Business Resumption Plan

2006

Department of Water Resources
State of California

Business Resumption Plan

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Arnold Schwarzenegger
Governor

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Secretary for Resources
The Resources Agency

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CONFIDENTIAL

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Foreword

Having a well planned, flexible process for the successful resumption of the Department's business functions after a disruptive event is vital. Two-thirds of the State's population and much of its agribusiness depend on our ability to provide an uninterrupted water supply.

In the past the Department has met these obligations without a documented process. However as technology advances and business functions become more complex the need for a formal response process becomes critical.

The Department has developed a comprehensive Business Resumption Plan to meet this need on a department-wide basis. This BRP establishes an overall structure and process for addressing business recovery and resumption for the Department. It establishes a process for defining business functions, necessary support, and decision-making and notification processes. It meets the requirements of the Governor's Executive Order D-3-99, executed on February 17, 1999. Division Chiefs are responsible for maintaining and exercising this plan through the coordination with the Department's Emergency Preparedness and Security Manager (EPSM).

As a State agency with major responsibilities under the State Emergency Plan, Department Administrative Orders, and Government Code Sections 8595 through 8598, the BRP is crucial for the Department to effectively restore its business in order to meet its assigned tasks. Moreover the BRP enables the Department to address its own critical needs during a crisis so it can recover to assist State and local governments, and the public.

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INTRODUCTION

The Department of Water Resources performs numerous water resources planning and management activities throughout California. In addition, the Department is responsible for protecting life and property from catastrophic events such as flood, drought, and dam or levee failure. The State Emergency Plan and Section 128 of the Water Code also give the Department certain responsibilities and authorities during State or federal emergency proclamation. Thus, the State would be greatly affected if the Department were unable to recover and resume business functions following a disaster or during an emergency. This Business Resumption Plan establishes a process that the Department will follow to recover after such events.

Structure of the Business Resumption Plan

This plan follows the Standardized Emergency Management System and defines functions, necessary support, decision-making processes, and notification processes. It contains an overall structure and process for addressing business recovery and resumption, including specific plans for critical functions and computer operations. This plan will be updated and exercised annually to ensure the Department is properly prepared for events that could affect its activities.

Major Department Responsibilities

The Department has seven major responsibilities:

1. *Plan and manage statewide water resources.* The Department is responsible for promoting California's general welfare by ensuring beneficial water use and development statewide. These principles are reflected in the Department's California Water Plan Update, which guides development and management of the State's water resources. The Department also conducts other planning functions, including those related to urban and agricultural water use, fish and wildlife, recreation, groundwater, agricultural drainage, and water quality.

2. *Develop, operate, and maintain the State Water Resources Development System.* Through the State Water Project, the Department supplies water for municipal, industrial, agricultural, and recreational uses, and for protecting and enhancing fish and wildlife.

3. *Protect the Sacramento-San Joaquin Delta.* The Department, in cooperation with other agencies, provides Delta protections by controlling salinity and providing water for use in the Delta, planning long-term solutions for environmental and water use problems, and administering Delta levee maintenance reimbursements and special flood control projects.

4. *Provide dam safety, flood management, and emergency assistance.* The Department is responsible for protecting public health, life, and property by regulating dams, providing flood protection, and responding to emergencies. The Department protects life and property by continually supervising the design, construction, enlargement, alteration, repair, removal, operation, and maintenance of more than 1,200 jurisdictional dams; encouraging preventive floodplain management; regulating activities along Central Valley floodways; maintaining and operating specific Central Valley flood control facilities; cooperating in flood control planning and facility development; providing flood advisory information to other agencies and the public; and cooperating in flood emergency activities. The State Emergency Plan and the Department Administrative Orders also identify specific emergency responsibilities for the Department.

5. *Educate the public.* The Department is responsible for educating the public on the importance of water, its proper use, and its dangers, as well as for collecting, analyzing, and distributing water-related information to the general public and to the scientific, technical, educational, and water management communities.

6. *Provide local assistance.* The Department provides technical assistance; cooperates with local agencies, groups, and individuals on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of groundwater and surface water; provides planning and advice on water recycling and desalination programs; administers local assistance grant and loan programs; facilitates voluntary water transfers; and, when needed, operates a State drought water bank and emergency drought center.

7. *Conduct statewide energy purchases under special legislation*. Governor Davis' Emergency Order of January 17, 2001, and subsequent legislation, established the mission of the California Energy Resource Scheduling (CERS) Division of the Department of Water Resources. The mission is to provide a stable and reliable energy source for the State in a cost effective and predictable manner. To accomplish this mission, CERS transacts and schedules energy purchases and deliveries, with the California Independent System Operator (CaISO), on a real-time, hour-ahead and day-ahead basis. CERS also maintains long-term energy contracts and provides accounting for settlement of all transactions associated with these contracts, as well as the short-term purchases it has made.

BUSINESS ANALYSIS

Critical Operations

The functions performed by the Department can be separated into critical, essential, and necessary tasks. Critical functions are those that must be returned to some level of operation to protect and preserve the health and welfare of the public, to provide an entitlement (as mandated by the Legislature), to minimize financial hardship, or to meet legal requirements. Generally, critical activities must be resumed within 24 hours. Essential functions are those that are not needed immediately, but will prevent the Department from carrying out its mission if they are not returned to operation within five days. Necessary functions generally need to be restored within 21 days. While loss of essential and necessary functions will inconvenience the public to some degree, this loss will not jeopardize public health or safety. Furthermore, if these functions are restored to some level of activity within specified times, they will ensure the Department meets legal requirements and minimizes potential financial hardships on the public. Either essential or necessary functions may become critical depending upon the time of year or length of disruption.

Primary responsibilities have been identified and critical and essential functions categorized. These functions are:

1. Plan and manage statewide water resources.

There are no critical or essential functions.

2. Develop, operate, and maintain the State Water Resources Development System.

Critical and essential functions are:

- Managing the State Water Project by planning, designing, constructing, operating, and maintaining facilities. Some aspects of managing the SWP are not normally critical. For example, planning and designing activities will not have to be restored within 24 hours (planning and design staff does not generally work on holidays, weekends, or nights). Other aspects of managing the SWP normally do not require that tasks be performed after regular business hours; however, such tasks can become critical if they are needed for repair work during emergencies. Construction and maintenance activities usually fall within these areas.

  One essential aspect of managing the SWP is operations. This function has two basic features: directing the operations of the SWP and controlling operations at various SWP facilities. Directing operations include: dispatching schedules to the five Area Control Centers, providing backup capability for the Area Control Centers in the event of an outage, coordinating schedules with electrical utilities through Independent System Operator and the Bureau of Reclamation, planning the long-term operations of the SWP, and determining annual water allocations for SWP contractors. Disaster response, such as for floods or chemical spills, is centrally coordinated through the SWP Project Operations.

  A second essential aspect involves controlling operations at the various SWP facilities. Operations are performed by each field division and include inspecting, monitoring, and operating facilities. SWP monitoring and control is primarily performed via the control system and communications system.

3. Protect the Sacramento-San Joaquin Delta.

Critical and essential functions are:

- Monitoring and collecting environmental and water quality data. Collection of Delta water quality data requires accumulation of a large amount of data in real-time using telemetry equipment linked to the California Data Exchange Center and/or the Bureau of Reclamation's control system for the Central Valley Project.

- Protecting Delta Levees. The Department administers the Delta Levees Subventions and Special Flood Control Projects programs that provide flood control assistance to local Delta districts for levee maintenance and improvement projects throughout the year. These activities require regular inspections of Delta levees in cooperation with local districts. During flood operations, the Department activates an operation center, under the auspices of the Division of Flood Management, to assist with Delta flood fight operations.

4. Provide dam safety, flood management, and emergency assistance.

Critical and essential functions are:

- Avoiding dam failures and preventing loss of life and property.

- Providing flood forecasting and emergency response. Flood forecasts for the major rivers of California are issued in cooperation with the National Weather Service. A Flood Operation Center is activated to provide emergency response to flood events. A key information gathering function is performed by the California Data Exchange Center. CDEC collects and disseminates real-time hydrologic data from remote sites and maintains a continuous data exchange with other water management agencies.

  The Department provides assistance to local agencies during flood mobilization, including personnel and flood fight materials for local agencies that have exhausted their resources. The Department may also request assistance from the U.S. Army Corps of Engineers if additional resources are needed. Emergency response activities during floods are coordinated through the Standardized Emergency Management System.

- Safeguarding flood protection facilities. The Department inspects the quality of maintenance and regulates encroachment on flood protection facilities in the Central Valley. This activity is done in coordination with the Reclamation Board. Other related activities include clearing sediment and vegetation; repairing damage caused by, and guarding against, erosion and subsidence; and making appropriate repairs and improvements to flood control facilities

5. Educate the public.

Critical or essential functions are:

- Providing crisis information to the public and media during emergency events. The organization responsible for addressing the disaster may provide initial response to inquiries. For example, during the initial phase of a flood, the Division of Flood Management may utilize its own staff to brief the media. The Public Affairs Office would then provide assistance as needed.

6. Provide local assistance.

Critical or essential functions are:

- Assisting local agencies with disaster avoidance, response, and recovery.
- Operating a State Drought Water Bank.
- Operating a State Drought Center during prolonged droughts.

7. *Conduct statewide energy purchases under special legislation*.

Critical or essential functions are:

- The California Energy Resource Scheduling Division is charged with securing the electrical needs (Megawatts) for the investor owned utilities. Loss of the Trade Room and its supporting computer system would jeopardize the scheduling and transacting of critical data to the CaISO for hour-ahead transactions. Depending on the time of the event, day-ahead deadlines could be in jeopardy as well. The cost to the State could be significant.

Critical Support Functions

Critical support functions enable the Department to conduct its business. In some cases, business can function for a brief period of time, but eventually, the Department will be unable to effectively carry out its mission unless these activities are restored.

- Provide fiscal services. The Department must maintain the ability to pay vendors and employees in a timely manner. This function is primarily performed by the Divisions of Fiscal Services and Management Services. Critical or essential financial activities are:

  - Accounts payable and contracts payable
  - Payroll
  - Utility cost and program cost accounting
  - Billings and receipts

- Provide communication links that will allow the Department to maintain essential internal and external communications and services with other state, federal, and local agencies. These links are necessary to coordinate emergency response, effectively operate flood control or water supply facilities, and provide information to the public. Critical communications activities are:

  - The Department's Communications Network. This network includes the control system for the SWP, Supervisory Control and Data Acquisition wide area network for the SWP, and Department's Wide Area Network.
  - Connection to the Governor's Office of Emergency Services
  - Connection to the Western Power Exchange Network. The WEPEX provides access to the Independent System Operator and Power Exchange agencies associated with the deregulated electrical industry in California.
  - Connection to the Internet
  - Connection to the U. S. Bureau of Reclamation
  - Connection to the National Weather Service
  - Connection to the U. S. Army Corps of Engineers

- Dial-up capability for the California Data Exchange Center as backup access to CDEC in the event Internet access is interrupted.
- Security of information technology data and systems

- Provide required support. This function is performed by the Department Services Office. Critical activities performed by this office are:

  - Purchase special supplies and equipment.
  - Provide mobile equipment
  - Maintain communications: telephone, cellular, portable radio, etc.
  - Provide basic supplies (paper, pencils, etc; also includes purchasing documents and forms)
  - Maintain physical security
  - Provide facilities
  - Maintain Information Technology systems (hardware and software)
  - Distribute mail

- Establish Command/Operations Centers.

- Prepare contracts. Presently, contract preparation is a collaborative effort by the division requesting the contract and the Departmental Services Office. The various types of contracts that the Department enters into are:

  - Service contracts
  - Construction contracts
  - Master service agreements
  - Interagency agreements
  - Cooperative support (this activity would probably be done up front)
  - Memorandum of Understanding

- Maintain critical personnel functions to ensure employee/family health, safety, payroll, and job responsibilities are carried out. The Personnel Office performs this function.

