



**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 Okanogan and Ferry counties. The reason for issuing a Warning is that forest insects are causing significant damage and current forest conditions are vulnerable to further spread. These hazards were recently compounded by the July storm damage suffered across much of the area. The purpose of this Warning is to provide you with more information about what is happening and steps DNR recommends 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", with a long horizontal flourish extending to the right.

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 eastern Okanogan and Ferry 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.
- Three main types of forest insect damage are the subject of the warning:
  - Western spruce budworm in Douglas-fir and grand fir;
  - Bark beetles (mountain pine beetle, western pine beetle) in ponderosa pine;
  - Mountain pine beetle in lodgepole pine in the Loomis State Forest.
- 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.



Western spruce budworm damage, evident on Wauconda Pass and elsewhere in Okanogan and Ferry counties.



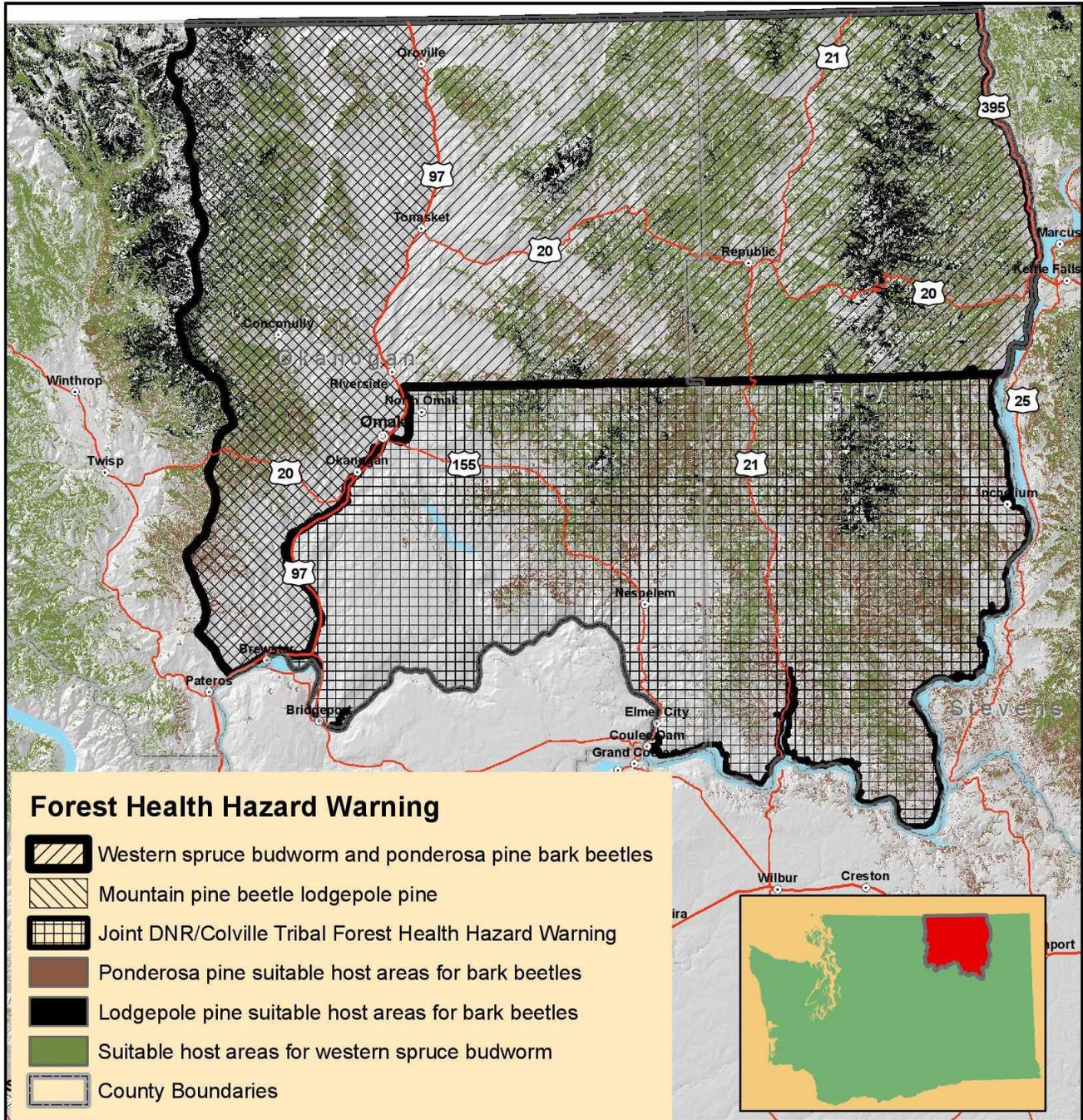
Adult mountain pine beetle

Photo credit: Ron Long, Simon Fraser University, Bugwood.org

## 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

-  Western spruce budworm and ponderosa pine bark beetles
-  Mountain pine beetle lodgepole pine
-  Joint DNR/Colville Tribal Forest Health Hazard Warning
-  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:**

