



## Section 9 | References

- Antelope Valley-East Kern Water Agency (AVEK). 2011. 2010 Urban Water Management Plan.
- Antelope Valley State Water Contractors Association (AVSWCA). September 2002. Study of Potential Recharge Areas in the Antelope Valley, Final Report.
- Aspen Creek Environmental Group. June 2005. Littlerock Reservoir Hydrologic and Sediment Transport Analysis Technical Report. Prepared for Palmdale Water District.
- Building Industry Association (BIA). 2006. New Housing Trends in the AV, Presentation.
- Bureau of Land Management (BLM). May 2005. Final Environmental Impact Report and Statement for the West Mohave Plan. A Habitat Conservation Plan and California Desert Conservation Area Plan Amendment.
- Blodgett, J. C. 1996. Precipitation depth-duration and frequency characteristics for Antelope Valley, Mojave Desert, California: Water-Resources Investigations Report 92-4035, published by the U.S. Geological Survey.
- Boschman, W. October 9, 2002. Letter Agreement Establishing Right to Store Water in Semitropic on an Interim Basis between Semitropic Water Storage District and Castaic Lake Water Agency. Letter to Dan Masnada, CLWA.
- California Department of Public Health (CDPH). Drinking Water Program. 2013. Water System Details. Available at: <http://drinc.ca.gov/DWW/index.jsp>
- California Department of Water Resources (DWR). 2012a. Water Quality Assessment of Non-Project Turn-ins to the California Aqueduct, 2012.

- California Department of Water Resources (DWR). 2012b. The State Water Project 2011 Delivery Reliability Report.
- California Department of Water Resources (DWR). 2009. DWR's California Water Plan Update 2009, Bulletin 160-09.
- California Department of Water Resources (DWR). September 2005a. "Management of the California State Water Project," Bulletin 132-04.
- California Department of Water Resources (DWR). February 2004. California's Groundwater Bulletin 118, South Lahontan Hydrologic Region, Antelope Valley Groundwater Basin.
- California Irrigation Management Information System (CIMIS). California Department of Water Resources. Data for Palmdale No. 197 Station. Available at: <http://www.cimis.water.ca.gov/cimis/data.jsp>
- California State Water Resources Control Board (SWRCB). 2012. GAMA – Groundwater Ambient Monitoring & Assessment Program.
- Deal, Wanda. December 2013. Personal Communication.
- Edwards Air Force Base (EAFB). April 2012. Surface Flow Study Technical Report.
- Geolabs-Westlake Village. February 1991. City of Lancaster-Geological Reconnaissance to Determine Extent of Ground Fissures, 10 Square Miles, Northwest Portion of Lancaster.
- Hansen, B.R.; Shwannkl, L.; and Fulton, A. Department of Land, Air and Water Resources. "Scheduling Irrigation: When and How much Water to Apply," Water Management Series Publication Number 3396, published by University of California, Davis.
- Izbicki, J.A., et al, 2008. "Artificial Recharge Through a Thick, Heterogeneous Unsaturated Zone". Groundwater. Vol. 46, No. 3. May-June 2008. Pages 475-488.
- Kennedy/Jenks Consultants. February 28 2007. Evaluation of Potential Water Transfer Opportunities. Memorandum dated from M.L. Cotton and L. Takaichi to J. Davis, San Geronio Pass Water Agency.
- Kennedy/Jenks Consultants. 1995. Antelope Valley Water Resources Study.
- Kern County Agricultural Commissioner, Department of Weights and Measures, Antelope Valley Office. 2013.
- Lancaster, City of. 2011. Groundwater Wells in Antelope Valley Depth Changes from 1975 to 2011, and 2005 to 2011.
- Lancaster, City of. 2007. Groundwater Recharge Feasibility Study.
- Lancaster, City of. 2006. Visioning Survey Summary.
- Lancaster, City of. 1997. General Plan, Plan for Public Health and Safety.

- Littlerock Creek Irrigation District (LCID), 2005. Personal Communication.
- Los Angeles County Agricultural Commissioner, Department of Weights and Measures, Antelope Valley Office. 2006. Crop acreage reports for Los Angeles Portion of the Antelope Valley for 2001 through 2005.
- Los Angeles County Agricultural Commissioner, Department of Weights and Measures, Antelope Valley Office. 2013.
- Los Angeles County. Department of Regional Planning. 2012. Draft Los Angeles County General Plan.
- Los Angeles County. Department of Regional Planning. 2006. Los Angeles County Comprehensive Update and Amendment to the Los Angeles County General Plan, Environmental Impact Report Initial Study.
- Los Angeles County. Department of Regional Planning. 1986. Antelope Valley Areawide General Plan.
- Los Angeles County. Department of Regional Planning. 1980. Los Angeles County General Plan.
- Los Angeles County Sanitation District (LACSD). 2013. Lancaster Water Reclamation Plant. Available at:  
[http://www.lacsd.org/wastewater/wwfacilities/antelope\\_valley\\_water\\_reclamation\\_plants/lancaster\\_wrp.asp](http://www.lacsd.org/wastewater/wwfacilities/antelope_valley_water_reclamation_plants/lancaster_wrp.asp).
- Los Angeles County Sanitation District (LACSD). 2013. Palmdale Water Reclamation Plant. Available at:  
[http://www.lacsd.org/wastewater/wwfacilities/antelope\\_valley\\_water\\_reclamation\\_plants/palmdale\\_wrp.asp](http://www.lacsd.org/wastewater/wwfacilities/antelope_valley_water_reclamation_plants/palmdale_wrp.asp).
- Los Angeles County Sanitation District (LACSD). October 2005. Final Palmdale Water Reclamation Plant 2025 Facilities Plan and Environmental Impact Report.
- Los Angeles County Sanitation District (LACSD). May 2004. Lancaster Water Reclamation Plant 2020 Facilities Plan. Final Environmental Impact Report.
- Los Angeles County Superior Court. 2011. Antelope Valley groundwater Litigation (Consolidated Cases). Lead Case No. BC 325 201.
- Los Angeles County Waterworks District 40 (LACWD 40) and Quartz Hill Water District (QHWD). June 2011. 2010 Integrated Regional Urban Water Management Plan for the Antelope Valley.
- Los Angeles County Waterworks District 40 (LACWD 40). August 2006. Final Facilities Planning Report, Antelope Valley Recycled Water Project.
- Los Angeles County Waterworks District 40 (LACWD 40). 1999. Water System Master Plan for Los Angeles County, Antelope Valley.
- Los Angeles Department of Public Works (LACDPW). 2006. Los Angeles County Hydrology Manual.

