

Uncertainty Category	Narrative Scenario Factor Definitions		
	Factor	Definition	
Economic and Financial (E/F)	Total Population	Statewide total population projection regardless of geographical distribution.	
	Per Capita Income	Average annual income from all sources per person for a planning area.	
	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.	
	Commercial Activity Mix	The mix of high and low water using commercial 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.	
	Industrial Activity Mix	The mix of high and low water using industrial activity.	
	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 as a function of crop markets.	
	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.	
	Water Management Funding	Funding provided by federal, State, regional, and local entities to finance water management and infrastructure.	
	Institutional and Political (I/P)	Population Density (Inst / Political)	Average number of people per square mile for a planning area.
		Population Distribution (Inst / Political)	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.	
Water Quality - Drinking Water Standards		State and federal regulations regarding water delivered by water purveyors that is used as a potable supply.	
Irrigated Crop Area - Irrigated Land Area (Institutional/Political)		Geographic footprint of irrigated crop acres (by type) planted as a function of institutional and political policies.	
Irrigation Technology Use		Technologies used for the direct irrigation of crops or for crop water use savings.	
Water Price - Rate Structure		Designates the rate basis 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.	
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		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.	

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	Flood Protection Standards	Regulatory requirements affecting flood protection infrastructure design and maintenance 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)	Air Temperature Variability	Changes in the fluctuation of daily high and low temperatures at specific location.
	Air 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.
	River/Stream Unimpaired Flows	Monthly estimated volume of unimpaired flows in rivers and streams within California. Unimpaired flow refers to the full natural flow within a stream that would exist without storage or diversion of water for human uses.
	Extent of Invasive Species	Estimated number, geographic distribution, and hazard posed by species that are not native to an area.
Resilience of Endangered Aquatic Species	Health and vitality of endangered species whose primary habitat is dependent on water.	
Technological (Tech)	Membrane Technology Innovation	Effectiveness of as yet developed membrane technology to treat water and reduce associated energy requirements.
	Groundwater Injection Technology Innovation	Effectiveness of as yet developed water injection technology to improve groundwater injection and reduce associated energy requirements.
	Water Use Technology Innovation	Effectiveness of as yet developed technology to improve water conservation and reduce associated energy requirements for agricultural and landscape irrigation.
	Flood System Integrity	Ability of flood infrastructure to withstand a flood with a 100 year, 200 year, and 500 year return interval.
	Infrastructure Performance	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)	Average number of people per square mile within for a planning area.
	Population Distribution (Cultural)	Geographic location within California of the population projection.