

Table 5-1. Summary of groundwater withdrawals and influxes

<b>Groundwater Withdrawals and Influxes</b>	<b>Q 2001 million gallons per day</b>	<b>Q 2009 million gallons per day</b>	<b>Q 2010 million gallons per day</b>
Single aquifer well withdrawals	1,568	1,557	1,487
Multi-aquifer well withdrawals	125	119	120
Influxes (RIBS, injection wells, swallets, drainage wells)	315	392	457

## General Head Boundary Package

### Lateral Boundaries

For the 2010 verification simulation, lateral boundary conditions types were identical to those used in the 2001 and 2009 calibration, with most of the NFSEG model lateral boundaries assigned no-flow boundaries (See Chapter 3 for more information). For the small portion of the lateral boundaries that were represented with the General Head Boundary (GHB) Package, source heads for model Layer 3 (UFA) were generated using the May-June 2010 potentiometric surface (Kinnaman and Dixon, 2011) and average observed water levels in 2010. Where GHB source heads were assigned for other layers, the values were the same as for the UFA.

### Spring Pool Elevations

The GHB package was also used to simulate spring discharges by specifying spring pool elevations for the springs in the NFSEG model domain (Figure 2-1). Spring pool elevations were assigned based on observed median water levels for 2010. In the case where no observed data was available for 2010, if a spring is adjacent to a river, the nearby 2010 river stage was assumed to be the pool elevation. In cases where no observed data were available, or were based on limited observations, and no adjacent river cell was available, the USGS 3DEP 10m DEM elevation was used to set the pool elevations. The assigned spring pool elevations were later compared with the observed 2010 potentiometric surface of the UFA to ensure that the pool elevations were lower than the UFA water levels for a flowing spring.

### Observation Datasets

To assess model performance for the year 2010, residual statistics were evaluated for the three types of observation groups: Groundwater levels; Spring discharge rates; and Baseflow rates.