- Los Angeles Department of Public Works (LACDPW). Watershed Management Division. 2004. Biennial Report. San Gabriel River/Santa Clara River/Antelope Valley Watershed. 2002-2004.
- Los Angeles Department of Public Works (LACDPW). February 1989. Antelope Valley Spreading Grounds Study, Phase 1, Preliminary Report.
- Los Angeles Department of Public Works (LACDPW). 1987. Antelope Valley Comprehensive Plan of Flood Control and Water Conservation.
- Local Agency Formation Commission for Los Angeles (LAFCO). August 1994. Municipal Service Review, Water Service – High Desert Region, Final Report.
- Local Agency Formation Commission for Los Angeles County (LAFCO). August 2004. Municipal Service Review, Water Service – High Desert Region.
- Law Environmental. November 1991. Water Supply Evaluation, Antelope Valley, California.
- Metropolitan Water District of Southern California (MWD). 2007. 2006/2007 Budget. <http://www.mwdh2o.com/mwdh2o/pages/finance/Exec2007.pdf> (April 17, 2007).
- National Marine Fisheries Service (NMFS), Southwest Region. June 2009. Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project.
- Orloff, S.B., “Deciduous Orchard Water Use: Clean Cultivated Trees for a Normal Year in Littlerock,” Local Extension Publication.
- Palmdale, City of. March 2009. Palmdale Recycled Water Facilities Plan Final Report.
- Palmdale, City of. November 2006. Palmdale Power Plant - Overview of Water Supply Issues, Draft Report.
- Palmdale Water District (PWD). February 2013. Stormwater Flood Management Proposition IE, Round 2. Littlerock Reservoir Sediment Removal Project.
- Palmdale Water District (PWD). June 2011. 2010 Urban Water Management Plan.
- Palmdale Water District (PWD). March 2010. Strategic Water Resources Plan.
- Palmdale Water District (PWD). February 2010. Recycled Water Facilities Plan.
- Palmdale Water District (PWD). February 2006. Strategic Plan for the Palmdale Water District.
- Palmdale Water District (PWD). March 2001. Final Water System Master Plan Update.
- Pruitt, W.O., Fereres, E.; Kelta, K.; and Snyder, R.L. 1987. Reference Evapotranspiration (ET<sub>o</sub>) for California.
- Personal communication. Brad Bones, Littlerock Creek Irrigation District (LCID). August 2013.

Personal communication. Aracely Jaramillo, Los Angeles County Waterworks District 40. November 6, 2013.

Personal communication. Gordon Phair, City of Palmdale. November 6, 2013.

Regional Water Quality Control Board, Lahontan Region (RWQCB). 1994. Lahontan Regional Water Quality Control Board Basin Plan.

Rosamond Community Services District (RCSD). June 2011. 2010 Urban Water Management Plan.

Rosamond Community Services District (RCSD). August 2004. Water System Master Plan.

Snyder, J.H. 1955. "Groundwater in California – The experience of Antelope Valley." published by, University of California, Berkeley, Division of Agriculture Science, Giannini Foundation, Ground-Water Studies No. 2.

United States Census Bureau. 2011. 2006-2010 5-Year American Community Survey.

United States Census Bureau. 1980, 1990, 2000, 2010 Census Tract Data.

United States Census Bureau. 2010. 2010 United States Census.

United States Department of Agriculture (USDA). 2002. Natural Resources Conservation Service "2002 Farm and Ranch Irrigation Survey."

United States Environmental Protection Agency (US EPA). May 2008. Drinking Water Health Advisory For Boron. ( 822-R-08-013).

United States Fish and Wildlife Service (USFWS). December 2008. Formal Endangered Species Act Consultation on the Proposed Coordinated Operations of the Central Valley Project (CVP) and State Water Project (SWP) (81420-2008-F-1481-5).

United States Fish and Wildlife Service (USFWS). January 2006. Biological Opinion for the California Desert Conservation Area Plan [West Mojave Plan] (6840(P) CA-063.50) (1-8-03-F-58).

United States Geological Survey (USGS). 2013. National Water Information System.  
<http://nwis.waterdata.usgs.gov/nwis>.

United States Geological Survey (USGS). 2003. Simulation of Ground-water Flow and Land Subsidence, Antelope Valley Ground-Water Basin, California. Water-Resources Investigations Report 03-4016.

United States Geological Survey (USGS). 2000a. Antelope Valley Ground-water Study. Available at: <http://ca.water.usgs.gov/projects00/ca532.html>.

United States Geological Survey (USGS). 2000b. Aquifer-System Compaction: Analyses and Simulations-the Holly Site, Edwards Air Force Base, Antelope Valley, California. By Michelle Sneed and Devin L. Galloway. Water-Resources Investigations Report 00-4015.