- Provide critical land and right of way services to secure rights of entry and to purchase property. The Division of Engineering performs this function.

IMPACT ANALYSIS

Potential Risks

All emergencies are different and do not require the same level of response. Some emergencies may have significant impacts on a specific region within the State, but may not significantly impact the Department's business. Some emergencies may affect several of the Department's functions or facilities, requiring a coordinated effort to restore critical functions. Other emergencies may be so enormous that assistance from the Governor's Office of Emergency Services will be needed to restore the Department's critical business.

The Department has not quantified the risks of each type of event. However, several observations have been made; these observations form the basis for the Department's response to different types of emergencies.

- The Joint Operations Center is presently located outside the 100-year floodplain and is not in an area known to have frequent seismic activity. It is believed to be reasonably secure from natural disasters, is easily accessible to Department staff, and is located near businesses that could provide supplies and services on short notice.

- The Department's Headquarters is presently located within the 100-year floodplain and is susceptible to flooding. The Headquarters facility, also known as the Resources Building, houses the support functions that have been identified as critical to the Department's effort to restore business functions. In the event the Resources Building becomes inaccessible or is damaged, these critical support functions will be initially restored at the Joint Operations Center. To make room for resources (personnel and supplies) for these functions, non-critical and non-essential staff located at the JOC may be displaced on a temporary basis.

- Major earthquakes affecting the Department's business are likely to occur in the San Francisco Bay Area, San Joaquin Valley, and Southern California. Such earthquakes may impact SWP operations and disrupt water delivery. If needed, Department resources could be allocated from other areas within the state to help resume water deliveries. Local agencies may need assistance in repairing water conveyance and treatment systems.

Possible Operational Impacts

Risk falls into three basic categories: impacts to business due to loss of function, loss of access to facilities, and loss of facilities.

- Loss of function means the function cannot be performed. In this case, the facility is not affected, but the function is. Examples include communications outages, power outages, or computer failure.

- Loss of access to facilities means documents, equipment, and automated functions have not been damaged or destroyed, but Department staff are unable to gain access to them. Such events can include riots, water supply or sewage leaks, hazardous materials contamination, power outages, or flooding.

- Loss of facilities means facilities have been destroyed (or damaged beyond repair) and *all* documents and equipment stored in the buildings, as well as automated functions (performed in the buildings) are lost. Examples include earthquakes, fires, and floods.

RECOVERY STRATEGY

Recovery strategies follow the Standardized Emergency Management System/Incident Command System. SEMS/ICS was established to facilitate fire fighting statewide. For more information on the structure of SEMS/ICS and the related processes, please see the State Emergency Plan, dated May 1998; the Department of Water Resources Emergency Response Plan; and the Office of Emergency Services California Specialized Training Institute approved SEMS Field Course manual.

Using the SEMS structure, the Department Business Resumption Plan establishes a Management Team, a Department Operations (command) Center, and Incident Command Posts to respond to disasters that impact the business functions of the Department. It contains function recovery action plans for critical functions.

In addition, the BRP delineates a specific process to follow when an event that may impact Department business has been identified. The following paragraphs describe the process and the teams that are established. They also define the terms used in the Function Recovery Action Plans.

BRP Activation

When an incident occurs, the Incident Commander notifies the Department Operations Center Commander. The DOC Commander then places the DOC on alert. If the incident escalates and resources are required beyond the capabilities of the local Incident Command Post, the DOC is activated and begins allocating resources. The DOC may also be activated when multiple incidents occur, requiring coordination between two or more ICPs. If the DOC is unable to allocate sufficient resources to all ICPs, it will re-evaluate the priorities for business resumption and allocate available resources accordingly. It is possible that resumption of some functions, identified as critical to the Department's business, may be delayed so that higher priority functions may be restored. For example, restoring flood fighting capability during a flood emergency event would be a higher priority than restoring the Department's ability to administer a drought water bank.

Emergency Classification and Response Strategies

The Department has developed a system for ranking emergencies and disasters; these rankings range from events that have only isolated impact on the Department's business functions to regional events that may have significant impacts. The rankings and the anticipated level of response are identified below:

- Level 1 Emergency: This type of emergency is isolated to one Department facility and affects non-critical functions (activities that do not have to be restored to some level of functionality within 24 hours).

- Level 2 Emergency: This type of emergency affects two or more Department facilities and non-critical functions.

- Level 3 Emergency: This type of emergency has an impact at a regional level; it may also require the Department to provide emergency services through the Governor's OES. However, a Level 3 Emergency does not impact critical Department functions.

- Level 4 Emergency: This type of emergency is isolated to one Department facility, but it affects a critical function. An example of a Level 4 Emergency would be water damage to the seventh floor of the Resources Building – such damage could require relocation of the Department's

Data Center. In this case, the DOC would be placed on alert and would be prepared to provide guidance and/or assistance with the relocation of the Data Center to an alternate location.

- Level 5 Emergency: This type of emergency affects two or more Department facilities and critical functions. An example of a Level 5 Emergency would be a fire in the Resources Building that requires the Department to relocate all critical functions, and critical support functions, housed in the facility. In this case, the DOC would be activated and would relocate to the JOC.

- Level 6 Emergency: This level of emergency has a regional impact and affects critical Department functions. It may also require the Department to provide emergency services through the Governor's OES. An example of a Level 6 Emergency would be a levee failure in downtown Sacramento during a flood event.

Management Team

The Management Team provides policy guidance to the DOC for business recovery and resumption. It also provides the communication linkage to the Resources Agency and the Governor. The team includes:

Director
Chief Deputy Director
Deputy Director
Deputy Director

Department Operations Center

The DOC is responsible for managing and coordinating overall recovery and resumption activities. If a disaster causes a shortage of resources, the DOC will provide guidance to the Emergency Operation Center and/or Incident Command Post for reallocating resources to higher priority functions. The DOC is commanded by the Emergency Preparedness and Security Manager. The assistants to the Chief Deputy Director and Deputy Directors are liaisons to the Management Team. Division Chiefs and Engineering Assistants serve as alternates for the EPSM. The DOC is staffed as follows:

DOC Commander:	Emergency Preparedness and Security Manager or, Assistants to the Chief Deputy Director or Deputy Directors
Deputy Commander:	Chief, Departmental Services Office
Operations Chief:	Chief, Fleet Management Office, and/or, Chief, Facilities Management Office
Planning and Intelligence Chief:	Chief, Management Analysis Office
Logistics Chief:	Chief, Contracts and Purchasing Office
Finance/Administrative Chief:	Chief, Accounting and Fiscal Systems and/or Deputy Controller

Emergency Operations Center

Manages multiple Incident Command Posts within a geographic area.

Incident Command Post

The ICP manages the site-specific response and allocates resources to achieve specific business recovery objectives. The ICP can perform its functions under a single incident command structure or a unified command structure (utilized when multiple incidents or jurisdictions are involved). Both of these methods provide direction to an Operations Section Chief, Planning and Intelligence Section Chief, Logistics Section Chief, and Finance/Administration Section Chief.

Facility/Organization Recovery Action Plans, Function Recovery Action Plans, and the Computer Operations Recovery Plan

Facility/Organization Recovery Action Plans are brief, but detailed, and are used to facilitate business recovery and resumption for specific Department organizations. These plans are contained in Appendix A.

Function Recovery Action Plans and the Computer Operations Recovery Plan facilitate business recovery and resumption for specific critical functions. Function Recovery Action Plans are contained in Appendix B. The Computer Operations Recovery Plan is contained in Appendix D.

Recovery action plans include the following sections.

- Organizational Structure: This chart identifies personnel responsible for the various aspects of the recovery plan and describes the interactions between these individuals.
    - The *Incident Commander* is responsible for establishing objectives and goals, and directing recovery activities.
    - The *Operations Chief* implements the recovery plan.
    - The *Planning and Intelligence Chief* identifies what activities and resources will be needed in the future.
    - The *Logistics Chief* organizes, tracks, and allocates resources to the tasks assigned by the Operations Chief. Resources include supplies, facilities, equipment, and personnel.
    - The *Finance/Administration Chief* ensures that activities related to the recovery plan are tracked, accounted for, and paid. Timekeeping is also this section's responsibility.
- Functions performed: This is a list of the major critical, essential, and necessary functions that are performed. The list includes a short description of how the loss of critical or essential functions would affect key programs, operations, or systems. It also includes a reference to any outside organizations or functions that, because of their interdependencies, must be available at the same time or housed in the same facility as the critical or essential functions
- General Incident Action Plan: This plan identifies actions that will be taken to facilitate business recovery. This plan prescribes actions that will be taken under most circumstances. When an incident occurs, a specific IAP must be created to address the conditions that exist at the time of

the incident. If the circumstances are similar to those covered in the general IAP, then the specific IAP can reference and implement the general IAP contained in the RAP. Either plan must include:

a. List of actions to be implemented. For the general IAP, this list will be broken down into three types of recovery scenarios.

   i. *Actions taken in the event the function cannot be performed (optional for Facility/Organization Recovery Action Plans).* In this scenario, the facility is not affected, but critical or essential functions are. Examples include communications outages, power outages, or computer failure. Loss of function can also include the loss of external services provided to the Department, such as those provided by the State Controller Office and State Treasurer Office.

   ii. *Actions taken in the event access to the facility is lost (required for both Facility/Organization and Function Recovery Action Plans)*. This means that while documents, equipment, and automated processes may be intact Department staff is unable to gain access to them. Such events can include riots, floods, hazardous materials contamination, etc. Scenarios for this type of disaster can assume that access will be restored sometime in the future, but business must be conducted without physical access to resources contained in the facility. The actions taken should include coordination with other tenants in the facility (e.g., security, health, etc.).

   iii. *Actions taken in the event the facility is destroyed (required for both Facility/Organization and Function Recovery Action Plans).* In this scenario the facility is destroyed (or damaged beyond repair) and its contents are destroyed (documents, equipment, and automated processes). Planning for this type of disaster should consider offsite storage of copies of important documents, alternate sites for conducting business, and alternate means of performing functions dependent upon equipment that was housed in the facility.

   The incident action plan also includes references to existing Emergency Action Plans. Emergency Action Plans should be in conformance with the Standardized Emergency Management System.

b. Alternate Sites (required for both Facility/Organization and Function Recovery Action Plans): This is a list of sites that could function as alternate assembly locations; sites where secondary computer systems are, or can be located; or Incident Command Posts.

c. Resources List (required for both Facility/Organization and Function Recovery Action Plans): These are the minimum resources needed within 24 hours, five days, and 21 days. When mission critical databases or records are used in support of critical or essential functions, the resources list also includes information about backup procedures and offsite storage.

In addition to the above, the general IAP must include the following:

a. Notification list (required for both Facility/Organization and Function Recovery Action Plans): This section describes how emergency response and business resumption plan information is disseminated to all employees, and how employees are contacted in the event of an actual emergency. Notification also includes information on when and how to contact the

Department's Emergency Preparedness and Security Manager or the Department Operations Center.

b. Checklist (required for both Facility/Organization and Function Recovery Action Plans): The checklist is a quick reference used to facilitate implementation of the IAP. It includes key words or phrases for each task that will be performed.

- Recovery Plan Administration (required for both Facility/Organization and Function Recovery Action Plans). This section addresses:

  a. Pre-planning preparation. This section identifies annual goals and specific tasks to be performed in order to accomplish the goals. The pre-planning preparation section must be reviewed and updated annually.

  b. Plan exercises. This section contains procedures for performing tests of the recovery plan. All recovery plans must be reviewed and updated annually. Each year, a tabletop exercise or staff review of the plan must be performed to test the plan. The exercise must be coordinated with the DOC and must test all of the applicable major scenarios (loss of function, access, and facility). If the plan includes processes to activate backup systems at remote sites, then these processes must be tested at least once every five years (functional exercise).

