

Section 2 Goals and Objectives

Identification of goals and objectives for the SMMP was a fundamental step in developing a multidisciplinary stream management program. Goals and objectives were identified early in the planning process with considerable input from staff at Zone 7 and SMMP stakeholders through a series of workshops and meetings. The resulting goals and objectives developed for the SMMP serve as a guide for the program focus and aided in the identification and development of SMMP projects.

2.1 Importance of Goals and Objectives in the Stream Management Approach

In recent years, there have been a number of changes that impact the way agencies approach the management of streams and flood control channels. These include regulatory changes that affect non-point source water quality and stormwater runoff, impacts associated with development in floodplains and adjacent to streams, increased public interest in habitat protection and enhancement, and public demand for access to flood control channels and stream right-of-ways for recreational purposes. As a result of these changes, the SMMP has been developed as a multi-benefit program to address not only flood and stormwater drainage protection issues, but also to identify opportunities for other local agencies to coordinate their projects with Zone 7's stormwater management and flood control projects, and to address other issues affecting management of the streams and arroyos such as habitat, water quality, and recreation.

Evolution of goals and objectives is a fundamental step in the development of a multidisciplinary program for stream management. Goals and objectives must be outlined early in the planning process in order to provide a foundation for the identification and development of the program's projects. Stakeholder involvement in development of goals and objectives helps to build consensus regarding priorities for resources, and develop support for program implementation.

Development of goals and objectives also helped provide specific focus and purpose to the SMMP by answering the question: "What are we trying to accomplish?" In this manner, the goals provided a qualitative description on desired future conditions. For each of the goals that is developed, a number of objectives are developed as well. Whereas the goals provide a description of desired conditions, objectives identify potential approaches or solutions and measurable conditions that help define master plan projects. The development of SMMP projects included in this master plan was founded on identifying goals and objectives for the SMMP study area, and then identifying projects that would aid in meeting those goals as appropriate.

2.2 Stakeholder Participation

The goals and objectives included in the master plan were developed through a series of meetings and workshops with Zone 7 staff and SMMP stakeholders. Involving stakeholders early in the development of goals and objectives allowed stakeholders an opportunity to identify needs for the streams and arroyos and helps build consensus about multi-benefit approaches to meeting those needs.

2.3 SMMP Goals and Objectives

Goals and objectives were developed for six resource areas affected by management of streams and arroyos in the Zone 7 service area:

- Flood Protection and Drainage
- Erosion and Sedimentation
- Water Supply
- Water Quality
- Habitat and Environment
- Trails, Recreation and Public Education

One goal was developed for each resource area, and, for each goal, multiple objectives were identified. The goals and objectives for each of the SMMP resource areas are outlined beginning on the following page.

2.3.1 Flood Protection and Drainage

Zone 7 manages the storm water flows into the Livermore-Amador Valley area within the major drainage ways of the Valley floor. Of the 120 miles of drainage ways within the Valley, Zone 7 owns and maintains approximately 39 miles of both improved and unimproved channels, which is about one-third of all the arroyos in the drainage basin. A flood protection and drainage goal, with five objectives, as listed in Table 2-1, has been developed to guide the identification and development of SMMP projects.

Table 2-1: Flood Protection & Drainage Goal and Objectives

Goal: Protect people, property, and stream corridors from damaging drainage and floods.	
Objective Statement	Focus of the Objective
A. Design and maintain streams and flood protection facilities to convey design flows while supporting natural ecosystem functions to the greatest extent possible.	Develop projects that incorporate environmentally sensitive approaches such as biotechnical bank stabilization, meandering channels, shade, connectivity, wildlife and fish passage.
B. Implement improvements to flood protection system necessary to manage 100-year storm event at General Plan land use conditions.	Evaluate role of natural flood plains for accommodating projected 100-year storm events; provide local and regional stormwater detention combined with adequate capacity in flood conveyance facilities; implement best management practices.
C. Modify FEMA 100-year flood zone as necessary to protect people and property.	Develop projects that reduce/eliminate flooding in commercial, residential or public areas for projected 100-year storm event.
D. Promote multi-use concept for flood protection facilities.	Incorporate recreation, environmental enhancement and community participation features into stormwater detention and conveyance projects.
E. Promote coordination of flood protection and drainage projects between agencies.	Incorporate impact of future buildout conditions and projected runoff from local areas into design of regional and local stormwater detention and conveyance facilities. Develop strategies for communication between agencies regarding planned developments.

