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*Panel 3.5: Science and Practice in Creating Sustainability*

**Climate Change, Urban Growth and Water Shortages**

Climate Change, population growth and urban development affect future water supply and demand in major urban areas including mega cities in California: San Francisco and Los Angeles metropolitan areas. As a part of future scenario evaluations in California Water Plan, an analytical tool was used to evaluate future water supply and demand conditions in Central Valley, California through the end of the century (2100) under different future population growth and climate change scenarios. The results indicate water shortages are heavily influenced by the rate of population growth and to a lesser extent by future climate.