- Equipment and Material Maintenance: Equipment that is utilized on a daily basis for critical business or as backup support needs to be maintained and kept in working order. A preventative maintenance program needs to be instituted if one does not already exist and spare parts for crucial components should be stockpiled, if feasible. A list of vendors, parts, and material suppliers with their addresses, name of contact, business and after hours phone number, should also be developed and readily available. Any materials/supplies in stock or storage need to be rotated, kept to minimum levels, and checked for use during times of need. For example batteries should be stocked for an emergency generator, flashlights, cellular telephones, portable hand–held radios, spare vehicles, etc. The Logistics Chief, designated in a Recovery Action Plan for each office, is responsible for maintaining equipment and material to ensure preparedness for and the response to emergencies.

BUSINESS RESUMPTION PLAN ADMINISTRATION

Updates will be made as organizations change and functions are modified. The Emergency Preparedness and Security Manager is the steward of the Department's BRP. The EPSM will schedule annual meetings of the BRP Steering Committee and Subcommittee. Together, these committees will review the BRP and make recommendations for changes. The BRP Steering Committee includes the Assistants to the Deputy Directors and the Chief of Departmental Services Office. The BRP Subcommittee includes a representative from each division and from the Public Affairs Office.

A complete BRP will be issued to the Director, Deputy Directors and their assistants, DOC members, and Division Chiefs. Each Division Chief is responsible for determining the number of additional copies of the BRP for distribution to appropriate staff within their Division. A written request to the EPSM shall be made for the additional BRP copies and will list the name and title of the person to receive a copy.

A partial copy of the BRP will be issued to Field Division and District Office Chiefs, Administrative Officers, and each primary member of a Recovery Plan Incident Command Team. A partial copy of the plan includes the appropriate Recovery Action Plan. Each IC is responsible for furnishing an updated list of ICT members and emergency contact numbers to the EPSM on an annual basis or when requested by the EPSM. The IC is also responsible for updating and maintaining the Recovery Action Plan annually and furnishing the updated information to the EPSM by the required date or as requested by the EPSM.

Contents
Appendix A. Facility/Organization Recovery Action Plans

Department Headquarters

Resources Building

Division of Planning and Local Assistance

Headquarters

Northern District Office

Central District Office

San Joaquin District Office

Southern District Office

Division of Operations and Maintenance

Oroville Field Division

Delta Field Division

San Luis Field Division

San Joaquin Field Division

Southern Field Division

Division of Engineering

Sacramento Project Headquarters – Project Safety Office

Lancaster Project Headquarters

Bryte Soils and Concrete Laboratory

Field Survey Unit

Division of Environmental Services

Headquarters

Bryte Chemical Laboratory

Division of Flood Management

Eureka Flood Center

Sutter Maintenance Yard

Sacramento Maintenance Yard

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Resources Building – Headquarters
1416 Ninth Street
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix A: Resources Building (Headquarters)
Recovery Action Plan

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INTRODUCTION

The Headquarters Facility/Organization Recovery Action Plan establishes an Incident Command Team, as well as a facility and organization recovery process. The RAP allows an immediate response to disasters that impact the business functions of the units/offices located within the Resources Building. This recovery plan is a component of the Department's Business Resumption Plan and is based on guidelines established by the Business Resumption Plan Steering Committee.

This RAP is not intended to be a set-piece recovery plan with exact steps to follow. The nature and scope of an event that results in the loss or interruption of a unit or office's function cannot be predicted. The RAP uses the Standardized Emergency Management System to guide staff in the recovery of affected facilities and functions.

The RAP includes:

- An Incident Command Team designated to manage recovery efforts and a description of the duties of the various members of that team.
- A summary, by Division and Office, of the functions that must be restored.
- A list of resources for each unit/office affected by a disaster.
- A description of the initial steps necessary to implement a recovery plan.
- A checklist to facilitate the implementation of a recovery plan.

ORGANIZATIONAL STRUCTURE

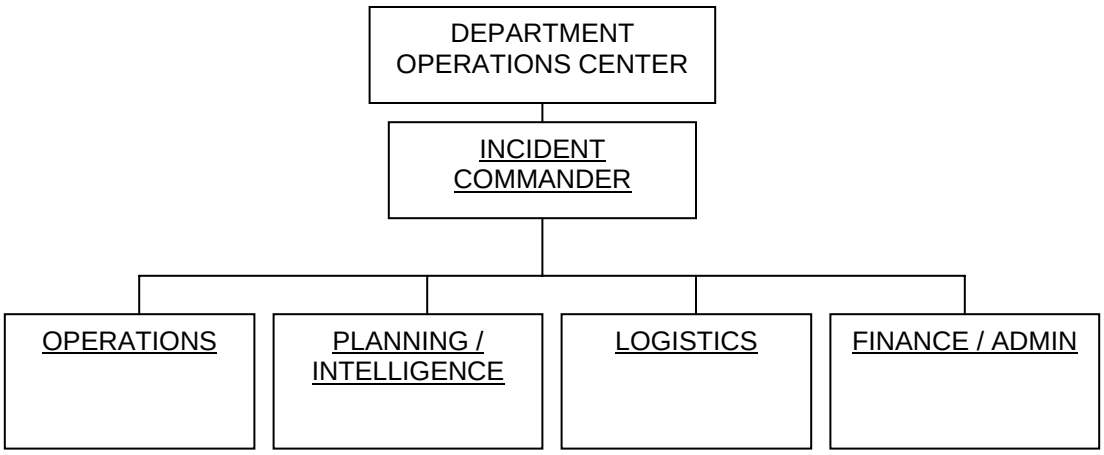
The Headquarters units/offices, during recovery efforts, will be organized in accordance with the Standardized Emergency Management System and its field element, the Incident Command System.

SEMS is a system of organizing emergency management and minimizing duplication of efforts based on ICS. SEMS and ICS utilize standard organization techniques, a common terminology, and common functions and responsibilities that are applicable to almost any type of emergency. All state agencies and most city and local governments in California are implementing SEMS/ICS. Through Governor Executive Order W-9-9-1, all state agencies were mandated to use SEMS/ICS to manage and coordinate responses to emergencies.

Incident Command Team

The Incident Command System will be used during recovery from a disaster that prevents access to the Headquarters building. The ICT will be formed and operated in conformance with SEMS. ICS, utilized Department-wide for emergencies, provides considerable flexibility and adaptability to a wide range of situations. While details of a particular event or incident may vary greatly, the functions are common to almost any type of emergency. The ICS can be, and is, used for a wide variety of emergency activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position.

Figure 1., Incident Command Team Structure



Department Operations Center

The Department Operations Center, under supervision of the **DWR Emergency Preparedness Manager**, is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR divisions/offices when Headquarters' resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The **Chief, Departmental Services Office**, will be the Incident Commander.

The IC will receive guidance and support from and report to the DOC. The IC will be responsible for establishing objectives and goals, and for managing and coordinating the recovery efforts.

Operations Section Chief

The **Chief, Facilities Management Office**, will be the Operations Section Chief.

The Operations Section Chief is responsible for implementing the recovery plan and meeting the objectives and goals established by the IC.

Planning/Intelligence Chief

The **Chief, Procurement and Contracting Office,** will be the Planning/Intelligence Section Chief.

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for the DOC/Management.

Logistics Section Chief

The **Chief, Purchasing Services Office**, will be the Logistics Section Chief.

The Logistics Section Chief will requisition, organize, distribute, and track resources necessary for the recovery plan. This includes supplies, vehicles, and equipment.

Finance/Administration Section Chief

The **Chief, Contract Services Office**, will be the Finance/Administration Section Chief.

The Finance/Administration Section Chief tracks (in cooperation with the Logistics Section), accounts for, and pays for activities related to the recovery plan. Timekeeping will also be the responsibility of this section. This section will also prepare documentation (in cooperation with the DWR FEMA Coordinator) in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of units/offices located in the Resources Building (Headquarters) are separated into Critical, Essential, and Necessary tasks. The classification of functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public and/or Department staff, provides entitlement(s), prevent financial hardship, or meet a legal requirement.

Critical tasks for various Headquarter units/offices are listed in Matrix 1.

Essential tasks are those tasks that need to be restored within 5 days. These tasks generally are those that are not needed immediately, but will prevent the Department from carrying out its mission if they are not returned to operation. These tasks may become "critical" depending upon the time of year or length of time they are not available.

Essential tasks for the various Headquarters units/offices are listed in Matrix 1.

Necessary tasks are those tasks that generally need to be restored within 21 days. These tasks have no short-term effect on the Department's ability to carry out its mission. However, these tasks may become critical depending upon the time of year or if they are not available for an extended period of time.

Necessary tasks for various units/offices are listed in Matrix 1.

RECOVERY ACTION PLAN

The Recovery Action Plan is based on a sequence of events that will take place. The principal elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on a unit/office and/or Headquarters, and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each office and section chief located at Headquarters will receive a copy of the plan to be kept offsite.

Copies of the RAP will be provided to Division Chiefs, Administrative Officers, Departmental Services Office, and members of the ICT.

Notification of Event

The Incident Commander will notify the Department's Emergency Preparedness Manager immediately when an event occurs that requires implementation of the Facility and Organization Recovery Action Plan. See Contact List.

The Operations Section will notify staff of the emergency. Notification will include instructions, if needed, regarding a point of assembly, future contact procedures, and an initial procedure to carry out Headquarters units/offices functions.

Special notifications (hazardous materials, air quality, water quality, Cal/OSHA, etc.), as determined by the ICT, will be made by the Operations Section or its designee.

Initial Assessment

The ICT will meet as soon as practicable at the DWR Training Center, or the JOC if the Training Center is not accessible, after the event to assess the situation and determine the steps necessary to recover affected functions.

The **IC** will establish immediate goals and objectives, and the operational period.

The **Operations Section Chief** will implement appropriate notification and reporting procedures to Headquarters unit/office staff and take such immediate recovery steps as feasible.

The **Planning/Intelligence Section Chief** will develop an action plan and short-/long-term goals.

The **Logistics Section Chief** will establish immediate needs for resources.

The **Finance/Administration Section Chief** will immediately implement emergency purchasing procedures that are appropriate for the incident and coordinate with the Divisions of Management Services and Fiscal Services to secure appropriate emergency financial authorizations and assistance.

Disaster Scenarios

The Headquarters Facility and Organization Recovery Action Plan defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to the Resources Building and its contents.

- **Loss of Facility** – A disaster resulting in the destruction of the Resources Building and/or its contents.

Loss of Access

This scenario assumes that the Headquarters unit/office documents, equipment, and facility are intact and secure, but staff is unable to gain access to the building or portions of it. This may be due to a hazardous materials spill, asbestos contamination, a building problem, or some other type of incident. It is also assumed that access will be granted in the near future, but business must be restored prior to access being regained.

The ICT will meet and confer as soon as possible to assess the situation. The Building Manager will be contacted as soon as possible to receive information on the status of the incident, its effect on the facility, and the estimated date access will be allowed.

The DWR Emergency Preparedness Manager will be notified of the incident and provided a status report. The standard procedure listed below will be followed to alert employees of the incident. A staff member or ICT member may be dispatched to the facility (or as close as safety allows) in case staff attempt to report there. A notice will be posted at, or near as possible to, the facility with appropriate information.

Restoration of Critical Functions (tasks)

The ICT will refer to the Matrix 1 and establish an order of priority for the listed Critical Functions (functions may have varying levels of priority depending on time of year and/or the nature of the incident).

Immediately thereafter, an action plan will be written, and both short- and long-term goals established. The formulated action plan will be put into effect immediately and adjusted as necessary with approval from the IC.

Restoration of Essential Functions

The ICT will refer to the Matrix 1 and establish an order of priority for the listed Essential Functions (functions may have varying levels of priority depending on time of year and/or the nature of the incident). An action plan will be written and both short and long term goals established. The formulated action plan will be put into effect and adjusted as necessary with approval from the IC.

Restoration of Necessary Functions

The ICT will prepare an assessment and action plan for the restoration of necessary functions for the Headquarters units/offices. The action plan will include the necessary resources for

each office to perform their functions until access is restored, a schedule for restoration of all functions, and an assessment of the impact of those functions that cannot be restored within 21 days. The action plan will prioritize the Necessary Functions listed in Matrix 1. The ICT will coordinate the various units/offices and implement a total recovery effort. The formulated action plan will be put into effect and adjusted as necessary with approval from the IC.

