



## Watershed Goals and Recommendations

\*Drawn from the *Alhambra Creek Watershed Management Plan*, April 2001

WATERSHED GOALS*	Benefits provided by Watershed Goals	Recommended action to achieve Goals*	Obstacles to implementing Goals
Reduce flood damage and conserve stormwater	Flood protection	<ul style="list-style-type: none"> <li>• Promote a watershed approach for analyzing flooding and water conservation issues.</li> <li>• Reduce rate and volume of runoff.</li> <li>• Reestablish floodplains and restore proper functioning condition to creeks.</li> <li>• Encourage land uses that do not increase the amount of impervious surfaces.</li> <li>• Improve interactions with public agencies to address local flooding issues.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of understanding of how runoff functions in the hydrological cycle.</li> <li>• Development, esp. paved (impervious) surfaces, and building in flood plain make flooding worse.</li> <li>• Traditional flood control practices and structures (culverts; straight, narrow concrete channels) may exacerbate flooding downstream of the structures.</li> </ul>
Prevent excessive erosion and conserve soil resources	Fertile and abundant soil resources	<ul style="list-style-type: none"> <li>• Identify and assess areas of excessive erosion and sources of sediment. Determine baseline rate.</li> <li>• Encourage the use of Best Management Practices (BMPs) to remedy erosion and sediment problems from identified sources.</li> <li>• Promote and implement erosion and sediment reduction methods and projects. Use these projects to provide information to the public about erosion and sediment reduction.</li> <li>• Minimize erosion and sediment load from construction activities.</li> <li>• Minimize soil loss from orchards, vineyards, and ranches.</li> <li>• Minimize erosion and property loss from creekside residences.</li> <li>• Reduce erosion of creek banks in the watershed.</li> <li>• Use a systems approach to restoration, using techniques based on hydrogeomorphology and adaptive management.</li> <li>• Reduce shoreline erosion along the Martinez shoreline.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of understanding of natural soil processes and how to augment natural features of watershed to conserve soil.</li> <li>• Exposed soil on slopes, and in urban and construction areas, suffer from high levels of erosion.</li> <li>• Poorly designed fire roads contribute greatly to erosion.</li> <li>• Mismanaged grazing areas lead to loss of vegetation and erosion.</li> <li>• Widespread, invasive exotic vegetation does not bind soil as well as displaced native plants, allowing greater levels of erosion to occur.</li> <li>• Creek banks altered for flood control purposes disrupt natural flows, causing bank failure and erosion.</li> <li>• Paved surfaces cause greater and more rapid runoff during storms, causing higher levels of erosion.</li> </ul>

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Reduce wildland fire damage	Healthy and abundant plant resources	<ul style="list-style-type: none"> <li>• Support use of sustainable management practices for fire fuel load management.</li> <li>• Coordinate with the efforts of the Fire Safe council to help landowners create a defensible space around their homes and reduce the fire fuel load on their properties.</li> <li>• Support implementation of a coordinated fire management plan for the watershed in cooperation with public agencies that respect agency mandates.</li> <li>• Work with the landscape industry to promote the design, installation, and maintenance of landscapes that align with fire safe principles.</li> </ul>	<ul style="list-style-type: none"> <li>• Houses and other infrastructure in fire-vulnerable areas make the use of fire management techniques such as controlled burns and grazing more difficult.</li> <li>• Lack of information and other assistance for landowners who wish to implement sustainable management practices and fire-safe landscaping.</li> <li>• Exotic annual grasses now covering large areas make the landscape vulnerable to burning over a longer period of time during the year than the original perennial bunchgrasses.</li> <li>• Fire suppression allows large buildups of fuel, causing hot, destructive fires to occur rather than smaller, benign periodic fires that reduce fuel buildup and encourage plant growth.</li> </ul>
Protect and improve water quality	Clean and abundant water supply	<ul style="list-style-type: none"> <li>• Reduce non-point source pollution.</li> <li>• Reduce illegal dumping.</li> <li>• Promote the appropriate use of the National Pollutant Discharge Elimination System program for rural areas.</li> <li>• Protect water quality and quantity during agricultural activities.</li> <li>• Reduce stormwater pollution from construction-related activities.</li> <li>• Work with the Agricultural Dept. to provide information to fruit tree owners about potential biological threats and healthy ways to combat them.</li> <li>• Support water quality testing, monitoring, assessment and other research.</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate understanding of importance of overall ecological health of the watershed in maintaining clean and abundant water supplies.</li> <li>• Sediment from excessive erosion in creek channels or uplands.</li> <li>• Pollution hazards from point sources: illegal dumping of oil, antifreeze, paint, solvents; draining of gray water, pool water, vehicle-washing facilities, etc., into streams or sewer drains.</li> <li>• Pollution from other non-point sources in watershed: commercial waste, livestock and pet waste, residential &amp; landscaping runoff (including pesticides, chemicals, fertilizers), automobiles, streets &amp; parking lots.</li> <li>• Pollution from accidents: transport of hazardous materials on railroads and highway, sewage pipes.</li> <li>• Possible heavy metal contamination (legacy pollutants).</li> </ul>