United States Geological Survey (USGS). 1995. Land Use and Water Use in the Antelope Valley, California. Water-Resources Investigations Report 94-4208.

- United States Geological Survey (USGS). 1994. USGS 1994 Draft Report. Water-Resources Investigations Report 94-XXXX.
- United States Geological Survey (USGS). 1993a. Draft Study Plan for the Geohydrologic Evaluation of Antelope Valley, and Development and Implementation of Ground-Water Management Models.
- United States Geological Survey (USGS). 1993b. Hydrogeology and Land Subsidence, Edwards Airforce Base, Antelope Valley, California, January 1989- December 1991. Water-Resources Investigation Report 93-4114.
- United States Geological Survey (USGS). 1992. Land Subsidence and Problems Affecting Land Use at Edwards Air Force Base and Vicinity, California. Water-Resources Investigations Report 92-4035.
- United States Geological Survey (USGS). 1987. Geohydrology of the Antelope Valley Area California and Design for Groundwater-Quality Monitoring Network.
- United States Geological Survey (USGS). 1967. Water Resources of the Antelope Valley-East Kern Water Agency Area, California. (67-21).
- Western Regional Climate Center, Historical Climate Information for Palmdale Station (046624) 1903-2012. <http://www.wrcc.dri.edu/CLIMATEDATA.html>.



## Section 10 | Glossary & Acronyms

### 10.1 Glossary of Terms

Term	Definition
<b>- A -</b>	
<b>ACRE-FOOT</b>	The quantity of water required to cover one acre to a depth of one foot; equal to 43,560 cubic feet, or approximately 325,851 gallons.
<b>ADJUDICATION</b>	A case that has been heard and decided by a judge. In the context of an adjudicated groundwater basin, landowners or other parties have turned to the courts to settle disputes over how much groundwater can be extracted by each party to the decision.
<b>ADOPTED IRWM PLAN</b>	The version of the IRWM Plan that is adopted by the governing bodies of at least three or more member agencies to the Regional Water Management Group (RWMG), two of which have statutory authority over water supply, as evidenced by resolutions.
<b>AGRONOMIC RATE</b>	The rate of nutrient application to fulfill a plant's nitrogen requirements while minimizing the amount of nutrients that passes to groundwater.
<b>ALLUVIUM</b>	Sediment deposited by flowing water, such as in a riverbed, flood plain or delta.

<b>ALLUVIAL AQUIFER</b>	Earth, sand, gravel or other rock or mineral materials laid down by flowing water, capable of yielding water to a well.
<b>ANTELOPE VALLEY REGION</b>	The Antelope Valley Region, as defined for the purposes of this IRWM Plan, follows the Antelope Valley’s key hydrologic features, bounded by the San Gabriel Mountains to the south and southwest, and the Tehachapi Mountains to the northwest, forming a well-defined triangular point at the Valley’s western edge. The Region covers portions of northern Los Angeles and southeastern Kern Counties, and encompasses the majority of the AVEK service area.
<b>APPLIED WATER DEMAND</b>	The quantity of water that would be delivered for urban or agricultural applications if no conservation measures were in place.
<b>AQUIFER</b>	An underground layer of rock, sediment or soil, or a geological formation/unit that is filled or saturated with water in sufficient quantity to supply pumping wells.
<b>ARID</b>	A term describing a climate or region in which precipitation is so deficient in quantity or occurs so infrequently that intensive agricultural production is not possible without irrigation.
<b>ARTICLE 21 WATER</b>	Refers to the SWP contract provision defining this supply as water that may be made available by DWR when excess flows are available in the Delta. Article 21 water is made available on an unscheduled and interruptible basis and is typically available only in average to wet years, generally only for a limited time in the late winter.
<b>ARTIFICIAL RECHARGE</b>	The addition of water to a groundwater reservoir by human activity, such as irrigation or induced infiltration from streams, wells, or recharge/spreading basins. See also GROUNDWATER RECHARGE, RECHARGE BASIN.
<b>- B -</b>	
<b>BEDROCK AQUIFER</b>	A consolidated rock deposit or geological formation of sufficient hardness and lack of interconnected pore spaces, but which may contain a sufficient amount of joints or fractures capable of yielding minimal water to a well.
<b>BENEFICIAL USES</b>	Include fish, wildlife habitat, and education, scientific and recreational activities which are dependent upon adequate water flow thorough rivers, streams and wetlands. The Regional Water Quality Control Board's Basin 4A Plan categorizes beneficial uses per water quality standards.



