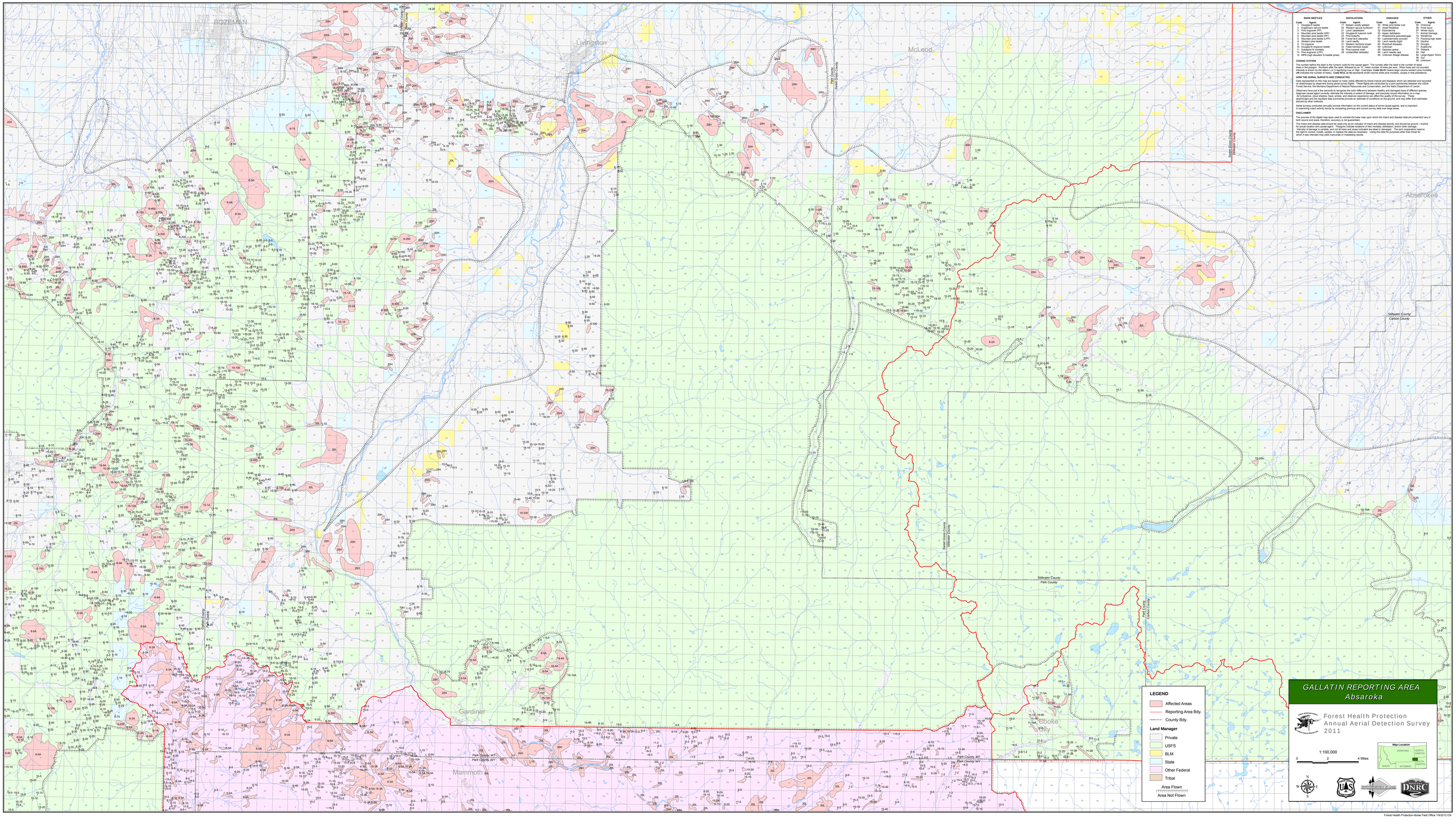

BARK BEETLES

Code	Agent:
1	Douglas-fir beetle
2	Douglas-fir pitch moth
3	Pine engraver (PP)
4	Western pine beetle (WP)
5	Mountain pine beetle (PP)
6	Mountain pine beetle (LPP)
7	Western balsam bark beetle
8	Fir engraver
10	Douglas-fir engraver beetle
11	Spruce beetle (general)
13	Pine engraver (LPP)
15	MPB (high elevation 5-needle pines)

DEFOLIATORS

Code	Agent:
20	Douglas-fir tussock moth
21	Larch casebearer
22	Western spruce budworm
23	Fir/spruce/hemlock sawfly
26	Forest tent caterpillar
27	Aspen leaf tyer
31	Western hemlock looper
32	False hemlock looper
33	Blackheaded budworm
35	Unidentified defoliator

DISEASES

Code	Agent:
51	White pine blister rust
52	Dwarf mistletoe
53	Dymosphera
54	Western gall rust
57	Rhizosphaera pseudotsugae
60	Lophodermella concolor
61	Ponderosa pine needle cast
63	Root/butt diseases
64	Unknown
65	Aspen leaf blotch
66	Larch needle cast
84	Unknown foliage disease

OTHER

Code	Agent:
70	Fire
80	Frost/cold
67	Winter injury
68	Mechanical damage
71	Windthrow
72	Flooding high water
73	Drought
76	Drought
77	Avalanche
78	Hail/ice
90	Heat
92	Large Aspen Tortrix
93	Fire
99	Unknown

CODING SYSTEM

The number before the dash is the numeric code for the causal agent. The number after the dash is the number of dead trees in the polygon. Numbers after the dash, followed by an 'X', mean number of trees per acre. When trees are not counted, intensity is shown by the letters L or H specifying Low or High. Examples: **Code 50-H** means large volume western pine mortality caused by dwarf mistletoe; **Code 1-L** means small volume Douglas-fir beetle mortality, usually in tree plantations.

HOW THE AERIAL SURVEYS ARE CONDUCTED

Data represented on this map are based on trees visibly affected by forest insects and diseases which are detected and recorded on sketchmaps by observers during aerial survey flights. These flights are conducted by a joint partnership between the USDA Forest Service, State Forestry Agencies, and other Federal, State, and Private Land Managers.

Observers have just a few seconds to recognize the color difference between healthy and damaged trees of different species, diagnose causal agent correctly, estimate the intensity or extent of damage, and precisely record information on a map. Air turbulence, cloud shadow, haze, smoke, and observer experience can affect the quality of the survey. These sketchmap and digital data summaries provide an estimate of conditions on the ground, and may differ from estimates derived by other methods.

Aerial surveys conducted annually provide information on the current status of some causal agents, and is important in examining insect activity trends by comparing previous and current survey data over large areas.

DISCLAIMER

The sources of the digital map layer used to compile the base map upon which the insect and disease data are presented vary in both source and scale. Positional accuracy is not guaranteed.

Information on this map should be used only as an indicator of insect and disease activity, and should be ground – truthed for actual location and causal agent. Polygons indicate locations of tree mortality, defoliation, and/or other damage. Intensity of damage is variable, and not all trees and areas indicated are dead or damaged. The joint cooperators reserve the right to correct, update, modify, or replace geospatial products without notice. Using this data for purposes other than those for which it was intended may yield inaccurate or misleading results.

Forest Health Protection-Boise Field Office 1/9/2012 CN