

The Zone II area for Well #18B is elongated to the east, following the primary groundwater flow from the up-dip outcrop recharge area located to the east and northeast of the well. The Zone II area for Well #2 extends to the north in response the primary groundwater flow from the up-dip outcrop recharge area located to the north and northwest of the well. The Zone II area for Well #99 extends to the north and east following the primary groundwater flow in a structurally down-dip direction.

8.3 Source Water Protection Zone III

Zone III is the land area beyond Zone II that contributes recharge to the aquifer within the first two areas via surface water or groundwater. Collectively, Zones II and III constitute the contributing area of a well. Zone III is determined through a particle tracking algorithm with the groundwater flow model. The tracking algorithm determines the extent of a recharge area by tracing the groundwater flow paths that enter a well backwards to the point of origin. The groundwater that enters the wells from the up-dip outcrop recharge areas. Since the stratigraphic sequences play a major role in controlling the groundwater flow through the aquifer, the areas where the stratigraphic intervals penetrated by the wells outcrop to the surface form critical aquifer recharge areas (**Figure 10**). The Zone III is the up-gradient drainage area that contributes recharge to the aquifer recharge areas. The Zone III for all of the wells occupies an area of 16.9 square miles.