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The Watershed Approach
According to the U.S. EPA, effective watershed management results in a focus on priority problems; community building wherein stakeholder partners collaborate to seek local solutions; cost savings for regulators, and predictability for those regulated.

Water Quality

Water quality problems that have occurred in Riverside County have related to inadequate subsurface sewage disposal, waste disposal management of the Santa Ana River, agriculturally-related problems such as citricultural runoff in the western County and increasing salinity of the desert groundwater basins, sediment buildup of water bodies from construction-related erosion, lake water quality problems, and pollution due to urban stormwater system runoff. Regional Water Quality Control Boards for Regions 7, 8, and 9 provide state-level water quality policy for the County. Further, the National Pollutant Discharge Elimination system mandates Best Management Practices in order to effectively minimize the adverse effects of pollution and protect water quality. The following policies are intended to provide local guidance for the protection and maintenance of water quality in Riverside County.

Policies:

OS 3.1 Encourage innovative and creative techniques for wastewater treatment, including the use of local water treatment plants.

OS 3.2 Encourage wastewater treatment innovations in rural areas.

OS 3.3 Minimize pollutant discharge into storm drainage systems and natural drainage and aquifers. (AI 3)

Groundwater Recharge

Groundwater resources in the County are defined by their quality as well as quantity. Most groundwater basins within Riverside County store local and imported water for later use to meet seasonal and drought-year demands. Under these groundwater recharge programs, groundwater is artificially replenished in wet years with surplus imported water. Water is then extracted during drought years or during emergency situations. Groundwater recharge that may also involve the recharge of reclaimed water, enhances the region's ability to meet water demand during years of short supply, and increases overall local supply reliability. In order to facilitate groundwater recharge, the following policies may apply:

Policies:

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Water banking is a key factor for meeting future water supply needs in southern California. Historically, groundwater extractions have exceeded natural recharge in this region, resulting in declining water levels and water quality. Using groundwater basins for water banking during wet periods will help alleviate southern California's water supply problems.

OS 4.1 Support efforts to create additional water storage where needed, in cooperation with federal, state, and local water authorities. Additionally, support and/or engage in water banking in conjunction with these agencies where appropriate, as needed. (AI 56, 57)

OS 4.2 Participate in the development, implementation, and maintenance of a program to recharge the aquifers underlying the County. The program shall make use of flood and other waters to offset existing and future groundwater pumping, except where:

a. groundwater quality would be reduced;
b. available groundwater aquifers are full; or
c. rising water tables threaten the stability of existing structures. (AI 56, 57)

OS 4.3 Ensure that adequate aquifer water recharge areas are preserved and protected. (AI 3, 56, 57)

OS 4.4 Incorporate natural drainage systems into developments where appropriate and feasible. (AI 3)

OS 4.5 Retain storm water at or near the site of generation for percolation into the groundwater to conserve it for future uses and to mitigate adjacent flooding. (AI 57)

OS 4.6 Use natural approaches to managing streams, to the maximum extent possible, where groundwater recharge is likely to occur. (AI 57)

OS 4.7 Offer incentives to landowners whose property is prohibited from development due to its retention as a natural ground water recharge area. These incentives shall be provided to encourage the preservation of natural water courses without creating undue hardship on the owner of properties, and might include density transfer mechanisms. (AI 9)

***Floodplains** are comprised of the floodway and the floodway fringe. They are the low, flat, periodically flooded lands adjacent to rivers, lakes and oceans inundated by 100-year flood.*

*The **floodway** is the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot.*

*The **floodway fringe** is that portion of the floodplain between the floodway and the limits of the existing 100-year floodplain.*

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The County of Riverside has adopted the USGS "blue line stream" overlay as its major form of mapping the watercourses in Riverside County (see figure OS-1, the Land Use Element, and Area Plan Maps). Though this overlay is not necessarily the most accurate description of a water course or of the actual running water within the County, it is a general indicator of existing or potential moving water resources, floodways and floodplains.

Floodplain and Riparian Area Management

Floodplains are subject to geomorphic (land-shaping) and hydrologic (water flow) processes. The watercourse and its floodway are usually the focus of construction and control; while fertile, flat and "reclaimed" floodplain lands are usually the focal points for other activities such as agriculture, commerce, and residential development. These areas form a complex physical and biological system that not only supports a variety of natural resources, but also provides natural flood and erosion control. In addition, the floodplain represents a natural filtering system, with water percolating back into the ground and replenishing groundwater. When a watercourse is divorced from its floodplain with levees and other flood control facilities, then natural, built-in benefits are either lost, altered, or significantly reduced.

The conventional assumption that flooding can be completely eliminated has meant not only an unrealistic reliance on manufactured flood protection, but also the development of a flood control system that squeezes rivers into artificially narrow channels, adds steeply sloped levees (devoid of riparian vegetation), and eliminates historic floodplains, all in the name of reclamation, flood protection and urban growth. Unfortunately, this highlights the fact that floods have been viewed for far too long as everything except part of the natural life cycle of rivers and floodplains. Flooding is part of the dynamic nature of healthy rivers and ecosystems. High flows and flood waters are needed to cleanse the channels of accumulated debris, build stream banks, import gravels for aquatic life, thin riparian forests and create riparian habitat. The open space of floodplains adjacent to rivers and streams helps store and slowly release floodwaters, thus reducing flood flow and peaks and their subsequent impacts during small and frequent flood events.

Further, riparian habitat within floodplains is of great value to resident and migratory animal species, as it provides corridors and linkages to and from the biotic regions of the County. The numerous essential habitat elements provided by the remaining riparian corridors of Riverside County make them a significant