



**FOREST HEALTH HAZARD WARNING**  
**Voluntary Actions Are Advised to Assess and Remediate Risks**

August 17, 2012

Greetings:

The Washington State Department of Natural Resources (DNR) has issued a Forest Health Hazard Warning for portions of Klickitat and Yakima counties. The reason for issuing a Warning is that forest insects are causing significant damage and current forest conditions are vulnerable to further spread. The purpose of this Warning is to provide you with more information about what is happening and steps DNR recommends that you consider (on a voluntary basis only) for protecting your woodland or forest acreage.

There are two main resources available to get you started:

1. Visit: <http://www.dnr.wa.gov/foresthealth> to learn about assessing your risks, identifying insect damage and susceptible forest conditions, or to ask about a free consultation with a DNR forester in your area.
2. If you prefer to contact us by phone, please call **1-855-338-8200** 8:00AM-5:00PM weekdays.

If you decide to consider voluntary action, DNR recommends that you seek the assistance of a professional forester. This helps you accomplish three important things:

- Assess Risks: You'll get help assessing the risks in your forest or woodland.
- Set Your Goals: You'll discuss what is important to you about the trees on your land (such as scenery, timber production, fire protection, wildlife or fish habitat).
- Take Action: Finally, you can evaluate whether options, such as tree thinning or harvest, can help you reduce forest health hazards consistent with your desired results.

Foresters with DNR, in partnership with Conservation Districts and USDA Natural Resources Conservation Service, or private forestry consultants are all available to assist you. Today's forests are much less diverse, have different mixes of tree species, and exhibit more over-crowded conditions compared to what one would have found within a normal range historically. These changes have increased insect damage susceptibility. Carefully planned and executed tree thinning or harvests can reduce susceptibility by restoring more normal conditions.

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In some cases thinning activities can return revenue, and in other cases not. In light of current economic conditions, DNR worked with the state legislature to make funds available for cost-sharing forest hazard reduction activities. These resources are being prioritized to help property owners within the Forest Health Hazard Warning area. This Warning applies to all lands within its boundaries, so we are also working to identify and organize larger-sized projects where private, state, federal and tribal forests can all work together to improve forest health.

I am asking that you join me in taking action to protect forest health. **The effect of a Forest Health Hazard Warning is advisory only – the choice is yours.**

Sincerely,

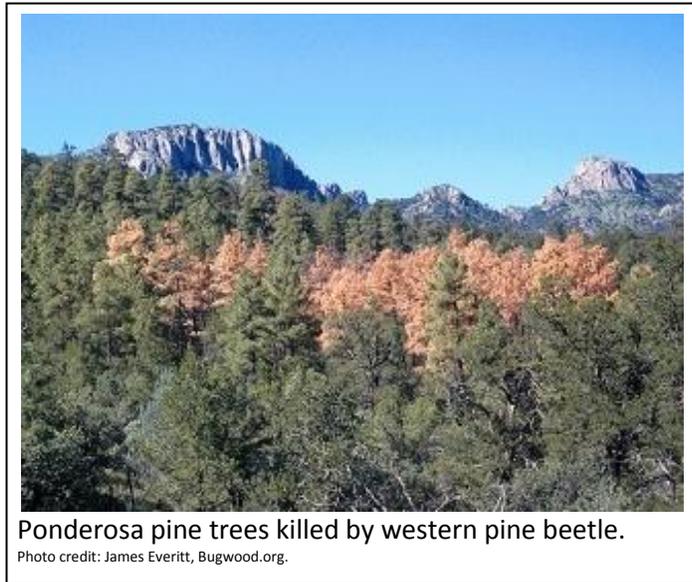
A handwritten signature in black ink, appearing to read "Peter Goldmark", written in a cursive style.

Peter Goldmark  
Commissioner of Public Lands

## Hazard Warning Issued

The Washington State Department of Natural Resources has issued a Forest Health Hazard Warning under state law for portions of Klickitat and Yakima counties (detailed area map enclosed).

