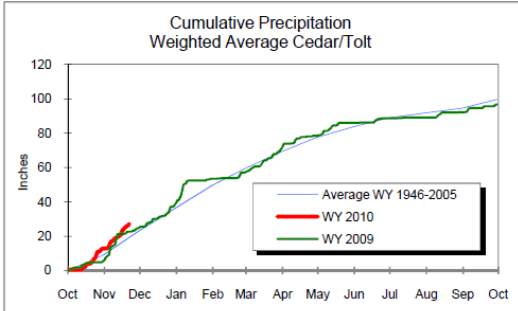
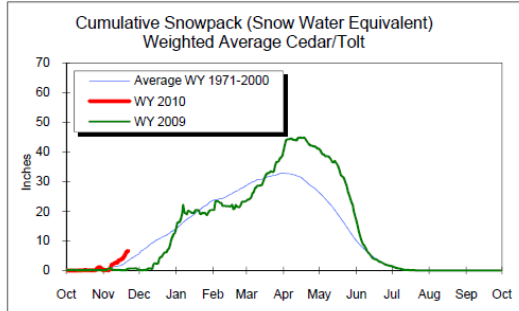


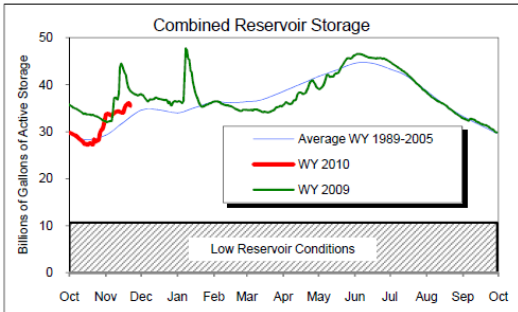
**Seattle Public Utilities Water System Synopsis as of November 22, 2009**



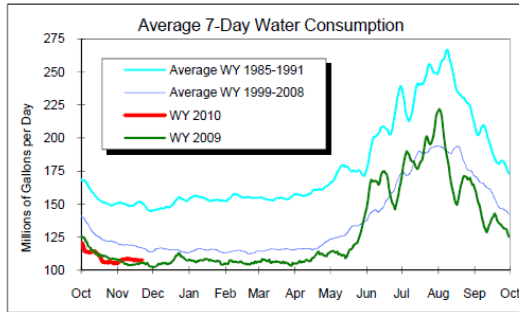
Precipitation was recorded in the Cedar and S.F. Tolt watersheds over the past week.



The average snow accumulation across the sites that we monitor is estimated to be about 6.7 inches snow water equivalent which is above the long term average for this time of the year.



The combined reservoir storage of Chester Morse Lake, Masonry Pool, Lake Youngs and South Fork Tolt Reservoir is above the long term average for this time of year.



Water use over the past week averaged about 107 million gallons per day (mgd), which is less than the 117 mgd used during the same period over the years 1999-2008.

All data is provisional and subject to revision.

Our overall water supply situation and outlook is good.

Last week, 6.25 inches and 6.53 inches of precipitation were recorded in our Cedar and South Fork Tolt River watersheds, respectively, as a series of rain storms moved through the Pacific Northwest region. Snow is accumulating in our watersheds in the Cascade Mountains.

Chester Morse Lake at the Overflow Dike is at elevation 1552.1 feet, about 0.5 feet higher than last week, and about 2.4 feet above its long-term average (based on the years 1989 to 2005). Masonry Pool Reservoir at Masonry Dam is at elevation 1550.5 feet, about 0.4 feet lower than last week, and about 4.3 feet above its long term average. The South Fork Tolt Reservoir at the South Fork Tolt Dam is at elevation 1750.9 feet, about 4.7 feet higher than last week, and about 2.3 feet above its long-term average. Water releases from reservoir storage are actively being managed to balance water supply, fish habitat and flood management objectives for both the Cedar and South Fork Tolt Rivers.

Water consumption for the previous seven days averaged approximately 107 mgd. That is more than the 106 mgd consumed during the same period last year, and less than the average of 117 mgd used during the same period over the years 1999-2008.

## **Climate Outlook (From the NOAA Climate Prediction Center in Washington D.C.)**

### **30-Day Climate Outlook (Issued 19 November 2009)**

The Puget Sound Region climate probability forecast for the month of December 2009 calls for a shift towards above normal temperature (as averaged over the 1-month period) and equal chances for above, below and near-normal total monthly precipitation accumulations.

### **90-Day Climate Outlook (Issued 19 November 2009)**

The Puget Sound Region climate probability forecast for the 3-month December-January-February 2009-10 period calls for a shift towards above normal temperature (as averaged over the 3-month period) and for a shift towards below normal total 3-month precipitation accumulations.

## **Cedar River Instream Resources**

Chinook spawning is complete, sockeye spawning is winding down. Coho salmon continue to spawn throughout the Cedar River. Sockeye spawning usually peaks in late October and continues into December. Coho spawning activity is believed to peak in November or December and continues into February.

The Landsburg fish ladder has been operated in sorting mode since September 8. The movement of Chinook into the ladder is complete and sockeye movement also appears to be nearly complete. Coho salmon are moving through the ladder in good numbers and are expected to continue to move through until mid-January. The facility will remain in sorting mode until early to mid-January.

## **South Fork Tolt River Instream Resources**

Adult summer-run steelhead continue hold in the Tolt system. Most of these fish enter the system during the summer and fall, then hold in the upper reaches of the South Fork Tolt River where they will spawn next winter and spring.

Chinook and pink salmon spawning is complete in the Tolt system. Adult coho salmon continue to spawn. Although most coho are believed to spawn in smaller tributaries, some fish spawn in the mainstem, South Fork Tolt and North Fork Tolt. Coho spawning is believed to peak in November or December and continues into February.

Young steelhead and coho continue to rear in the river and its tributaries. Most young steelhead and coho are believed to rear in tributaries and the mainstem for one or two years before migrating to sea.

Although these young fish are becoming more resilient to changes in river stage, they remain vulnerable to stranding during large downramping events. The target maximum downramping rate for operations at the SF Tolt Dam is no more than 1-inch per hour, as measured at USGS gage #12148000, when stream flow is less than 350 cfs. From November 1 through February 15, the target maximum allowable downramping rate for the SCL river return is no more than 2-inches per hour as measured at USGS gage #12148300.