



- S 4.6 Direct flood control improvement measures toward the protection of existing and planned development. (AI 25)
- S 4.7 Require that any substantial modification to a water course be done in the least environmentally damaging manner possible in order to maintain adequate wildlife corridors and linkages and maximize groundwater recharge. Refer to the County of Riverside Multiple Species Habitat Conservation Plans (MSHCP) for additional policies related to wildlife corridors and linkages. (AI 25, 60)
- S 4.8 Require development in the floodway fringe, following a site-specific hydrology study, to implement measures that avoid erosion or sedimentation on adjacent land, or water flows or velocities, that would be detrimental to the health and safety of persons or adjacent property, or adversely affect adjacent wetlands or riparian habitat. (AI 25, 60, 61)
- S 4.9 Minimize encroachment of development into the floodway fringe to convey floodwater without property damage and risk to public safety. (AI 25, 60)
- S 4.10 Require all uses within the floodway fringe to be capable of withstanding flooding and to minimize use of fill. (AI 60)
- S 4.11 Require new projects anywhere in the County to mitigate any impacts that it may have on the carrying capacity of the local storm drain system.
- S 4.12 Encourage neighboring jurisdictions to require development occurring adjacent to the County to consider impact on inundation protection in the County of Riverside. (AI 25)



Environmental legislation that protects rare and endangered species will continue to make construction of flood control structures difficult. In arid environments, twice as many species and about 250 percent more plant cover are associated with natural wash areas, compared with surrounding land. The County should consider a "Flood-prone Land Acquisition Program" that will reduce the losses associated with flooding, as well as the costs associated with mitigation. Developers can still profit from leaving wash corridors untouched, as home buyers will pay premiums to live by open space.

High-Risk Facilities

Many essential public and quasi-public facilities and hazardous materials sites are located within the 100- or 500-year flood zones of Riverside County, including: 14 of the County's 39 airports; 4 of 18 hospitals; 47 of 109 police stations, fire stations and emergency operation centers; 92 of 380 schools; 446 of 1,306 highway bridges; and 695 of 1,978 hazardous materials sites.

Policies:

- S 4.13 Require certain existing essential, dependent care, and high-risk facilities that are not in conformance with provisions of County zoning to upgrade or modify building use to a level of safety consistent with the inundation risk. (AI 25, 101)
- S 4.14 Require that facilities storing substantial quantities of hazardous materials within inundation zones shall be adequately flood-proofed and hazardous materials containers shall be anchored and secured to prevent flotation and contamination (AI 25)
- S 4.15 Require that dependent care facilities have all flood-vulnerable electrical circuitry flood-proofed. (AI 101)



- S 4.16 Require that high-risk facilities maintain and rehearse inundation response plans.
- S 4.17 Utilize power of public land acquisition and other land use measures to create open space zoning of inundation zones in areas that are destined for redevelopment; when this is not feasible, low density land uses should be employed. (AI 25)

Risk Assessment

Recent environmental legislation and improved understanding and analysis of flood hazards in arid environments have resulted in new approaches to flood hazard mitigation implementation. Nationwide, there is a move to leave nature in charge of flood control. The advantages include lower cost, preservation of wildlife habitat and improved recreation potential. However, this type of flood mitigation is difficult to implement in areas where development has already occurred, as well as in regions susceptible to sheet flow. Where water spreads across broad areas, mitigation without channels or culverts is more difficult. Flood control structures have often been built piecemeal over the years, and new development may funnel water into older systems with insufficient capacity. These issues have been mitigated in recent years by the preparation of Master Plans by local public works agencies.

Policies:

- S 4.18 Continue to assess and upgrade inundation risk and protection in the County. (AI 83, 88)
- S 4.19 Require that the design and upgrade of street storm drains be based on the depth of inundation, relative risk to public health and safety, the potential for hindrance of emergency access and regress from excessive flood depth, and the threat of contamination of the storm drain system with sewage effluent.
- S 4.20 Encourage periodic reevaluation of the 500-year, 100-year and 10-year flood hazard in the County by state, federal, County, and other sources, and use such studies to improve existing protection, to review protection standards proposed for new development and redevelopment, and to update emergency response plans. (AI 59, 60, 83, 88)
- S 4.21 Balance flood control mitigation with open space and environmental protection. (AI 59, 61)
- S 4.22 Encourage the use of specific plans to allow increased densities in certain areas of a proposed development; or apply Transfer of Development Credits to encourage the placement of appropriate land uses in natural hazard areas, including open space, passive recreational uses, or other development capable of tolerating these hazards. (AI 25)
- S 4.23 Take an active role in acquiring property in high-risk flood zones and designating the land as open space for public use or wildlife habitat. (AI 59)