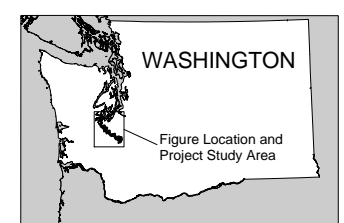
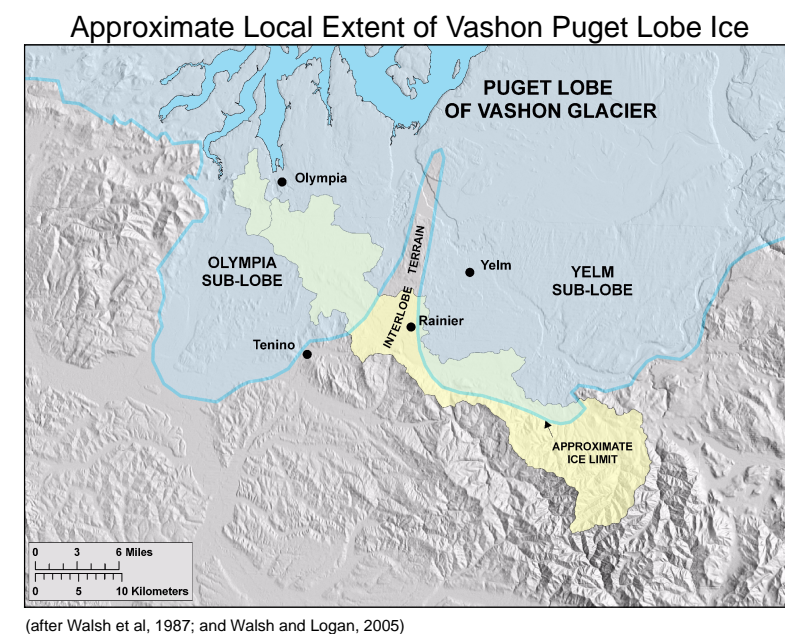


Lithologic and hydrologic characteristics of geologic units within the Deschutes Watershed

Period	Epoch	Geologic Unit	Unit symbol	Lithology and hydrologic characteristics
Quaternary	Holocene	Alluvium	Qa	Generally loose, poorly-sorted deposits of sand, well-rounded gravel, and silt deposited within stream channels and upon area flood plains by modern rivers. The coarser sand and gravel fractions of this unit can be a productive localized aquifer where saturated.
		Landslide deposits	Qls	Unstratified, poorly-sorted, and often hummocky appearing deposits of clay, silt, sand, gravel, and soil, with occasional larger cohesive blocks that slumped or were otherwise disturbed through mass wasting processes. Deposits generally too localized to be a significant water source.
	Pleistocene	Vashon recessional outwash, sand and silt	Qgos	Generally well-sorted deposits of loose, tan-to-brown colored sand and silt with minor gravel interbeds. Can be a productive, generally unconfined aquifer where saturated.
		Vashon recessional outwash, gravel and sand	Qgog	Gray- to-tan colored deposits of loose sand, gravel, and cobbles. This unit is a productive, generally unconfined aquifer where saturated.
		Vashon drift, undifferentiated	Qgd	Localized deposits of outwash sand and gravel, lacustrine deposits, ice-contact stratified drift, and peat that are not separately mapped at this scale.
		Vashon till	Qgt	Gray-to-light-tan colored deposits of generally compacted and non-sorted clay, silt, sand, gravel, and boulders that were laid down directly by glacial ice. Serves as a regional confining unit but can yield usable amounts of water to wells from thin interspersed sand and gravel lenses.
		Vashon advance outwash	Qga	Gray-to-light-brown colored deposits of compact sand, well-rounded gravel, and silt that were laid down during the Vashon glacial advance. Groundwater in this unit is generally confined and is used extensively for domestic supply in the area north of Offut Lake.
		Pre-Vashon continental drift, undifferentiated	Qgp	Light-tan-to-gray or yellow-brown deposits of discontinuous till, sand, and gravel. Generally not exposed at land surface. Groundwater in this unit is confined and is used extensively for industrial and domestic supply.
		Pre-Frasier alpine drift, undifferentiated	Qapu	Typically yellow-gray to yellow-brown deposits of cemented sand and gravel with interspersed sand and clay lenses. Where exposed, the upper surface of this unit is often deeply weathered.
Tertiary	Eocene - Miocene	Bedrock, undifferentiated	Tbu	Sandstones, siltstones, andesites, basaltic-andesites, basalts, and other consolidated rocks and sediments that form the basal confining unit for the study area, and underlie the surrounding foothills to the south and west. This unit is generally consolidated and provides little water to wells, although secondary fractures may yield usable quantities of sometimes poor-quality water.



GENERALIZED SURFICIAL GEOLOGIC UNITS AND APPROXIMATE LOCAL EXTENT OF VASHON PUGET LOBE ICE