

Uncertainty Category	2009 Scenario Factors	Definition
Economic and Financial (E/F)	Total Population	The statewide total population projection regardless of geographical distribution.
	Per Capita Income	The average annual income from all sources per person for a planning area.
	Total Commercial Activity	Total commercial activity refers to all activities in the service-producing sectors, which include farm services, transportation, public utilities, trade, finance, insurance, real estate, services, and government. This factor is a driver of (and indicator for) commercial water use (business offices) as well as institutional water use (government offices, schools, etc.)
	Commercial Activity Mix	The mix of high and low water using commercial activity. Note that Commercial Activity is broken into two factors: Total Activity and Activity Mix. The latter factor allows designation of the type of commercial activity that is occurring.
	Total Industrial Activity	Total industrial activity refers to all activities in good-producing sectors, which include farm production, mining, construction, and manufacturing. This factor is a driver of (and indicator for) industrial water use. Note that Industrial Activity is broken into two factors: Total Industrial Activity and Industrial Activity Mix. The latter factor allows designation of the type of industry that is occurring. This is necessary to account for the large variation in water demands by industry type.
	Industrial Activity Mix	The mix of high and low water using industrial activity. Note that Industrial Activity is broken into two factors: Total industrial Activity and Industrial Activity Mix. The latter factor allows designation of the type of industry that is occurring. This is necessary to account for large variation in water demands by industry type.
	Energy Costs	Refers to the cost of energy use related to producing, conveying and applying water. It also refers to the cost of energy use for processes and inputs not directly related to water, but which can affect the demand for water (e.g. the cost of nitrogen fertilizer, tractor manufacturing, etc).
	Irrigated Crop Area - Irrigated land area	Geographic footprint of irrigated crop acres (by type) planted.
	Irrigated Crop Area - Multi-cropped land area	Total acres of crops planted as a second or third crop within a year
	Irrigated Crop Area - Permanent crop land area	Total acres of permanent crops such as orchards and vines that require several years to mature into productive plants.
	Irrigated Crop Area - Seasonal crop land area	Total acres of seasonal crops that are planted and harvested once or more a year.
	Availability of funding for water management and development	Annual funding dedicated from local, State, and federal sources for water management and development
	Population Density (Inst / Political)	The average number of people per square mile for a planning area.
	Population Distribution (Inst / Political)	The geographic location within California of the population projection.
	Passive Conservation (Inst/Political)	The amount of background conservation occurring independent of the BMP and EWMP programs.
	Drinking Water Standards	State and federal regulations regarding water delivered by water purveyors that is used as a potable supply.
	Irrigated Crop Area (Institutional/Political)	Geographic footprint of irrigated crop acres (by type) planted.
	Irrigation technology use	Technologies used for the direct irrigation of crops or for other crop water use savings
	Water Price - Rate Structure	Designates the rate basis and cost for cost recovery (e.g., flat, uniform, tiered, etc.). Block/tiered rates are assumed to provide cost signals to consumers. Costs can include capital, O&M, financing, environmental compliance (documentation, permitting and mitigation), etc.
	Water Price - Cost Recovery	Designates who (marginal or existing users) pays the marginal and existing water costs. Also specifies circumstances where other revenue sources are used to recover costs. Costs can include capital, O&M, financing, environmental compliance (documentation, permitting and mitigation), etc.

Institutional and Political (I/P)	Managed wetlands - Irrigated land area	Total acres of irrigated habitat managed within a federal, state, or local wildlife refuge
	Private wetlands - Irrigated land area	Total acres of irrigated habitat managed within a privately owned wildlife refuge
	Instream flow requirements / objectives	The volume of water dedicated to instream uses and aquatic habitat.
	Floodplain development	Total acres of land developed for non agricultural purposes within a designated 100 year, 200 year, and 500 year floodplain
	Flood threat recognition	Total economic value of land located within a designated 100 year, 200 year, and 500 year floodplain
	Flood requirements	Regulatory requirements affecting flood protection infrastructure design and floodplain development
	Urban Runoff Regulations	State, federal, and local regulations and management practices affecting the quality, re-use, and discharge of dry weather and storm runoff from urban areas.
	Ag Discharge Requirements	State and federal regulations regarding water returned to streams, rivers, groundwater aquifers or evaporation ponds by agricultural users.
	Regulation of Delta Exports	State and federal regulations, contractual agreements, and court rulings affecting the inflows, outflows, and export of water from the Delta
	Colorado River Agreements (Inst/Political)	State and federal regulations, contractual agreements, and court rulings affecting the use of water from the Colorado River
	Endangered species listing	Number of species listed as State or federal threatened or endangered
Natural System (NS)	Temperature variability	Changes in the fluctuation of daily high and low temperatures at specific location
	Temperature trends	Changes in monthly average air temperature over time at a specific location
	Precipitation variability	Changes in the intensity and frequency of precipitation at a specific location
	Precipitation trends	Changes in monthly average precipitation over time at a specific location
	Snowpack/melt (intermediate factor)	Geographic distribution of monthly snow accumulations and runoff for a specific watershed
	Sea-level rise	Departure of mean daily sea level from historical average
	Colorado River flows	The monthly volume of unimpaired flows in the Colorado River Watershed
	Extent of invasive species	The estimated number, geographic distribution, and hazard posed by species that are not native to an area
	Resilience of endangered aquatic species	The health and vitality of endangered specific whose primary habitat is dependent on water
Technological (Tech)	Membrane technology innovation	The effectiveness of as yet developed membrane technology in treating water or reducing energy use
	Groundwater injection technology innovation	The effectiveness of as yet developed water injection technology in reducing energy use or improving the effectiveness of groundwater injection
	Water use technology innovation	The effectiveness of as yet developed technology in reducing energy used to move water or improving water conservation
	Flood system integrity	The ability of flood infrastructure to withstand a flood with a 100 year, 200 year, and 500 year return interval
	Infrastructure performance	The ability of water management system infrastructure to perform as designed over time
Cultural Practices (Cul)	Demand for water-based recreation	Water-dependent recreation activities that are consumptive (e.g.parks), flat-water (e.g. boating), or flow-based (e.g. whitewater rafting).
	Population Density (Cultural)	The average number of people per square mile for a planning area.
	Population Distribution (Cultural)	The geographic location within California of the population projection.