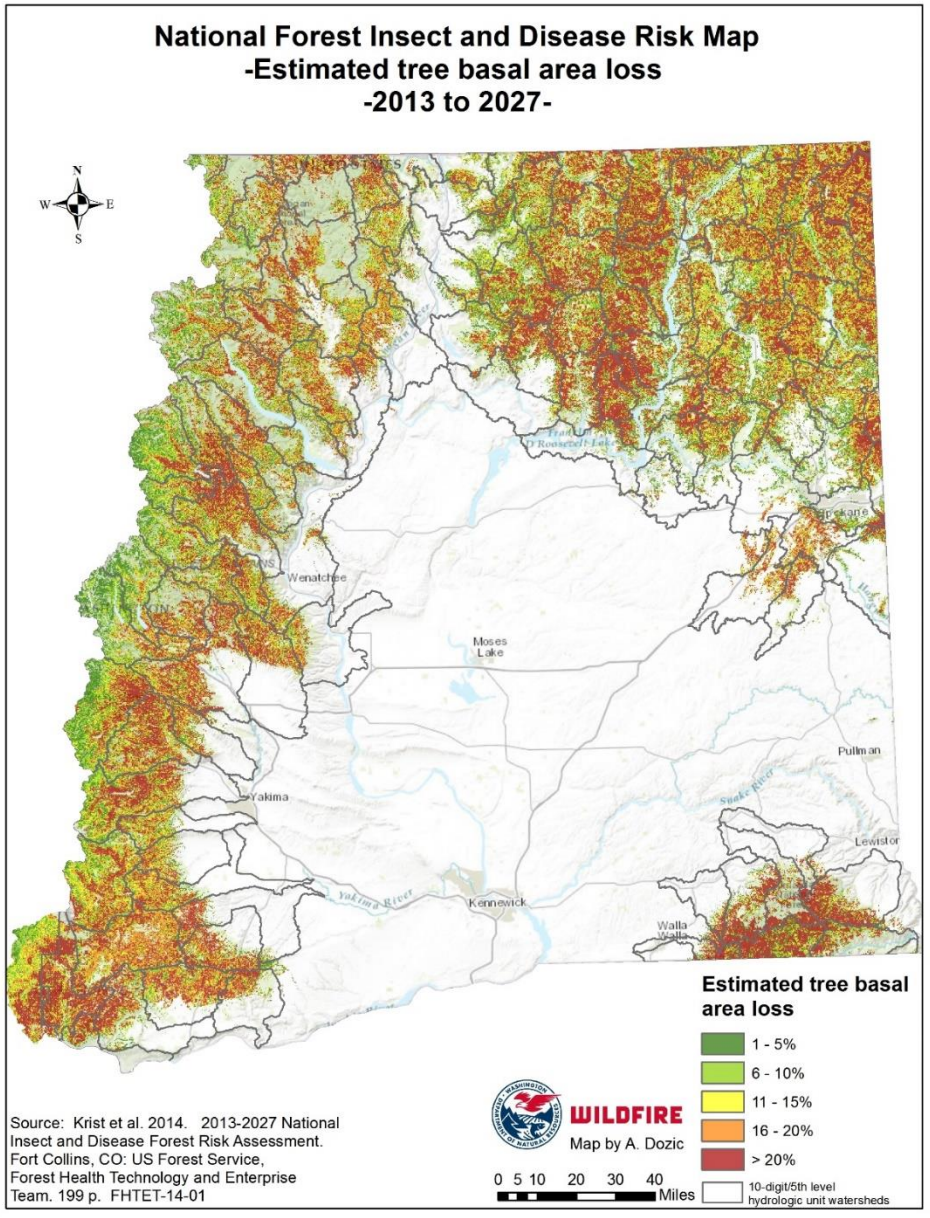


Tier 1: Fire Risk (Probability x Intensity)

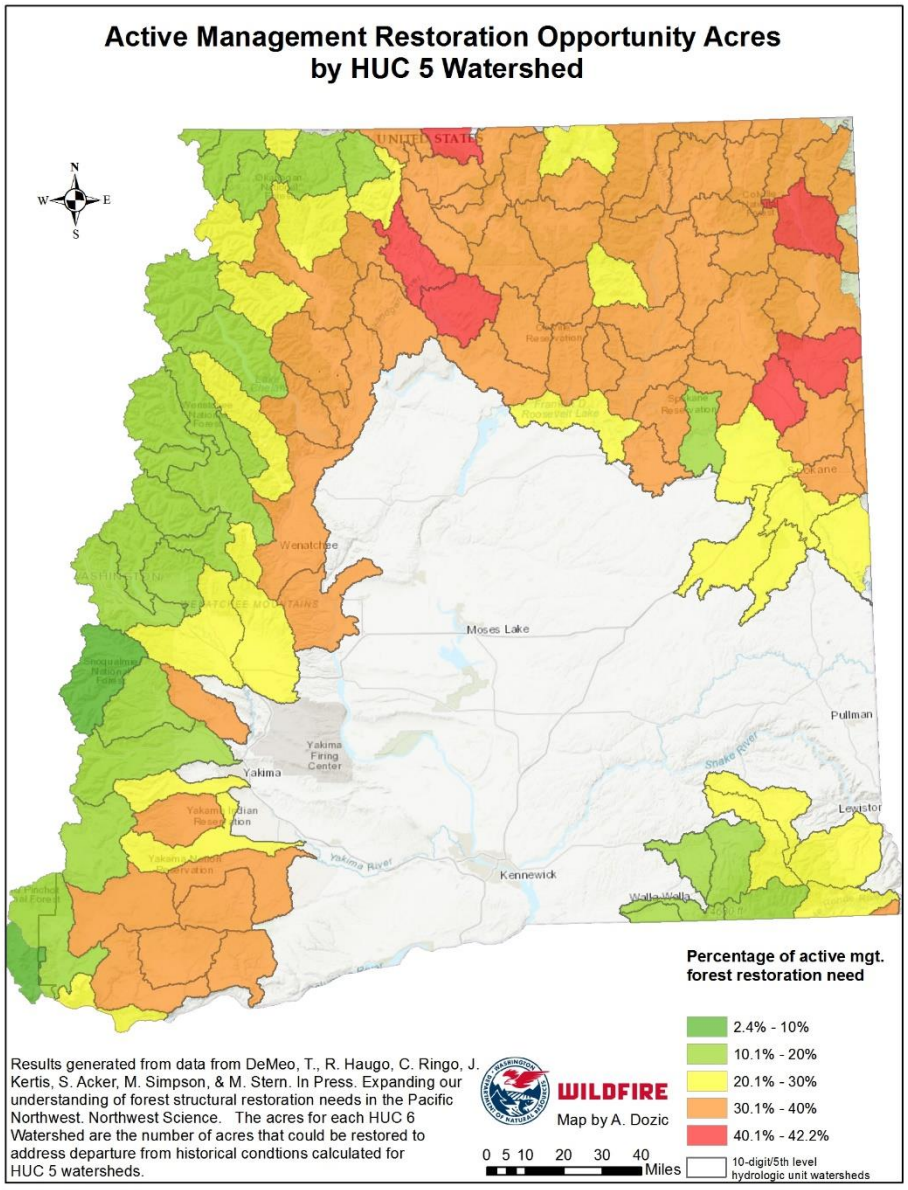


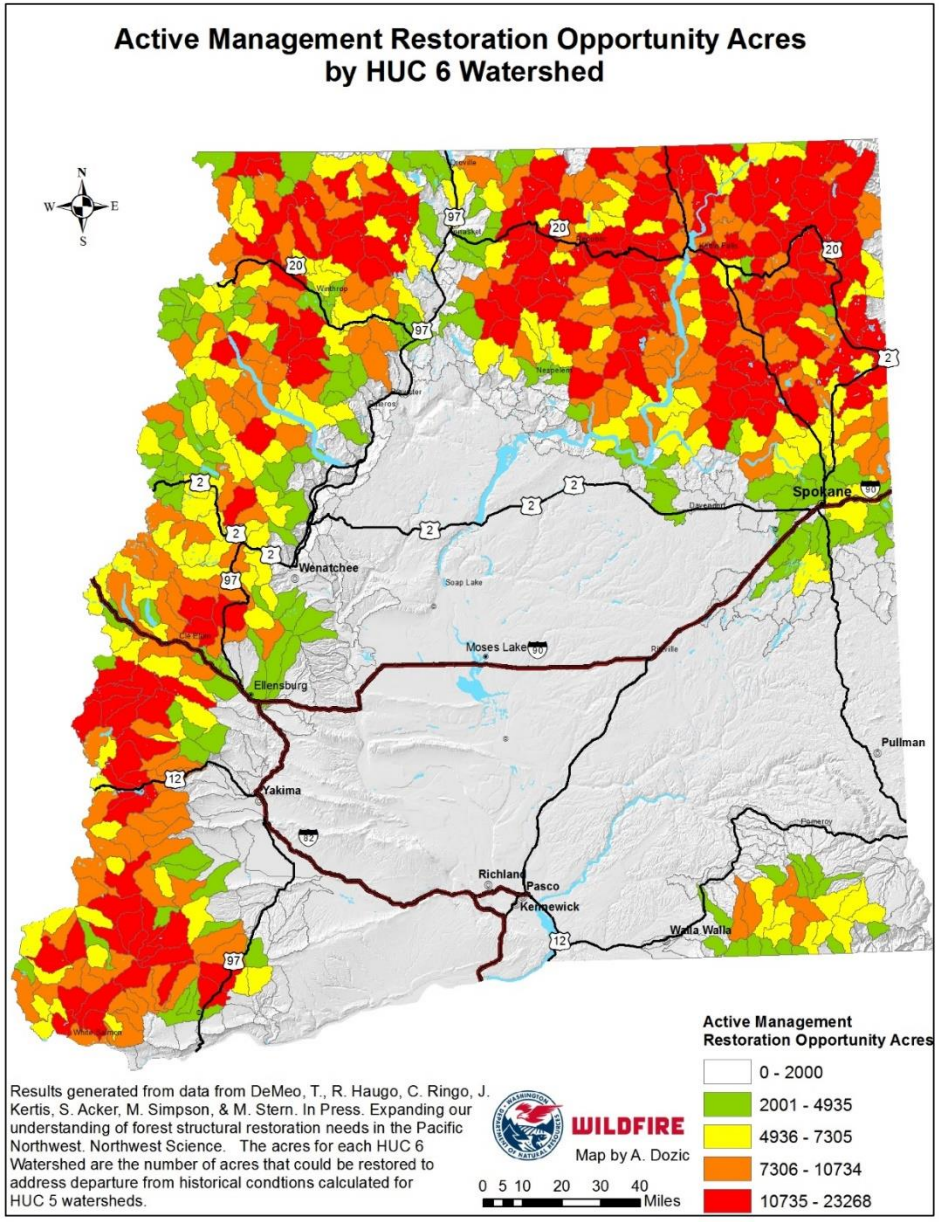
Tier 1: Climate Change – Insect & Disease



