I - INTRODUCTION

1-01 Authorization

This Santa Fe Dam Water Control Manual was prepared in compliance with the following directives: Engineering Regulation (ER) 1110-2-240, "Engineering & Design, Water Control Management", dated 08 October 1982; Engineering manual (EM) 1110-2-3600, "Engineering and Design, Management of Water Control Systems," dated 30 November 1987; and engineering Technical Letter (ETL) 1110-2-251, "Engineering and Design, Guide for Preparing Water Control Manuals", dated 14 March 1980.

1-02 Purpose and Scope

This water control manual provides a detailed plan for regulation of Santa Fe Dam and Reservoir on the San Gabriel River for the purpose of flood control. Santa Fe Dam is located approximately 4 miles downstream of the mouth of San Gabriel Canyon, about 16 miles east-northeast of the Los Angeles Civic Center, and 3 miles west-southwest of the town of Azusa (see pl. 1-1). Major topics in this manual include: authorization, history, and description of the project; watershed characteristics; hydrometeorology; data collection and communication networks; hydrologic forecasting; the water control plan; and responsibilities and coordination for water control management.

1-03 Related Manuals and Reports

Manuals and reports with data and information relevant to the information in this manual are listed in table 1-1.

1-04 Project Owner

Santa Fe Dam and Reservoir was constructed and is owned and operated by the U.S. Army Corps of Engineers (COE), Los Angeles District (LAD).

1-05 Operating Agencies

a. LAD is responsible for the operation and maintenance of the dam, reservoir, and outlet works. The outlets are operated manually, as needed.

b. The Los Angeles County Department of Public Works (LACDPW) is responsible for the operation and maintenance of an adjacent diversion works for their water spreading facilities.

1-06 Regulating Agencies

a. LAD is responsible for developing the flood control regulation plan for Santa Fe Dam and Reservoir, and is responsible for operation of the dam.

b. LACDPW is responsible for the regulation of the diversion works for the spreading grounds, which are used for groundwater replenishment.

Table 1-1. Related Manuals and Reports.

1. U.S. Engineer office, Los Angeles, California, "Definite Project for Construction of Reservoir and Principle Flood Channels, Los Angeles County Drainage area, California, Authorized by the Flood Control Act of 1936," Approved April 1937, revised 1939.

2. U.S. Engineer Office, Los Angeles, California, "Los Angeles and San Gabriel Rivers and their Tributaries, and Ballona Creek, California", 5 February 1940.

3. U.S. Engineer Office, Los Angels, California, "San Gabriel River Improvement, Santa Fe Dam, Hydrology, Los Angeles County Drainage Area, California", December 1940.

4. U.S. Engineer Office, Los Angles, California, "San Gabriel River Improvement, Santa Fe Dam, Analysis of Design, Los Angeles County Drainage Area, California, Volume 1", April 1941.

5. U.S. Engineer Office, Los Angeles, California, "San Gabriel River Improvement, Santa Fe Dam, Analysis of Design, Los Angeles County Drainage Area, California, Volume 2", April 1941.

6. U.S. Engineer Office, Los Angeles, California, "San Gabriel River Improvement, Santa Fe Dam, Analysis of Design, Los Angeles County Drainage Area, California, Addendum A", August 1942.

7. U.S. Engineer Office, Los Angeles, California, "San Gabriel River Improvement, Santa Fe Dam and Approach Channel, Analysis of Design, Los Angeles County Drainage Rea, California Addendum B", May 1944.

Table 1-1. Related Manuals and Reports (Continued).

8. U.S. Engineer Office, Los Angeles, California, "San Gabriel River above Santa Fe Flood Control Basin, Revised Hydrology, Los Angeles County Drainage Area, California", May 20, 1944.

9. U.S. Engineer Office, Los Angeles, California, "Post War Project Statement, San Gabriel River Improvement, Santa Fe Dam; Part 1, Schedule 1, Completion of Embankment and Spillway; Schedule 2, Construction of Approach Channel; Part 2, Completion of Outlet Works; Santa Fe Dam, California", January 1946.

10. U.S. Engineer Office, Los Angeles, California, "San Gabriel River Improvement, Santa Fe Dam, Specifications for Construction of Channel and Levees, Mouth of Canyon to Santa Fe Dam", February 1947.

11. U.S. Engineer Office, Los Angeles, California, "Analysis of Design of 6' x 9' Slide Gates for Santa Fe Dam", June 1947.

12. U.S. Army Engineer District, Los Angeles, Corps of Engineers, "Operation and Maintenance Manual for Santa Fe Dam, San Gabriel River Improvement, Los Angeles County Drainage Area", July 1963.

13. U.S. Army Engineer District, Los Angeles, Corps of Engineers, "Reservoir Regulation Manual for Santa Fe Flood Control Basin, Los Angeles County Drainage Area, California (San Gabriel River)", October 1967.

14. U.S. Army Engineer District, Los Angeles, Corps of Engineers", Operation and Maintenance Manual, Los Angeles County Drainage Area Project, California", December 1975.

Table 1-1. Related manuals and Reports (Continued):

15. Cookman & Associates, "City of Irwindale Quarry Rehabilitation Plan, Phase I Basis for Planning", October 1975.

16. U.S. Army Corps of Engineers, Los Angeles District, "Interim Report on Hydrology and Hydraulic Review of Design Features of Existing Dams for LACDA Dams", June, 1978.

17. U.S. Army Corps of Engineers, Los Angeles District, "Los Angeles County Drainage Area, California (LACDA) Review, Los Angeles County, California - Part 1 Hydrology Report, Base Conditions", February 1988, revised March 1989.