Loss of Facility

This scenario assumes that the facility (and/or its contents) are destroyed or damaged beyond repair or recovery.

The ICT will meet and confer as soon as possible to assess the situation.

The Building Manager will be contacted as soon as possible to determine whether alternate state facilities are available and for how long. The Departmental Services Office will be requested to assist in locating and arranging for a new facility. Potential alternate facilities, if State facilities weren't available, would be local hotels or even motels.

DWR's EPM will be notified of the incident and provided a status report. The standard procedure listed below will be followed to alert employees of the incident. A staff member or ICT member may be dispatched to the facility (or as close as safety allows) in case staff attempt to report there. A notice will be posted at, or near as possible to, the facility with appropriate information.

Restoration of Critical Functions (tasks)

Same as "Loss of Access"

Restoration of Essential Functions

Same as "Loss of Access"

Restoration of Necessary Functions

Same as "Loss of Access"

Alternate Sites

Incident Command Post

An Incident Command Post will be established as soon as possible. The Joint Operations Center on El Camino Avenue is the primary ICP location. The DWR Training Center located on 13th and R Street (1721 13th Street) is the second alternative. A third alternative is the Sacramento Maintenance Yard in West Sacramento. Another possible site would be a private home of one of the ICT members.

Basic ICP Necessities:

- Telephone lines (3-5)
- Copier (1) or Multi-function device (copier–fax-printer-scanner)
- Fax machine
- Approx. 1,000 square feet of office space
- Four computer systems
- Six cellular phones with spare batteries and chargers
- Three State vehicles (two sedans and one half ton truck)

Checklist

Operational Procedures

- ❑ Notifications
  - ❑ Emergency Preparedness Manager
  - ❑ Division Chiefs
  - ❑ Building Manager
  - ❑ O&M Project Operations Center
  - ❑ Flood Operations Center
  - ❑ DWR Safety Office
  - ❑ DWR Health and Safety Coordinator
  - ❑ Chief, Division of Management Services
  - ❑ Service providers
  - ❑ SBC/Verizon
  - ❑ UPS, U.S. Postal Service, FedEx
- ❑ Emergency facility procurement
- ❑ Emergency communications procurement
  - ❑ Telephones
  - ❑ Cellular phones with spare batteries and chargers
  - ❑ Pagers
  - ❑ Fax
  - ❑ Mobile radios
- ❑ Emergency mobile equipment
- ❑ Emergency administration procedures
  - ❑ Personnel
  - ❑ Program control
  - ❑ File storage/retrieval
  - ❑ Supply
  - ❑ Financial/procurement
- ❑ DWR Plans
  - ❑ Emergency Response Plan
  - ❑ Business Resumption Plan
  - ❑ Computer Operation Recovery Plan

Facilities

- ❑ Office space (approx. 142,000 square feet) and furniture
  Refer to Matrix 1 and Work Organization charts to determine number of staff
  Parking spaces – Director, Chief Deputy Director, Deputy Directors and key staff

Communications/Computers

- ❑ Refer to Matrix 1 to determine resource needs for personal computers, GIS/digitizing workstations, cell phones, and telephone/fax.
- ❑ Network server (3)

Vehicles

- ❑ Refer to Matrix 1 to determine vehicle needs.

Equipment

- ❑ Refer to Matrix 1 to determine equipment needs.

Pre-Planning

Information Protection

A vital part of this plan to ensure the speedy recovery of all functions is the protection and backup of vital information. Each Headquarters unit/office should review, on an annual basis, their procedures to protect critical data and how best to recover these data in case of temporary or permanent business disruption. (DTS and/or the Information Security Officer should be consulted for information on data protection and backup.)

Data crucial to the Department's Critical and Essential business functions should be backed up and stored offsite.

Data should be classified for backup according to criticality of function.

Exercises

To test Recovery Action Plans, three types of exercises are used: tabletop, functional, and field. A tabletop exercise is the most relevant to test this plan. A functional exercise is a possibility when combined with the desire to test the Headquarters use of the Incident Command System. A field exercise, in most instances, is not necessary or practicable.

A tabletop exercise is a low stress, conference room-type exercise where a scenario is presented, the RAP is discussed, and actions and communications coordinated. Based on these discussions an RAP is adjusted and revised as necessary. A tabletop exercise will be held at least **once a year**.

A functional exercise is an exercise that simulates a real situation or incident through the use of a scripted master message list. A simulated ICP is created, and communications are passed and recorded with exercise simulators providing input and additional messages. In this case, the exercise can be fairly simple to give Headquarters staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held at least every **five years**.

Plan Administration

The Incident Command Team and/or BRP Steering Committee will review the Recovery Action Plan annually. The Incident Command Team and Contact List (following pages) will be revised and reissued each year. The business functions of Headquarters' units/offices will be reviewed and, if necessary, the plan will be revised to reflect changes to the Headquarters' critical and essential functions.

INCIDENT COMMAND TEAM

(September 2006)

Incident Commander -- Kim Oliphint
    Deputy Incident Commander -- Mike Strazzo

Operations Section Chief -- Jennie Alonzo

Planning/Intelligence Section Chief -- Bill Fackenthall
    Advanced Planning -- Russell Kiriu

    Situation/Status -- Vicki Price

Logistics Section Chief -- Dave Kearney
    Communications -- Jill Breault
    Vehicles and Fuel – Jim Pearson
    Supply -- Ed Locks

Finance/Administration Section Chief - Lynne Baker
    Cost -- Susie Beesley

    Procurement -- Phillip Sanchez

    Time -- Shereta Alexander

CONTACT LIST

(September 2006)

DWR – Executive

Sonny Fong, Emergency Preparedness Manager	Office 916/654-6135 Pager 916/592-7953 Home
State/Federal Flood Operations Center	24hr. number 916/574-2619
SWP Project Operations Center	24hr. number 916/574-2714

Division of Management Services

Jim Libonati, Division Chief	Office 916/653-6743 Pager 916/551-6341 Home

Departmental Services Office

Kim Oliphint, Chief	Office 916/653-5561 Cell 916/600-2640 Home
Mike Strazzo, Chief, Human Resources	Office 916/653-0515 Cell 916/217-0710 Home
Russell Kiriu, Chief, Training Office	Office 916/653-6878 Home Cell 916/835-5002
Jennie Alonzo, Chief, Facilities Management Office	Office 916/653-7233 Cell 916/502-2534 Home
Bill Fackenthall, Chief, Procurement and Contracting Office	Office 916/653-5559 Cell 916/747-6082 Home
Lynne Baker, Chief, Contract Services Office	Office 916/657-5219 Home
Dave Kearney, Chief, Purchasing Services Office	Office 916/653-6088 Home

CONTACT LIST

(Continued)

James Pearson, Chief, Transportation Office	Office 916/653-9051 Pager 916/592-4416 Cell 916/798-9838 Home

Division of Operations and Maintenance

Carl Torgersen, Division Chief	Office 916/653-8583 Cell: 916/316-0453
Vacant, Chief, Fleet Management Office Pager	Office Home

Division of Engineering

Richard Sanchez, Division Chief	Office 916/653-3927 Home Cell 916/837-5059

Division of Flood Management

Rod Mayer, Division Chief	Office 916/574-0601 Pager 916/592-7838 Cell 916/952-7838 Home

Division of Fiscal Services

Perla Netto-Brown, Division Chief	Office 916/653-9836 Cell 916/296-6013 Home

Public Affairs Office

Susan Sims, Assistant Director	Office 916/651-7242 Cell: 916/769-4237 Home:

Division of Technology Services

Ben Williams, Chief	Office 916/653-8364 Pager 916/592-4418 Home

CONTACT LIST

(Continued)

Jill Breault, Communications	Office: 916/654-0707 Home
<u>State Water Project Analysis Office</u>	
Vacant, Chief	Office 916/653-4313
<u>Building Manager</u>	
Gabe Andrade, Department of General Services	Office 916/657-4380 Cell 916/825-6471
<u>California Highway Patrol</u>	
Non Emergency, 24hr	916/445-2895
Emergency	**911**
<u>Building Security</u>	Desk 916/654-3513 Cell 916/716-7916
<u>DWR Health and Safety Coordinator</u>	
Tom Beiler	Office 916/653-7141 Home
<u>DWR Safety Office</u>	
Al Romero, Chief, Safety Engineer	Office 916/322-4147 Home Cell 916/708-3983

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Planning and Local Assistance, Headquarters
Bonderson Building
901 P Street
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix A: Division of Planning and Local Assistance (Bonderson Building) Facility/Organization Recovery Action Plan

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INTRODUCTION

The Division of Planning and Local Assistance RAP establishes a headquarters ICT and a facility and organization recovery process to respond to disasters that impact the business functions of the facility. The RAP is based on guidelines from the Department's EPM.

The RAP is not intended to be a set-piece recovery plan with exact plans to follow. The nature and scope of an event that result in loss or interruption of Division functions cannot be predicted. The RAP is, rather, a plan for a process with functions to be carried out, using the SEMS, leading to recovery of Headquarters facilities and functions.

The RAP includes:

- An incident command team is designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of headquarters functions that must be restored.
- A description of the initial steps necessary to implement a recovery plan.
- A checklist to facilitate the implementation of a recovery plan.

ORGANIZATIONAL STRUCTURE

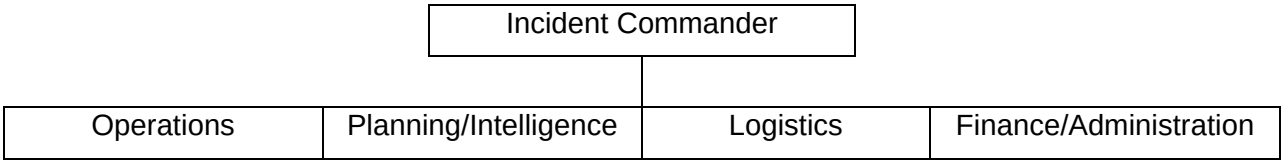
The organization of the headquarters facility, during the recovery, will be in accordance with the SEMS and its field element, the ICS.

SEMS is a method of organizing for emergency management. SEMS and ICS use standard organization techniques, a common terminology and common functions and responsibilities that are applicable to almost any emergency. All State agencies and most of the city and county governments in California are implementing SEMS/ICS. The use of SEMS/ICS by State agencies is required by law.

Incident Command Team

The ICS will be used during recovery from a disaster resulting in loss of access to headquarters facilities. The ICT will be formed and operated in conformance with SEMS. The ICS, being used Department-wide for emergencies, provides for common terminology and duties providing considerable flexibility and adaptability to a wide variety of situations. While details of a particular event or incident may vary, the functions that must be carried out to deal with them are common to almost any kind of emergency. The ICS is used for a variety of emergency management activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position.

Figure 1. Incident Command System Structure



Incident Commander

The Division Chief will be the IC with a Deputy Incident Commander to assist. The Incident Commander will receive guidance and report to the Department Operations Center. The DOC Chief is the Department's EPM.

The IC and Deputy will be responsible for establishing objectives and goals, and management and coordination for the recovery efforts.

Operations Section Chief

The Operations Section Chief will implement the recovery plan.

Planning/Intelligence Section Chief

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for DWR management.

Logistics Section Chief

The Logistics Section Chief will requisition, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles and equipment.

Finance/Administration Section Chief

The Finance/Administration Section tracks (with the Logistics Section), accounts for, and pays for activities related to the recovery plan. Timekeeping will also be the responsibility of this Section. It is intended that this Section will be augmented by staff from DWR's Departmental Services Office in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Department and the DPLA Headquarters are separated into Critical, Essential and Necessary tasks. The classification of Division functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide an entitlement, prevent financial hardship or meet a legal requirement. DPLA Headquarters does not, by this definition, engage in any critical tasks on a routine basis. During flood season, some of the Headquarters tasks in support of the Division of Flood Management are classified as critical, particularly those in the areas of flood information, surface water measurement, and emergency response.

