

*Age of boundary from Sarna-Wojcicki and others (2000)
**Dates correspond to boundaries of the Olympia nonglacial interval (Booth and others, 2004a). Infinite radiocarbon dates fall within this interval and cannot discriminate Olympia from pre-Olympia deposits

LIST OF MAP UNITS

[See Description of Map Units in pamphlet for detailed unit age information]

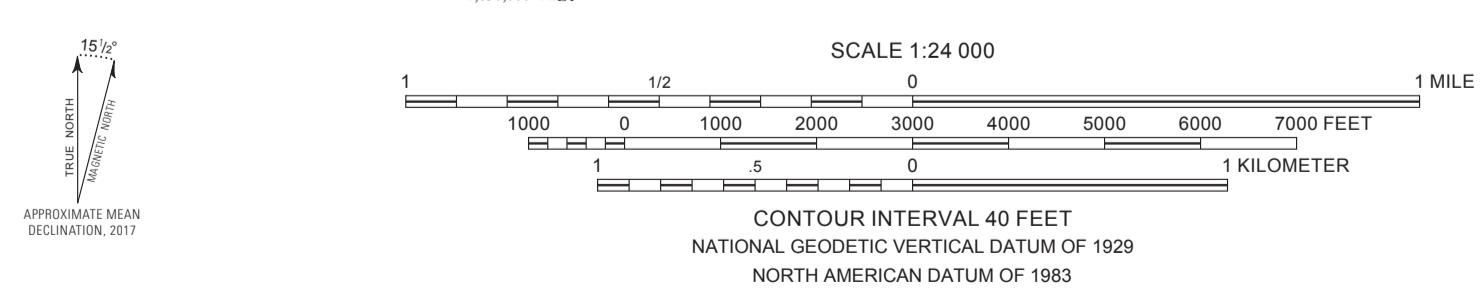
- NONGLACIAL DEPOSITS**
- m Modified land (Holocene)
 - Qw Wetland deposits (Holocene)
 - Qbt Beach and tide flat deposits, undivided (Holocene)
 - Qb Beach deposits (Holocene)
 - Qbo Beach deposits, old (Holocene)
 - Qls Landslide deposits (Holocene)
 - Qols Old landslide deposits (Holocene and Pleistocene)
 - Qa Alluvium (Holocene)
 - Qoa Older alluvium (Holocene and Pleistocene)
 - Qf Alluvial fan deposits (Holocene)
- YOUNGER GLACIAL DEPOSITS**
- Deposits of the Vashon stage of Fraser glaciation of Armstrong and others (1965) (Pleistocene)
- Qvr Recessional outwash deposits
 - Qvrl Recessional lacustrine deposits
 - Qvrlf Sublacustrine fan
 - Qvi Ice-contact deposits
 - Qvt Till
 - Qva Advance outwash deposits
- OLDER GLACIAL AND NONGLACIAL DEPOSITS**
- Deposits of pre-Fraser glaciation age, undivided (Pleistocene)
- Qpl Coarse-grained deposits
 - Qplc Fine-grained deposits
 - Qplf Nonglacial deposits
 - Qplnc Coarse-grained deposits
 - Qplnf Fine-grained deposits
 - Qpo Pre-Olympia deposits, undivided (Pleistocene)
 - Qpogc Pre-Olympia glacial deposits (Pleistocene)
 - Qpogt Coarse-grained deposits
 - Qpof Till
 - Qpone Pre-Olympia deposits of undetermined origin (Pleistocene)
 - Qrg Fine-grained deposits
 - Qrm Fine-grained deposits

- Pre-Olympia nonglacial deposits (Pleistocene)**
- Opone Estuarine deposits
 - Qrgf Reversely magnetized deposits (Pleistocene)
 - Qrm Fine-grained glacial deposits
 - Qrm Nonglacial deposits
- BEDROCK**
- Ti Intrusive rocks (Eocene)
 - Tpr Puget Group (Eocene)
 - Tps Renton Formation
 - Tpt Tukwila Formation
 - Tpm Arkosic sandstone
 - Tpm Marine and nonmarine sedimentary rocks

EXPLANATION OF MAP SYMBOLS

- Contact—Dashed where approximately located, dotted where concealed; no contact where gradational or uncertain
- Approximate outer limit of tidal flat
- Fault—Dotted where concealed
- Lidar identified fault (on Maury Island)—Dotted where concealed
- Anticline—Dotted where concealed
- Syncline—Dotted where concealed
- Strike and dip of beds
- Inclined
- Horizontal
- Pre-Vashon till—Mapped within units Qpof, and Qpogc where exposed on valley walls or coastal bluffs
- Peat
- Paleomagnetic sample locality
- Transitional magnetization
- Reversed magnetization
- ¹⁴C age locality—See table 1 in pamphlet for ages
- Hard surface—Nearly continuous hard surfaces, including major roads, parking lots, and large buildings
- Parentheses—Indicate unit preserved in massive block-slide deposits along south edge of map area

Hillshade image calculated from 6-ft lidar DEM, Puget Sound Lidar Consortium. Lidar acquired 2001-2002.
Road data from King County, lidar, and Google Earth
Contours generated from lidar and edited by Rowland W. Tabor (2014)
Base modified from U.S. Geological Survey and other Federal digital data, various scales
Lambert Conformal Conic projection



Geology mapped by D. B. Booth, 1986-1988, 2004; H. H. Waldron, 1959-1958, and K. G. Troost, 2004
Revision by Rowland W. Tabor (2008-2015)
Base-map culture cartography interpreted from lidar by Rowland W. Tabor (2008-2013)
GIS database by Rowland W. Tabor and Ralph A. Haugrud
Edited by J. L. Ziegler and digital cartographic production by D. L. Knifong
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Lidar-Revised Geologic Map of the Des Moines 7.5' Quadrangle, King County, Washington

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