

GEOLOGIC MAP
of the
BULL RUN WATERSHED
OREGON

City of Portland Archives, A2000-006

STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
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- SURFICIAL DEPOSITS**
- Qal** Quaternary Alluvium
Loose deposits of sand and gravel bordering the Sandy River north of Dodge Park.
 - Qls** Quaternary Landslide Debris
Surficial slide deposits associated with large landslides and composed of boulders and finer debris derived from the Rhododendron Formation and the Pliocene volcanic rock. Thickness of the deposits precludes determination of contacts in the underlying bedrock. Thinner slide deposits which do not obscure contacts are not included in this unit.
 - Qtg** Quaternary Terrace Deposits
Flat-lying elevated deposits of sand and gravel of fluvial and glacial/fluvial origin. Several levels of terrace are present. Terrace material is overriden by landslide debris in places.

- STRATIGRAPHIC UNITS**
- Qba** Pliocene and Quaternary volcanic rock
Several thousand feet of flows and minor breccias of primarily andesitic composition. Three subunits are recognized. Pliocene volcanic rock (Tpv) consists of massive to platy andesite flows except in the west where it passes into inflated basalts and basaltic andesite equivalent to the Irving Lava. Qvic includes thick breccias and flows of porphyritic hornblende andesite and attendant intrusions at Blazed Alder Butte. Qba includes Quaternary cinder cones at Walker Prairie and Aschoff Butte and flows of basalt and andesite in the valley of the Bull Run River near Bull Run Lake.
 - Qvic**
 - Tpv**
 - Tps** Pliocene Sedimentary Rock
Up to 400 feet of fluvial deposits equivalent to the Troutdale Formation and Sandy River Mudstone of Trimble (1963). Sandstone and conglomerate with quartzite clasts locally make up the upper part of the section. Sandstone and clayey siltstone may predominate lower in the section. Texture and composition of the upper part of the unit indicate local derivation from contemporaneous volcanic strata (Pliocene volcanic rock).
 - Tmpr** Rhododendron Formation
Up to 500 feet of coarse volcanic breccia; mudflow breccia, and distinctive flows of porphyritic platy andesite. Where erosion is rapid the unit forms vertical canyon walls. In regions of chemical weathering the unit is prone to massive landsliding.
 - Tcr** Columbia River Basalt
Up to 600 feet of dense, flow-on-flow basalt with the base not exposed. Mapping to the north (Waters, 1973) indicates equivalence to the Yakima Basalt of Waters (1961). Pillow lavas, palagonite breccias and vesicular flows are present in places.

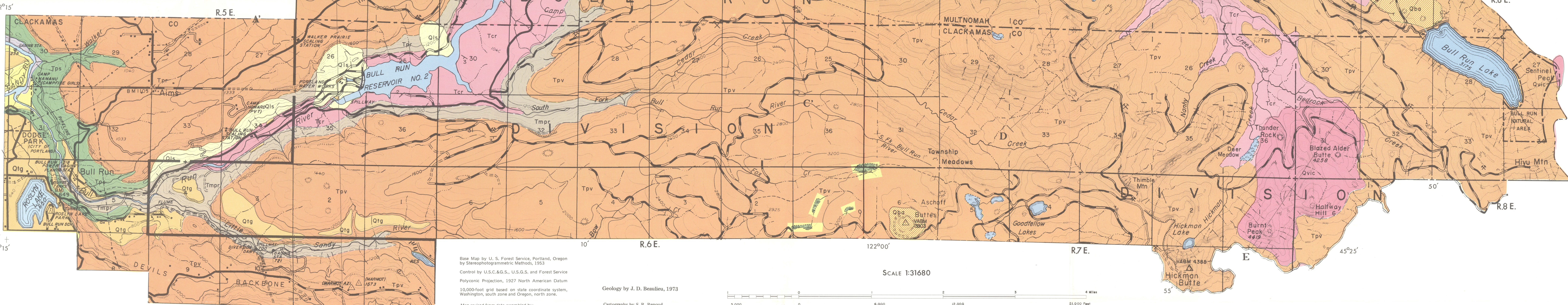
STRATIGRAPHIC TIME CHART

QUATERNARY	Qal	Qls
	Qtg	Qba
PLIOCENE	Qvic	
	Tps	Tpv
	Tmpr	
MIOCENE	Tcr	

- GEOLOGIC SYMBOLS**
- Strike and dip of beds
 - Horizontal beds
 - Rock quarries
 - Contacts
Solid where definite; dashes where approximate.



LOCATION MAP



Base Map by U. S. Forest Service, Portland, Oregon by Stereophotogrammetric Methods, 1953
Control by U.S.C.&G.S., U.S.G.S. and Forest Service
Polyconic Projection, 1927 North American Datum
10,000-foot grid based on state coordinate system, Washington, south zone and Oregon, north zone.
Map revised from data assembled by:
Gifford Pinchot N.F., May 1957

Geology by J. D. Beaulieu, 1973

Cartography by S. R. Resoud and W. H. Pokorny

SCALE 1:31680



Contour Interval 80 feet except east of 122°00' and south of 45°30' which is 40 feet.

