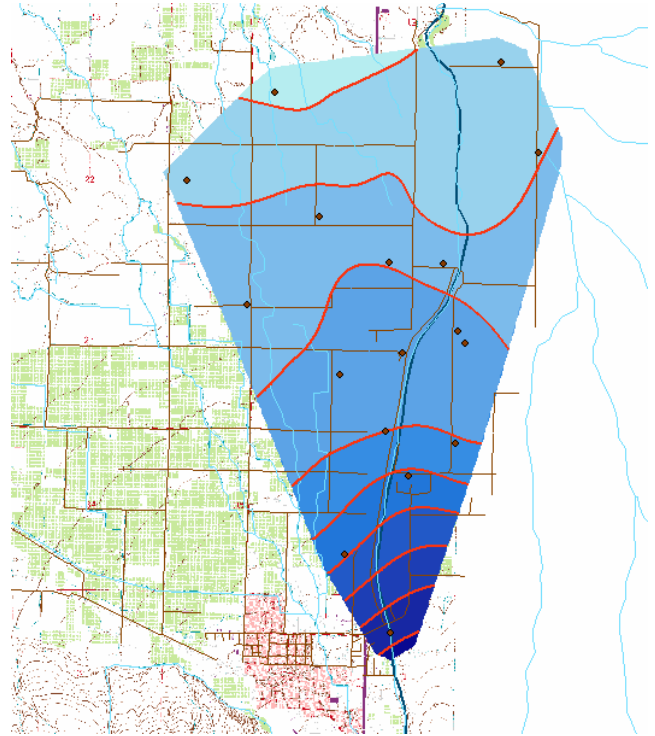


Analyzing Water Tables in the Walla Walla Water Basin

Juniper GIS provided GIS expertise to the Walla Walla Basin Watershed Council (WWBWC) on a project to examine the effect of irrigation on water tables within part of the Walla Walla water basin. This is part of a larger project to improve stream flow for fish habitat. Working with the WWBWC and their consulting geologists, Juniper GIS created 3-dimensional surfaces of the geology and water tables in the water basin.

One specific task was to create water table maps derived from the static water level in sample wells in October 2001, at the end of the irrigation season, and in March 2002, at the beginning of the irrigation season. The theory is that irrigators lower the water table during the irrigation season, then during the recharge season from October to March, the water table should rise. But one possibility is that water being applied during the irrigation season actually raises the water table in some areas.

Spatial Analyst was used to interpolate water table surfaces from the well data, and then to create maps showing the difference between water tables and also the distance to water from the ground surface. 3D Analyst was then used to help visualize the relationship between the water tables and the ground surface.



Walla Walla Water Basin Water Table Studies