2.3.2 Erosion and Sedimentation

One of Zone 7's challenges in maintaining its flood protection system is managing erosion and sedimentation in a manner that ensures regulatory agencies' approval. The Valley's drainage system has faced erosion and sedimentation problems, including severe erosion in some areas that compromises channel bank stability and sediment deposition that reduces channel capacity in other areas. One goal with six objectives, as listed in Table 2-2, has been developed to guide the identification and development of SMMP projects.

Table 2-2: Erosion and Sedimentation Goal and Objectives

Goal: Reduce or manage erosion and sedimentation in a manner that is compatible with other stream resources.	
Objective Statement	Focus of the Objective
A. Implement improvements necessary to eliminate or mitigate the effects of erosion and sedimentation on flooding, water quality, and native habitats.	Develop stormwater detention, grade control, and bank stabilization strategies to minimize streambed erosion and undesirable sediment accumulation.
B. Develop long-term strategies as needed to streamline the permitting of sediment removal required to meet the flood protection and sediment objectives.	Develop projects that incorporate sediment management strategies, and environmentally sensitive approaches such as biotechnical bank stabilization, meandering channels, shade, connectivity, wildlife and fish passage.
C. Conduct sediment management and maintenance activities on flood protection facilities in a manner that allows conveyance of design flows while supporting natural ecosystem functions to the greatest extent possible.	Develop maintenance and operations approaches that consider environmental constraints such as protection of endangered or threatened species, provide for control of invasive vegetation, and coordinate with recreational programs.

2.3.3 Water Supply

Zone 7 is a water wholesaler that supplies treated water to cities and retail water agencies for municipal and industrial use and untreated water for irrigation to vintners, golf courses and other small users in the Valley. Several of the arroyos and the Chain of Lakes are used for conveyance of untreated water supplies and recharge of groundwater supplies, providing a direct connection between water supply and stream management. As a result, one water supply goal, with six objectives, as listed in Table 2-3, has been developed to guide the identification and development SMMP projects.

Table 2-3: Water Supply Goal and Objectives

Goal: Provide adequate conveyance of water for recharge and storage needs.	
Objective Statement	Focus of the Objective
A. Maintain adequate recharge capacity in average and drought years in Arroyo del Valle, Arroyo Mocho and Chain of Lakes to comply with Zone 7 groundwater management strategies.	Consider recharge requirements into projects developed to meet flood and drainage, and environment and habitat goals.
B. Maximize potable source water storage and recharge potential in Chain of Lakes.	Convey water into and through the Chain of Lakes in a manner that utilizes the storage volume created by the mining activities.
C. Maximize storage of non-potable supplies in Chain of Lakes, as appropriate.	Assess the feasibility of utilizing one or more of the Chain of Lakes for the storage of non-potable supplies such as recycled water or stormwater.
D. Coordinate storage and recharge strategies with plans for delivery of potable and non-potable water.	Coordinate Zone 7 efforts related to non-potable and potable master plans; coordinate activities with retail water agencies and Vision 2010 planning efforts.
E. Maintain streams and Chain of Lakes to accomplish storage and recharge objectives.	Identify operation and maintenance conditions that limit the ability to meet conveyance, recharge, and storage objectives; develop long-term strategies to properly meet water supply objectives.
F. Provide adequate water quantity to sustain native fisheries and other aquatic life.	Manage water supply including recharge and storage in a manner that supports seasonal habitat requirements.

2.3.4 Water Quality

Part of Zone 7's mission is to provide a reliable supply of high quality water to its customers. However, water quality issues related to the streams and arroyos address not only water supply quality, but also in stream water quality and the quality of runoff from urban and non-urban sources draining into the streams and arroyos. One water quality goal, with six objectives has been developed to address the different water quality issues and guide the identification and development of SMMP projects. The water quality goals and objectives are presented in Table 2-4.

