# TABLE OF CONTENTS


SECTION PAGE

**Executive Summary** ..... **ES-1**

ACKNOWLEDGMENTS ..... vi
GLOSSARY ..... xi
LIST OF ACRONYMS ..... xiv

**1. Introduction** ..... **1-1**
1.1 DELTA AND LEVEE BACKGROUND INFORMATION ..... 1-2
1.2 CURRENT DEFICIENCIES - PROBLEM STATEMENTS ..... 1-3
1.3 VISION ..... 1-4
1.4 MISSION ..... 1-5

**2. Program Elements** ..... **2-1**
2.1 DELTA LEVEE BASE LEVEL PROTECTION PLAN ..... 2-1
2.1.1 Introduction ..... 2-1
2.1.2 Scope ..... 2-1
2.1.3 Criteria and Project Approval ..... 2-3
2.1.4 Agreements ..... 2-3
2.1.5 Project Priority ..... 2-4
2.1.6 Maintenance ..... 2-4
2.1.7 Oversight and Inspections ..... 2-4
2.1.8 Emergency Response ..... 2-5
2.2 DELTA LEVEE SPECIAL IMPROVEMENT PROJECTS ..... 2-5
2.2.1 Introduction ..... 2-5
2.2.2 Scope ..... 2-5
2.2.3 Project Priority ..... 2-6
2.2.4 Approval of Plans for Special Improvement Projects ..... 2-7
2.2.5 Execution of Plans ..... 2-7
2.2.6 Maintenance ..... 2-8
2.3 DELTA LEVEE SUBSIDENCE CONTROL PLAN ..... 2-9
2.3.1 Introduction ..... 2-9
2.3.2 Background ..... 2-9
2.3.3 Remedial Action and Prevention ..... 2-10
2.3.4 Current Program ..... 2-10
2.3.5 Proposed Program ..... 2-11
2.4 DELTA LEVEE EMERGENCY MANAGEMENT AND RESPONSE PLAN ..... 2-12
2.4.1 Introduction ..... 2-12
2.4.2 Background ..... 2-12
2.4.3 Current Program ..... 2-12
2.4.4 Proposed Program ..... 2-14

# TABLE OF CONTENTS (CONTINUED)


SECTION PAGE

2.5 DELTA LEVEE RISK ASSESSMENT AND RISK MANAGEMENT STRATEGY ..... 2-16
2.5.1 Introduction ..... 2-16
2.5.2 Past and Present Efforts ..... 2-17
2.5.3 Proposed Risk Assessment ..... 2-17

**3. Sea-Level Rise ..... 3-1**
3.1 INTRODUCTION ..... 3-1
3.2 ATMOSPHERIC WARMING AND SEA-LEVEL RISE ..... 3-1
3.2.1 Melting Glaciers and Sea-Level Rise ..... 3-2
3.2.2 Measuring the Amount of Sea-Level Rise ..... 3-3
3.2.3 Effects on the Bay-Delta System ..... 3-4
3.2.4 Effects on Delta Levees ..... 3-5
3.3 CONCLUSIONS AND RECOMMENDATIONS ..... 3-5

**4. Ecosystem Restoration Program/Levee Program Coordination ..... 4-1**
4.1 CURRENT PROGRAM ..... 4-2
4.2 PROPOSED PROGRAM ..... 4-2

**5. Permit Coordination ..... 5-1**

**6. Linkages ..... 6-1**

**7. Adaptive Management ..... 7-1**

**8. Monitoring and Research ..... 8-1**

**9. Cost Estimate ..... 9-1**
9.1 DELTA LEVEE BASE LEVEL PROTECTION PLAN ..... 9-1
9.1.1 Assumptions ..... 9-1
9.2 DELTA LEVEE SPECIAL IMPROVEMENT PROJECTS ..... 9-2
9.2.1 Assumptions ..... 9-2
9.3 DELTA LEVEE SUBSIDENCE CONTROL ..... 9-2
9.3.1 Assumptions ..... 9-2
9.4 DELTA LEVEE EMERGENCY MANAGEMENT AND RESPONSE PLAN ..... 9-3
9.4.1 Assumptions ..... 9-3
9.5 DELTA LEVEE SEISMIC RISK ASSESSMENT ..... 9-3
9.5.1 Assumptions ..... 9-3

**10. Funding ..... 10-1**
10.1 DELTA LEVEE BASE LEVEL PROTECTION PLAN FUNDING ..... 10-3
10.1.1 Current Funding Provisions ..... 10-3
10.1.2 Proposed Funding Provisions ..... 10-3

# TABLE OF CONTENTS (CONTINUED)


SECTION PAGE

10.2 DELTA LEVEE SPECIAL IMPROVEMENT PROJECT FUNDING ... 10-4
10.2.1 Current Funding Provisions ... 10-4
10.2.2 Proposed Funding Provisions ... 10-5
10.3 DELTA LEVEE SUBSIDENCE CONTROL PLAN FUNDING ... 10-5
10.3.1 Current Funding Provisions ... 10-5
10.3.2 Proposed Funding Provisions ... 10-6
10.4 DELTA LEVEE EMERGENCY MANAGEMENT AND RESPONSE PLAN FUNDING ... 10-6
10.4.1 Current Funding Provisions ... 10-6
10.4.2 Proposed Funding Provisions ... 10-6
10.5 DELTA LEVEE RISK ASSESSMENT FUNDING ... 10-6
10.5.1 Current Funding Provisions ... 10-6
10.5.2 Proposed Funding Provisions ... 10-7

**11. Stakeholder/Science Review ... 11-1**

**12. Implementation Strategy ... 12-1**

**13. Suisun Marsh Levee System ... 13-1**
13.1 INTRODUCTION ... 13-1
13.2 BACKGROUND INFORMATION ... 13-2
13.3 COST ESTIMATE ... 13-3
13.4 ANNUAL MAINTENANCE ... 13-4
13.5 ASSUMPTIONS ... 13-4
13.6 FUNDING ... 13-4