

V - FLOOD NOTIFICATION AND COORDINATION PLAN

5-01 Hydrologic Data Gathering Network. The current network of hydrologic data gathering facilities established in the Santa Ana River watershed will be utilized to provide real time information during the period of construction. The existing network consists of gages that monitor and collect precipitation, stream flow, and reservoir water surface elevation (WSE) data. Plate 5-01 shows the locations of water surface elevation, and stream, gages pertinent to the operation of Prado Dam. Precipitation gages pertinent to Prado Dam's operation are shown on Plate 5-02. Hydrometeorological data measured at the dam and other gages are transmitted to the Los Angeles District, Corps of Engineers by the Los Angeles Telemetry System (LATS).

The telemetry system is an event-reporting system in which the stations automatically report when a threshold is reached. The current threshold for reporting is every 0.04 inches of rain for rain gages and ± 0.25 feet for reservoir and stream level gages. Whenever a threshold is exceeded, the station sends a report via an FM radio signal to one of the Southern California radio repeaters located at Pleasants Peak, Mt. Disappointment, or Keller Peak. The receiving repeater then relays the report via microwave transmission to receivers located at the Federal Building in downtown Los Angeles and at the Corps Baseyard in El Monte, California. Data received at the Baseyard is primarily utilized internally by the LATS Central computer. Data received at the Federal Building is transferred to data collection computers at the Los Angeles District Office via a dedicated T1 circuit. The data collection computers then decode the messages and make them available for storage in HECDSS files. Summary reports of telemetry values are updated periodically and are available for viewing via the main menu on the water control data system computer or via the Reservoir Regulation Section Web Page. The locations of the hydrometeorological instrumentation at Prado Dam are shown on Plate 5-01.

The Reservoir Operation Center (ROC) also uses a voice radio communication network to talk to the dam tender at Prado Dam. The dam tender observes precipitation,

the water surface elevation of the reservoir, the water stage elevation at the downstream gage, and gate settings at Prado Dam and reports the observations to the ROC. During flood control operations, staff within the ROC set the reporting intervals for the dam tender to take and report these observations.

5-02. Notification and Coordination Plan. During storm operations, Reservoir Operation Center (ROC) personnel notify all private and public agencies affected by the operation of LAD projects, which includes Prado Dam. These notifications pertain to the possibility of flooding in a basin and anticipated changes in reservoir releases. The notifications facilitate the coordination of reservoir operations with other LAD organizations, and other Federal and local government agencies with water conservation, flood control, and public safety related responsibilities.

The ROC maintains a list of these agencies and organizations, which are contained in an annual LAD publication, entitled “Instructions for Reservoir Operations Center Personnel”(also known as the “Orange Book”), and in an electronic file used for making actual notifications (“Electronic Orange Book”). The ROC also maintains a “Restrictions List” of notifications to be made for temporary conditions. This list contains notifications and individual organizations engaging in temporary activities, such as contractors working in areas that could be affected by reservoir operations. The “Electronic Orange Book” also includes the “Restrictions List” notifications. In preparation for the flood season each year, ROC personnel meet with the different local government, other Corps organizations and other Federal agencies. For Prado Dam, a coordination meeting between the Corps of Engineers, the National Weather Service, the Orange County Department of Public Facilities and Resource Department (OCPFRD), the Orange County Water District (OCWD) and other agencies is held annually at the OCPFRD maintenance yard in the city of Anaheim. Issues that affect the operation of the dam, including the activities of the local agencies are discussed in this meeting.

OCPFRD staff patrols the Santa Ana River during storm events. These staff provide channel observations of the Santa Ana River when requested by the ROC.

Problem areas are reported by the OCPFRD to the ROC. Over the past few years, the Orange County Sanitation District's (OCSD) SARI line has shown signs of stress from the high flows on the Santa Ana River. A study performed recently by OCSD has identified segments of the SARI line that could be exposed and damaged by significant discharge. These segments are shown on Plate 5-03 of this manual.

Due to the increased releases in the plan contained in this document, the changing conditions of the dam, and of the river channel, the implementation of the water control plan will rely on close coordination between the ROC and the local agencies, such as the OCPFRD and OCSD, and the Corps construction field office prior to and during storm events. Known constrictions and necessary notifications and coordination will be included in the "Orange Book", and the "Electronic Orange Book will be updated as necessary. As part of the Reservoir Regulation Section's preparation prior to each flood season, coordination with OCFPRD, OCSD and other agencies will be made to focus on the conditions of the channel and the dam construction. Established procedures in notifications, monitoring and reporting will be modified, if necessary, to take into account changed conditions in the channel and the dam.

5-03. Downstream Evacuation. The current Prado Dam Emergency Action Plan was prepared in November 1985, and it describes the necessary emergency actions to take when conditions at the dam result in a hazard downstream. When warranted, flood-warning notifications will be issued by Los Angeles District personnel to local agencies, emergency officials, and key personnel within the Los Angeles District and South Pacific Division Offices. The notifications list is part of the annually updated "Instructions for Reservoir Operations Center Personnel" (the "Orange Book"), and includes the names and telephone numbers of local emergency officials in the event that an evacuation of downstream areas becomes necessary. Additionally, Corps of Engineers Los Angeles District observation teams may be notified to conduct field observations. Local emergency planning officials will be responsible for developing and implementing evacuation plans. A meeting may be held with local officials and the contractors to provide guidance on how the inundation maps may be used in evacuation planning and to

answer any questions regarding the Emergency Action Plan. A meeting may also be held prior to construction each flood season to define the responsibilities of key personnel. Should severe weather conditions result in the need for emergency action at the construction site, the Resident Engineer will coordinate with the Contracting Officer as to appropriate procedures to follow for the situation. The Contracting Officer, along with the advice of his technical staff will decide on the proper course of action with respect to construction activity.

The Emergency Action Plan document also includes inundation mapping for the areas upstream and downstream of the dam. The downstream inundation maps indicate the areas, which would be flooded under the assumed condition of a dam breach with the reservoir water surface at the current spillway crest elevation of 543.0 feet, NGVD. The downstream inundation maps are annotated with information that includes time of arrival of floodwaters, time of the peak water surface elevation, and the average overbank depth at various distances from the dam. The delineated upstream flooding area is based upon an event that has completely filled the dam to its top of embankment elevation of 566 feet, NGVD. Preparation of the maps does not reflect on the safety or integrity of Prado Dam. These maps have been prepared as part of a national program to prepare similar maps for all Federal Dams. They provide a basis for evaluating existing evacuation plans for the affected areas and development of any further plans which are needed. As stated in the Phase II GDM, the existing maps are sufficient to meet the needs of the Interim Water Control Plan during construction. Mapping of the downstream overflow areas are shown on Plates 5-04 through 5-10, and the upstream inundation map is shown on Plate 5-11.