

VI - HYDROLOGIC FORECASTS

6-01 General. There are no official hydrologic forecasts made by the U.S. Army Corps of Engineers or the National Weather Service (NWS) for Fullerton Dam. Fullerton Creek water quality is not predicted by any agency.

a. Role of Corps of Engineers. Although no formal hydrologic forecasts are made for Fullerton Dam, the Corps of Engineers does carefully monitor conditions at the dam and makes a general forecast of inflow to the dam for floodflow regulation as needed. Any significant change in hydrologic conditions at the dam will prompt the LAD to notify pertinent agencies (see pl. 5-08), and coordinate with them when necessary.

The LAD Meteorologist prepares quantitative precipitation forecasts (QPF), when significant rain is forecast in any region of the district. The Fullerton-Brea area is one of the subareas for which an individual forecast is prepared. The QPF assists in estimating the severity of the upcoming event, and in scheduling personnel to man affected LAD facilities.

b. Role of Other Agencies. No other agency currently prepares forecasts of inflow to Fullerton Dam. The LAD does receive real-time weather reports and forecasts from the NWS. This is accomplished primarily by means of weather facsimile pictures and text forecasts received at the District Office.

Historical precipitation and streamflow data are available from the OCEMA, NWS, USGS, and others. These data, while not of use in real-time, are important to studies of historical storms and floods that aid in the development and refinement of computerized rainfall-runoff forecast models.

6-02 Flood Condition Forecasts. Forecasts of flood hydrographs are not currently made. The LAD does collect inflow, precipitation and downstream flow conditions to provide a general prediction of flood situations.

The time of concentration (T_c) on the 5 square mile watershed above Fullerton Dam is approximately 30 minutes. In order to define rapidly changing conditions, reports from the dam tender may be requested as often as every 5 minutes.

Four miles downstream of Fullerton Dam is the Fullerton Creek at Richmond Avenue (FCKR) stream gauge. This gauge is of value because of the potential for flooding caused solely by local runoff. Under conditions of local flooding, it would be imprudent to continue making releases from Fullerton Dam. Travel time from the dam to this gauge is approximately 20-30 minutes. These generally short lead times warrant careful monitoring of the dam's surrounding conditions to recognize a potential downstream flood condition. It is not possible to make long-range hydrologic forecasts, except for forecasts based on forecasted rainfall.