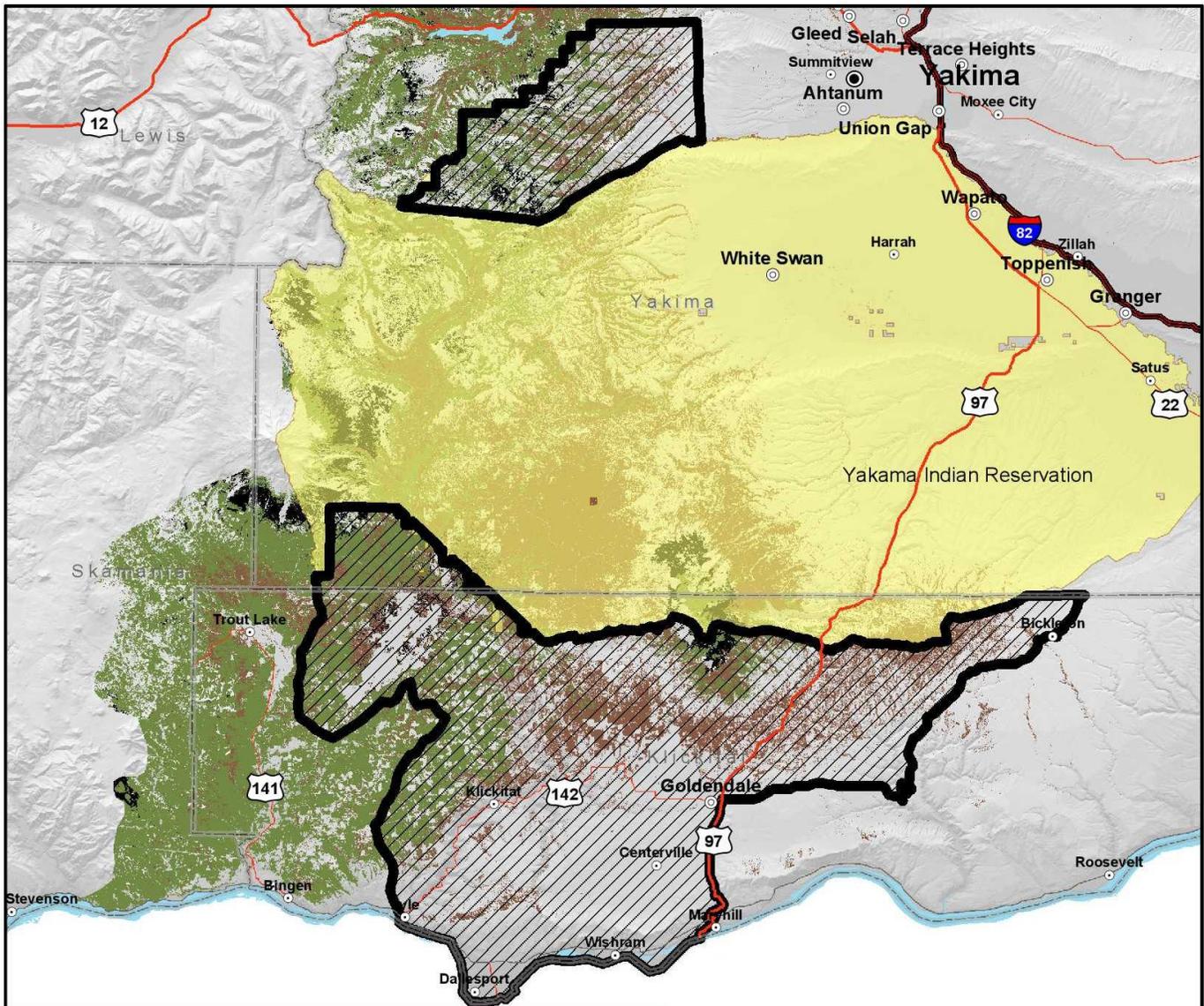
- The purpose of a warning is to call attention to deteriorating forest conditions and help coordinate timely actions to address the situation. All actions are voluntary on the part of the affected landowners and land managers.
- The main type of forest insect damage that is the subject of the warning is from bark beetles (mountain pine beetle, western pine beetle) in ponderosa pine.
- These are native insects, but current forest conditions are ripe for severe and widespread damage from outbreaks. These same kinds of forest conditions can worsen wildfire hazards.
- The recommendation to establish a warning comes from a nine-member technical advisory committee that was convened in January and worked throughout the spring.
- Forest health concerns exist throughout eastern Washington, many of them severe. Yet, it is not possible or desirable to thin every last acre. Therefore, the committee prioritized top prospects for landscapes warranting focused attention and action. This included looking at current damage, projected future hazards, and the best potential for on-the-ground results.