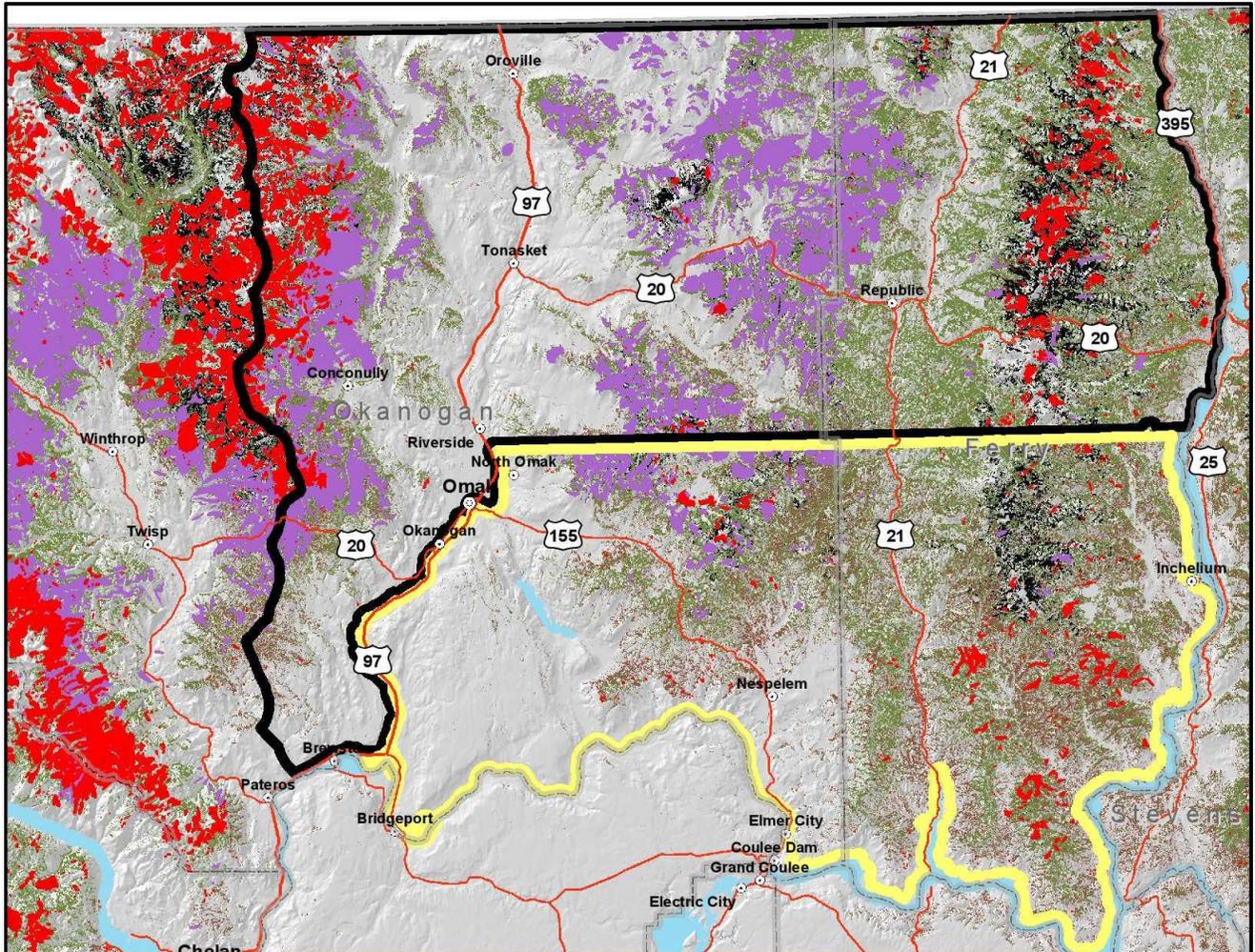
Suitable host area for WSBW created from a query of GNN layer mr1\_apps200; downloaded from LEMMA. Query of GNN layer based on the following attributes:  
 -FIR\_BA\_PCT >= 40% (ABGR, ABLA and PSME)  
 -MAP\_LAYERS >=2  
 -BAA\_GE\_3 >= 11.14 sq m (120 sq ft)

Suitable host area for pine bark beetles created from a query of GNN layer mr1\_apps200; downloaded from LEMMA.  
 -Lodgepole or ponderosa pine comprised 30% or more of total stand basal area.  
 -Quadratic mean diameter of 8 inches or greater.  
 -Total stand basal area of 120 square feet or greater.



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**Natural Resources**  
 Peter Goldmark - Commissioner of Public Lands



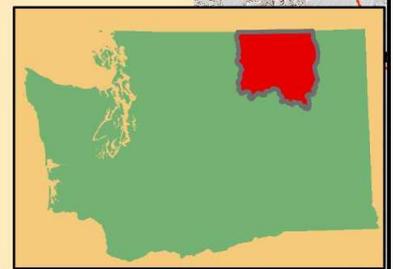


## Recent Forest Damage in the Forest Health Hazard Warning Area

-  DNR Forest Health Hazard Warning Area Boundary
-  Joint DNR/Colville Tribal Forest Health Hazard Warning Area Boundary
-  Pine bark beetle mortality 2006 - 2010
-  Western spruce budworm defoliation 2007 - 2011
-  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



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### Data sources:

Suitable host area for WSBW created from a query of GNN layer mr1\_spszd0, downloaded from LEMMA.  
Query of GNN layer based on the following attributes:  
-FIR\_BA\_PCT >= 40% (ABGR, ABLA and PSME)  
-MAP\_LAYERS >= 2  
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Pine bark beetle mortality represents areas where five trees per acre or greater were observed dead from 2006-2010.  
Budworm defoliation represents areas with at least one year of defoliation from 2007 to 2011.  
US Forest Service and WA DNR Aerial Insect and Disease Survey.



Caterpillar (larvae) stage of budworm eats new foliage.  
Photo credit: William M. Ciesla, Forest Health Management International, Bugwood.org



Pitch tubes on lodgepole pine from bark beetle attack. Ponderosa pine damage looks the same.  
Photo credit: Mark McGregor, USDA Forest Service, Bugwood.org



Close-up budworm damage to Douglas-fir tree foliage.



Lodgepole and ponderosa pine trees killed by mountain pine beetle.



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