<b>BEST MANAGEMENT PRACTICE (BMP)</b>	An urban water conservation (water use efficiency) measure that the California Urban Water Conservation Coalition agrees to implement among member agencies. The BMP's are intended to reduce long-term urban water demand.
<b>BRACKISH WATER</b>	Water containing dissolved minerals in amounts that exceed normally acceptable standards for municipal, domestic, and irrigation uses. Considerably less saline than sea water.
<b>- C -</b>	
<b>CLOSED BASIN</b>	A topographic water basin with no outlet to the ocean
<b>CONFINED AQUIFER</b>	A water-bearing subsurface stratum that is bounded above and below by formations of impermeable, or relatively impermeable, soil or rock.
<b>CONJUNCTIVE USE</b>	The operation of a groundwater basin in coordination with a surface water storage and conveyance system. The purpose is to recharge the basin during years of above average water supply to provide storage that can be withdrawn during drier years when surface water supplies are below normal.
<b>CONSERVATION</b>	<i>Urban water conservation or water use efficiency</i> includes reductions realized from voluntary, more efficient, water use practices promoted through public education and from state-mandated requirements to install water-conserving fixtures in newly constructed and renovated buildings. <i>Agricultural water conservation or agricultural water use efficiency</i> , means reducing the amount of water applied in irrigation through measures that increase irrigation efficiency. See NET WATER CONSERVATION.
<b>CRITICAL DRY PERIOD</b>	A series of water-deficient years, usually an historical period, in which a full reservoir storage system at the beginning is drawn down (without any spill) to minimum storage at the end.
<b>CRITICAL DRY YEAR</b>	A dry year in which the full commitments for a dependable water supply cannot be met and deficiencies are imposed on water deliveries.
<b>CUBIC FEET PER SECOND (cfs)</b>	A unit of measurement describing the flow of water. A cubic foot is the amount of water needed to fill a cube that is one foot on all sides, about 7.5 gallons.
<b>- D -</b>	
<b>DECISION 1641</b>	An action by the State Water Resources Control Board (SWRCB) to establish water quality objectives for water users in the Delta. The Bay/Delta Water Quality Control Plan was developed as a means to attain these water quality objectives.

<b>DESALTING/DESALINATION</b>	A process that converts sea water or brackish water to fresh water or an otherwise more usable condition through removal of dissolved solids.
<b>DISADVANTAGED COMMUNITY</b>	A community with an annual median household income that is less than 80 percent of the statewide annual median household income (CWC § 79505.5 (a)).
<b>DISTRIBUTION UNIFORMITY (DU)</b>	The ratio of the average low-quarter depth of irrigation water infiltrated to the average depth of irrigation water infiltrated, for the entire farm field, expressed as a percent.
<b>DRAINAGE BASIN</b>	The area of land from which water drains into a river; as, for example, the Sacramento River Basin, in which all land area drains into the Sacramento River. Also called, "WATERSHED."
<b>DRY-WEATHER RUNOFF</b>	Urban runoff that enters the drainage system due to human activities such as car washing and lawn irrigation. Dry-weather runoff can also result from illicit connections to the stormwater or sewer systems.
<b>- E -</b>	
<b>EFFICIENT WATER MANAGEMENT PRACTICE (EWMP)</b>	An agricultural water conservation measure that water suppliers could implement. EWMPs are organized into three categories: 1) Irrigation Management Services; 2) Physical and Structural Improvements; and 3) Institutional Adjustments.
<b>EFFLUENT</b>	Waste water or other liquid, partially or completely treated or in its natural state, flowing from a treatment plant.
<b>EMPIRICAL YIELD</b>	See SAFE YIELD (GROUNDWATER)
<b>EPHEMERAL</b>	An ephemeral water body is one that exists for only a short period of time following precipitation or snowmelt. This is not the same as an intermittent or seasonal water body which exists for a longer period of time.
<b>EVAPOTRANSPIRATION (ET or ETo)</b>	The quantity of water transpired (given off), retained in plant tissues, and evaporated from plant tissues and surrounding soil surfaces. Quantitatively, it is expressed in terms of depth of water per unit area during a specified period of time.
<b>- F -</b>	
<b>FINAL IRWM PLAN</b>	The version of the IRWM Plan that is deemed ready for adoption by 50 percent or more of the representatives from the RWMG member agencies.
<b>FIRM YIELD</b>	The maximum annual supply of a given water development that is expected to be available on demand, with the understanding that lower yields will occur in accordance with a predetermined schedule or probability.

<b>FOREBAY</b>	A groundwater basin immediately upstream or upgradient from a larger basin or group of hydrologically connected basins. Also, a reservoir or pond situated at the intake of a pumping plant or power plant to stabilize water levels.
<b>- G -</b>	
<b>GROUNDWATER</b>	Water that occurs beneath the land surface and completely fills all pore spaces of the alluvium or rock formation in which it is located.
<b>GROUNDWATER BASIN</b>	A groundwater reservoir, together with all the overlying land surface and underlying aquifers that contribute water to the reservoir.
<b>GROUNDWATER MINING</b>	The withdrawal of water from an aquifer greatly in excess of replenishment; if continued, the underground supply will eventually be exhausted or the water table will drop below economically feasible pumping lifts.
<b>GROUNDWATER OVERDRAFT</b>	The condition of a groundwater basin in which the amount of water withdrawn by pumping exceeds the amount of water that replenishes the basin over a period of years.
<b>GROUNDWATER RECHARGE</b>	Increases in groundwater quantities or levels by natural conditions or by human activity. See also ARTIFICIAL RECHARGE.
<b>GROUNDWATER STORAGE CAPACITY</b>	The space contained in a given volume of deposits. Under optimum use conditions, the usable groundwater storage capacity is the volume of water that can, within specified economic limitations, be alternately extracted and replaced in the reservoir. (Directly related to SAFE YIELD).
<b>GROUNDWATER TABLE</b>	The upper surface of the zone of saturation (all pores of subsoil filled with water), except where the surface is formed by an impermeable body.
<b>- H -</b>	
<b>HYDRAULIC CONDUCTIVITY</b>	A property of vascular plants, soil or rock, that describes the ease with which water can move through pore spaces or fractures. It depends on the permeability of the material and on the degree of saturation.
<b>- I -</b>	
<b>INSTREAM USE</b>	Use of water that does not require diversion from its natural watercourse. For example, the use of water for navigation, recreation, fish and wildlife, esthetics, and scenic enjoyment.

