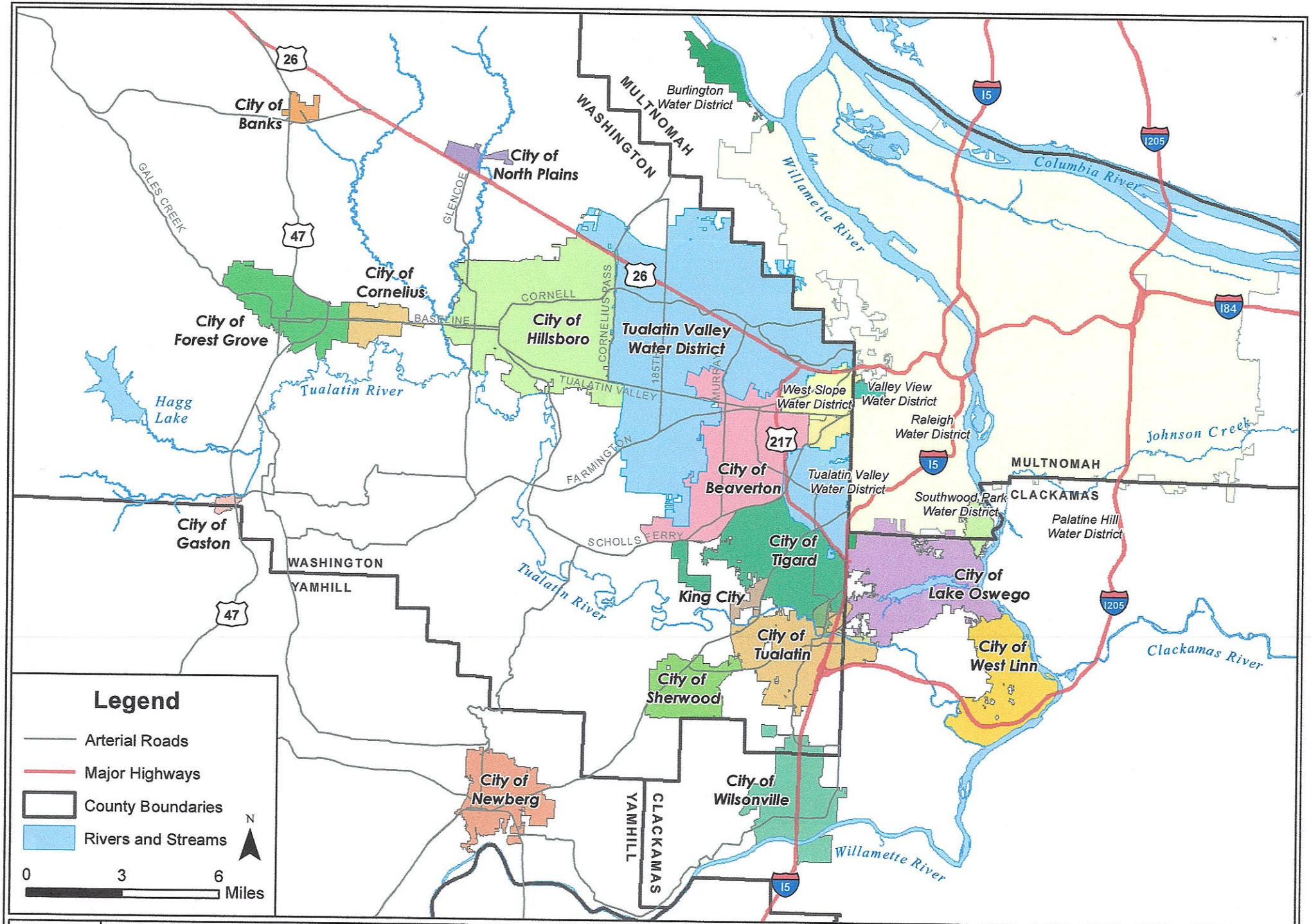
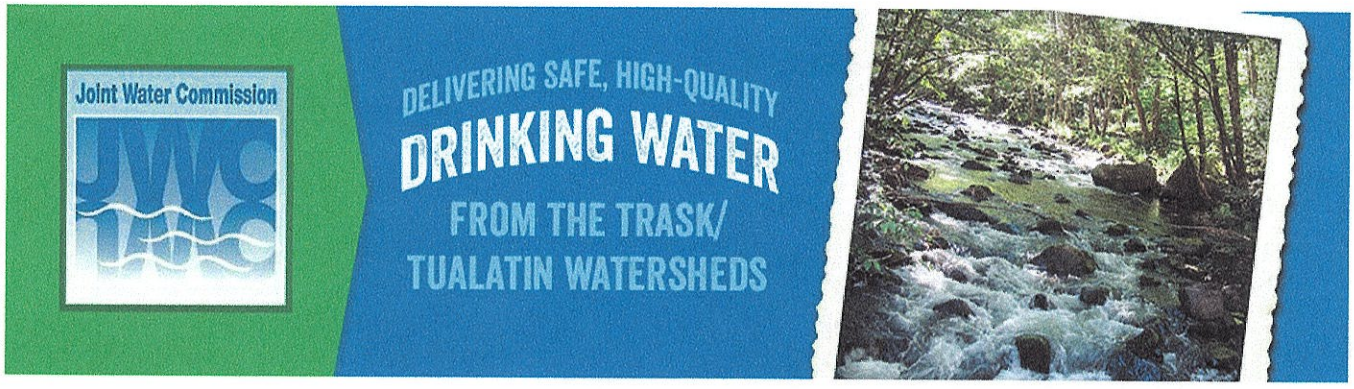

