

2.4 DELTA LEVEE EMERGENCY MANAGEMENT AND RESPONSE PLAN

The goal of the Delta Levee Emergency Management and Response Plan (Emergency Management Plan) element is to enhance existing emergency management response capabilities in order to protect critical Delta resources in the event of a disaster. More focused analysis and documentation of specific targets and actions will occur in subsequent efforts.

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2.4.1 INTRODUCTION

The existing emergency response capabilities need to be continuously refined, and funding needs to be increased. The Emergency Management Plan will build on existing state, federal, and local agency emergency management. It will propose specific actions that will improve response flexibility to ensure that appropriate resources are available and properly deployed, and provide for effective disaster recovery measures.

Table 7 lists implementation objectives, targets, and actions associated with the Emergency Management and Response Plan element.

2.4.2 BACKGROUND

The most recognizable threat to Delta islands and resources is inundation due to winter flood events. Other potential disasters that threaten these same resources include seismic events and levee failure during low-flow periods.

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Current emergency response procedures could be streamlined to reduce delays in mobilizing resources. A quick response can prevent costly levee failures. In addition, the tendency to focus emergency response measures on those sites facing imminent failure can result in neglecting actions that could prevent threatened sites from escalating into emergencies.

2.4.3 CURRENT PROGRAM

The Governor's Office of Emergency Services (OES) coordinates state agency responses. When an incident appears to potentially exceed the resources of the local responsible agency, emergency personnel conduct on-site evaluations to determine what, if any, additional emergency support is warranted. Cities and counties can proclaim local disaster events and, in general, local or maintaining agencies are first in line for responsibility to address disaster events. Although certain agencies may have resources to provide initial emergency action, typically they cannot provide a sustained effort during a large disaster event. Most local agencies do not have the resources to address major disaster events, and existing agreements may provide a means for sharing additional resources from surrounding areas. The federal government provides financial assistance through FEMA under a

presidential declaration of disaster; however, other federal agencies such as the Corps may provide assistance or resources under existing authorities.

Table 7. Implementation Objectives, Targets, and Actions Associated with the Delta Levee Emergency Management and Response Plan

| Implementation Objective | Target | Action |
|---|--|--|
| Enhance emergency response capabilities and resource allocation | Develop the capability to efficiently respond to multiple concurrent levee breaks within the Delta | Implement a comprehensive reconstruction, repair, and maintenance program for Delta levees |
| | | Review, clarify, and refine command and control protocol; develop an Integrated Response Plan in conformance with SEMS/ICS |
| | | Define agency responsibilities to ensure environmental compliance |
| | | Purchase materials in advance and place in strategic locations |
| | | Execute pre-negotiated contracts with contractors for forces and equipment to respond with short notice |
| Develop a stable funding source for emergency response | Provide funding for a well-defined Disaster Assistance Program | Clarify program eligibility, inspection, documentation, dispute resolution, auditing, and reimbursement procedures |
| | | Prepare cost estimates |
| | | Identify beneficiaries to provide equitable distribution of costs |
| | | Develop funding sources |
| Notes: | | |
| ICS = Incident Command System. | | |
| SEMS = Standardized Emergency Management System. | | |

The existing emergency management structure is designed to coordinate activities of multiple state, federal, and local agencies with varying responsibilities to provide emergency assistance in the event of a disaster. The Standardized Emergency Management System (SEMS) provides a framework for coordinating state and local government emergency response in California, using the Incident Command System (ICS) and mutual aid agreements. SEMS facilitates setting priorities, cooperation among agencies, and the efficient flow of resources and information.

2.4.4 PROPOSED PROGRAM

CALFED plans to build on the existing emergency response system. CALFED's Emergency Response Subteam determined that an effective Delta levee emergency response program should be concentrated in seven areas:

- Funding;
- Response by state and federal agencies;
- Availability of flood fight resources;
- Integrated response;
- Clarification of regulatory procedures;
- Clarification of program eligibility, inspection, documentation, auditing, and reimbursement procedures; and
- Dispute resolution.

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Funding

The vulnerability of the levee system can be reduced by implementing an integrated and comprehensive reconstruction, repair, and maintenance program for Delta levees and channels, as described and recommended under the Levee System Integrity Program. Implementation can be accomplished only by supplementing local funding capability through state and federal cost-sharing at adequate and consistent levels.

