

DLIS bases risk on false flow summary data:

DLIS risk of flood or levee damage was based upon the false and/or incomplete baseline data from DRMS Phase 1 technical data, which was then partially updated by use of more current flow data that has been shown to contain gaps in time in flows, incorrect calculations of flows at flood times, missing flow data, and as the map below shows, some of the gaging stations were simply not included in the data compilation without explanation, such as the flow station for Sutter Island and several flow stations along the Sacramento River which are very important for an accurate understanding of true North Delta hydrology. Stage recurrence equations that fail to include actual or accurate overall flow data will understate flows. Use of flow data from stations that are listed below, but the flow data has been shown to contain gaps during the study period, will also tend to understate or overstate actual flow which would impact reported outcome of the stage-recurrence equations and flood risk.



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location, and the magnitude of the tidal influence. A stage-recurrence curve can be developed from a discharge-recurrence curve and the hydraulic flow characteristics at the location of interest, or from direct stage measurements obtained over several years.

For the levee risk analysis undertaken in the DLIS study, the stage-recurrence equations presented in the DRMS study (DWR 2008b) have been extended to develop stage-recurrence curves for every Delta and Suisun Marsh island and tract. The DRMS investigators used a simplified model of channel hydraulic characteristics and multiple regression methods to develop equations that relate Delta inflow and tide level to water level at 15 gauging stations in the Delta (Figure 3 and Table 5). The equations are listed below. Equation (1) applies to the Lisbon and Freeport stations and equation (2) applies to all other stations. Equation coefficients developed by the DRMS investigators are shown in Table 4. Gauging station names are shown in Table 5.

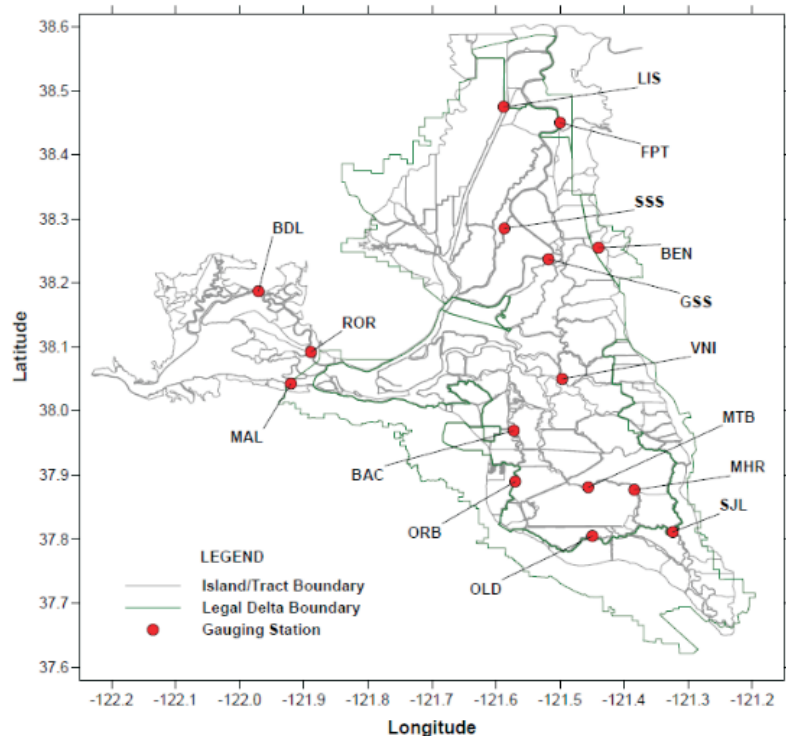


Figure 4-3 Gauging Stations

(Source: DAR 2008b)