<b>IRRIGATION EFFICIENCY</b>	The efficiency of water application. Computed by dividing evapotranspiration of applied water by applied water and converting the result to a percentage. Efficiency can be computed at three levels: farm, district, or basin.
<b>IRRIGATION RETURN FLOW</b>	Applied water that is not transpired, evaporated, or deep percolated into a groundwater basin, but that returns to a surface water supply.
<b>- L -</b>	
<b>LACUSTRINE</b>	In geology, the sedimentary environment of a lake.
<b>LAND SUBSIDENCE</b>	Land subsidence is the lowering of the land-surface elevation from changes that take place underground. Overdrafting of aquifers is the major cause of subsidence in the southwestern United States.
<b>LEACHING</b>	The flushing of salts from the soil by the downward percolation of applied water.
<b>- M -</b>	
<b>MAXIMUM CONTAMINANT LEVEL (MCL)</b>	The maximum level of a drinking water contaminant allowed under the federal Safe Water Drinking Act. MCLs set under National Primary Drinking Water Regulations are legally enforceable standards that apply to public water systems.
<b>M&amp;I</b>	Municipal and Industrial (water use); generally urban uses for human activities.
<b>MILLIGRAMS PER LITER (MG/L)</b>	The mass (milligrams) of any substance dissolved in a standard volume (liter) of water. One liter of pure water has a mass of 1000 grams. For dilute solutions where water is the solvent medium, the numerical value of mg/l is very close to the mass ratio expressed in parts per million (ppm).
<b>MINERALIZATION (OF GROUNDWATER)</b>	The addition of inorganic substances, usually dissolved from surface or aquifer material, to groundwater.
<b>NATURALLY OCCURRING CONTAMINANTS (IN GROUNDWATER)</b>	A deleterious substance present in groundwater which is of natural origin, i.e., not caused by human activity.
<b>- N -</b>	
<b>NATURAL HABITAT</b>	See OPEN SPACE.
<b>NET WATER CONSERVATION</b>	The difference between the amount of applied water conserved and the amount by which this conservation reduces usable return flows.
<b>NET WATER DEMAND</b>	The applied water demand less water saved through conservation efforts (= net applied water = actual water used).

<b>NON-POINT SOURCE POLLUTION</b>	A diffuse discharge of pollutants throughout the natural environment. See POINT SOURCE.
<b>- O -</b>	
<b>OPEN SPACE</b>	Open space can mean natural open space, passive and active recreation which may or may not be compatible with natural habitats or natural open space preservation. As an example, open space can mean soccer fields, playgrounds, etc. and should not be considered as natural habitat. See also NATURAL HABITAT.
<b>OVERDRAFT</b>	Withdrawal of groundwater in excess of a basin's perennial yield. See also PROLONGED OVERDRAFT.
<b>- P -</b>	
<b>PARTS PER MILLION (PPM)</b>	A ratio of two substances, usually by mass, expressing the number of units of the designated substance present in one million parts of the mixture. For water solutions, parts per million is almost identical to the milligrams per liter.
<b>PER-CAPITA WATER USE</b>	The amount of water used by or introduced into the system of an urban water supplier divided by the total residential population; normally expressed in gallons per-capita-per-day (gpcd).
<b>PERCHED GROUNDWATER</b>	Groundwater supported by a zone of material of low permeability located above an underlying main body of groundwater with which it is not hydrostatically connected.
<b>PERCOLATION</b>	The downward movement of water through the soil or alluvium to the groundwater table.
<b>PERENNIAL YIELD</b>	Perennial yield is an estimate of the long-term average annual amount of water that can be withdrawn without inducing a long-term progressive drop in water level. The term "safe yield" is sometimes used in place of perennial yield, although the concepts behind the terms are not identical: the older concept of "safe yield" generally implies a fixed quantity equivalent to a basin's average annual natural recharge, while the "perennial yield" of a basin or system can vary over time with different operational factors and management goals.
<b>PERMEABILITY</b>	The capability of soil or other geologic formation to transmit water.
<b>PLAYA</b>	A dry lakebed, also known as an alkali flat. Playas consist of fine-grained sediments infused with alkali salts and are devoid of vegetation.
<b>PLAYA DEPOSIT</b>	A thick salt deposit that forms over time through the accumulation of layers of dissolved minerals from rocks. Dissolved salts that form a playa deposit are laid by rainfall that rapidly evaporates once reaching the earth's surface.

<b>POINT SOURCE</b>	Any discernable, confined and discrete conveyance site from which waste or polluted water is discharged into a water body, the source of which can be identified. See also NON-POINT SOURCE.
<b>POLLUTION (OF WATER)</b>	The alteration of the physical, chemical, or biological properties of water by the introduction of any substance into water that adversely affects any beneficial use of water.
<b>POTABLE WATER</b>	Water suitable for human consumption without undesirable health consequences. Drinkable. Meets Department of Health Services drinking water requirements.
<b>PROLONGED OVERDRAFT</b>	Net extractions in excess of a basin’s perennial yield, averaged over a period of ten or more years.
<b>PROPOSITION 50</b>	The “Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002”, as set forth in Division 26.5 of the California Water Code (commencing with § 79500).
<b>- Q -</b>	
<b>QUATERNARY GEOLOGY</b>	Younger of the two geologic periods of the Cenozoic era of geologic time lasting from 2 million years ago to the present. Comprising all geologic time from the end of the Tertiary period to today.
<b>- R -</b>	
<b>REACH REPAYMENT CAPACITY</b>	SWP contractors, via their water supply contracts with DWR, are allocated specified shares of “reach repayment” capacity in various reaches of the SWP system. This share of capacity pertains to SWP supplies only, and provides each contractor with delivery priority for its SWP supplies. Reach repayment capacity is often less than the actual constructed physical capacity of SWP facilities.
<b>RECHARGE BASIN</b>	A surface facility, often a large pond, used to increase the infiltration of water into a groundwater basin.
<b>RECYCLED WATER</b>	Urban wastewater that becomes suitable for a specific beneficial use as a result of treatment.
<b>REGIONAL PRIORITIES</b>	The short-term and long-term issues and/or objectives that are determined to be most important on the Region’s needs.