## Recommended Actions

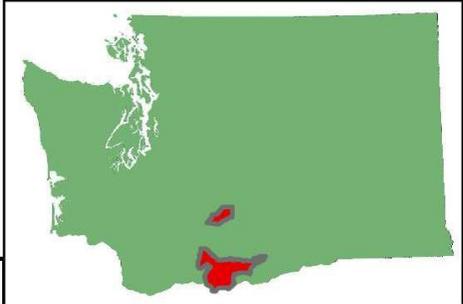
DNR recommends that, as soon as practicable but not later than one year from now, you consider the following actions:

- Assess the current damage and risks that may exist on your land with the help of a professional forester
- Depending on your risk factors and desired outcomes for your land, consider hazard reduction actions such as tree thinning
- Visit: <http://www.dnr.wa.gov/foresthealth> or call 1-855-338-8200 to get started.



### Forest Health Hazard Warning

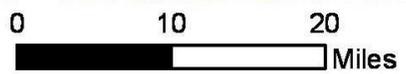
-  Pine bark beetles
-  Ponderosa pine suitable host areas for bark beetles
-  Lodgepole pine suitable host areas for bark beetles
-  Suitable host areas for western spruce budworm
-  County Boundaries

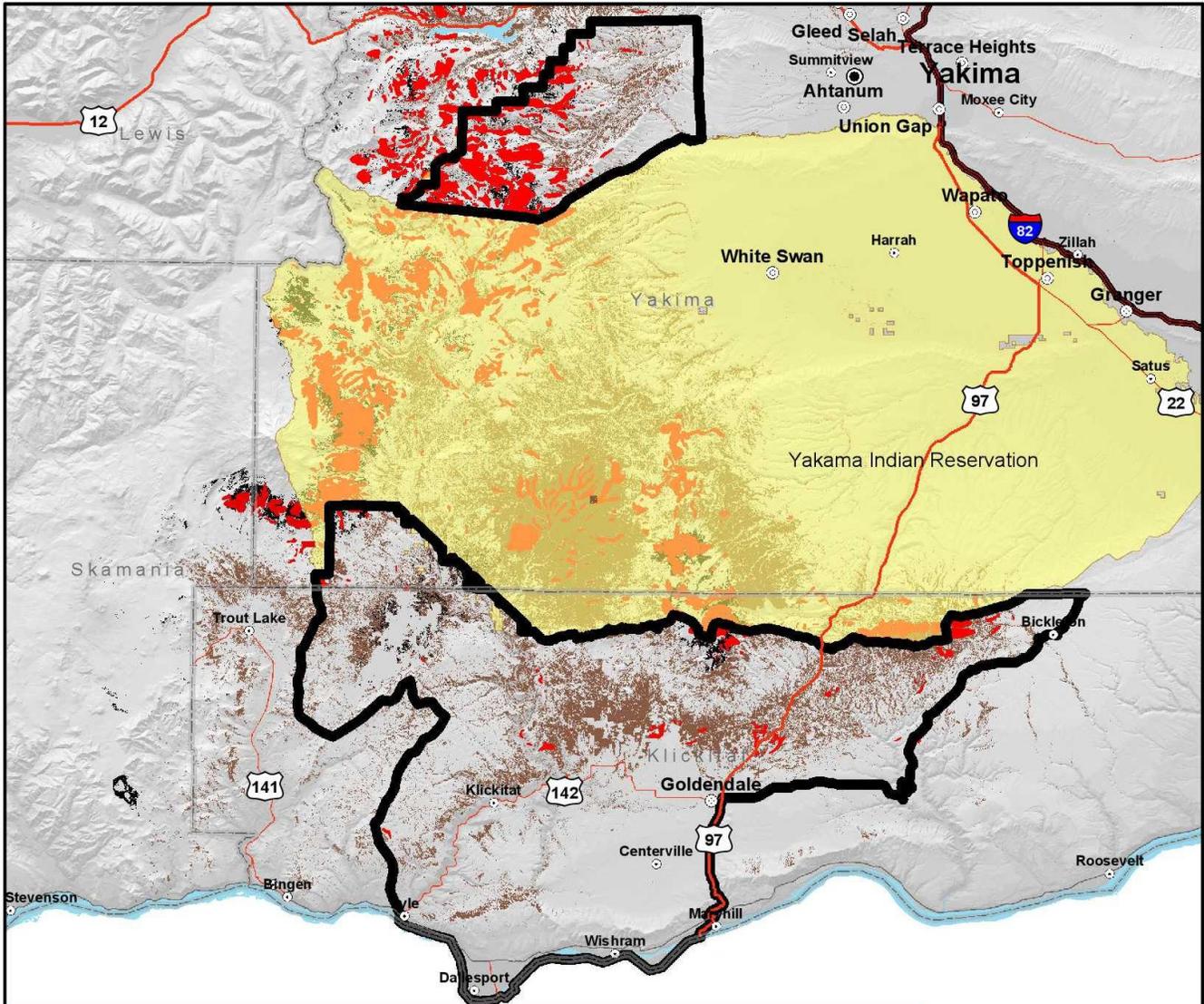


Data sources:  
 Suitable host area for pine bark beetles created from a query of m222\_sppsz06 and m11\_sppsz00  
 GNN layers downloaded from LEMMA  
 Query of GNN layer based on the following attributes:  
 -Ponderosa pine or lodgepole pine comprised 30% or more of total stand basal area  
 -Quadratic mean diameter of 8 inches or greater  
 -Total stand basal area of 120 sq ft (11.14 sq m) or greater  
 SQL Query for ponderosa pine: "PPO\_PCT\_BA" >= 0.3  
 AND "MA2\_QM\_D" >= 8 AND "BAA\_GE\_3" >= 11.14  
 Suitable host area for WSBW created from a query of  
 m222\_sppsz06 and m11\_sppsz00 GNN layers downloaded  
 from LEMMA.  
 Query of GNN layer based on the following attributes:  
 -Fir comprised 40% or more of total stand basal area (ABGR, ABLA, PSME)  
 -Two or more canopy layers  
 -Total stand basal area of 120 sq ft (11.14 sq m) or greater



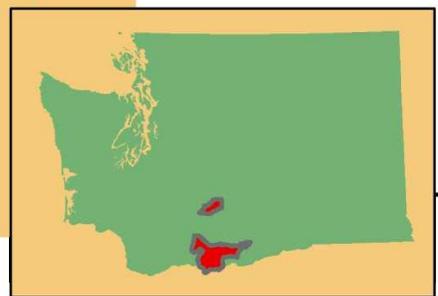
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 Peter Goldmark - Commissioner of Public Lands





