

Utsalady

Conway

## Geologic Map of the Utsalady and Conway 7.5-minute Quadrangles, Skagit, Snohomish, and Island Counties, Washington

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### Geologic Units

#### QUATERNARY SEDIMENTARY AND VOLCANIC DEPOSITS

##### Holocene Nonglacial Deposits

- af Fill
- Qb Beach deposits (Holocene)
- Qn Nearshore deposits (Holocene)
- Qm Marsh deposits (Holocene)
- Qls Skagit River alluvium, undivided (Holocene)
- Qsl Sand levees (Holocene)—Overbank sand deposits of the Skagit River
- Qp Peat (Holocene)
- Qaf Alluvial fan deposits (Holocene to latest Pleistocene)
- Qls Landslide deposits, undivided (Holocene to latest Pleistocene)
- Qvl Lahar runoff deposits (Holocene)

##### Pleistocene Glacial and Nonglacial Deposits

- Ogdmr Everson glaciomarine drift, undivided (Pleistocene)
- Ogdmr Everson fine-grained glaciomarine sediment (Pleistocene)
- Ogdmr Everson glaciomarine diamiction (Pleistocene)
- Ogdmr Everson terrestrial to marine recessional outwash (Pleistocene)
- Ogdc Everson deltaic outwash complex (Pleistocene)
- Ogdmr Everson glaciomarine drift, undivided (Pleistocene)
- Ogdmr Everson emergence (beach) deposits (Pleistocene)
- Ogvlr Vashon till (Pleistocene)
- Ogvlr Vashon advance outwash (Pleistocene)
- Ogvlr Transitional silt and clay deposits (Pleistocene)
- Ogcs Olympia nonglacial deposits (Pleistocene)

##### TERTIARY SEDIMENTARY AND VOLCANIC ROCKS

- OEcds Rocks of Bulson Creek, upper lithofacies (Oligocene to Eocene)
- OEcds Rocks of Bulson Creek, lower conglomeratic lithofacies (Oligocene to Eocene)
- Evr Andesitic to rhyolitic volcanic rocks (Eocene)
- Ec Chukanut Formation, Bellingham Bay Member (Eocene)

##### MESOZOIC LOW-GRADE METAMORPHIC ROCKS OF THE DARRINGTON-DEVILS MOUNTAIN FAULT ZONE

- Kmr Goat Island terrane metasedimentary rocks (Cretaceous to Jurassic)
- Kmr Goat Island terrane metavolcanic rocks (Cretaceous to Jurassic)

##### MESOZOIC LOW-GRADE METAMORPHIC ROCKS OF THE NORTHWEST CASCADES SYSTEM

- Jmr Helena-Haystack mélange greenschist (Jurassic)
- Jmr Helena-Haystack mélange ultramafite (Jurassic)
- Jmr Helena-Haystack mélange silica-carbonate rocks (Jurassic)
- Jmr Helena-Haystack mélange metasedimentary rocks, chert-bearing (Jurassic)

### Geologic Symbols

- Contact—Dashed where inferred
- Fault—Dashed where inferred; dotted where concealed
- Strike-slip fault—Arrows show relative horizontal movement; dotted where concealed
- Thrust fault—Sawtooth on upper plate; dotted where concealed
- Oblique-slip fault—Arrows show relative horizontal movement; dashed where inferred; dotted where concealed; bar and ball on downthrown side; queried where presence or character uncertain
- Syncline—Showing direction of plunge; dotted where concealed
- Anticline—Dotted where concealed
- Overturned anticline—Dashed where approximately located; dotted where concealed

#### Strike and dip of Quaternary bedding

- inclined (glacial deposits only); 'T' adjacent to symbol indicates forest bedding
- orientation of overturned, glacial ice shear-induced fold axes in thinly bedded advance outwash

#### Strike and dip of Tertiary bedding

- horizontal
- inclined; 'T' adjacent to symbol indicates forest bedding
- vertical
- overturned

#### Strike and dip of syn- to late-metamorphic cleavage (may be combined with other symbols)

- inclined
- vertical

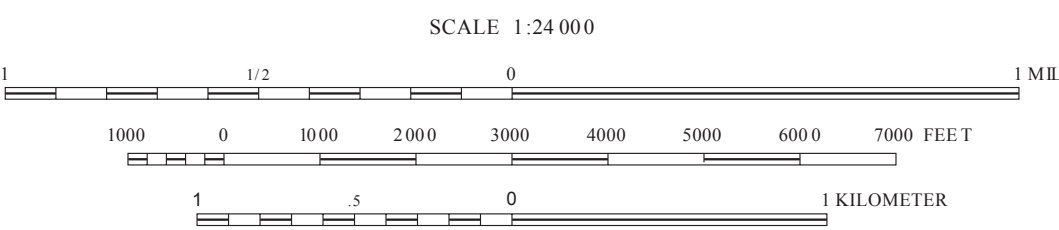
#### Strike and dip of fracture cleavage

- inclined
- vertical

#### Lineation; arrow indicates direction of plunge

- inclined

- Composite well shown on cross section using information from two or more water well boring logs



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Contour interval 20 feet  
Supplementary contours at 5 feet above sea level  
National Geodetic Vertical Datum of 1929

Lambert Conformal Conic Projection  
Washington State Plane South  
1927 North American Datum  
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