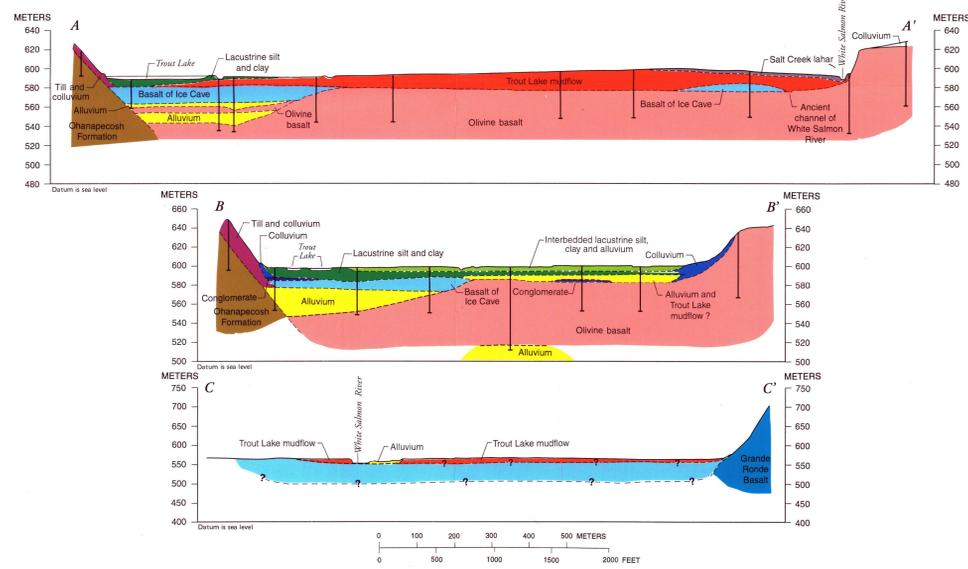


Cross sections across the Trout Lake lowland as shown on map A at left



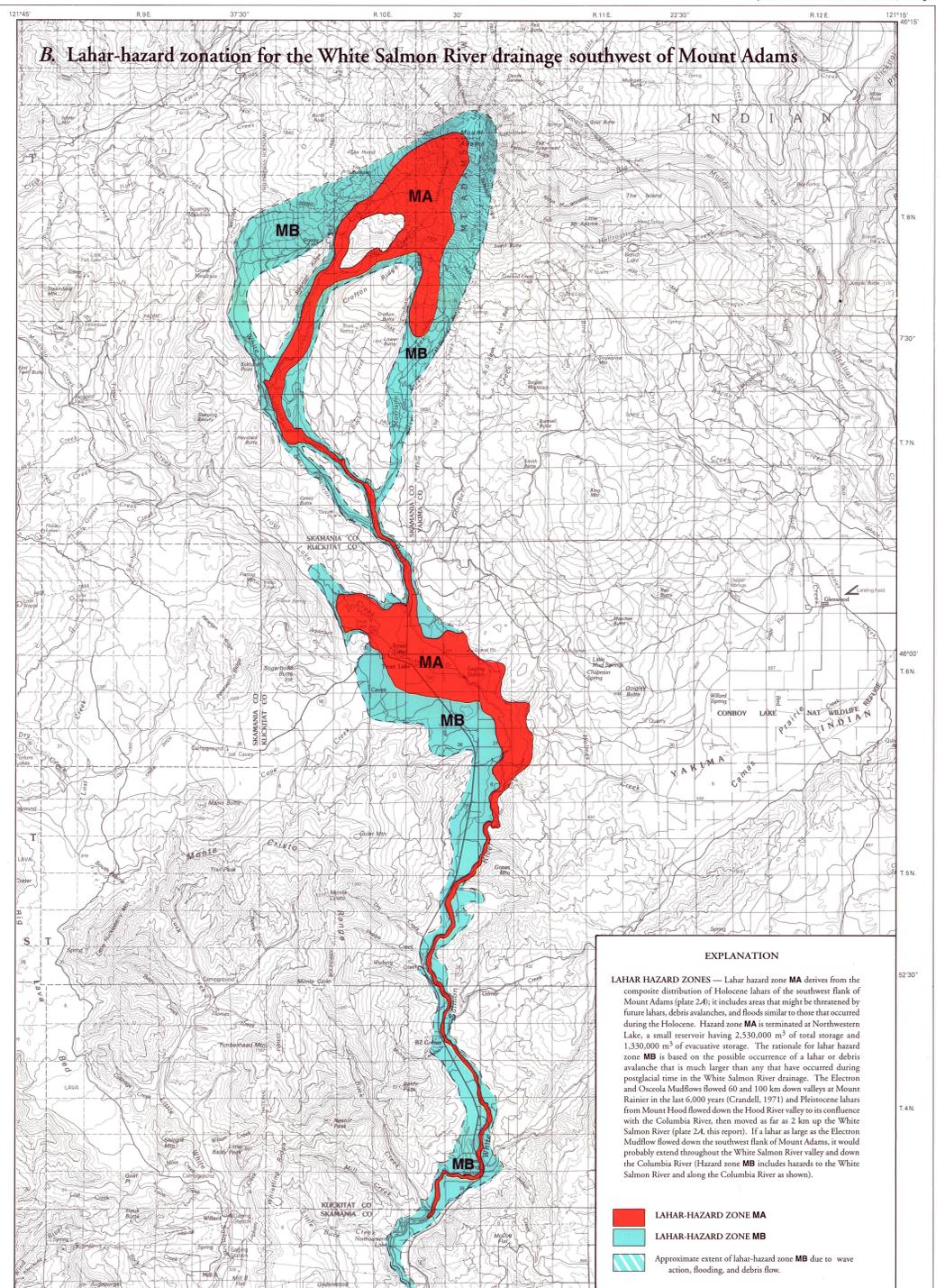
EXPLANATION

- Cross-sections across the Trout Lake lowland from F.O. Jones, 1960.
- Salt Creek lahar
 - Interbedded lacustrine silt, clay and alluvium
 - Lacustrine silt and clay
 - Trout Lake mudflow
 - Basalt of Ice Cave
 - Till and colluvium
 - Olivine basalt
 - Grande Ronde Basalt
 - Ohanapeosh Formation
 - Alluvium, undifferentiated
 - Colluvium, undifferentiated
 - Conglomerate
- CONTACT—Dashed where approximately located; queried where uncertain
- ⊥ DRILL HOLE LOCALITIES

EXPLANATION

- DEBRIS AVALANCHE, A.D. 1921
- SALT CREEK LAHAR, ABOUT 200 YEARS B.P.
- LAHAR, 500 TO 2,500 YEARS B.P.
- LAKE SEDIMENTS OVERLYING TROUT LAKE MUDFLOW
- TROUT LAKE MUDFLOW, ABOUT 6,000 YEARS B.P.
- Arrow indicates outcrop of the Trout Lake mudflow
- Arrow indicates outcrop of lahar from Mount Hood, greater than 38,000 years B.P.
- A—A' TRACE OF CROSS SECTION
- MARGIN OF LAHAR AND DEBRIS-AVALANCHE DEPOSITS—Dashed where approximate; queried where uncertain

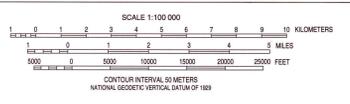
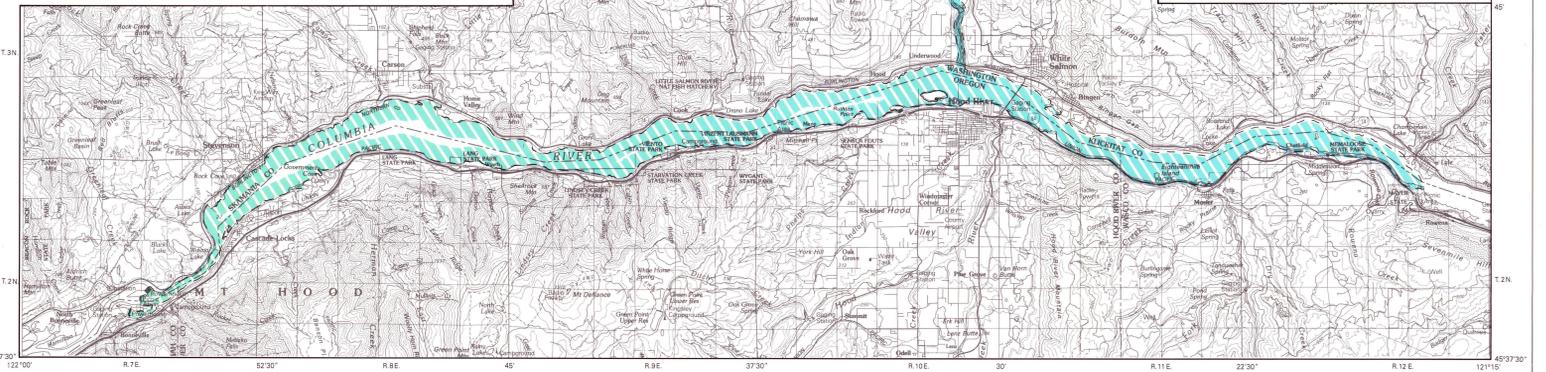
Lahar-hazard zonation for the White Salmon River drainage southwest of Mount Adams



EXPLANATION

