

Working List of Factors Affecting Water Supply, Demand and Reliability:

1. Agricultural Factors
 - a. Development on agricultural land
 - i. Reduced water demand as agricultural land gets developed
 - b. Land fallowing
 - i. Involuntary as a result of limited water supply
 - ii. Voluntary as part of a compensated conservation program
 - c. Changes in crop type
 - i. Relocation of dairy operations
 - ii. Drought or salt tolerant crops
 - d. Changes in irrigation technology/efficiency
 - i. Lining of remaining unlined canals & laterals
 - ii. Changing irrigation techniques (e.g., subsurface drip, low-pressure sprinkler, pumpback, etc.)
 - iii. Modifying run lengths
 - e. Pumping costs/depth to water
 - i. Land taken out of production due to increased costs from lowered water table
 - f. Water Quality
 - i. Increased leaching rates due to higher salt content
 - ii. Reduced productivity from poorer water quality
2. Municipal Sector Growth Factors
 - a. Overall rate of growth in Central Arizona
 - i. Births, deaths & net migration
 - ii. U.S. and regional economic factors

- b. Spatial distribution of growth in EMS Study Area
 - i. Official CAG growth pattern
 - ii. Greater residential spillover from Phoenix
 - iii. Higher (or lower) residential density
 - iv. Expanded local employment centers
 - v. Growth along new/expanded transportation corridors
 - 1. Influence of I-11 corridor and other transportation projects
 - vi. Constrained growth
 - 1. Localized difficulties showing physical availability
 - 2. Expanded flood hazard mapping
 - c. Rate of and distribution of industrial growth
- 3. Municipal Sector Demand Factors
 - a. Rate of decrease in GPCD
 - i. Changes in technology
 - ii. Changes in tastes and preferences
 - 1. Landscaping, pools, etc.
 - 2. Increased conservation ethic
 - 3. Response to pricing signals
 - iii. Ratio of residential to non-residential
- 4. Climate Factors
 - a. Shortages to water supply
 - i. Frequency
 - ii. Duration
 - iii. Severity
 - iv. Availability of surface water for San Carlos IDD

- b. Crop evapotranspiration
 - i. Longer growing seasons
 - ii. Higher reference ET
- c. Change in per capita water use
 - i. Exterior demand change from higher temperatures