

ECOSYSTEM QUALITY PROBLEMS

The Bay-Delta system no longer supports a broad diversity of habitats nor the and habitat quality necessary to ensure those ecological functions necessary to sustain healthy populations and communities of plants and animals. For that reason the problem statements are expressed in terms of limitations in important habitats of desirable plant and animal species that use the Bay-Delta ecosystem for at least a portion of their life-cycles. Some species reside in San Francisco Bay as adults and use Delta habitats for spawning and juvenile rearing (e.g., longfin smelt). Other species (e.g., salmonids) spawn upstream of the Delta and reside as adults in the Pacific Ocean but must travel through the Delta and Bay during juvenile outmigration and adult inmigration. Limitations in Delta habitat affect these and other species in various ways.

The CALFED Bay-Delta Program seeks to use an ecosystem approach to fixing habitat problems in the Bay-Delta ecosystem. An ecosystem approach entails addressing the underlying causes of ecosystem degradation through protecting, enhancing, and restoring important habitats.

Important species of fish, animals, plants, and other life-forms are identified in the problem statements as examples of the organisms adversely affected by the named habitat problems. The health and sustainability of individual species and species communities residing in the Delta or Bay will be used as health indicators to judge the success of the CALFED, Bay-Delta Program in resolving habitat problems. The evidence shows that better habitat generally leads to more abundance of species. For example, recovery of populations of resident species (e.g. Delta smelt) and anadromous species (e.g. Chinook salmon) that use the Delta would indicate that improvements to Delta habitats had been successful.