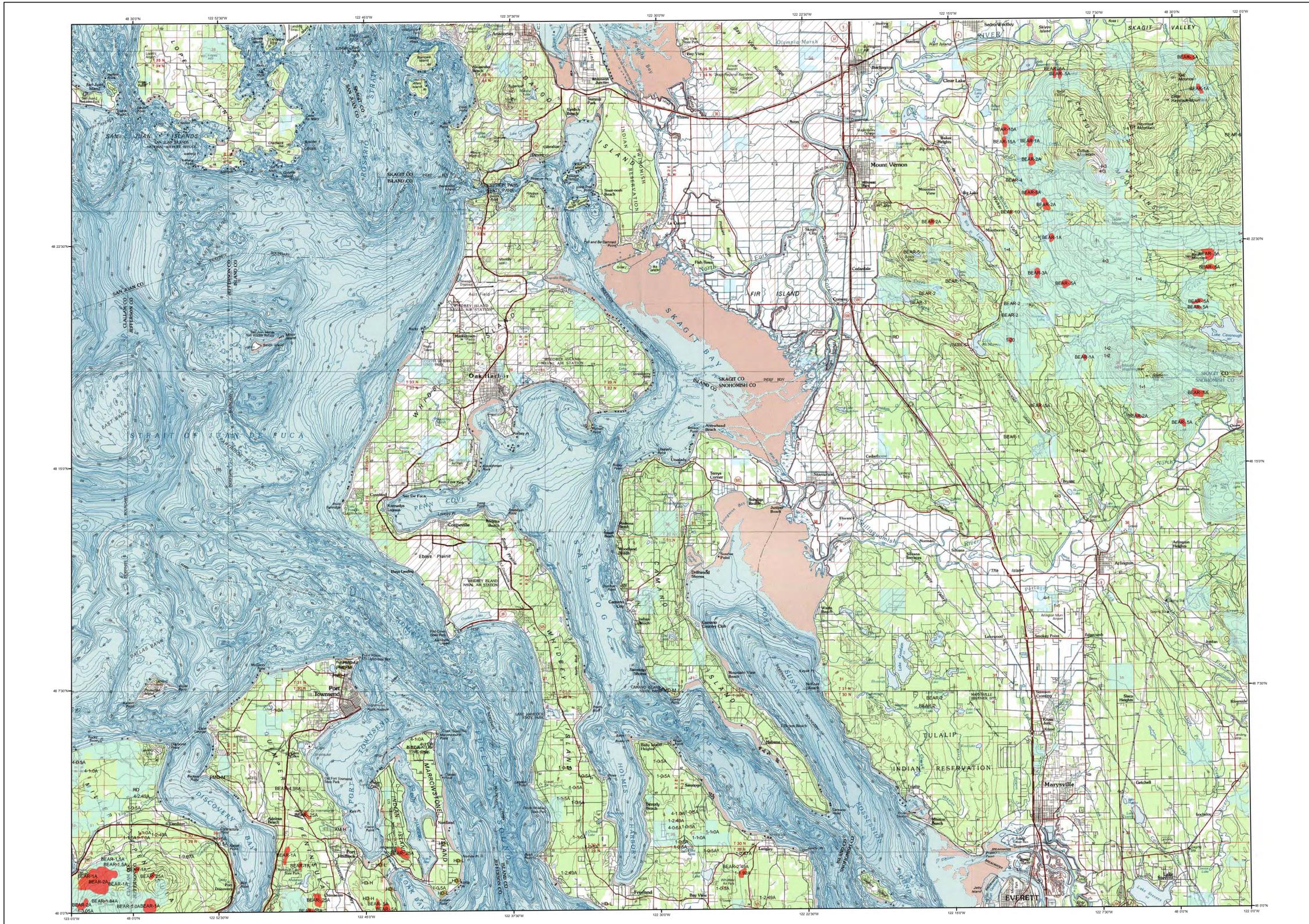


2010 Aerial Insect and Disease Survey

USGS 100K Quad: Port Townsend - A148122; 3B



USGS 100K Quad: Port Townsend - A148122; 3B
 2010 Aerial Insect and Disease Detection Survey
 Mapscale: 1:100,000
 Date: January 26, 2011

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage
- WadNR Managed Lands
- Areas Not Flown



The map base was created with TOPO! (Copyright 2001, National Geographic), available online at: www.ngmapstore.com

A data dictionary, digital copies of this map and ArcGIS insect and disease data are available at: www.fs.fed.us/r6/nr/td/data.shtml

How the Aerial Surveys are Conducted

Data represented on this map are based on trees visibly affected by forest insects and diseases detected and recorded during aerial survey flights conducted by the USDA Forest Service and the Washington Department of Natural Resources. Observers have just a few seconds to recognize the color difference between healthy and damaged trees of different species; diagnose causal agents correctly; estimate intensity; delineate the extent of damage; and precisely record this information on a georeferenced, digital map. Air turbulence, cloud shadows, distance from aircraft, haze, smoke and observer experience can all affect the quality of the survey. These data summaries provide an estimate of conditions on the ground and may differ from estimates derived by other methods.

