

## **Section 5A**

### **Identification, Evaluation, and Selection of Water Management Strategies**

#### **5A.1.3 Engineering**

A procedure was developed to maintain equal and consistent consideration of various design and cost variables across differing management options. These were planning level estimates only, and did not reflect detailed site-specific design work, nor any extensive optimization and selection of design variables. These procedures standardized the consideration of the following design and costing issues as closely as possible, given the varying scope and magnitude of differing projects. For each option, major cost components were determined at the outset. Estimates of volume of water and rate of delivery needed were developed from the supply-demand comparisons presented in Section 4, if directly applicable. Volumes necessary to meet shortages were estimated, and both average annual and peak rates of projected delivery were calculated. Average annual rates were adjusted to reflect pump station downtime due to maintenance activities. Transmission and treatment facilities were sized based on peak rates of delivery. Water source and delivery locations were determined, considering source and destination elevations, surrounding land use, and other geographic considerations. Further details on engineering factors considered are presented in Volume II of this report, Section 5A.1.