

SECTION XI

WATER RESOURCES MONITORING PROGRAM AND NETWORK

To fully understand the groundwater resources of the Pennridge Area, known static water levels should be obtained and monitored. A preliminary analysis of the DEP's GIS well data indicates that the regional groundwater flow system may flow eastward towards the Delaware River whereas the East Branch Perkiomen Creek flows westward on the surface. This would have a large impact on subbasin water balance and withdrawals. This trend cannot be independently verified with the current data available. Although the DEP's GIS files provide valuable information, a set of wells should be established as standard monitoring wells. Static water levels should be obtained from each of these wells within a limited time period to obtain a point-in-time static groundwater level and information on the aquifer (confined or unconfined) needs to be catalogued. The recommended locations of the stream gauges are shown on [Figure XI-1—Locations of Stream Gauges \(Existing and Proposed\)](#).

Once the point-in-time static water levels from the chosen wells is determined, a groundwater flow regime can be developed as shown in **Figure XI-2—Cross-Section of Pennridge Area Wells** to show features such as flow direction and cones of depressions. Water quality data for these wells should also be obtained to continuously monitor water quality.

Figure XI-2
Cross-Section of Pennridge Area Wells