<b>REGIONAL WATER MANAGEMENT GROUP</b>	A group that, at a minimum, includes three or more local public agencies, at least two of which have statutory authority over water management, which may include but is not limited to water supply, water quality, flood control, or storm water management. The Antelope Valley Regional Water Management Group includes Antelope Valley-East Kern Water Agency, Palmdale Water District, Quartz Hill Water District, Littlerock Creek Irrigation District, City of Palmdale, City of Lancaster, Los Angeles County Sanitation District Nos. 14 & 20, Rosamond Community Services District, and Los Angeles County Waterworks District No. 40, Antelope Valley.
<b>REVERSE OSMOSIS</b>	Method of removing salts from water by forcing water through a membrane.
<b>RETURN FLOW</b>	The portion of withdrawn water that is not consumed by evapotranspiration and returns instead to its source or to another body of water.
<b>REUSE</b>	The additional use of once-used water.
<b>RIPARIAN</b>	Of, or on the banks of, a stream or other of water.
<b>RIPARIAN VEGETATION</b>	Vegetation growing on the banks of a stream or other body of water.
<b>RUNOFF</b>	The surface flow of water from an area; the total volume of surface flow during a specified time.
<b>- S -</b>	
<b>SAFE YIELD (GROUNDWATER)</b>	The maximum quantity of water that can be withdrawn from a groundwater basin over a long period of time without developing a condition of overdraft. Sometimes referred to as sustained yield.
<b>SAG POND</b>	An enclosed depression formed where active or recent fault movement results in impounded drainage.

<b>SALINITY</b>	Generally, the concentration of mineral salts dissolved in water. Salinity may be measured by weight (total dissolved solids), electrical conductivity, or osmotic pressure. Where seawater is the major source of salt, salinity is often used to refer to the concentration of chlorides in the water. See also TDS.
<b>SERIOUS OVERDRAFT</b>	Prolonged overdraft that results, or would result, within ten years, in measurable, unmitigated adverse environmental or economic impacts, either long-term or permanent. Such impacts include but are not limited to seawater intrusion, other substantial quality degradation, land surface subsidence, substantial effects on riparian or other environmentally sensitive habitats, or unreasonable interference with the beneficial use of a basin's resources.
<b>SEAWATER INTRUSION</b>	Occurs when extractions exceed freshwater replenishment of groundwater basins and causes seawater to travel laterally inland into fresh water aquifers.
<b>SECONDARY TREATMENT</b>	In sewage treatment, the biological process of reducing suspended, colloidal, and dissolved organic matter in effluent from primary treatment systems. Secondary treatment is usually carried out through the use of trickling filters or by an activated sludge process.
<b>SHEET FLOW</b>	Shallow-depth, low velocity water flow.
<b>SILT</b>	A sedimentary material composed of very fine particles intermediate in size between sand and clay.
<b>SILTATION</b>	The deposition or accumulation of silt.
<b>SPREADING BASIN</b>	See RECHARGE BASIN.
<b>SPREADING GROUNDS</b>	See RECHARGE BASIN.
<b>STAKEHOLDER</b>	An individual, group, coalition, agency or others who are involved in, affected by, or have an interest in the implementation of a specific program or project.
<b>SOLUTE</b>	A substance dissolved in another substance, usually the component of a solution present in the lesser amount.
<b>SUBSIDENCE</b>	See LAND SUBSIDENCE.



<b>- T -</b>	
<b>TABLE A AMOUNT</b>	A reference to the amount of water listed in “Table A” of the contract between the State Water Project (SWP) and the contracting agencies and represents the maximum amount of water an agency may request each year.
<b>TERTIARY GEOLOGY</b>	Geologic time period between roughly 65 million and 2 million years ago.
<b>TERTIARY TREATMENT</b>	In sewage, the additional treatment of effluent beyond that of secondary treatment to obtain a very high quality of effluent.
<b>TOTAL DISSOLVED SOLIDS (TDS)</b>	A quantitative measure of the residual minerals dissolved in water that remain after evaporation of a solution. Usually expressed in milligrams per liter (mg/l) or in parts per million (ppm). See also Salinity.
<b>TURBIDITY</b>	A measure of cloudiness and suspended sediments in water. Water high in turbidity appears murky and contains sediments in suspension. Turbid water may also result in higher concentrations of contaminants and pathogens, that bond to the particles in the water.
<b>TURNBACK POOLS</b>	A means in which SWP contractors with excess Table A Amount water in a given hydrologic year may sell that excess to other contractors. This is included in a provision in the SWP water supply contracts. The program is administered by DWR.
<b>- W -</b>	
<b>WASH</b>	A wash, also called an arroyo, is a usually dry creek bed or gulch that temporarily fills with water after a heavy rain, or seasonally.
<b>WATER MANAGEMENT STRATEGIES</b>	Specified categories of approaches to meet regional objectives. According to the IRWM Grant Program Guidelines, the water management strategies include, but are not limited to, ecosystem restoration, environmental and habitat protection and improvement, water supply reliability, flood management, groundwater management, recreation and public access, storm water capture and management, water conservation, water quality protection and improvement, water recycling, wetlands enhancement and creation, conjunctive use, desalination, Imported water, land use planning, non-point source pollution control, surface storage, watershed planning, water and wastewater treatment, and water transfers.
<b>WATER MANAGEMENT STRATEGY ALTERNATIVE</b>	A set of projects, project concepts, actions, and/or studies that when implemented together would fill the gaps, minimize the overlaps, maximize benefits for multiple water management strategies, and ultimately achieve the regional planning objectives.

