

Groundwater

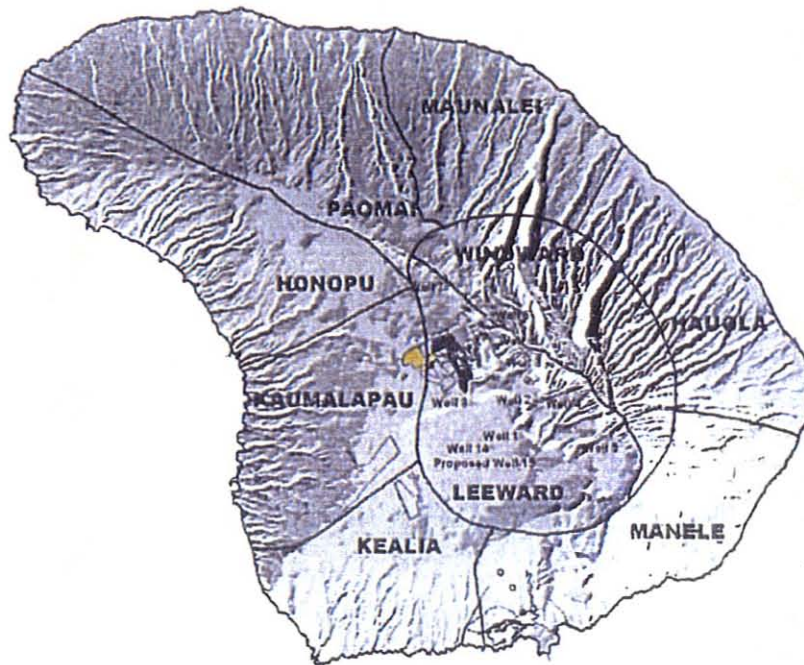


FIGURE 3-4. Lana'i Aquifer Map

There are nine aquifer systems in four sectors on Lana'i, as follows:

- | | |
|--------------------|------------------|
| 50101 - Windward | 50201 - Hauola |
| 50102 - Leeward | 50202 - Maunalei |
| | 50203 - Paoma'i |
| 50301 - Honopu | 50401 - Kealia |
| 50302 - Kaumalapau | 50402 - Manele |

Estimates of sustainable yield on the island have varied from about 5 to 10 MGD, with the current regulatory sustainable yield estimate at 5 MGD. Only the Central Aquifer sector is believed to contain fresh water. The island's entire sustainable yield of 6 MGD is found in this region, according to the sustainable yield classification system utilized by the State. By this system, the total area of this aquifer sector is about 24 square miles, (2008 *State Water Resources Protection Plan*) with water levels above 500' found in a 14 square mile area (1990 *State Water Resources Protection Plan*). Time domain electromagnetic resonance (TDEM) studies undertaken by consultants to Castle & Cooke Resorts in 1993 and 2001 indicate