

Chronic Geologic Hazard Map of the Lost Creek Area,  
Coastal Lincoln County, Oregon

OFR O-94-29

By George R. Priest

EXPLANATION OF MAP UNITS

Mass Movement Hazards

PHls

Prehistoric complex landslide

PHb

Prehistoric slide block or slump

PHr

Prehistoric rock or soil flow

PAls

Potentially active complex landslide

PAb

Potentially active slide block or slump

Als

Active complex landslide

Ab

Active slide block or slump

Shoreline Geology

Fill

Artificial fill

Qal

Alluvium

S

Vegetated dune sand

S + Qal

Dune-covered alluvium

Qc

Colluvium

Qmt

Marine terrace deposits

Tmcl

Cape Foulweather Basalt

Tmwc

Sandstone of Whale Cove

Tmcb

Depose Bay Basalt

Tma

Astoria Formation

Tmn

Nye Mudstone

Toym

Yaquina Formation (mudstone)

Toys

Yaquina Formation (sandstone)

Tech

Basalt of Cascade Head

Ten

Nestucca Formation

Tb

Intrusive basalt

MAP SYMBOLS

Contact

Approximately located contact between formations or areas of differing type or age of mass movement

Contact between areas of mass movement and other areas

Approximately located. Outlines a general area of mass movement of one or several ages and types

Zone of particularly active landslides and slide blocks

Area vulnerable to episodic loss of large amounts (>40 feet) of headwall in back of landslides or slide blocks

Fault zones

Arrow showing dip; bar and ball on downthrown side; dashed where approximate, dotted where concealed; diamond-headed arrow showing rate; vertical offset of marine terrace in feet in parentheses

Boundary of slide block within larger slide block

Approximately located; bar and square on downthrown side

Rock fall hazard

Areas of major rock fall hazard at high-use beaches

Rock unit label within a prehistoric slide block or slump

Parentheses differentiate formation labels within a prehistoric slide block from the mass movement label PHb

Rock unit label for unit making up less than 3 ft of the sea cliff

Brackets are utilized to indicate that the rock unit has little control on sea cliff erosion

Uncertainty

Question mark used to indicate uncertainty about a mass movement label because the area was examined only by aerial photo analyses or had ambiguous field information

Erosion rate transects

Points where shoreline erosion rates were examined for entry into the database of Open-File Report O-94-11; spacing on straight shorelines is about 150 feet; every tenth is labeled for reference to the database

Generalized erosion rates

Feet per year of erosion (negative sign = erosion); mean is in parentheses; range separated by a small arrow; applicable to the shoreline segment marked by the arrows perpendicular to the shoreline

Shoreline protection structures

Sea walls or riprap

Strike and dip of bedding

\* Oregon Department of Geology and Mineral Industries Open-File Report O-94-11 should be utilized with this map to provide detailed information on the hazard mapping techniques and appropriate use of the information. Data fields summarizing erosion rates, geologic data, and mass movement hazards at each transect are listed in a digital database included with Open-File Report O-94-11.

Erosion rates estimated from data in Open-File Report O-94-11.

Mapping of geology and mass movement hazards by George R. Priest, Oregon Department of Geology and Mineral Industries.

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Field work conducted 1991 through 1993.

Cartography by Mark Neuhaus.

Scale 1:4800.

Horizontal datum: 1983 North American Datum.

Base map is a 1993 orthophotograph; photography was produced from a positionally controlled flight in the late summer of 1993; the flight was conducted by Spencer B. Gross, Inc. in cooperation with Bergman Photographic Services, both of Portland, Oregon.

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DISCLAIMER: The Oregon Department of Geology and Mineral Industries is publishing this paper because the subject matter is consistent with the mission of the Department. To facilitate timely distribution of information, this report has not been edited to our usual standards.