2.0 GOALS AND OBJECTIVES

Defining the goals and objectives of the FISH Plan was the first step in developing this restoration plan. Combined with the Baseline Report, this restoration process can be identified, and restoration projects can be developed.

2.1. DECISION PROCESS

Representatives of approximately 25 organizations voluntarily collaborated to reach agreement, through consensus-based decision-making on the desired outcomes, goals, and objectives for fish and aquatic habitat in the lower American River, as well as recommendations regarding restoration actions and directed research. Attainment of these objectives, however, may require action by organizations in addition to those who have participated in the FWG.

The goals of the FISH Plan focus on enhancing and restoring lower American River fisheries, aquatic, and riparian habitat values. Although ecosystem attributes are included among the objectives under these goals, ecosystem structure, functions, and processes are addressed within the context of the regulated lower American River system. Habitat restoration, in this context, is an effort to improve the health of the river's fisheries and aquatic and riparian habitat, while recognizing fundamental constraints currently present in the system. Although the goals and objectives target enhancing lower American River conditions for the fish species of priority management concern, valuable biotic and abiotic interactions also will be protected through these efforts.

2.2. DESIRED OUTCOMES FOR SPECIES OF PRIORITY MANAGEMENT CONCERN

Several documents were referenced in the development of the desired outcomes, related goals, and objectives for species of priority management concern. The primary documents relied upon were:

- Convening Report for the FISH Working Group (2000);
- CalFed Ecosystem Restoration Program Plan (2000);
- CalFed Lower American River Technical Team Report (1997);
- U.S. Fish and Wildlife Service Anadromous Fish Restoration Program Working Paper on Restoration Needs (1995);
- U.S. Fish and Wildlife Service Final Restoration Plan for the Anadromous Fish Restoration Program (2000);
- California Department of Fish and Game Steelhead Restoration and Management Plan for California (1996);
- Sacramento Area Flood Control Agency Floodway Management Plan for the Lower American River (1998);
- California Department of Fish and Game Restoring Central Valley Streams: A Plan for Action (1993); and
- Habitat Management Element of the Water Forum Agreement (2000).

The desired outcomes, goals, and objectives herein are consistent with those contained in the above documents.

The goals and objectives for each species are based on the stressors that are negatively affecting them, as identified and extensively described in the *Baseline Report*.

2.2.1. INCREASE AND MAINTAIN VIABLE POPULATIONS OF NATURALLY SPAWNING FALL-RUN CHINOOK SALMON AND STEELHEAD

GOALS

To achieve the desired outcomes for fall-run chinook salmon and steelhead, goals were developed based on providing appropriate ecosystem processes and reducing losses for these fish species by lifestage.

- Provide appropriate spawning/incubation habitat quality and quantity.
- Provide appropriate rearing habitat quality and quantity.
- Provide appropriate juvenile outmigration conditions.
- Provide appropriate adult upstream migration conditions.
- Ensure that instream harvest is consistent with maintaining viable instream spawning salmonid populations.
- Ensure hatchery management is consistent with maintaining viable instream spawning salmonid populations.
- Reduce adverse effects of water diversions.

OBJECTIVES

Objectives were established to achieve the goals based on ecosystem attributes and to alleviate the identified stressors. These objectives include:

- Establish diverse and healthy in-channel habitat.
- Optimize seasonal flow management in the river.
- Establish an optimal seasonal temperature regime in the river.
- Ensure adequate water quality.
- Influence geomorphic processes within the floodplain to optimize habitat.
- Reduce the potential for stranding.
- Protect and restore riparian habitat.
- Maintain appropriate harvest management strategies.
- Maintain appropriate hatchery management strategies consistent with hatchery mitigation requirements.
- Reduce losses of juvenile salmon and steelhead due to entrainment and/or impingement at water intake structures.

2.2.2. ACHIEVE AND MAINTAIN A VIABLE POPULATION OF SPLITTAIL

GOALS

To achieve the desired outcomes for splittail, goals were developed based on providing appropriate ecosystem processes and reducing losses by lifestage.

- Provide appropriate spawning and rearing habitat quality and quantity.
- Reduce adverse effects of water diversions.

OBJECTIVES

Objectives were established to achieve the goals based on ecosystem attributes and to alleviate the identified stressors. These objectives include:

- Establish diverse and healthy in-channel habitat.
- Influence geomorphic processes within the floodplain to optimize habitat.
- Reduce the potential for stranding.
- Optimize seasonal flow management within the river.
- Ensure adequate water quality.
- Protect and restore riparian habitat.
- Reduce losses of juvenile splittail due to entrainment and/or impingement at water intake structures.

2.2.3. RESTORE OR MAINTAIN AN APPROPRIATE DISTRIBUTION AND ABUNDANCE OF OTHER NATIVE FISH SPECIES

GOALS

To achieve the desired outcomes for other native fish species, goals were developed based on providing appropriate ecosystem processes and reducing losses for these fish species by lifestage.

- Provide appropriate spawning and rearing habitat quality and quantity for other native fish.
- Reduce adverse effects of water diversions.

OBJECTIVES

Objectives were established to achieve the goals based on ecosystem attributes and to alleviate the identified stressors. These objectives include:

- Establish diverse and healthy in-channel habitat.
- Influence geomorphic processes within the floodplain to optimize habitat.
- Reduce the potential for stranding.
- Optimize seasonal flow management within the river.
- Ensure adequate water quality.
- Protect and restore riparian habitat.

- Reduce losses of other juvenile native fish due to entrainment and/or impingement at water intake structures.

2.2.4. MAINTAIN AMERICAN SHAD AND STRIPED BASS POPULATIONS OF SUFFICIENT ABUNDANCE TO SUSTAIN FISHERIES, CONSISTENT WITH RESTORING NATIVE SPECIES

GOALS

To achieve the desired outcomes for American shad and striped bass populations, goals were developed based on providing appropriate ecosystem processes and reducing losses for these fish species by lifestage.

- Provide appropriate spawning (American shad) and rearing (striped bass) habitat quality and quantity.
- Reduce adverse effects of water diversions.

OBJECTIVES

Objectives were established to achieve the goals based on ecosystem attributes and to alleviate the identified stressors. These objectives include:

- Establish diverse and healthy in-channel habitat.
- Influence geomorphic processes within the floodplain to optimize habitat.
- Reduce the potential for stranding.
- Optimize seasonal flow management within the river.
- Ensure adequate water quality.
- Protect and restore riparian habitat.
- Reduce losses of juvenile American shad, and striped bass due to entrainment and/or impingement at water intake structures.