

TABLE OF CONTENTS

Items	Page
CHAPTER I. INTRODUCTION	
BACKGROUND	I-1
PURPOSE AND SCOPE.....	I-2
CHAPTER II. FINDINGS OF RECENT STUDIES	
CHAPTER III. ANALYSIS APPROACH	
GENERAL APPROACH.....	III-1
SITE VISIT AND WORKING MEETING SUMMARY	III-2
ANALYSIS ORGANIZATION	III-2
CHAPTER IV. SHASTA DAM AND APPURTENANCES	
CONCRETE DAM AND WING DAMS	IV-1
DAM CREST STRUCTURE REMOVAL.....	IV-3
COFFERDAMS FOR LEFT AND RIGHT ABUTMENTS	IV-4
SPILLWAY MODIFICATIONS.....	IV-6
RIVER OUTLET MODIFICATIONS	IV-7
TEMPERATURE CONTROL DEVICE MODIFICATIONS	IV-9
PENSTOCK INTAKE MODIFICATIONS	IV-10
PENSTOCK MODIFICATIONS	IV-11
POWER PLANT MODIFICATIONS	IV-11
COMBINED– SHASTA DAM AND APPURTENANCES.....	IV-12
CHAPTER V. SHASTA RESERVOIR AREA INFRASTRUCTURE	
BUILDINGS.....	V-1
RESERVOIR BRIDGES	V-3
RESERVOIR DIKES.....	V-6
MAJOR ROADS	V-7
RAILROAD.....	V-9
OTHER RESERVOIR AREA INFRASTRUCTURE.....	V-10
COMBINED– RESERVOIR AREA INFRASTRUCTURE.....	V-11
CHAPTER VI. COMBINED SHASTA DAM AND RESERVOIR AREA INFRASTRUCTURE BREAK-POINTS	
CHAPTER VII. FINDINGS	
GENERAL.....	VII-1
DAM AND APPURTENANCES.....	VII-1

RESERVOIR AREA INFRASTRUCTURE VII-2
 COMPARISON VII-2

CHAPTER VIII. BIBLIOGRAPHY

LIST OF TABLES

Table 1 Pertinent Data – Shasta Dam and Reservoir I-3
 Table 2 Cost Index Values III-1
 Table 3 Summary of Reservoir Bridge Information V-4
 Table 4 Reservoir Infrastructure Impacts and Actions 1,070 - 1,280 ft msl..... V-12

LIST OF FIGURES

Figure 1 Area-Capacity Curves for Shasta Reservoir I-2
 Figure 2 Estimated Total First Costs for Enlarging Shasta Dam II-2
 Figure 3 Field Costs Associated with Concrete Dam and Wing Dams..... IV-3
 Figure 4 Field Costs Associated with the Removal of Dam Crest Structures..... IV-4
 Figure 5 Field Costs Associated with Cofferdams for Left and Right Abutments IV-5
 Figure 6 Field Costs Associated with Spillway Modifications IV-7
 Figure 7 Field Costs Associated with River Outlet Modifications IV-8
 Figure 8 Field Costs Associated with Modifications to the Existing TCD..... IV-9
 Figure 9 Field Costs Associated with Penstock Intake Modifications..... IV-10
 Figure 10 Field Costs Associated with Penstock Modifications..... IV-12
 Figure 11 Field Costs Associated with Raising Shasta Dam IV-13
 Figure 12 Elevation vs. Number of Buildings Impacted..... V-2
 Figure 13 Field Costs Associated with Building Relocations..... V-2
 Figure 14 Field Costs Associated with Reservoir Bridge Relocations V-6
 Figure 15 Field Costs Associated with Reservoir Dikes..... V-7
 Figure 16 Field Costs Associated with Relocation of I-5 V-9
 Figure 17 Field Costs Associated with Relocation of UPRR..... V-10
 Figure 18 Field Costs Associated with All Reservoir Area Infrastructure..... V-13
 Figure 19 Costs Associated with Raising Shasta Dam and Relocating Shasta Reservoir Area Infrastructure..... VI-1

LIST OF PLATES

Plate 1 Shasta Dam and Power Plant Plan
 Plate 2 Shasta Dam and Power Plant Elevations and Sections
 Plate 3 Pit River Bridge
 Plate 4 Bridge and Dam Locations
 Plate 5 Reservoir Dike Locations

APPENDIX

Break-Point Analysis Site Visit Memorandum