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Encourage coordination of city and county general and specific plans, using the watershed as a planning unit.	Provides a sensible and effective planning area for issues related to streamflow.	<ul style="list-style-type: none"> <li>• Develop the watershed planning group and the watershed plan as resources that can be used to coordinate watershed planning and management with city, county and other agencies.</li> <li>• Support improvement of the permitting process to help ensure that watershed health issues are comprehensively met.</li> <li>• Support the continuation of the Stream Assessment Project to identify indicators for monitoring of watershed health.</li> <li>• Promote the adoption of reaches of creeks by neighborhoods/businesses on them to enhance stream and riparian habitat and monitor their health.</li> </ul>	<ul style="list-style-type: none"> <li>• Some flooding, bank erosion, and water quality problems within the City of Martinez are aggravated by conditions in the upper watershed, such as illegal dumping.</li> <li>• Lack of understanding of the watershed concept and the benefits of using the watershed as a planning unit when addressing flooding and water quality issues.</li> </ul>
Support economically and environmentally sustainable land uses, while protecting private property rights.	Natural resources of watershed are an economic asset.	<ul style="list-style-type: none"> <li>• Share information with the public about rural land uses and their role in watershed community.</li> <li>• Support innovations to enhance and maintain the economic and environmental viability of agriculture.</li> <li>• Encourage diversification of downtown economy, and its connection with the natural environment.</li> <li>• Encourage ranchers to apply sustainable range management practices using a watershed approach.</li> <li>• Work with the Agricultural Dept. to provide information to fruit tree owners about potential biological threats and healthy ways to combat them.</li> <li>• Support management and restoration of stream and riparian areas for long-term environmental sustainability.</li> <li>• Encourage the design, installation and maintenance of economically and environmentally sustainable landscaping.</li> <li>• Promote the use of mulching and composting of organic waste.</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate understanding of how environmental sustainability is essential for economic sustainability.</li> <li>• Lack of information and other assistance for landowners who wish to implement or improve the sustainability of their land use practices.</li> </ul>

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Promote a sense of watershed community.	Source of community pride and focus of neighborhood involvement and activities.	<ul style="list-style-type: none"> <li>• Facilitate and coordinate communication among members and groups of the watershed community.</li> <li>• Increase community awareness and understanding of the watershed's physical and natural features, processes, people, and economy.</li> <li>• Educate the public about the Alhambra Watershed Action Group and the Alhambra Creek Watershed Plan.</li> <li>• Promote and encourage research and management projects in the watershed.</li> <li>• Protect and restore natural streams and riparian buffers wherever possible.</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient understanding of watershed's physical and natural features, processes, people, and economy.</li> <li>• Degraded and polluted natural areas, especially creek areas.</li> <li>• Lack of awareness of current efforts (AWAG and other groups; research and management projects) to assess and improve health of watershed.</li> <li>• Inadequate stakeholder participation in planning process.</li> </ul>
Maintain and restore fish and wildlife habitat and native plant communities, consistent with environmentally and economically sustainable land use.	Wildlife habitat	<ul style="list-style-type: none"> <li>• Work with willing landowners and managers to maintain and restore native plant communities and natural habitats.</li> <li>• Maintain and restore native fish and wildlife populations.</li> <li>• Preserve and protect endangered, threatened and diminishing species.</li> <li>• Reduce and control harmful exotic species.</li> <li>• Work with willing landowners to encourage research and development and application of wildlife and native plant friendly farming and ranching practices.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of understanding of importance of wildlife habitat to quality of life in watershed for all occupants.</li> <li>• Lack of information and other assistance for landowners who choose to restore wildlife habitat.</li> <li>• Introduction of non-native plant species has extensively altered habitat, rendering habitat poor or uninhabitable for some wild animal species.</li> <li>• Reduction and degradation of habitat due to development. Continued urban encroachment into natural areas has further reduced and fragmented wildlife habitat.</li> </ul>
Maintain and enhance the quality of life by providing increased opportunities to appreciate and enjoy watershed resources.	Provision of high quality of life, and educational and recreational opportunities.	<ul style="list-style-type: none"> <li>• Enhance recreational opportunities for watershed residents to meet future anticipated expanding needs.</li> <li>• Help enhance awareness of the connection between the watershed and the people in it.</li> <li>• Elevate awareness of dumping and its negative consequences in the watershed, especially in the creeks.</li> <li>• Work with the city and county to strike an appropriate balance between development and open space preservation.</li> <li>• Maintain and preserve our ranching heritage.</li> <li>• Work with existing organizations and agencies to find ways to voluntarily preserve open space.</li> <li>• Reduce harmful air emissions where practical.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of awareness of how individual actions impact health of watershed.</li> <li>• Educational programs/materials focusing on the watershed not sufficiently developed and/or widely used.</li> <li>• Access to natural areas could be improved.</li> </ul>

