

### **6.1.2. Middle Fork Snoqualmie River**

The Middle Fork of the Snoqualmie River is the largest of the three forks, with a drainage area of 170 square miles. The Middle Fork includes Mount Hinman, the highest point in the Snoqualmie River watershed at 7492 feet (2283 meters). In the Middle Fork watershed, about 47 percent of the land is located within the Alpine Lakes Wilderness area. Outside of the Wilderness Area, land use in the watershed consists primarily of forest production and recreation on land with mixed public/private ownership.

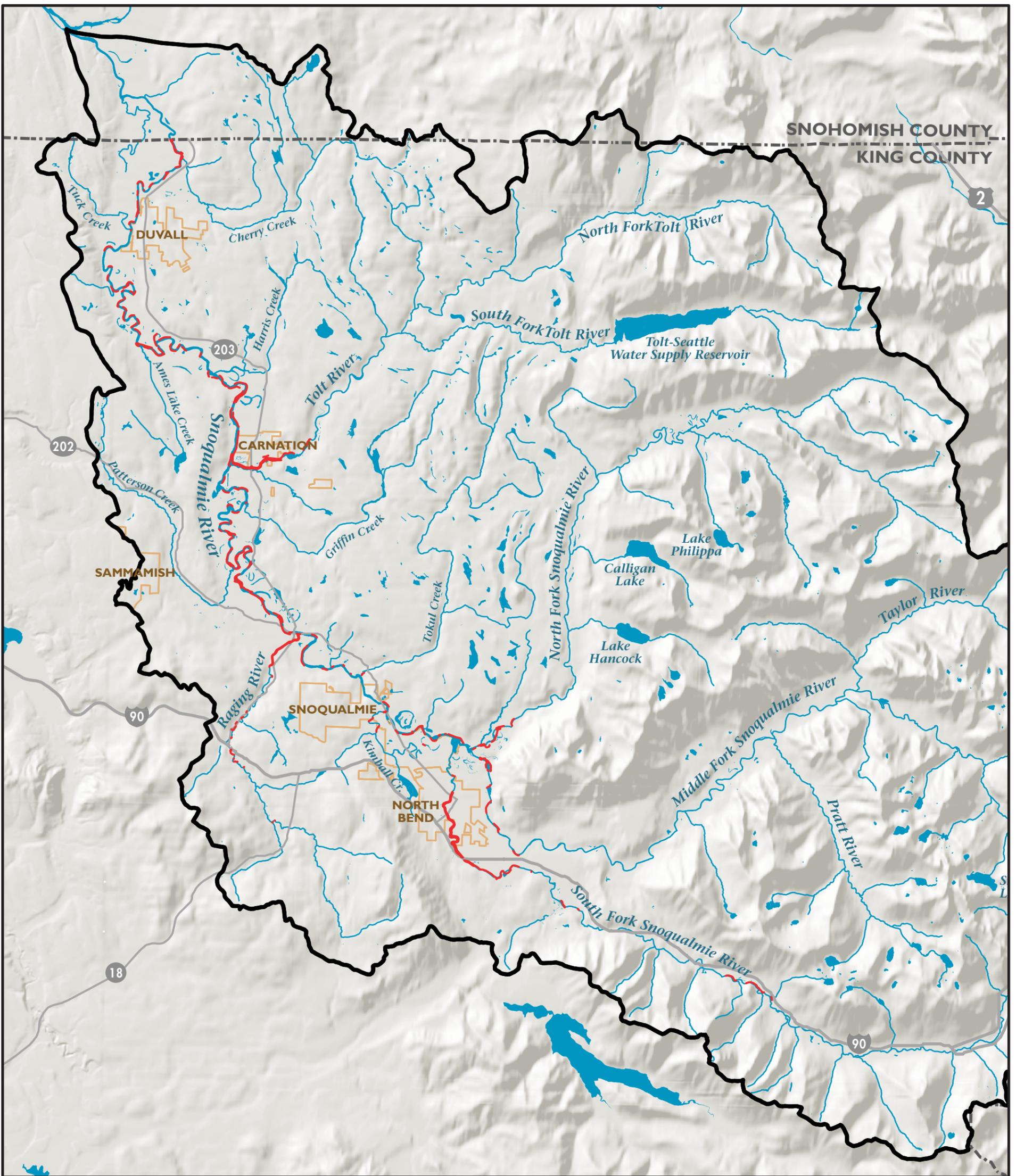
The upper 15 miles of the Middle Fork flows in a narrow bedrock-walled channel. The gradient ranges from 5 percent at the upstream end of this reach to 3 percent at the downstream end. The channel is relatively straight in map view and has a braided morphology. This is probably a result of a high rate of sediment delivery from numerous small, steep tributaries that drain the precipitous valley walls.

At a point approximately 15 miles (24 kilometers) downstream from the Cascade Crest and 20 miles (32 kilometers) upstream of the Three Forks confluence, the river character changes dramatically. The valley widens and the river gradient drops to approximately 0.5 percent. The channel meanders across the relatively broad valley bottom. Through this reach, the channel is relatively unconfined and exhibits pool-riffle morphology. Both the Pratt River and the Taylor River are tributaries to the Middle Fork in this reach.

For its last 5.5 miles (8.9 kilometers), the Middle Fork flows across the merged alluvial floodplain formed by the confluence of the Three Forks. The river maintains a 0.5 percent gradient and meandering plan form. This is the only section of the river with significant adjacent development, and there the banks have been locally armored and/or leveed in order to protect adjacent properties (Figure 19). The number of relict channel remnants increases approaching the confluence area, suggesting that this has been an area of active sediment deposition (Figure 20).