<b>WATER MANAGEMENT STRATEGY AREA</b>	A group of similar or related water management strategies to make the Antelope Valley IRWM Plan development more efficient and manageable (data collection, management, and dissemination).
<b>WATER MANAGEMENT STRATEGY INTEGRATION</b>	A process to design water management strategy alternatives to maximize regional benefits by identifying potential synergies, linkages, and gaps between water management strategies and evaluating geographical distribution of project benefits.
<b>WATER MANAGEMENT STRATEGY OBJECTIVE</b>	A goal for the Region to achieve in order to meet the needs for a water management strategy. A quantifiable objective can be used to allow future measurement of progress towards accomplishment of the objectives (e.g., conserve 10,000 AFY of drinking water by 2030).
<b>WATER QUALITY</b>	A term used to describe the chemical, physical, and biologic characteristics of water with respect to its suitability for a particular use.
<b>WATER QUALITY CONTAMINATION</b>	For the purposes of the IRWM Plan, any increase in water constituent levels over the State or Federal standards is considered contamination.
<b>WATER QUALITY DEGRADATION</b>	Any increase in water constituent levels over naturally occurring levels is considered degradation.
<b>WATER RECLAMATION</b>	The treatment of water of impaired quality, including brackish water and seawater, to produce a water of suitable quality for the intended use.
<b>WATER RIGHT</b>	A legally protected right, granted by law, to take possession of water occurring in a water supply and to divert the water and put it to beneficial uses.
<b>WATERSHED</b>	The area or region drained by a reservoir, river, stream, etc.; drainage basin.
<b>WATER TABLE</b>	The surface of underground, gravity-controlled water.

## 10.2 Acronym List

Acronym	Meaning
<b>AB</b>	Assembly Bill
<b>ACEC</b>	Areas of Critical Environmental Concern
<b>AF</b>	acre-foot
<b>AFB</b>	Air Force Base
<b>AFY</b>	acre-feet per year
<b>AQMD</b>	Air Quality Management District
<b>ASR</b>	Aquifer Storage and Recharge/Recovery
<b>A-Team</b>	Advisory Team
<b>AV</b>	Antelope Valley
<b>AVEK</b>	Antelope Valley-East Kern Water Agency
<b>AVSWCA</b>	Antelope Valley State Water Contractors Association
<b>AVWCC</b>	Antelope Valley Water Conservation Coalition
<b>BIA</b>	Building Industry Association
<b>BLM</b>	Bureau of Land Management
<b>BMP</b>	Best Management Practice
<b>BO</b>	Biological opinion
<b>CAS</b>	Conventional Activated Sludge
<b>CASGEM</b>	California Statewide Groundwater Elev. Monitoring Program
<b>CCD</b>	Census County Division
<b>CCL</b>	Contaminant Candidate List
<b>CCR</b>	California Code of Regulations
<b>CCR</b>	Consumer Confidence Reporting
<b>CDFG</b>	California Department of Fish and Game
<b>CDFA</b>	California Department of Food and Agriculture
<b>CDPH</b>	California Department of Public Health
<b>CEDEN</b>	California Environmental Data Exchange Network
<b>CEIC</b>	California Environmental Information Catalog
<b>CEQA</b>	California Environmental Quality Act
<b>CERES</b>	California Environmental Resources Evaluation System
<b>cfs</b>	cubic feet per second
<b>CIMIS</b>	California Irrigation Management Information System
<b>CIP</b>	Capital Improvements Plan
<b>CLWA</b>	Castaic Lake Water Agency
<b>CMWD</b>	Calleguas Municipal Water District
<b>CRS</b>	Community Rating System
<b>CUWCC</b>	California Urban Water Conservation Council
<b>CVP</b>	Central Valley Project
<b>CWA</b>	Clean Water Act
<b>CWC</b>	California Water Code
<b>DAC</b>	Disadvantaged Communities

<b>DPH</b>	Department of Public Health
<b>DMM</b>	Demand management measure
<b>DU</b>	Distribution Uniformity
<b>DWMA</b>	Desert Wildlife Management Area
<b>DWR</b>	Department of Water Resources
<b>EAFB</b>	Edwards Air Force Base
<b>EIR</b>	Environmental Impact Report
<b>EJ</b>	Environmental Justice
<b>EJCW</b>	Environmental Justice Coalition for Water
<b>EPA</b>	Environmental Protection Agency
<b>ESA</b>	Federal Endangered Species Act
<b>ETc</b>	Evapotranspiration (for a particular crop)
<b>ETo</b>	Evapotranspiration (general or reference)
<b>EWMP</b>	Efficient Water Management Practice
<b>° F</b>	degree Fahrenheit
<b>FEIR</b>	Final Environmental Impact Report
<b>FEMA</b>	Federal Emergency Management Agency
<b>FIRM</b>	Flood insurance rate map
<b>FWSMPU</b>	Final Water System Master Plan Update
<b>gal</b>	gallon
<b>GAMA</b>	Groundwater Ambient Monitoring and Assessment
<b>GHG</b>	Greenhouse gas
<b>GIS</b>	Geographic Information System
<b>gpcd</b>	gallons per-capita-per-day
<b>gpd</b>	gallons per day
<b>gpm</b>	gallons per minute
<b>GPS</b>	Global positioning system
<b>GWR-RW</b>	Groundwater Recharge Using Recycled Water
<b>GWR</b>	Groundwater recharge
<b>HCP</b>	Habitat Conservation Plan
<b>HECW</b>	High-Efficiency Clothes Washer
<b>IFM</b>	Integrated Flood Management
<b>IRWM Plan (or IRWMP)</b>	Integrated Regional Water Management Plan
<b>IUWMP</b>	Integrated Urban Water Management Plan
<b>IWRP</b>	Integrated Water Resources Plan
<b>JPA</b>	Joint Powers Authority
<b>LACSD</b>	Los Angeles County Sanitation District
<b>LACWD 40</b>	Los Angeles County Waterworks District No. 40
<b>LACDPW</b>	Los Angeles County Department of Public Works
<b>LADWP</b>	Los Angeles Department of Water and Power
<b>LAFCO</b>	Local Area Formation Commission
<b>Lancaster</b>	Lancaster, City of
<b>LAWA</b>	Los Angeles World Airports