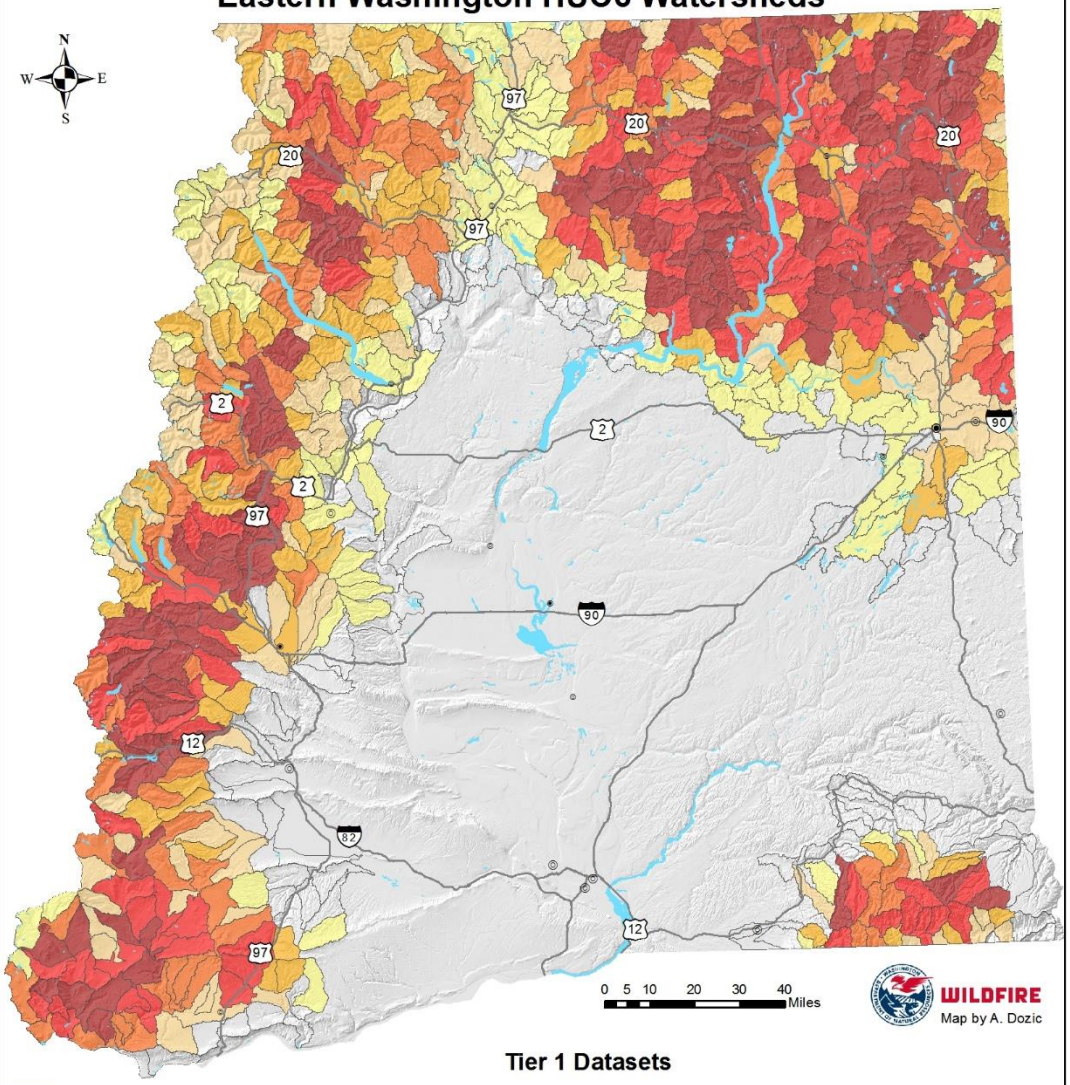


Tier 1: Departure & Restoration Opportunity





Forest Health/Wildfire Risks (Tier 1)
Eastern Washington HUC6 Watersheds



WILDFIRE
Map by A. Dozic

Low Forest Health/Wildfire Risk

Medium Forest Health/Wildfire Risk

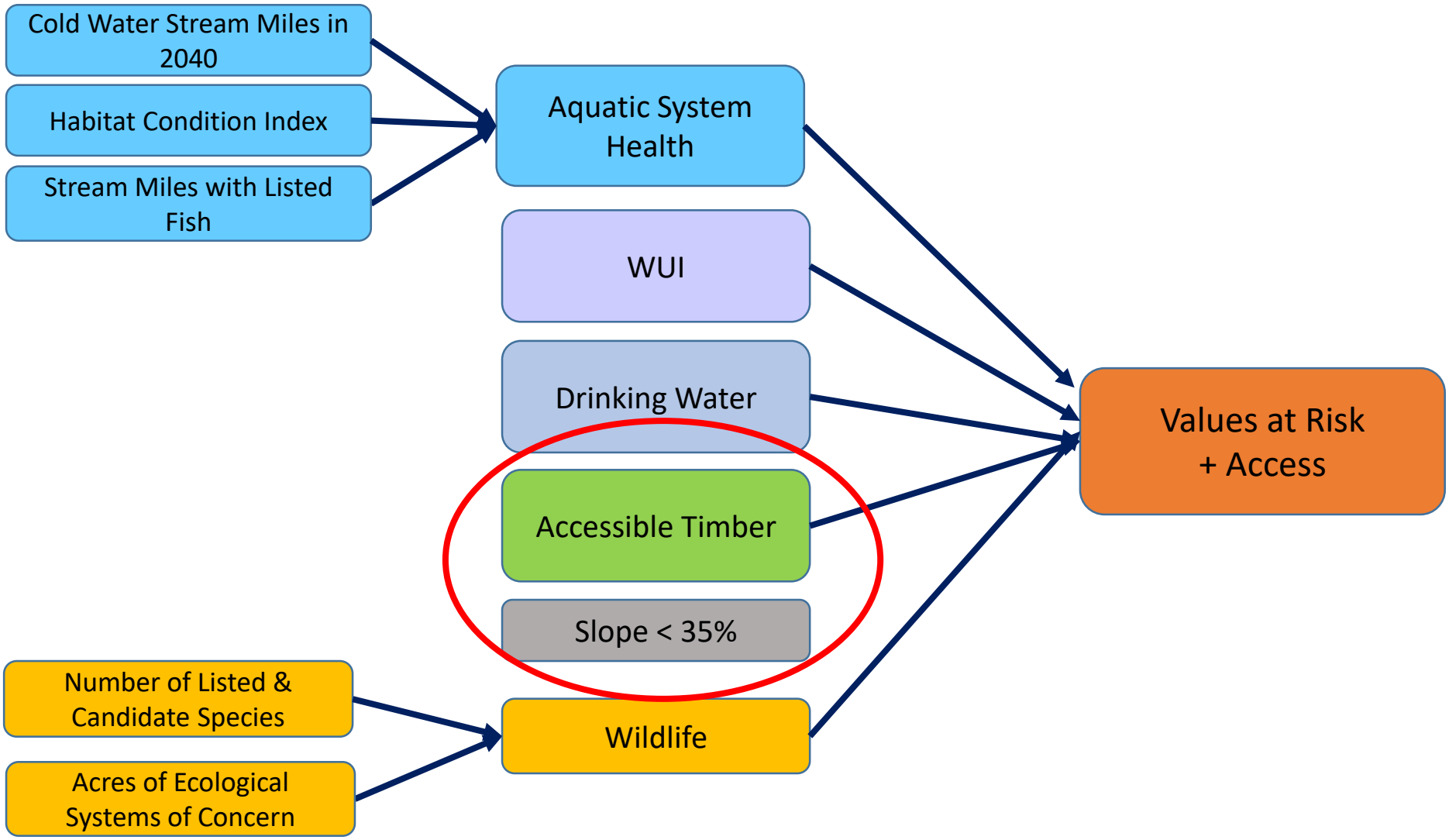
High Forest Health/Wildfire Risk

12-digit/6th level hydrologic unit watersheds

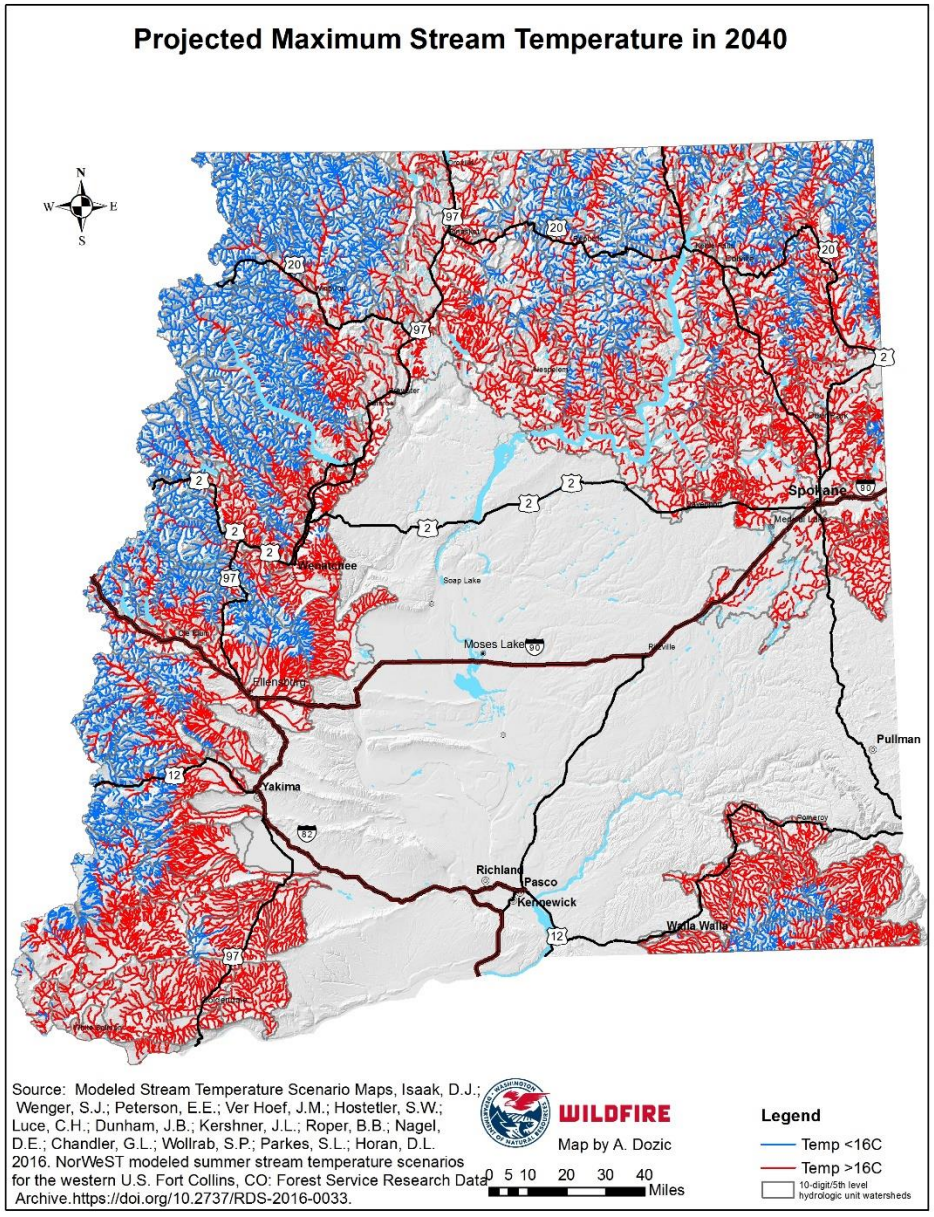
Tier 1 Datasets

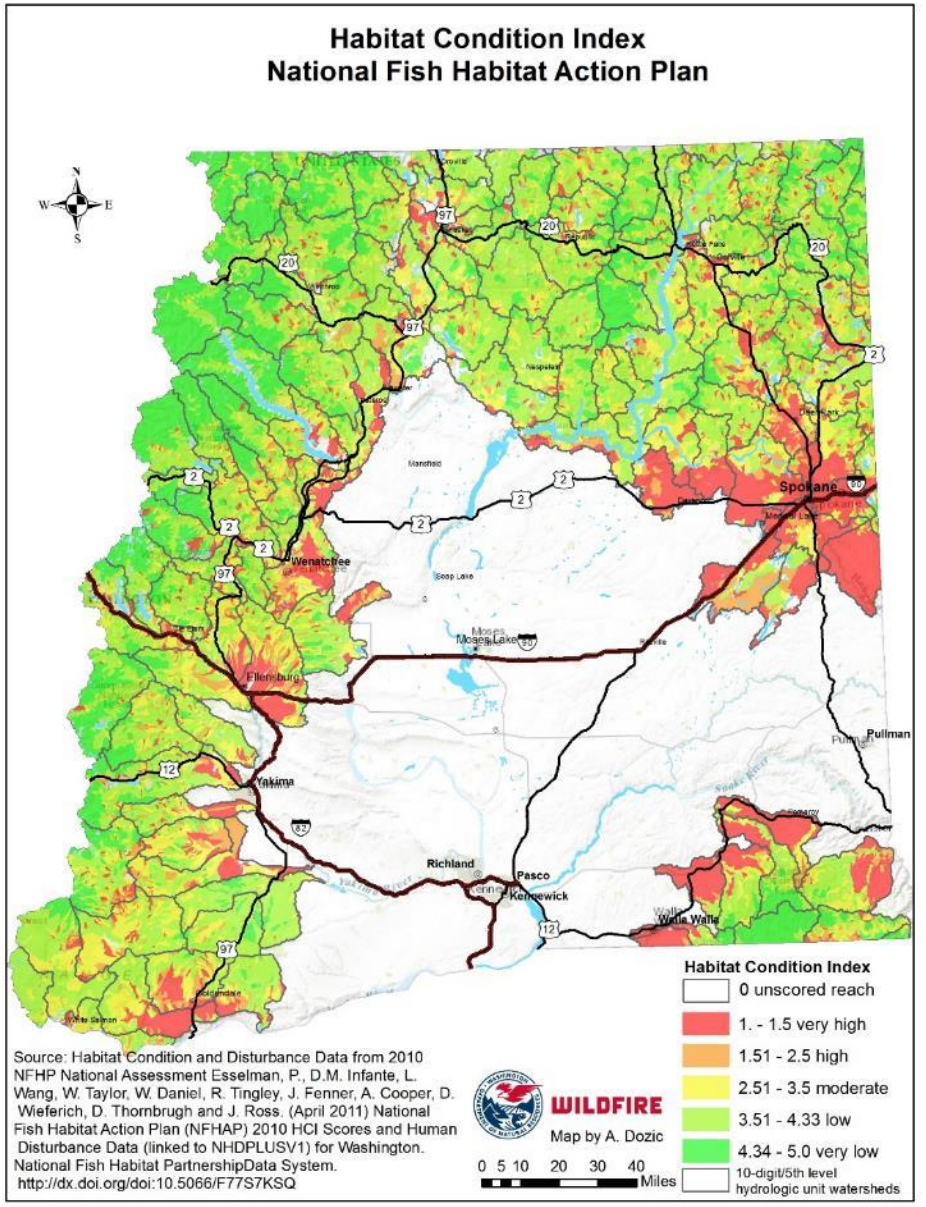
- Fire Probability: Average of Fire Threat Index from Westwide Wildfire Risk Assessment, large fire probability (Davis et. al 2017), and burn probability from Quantitative Wildfire Risk Assessment for OR and WA (USFS Region 6 2017)
- Insect and Disease Risk: National Insect and Disease Risk Map (Krist et al. 2014)
- Active Restoration Need: TNC and USFS Restoration Needs Analysis (Haugo et al. 2015)
- Climate Change: Increase in Water Balance Deficit (AdaptWest 2015)

