Exhibit 36

through the present and has become the dominant influence on groundwater movement within this portion of the basin.

4.3.1.3 West Antelope Valley

This area includes the western portion of the Lancaster subbasin and the Neenach and West Antelope subbasins. Groundwater elevations in this area show similar trends of groundwater level decline from the early 1950s through the mid-1970s, followed by stabilizing and/or increasing groundwater elevations through approximately 2000. Since 2000, groundwater elevations have been generally declining. In general, groundwater levels have declined between 50 and 100 feet since 1951 with the greatest declines occurring in the agricultural areas of the eastern portion of the Neenach subbasin and the western portion of the Lancaster subbasin. Groundwater flow direction in this area is generally to the east and has not changed significantly since 1951.

4.3.1.4 East Antelope Valley

This area includes the eastern portion of the Lancaster subbasin and the Buttes and Pearland subbasins. Groundwater elevations in this area show similar trends of groundwater level decline from the early 1950s through the mid-1970s, followed by stabilizing and/or increasing groundwater elevations through approximately the mid to late 1990's. Since the mid to late 1990's, groundwater elevations have been relatively stable, with only minor declines in the west Pearland basin (well 05N10W-06N1). Groundwater elevations within the Buttes and Pearland subbasins are very sensitive to precipitation and runoff, as the majority of the natural recharge to the groundwater basin occurs in this area at Littlerock Creek and Big Rock Creek. This is observed in the hydrographs (not presented in figures) from a number of shallow wells near the Littlerock and Big Rock creeks. In general, groundwater levels in the Buttes and Pearland subbasins have not changed significantly since 1951 and, in some cases, have risen (06N/10W-22D1). Groundwater flow direction in this area is generally to the west and has not changed significantly since 1951.

4.3.2 Change in Groundwater Storage

The volume of groundwater in storage within an aquifer is a function of the volume of the aquifer materials and the volume of pore space within the aquifer material that will readily yield water under the force of gravity. Two mechanisms of storage change are present within the Antelope Valley; 1) draining or filling of aquifer materials, and the associated changing water levels as described in this section, and 2) irreversible compaction of aquifer materials and resulting subsidence from lowering water levels below a "pre-consolidation" head as described in Section 4.5. For mechanism 1, the change in storage over a particular time period is determined by multiplying the water level change by the specific yield of the aquifer materials over which the water level change occurred for a unit area of aquifer. For mechanism 2, the change in storage is simply the volume of subsidence that occurred (Section 4.5). The sum of the