<b>LCID</b>	Littlerock Creek Irrigation District
<b>LID</b>	Low Impact Development
<b>LWRP</b>	Lancaster Water Reclamation Plant
<b>M&amp;I</b>	municipal & industrial
<b>MAF</b>	Million acre-feet
<b>MBR</b>	Membrane bioreactor
<b>MCL</b>	Maximum Contaminant Level
<b>MG</b>	million gallon
<b>mgd</b>	million gallons per day
<b>mg/L</b>	milligrams per liter
<b>MHI</b>	median household income
<b>MOA</b>	Memorandum of Agreement
<b>MOU</b>	Memorandum of Understanding
<b>MW</b>	megawatt
<b>MWA</b>	Mojave Water Agency
<b>MWD</b>	Metropolitan Water District of Southern California
<b>ND</b>	Non-detect
<b>NFIP</b>	National Flood Insurance Program
<b>NLFC</b>	Newhall Land and Farming Company
<b>NMFS</b>	National Marine Fisheries Service
<b>NOI</b>	Notice of Intent
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>NRCS</b>	National Resource Conservation Service
<b>O&amp;M</b>	operations and maintenance
<b>OEHHA</b>	Office of Environmental Health Hazard Assessment
<b>OHV</b>	Off-Highway Vehicle
<b>NRCS</b>	Natural Resource Conservation Service
<b>PHG</b>	Public Health Goal
<b>ppb</b>	parts per billion
<b>ppm</b>	parts per million
<b>PAC</b>	Performance Advisory Committee
<b>Palmdale</b>	Palmdale, City of
<b>PID</b>	Palmdale Irrigation District
<b>Plant 42</b>	U.S. Air Force Plant 42
<b>PM</b>	Particulate Matter
<b>PWD</b>	Palmdale Water District
<b>PWRP</b>	Palmdale Water Reclamation Plant
<b>QHWD</b>	Quartz Hill Water District
<b>RAP</b>	Region Acceptance Process
<b>RCSD</b>	Rosamond Community Services District
<b>Region</b>	Antelope Valley Region
<b>RMS</b>	Resource Management Strategy
<b>RO</b>	reverse osmosis

<b>ROC</b>	reactive organic compound
<b>RRBWS</b>	Rosedale-Rio Bravo Water Storage District
<b>RSN</b>	Rotary Sprinkler Nozzle
<b>RWMG</b>	Regional Water Management Group
<b>RWQCB</b>	Regional Water Quality Control Board
<b>RWQCB-LR</b>	Regional Water Quality Control Board – Lahontan Region
<b>SB</b>	Senate Bill
<b>SCAG</b>	Southern California Association of Governments
<b>SDWA</b>	Safe Drinking Water Act
<b>SEA</b>	Significant Ecological Area
<b>Semitropic</b>	Semitropic Water Storage District
<b>SMART</b>	Specific Measurable Attainable Relevant Time-based
<b>SNMP</b>	Salt and Nutrient Management Plan
<b>SRF</b>	State Revolving Fund
<b>SWAMP</b>	Surface Water Ambient Monitoring Program
<b>SWP</b>	State Water Project
<b>SWRCB</b>	State Water Resources Control Board
<b>TAC</b>	Technical Advisory Committee
<b>TDS</b>	Total Dissolved Solids
<b>THM</b>	Trihalomethanes
<b>TTHM</b>	Total Trihalomethanes
<b>TMDL</b>	Total Maximum Daily Load
<b>TOC</b>	total organic carbon
<b>TSY</b>	Total Sustainable Yield
<b>TTP</b>	Tertiary Treatment Plant
<b>UCCE</b>	University of California Cooperative Extension
<b>ug/L</b>	micrograms per liter
<b>ULFT</b>	Ultra Low Flush Toilet
<b>(uS/cm)</b>	microsiemens per centimeter
<b>U.S.</b>	United States
<b>USACE</b>	U.S. Army Corps of Engineers
<b>USB</b>	U.S. Bureau of Reclamation
<b>USFWS</b>	U.S. Fish and Wildlife Service
<b>USGS</b>	U.S. Geological Survey
<b>UWMP</b>	Urban Water Management Plan
<b>WBIC</b>	Weather-Based Irrigation Controller
<b>WDL</b>	Water Data Library
<b>WDR</b>	Waste Discharge Requirements
<b>WPP</b>	Wellhead Protection Program
<b>WRP</b>	Water Reclamation Plant
<b>WSA</b>	Water Supply Assessment
<b>WSMP</b>	Water System Master Plan
<b>WSSP-2</b>	Water Supply Stabilization Project

<b>WTP</b>	Water Treatment Plant
<b>WWTP</b>	Wastewater Treatment Plant