SOILS

Native soils consist of four associations from two groups which correspond in general to the underlying geologic units relative to areal distribution.[4] These four associations (and their map symbols) are:

Group 1 Soils

- Foster-Grangeville (Fp-Gw; on recent alluvial plains)
- Tujunga-Delhi (TD-Dg/AR, on recent alluvial fans)
- Hanford-Greenfield (Hd-Gx/A; on recent alluvial fans)

Group 2 Soils

- Merrill-Chino (MB-CE; on older alluvial fans and terraces) [**Figure 6-2**]

Agricultural uses, predominantly dairy industries, have been so widespread over such a long period that organic materials (i.e., manure and feed) are present in thickness' reportedly up to about 6 feet. The actual extent and distribution of this organic material over the native soils has not been documented.

Considering the native soils, the Tujunga-Delhi soils make up about 90% of the Sphere of Influence with the other Group 1 soils, the Foster-Grangeville and Hanford-Greenfield, constituting less than 5%. All are deep, permeable soils with no development of a profile, and were formed from unconsolidated materials. Slopes range from 0-9%, particles are more generally granular, runoff is slow, and depths reach 60 inches. Four units of the Tujunga loamy sand (Class III soil) are mapped predominantly in the western one-third of the Sphere of Influence with an isolated patch in the northeastern corner, together making up less than 10 % of the total area of the Sphere of Influence. The Delhi fine sand (Class III soil) comprises approximately 50-60% of the Sphere of Influence. Three units of the Hilmar loamy fine sand (Class III soil) are present in large isolated patches across the Sphere of Influence comprising about 20-30% of the area. A small area of Hanford coarse sandy loam (Class II soil) is found in the northeast corner of the Sphere of Influence and a small area of psamments and fluvents (Class VIII soil) is found at the far south point in the Sphere of Influence, together representing less than 1% of the total area.

Merrill-Chino soils (about 5% of the area) are silty and sandy loam overlying clay loam with slopes of 0-9%, and depths of over 60 inches. These soils are moderately erodible, well drained, and have a low to moderate permeability. The two soil units present are variants of the Chino silt loam (Class I soil) and are found in the far southwest corner of the area.

Prime agricultural land (soils) issues are discussed in the agricultural section of the Community Development Chapter (3.0). Dust and wind blown sand are recognized as an erosion hazard, and constitute an inconvenience and nuisance.[5] The County has designated a Soil Erosion Control Area which encompasses at least the eastern three-quarters of the Sphere of Influence. The erosion hazard is greatest where the eolian sand (Qhs) is exposed at the surface (i.e., not covered by development or anchored by vegetation).

[4] Montgomery Watson, (1993).

[5] City of Ontario, 1992.