### Recent Forest Damage in the Forest Health Hazard Warning Area

- Forest health hazard warning area boundary
- Pine bark beetle mortality 2006 - 2010
- Ponderosa pine suitable host areas for bark beetles
- Lodgepole pine suitable host areas for bark beetles
- County Boundaries



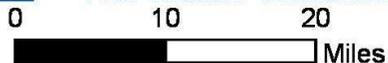
Data sources:  
 Suitable host area for pine bark beetles created from a query of mr222\_sppz06 and mr1\_sppz200 GNN layers downloaded from LEMMA.  
 Query of GNN layer based on the following attributes:  
 -Ponderosa pine or lodgepole pine comprised 30% or more of total stand basal area  
 -Quadratic mean diameter of 6 inches or greater  
 -Total stand basal area of 120 sq ft (11.14 sq m) or greater  
 SQL Query for ponderosa pine: "PPO\_PCT\_BA" >=0.3 AND "MAP\_GMD" >=8 AND "BAA\_GE\_3" >=11.14

Pine bark beetle mortality represents areas where five trees per acre or greater were observed dead from 2006-2010.  
 Data source: US Forest Service and WA DNR Aerial Insect and Disease Survey.



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Ponderosa pine trees killed by mountain pine beetle.

Photo credit: William M. Ciesla, Forest Health Management International, Bugwood.org



UGA2253073

Pitch tubes on lodgepole pine from bark beetle attack. Ponderosa pine damage looks the same.

Photo credit: Mark McGregor, USDA Forest Service, Bugwood.org



Lodgepole and ponderosa pine trees killed by mountain pine beetle.



UGA1306003

Beneath the bark, beetle larvae tunnel through the tree growing tissue and introduce a blue stain fungus.

Photo credit: Leslie Chong, Simon Fraser University, Bugwood.org



Example of tree thinning to reduce ponderosa pine bark beetle hazards, before (left) and after (right).