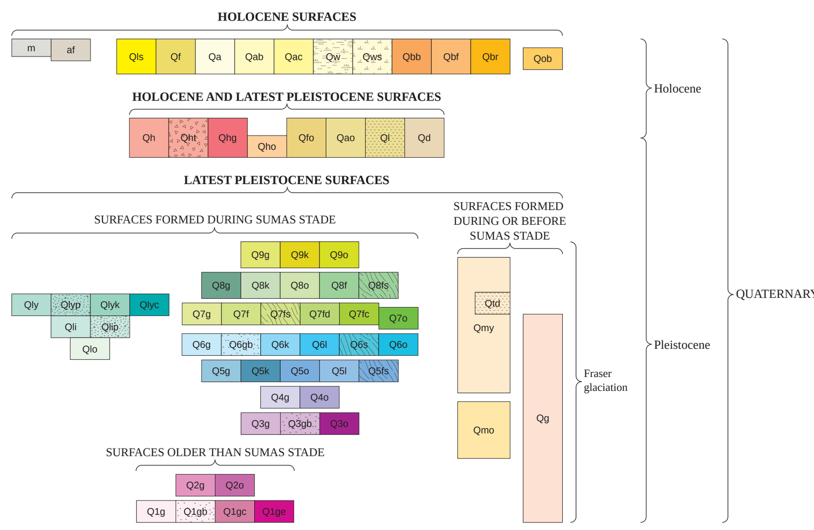
U.S. Department of the Interior
U.S. Geological Survey

Prepared in cooperation with
Whatcom County and the Washington State Department of Natural Resources

Scientific Investigations Map 3406
Pamphlet accompanies map

CORRELATION OF MAP UNITS

[Description of Map Units may contain additional unit-age information]