The aerial survey provides information on the current status for many causal agents, and is important when examining insect activity trends by comparing historical and current survey data over large areas. Overview surveys are a 'snap shot' in time and therefore may not be timed to accurately capture the true extent or severity of a particular disturbance activity. Specially designed surveys with modified flight patterns and timing may be conducted to more accurately delineate the extent and severity of a particular disturbance agent. Special surveys, such as Swiss needle cast surveys, are conducted when resources are available to address situations of sufficient economic, political or environmental importance.

DIRECT ALL INQUIRIES TO:

Washington State Department of Natural Resources
 Resource Protection Division
 Forest Health
 1111 Washington St. SE
 Olympia, WA 98504
 -- OR --
 USDA Forest Service, Region 6
 Natural Resources
 Forest Health Protection
 PO Box 3623
 Portland, Oregon 97208

DISCLAIMER: Forest Health Protection (FHP) and Washington Department of Natural Resources (WDNR) strive to maintain an accurate Aerial Detection Survey (ADS) Dataset, but due to the conditions under which the data are collected, FHP and WDNR shall not be held responsible for missing or inaccurate data. ADS are not intended to replace more specific information. An accuracy assessment has not been done for this dataset; however, ground checks are completed in accordance with local and national guidelines. <http://www.fs.fed.us/foresthealth/education/qualityassurance.shtml>. Maps and data may be updated without notice. Please cite: "USDA Forest Service, Forest Health Protection and Washington Department of Natural Resources, Resource Protection Division, Forest Health" as the source of this data in maps and publications.

Defoliators		Mortality Agents	
Code	Damaging Agent	Code	Damaging Agent
AS	Spruce aphid	1	Douglas-fir beetle
BB	Western blackheaded budworm	2	Douglas-fir engraver
BM	Motoc budworm	3	Spruce beetle
BP	Sugar pine tortrix	4	True fir
BS	Western spruce budworm	5	Western balsam bark beetle
BY	Bynum's bight/Lophodermella	6	Mountain pine beetle
CH	Larch casebearer	6B	Mountain pine beetle
HL	Western hemlock looper	6C	Mountain pine beetle
LG	Green striped forest looper	6D	Mountain pine beetle
LL	Larch looper	6E	Mountain pine beetle
LB	Black pine leaf scale	6F	Mountain pine beetle
LD	Douglas-fir budmoth	6G	Mountain pine beetle
ML	Larch budmoth	6H	Mountain pine beetle
MP	Douglas-fir needle midge	6I	Mountain pine beetle
MS	Spruce budmoth	6J	Mountain pine beetle
ND	Needle miner	6K	Mountain pine beetle
NJ	Needle miner	6L	Mountain pine beetle
NK	Needle miner	6M	Mountain pine beetle
NL	Needle miner	6N	Mountain pine beetle
NI	Needle miner	6O	Mountain pine beetle
NP	Needle miner	6P	Mountain pine beetle
NS	Needle miner	6Q	Mountain pine beetle
NT	Needle miner	6R	Mountain pine beetle
NW	Needle miner	6S	Mountain pine beetle
CL	Western oak looper	6T	Mountain pine beetle
PB	Pine butterfly	6U	Mountain pine beetle
PC	Pine needle cast	6V	Mountain pine beetle
PH	Phantom hemlock looper	6W	Mountain pine beetle
PM	Pine moth	6X	Mountain pine beetle
PN	Pine needle/needle miner	6Y	Mountain pine beetle
PS	Pine needle/needle miner	6Z	Mountain pine beetle
RC	Needle cast	7	Uk tip
SA	Spruce sawfly	8	Western pine beetle
SB	Sawfly	9	Blow fly beetle
SC	Sawfly	10	Bear damage
SD	Sawfly	11	Fireweed/wood borer
SE	Sawfly	12	Black stain root disease
SH	Sawfly	13	Port Orford cedar root disease
SI	Sawfly	14	Root disease
SM	Sawfly	15	Water damage
SN	Sawfly	16	Water damage
SO	Sawfly	17	Water damage
SP	Sawfly	18	Water damage
SW	Sawfly	19	Water damage
TA	Tent caterpillar, aster	20	Water damage
TC	Tent caterpillar, other	21	Water damage
TD	Tent caterpillar, other	22	Water damage
TE	Tent caterpillar, other	23	Water damage
TF	Tent caterpillar, other	24	Water damage
TG	Tent caterpillar, other	25	Water damage
TH	Tent caterpillar, other	26	Water damage
TI	Tent caterpillar, other	27	Water damage
TJ	Tent caterpillar, other	28	Water damage
TK	Tent caterpillar, other	29	Water damage
TL	Tent caterpillar, other	30	Water damage
TM	Tent caterpillar, other	31	Water damage
TN	Tent caterpillar, other	32	Water damage
TO	Tent caterpillar, other	33	Water damage
TP	Tent caterpillar, other	34	Water damage
TQ	Tent caterpillar, other	35	Water damage
TR	Tent caterpillar, other	36	Water damage
TS	Tent caterpillar, other	37	Water damage