## POLICIES TO BE MET AT ALL TIMES **Beneficial and Reasonable Use:** "... water resources [should] be put to beneficial use ... and that the waste or unreasonable use water be prevented..." Lead by the State Water Resources Control Board (SWRCB). California Constitution, Article X, Section 2; California Water Code §100. Regional Water Quality Boards Water is owned by all Californians: "All water within the State is the property of the people of the State, but the right to the use of water may be acquired by appropriation in the manner provided by law." California Water Code § 102. The state holds water in trust for the public; individuals and organizations may acquire a right to use water, and these rights are subject to beneficial and reasonable use. Water Policy **Public Trust Doctrine:** Water must be preserved in trust by the state for public use (e.g. navigation, fishing, recreation, environmental protection and restoration). This doctrine is intrinsic of the legal systems of California and can limit or modify water diversions, protect river ecosystems, and maintain recreational and scenic values. California Constitution Article X Sec. 4.; California Civil Code §670; National Audubon Society v. Superior Court Clean Water Act – Porter-Cologne Water Quality Control Act: "to protect the water quality of rivers, lakes, aquifers, estuaries and bays (surface & groundwater) through 9 Regional Water Quality Control Boards. This law set water quality standards in rivers, and regulates point and non-point pollutant sources, among other. California Water Code, Division 7: Water Quality - 7-Colorado River 5-Central Valley 🕶 8-Santa Ana Safe Drinking Water Act: "ensuring the safety of drinking water, establishing standards, supervising public water systems and ensuring compliance, monitoring and reporting. California Health and Safety Code § 116270. California Code of Regulations, Title 22 🕶 9-San Diego 3-Central Coast Human Right to Water: "every human being has the right to safe, clean, affordable and accessible water adequate for human consumption, cooking and sanitary purposes." It requires that all relevant agencies (DWR, SWRCB) to consider this policy when revising, adopting or establishing policies and regulations pertinent to the use of water." California Assembly Bill 685. Endangered Species Act: conserving and protecting plant and animal species at risk of extinction. Lead by California Fish and Wildlife. California Fish and Game Code. Section 2050 Flood Control Act: established flood control as a federal responsibility law, lead by the US Army Corps of Engineers **SURFACE WATER** WATER FOR THE GROUNDWATER **ENVIRONMENT Legal instrument:** Water Right Permit **Legal instrument:** Groundwater Allocation **Agency:** SWRCB – Division of Water Rights Adjudicated Groundwater: Redding **Legal Instrument:** Instream Flow Permit **Agency:** SWRCB – Division of Water Rights, Adjudicated Areas Surface Water Allocation System **Agency:** SWRCB – Division of Water A groundwater basin where a court has determined the groundwater allocation among users. There are 27 adjudicated areas administered by a "watermaster". They are Riparian Rights: exempt to submit a Groundwater Sustainability Plan (GSP). SGMA requires submission Linked to the land next to a river of their groundwater levels, groundwater extractions, recharge and storage Shared equally among landowners **Policies** No water storage is allowed 1) Endangered Species Act (ESA) Sustainable Groundwater Management Act (SGMA) No need to obtain a water permit 2) California Wild and Scenic Rivers Act **Agency:** DWR – Sustainable Groundwater Management Program Can't be lost by non-use 3) Public Trust Doctrine 4) Fish passage in reservoirs (Fish and "Groundwater resources be managed sustainably for long-term reliability and multiple Appropriative water Right: Game code 5937) economic, social, and environmental benefits" Based on seniority of use: "First in time, first in 5) Federal Energy Regulation Commission Avoid 6 undesirable results: (FERC) relicensing process for hydropower Can be lost by non-use: "Use it or lose it - Overdraft: Lowering of levels, reduction of storage, seawater intrusion, land subsidence dams and a biological opinion (after 5 years)" - Water quality degradation Volumetric use with defined beneficial use - Depletion of groundwater that impact SW beneficial uses. Environmental Need Objective: to (purpose) and location protect freshwater and riparian • Groundwater Sustainability Agencies (GSA) locally implementing SGMA ~255 Pre-1914 do not require water right permit ecosystems • Groundwater Sustainability Plans (GSP) approved and updated every 5 year. Sacramento Post-1914 require a water right permit Central Valley Project. If failed to approve the GSP then there is an intervention by the SWRCB to manage the Components Other Federally built infrastructure. Quantity: Magnitude, timing, frequency, State Water Project. duration and rate of change Colorado River aqueduct and San Diego Groundwater Allocation System Quality: Temperature, PH, TSS, DO, Aqueducts Overlaying Rights San Francisco BOD, Metals, Salinity Imperial and Coachella. Groundwater use for land above the groundwater basin Habitat: channel forms, sediment Los Angeles Aqueduct. Shared equally among landowners ("correlative use") transport and composition, woody San Francisco, SF Bay, Hetch Hetchy System. Appropriative groundwater rights habitat Mokelumne Aqueduct. Groundwater use outside of the groundwater basin Connectivity: longitudinal, transversal, Eel River – Russian River. Potter Valley Project. Only if water is available after overlaying needs and SW-GW connection North Marin (County) Aqueduct. First in time, first in right California Main Rivers Wild and Scenic Rivers Hydrologic Basin Main Reservoirs Areas that receive Colorado River water Groundwater Adjudicated Areas SGMA Main Jurisdiction Area Nevada Owner/Water Provider CVP - Central Valley Project. Bureau of Reclamation (BOR) New Mexico Arizona SWP - State Water Project. Department of Water Resources (DWR) **Lower Bas** Mexico Shared between CVP and SWP Obispo BOR - Other Federally owned BOR facilities Bakersfield ACE - Other Federally owned facilities Army Corps of Engineers (USACE) Mead Colorado River Aqueduct (MWD) Los Angeles and San Diego Water Agencies TRIBAL WATER (LAWP, SDCWA and Metropolitan WD) **Legal instrument:** Federally Reserved Rights Santa Barbara Mokelumne Aqueduct (EBMUB) San Francisco Bay Area Municipal Water **Characteristics:** Sovereign nations subject to federal government rules Agencies (SFPUC) Defined by: (1) Treaties, (2) Court cases, (3) Federal Department of Water Resources (DWR) mandates or operations, and (4) adjudications or Los Angeles Local Water Agency settlements Linked to the tribal land (Federal land) Other Federal owned facility • Tribal beneficial uses (TBUs) are beneficial and reasonable Privately owned/Other uses, and meet water quality standards Havasu **Policies** Reservoir Storage per Basin Winans Doctrine: Tribal rights include water (Winans v. 500,000 to 1 million United States, 1905) • Winters Doctrine: Land set aside includes water (Winters v. 200,000 to 500,000 United States, 1908) 2 to 3 million Tribal Beneficial Usages (TBUs): 100,000 to 200,000 50,000 to 100,000 1 to 2 million Agency(ies): Less than 50,000 San Diego SWRCB — Division of Water Rights, Adjudicated Areas Applicable Regional Water Quality Control Boards **UCDAVIS** 80 100 DOI-Secretary's Indian Water Rights Office SIWRO WATER ANAGEMENT Bureau of Indian Affairs Kilometers **Imperial** Bureau of Reclamation LAB 25 50 75 100 Water Allocation System MEXICO Defined by each tribe By Samuel Sandoval Solis, Ph.D., Ramon Saiz Rodriguez, Ph.D.