### **6.1.3. South Fork Snoqualmie River**

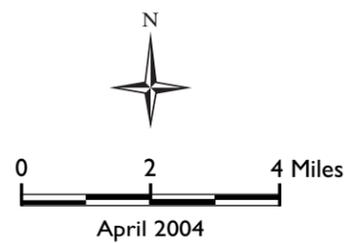
The South Fork of the Snoqualmie River has a tributary area of 85 square miles (220 square kilometers) and therefore is the smallest of the three forks. Interstate 90 follows the South Fork from North Bend for 24 miles (39 kilometers) until the highway leaves the river to cross Snoqualmie Pass. Two small dams on the South Fork take advantage of natural waterfalls to provide hydraulic head for hydroelectric production. These are located at Weeks Falls at river mile 13 (river kilometer 21) and at Twin Falls at river mile 10 (river kilometer 16). The Weeks Falls dam incorporates an inflatable bladder that forms the crest of the dam. The bladder is deflated during high flows to allow bedload to pass through the dam site. The lowest section of the South Fork flows through the city of North Bend. The river is confined between constructed levees for virtually this entire section (Figure 19).



# SNOQUALMIE WATERSHED

Figure 19  
RIVER FACILITIES

-  River Facility
-  Watershed Boundary
-  Stream
-  Lake/River
-  Incorporated Areas



King County

Department of Natural Resources and Parks  
Water and Land Resources Division

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File Name: 0312snoGEOLiverFACIL.ai wgab Prepared by: King County DNRP/WLR GIS and Visual Communications & Web Unit

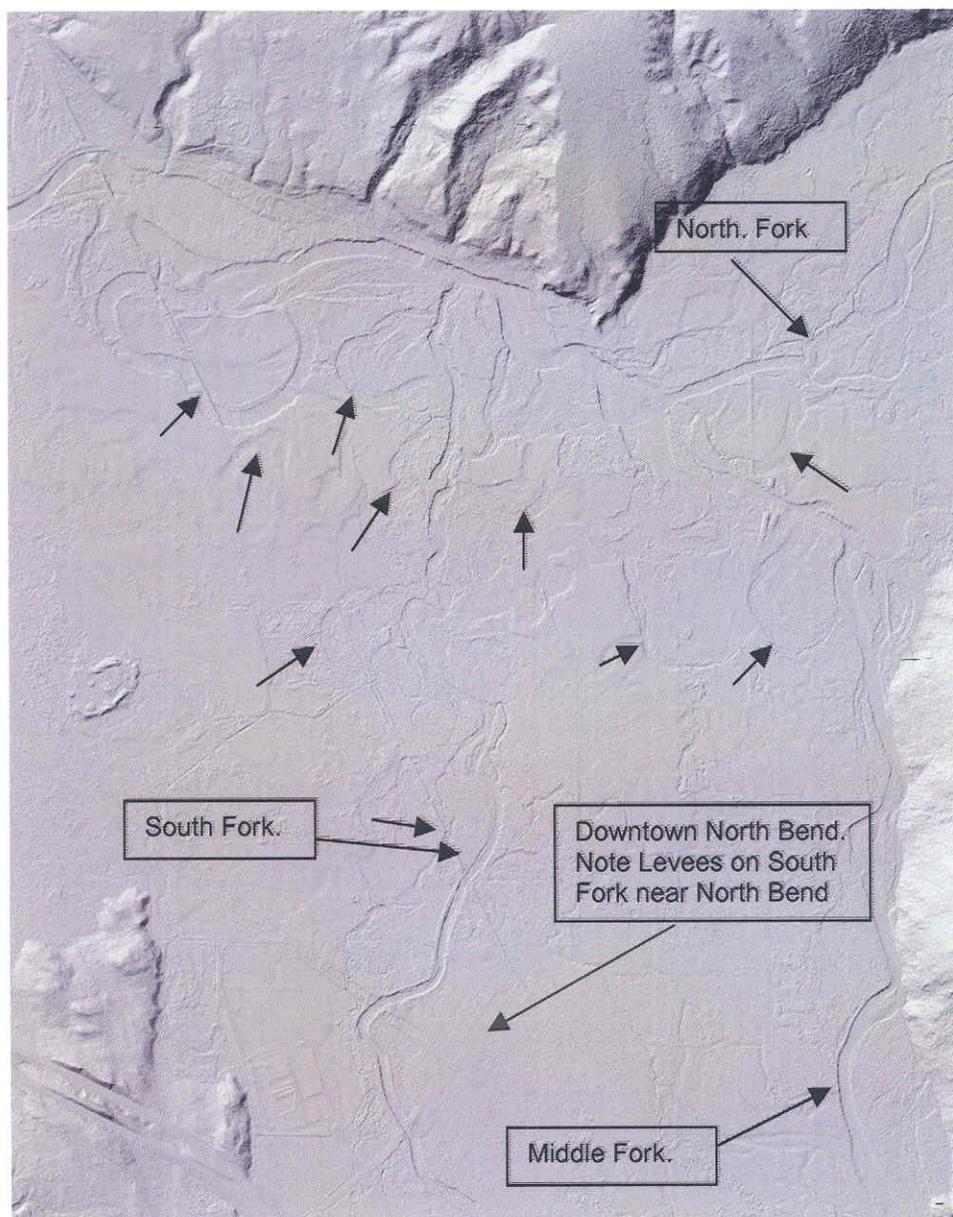


Figure 20: Lidar image showing multiple relict channels near the confluence of the North, Middle, and South Forks of the Snoqualmie River. Unlabeled arrows indicate relict channels. Close inspection shows levees on the South Fork in the vicinity of North Bend.