Appendix
ACRE-FOOT - 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.

ALLUVIAL - Sediment deposited by flowing water, such as in a riverbed.

APPLIED WATER DEMAND - The quantity of water that would be delivered for urban or agricultural applications if no conservation measures were in place.

AQUIFER - An underground layer of rock, sediment or soil that is filled or saturated with water.

ARTIFICIAL RECHARGE - The addition of water to a ground water reservoir by human activity, such as irrigation or induced infiltration from streams, wells, or recharge basins. See also GROUNDWATER RECHARGE, RECHARGE BASIN.

BRACKISH WATER - Water containing dissolved minerals in amounts that exceed normally acceptable standards for municipal, domestic, and irrigation uses. Considerably less saline than sea water.

CONJUNCTIVE USE - The operation of a ground water basin in coordination with a surface water storage and conveyance system. The purpose is to recharge to the basin during years of above-average water supply to provide storage that can be withdrawn during drier years when surface water supplies are below normal.

CONSERVATION - As used in this report, urban water conservation 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. Agricultural water conservation, as used in this report, means reducing the amount of water applied in irrigation through measures that increase irrigation efficiency. See NET WATER CONSERVATION.

CRITICAL DRY PERIOD - 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.

CRITICAL DRY YEAR - A dry year in which the full commitments for a dependable water supply cannot be met and deficiencies are imposed on water deliveries.

CUBIC FEET PER SECOND - 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.

DESALTING - A process that converts sea water or brackish water to fresh water or an otherwise more usable condition through removal of dissolved solids. Also called “desalination.”

DWR - California Department of Water Resources (or successor agency).
FIRM YIELD - 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.

GROUNDWATER - Water that occurs beneath the land surface and completely fills all pore spaces of the alluvium or rock formation in which it is located.

GROUNDWATER BASIN - A groundwater reservoir, together with all the overlying land surface and underlying aquifers that contribute water to the reservoir.

GROUNDWATER MINING - 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.

GROUNDWATER OVERDRAFT - 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.

GROUNDWATER RECHARGE - Increases in groundwater by natural conditions or by human activity. See also ARTIFICIAL RECHARGE.

GROUNDWATER STORAGE CAPACITY - 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.

GROUNDWATER TABLE - 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.

M&I - Municipal and Industrial (water use); generally urban uses for human activities.

mg/L - Abbreviation for “milligrams per liter,” the mass (milligrams) of any substance dissolved in a standard volume (liter) of water. Nearly the same as parts per million (ppm).

NET WATER CONSERVATION - The difference between the amount of applied water conserved and the amount by which this conservation reduces usable return flows.

NET WATER DEMAND - The applied water demand less water saved through conservation efforts (= net applied water = actual water used).

NONPOINT SOURCE - A contributing factor to water pollution that cannot be traced to a specific spot.

OVERDRAFT - Withdrawal of groundwater in excess of a basin’s perennial yield. See also PROLONGED OVERDRAFT.
P&D - Santa Barbara County Planning and Development Department (or successor agency); prior to February 1994, named the Resource Management Department (RMD).

PERCOLATION - The downward movement of water through the soil or alluvium to the groundwater table.

PERENNIAL YIELD - "The rate at which water can be withdrawn perennially under specified operating conditions without producing an undesired result" (Todd, 1980). An undesired result is an adverse situation such as: (1) a reduction of the yield of a water source; (2) development of uneconomic pumping lifts; (3) degradation of water quality; (4) interference with prior water rights; or (5) subsidence. 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.

PROLONGED OVERDRAFT - Net extractions in excess of a basin’s perennial yield, averaged over a period of ten or more years.

ppm - Abbreviation for “parts per million,” a measure of a substance’s concentration in a solution or other mixture. Nearly the same as milligrams per liter (mg/l).

RECHARGE BASIN - A surface facility, often a large pond, used to increase the infiltration of water into a groundwater basin.

RECYCLED WATER - Urban wastewater that becomes suitable for a specific beneficial use as a result of treatment.

RETURN FLOW - The portion of withdrawn water that is not consumed by evapotranspiration and returns instead to its source or to another body of water.