Essential tasks are those tasks that allow the Division to accomplish its mission and which must be restored within 3 days. State Water Project contract accounting is classified as an Essential Task during certain times of the year.

Necessary tasks are those tasks need to be restored within 21 days. Necessary tasks make up most of the Division's functions.

Essential or Necessary tasks may become critical depending upon the time of year or other factors.

The various functions of DPLA Headquarters are discussed below by Branch.

Surface Storage Investigations Branch

Business Functions:

The basic function of the SSI Branch is to conduct planning and feasibility studies for potential surface storage projects. Surface Storage Investigations is a water management partnership program that brings together local water interests, State and federal agencies, and stakeholders to cooperatively plan for California's future water needs.

Critical Tasks:

- Flood Response Support: During flood emergencies, staff may be called upon to provide general flood fight support in the Flood Operations Center and in the field.

Essential Tasks:

- Emergency coordination and support: During an emergency, staff could help facilitate planning and coordination between State, Federal and local water agencies. This could include working with the various agencies on formulating emergency project operation and water delivery plans.

Necessary Tasks:

- Ongoing water resources planning and coordination: The Branch consists of a multi-disciplined professional and administrative staff that could be called upon to assist Department management in responding to an emergency in any number of ways. These could include: assignments to provide assistance to local government agencies, development of publications needed for the emergency, conducting special studies and assessments required by the emergency, etc.

Statewide Water Planning Branch

Business Functions:

Functions of the Statewide Water Planning Branch include: (1) coordinate statewide data collection, management, and dissemination activities for various DPLA and departmental planning programs and activities, including agricultural and urban land and water use; (2) oversee and coordinate DPLA-wide website and web page creation; (3) provide economics input for DWR-managed grants and loan programs; (5) provide socio-economic analysis support to major planning programs including the Surface Storage Investigations Program and the California Water Plan Update; (6) conduct planning studies of a wide range of water resources issues; (7) conduct ongoing data collection, analysis, and public input for the California Water Plan Update process; and (8) serve as an environmental review clearinghouse for DWR.

Critical Tasks:

According to the definition provided, the Branch does not ordinarily perform critical tasks. However, the web sites that the Branch administers could be used to convey data and/or information during emergencies that could be considered critical. Specifically, water quality data collected by the Division of Environmental Services and Operations and Maintenance during an emergency would be stored in and accessed through the Water Data Library. During flood emergencies, staff may be called upon to provide general flood fight support in the Flood Operations Center and in the field.

Essential Tasks:

Same as critical tasks above.

Necessary Tasks:

The Branch's data management and environmental review activities are necessary functions. Necessary tasks include ongoing data and website management and coordination activities conducted by section staff. Staff could be called upon to assist Department management in responding to an emergency in any number of ways, including: providing assistance to local government agencies, development of publications needed for the emergency, conducting special studies and assessments required by the emergency, etc. Staff may also be called upon to provide support for emergency grants or loans programs.

Loss of Access:

A disaster or other incident preventing access to the Headquarters Office and its contents.

- Restoration of Critical Functions: All web and data access pages are hosted by DTS in the Resources Building. Therefore, any critical functions could be performed through a remote site, once proper access is granted by DTS staff.
- Restoration of Essential Functions: Same as above.
- Restoration of Necessary Functions: Ongoing data and website coordination activities would require restoration of data files stored on staff PCs, either through remote access (if there were power to the building) or on the DPLA backup tapes. A loss of access could temporarily affect the restoration of the Branch's necessary functions. However, once restored, those activities could be continued in another location via computers and the internet (for data management) and re-routing of mail (for environmental review clearinghouse).

Loss of Facility:

A disaster resulting in the destruction of the Headquarters Office and / or its contents.

- Restoration of Critical functions: Same as Loss of Access above.
- Restoration of Essential Functions: Same as Loss of Access above.
- Restoration of Necessary Functions: Same as Loss of Access above.

Project Support and Resources Restoration Branch

Business Functions:

The branch advises and helps management make and carry out department policy and programs. It gives technical water resources management support to agencies and individuals. It administers loans and grants, improves fish passage, restores urban streams, protects watersheds, and offers publication support.

Administration And Program Control Office

Business Functions:

The basic function of the Office is to provide the administrative, fiscal, and program control responsibilities for the Division including Headquarters and the four Districts. Administrative functions are those involving the budget, personnel, labor relations, contracts, training, safety, business services including communications, and administration of the computer network.

Critical Functions:

- Communications - telephone: Establishing telephone communications during an emergency by acquiring the necessary equipment and services is a primary commitment in any emergency. Currently no alternate facilities to house Headquarters personnel during such occurrences have been identified. Contact with the DOC Logistics Section would be necessary to establish the necessary processes to procure the telecommunications equipment and computer equipment. Once the equipment was in place, the resumption of network communications would begin.
- Communications - computer network: The establishment of network communications would be provided once telephone lines and equipment were restored. The necessary computer equipment would need to be acquired for a designated cold site or a designated hot site complete with equipment could be used. Current responsibilities in network administration include the daily backup of data at Headquarters and Central District. No hot/cold sites have been identified.

Essential Functions:

- Accounting and fiscal: The establishment of the necessary accounting and fiscal processes (including contracts) to track the expenditures for payroll, accounts payable and accounts receivable would be provided. Included in these functions would be the re-establishment of personnel records and data to allow for payroll processing from DWR Headquarters' files. Budget procedures would be reestablished to allow for the proper fiscal controls in keeping track of emergency expenditures including contracts authorized during this time. Administrative staff would be in place to write and process all contracts during the emergency outage.

- Communications - E-mail: Electronic communications through e-mail would be reestablished for network use.
- Procurement processes: Re-establishment of communications with headquarters' business and office services staff would allow for the appropriate procurement procedures to be put in place. Desks, chairs, computer equipment, and telephones would be acquired.

Necessary Functions:

- On-going administrative functions: The contracts and budgeting functions would be provided as the need arose. Aspects of program control would be instituted at this point to monitor the emergency from a cost standpoint and to ensure that the proper controls are in place to accumulate the necessary data upon which reimbursement could subsequently be based.

RECOVERY ACTION PLAN

The RAP is based on a sequence of events that will take place. The principal elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on headquarters functions and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept off-site.

Each year, the plan will be reviewed and updated by use of an annual appendix listing the incident command team and a contact list.

Relevant DWR organizations will be provided copies.

Event Notification

The DPLA Chief or designee will notify the Department's EPM immediately upon an event that requires implementation of the RAP.

Each Supervisor, when notified by the ICT will then notify subordinates. The notification will include instructions, if needed, regarding a point of assembly, future contact procedures, and an initial procedure to carry out headquarters functions.

Initial Assessment

The ICT will meet as soon as possible after the event to assess the situation and determine the steps necessary to recover Headquarters functions. The IC/Deputy will establish immediate and intermediate goals and objectives. The Operation Section will implement appropriate notification and reporting procedures to Headquarters staff and take such immediate recovery steps as feasible. The Logistics Section Chief will establish immediate needs for resources. The Finance/Administration Section Chief will immediately implement emergency purchasing procedures in accordance with the incident and coordinate DOC Finance/Administration Section to secure appropriate emergency financial authorizations and assistance.

Disaster Scenarios

The Division's Facility and Organization Recovery Plan defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to the Headquarters Office and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of the Headquarters Office and/or its contents.

Loss of Access

This scenario assumes that the Headquarters' office documents, equipment and facility are intact and secure, but Headquarter staff is unable to gain access. This may be due to a hazardous materials spill, a building problem, or some other type of incident. It is also assumed that access will be granted in the near future but business must be restored prior to access being regained.

The ICT will meet and confer as soon as possible to assess the situation. The Department of General Services' Building Manager will be contacted as soon as possible to receive information on the status of the incident, its effect on the facility, and the likely date to regain access to the facility.

DWR's EPM will be notified of the incident and the immediate procedures for contacting the Headquarter office will be initiated. The standard notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or ICT member may be dispatched to the facility (or as close as possible) in case staff attempt to report there. A notice will be posted at, or as near as possible to, the Facility with appropriate information.

Restoration of Critical Functions

Telephone Communications - The communications coordinator in Logistics Section, as well as the F/A Section Chief, would be notified immediately. The communications coordinator would contact the DOC Logistics Section Chief to obtain cell phones in order to establish a method of communication. Discussions with DOC Logistics Section would provide the necessary processes to be put in place to obtain or procure telephone, and computer equipment. No facilities have been identified at this writing for an alternate facility for DPLA Headquarters staff.

Communications - computer network - The AO would notify the LAN administrator and the communications coordinator of the computer network problem. The LAN administrator would contact DWR HQ personnel to advise them of the situation and problem. Discussions with DWR Headquarter personnel would start the necessary processes to obtain computer equipment, both new and surplus.

Restoration of Essential Functions

Accounting & Fiscal - The F/A Section Chief would work with the budget and contract analyst's to establish the necessary procedures to track expenditures for payroll, accounts payable and receivable contracts. Assuming an alternate facility has been established, the analyst's would coordinate with the LAN administrator and communication's coordinator, to re-establish personnel records and data for payroll processing. Contracts would be written by the analysts, in conjunction with Headquarter program manager's. These activities should be accessible through the Web/SAP operating system.

E-mail - The LAN administrator would coordinate with the DOC Logistics Section to bring up the appropriate communications software and launch the software on acquired computer equipment. This activity should be accessible through the Web/SAP operating system.

Procurement process - The Logistics Section would establish the necessary processes through discussions with DOC Logistics to acquire desks, chairs, etc. Surplus equipment from the Department's warehouse would be considered during the interim period until a more stable off-

site location could be obtained. This activity should be accessible through the Web/SAP operating system.

Restoration of Necessary Functions

Section Chiefs will prepare an assessment and a plan for restoration of necessary functions for their respective sections. That plan will include the resources needed to perform the units functions until access is regained, a schedule for restoration of all functions within the unit and assessment of the impact of those functions that cannot be restored within 21 days. The ICT will coordinate and integrate section plans and implement a recovery effort.

On-going administrative functions - All administrative functions including accounting, budgeting, payroll, procurement, program control, would be provided through the Web via a browser using the SAP operating system.

Loss of Facility

This scenario assumes that the facility (and/or its contents) are destroyed or damaged beyond repair or recovery.

The ICT will meet and confer as soon as possible to assess the situation.

The Building Manager will be contacted as soon as possible to determine whether the alternate sites are available and for how long. DOC Logistics Section will also be requested to assist in locating and arranging for a new office facility.

DWR's EPM will be notified of the incident and the immediate procedures for contacting the Headquarters office will be initiated. The notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or ICT member may be dispatched to the facility (or as close as possible) in case staff attempt to report there. A notice will be posted at the facility with the appropriate information.

Restoration of Critical Functions

Flood Response Support - The nature of this support requires Headquarter staff, as directed, to report to various locations throughout Sacramento or the Delta to provide flood response support. These staff would need to be notified directly in order to direct them to the appropriate off-site facility.

Telephone Communications - The communications coordinator in the Administration and Program Control Office, as well as the F/A Section Chief, would be notified immediately. The communications coordinator would contact DOC Logistics Section to obtain cell phones in order to establish a method of communication. Discussions with DOC Logistics Section would provide the necessary processes to be put in place to obtain or procure telephone, and computer equipment. No facilities have been identified at this writing for an alternate facility for DPLA Headquarters staff.

Communications - computer network - The F/A Section Chief would notify the LAN administrator and the communications coordinator of the computer network problem. The LAN administrator would contact DOC Logistics Section to advise them of the situation and problem. Discussions with DOC Logistics Section would start the necessary processes to obtain computer equipment, both new and surplus.