Response by State and Federal Agencies

- DWR's authority to respond should be clarified and expanded to include all instances where levees or other flood control structures are in danger of failure, regardless of whether the danger is due to storms, floods, earthquakes, rodents, vessel impacts, or any other cause. The funding for support of DWR's efforts should be ample and clearly committed for a comprehensive emergency response.

The role of the Corps also should be clarified and confirmed, to eliminate delay in response and avoid any dispute concerning whether the local and state responses are sufficient.

- DWR should be given the mandate, authority, and funding to carry out the repair of damage to Delta non-project levees due to floods, storms, and levee failure incidents—including de-watering flooded areas. All FEMA and OES funds related to such work should go directly to DWR.

Availability of Flood Fight Resources

Specialized Equipment and Operators

A revitalized levee maintenance capability under the Levee System Integrity Program will establish a fleet of specialized equipment essential to a rapid emergency response but will not ensure its availability during emergencies that can widely range in geographic extent. Pre-emergency contracting for specialized equipment will secure the availability of the equipment and experienced operators and will establish the pricing for emergency services.

Material Stockpiles

DWR (Central District) has established stockpiles for flood-fighting material (such as sandbags, plastic, stakes, light equipment, and pumps) at three locations in the north, south, and west Delta. The program should include assurance of a supply or stockpiling of sand, drain rock, and riprap.

Staffing for Emergency Assistance

Formalizing arrangements with the California Department of Forestry and Fire Prevention, as well as with the California Conservation Corps and the State Prison System, for emergency assistance should be considered.

Integrated Response

A detailed response plan should be developed for the Delta that would allow an immediate, simultaneous response to a serious incident by all levels of government within a single integrated organizational structure. The plan would identify common needs and functions of all agencies (for example, housing, food, transportation, supplies [including rock and sand], equipment, and contracted services) and would assign the most capable agency or jurisdiction to perform each action on behalf of all agencies. The detailed response plans would provide the basis for pre-identifying and assigning specific responsibilities for each agency, as well as the level of resources that the individual local agency would be expected to provide in response to the emergency. With detailed assignment of responsibilities, an organizational structure for the "area command" could be delineated to ensure that the "incident commands" were coordinated.

Clarification of Regulatory Procedures

Although both state and federal laws suspend environmental regulation during emergencies, some clarifications are desirable.

- A consistent definition of "emergency" should be developed for response and regulatory activities. It is especially important that the defined duration of the emergency be consistent for both purposes.
- Mitigation measures that are expected during post-emergency recovery work should be defined, to rapidly define and implement "appropriate" mitigation and to avoid

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unnecessary delays of post-emergency recovery work. Fish and Game Code Section 1600 outlines only general obligations.

Clarification of Program Eligibility, Inspection, Documentation, Auditing, and Reimbursement Procedures

The requirements of state and federal programs need to be standardized to be consistent with one another, be well communicated to the local agencies without delays, and avoid changes or re-interpretation during the reimbursement process.

Dispute Resolution

A binding arbitration procedure, conducted by knowledgeable but impartial arbiters, should be established. The procedure should encompass state and federal programs.

2.5 DELTA LEVEE RISK ASSESSMENT AND RISK MANAGEMENT STRATEGY

Delta levees and islands are at risk of failure from floods, seepage, subsidence, earthquakes, and other threats. The goal of the Delta Levee Risk Assessment and Risk Management Strategy is to quantify the risks to Delta levees, evaluate the consequences, and develop an appropriate risk management strategy.

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2.5.1 INTRODUCTION

Many CALFED agencies and stakeholders have voiced concern over the need to quantify Delta levee risk, to determine the consequences of failure, and to implement an appropriate risk management strategy.

The greatest threat to Delta levees is overtopping and seepage during flood flows. Since their reclamation, every Delta island has flooded at least once. Over the past 50 years, dozens of islands have flooded. Some islands have flooded many times. Some islands were never reclaimed. The vulnerability of the Delta levee system to failure during earthquakes is also a concern. Although levee failure from a seismic event has never been documented, the Delta has not experienced a significant seismic event since the levees reached their current size. The risk to Delta resources must be managed if the CALFED objectives are to be achieved. Appendix D lists the major resources in the Delta.

2.5.2 PAST AND PRESENT EFFORTS

Over the past 25 years, the existing Delta levee program has reduced the risk of flood and seepage by improving Delta levees.

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