Table 2-4: Water Quality Goal and Objectives

Goal: Protect and enhance water quality of streams and groundwater.	
Objective Statement	Focus of the Objective
A. Protect surface and groundwater supplies.	Monitor stream water quality to protect recharge zones, reservoirs and streams; detect conditions that may adversely affect stream water quality conditions such as leaking sewers, sewer overflows, and runoff from urban and non-urban sources.
B. Coordinate with local and regional agencies to facilitate compliance with state and federal non-point source NPDES requirements.	Support Alameda Countywide Clean Water program and local agencies to implement best management practices (BMPs) to manage introduction of stormwater pollutants in streams and arroyos, and identify and address non-urban sources of water quality pollution.
C. Minimize erosion and sediment accumulation in streams.	Prevent excess contribution of sediment from channel or upland erosion; protect natural gravel beds from being clogged by fine sediment; control and remove excess in-channel sediment as necessary; develop a long-term approach to sediment management.
D. Coordinate with local and regional agencies to eliminate impaired water body designations.	Support development of TMDLs and strategies to reduce pollutants.
E. Provide adequate water quality to sustain native fisheries and other aquatic life.	Manage pollutants, including temperature, sediments, and pesticides, to support seasonal habitat requirements.
F. Maintain streams and Chain of Lakes to meet above requirements.	Identify operations and maintenance conditions that inhibit the ability to meeting water quality objectives; develop long-term strategies to fulfill water quality objectives.

2.3.5 Habitat and Environment

Part of Zone 7's mission is to manage water resources in an environmentally sensitive manner. Zone 7 shares the responsibility for environmental stewardship with other local and regional agencies. For the SMMP, one goal and six objectives have been developed for habitat and environment, as shown in Table 2-5.

Table 2-5: Habitat and Environmental Goal and Objectives

Goal: Protect and enhance aquatic and riparian habitat associated with streams and wetlands.	
Objective Statement	Focus of the Objective
A. Integrate environmental and habitat requirements into projected water management practices.	Provide water quantity and quality to sustain native fisheries and other aquatic life; manage flow regimes, water temperature, and passage in a manner that considers environmental & habitat requirements and constraints.
B. Promote sustainable, native habitats wherever possible.	Inventory and protect existing natural habitats; identify opportunities for restoration and enhancement; identify and protect habitats that support threatened and endangered species; and identify and restore, where appropriate, habitats affected by non-native invasive species.
C. Preserve and enhance stream buffers and riparian areas.	Identify remaining stream buffers and riparian areas for preservation and candidate areas that can be restored to a more natural function; develop riparian areas to provide shade for habitat improvement; work with local agencies to develop policies for protecting stream buffers and setbacks.
D. Protect existing and create new wetlands for multiple use.	Identify existing wetland habitat; identify and promote wetland creation for multiple benefits including flood protection, habitat enhancement, water quality enhancement, and recreation.
E. Promote environmentally sensitive sediment removal practices.	Develop a long term approach to sediment removal practices with corresponding environmental mitigation actions.
F. Maintain streams and Chain of Lakes to meet above objectives.	Develop long term approach to maintenance activities that addresses environment and habitat issues.

2.3.6 Trails, Recreation, and Public Education

The streams and arroyos in the Zone 7 service area provide a unique opportunity for local park and recreation agencies to provide recreation and public education. A recreation goal with seven objectives, outlined in Table 2-6, has been developed to help guide the identification and development of SMMP projects.

Table 2-6: Trails, Recreation, and Public Education Goal and Objectives

Goal: Promote recreational, alternative transportation, and public education opportunities along streams and the Chain of Lakes.	
Objective Statement	Focus of the Objective
A. Promote community involvement in stream stewardship.	Coordinate with local agencies, organizations, and the public to encourage participation in planning, prioritizing, and implementing projects related to the streams and arroyos.
B. Provide educational opportunities for students and the general public.	Provide interpretive resources along streams and arroyos; develop public outreach materials for residents outlining stream management projects; support programs of environmental education and stream stewardship for grade school, high school and community college students.
C. Cooperate with local and regional agencies to implement appropriate recreational features along streams and the Chain of Lakes.	Provide appropriate recreational features to encourage public appreciation of the natural environment without constraining, or adversely affecting the natural environment, or flood protection function of streams and arroyos.
D. Promote trails and recreational features that provide connectivity to existing or future planned trails, and recreational areas or facilities.	Work with local and regional agencies to expand regional trails to provide connectivity between regional and local trail systems, transit centers, job centers, schools and neighborhoods.
E. Protect or enhance visual resources along streams.	Identify and accommodate public concerns for stream and riparian aesthetics within the range of ecologically appropriate improvements.
F. Incorporate public safety measures into recreational features along streams and Chain of Lakes.	Work with local agencies to identify appropriate public access points to streams and the Chain of Lakes; limit access to inappropriate or potentially unsafe areas.
G. Promote the expansion of trails to develop alternative, non-motorized transportation corridors along the streams and arroyos.	Work with local and regional agencies and local and regional stakeholder groups to identify key alternative transportation corridors that provide connectivity between transit centers, job centers, neighborhoods, and schools.