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Abstract

Before 1980, little scientific information was available to set water quality standards for the protection of the fish and invertebrates of San Francisco and San Pablo bays. In 1979, the Interagency Ecological Program (IEP) designed a plan to collect biological and physical data from South San Francisco Bay to the west delta. The State Water Resources Control Board (SWCRB) approved this plan and the Bay-Delta Division of the California Department of Fish and Game (CDFG), operating as part of the IEP, set the plan in action. The objective of the study was to determine the effects of freshwater outflow from the delta on the abundance and distribution of marine and estuarine fishes, shrimps, and crabs and use this knowledge to understand the volume and timing of freshwater outflow that is necessary for their well-being. In 1984, the U.S. Geological Survey started a hydrodynamic study of currents and salinity fluxes in the estuary (Smith and others 1995). The hydrodynamic data will eventually be useful in understanding the distribution and movements of fish and invertebrates.

This report presents data collected by the study on the abundance and distribution of selected organisms from 1980 to 1995 (shrimp and crab data extend to 1996). It is restricted mainly to presentation and description of the data. More detailed analyses will appear in subsequent reports and papers, although some have already been done for SWRCB Water Rights Hearings (CDFG 1987, 1992).



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by

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A Cooperative Program of the

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US Army Corps of Engineers

California Department of Fish and Game
US Fish and Wildlife Service
US Geological Survey
US Environmental Protection Agency

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