Tier 2: Values at Risk + Access

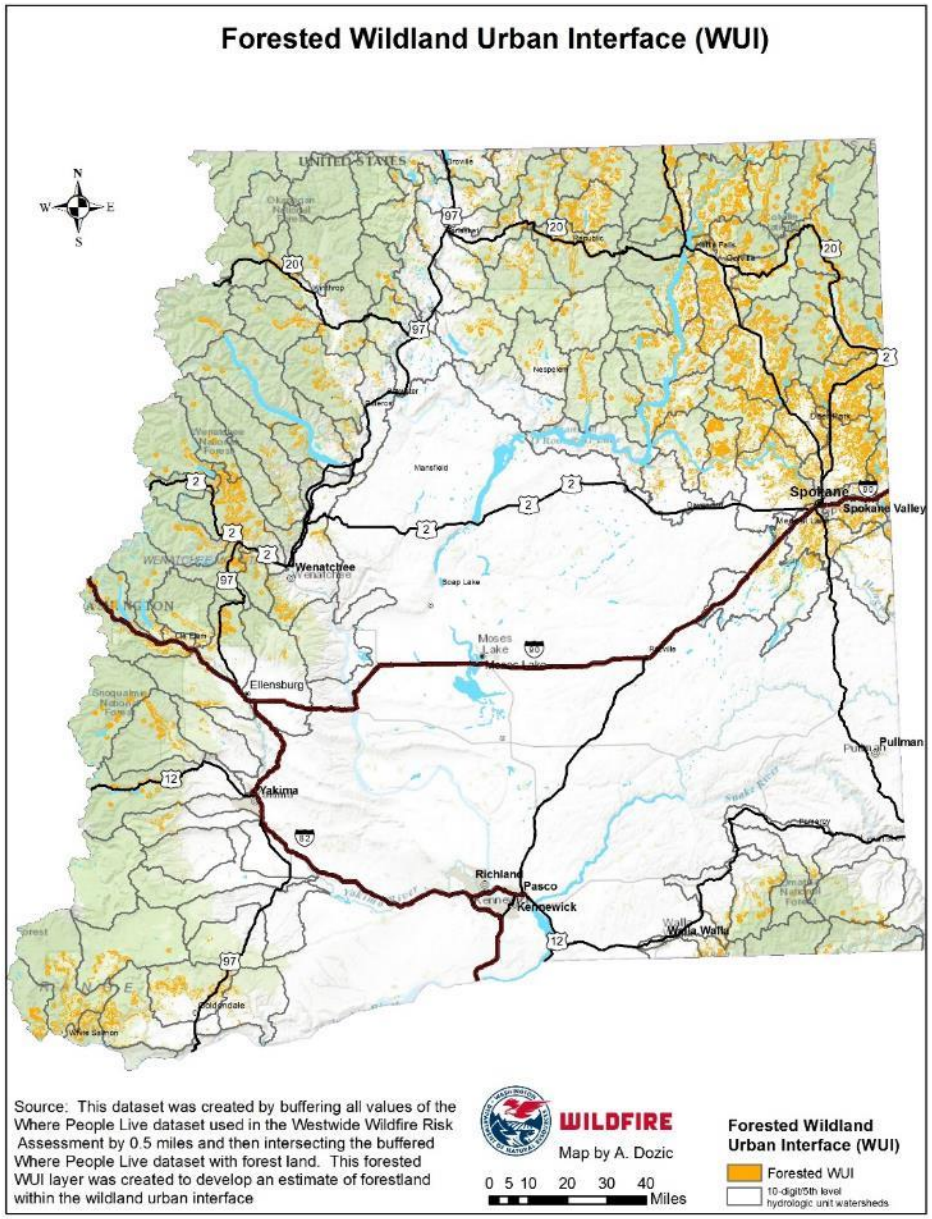


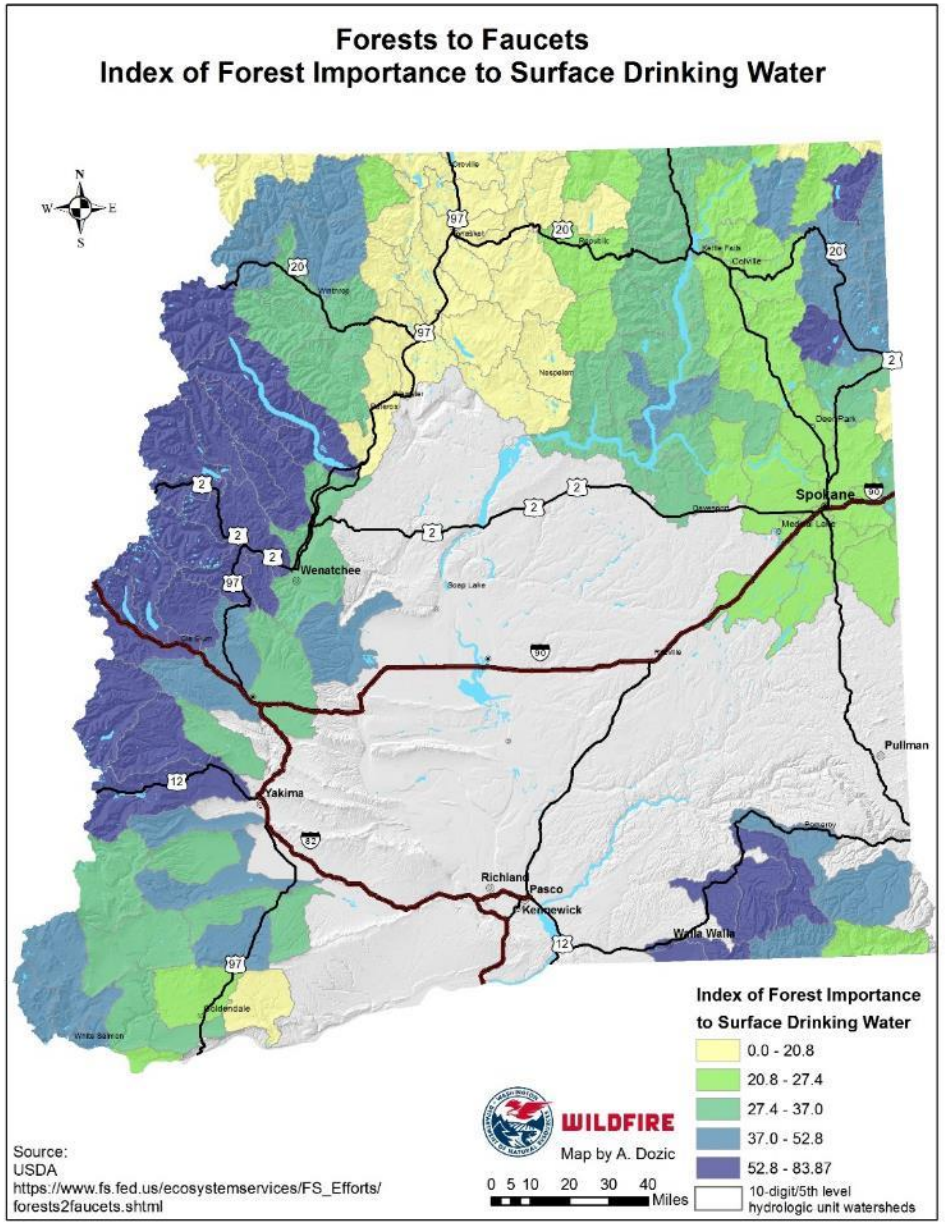
Tier 2: Aquatic Systems



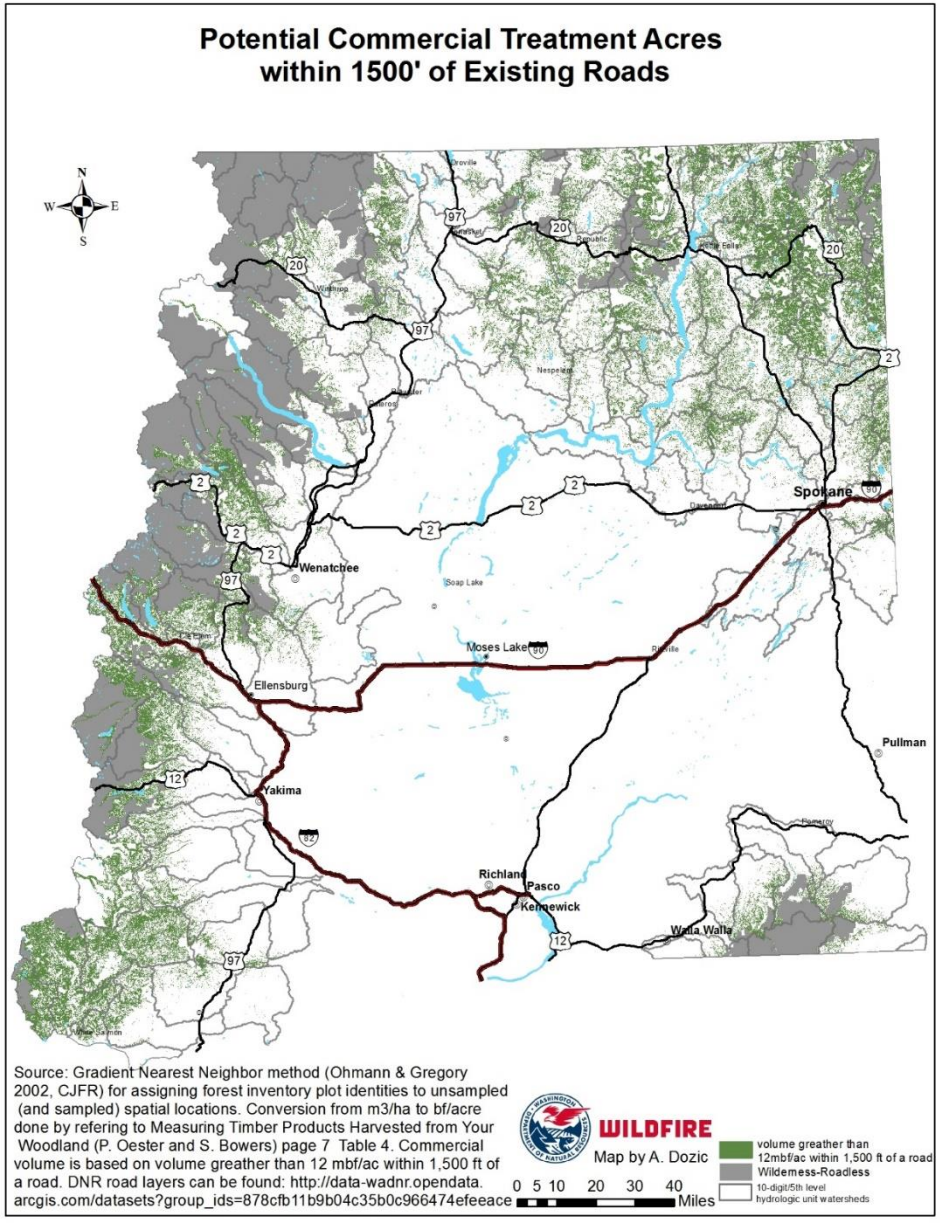


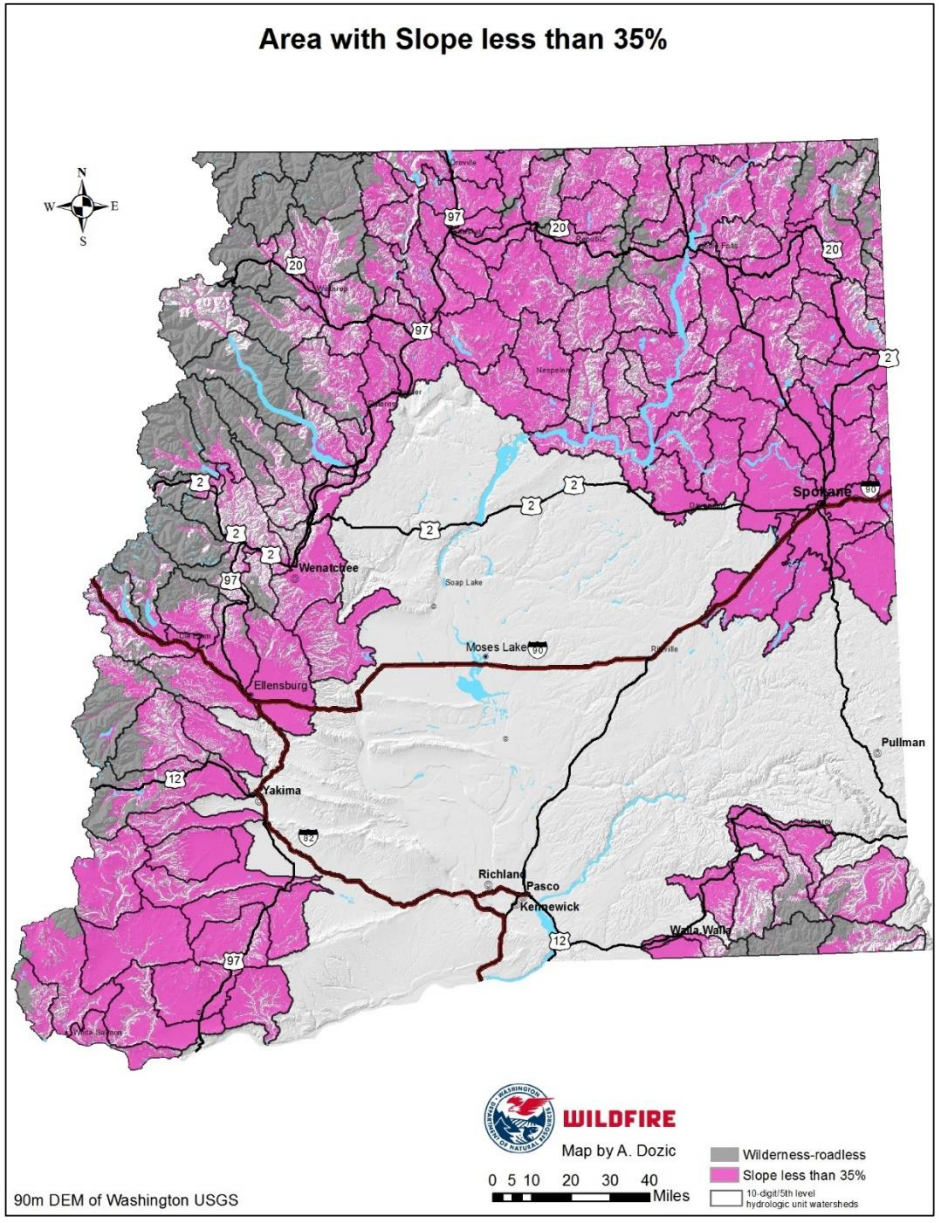
Tier 2: WUI & Drinking Water



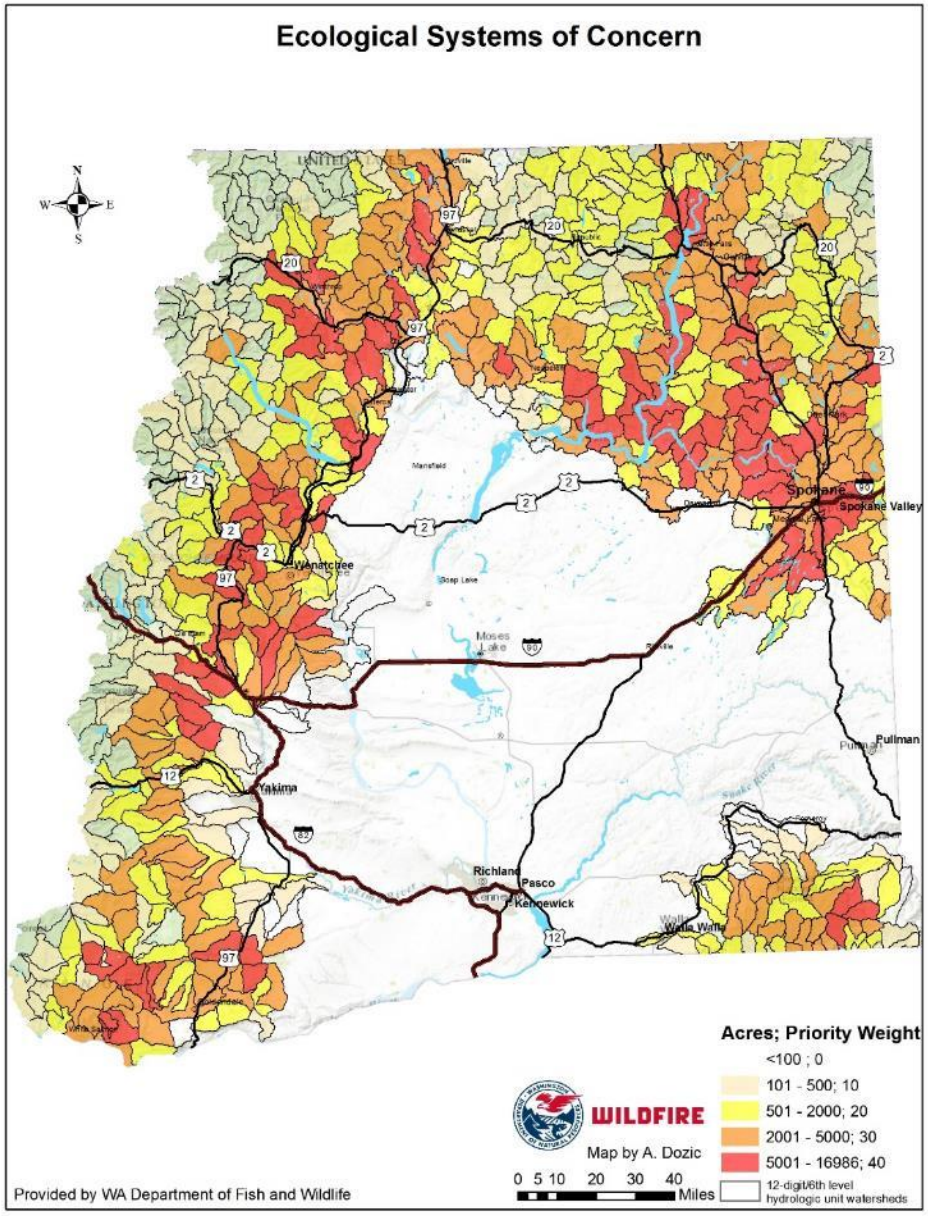


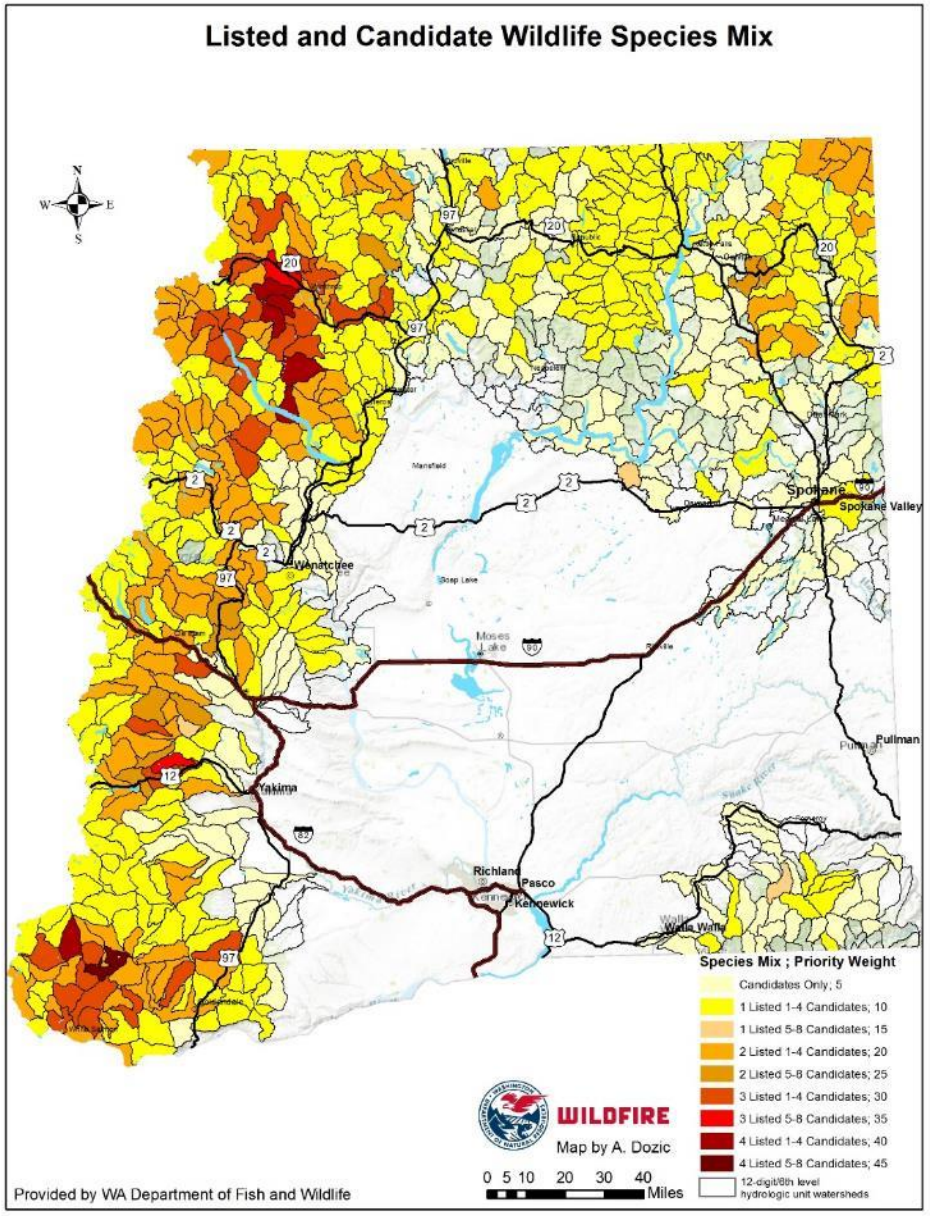
