



Bedrock Top Contour Map Carnation 7.5-minute Quadrangle, Washington

contour interval 200 ft
above and below sea level (0)

0

1

2

0

1

2

mi

km

Possible ancient Snoqualmie River channel

Subsurface bedrock top contour (ft above sea-level)—
solid where certain ; dashed where inferred; queried where uncertain

Bedrock outcrop or shallow bedrock
overlain by thin Quaternary deposits

Fault—solid where certain; dashed where inferred; dotted
where concealed; queried where uncertain; see Dragovich and others (2010)
and appendix 8 (this study) for further information on individual fault strands

BEDROCK TOP CONTOUR MAP CARNATION 7.5-MINUTE QUADRANGLE, WASHINGTON

Appendix 5. Carnation quadrangle bedrock-top contour map. (See also bedrock top contour maps of Dragovich and others [2007, 2009c] for the Fall City and Snoqualmie quadrangles, respectively, south of the current map area). Map compiled using surface mapping, well and boring logs, and published and unpublished depth-to-bedrock information (Jones, 1996; S. Kahle, USGS, written commun., 2009). Geophysical data (Fig. 2) consulted in areas of sparse subsurface data (see queried contours). The main data source was 1258 wells, 175 geotechnical borings, and 300 test pits and incorporates data from geotechnical investigations around the map area. The top of bedrock appears to rise in elevation near the Union Hill and Tolt Hill anticlines, at least locally. We suggest that these structures are growth folds and thus the arching bedrock top might be indicative of transpressive uplift. Although speculative, closely spaced bedrock-top data reveal what appear to be linear features that may define ancient channels of the Snoqualmie River. Overall stratigraphic constraints in most areas indicate scouring of these channels during or before deposition of the Whidbey Formation. (See cross sections A and B of Dragovich and others [2010].) Approximate Quaternary–Pliocene(?) deposit thickness can be obtained by comparing bedrock top elevations with the Snoqualmie topographic base map on Plate 1 of Dragovich and others (2010). CF, Carnation fault; RMF, Rattlesnake Mountain fault; CCFZ, Cherry Creek fault zone .

Open File Report 2010-2