DESCRIPTION OF MAP UNITS

HOLOCENE SURFACES

HOLOCENE AND LATEST PLEISTOCENE SURFACES

LATEST PLEISTOCENE SURFACES

SURFACES FORMED DURING SUMAS STADE

SURFACES FORMED DURING OR BEFORE SUMAS STADE

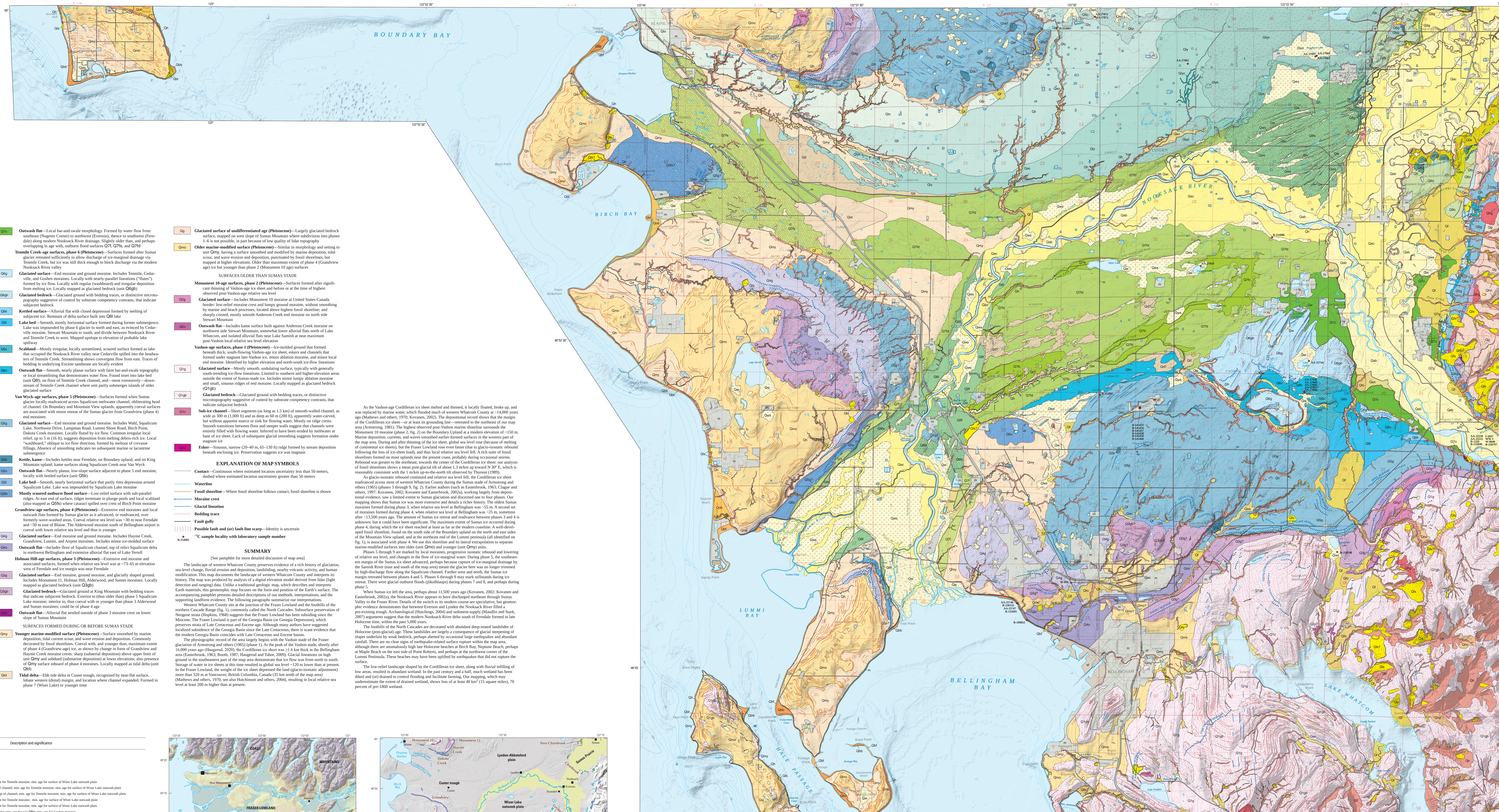
SURFACES OLDER THAN SUMAS STADE

EXPLANATION OF MAP SYMBOLS

SUMMARY

[See pamphlet for more detailed discussion of map area]

Table 1. Selected radiocarbon ages from western Whatcom County.



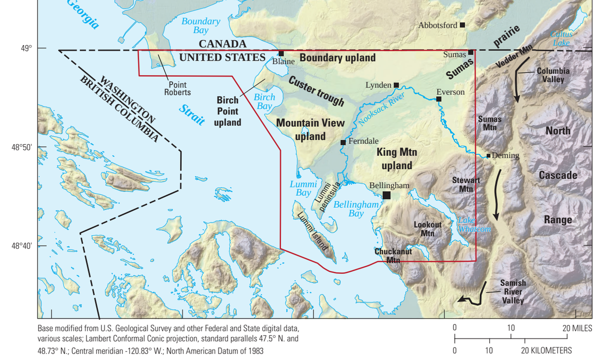


Figure 1. Location and topography of western Whatcom County. Solid red line is the boundary of the geomorphic map. Arrows show the inferred flowpath of glacial meltwater during phase 5 from Cultus Lake through Columbia Valley to the Samish River valley.

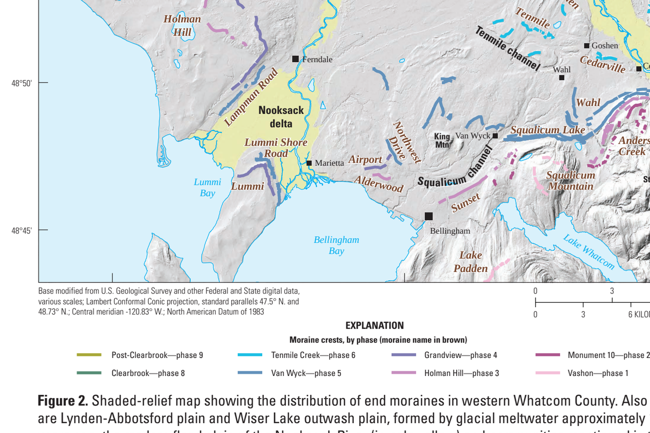


Figure 2. Shaded-relief map showing the distribution of end moraines in western Whatcom County. Also shown are Lynden-Abbotsford plain and Wiser Lake outwash plain, formed by glacial meltwater approximately 13,000 years ago, the modern flood plain of the Nooksack River (in pale yellow) and communities mentioned in the pamphlet text. We assign end moraines and the Wiser Lake outwash plain to 9 phases in the glacial history of the region, from approximately 15,000 to 11,500 years ago. These phases are identified by their associated moraines, ice flow directions, meltwater pathways, and relative sea levels. Cross-cutting relations establish a relative history; see Description of Map Units and the Correlation of Map Units diagram.

Terrestrial contours and base image calculated from U.S. Geological Survey 2006 North Puget Sound lidar survey, Puget Sound Lidar Consortium 2005 Lummi-Nooksack River survey, and PSLC 2009 Nooksack River and San Juan County and Lummi Island surveys. Lidar data available at http://lidarportal.dnr.wa.gov

Marine contours and base image calculated from NOS hydrographic survey data available at http://www.ngdc.noaa.gov/mgg/bathymetry/hydro.html

Lake Whatcom bathymetry from City of Bellingham

Place names from USGS Geographic Names Information System

Roads from Washington Department of Transportation

PLSS lines, Whatcom County boundary, and road names from Whatcom County GIS data

Lat-long tics, North American Datum of 1927

Geomorphic Map of Western Whatcom County, Washington

By

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