Tier 2: Timber Volume and Access



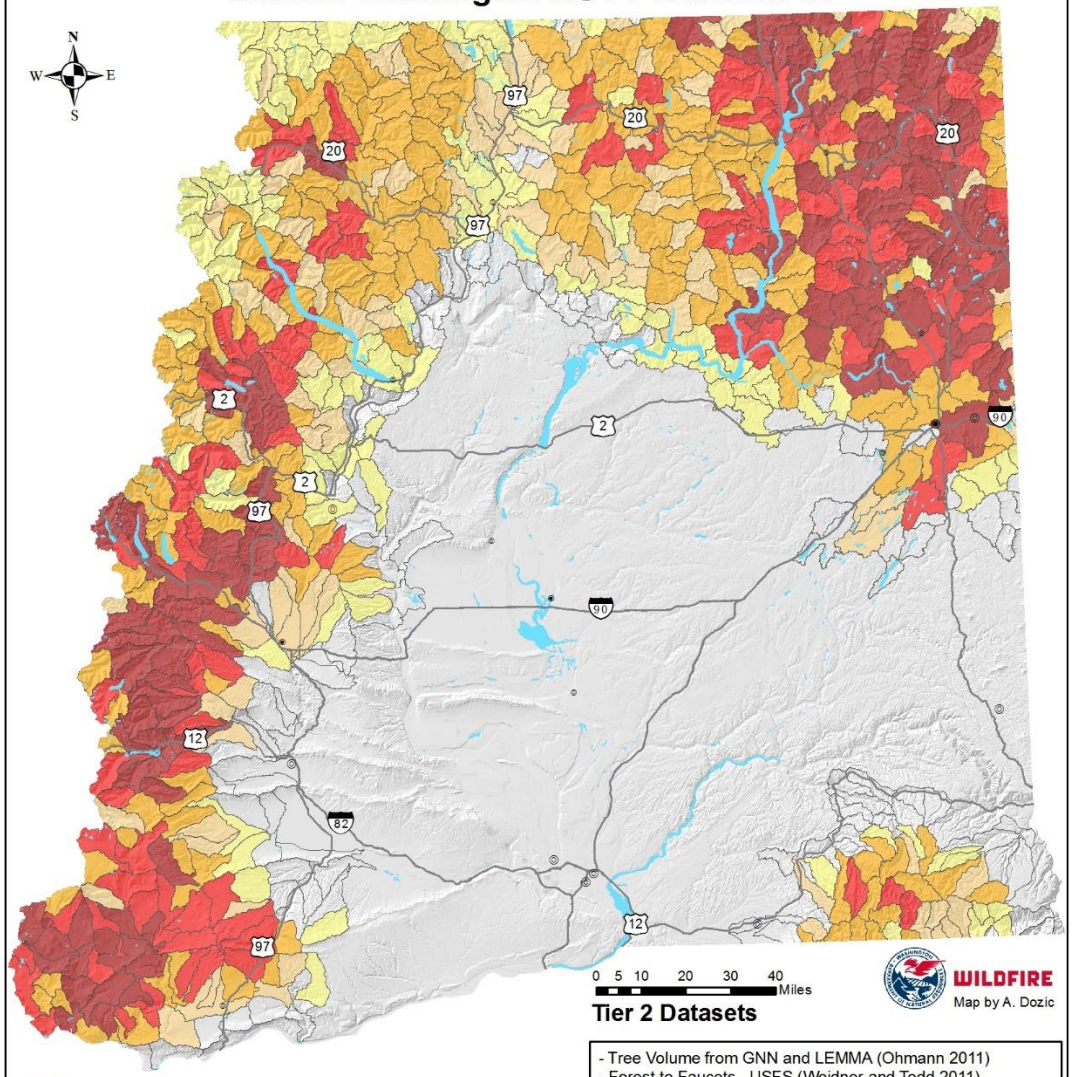


Tier 2: Wildlife





Values at Risk (Tier 2)
Eastern Washington HUC6 Watersheds



WILDFIRE

Map by A. Dozic

Tier 2 Datasets

- Tree Volume from GNN and LEMMA (Ohmann 2011)
- Forest to Faucets, USFS (Weidner and Todd 2011)
- Forested Wildland Urban Interface (DNR, derived from Where People Live Dataset)
- Wildlife Datasets:
  - Ecological Systems of Concern (WDFW)
  - Listed and Candidate Wildlife Species Mix (WDFW)
- Aquatic Datasets:
  - Miles with Listed Fish Species (WDFW)
  - Habitat Condition Index, National Fish Habitat Action Plan (Esselman 2010)
  - Stream miles with Stream Temperature <16C in 2040, NorWest (Isaak et al. 2016)

