Layer 4 outflows were to Layer 5. Of the water transferred to Layer 5 from Layer 4, 8-9% was discharged to wells and the remainder flowed laterally out of the layer. See Tables 6.5-6.7 for simulated mass balance of GWB1 for 2001, 2009, 2010.

For the 2009 no-pumping simulation, the flows into and out of Layer 1 show an increase in constant head outflows from 0.03 to 0.08 in/yr, 1.0% lower drainage outflows, 1.94% increase in river outflows, 0.13% increase in GW ET and a 51.2% decrease in vertical flow from Layer 1 to Layer 2 (Figure 6-9). River outflow from Layer 2 increased by 11.1% and vertical flow from Layer 2 to Layer 3 decreased by 67.6%. The direction of vertical flow of water between Layer 3 and Layer 4 reversed and increased in magnitude from 0.02 to 0.06 in/yr in the no-pumping scenario. The rate of vertical flow from Layer 5 to Layer 4 increased from 0.05 to 0.13 in/yr. The reduction in downward leakage from Layer 2, reversal in flow direction between Layers 3 and 5 and increase in downward leakage to Layer 5 are also consistent with an expected reduction in pumping induced leakage to Layer 3 and corresponding increase in groundwater flow to down-gradient sinks, such as rivers and springs that are sustained by flows from the Upper Floridan aquifer. General head boundary flows into and out of Layer 5 did not significantly change. See Table 6.8 for simulated mass balance of GWB1 for no-pumping.

GWB 2

Net recharge into Layer 1 is 11.96, 15.78 and 11.67 in/yr for 2001, 2009 and 2010 re-

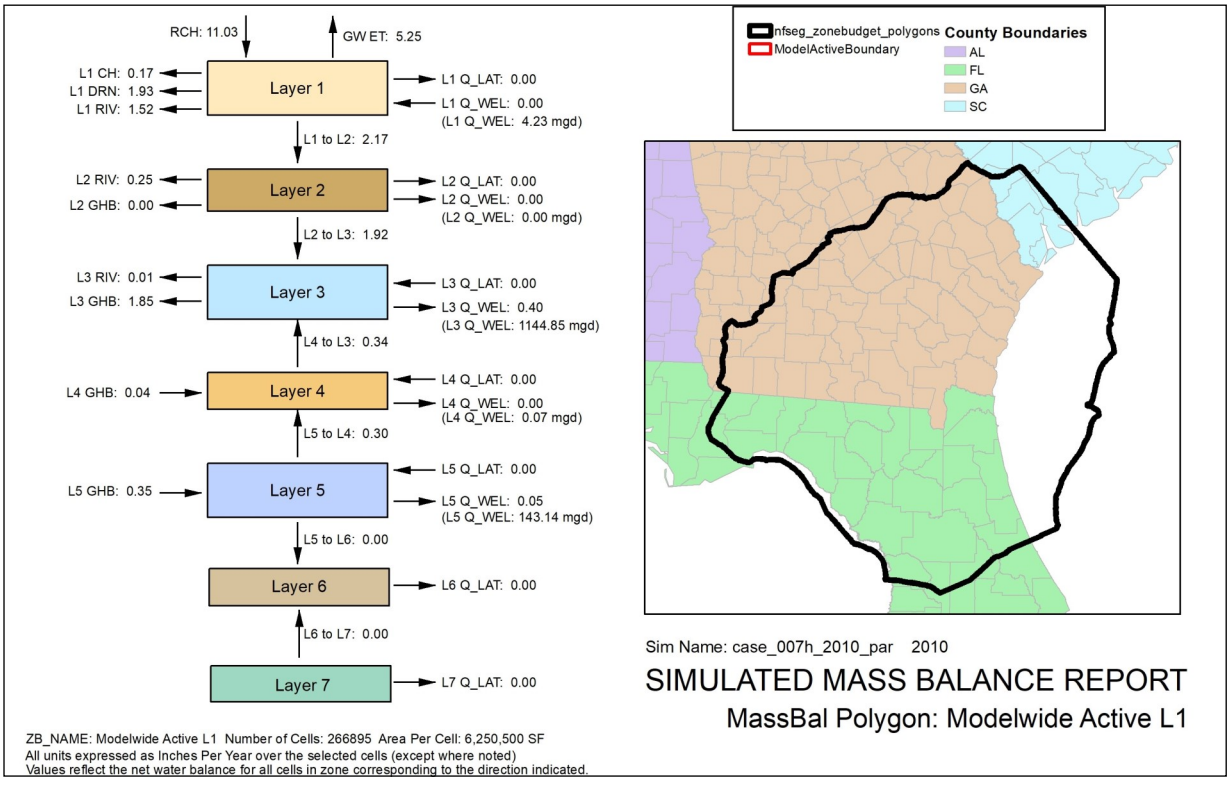

Figure 6-8. Simulated mass balance of GWB 1 for 2010
*Arrows indicate net flow (inflows + outflows) into or out of the layer.