City of Banks
City of North Plains
City of Cornelius
City of Forest Grove
City of Hillsboro
City of Gaston
City of Beaverton
City of Tigard
City of Lake Oswego
City of Tualatin
City of West Linn
City of Sherwood
City of Newberg
City of Wilsonville
King City
Tualatin Valley Water District
Burlington Water District
West Slope Water District
Valley View Water District
Raleigh Water District
Southwood Park Water District
Palatine Hill Water District
Hagg Lake
Tualatin River
Willamette River
Columbia River
Johnson Creek
Clackamas River
GALES CREEK
GLENCOE
CORNELL
BASELINE
CORNELIUS PASS
TUALATIN VALLEY
FARMINGTON
SCHOLLS FERRY
MURRAY
185TH
WASHINGTON
MULTNOMAH
CLACKAMAS
YAMHILL
26
47
217
15
1205
184
Legend
Arterial Roads
Major Highways
County Boundaries
Rivers and Streams
N
0
3
6
Miles
09/15/2016
Tualatin Valley Water District
Westside Regional Water Providers

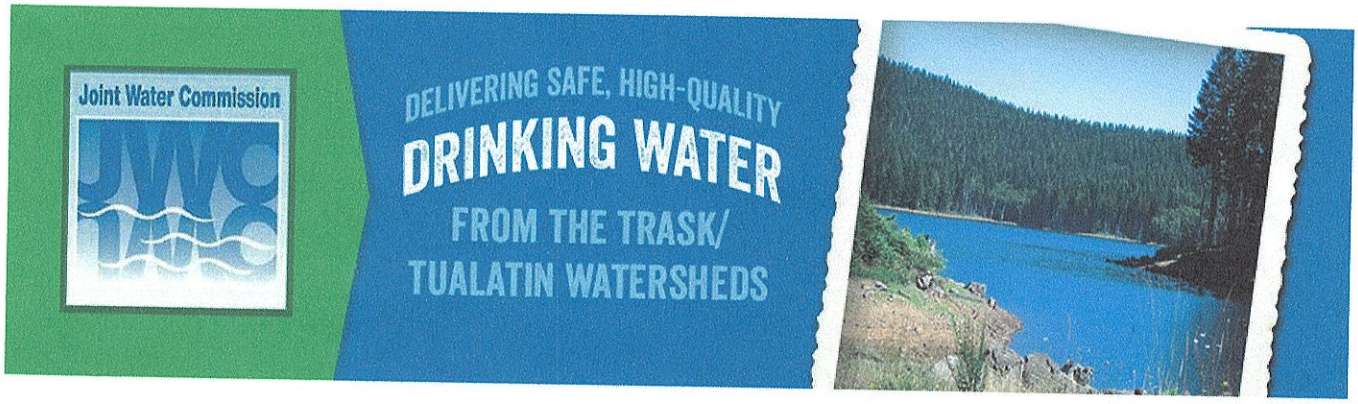


Water Sources

All of the water treated by the Joint Water Commission is "surface water," which means it comes out of a river or reservoir. The JWC does not currently use groundwater, but one of the JWC's member agencies – the City of Beaverton – supplements its JWC allocation with local groundwater and also water that has been stored in an Aquifer Storage and Recovery (ASR) well.

During the Winter Season, which usually runs from mid-October to mid-June, the JWC receives all of its "raw" (untreated) water from the Tualatin River.

During Summer or "Peak" Season, which usually runs from mid-June to mid-October, Tualatin River water is supplemented with water from the municipally-owned Barney Reservoir and a small municipal supply in the Bureau of Reclamation-owned Scoggins Reservoir (also known as Hagg Lake).



Summer Water Sources

During the summer season, which typically runs from June through October, lack of rain causes the natural water level in the Tualatin River to drop. As the level drops, Washington County's Watermaster orders river water users to cease using river flow as a source. Who gets ordered off when is based on the river level and the age of the water right held – the oldest water rights are allowed to continue use the longest. Hillsboro, one of the JWC agency members, owns some of the oldest natural river rights on the Tualatin River, but even those usually only last until mid-June.

As the natural river rights dry up (literally), the JWC begins releasing water from two reservoirs to provide supplemental water in order to meet customer demands. Both reservoirs were designed to catch and store heavy rainfall in the winter months.

