

1.5.1 Source of Supply

The City of Hoquiam obtains its municipal water supply from surface water. Water is supplied from two river impoundments – one on Davis Creek and a second on the West Fork Hoquiam River. These impoundment dams were built in the 1950s and 1960s.

The established watershed areas for the Hoquiam water system remain the same as those identified in the *City of Hoquiam Watershed Plan (1994)*. The drainage area for Davis Creek is 3,692 acres, while the drainage area for the West Fork is 5,305 acres, yielding a total watershed area of 8,997 acres. The City owns and maintains 4,404 acres within these watersheds. Additional detail regarding the watershed areas including a map is provided in Chapter 5.

Information on specific components of the source of supply infrastructure is provided below.

Davis Creek Intake

The Boyer Dam on Davis Creek creates a pool approximately 13 feet deep, which contains approximately 6.9 million gallons (mg) of water. The Davis Creek raw water intake is a “gabion” structure, measuring 20 feet by 20 feet by 15 feet. The gabion is filled with gravel and rock and serves as a rough filter, keeping leaves and other large debris from entering the raw water pipeline to the treatment plant.

West Fork Intake

The West Fork intake facility is situated on the west end of a six-foot-high dam impounding approximately 4.8 mg of the West Fork Hoquiam River. Raw water passes through a fish screen and mesh filter in a four-foot-wide concrete intake channel.

Raw Waterlines

Two raw water pipelines convey water by gravity from the Davis Creek and West Fork Hoquiam raw water intakes to the raw water pump station, located at the WTP.

The Davis Creek pipeline is comprised of 110 feet of 28-inch steel pipe and 2,190 feet of 20-inch concrete cylinder pipe (CCP). The pipeline originates at the intake structure behind the Boyer Dam. The pipeline then runs for approximately 400 feet along the north side of Davis Creek and then crosses the creek at a bend where the creek turns to the south. The pipeline then continues along the west side of the creek for another 700 feet and then crosses again to the east side. The pipeline continues along the east side of the creek and crosses the West Fork Hoquiam River before reaching the WTP. The 20-inch pipeline connects with the 18-inch West Fork pipeline just before reaching the WTP. The crest level at Boyer Dam is elevation 43 and the low water level at the raw water pump station is elevation 32.5. Therefore, Davis Creek raw water pipeline has 10.5 feet of gravity head into the raw water pump station.

The West Fork Hoquiam raw water pipeline carries raw water 1,342 linear feet from the West Fork Dam impoundment to the WTP. The line consists of 1,240 linear feet of 18-inch CCP and 102 linear feet of 20-inch CCP. The pipeline originates behind the West Fork Dam at the intake structure. It then continues from the west side of the dam and crosses Highway 101. The pipeline joins with the 20-inch Davis Creek raw water pipeline before entering the WTP. There is a total available head of 4.5 feet.