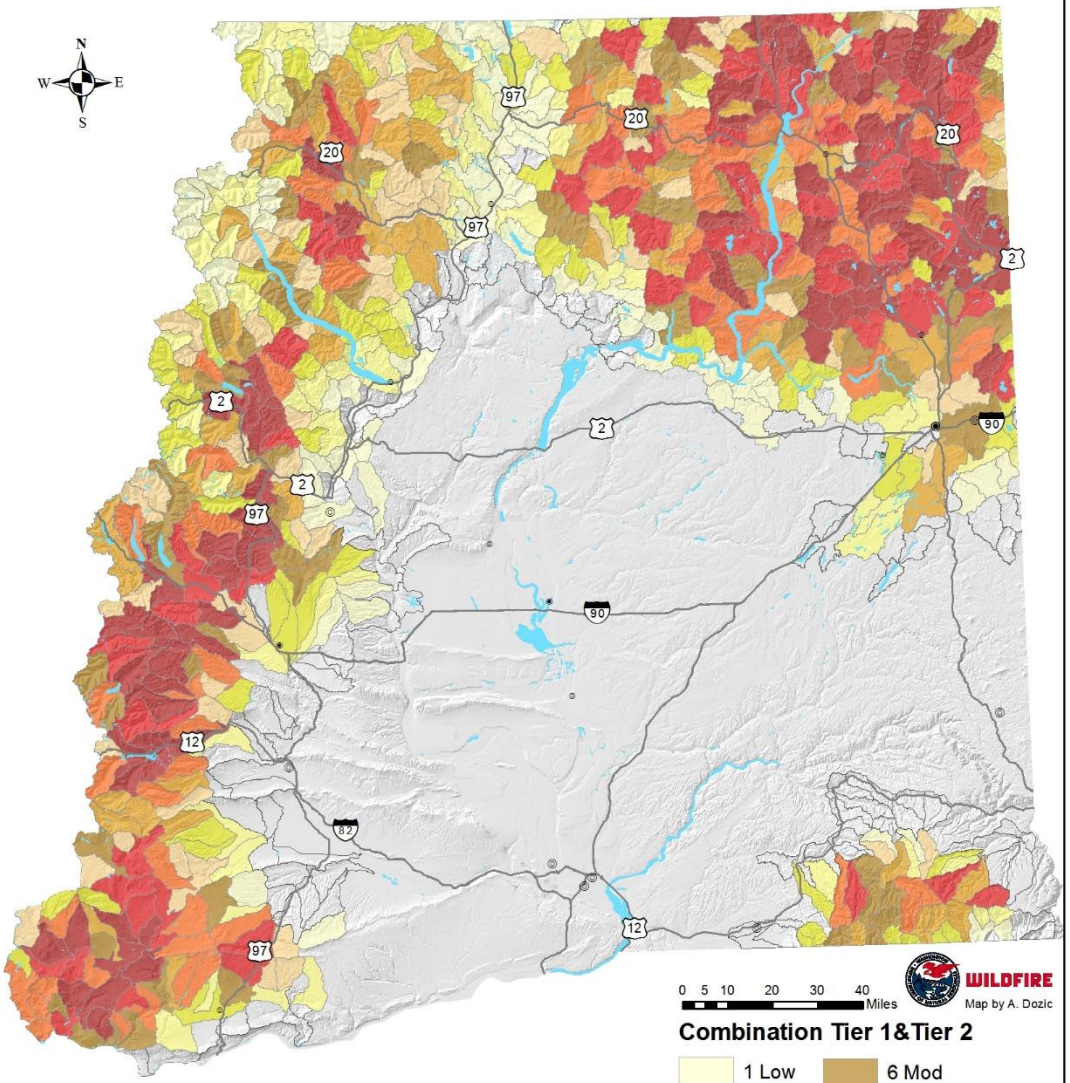
Low Values at Risk

Medium Values at Risk

High Values at Risk

12-digit/6th level hydrologic unit watersheds

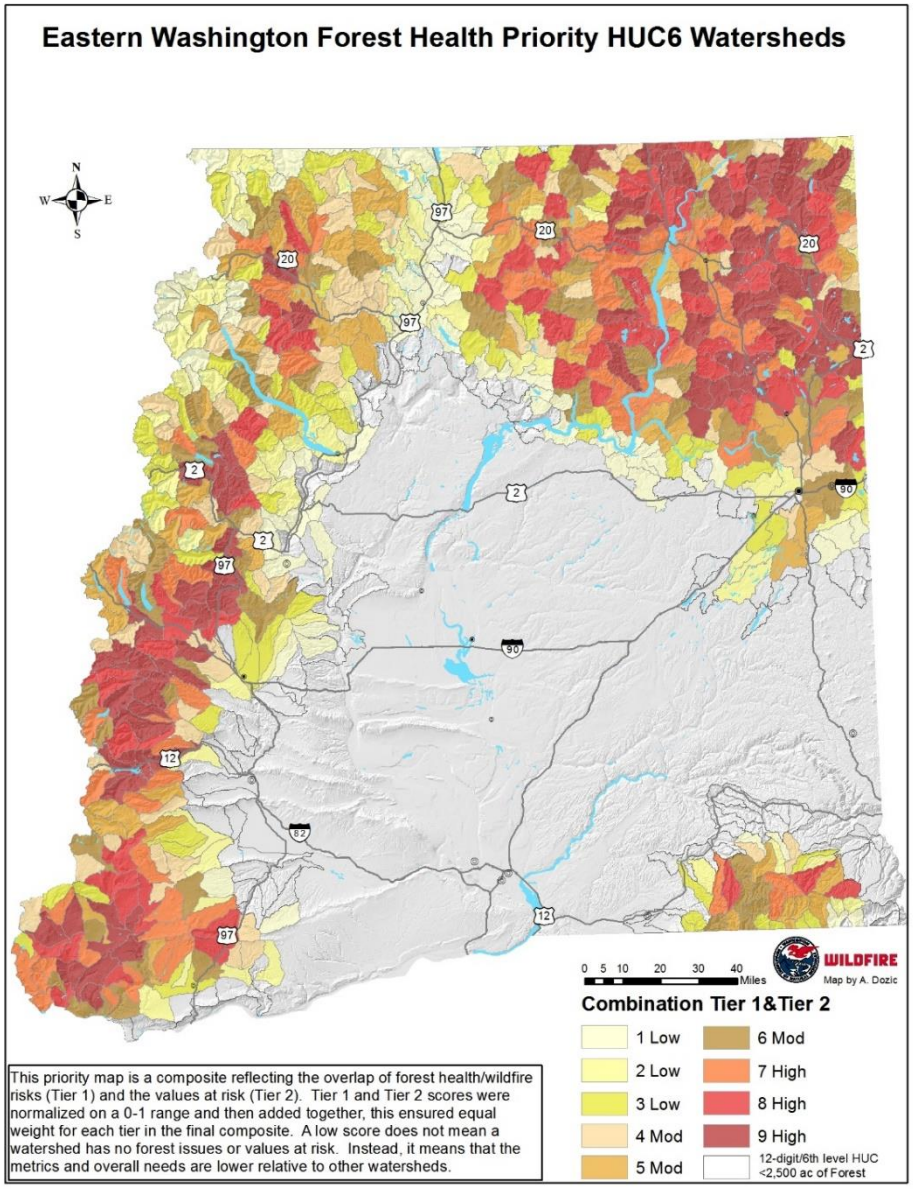
Eastern Washington Forest Health Priority HUC6 Watersheds



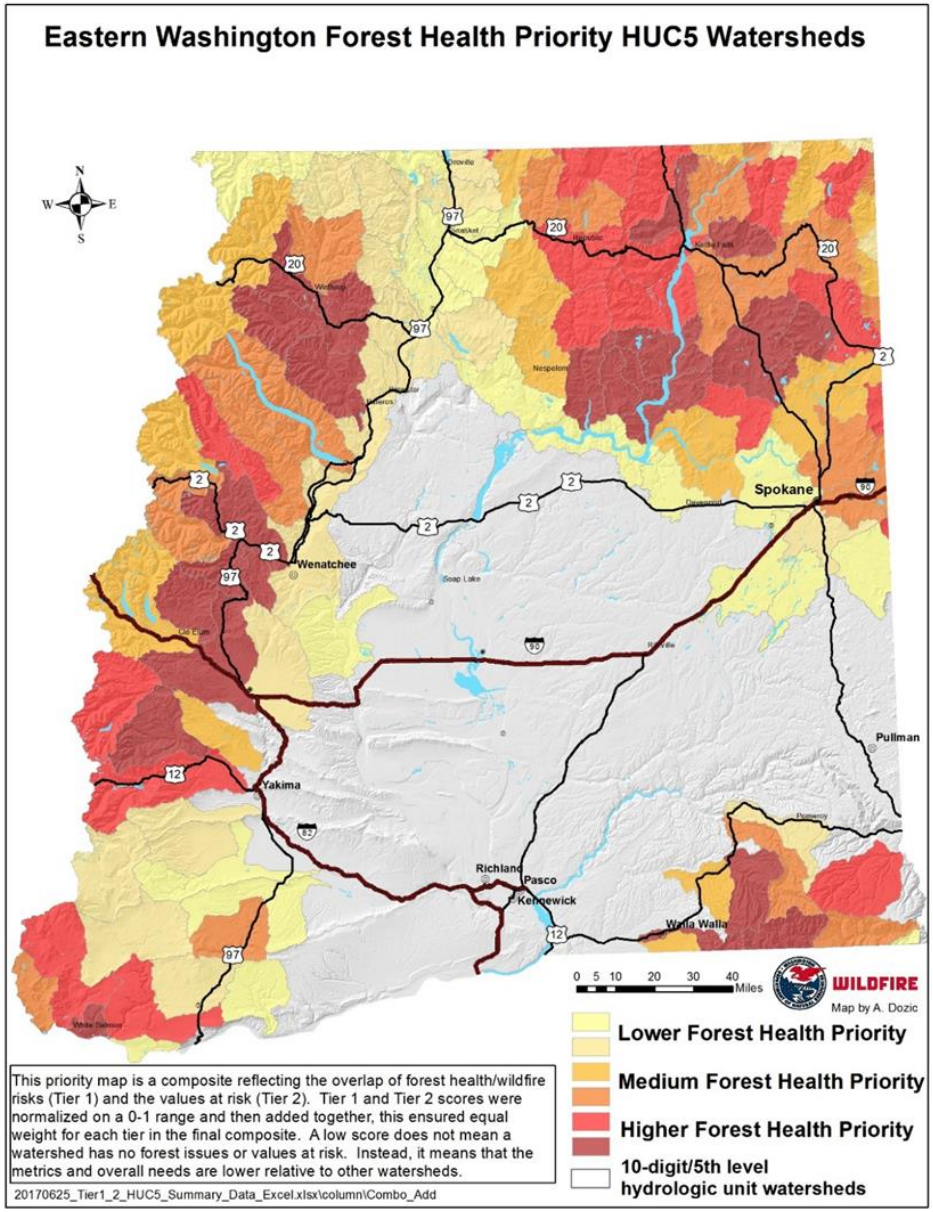
This priority map is a composite reflecting the overlap of forest health/wildfire risks (Tier 1) and the values at risk (Tier 2). Tier 1 and Tier 2 scores were normalized on a 0-1 range and then added together, this ensured equal weight for each tier in the final composite. A low score does not mean 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.

