

Detailed Outline for Chapter 2

Executive Summary

Chapter 1 - Introduction

Chapter 2 - Study Area Description

2.1 History of Flood Control Facility Construction, and Operations and Maintenance

2.1.1 Sacramento River Basin

2.1.2 San Joaquin River Basin

2.2 General Regional Descriptions

2.2.1 Upper Sacramento River Region

2.2.2 Lower Sacramento River Region

2.2.3 Upper San Joaquin River Region

2.2.4 Lower San Joaquin River Region

2.2.5 Sacramento-San Joaquin Delta Region

2.3 Existing Resources Conditions

2.3.1 Physical

Topography, Geology, Soils, and Bathymetry

Geomorphology

Mining legacy

Sedimentation and erosion

Mercury/Heavy Metals Transport

Subsidence

Hydrology, River Hydraulics, and Flood Management

Detailed Outline for Chapter 2

Channel Geometry/Capacity

Routing of flood waters

Tidal effects

Groundwater

Water Quality

Air Quality

Climate and Meteorology

Prevailing wind patterns

Floodplains

Seismic conditions

2.3.2 Biological Conditions

Vegetation

Wetlands

Wildlife

Fisheries and Aquatic Resources

Special Status Species

Non-Native / Invasive species

Agriculture

Working landscapes

Multi-purpose lands

HCP/NCCP efforts

2.3.3 Social and Economic Conditions

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Population

- Existing

- Projected growth (inside and outside SPFC flood plains)

Land Use

- Existing Uses

- Land ownerships

 - Types of ownership

 - Flood easements

 - Other easements

- Limitation on development

- Small and legacy communities (subsets)

- Agriculture

- Recreation

 - Parks

 - Boating

 - Hiking/Trails

 - Other

- Tourism

- Visual Resources

- Environmental Justice

 - Farm workers

 - Education

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Subsistence Fishing

Economics

Methods of analysis

Damageable properties

Flood damages

Interaction of Flood Management and water supply
Relationship between Flood Management and
economic development

2.3.4 Cultural Resources

General history of area and sub-regions

Prehistoric Resources

Historic Resources

Community character (heritage towns)

Asian-American Heritage

Hispanic Heritage

Structures (bridges, buildings, landmarks, and other)

Native American Groups

Indian Trust Assets

2.3.5 Infrastructure

Flood Management Facilities

SPFC

Levees

Dams and Reservoirs

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Flood control structures

Pumping plants

Channels and floodways

Bypasses

Local flood control projects

Levees

Dams and Reservoirs

Flood control structures

Pumping plants

Channels and floodways

Temporary flood storage (wildlife refuges, floodplains)

Irrigation and Drainage District Information

Misc facilities

Designated floodways and flow easements &
Encroachments

Diversions, Fish Screens, and Ladders (Fish Barriers)

Transportation

Roads

Bridges

Ports

Shipping channels and Waterways

Marinas, houseboats, docks, abandoned vessels

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Railroads

Water Supply

CVP facilities

SWP facilities

Local

Environmental water

Agricultural and Irrigation Facilities

Water Supply Contamination and Intrusion

Power and Energy

Natural gas storage and conveyance

Electrical transmission

Wind farms

Utilities and Public Services

Water treatment, Sewer, and Stormwater

Communication Towers

2.3.6 Institutional

Laws and regulations (federal/state/local/regional)

Governance Structures and Responsibilities

Jurisdictional issues and distinctions

Coordination amongst disparate single-use entities

Conflict between land use and flood management

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Institutional responsibility and planning processes (e.g.,
IRWM plans, forest management plans, etc.)

Funding

Revenue generation

Relationship between governmental structure and funding

Considerations for funding

Local cost and share and indemnification

Coordination of flood operations (local, regional)

Robust and accessible telemetry system

Managing residual risks to flooding

Insurance (risk management)

Behavior modification

Hazard classification (related to FEMA maps)

2.3.7 Emergency planning, response and recovery

Flood Fighting

Escape and evacuation routes

2.4 Likely Future Challenges

2.4.1 Period of analysis

2.4.2 Impending Projects and Programs

2.4.3 Influencing Factors

Climate Change and Sea Level Raise

Population and Socio-Economic Conditions

Detailed Outline for Chapter 2

Water Needs

Land Use and Land Cover

Subsidence

Technological advances

Others

- 2.4.4 Physical Conditions (Description of physical conditions above having the potential to significantly change in the future)
- 2.4.5 Biological Resources (Description of biological conditions above having the potential to significantly change in the future)
- 2.4.6 Social and Economic Conditions (Description of social and economic conditions above having the potential to significantly change in the future)
- 2.4.7 Cultural Resources (Description of cultural resource conditions above having the potential to significantly change in the future)
- 2.4.8 Infrastructure (Description of infrastructure conditions above having the potential to significantly change in the future)
- 2.4.9 Institutional (Description of institutional conditions above having the potential to significantly change in the future)