Barney Reservoir

The Barney Reservoir is municipally-owned and operations are overseen by the Barney Reservoir Joint Ownership Commission (BRJOC). The BRJOC was formed in 1994 and includes one representative from each member agency of the JWC and also a representative from Clean Water Services. The reservoir is owned jointly by Tualatin Valley Water District (35%), City of Hillsboro (31%), City of Beaverton (21.5%), Clean Water Services (10%) and the City of Forest Grove (2.5%). In addition to municipal and industrial water supplies, 15 percent of the water is dedicated to flow enhancement of the Trask River and fish habitat.

The Barney Reservoir was completed in 1970 by the City of Hillsboro to provide the city's municipal and industrial water. The original capacity was 4000 acre feet, and the dam was 1600 feet above sea level. The cost of

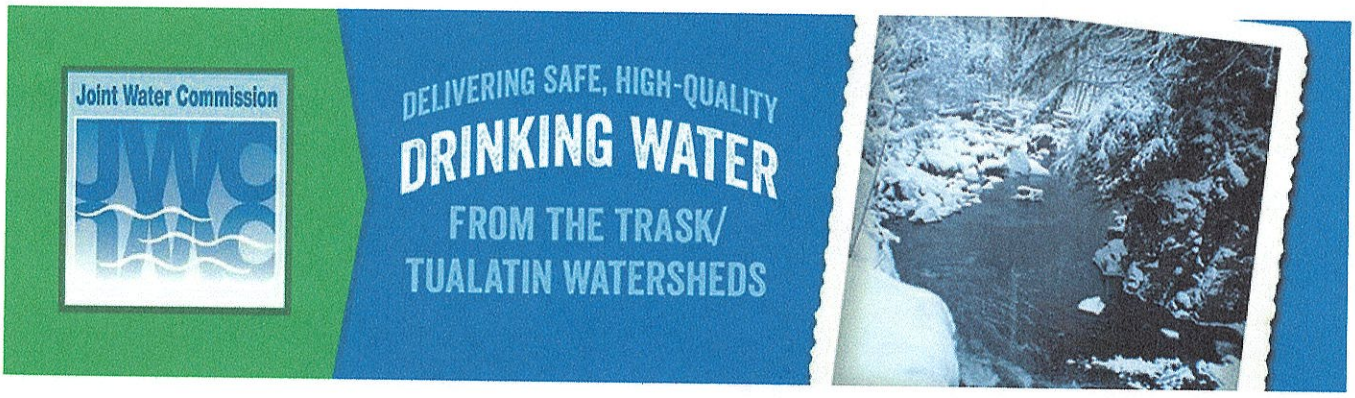
construction was approximately $2.5 million. A 36-inch pipeline 6,500 feet in length was constructed to divert water from the Trask River to the Tualatin River, at a cost of $400,000.

Barney Reservoir is named in honor of J.W. Barney, Hillsboro's first city manager, who was instrumental in the planning and construction of the original dam. The dam itself is named the Eldon S. Mills Dam in honor of Hillsboro's second city manager, who was also the project manager for the Barney Reservoir Expansion project that was completed in 1999.

The $28.5 million expansion project spanned five years and increased storage capacity fivefold. The reservoir now holds 20,000 acre feet, with the dam at 1640 feet above sea level. It took 760,000 cubic yards of rock to form the backbone of the dam expansion.

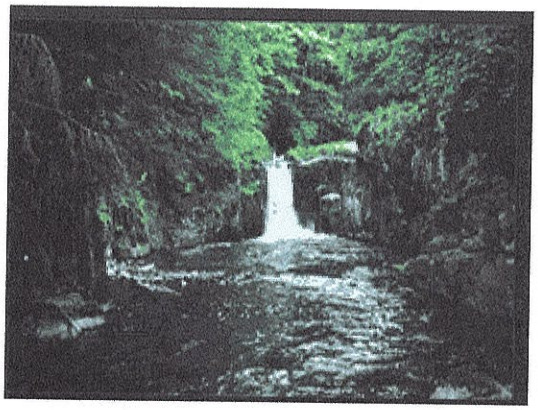
Scoggins Reservoir (Hagg Lake)

Scoggins Dam and Reservoir was constructed in the l960's and is owned by the Bureau of Reclamation. Its primary purpose was to provide flood control for the Tualatin Valley, but it also impounds 53,000 acre feet of water on Scoggins Creek. The majority of impounded water is owned by the Tualatin Valley Irrigation District, but the JWC has rights to use 13,500 acre feet of the impoundment when it fills to capacity.



Winter Water Source

In the wintertime, member agency rights allow the JWC to pull all the water it treats from the Tualatin River.



The winter water flows on the Tualatin River are normally quite high and there is plenty of water to meet the needs of fish, farmers and urban use, including the recharging of Aquifer Storage and Recovery (ASR) wells in Beaverton.

Torrential rains can cause the river to overflow its banks and collect large amounts of sediment that are harder to remove from the water. The Water Treatment Plant (WTP) Operators monitor the incoming and outgoing water quality vigilantly during these periods of high "turbidity." They adjust treatment chemical dosages and check equipment frequently in order to ensure all outgoing treated water maintains the same high standards for safe drinking water that are met when the river is quiet.