Eastern WA Forest Health Priority Watersheds

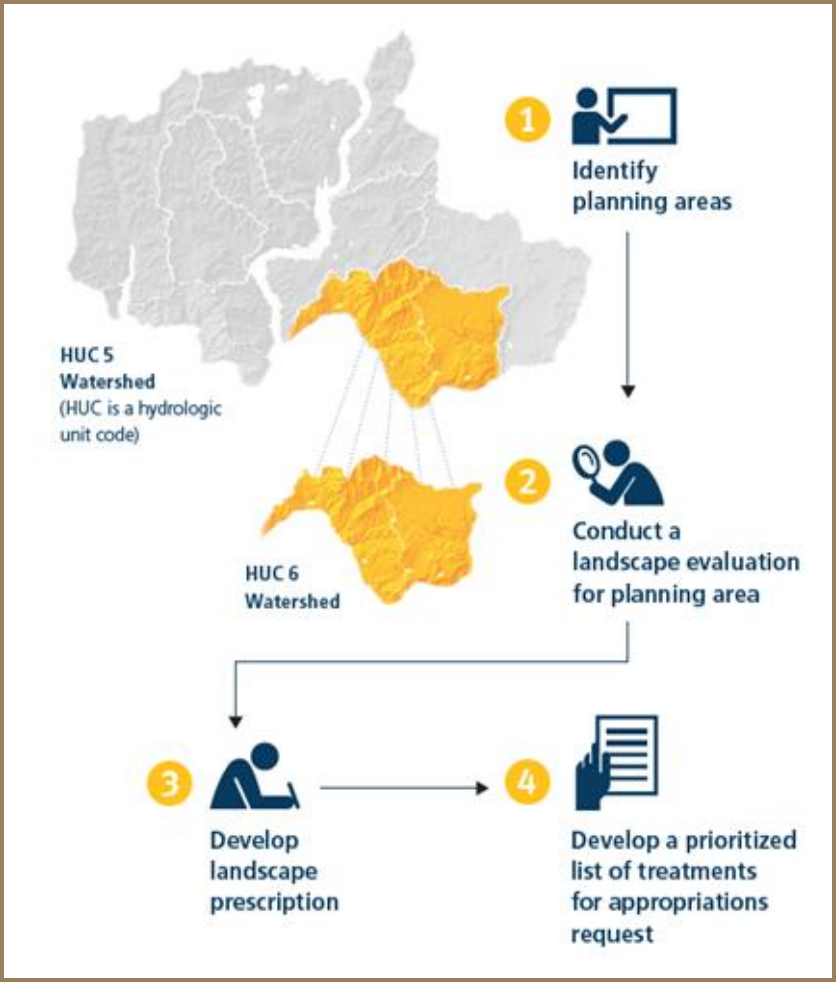
HUC 6 Level



HUC 5 Level



Draft Proposed Planning Areas



-DNR is currently in the process of selecting 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 is presenting proposed planning areas based on local consultation and state HUC 6 forest health prioritization.

-DNR will be finalizing the proposed planning areas by mid-February.

DNR – Forest Service Engagement

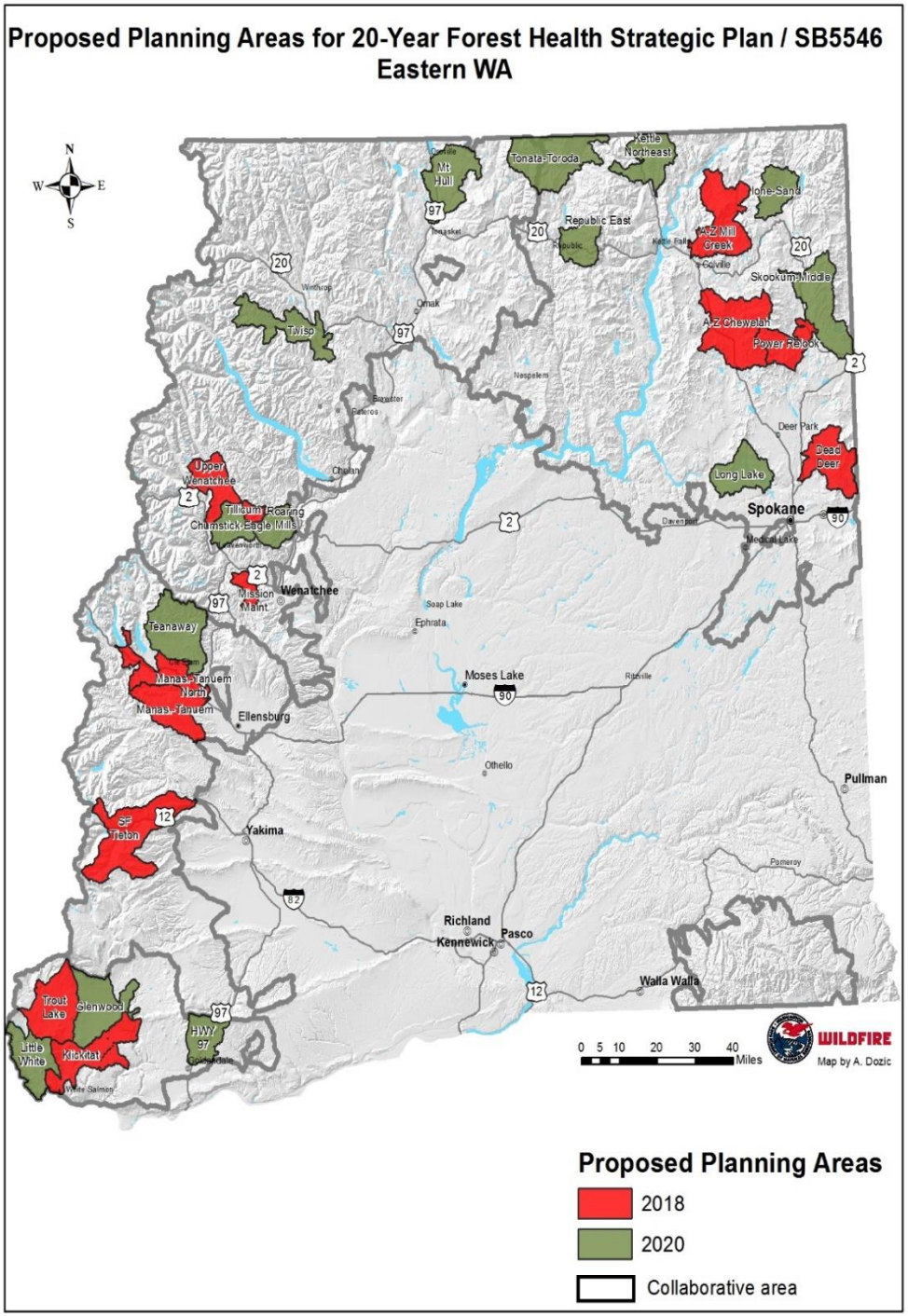
Project Area Types

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.

Draft


Proposed Planning Areas for 20-Year Forest Health Strategic Plan / SB5546
Eastern WA
N
W
E
S
Tonata-Toroda
Kettle Northeast
Mt Hull
Republic East
Ione-Sand
A-Z Mill Creek
Skookum-Middle
A-Z Chewelah
Power Rebok
Twisp
Omak
Nespelem
Deer Park
Dead Deer
Long Lake
Spokane
Upper Wenatchee
Tillicum
Roaring Chumstick-Eagle Mills
Mission Maint.
Wenatchee
Soap Lake
Ephrata
Teanaway
Manas-Tanuem North
Manas-Tanuem
Ellensburg
Moses Lake
Othello
Pullman
SF Tieton
Yakima
Pomeroy
Richland
Kennewick
Pasco
Walla Walla
Trout Lake
Glenwood
Little White
Klickitat
HWY 97
0 5 10 20 30 40 Miles
WILDFIRE
Map by A. Dozic
Proposed Planning Areas
2018
2020
Collaborative area

Proposed Planning Areas 2018 and 2020/E. WA Forest Health Priority Watersheds

Draft

HUC 6 Watersheds