APPENDIX D:

WATER DATA: NEEDS & COSTS

The benefits from projects described in Section 3.1 Water Resources Management

DIRECT BENEFITS:

- Pasadena Water & Power
- Lincoln Avenue Water Company

INDIRECT BENEFITS:

- Help maintain safe yield of the Raymond Basin
- Help maintain groundwater levels
- Reduce dependency on imported water
- Increase the amount of water that can be pumped back from the Water Conservation Pool

PERMANENT LAKE FEATURES EVAPORATION WATER NEEDS*:

Evaporation from Aquatic and Wetland Habitats; each lake has a 0.3-acre island

East Lake = 3.6 Acres = $156,816 \text{ ft}^2$ West Lake = 4.8 Acres = $209,088 \text{ ft}^2$

Evaporation Rate 0.15 in/day 0.375 ft/month Rainfall in Basin 22 in/year 0.153 ft/month 0.222 ft/month

East Lake $156,816 \text{ ft}^2 \times 0.222 \text{ ft/month} = 34,813 \text{ ft}^3/\text{month} = 348 \text{ billing units/month}$ West Lake $209,088 \text{ ft}^2 \times 0.222 \text{ ft/month} = 46,418 \text{ ft}^3/\text{month} = 464 \text{ billing units/month}$

Average rate for domestic water is \$1.54/billing unit

348 billing units/month \times \$1.54/billing unit = \$536/month = \$6,432/year for East Lake 464 billing units/month \times \$1.54/billing unit = \$715/month = \$8,580/year for West Lake

TOURNAMENT YOUTH SOCCER FIELD IRRIGATION NEEDS:

A soccer field is 245 ft \times 380 ft = 93,100 ft² = 2.14 acres Watering needs are 52.5 in/year = 4.375 ft/year = 0.365 ft/month 93,100 ft² \times 0.365 ft/month = 33,931.5 ft³/month = 340 billing units/month 340 billing units/month \times \$1.54/billing units = \$524/month = \$6,288/year/field

Source: Pasadena Water & Power, September 2003.

^{*}The lakes were not approved as part of the Council adopted plan.