

Hood Canal Forest Harvests

Question

Where have forest harvests occurred within the last ten years?

Data Inputs

FPA: Washington State Department of Natural Resources Forest Practice Application Permit Database; all permit types including type IV for 1995 - 2006; permits were used as a proxy for actual forest harvest

ONF: Olympic National Forest harvest database; data for 1995 – 2006, very few harvest activities for those years were identified

Method (simplified)

Process the FPA data with a custom program built by PetersonGIS to create topologically discrete polygons since the original data contain an extensive amount of overlapping harvest applications. Polygons are then assigned an assumed harvest year based on the effective date or renewal date, whichever is later. Applications not flagged as “cutting” or “removing” timber are removed from the data.

Since the FPA data are only a proxy for permitting, with no guarantee that the permitted harvest actually occurred, conducted an error analysis using aerial photography.

Results

Total harvest for years 1995-2006 accounted for 21% of the summer chum watershed.

Harvests by year are shown at right.

Error Estimates

Of 50 randomly chosen permits, 78% were actually harvested, as determined via overlay with year 2006 and year 2000 imagery. When comparing acreage cut within these (as some were only partially cut) the error is higher: 70%. Some discrepancies in the data

include: harvests that occurred much later than permitted, harvests not flagged as conversions that were actually converted, areas that were thinned as opposed to completely cut, and permitted cuts that were only partially cut. A more robust way to track harvests would be to digitize recent, high-resolution, aerial photography.