Restoration of Essential Functions

Accounting & Fiscal - The F/A Section Chief would work with the budget and contract analyst's to establish the necessary procedures to track expenditures for payroll, accounts payable and receivable contracts. Assuming an alternate facility has been established, the analyst's would coordinate with the LAN administrator and communication's person, to re-establish personnel records and data for payroll processing. Contracts would be written by the analysts in conjunction with Headquarters program managers. These activities should be accessible through the Web/SAP operating system.

E-mail - The LAN administrator would coordinate with DOC Logistics Section to bring up the appropriate communications software and launch the software on acquired computer equipment. This activity should be accessible through the Web/SAP operating system.

Procurement process - The Logistics Section would establish the necessary processes through discussions with DOC Logistics Section to acquire desks, chairs, etc. Surplus equipment from the Department's warehouse would be considered during the interim period until a more stable off-site location could be obtained. This activity should be accessible through the Web/SAP operating system.

Restoration of Necessary Functions

Section Chiefs will prepare an assessment and a plan for restoration of necessary functions for their respective sections. That plan will include the resources needed to perform the units' functions until a complete new facility is provided along with a schedule for restoration of all functions within the unit and assessment of the impact of those functions that cannot be restored within 21 days. The ICT will coordinate and integrate section plans and implement a total recovery effort.

On-going administrative functions - All administrative functions including accounting, budgeting, payroll, procurement, program control, would be provided through the Web via a browser using the SAP operating system.

Alternate Sites

Incident Command Post

An ICP will be established as soon as possible. The Resources Building with its available communications facilities is the first choice. The ICT will be contacted to gather at that location.

Basic ICP Necessities:

- Telephone Lines (3-5)
- Fax
- Office space for ICT
- Computer systems (Operations, P/I, Logistics/Finance/Admin) (3-5)

Resources Building

The Resources Building in downtown Sacramento has the capability of being used as a gathering place and for temporary office space. Cell phones will be used until phone lines are established, and as needed.

Checklist

Existing quantities shown in parentheses

Operational Procedures:

- ❑ Notifications
  - ❑ EPM
  - ❑ DPLA Division Chief
  - ❑ DPLA HQ Staff
  - ❑ Office Support Chief, DMS
  - ❑ Pacific Telephone
  - ❑ UPS, U.S. Postal Service
  - ❑ Other service providers
- ❑ Emergency facility procurement
- ❑ Emergency communications procurement
  - ❑ Telephones
  - ❑ Fax
  - ❑ Cell Phones
  - ❑ Pagers
- ❑ Emergency mobile equipment
- ❑ Emergency administration procedures
  - ❑ Personnel
  - ❑ Program Control
  - ❑ File Storage/Retrieval
  - ❑ Supply
  - ❑ Financial/Procurement

Facilities

- ❑ Office space (20,000 ft^2)
- ❑ Office furniture for staff (108)

Communications/Computers

- ❑ Standard PC's (140)
- ❑ Network servers (4)
- ❑ Cell phones (10)
- ❑ Telephone lines, includes modem, fax (140)

Vehicles (2 total)

Assigned Vehicle (1 – Durango, 1- Jeep)

Pre-Planning

Information Protection:

A vital part of this plan and the speedy recovery of all functions is the protection and backup of vital information. Each section should review their procedures annually to protect critical data and learn how best to recover that data in case of a temporary or permanent business disruption,

Types of Data to be Stored Off-site

- Surface Water Quality Data
- Field Survey Data
- Other computer based information

Data should be classified according to criticality of function to assess the importance of backup.

Exercises

To test Recovery Action Plans, three types of exercises are used: tabletop, functional, and field. A tabletop exercise is the most relevant to test this plan. A functional exercise is a possibility when combined with the desire to test the Headquarters use of the Incident Command System. A field exercise, in most instances, is not necessary or practicable.

A tabletop exercise is a low stress, conference room-type exercise where a scenario is presented, the RAP is discussed, and actions and communications coordinated. Based on these discussions an RAP is adjusted and revised as necessary. A tabletop exercise will be held at least **once a year**.

A functional exercise is an exercise that simulates a real situation or incident through the use of a scripted master message list. A simulated ICP is created, and communications are passed and recorded with exercise simulators providing input and additional messages. In this case, the exercise can be fairly simple to give Headquarters staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held at least every **five years**.

Plan Administration

The Incident Command Team and/or BRP Steering Committee will review the Recovery Action Plan annually. The Incident Command Team and Contact List (following pages) will be revised and reissued each year. The business functions of Headquarters' units/offices will be reviewed and, if necessary, the plan will be revised to reflect changes to the Headquarters' critical and essential functions.

INCIDENT COMMAND TEAM

(September 2006)
(Area code 916 unless otherwise noted)

Incident Commander – Mark Cowin
Work: 651-9203
Home:
Pager:

Deputy Incident Commander – Mark Meeks
Work: 651-9601
Home:

Operations Section Chief – John Woodling
Work: 651-9291
Home:

Planning /Intelligence Section Chief – Steve Roberts
Work: 651-9249
Home:

Advanced Planning – Waiman Yip
Work: 651-9280
Home:

Situation – Greg Smith
Work: 653-6410
Home:

Documentation – Brian Niski
Work: 651-7210
Home:

Demobilization – Greg Smith
Work: 653-6410
Home:

Clerical Asst – Janiene Friend
Work: 651-9203
Home:

Logistics Section Chief – Tracey Lindberg
Work: 651-9231
Home:

Communications/Computers – Jackson Lee
Work: 327-1636
Home:

Supply – Tracy Redifer
Work: 651-9213
Home:

INCIDENT COMMAND TEAM (CONT.)

Finance/Administration Section Chief – Carol Birch
Work: 651-9210
Home:

Cost – Carol Birch
Work: 651-9210
Home:

Procurement – Tracy Redifer
Work: 651-9213
Home:

Time – Nelma Pena
Work: 327-8860
Home:

CONTACT LIST
(September 2006)

DWR

Sonny Fong, Department Emergency Preparedness Manager
Office: 916-654-6135
Pager: 916-592-7953
Home:

DPLA

Mark Cowin, Division Chief, Division of Planning & Local Assistance
Office: 916-651-9202
Home:

Department of Water Resources

Kim Oliphint, Chief, Departmental Services Office Office: 916/ 653-5561
Home:

California Highway Patrol 911

24 Hour Dispatch 916-453-2400

State-Federal Flood Operation Center (24 hr.) 916/574-2619

State Water Project Operations Center (24 hr.) 916/574-2714

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Planning and Local Assistance
Northern District
2440 Main Street
Red Bluff, CA 96080

A Component of the
DWR Business Resumption Plan

Appendix A: Northern District
Facility/Organization Recovery Action Plan

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Incident Command Team **9**

INTRODUCTION

The Northern District Facility/Organization Recovery Action Plan establishes an Incident Command Team, as well as a facility and organization recovery process. The RAP allows an immediate response to disasters that impact the business functions of the Northern District Office. This recovery plan is a component of the Department's Business Resumption Plan and is based on guidelines established by the Business Resumption Plan Steering Committee.

This RAP is not intended to be a set-piece recovery plan with exact steps to follow. The nature and scope of an event that results in the loss or interruption of a unit or office's function cannot be predicted. The RAP uses the Standardized Emergency Management System to guide staff in the recovery of affected facilities and functions.

The RAP includes:

- An Incident Command Team designated to manage recovery efforts and a description of the duties of the various members of that team.
- A summary of the functions that must be restored.
- A list of resources for each unit/office affected by a disaster.
- A description of the initial steps necessary to implement a recovery plan.
- A checklist to facilitate the implementation of a recovery plan.

ORGANIZATIONAL STRUCTURE

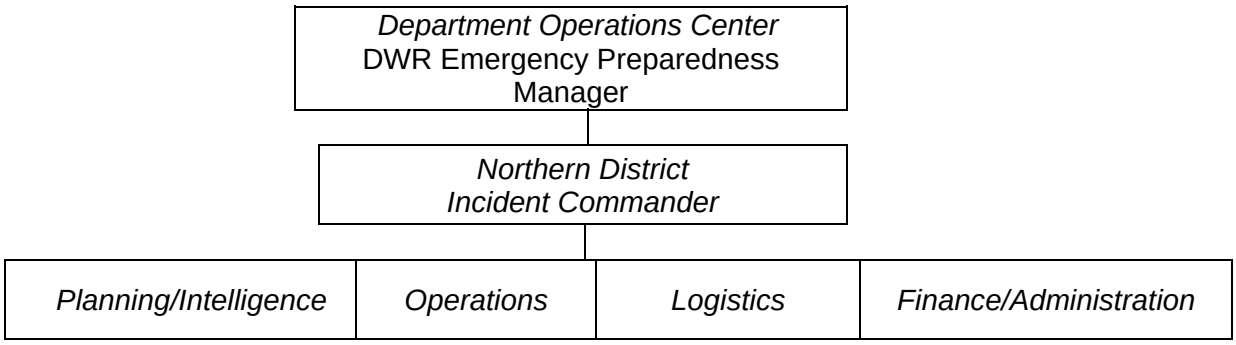
During recovery efforts Northern District will be organized in accordance with the Standardized Emergency Management System and its field element, the Incident Command System.

SEMS is a system of organizing emergency management and minimizing duplication of efforts based on ICS. SEMS and ICS utilize standard organization techniques, a common terminology, and common functions and responsibilities that are applicable to almost any type of emergency. All state agencies and most city and local governments in California are implementing SEMS/ICS. Through Governor Executive Order W-9-9-1, all state agencies were mandated to use SEMS/ICS to manage and coordinate responses to emergencies.

Incident Command Team

The Incident Command System will be used during recovery from a disaster that prevents access to the Northern District Offices. The ICT will be formed and operated in conformance with SEMS. ICS, utilized Department-wide for emergencies, provides considerable flexibility and adaptability to a wide range of situations. While details of a particular event or incident may vary greatly, the functions are common to almost any type of emergency. The ICS can be, and is, used for a wide variety of emergency activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position.

Figure 1. Incident Command Team Structure



Department Operations Center

The Department Operations Center, under supervision of the **DWR Emergency Preparedness Manager**, is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR divisions/offices when Northern District resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The IC will receive guidance and support from and report to the DOC. The IC will be responsible for establishing objectives and goals, and for managing and coordinating the recovery efforts.

Operations Section Chief

The Operations Section Chief is responsible for implementing the recovery plan and meeting the objectives and goals established by the IC.

Planning/Intelligence Chief

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for the the Incident Commander.

Logistics Section Chief

The Logistics Section Chief will requisition, organize, distribute, and track resources necessary for the recovery plan. This includes supplies, vehicles, and equipment.

Finance/Administration Section Chief

The Finance/Administration Section Chief tracks (in cooperation with the Logistics Section), accounts for, and pays for activities related to the recovery plan. Timekeeping will also be the responsibility of this section. This section will also prepare documentation (in cooperation with the DWR FEMA Coordinator) in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The Watermaster Service is the only regulatory or health and safety function the District performs. The inability of a local area watermaster to perform their duties would be a result of severe illness, disability, or death. The distribution of water in adjudicated areas is contingent on the watermaster being functional within five days. Therefore, it is the only essential function that exists in the District. All other functions are listed as necessary functions

RECOVERY ACTION PLAN

Event Notification

The Incident Commander will be notified when a disaster occurs at the District Office. He will notify the command staff. As the IAP is being developed, the Operations Section Chief will notify the senior staff and their responsibility is to notify their staff. The Operations Section Chief will also notify the Department's Emergency Preparedness Manager.

Disaster Scenarios

The Recovery Action Plan defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to the Northern District Office and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of the Northern District Office and/or its contents.

Loss of Access

If access to the District Office is temporarily lost due to a disaster (natural or manmade), the Command Staff will convene at the home of the Planning/Intelligence Chief to establish an Incident Action Plan to regain access to the office and recover business documents. We anticipate that most employees will be able to continue their necessary functions from their homes, using their own equipment and facilities. The location of the P and I Chief's home is within four miles of the office (normally a 10 minute drive) and the address is:

(Address deleted to protect privacy)

If employees need to use their personal equipment and facilities, the items used and length of usage will be submitted by the employees to the Finance/Administration Chief for reimbursement according to State of California rules and regulations. One of the items the IAP should address is convening senior staff to assess the situation and determine which current functions need to be reestablished first. Most of the command staff has a listing of the senior staff's home telephone numbers for such an emergency. Most senior staff have the home telephone numbers of their employees.