LAHAR HAZARD ZONES— Lahar hazard zone MA derives from the composite distribution of Holocene lahars of the southwest flank of Mount Adams (plate 2A); it includes areas that might be threatened by future lahar, debris avalanches, and floods similar to those that occurred during the Holocene. Hazard zone MA is terminated at Northwestern Lake, a small reservoir having 2,530,000 m³ of total storage and 1,330,000 m³ of evacuative storage. The rationale for lahar hazard zone MB is based on the possible occurrence of a lahar or debris avalanche that is much larger than any that have occurred during postglacial time in the White Salmon River drainage. The Electron and Ocoela Mudflows flowed 60 and 100 km down valleys at Mount Rainier in the last 6,000 years (Crandell, 1971) and Pleistocene lahars from Mount Hood flowed down the Hood River valley to its confluence with the Columbia River, then moved as far as 2 km up the White Salmon River (plate 2A, this report). If a lahar as large as the Electron Mudflow flowed down the southwest flank of Mount Adams, it would probably extend throughout the White Salmon River valley and down the Columbia River (Hazard zone MB includes hazards to the White Salmon River and along the Columbia River as shown).

- LAHAR-HAZARD ZONE MA
- LAHAR-HAZARD ZONE MB
- Approximate extent of lahar-hazard zone MB due to wave action, flooding, and debris flow.



POSTGLACIAL LAHARS AND LAHAR-HAZARD ZONES AT MOUNT ADAMS VOLCANO

By
James W. Vallance
1998

Revised from U.S. Geological Survey
Mount Adams, Washington and
Hood River, Oregon quadrangles
1:100,000, 1978