REUSE - The additional use of once-used water.

RMD - Santa Barbara County Resource Management Department; reorganized and renamed as the Planning and Development Department (P&D) in February 1994.

RWQCB - California Regional Water Quality Control Board (or successor agency).

SAFE YIELD (GROUNDWATER) - 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.

SALINITY - 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.
**SBCFCWCD** - Santa Barbara County Flood Control and Water Conservation District (or successor agency).

**SBCWA** - Santa Barbara County Water Agency (or successor agency).

**SERIOUS OVERDRAFT** - 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. (Also see Policy 3.5 et seq. in main text.)

**SWP** - State Water Project.

**SWRCB** - California State Water Resources Control Board (or successor agency).

**TDS** - Total Dissolved Solids, 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.

**TURBIDITY** - 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.

**W**

**WATER QUALITY** - A term used to describe the chemical, physical, and biologic characteristics of water with respect to its suitability for a particular use.

**WATER RIGHT** - 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.

**WATERSHED** - The area or region drained by a reservoir, river, stream, etc.; drainage basin.

**WATER TABLE** - The surface of underground, gravity-controlled water.
Groundwater Section


City of Santa Barbara Water Department. 1994. City of Santa Barbara Long Term Water Supply.


Santa Barbara County Planning and Development. 1994. *Santa Barbara County Comprehensive Plan, Conservation Element, Groundwater Resources Section*.


**Surface Water Section**


Santa Barbara County Water Agency and URS


**Water Quality Section**


**Water Efficiency Section**


**On-line References**

American Desalting Association: http://www.webcom.com/ada/
CASEC (California Aquatic Science Education Consortium): http://www.rain.org/casec/index.html/
California Department of Fish and Game: http://www.dfg.ca.gov/dfghome.html/
California Department of Health Services: http://www.dhs.ca.gov/index.htm/
California Environmental Resources Evaluation System: http://www.ceres.ca.gov/education/
California State Water Resources Control Board: http://www.swrcb.ca.gov/
Central Coast Water Authority: http://www.ccwa.com/
City of Santa Barbara: http://www.ci.santa-barbara.ca.us/departments/public_works/water_resources/
Department of Water Resources; California Water Page: http://www.dwr.water.ca.gov/
EE Link, Environmental Education on the Internet: http://www.nceet.snre.umich.edu/index.html/

Environmental Protection Agency; Water Quality - Surf Your Watershed: http://www.epa.gov/surf/surf_search.html/

Goleta Water District: http://www.goletawater.com/

Groundwater Education: http://gwrp.cciw.ca/education/index.html/

Groundwater Resources Association: http://www.grac.org/

Montecito Water District: http://www.montecitowater.com/

Project Clean Water: http://www.co.santa-barbara.ca.us/project_cleanwater/

Santa Barbara County Agricultural Commissioner’s Office http://www.co.santa-barbara.ca.us/agcomm/

Santa Barbara County Association of Governments: http://www.sbcag.org/

Santa Barbara County Water Agency: http://www.publicworkssb.org/water/

Santa Barbara County Water Education: http://www.sbwater.org/

United States Army Corps of Engineers: http://www.usace.army.mil/

United States Bureau of Reclamation: http://www.usbr.gov/

United States Environmental Protection Agency: http://www.epa.gov/

United States Fish and Wildlife Service: http://www.fws.gov/

United States Geological Survey; Water Resources of California: http://water.wr.usgs.gov/

University of California Cooperative Extension: http://www.sbceo.k12.ca.us/~uccesbl/

University of Wisconsin Cooperative Extension; Educating Young People About Water: http://www.uwex.edu/erc/ywc/

Vandenberg Village Community Services District http://www.impulse.net/~vvcsl

Water Education for Teachers Network; WETNET, Project WET: http://www.montana.edu.wwwet/

Water Education Foundation: http://www.water-ed.org/

WateReuse Association: http://www.watereuse.org/
<table>
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<th>Acronym</th>
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<tr>
<td>ACWA</td>
<td>Association of California Water Agencies</td>
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<td>AF</td>
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<td>BLM</td>
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