The essential Watermaster Service functions, being field operated, are not significantly impacted by the loss of the District Office, assuming District functions can be resumed within 21 days.

Loss of Facility

In the event that the District Office is totally destroyed, the command staff will convene at the home of the Incident Commander to establish an IAP to reestablish the District Office as soon as possible. We anticipate that most employees will be able to continue their necessary functions from their homes, using their own equipment and facilities. The location of the Incident Commander's home is within four miles of the office (normally a 10 minute drive) and the address is:

(Address deleted to protect privacy)

In preparation for this occurrence, a copy of all data files are being kept off-site. Most of the pre-digital data are published in various documents that have been distributed throughout the State and with time could be gathered and copied. The Well Completion Reports and other single copy historical documents are in the process of being converted to digital format to assist in conducting studies. Most of this conversion will occur within a year. As these data are converted to digital form, copies are being stored off-site. Copies of the software that are used to read these files are also kept off-site and can be used to install on available computers. A survey of Northern District staff shows that most of the staff has most of the software necessary to conduct fundamental business on compatible computer systems. To obtain a complete recovery of all Northern District files will require the dispatch of staff to Sacramento to restore and transfer the RAID file system. This would take a few days to complete and should be on the first day's action plan.

The essential Watermaster Service functions, being field operated, are not significantly impacted by the loss of the District Office, assuming District functions can be resumed within 21 days.

Loss of Telecommunications

If we have telecommunication outages or computer malfunctions, the IC will determine the best course of action. Because many employees have communications capabilities at home that match those of the District, those capabilities will be used and the cost of use will be reimbursed.

Alternate Sites

If the District Office is the only facility impacted, then the Command Post will be established at the Northern District Annex across the street at 2500 Main Street. However, if the District Office is impacted then it is likely that the Northern District Annex will also be impacted. Therefore, the second alternate site is the home of the Incident Commander. This site consists of seven acres of open space with its own water supply and sewage disposal system. The site is accessible by county maintained paved roads and is within walking distance of the Red Bluff Airport. There is easy access to Interstate 5 and it is also close to all Red Bluff businesses. This site has telecommunications capabilities and is connected to the Internet. The elevation of the site is about 50 feet higher than the District Office and is, therefore, more secure from flood threat. The address of the site is:

(Address deleted to protect privacy)

Resource List

In addition to the command staff and the senior staff, the necessary staff that are needed to restore operations at the District Office are: Larry Shuman, System Administrator, and his staff. Also needed are the Administration Branch staff. Other staff will be needed depending on the incident.

The following are the minimum resources required:

- 10 Pickup trucks (useful in transporting files from office)
- 2 Minivans to transport personnel
- 10 Laptop computers with fax modems
- 10 cellular telephones
- 2 Generators 120/240
- 4 50-foot extension cords
- five gallon gasoline can
- 5 folding tables
- 10 folding chairs
- 5 white boards with stands
- 5 easels with paper
- 5 sets colored dry erase marking pens
- 5 staplers with box of staples for each
- 5 scissors
- 1 case notebooks
- 1 case pens
- 1 case permanent markers
- 1 case pencils
- 1 case writing tablets
- 12 boxes scotch tape
- 5 storage/file containers

Checklist

- ❑ Staff telephone numbers
- ❑ Purchasing documents
- ❑ Foul weather gear
- ❑ SEMS vests and supplies
- ❑ 10 cellular phones
- ❑ 2 Generators 110/220
- ❑ 4 50-foot extension cords
- ❑ 1 five gallon gasoline can
- ❑ 5 folding tables
- ❑ 10 folding chairs
- ❑ 5 white boards with stands
- ❑ 5 easels with paper
- ❑ 5 sets colored dry erase marking pens
- ❑ 5 staplers with box of staples for each
- ❑ 5 scissors
- ❑ 1 case notebooks
- ❑ 1 case pens
- ❑ 1 case permanent markers
- ❑ 1 case pencils
- ❑ 1 case writing tablets
- ❑ 12 boxes scotch tape
- ❑ 5 storage/file containers

Pre-Planning and Plan Administration

A. Annual Goals

- Realizing that much of our historic data is one-of-a-kind, we have begun to convert the important documents to digital form to facilitate its use, which also provides for easier storage and transfer of the data to off-site repositories.

- Inform staff of the notification process and the meeting sites.

- Develop a list of staff that can provide personal (with reimbursement) equipment for maintaining the necessary functions of the District.

- Encourage Department Headquarters to provide a reimbursement policy for the use of personal equipment and resources during an emergency.

B. Planned Exercises

This plan will be updated at the first senior staff meeting of each calendar year. The District Chief is responsible for funding for the tabletop exercise and for ensuring that the plan is updated annually.

To test Recovery Action Plans, three types of exercises are used: tabletop, functional, and field. A tabletop exercise is the most relevant to test this plan. A functional exercise is a possibility when combined with the desire to test the District's use of the ICS. A field exercise is not necessary or practicable.

A tabletop exercise is a low stress, conference room exercise where a scenario is presented and the Facility/Organization RAP discussed, and actions and communications are coordinated. Based on these discussions, an RAP is adjusted and revised as necessary. A tabletop exercise will be held at least every three years.

A functional exercise is an exercise that simulates the real thing using a master message list. A simulated ICP is created, and communications are passed and recorded with exercise simulators providing input and additional messages. In this case, the exercise can be a fairly simple one that gives District staff the opportunity to see SEMS and ICS in operation.

C. Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept offsite.

Each year the Incident Command Team contact list will be reviewed and updated. When programmatic changes occur the plan body will be updated as well.

INCIDENT COMMAND TEAM

(September 2006)

The following individuals are responsible for the recovery action plan. Staff were chosen based on how close they live to the Northern District office. Staff living in Redding, Chico, and Sacramento are potentially unavailable to assist in any recovery process.

	Home	Cell Phone
Glen Pearson (IC)		(530) 941-6671
Bill Mendenhall (OPS)		(916) 802-8379
Todd Hillaire (P/I)		(530) 370-2663
Tito Cervantes (LOG)		
Lorry Divine (F/A)		
Sonny Fong (DWR EPM)	(916) 654-6135 (office)	(916) 592-7953 (pager)

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Planning and Local Assistance
Central District
901 P Street, 3rd floor
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix A: Central District
Facility/Organization Recovery Action Plan

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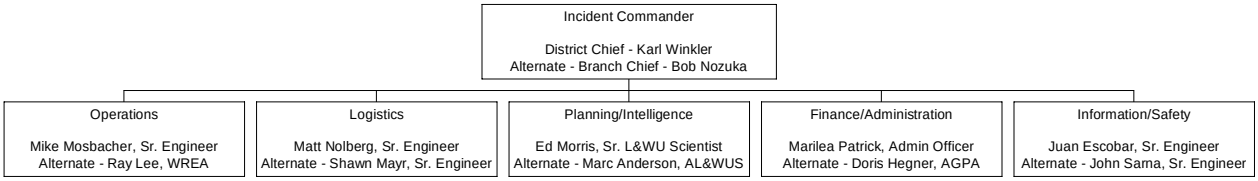
INTRODUCTION

This Recovery Action Plan has been prepared for the Division of Planning and Local Assistance, Central District, located at the Bonderson Building 901 P Street (3rd floor) in Sacramento, on P Street between 9th and 10th Street. The District office is part of a larger office complex occupied by the State and owned by Department of General Services. The 901 P Street building is shared with the Division of Planning and Local Assistance, Division of Flood Management, and Division of Environmental Services. In addition, other State of California agencies occupy parts of the building complex.

DPLA, Central District has a critical function to respond immediately to flood incidents, thus avoiding potential levee failure, loss of life, and destruction of property.

Because of the critical function of DPLA, Central District, business resumption of a portion of this District is a high priority. This Recovery Action Plan has been developed to follow the Standardized Emergency Management System.

ORGANIZATIONAL STRUCTURE:



FUNCTIONS

Critical functions (Must be restored within 24 hours):

- Respond immediately to incidents involving potential levee failure
- Monitoring and maintenance of key California Data Exchange Center stations
- Respond immediately to incidents of local water supply loss or major contamination.

Essential functions (Must be restored within 5 days):

- Restore compliance monitoring
- Purchasing

Necessary functions (Must be restored within 21 days):

- Dissemination of data (including well logs)
- Monitoring and data collection
- Administration/Finance

RECOVERY ACTION PLAN

Objectives

- Ensure employee and public safety.
- Mitigate effects on office, equipment, files, plans, data, hardware, and software.
- Restore critical functions.
- Restore essential functions.
- Restore necessary functions.

Resource List

28	Engineers/Water Resources Techs/WR Engineering Associate
6	Engineering Geologists
5	Environmental Scientists
5	Land and Water Use Scientists
1	Research Analyst (GIS)
6	Support Staff
55	Desktop personal computers
8	Laptop computers
10	TREOs
3	Servers
20	Printers
2	Scanners
1	Tape Library
1	Network Attached Storage (NAS)
72	Telephone lines (voice and LAN)
6	Digital cameras
27	Vehicles
28	Portable handheld and mobile radios
13	Cellular telephones
9	Pagers
	Files and plans
	Library

Loss of Function

The loss of function for the District could result from a flood, power outage, fire, explosion, riot, terrorism, earthquake, bomb threat, enemy attack, noxious vapors in the air, serious illness, or any condition affecting the health and welfare of employees. During the loss of function in the office, the Incident Commander (District Chief) would act to ensure the safety and security of employees remaining in the building. Perimeter security would be arranged.

Loss of Access

The loss of access to the District office would be the result of flooding of the access streets, earthquake destroying the road system and water supply, riot, hazardous material contamination, terrorism, or other disruptions around the District office. Perimeter security would be arranged.

Loss of Facility

The loss of facility would be the partial or total destruction of the office, due to flooding, riot, terrorism, earthquake destroying the building, hazardous material contamination, or fire. Perimeter security would be arranged.

The Recovery Strategy will be guided by individuals assigned to a specific organization structure. The Incident Commander and alternates will be the District Chief and/or Branch Chiefs.

The Department Operations Center, under supervision of the DWR Emergency Preparedness Manager, is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR Divisions/Offices when District resources are not sufficient and may reallocate available resources to higher priority functions.

Any temporary disruption in the operation of Central District will be acted on first by District staff. Overall charge of the incident would be given to the Incident Commander.

The Finance/Administration Section Chief will handle temporary disruptions by contacting the building owner to have services reconnected or have the area cleaned up. Staff would be designated to remain near the office, temporarily relocate, or go home.

Central District is advancing towards an electronic data management system to store data. However, many critical records are now stored in files and binders in various locations throughout the District. The records include historic well logs and other information that provides backup to elements of the CALFED process. During an emergency a determination will be made regarding the potential threat to these records and the plausibility of subsequent protective action. Such action may include sealing or relocating the records. Also, if an area evacuation is under way it will be necessary to evaluate the need for some limited patrol to avoid vandalism. This action will also be considered for valuable computer and other equipment.

Loss of all District records and data would have a severe impact on the District's ability to function. Many records are not available in an electronic format. The District has backup of computer files across the network to the Server. It is not known how many critical computer files could be lost or damaged during a loss of function. Central District does not currently have adequate long-term offsite storage for all records. Limited short-term offsite storage is available and some key records will be located there.

Coordination of Multiple Tenants

Currently daytime security is provided by a private security company for the entire building. The California Highway Patrol provides security for evening and night hours and weekends and holidays. Access to the District offices is through two common doors, one elevator, and two stairwells; access to the District is through the use of security cards and access codes.

Evacuation of all building occupants should be orderly because of the width of the corridors and total number of occupants in the building.

