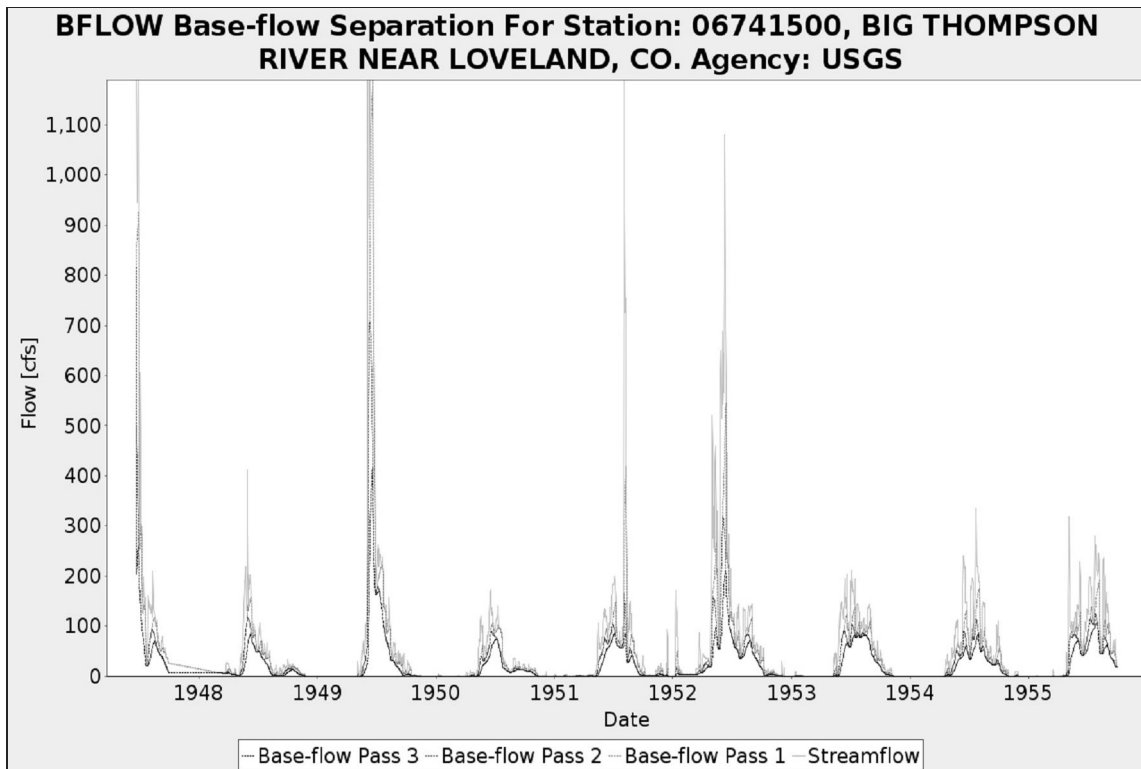


Base-flow Analysis Results:

The base-flow analysis retrieves the available flow data for the specified station and analysis period. then executes the base-flow separation program BFLOW (Arnold et. al. 1995, Arnold and Allen 199) on the collected data. The 3-pass base-flow separation results are then graphed on top of the origir flow data in the below figure, and a summary table of the analysis is displayed below as well.



Pass 1 Baseflow Fraction	Pass 2 Baseflow Fraction	Pass 3 Baseflow Fraction	Number of Recessions	Alpha Factor	Baseflow Days
0.66	0.46	0.36	2	0.4297	5.3530

Base-flow Passes:

The automated base-flow filter is passed over the streamflow data three times. First forwards, then backwards, then forwards again. Each successive pass will result in less base-flow as a percentage of total flow (Arnold et. al. 1995). The value in the table indicates the average base-flow amount divided by the average flow amount to indicate a relative fraction. The first or second pass is usually sufficient to extract a base-flow similar to that reached by manual separation techniques.

Alpha Factor:

The alpha factor is a recession coefficient derived from the properties of the aquifer in question contributing to base-flow. Large alpha factors signify steep recession indicative of rapid drainage ar minimal storage. Conversely low alpha values indicate very slow drainage (Arnold et. al. 1995).

Analysis Summary:

- Total Observations: 2870
- Start: 1947-06-23
- End: 1955-09-30

Comments:

References:

Stream flow data and water quality test data courtesy of the U.S. Geological Survey, National Water Information System: Web Interface. <http://waterdata.usgs.gov/nwis>, accessed 01/24/2014

Arnold, J.G., P.M. Allen, R. Muttiah, and G. Bernhardt. 1995. "Automated base flow separation and recession analysis techniques." *Ground Water* 33(6): 1010-1018.

Arnold, J.G. and P.M. Allen. 1999. "Automated methods for estimating baseflow and ground water recharge from streamflow records." *Journal of the American Water Resources Association* 35(2): 411-424.

Disclaimer:

The primary purpose of these graphs is to help identify possible flow and pollutant problems. The developers of eRAMS are not liable for use of this model (including but not limited to information extracted and results).