



The hydraulic model is a scientific tool used by engineers to analyze hydraulics problems that cannot be resolved from text books, experience or mathematical treatment alone. It provides a better understanding of natural occurrences and demonstrates whether hydraulic structures will accomplish the desired results prior to actual construction of such works.

The hydraulic model of the San Francisco Bay and Delta is built to a horizontal scale of 1 ft = 1,000 ft and a vertical scale of 1 ft = 100 ft. The limits extend from Alviso to Napa and from the Pacific Ocean to the vicinity of Sacramento, Stockton and Tracy.

Although the model does not look exactly like the real Bay, its action is similar in reproducing to proper scale the

rise and fall of the tide, flow and currents of the water, mixing of fresh and salt water, and in indicating trends in the disposition of sediments. The engineer is able in the laboratory to examine conveniently to scale the physical forces existing in the Bay and, from model experiments, analyze what would happen should man-made changes be made in the Bay itself.

The model study is part of a comprehensive engineering investigation of the entire Bay area first authorized by Congress in 1950; after approval of a preliminary report, funds were appropriated to begin the present study in 1954. The existing warehouse was altered in 1955 to shelter the model and actual model construction began in March of 1956. That portion of the model extending east to Antioch,

at the head of Suisun Bay, was completed in 1957.

A further authorization for additional studies on water quality and waste disposal resulted in the addition of the Sacramento-San Joaquin Delta to the original model. This work was completed in 1969.

The major emphasis in future studies will be on environmental quality, as affected by fill, pollution, and fresh water flows; the dispersion of pollutants from all drainage areas, including the Central Valley; and methods to alleviate problems of salt water intrusion into the Delta.

The model is open to the public Monday through Friday from 9:00 a.m. to 4:00 p.m. Groups may arrange conducted tours by phoning 332-3870.