Alternate Sites

In a flood emergency, alternative sites to 901 P Street are immediately available. Primary locations for temporary alternate sites would be other DWR or State facilities such as the Resources Building. If those areas are not available, the secondary sites that would be evaluated are intergovernmental arrangements, such as the Office of Emergency Services, the U.S. Army Corps of Engineers, USGS, or city and county offices. Other commercial facilities would be evaluated last.

If the need were for long-term use, staff would search for available commercial offices.

Minimum Resources

a. Minimum resources needed within 24 hours (for a major flood event):

1,300 Square feet of office space
11 Desktop computers
8 Laptop computers
4 Printers
1 Server
28 Telephone connections
6 Digital Cameras
16 Two- or four-wheel drive vehicles w/ radios and cellular telephones

In a flood emergency, communication equipment such as pagers, cellular telephones, and handheld radios may be acquired through the Joint Operations Center, Logistics Section. In non-flood emergencies, equipment may be acquired through (1), the JOC Logistics Section, if established (2) the Department's Communications Office, or (3) private vendors through purchase orders.

Another element of communication is the Internet system. Staff will utilize alternate Internet locations if necessary. Existing computers can be connected directly to a server with modems when necessary (without security).

In the event of loss of power, Wide Area Network access, or telephone access, an emergency Internet connection could be established using a laptop with a cellular modem or cellular phone with modem. Power would be supplied by a portable generator or cigarette lighter connection in a vehicle. The use of these types of cellular modems would require approval to purchase them.

Helicopters may be required to report flooding or other disasters.

b. Minimum resources needed within 5 days:

2,100 Square feet of office space
17 Desktop computers
15 Laptop computers
6 Printers
1 Server
6 Digital Cameras
34 Telephone connections
20 Two- or four-wheel drive vehicles w/radios and cellular telephones

Disruptions of five days would require arrangements be made through the Logistics Section to find temporary office space to accommodate the staff required to continue the critical functions of Central District. This space would have a minimum of 2,100 square feet and require at least 17 desktop computers. The computers and District files could be moved from the District office to the temporary location, if they are accessible. Six printers would be necessary. Telephone service must be relocated to the temporary office space, with critical telephone numbers rerouted (District Chief's and Branch Chiefs'). Twenty two- or four-wheel drive vehicles would be used to inspect levees and take water flow measurements to prevent levee failures.

c. Minimum resources needed for full recovery within 21 days:

28	Engineers/Water Resources Techs/WR Engineering Associate
6	Engineering Geologists
5	Environmental Scientists
5	Land and Water Use Scientists
1	Research Analyst (GIS)
6	Support Staff
55	Desktop personal computers
8	Laptop computers
10	TREOs
3	Servers
20	Printers
2	Scanners
6	Digital Cameras
1	Tape Library
1	Network Attached Storage (NAS)
48	Telephone lines
27	Vehicles
28	portable handheld and mobile radios
13	Cellular telephones
9	Pagers
	Files and plans
	Library

Full recovery would require arrangements by the Central District Logistics Section or the DPLA Logistics Section for temporary or permanent office space to accommodate the full staff of the Central District. This space would have a minimum of 13,000 square feet and have at least 55 desktop computers. The computers could be moved from the District office, if it is accessible, to the temporary office. Twenty laser printers would be required. Telephone service must be relocated to the temporary office space, with critical telephone numbers rerouted (District Chief's and Branch Chiefs'). Sixteen vehicles would be used to inspect levees and take water flow measurements to prevent levee failures. The table located on page 10 further defines the elements that will need to be recovered.

Notification

If Central District loses function, access, or facility, the Incident Commander shall notify the Emergency Preparedness Manager.

The initial action will include identification of significant recovery-related elements by the Incident Commander. This will include: (1) determination of access to the 901 P Street facility, (2) determination if the facility has been destroyed or is beyond repair, and (3) review of business functions that may be impacted in connection with the event. Special review considerations shall be given to riots, floods, fires, earthquakes, and hazardous materials contamination. Also, an investigation of communications outages, power outages, computer failures, important documents, and available alternative sites will be promptly conducted.

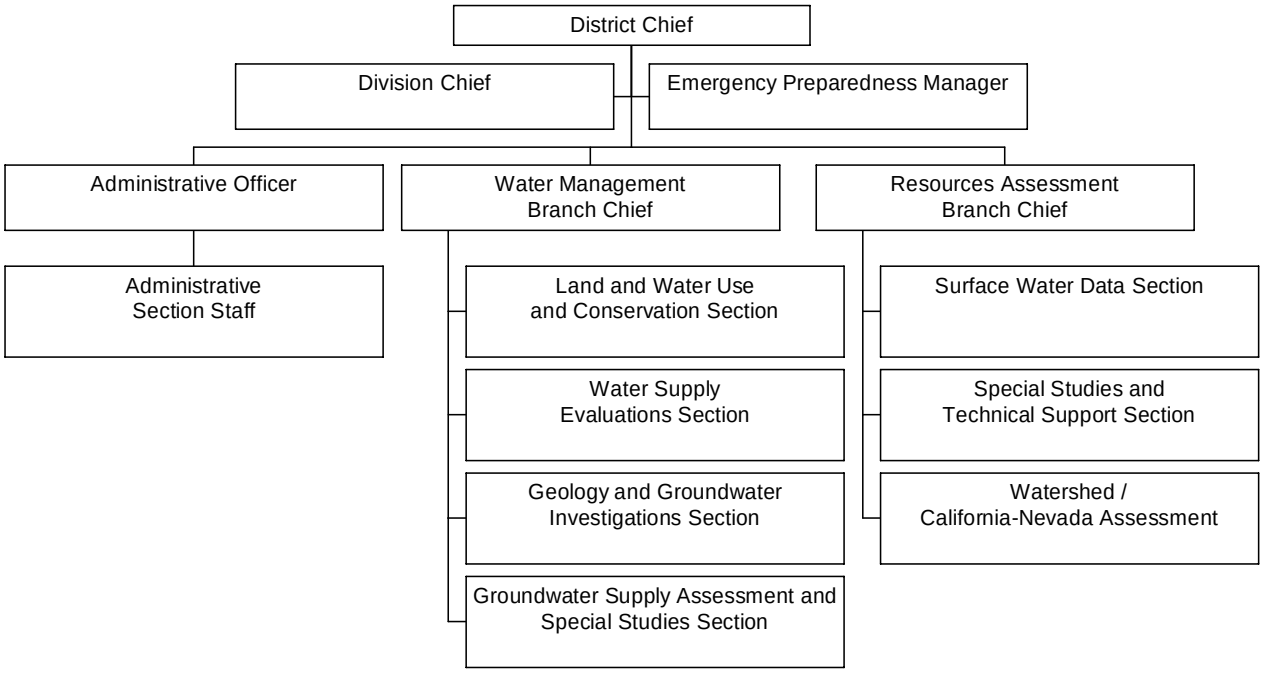
To activate recovery activities, the Incident Commander will review the recovery-related elements in connection with the critical, essential, and necessary functions. The Incident Commander will have information available specific to a recovery activity that will include the following: (1) home phone numbers of all employees, (2) pager numbers, (3) available cellular telephones, (4) vehicle and equipment information, (5) alternative site locations, and (6) offsite data storage locations. The Incident Business Commander will make a judgement on the minimum resources, including personnel, needed to restore operations and the approximate time required.

The Incident Commander will direct the Operations Section Chief to implement the plan in accordance with his determination. The Operations Section Chief will disseminate available information to employees, including determination of the method of contact. The Logistics Chief will prepare a report on resources and tasks developed by the Operations Chief. In cooperation with the Logistics Chief, the Finance/Administration Chief will track activities including timekeeping that will require concurrent attention. During recovery activities for this type of function, the established SEMS/ICS will be utilized. In some cases, personnel will be involved in duplicate roles.

During a flood-fight event, staff may be requested to relocate to the Resources Building if the Bonderson Building is destroyed or not accessible. A liaison will be stationed at the Joint Flood Operations Center on El Camino Avenue. To enhance reconnaissance information, National Guard helicopters will be requested. Notification of this action will immediately be made available to all Counties, State Boating and Waterways, and Governor's Office of Emergency Services.

All of the members of this organization will have the categories of major functions to be restored and critical information such as home phone numbers and other key contact information. The most important duties will be responding to critical functions. The most critical functions outside of the Delta Operations Plan will be logistical in nature. Using SEMS/ICS, an expanded organizational structure will be established within the Logistics Section. The traditional purchasing authority of disaster declaration or mission statement through the Office of Emergency Services may not be adequate to implement this response plan. New delegation authority needs to be defined to ensure implementation.

Notification Flowchart



Checklist

- ❑ Ensure safety of employees and the public.
- ❑ Determine extent of damage to the office, equipment, files, data, hardware and software.
- ❑ Notify employees of Central District of action to be taken.
- ❑ Notify the Emergency Preparedness Manager of the extent of damage.
- ❑ If limited damage, see the Central District Emergency Safety Plan, which has been distributed to every employee. Plan is to protect employees of the District in the event of any emergency condition such as flood, power outage, fire, explosion, riot, terrorism, earthquake, bomb threat, enemy attack, noxious vapors in the air, or serious illness.
- ❑ If incident involves major damage, loss of critical or essential functions, notify Emergency Preparedness Manager.

PLAN ADMINISTRATION

The goal of the Recovery Action Plan is to recover the operation of the District within a reasonable time. Every effort will be made to update the plan. Any unforeseen problem with the plan will be resolved as it is discovered and improvements made as they are advanced by District, Division, and Department employees.

The District Chief will assign an employee to maintain the plan. The plan will be reviewed and updated annually.

This plan has been drafted to be consistent with related emergency guidance documents, including:

- DWR Emergency Response Plan
- Water Resources Engineering Memorandum No. 63
- DWR SEMS Operation Manual (to be prepared/provided by DPLA Staff)

Critical computer files will be backed up periodically. The Logistics Section will ensure the batteries for the cellular phones are maintained for use during an emergency, have the vehicles maintained on a regular schedule, and have emergency supplies kept at a sustainable level.

The Planning and Intelligence Section shall maintain a backup file of the flood monitoring and GIS systems.

Plan exercise

Every employee of the District should be familiar with the Recovery Action Plan, so all are aware of their responsibilities and what actions are necessary to recover operation of the District.

Annual Tabletop Exercise

The District should conduct tabletop exercise of the plan, so that all employees are aware of their responsibilities during a loss of function, loss of access, loss of facility, and an emergency.

Functional Exercise

A full exercise of the plan should be conducted every five years, with participation by the affected Divisions, Districts, and Offices of the Department. This would discover problems with the operation of the plan.

The following table further defines the elements to restore the District to full function.

What	Who	How	Primary System	Where	Criticality
Computer Networks (LAN/WAN)	All EE's plus Data Collection	LAN WAN Admin	92 PC/MAC Systems	901 P Street & Field Locations	C.F.
CDEC Flood Stage Rec	CD, DFM, Local	Electronic Telecomm plus Mechanical Recorders	12 Recorders	7 River systems	C.F.
Data Dissemination (Incl. Well Logs)	CD	Data Files	WDIS	District-wide	N.F.
Monitoring and Data Collection	CD	Electronic Recorders attached to mechanical device; field visits	PC's, Field Books	District-wide	N.F.
Compliance Monitoring	CD, ESO, OM, Local	Electronic Telecommun-ications & mechanical records	10 Recorders	Delta	E.F.
Purchasing	CD	Computer manual	Manual or if Network avail, BIS-SAP	CD	E.F.
Admin-Finance	CD	Payroll, timekeeping, travel costs Personnel Transactions	Manual or if Network accessible, SAP	CD	N.F.

CD = Central District

DFM = Division of Flood Management
O&M = Division of Operation & Maintenance

SEMS = State Emergency Management System
RIMS = Response Information Management System
WDIS = Water Data Information System
C.F. = Critical Function
E.F. = Essential Function
N.F. = Necessary Function

INCIDENT COMMAND TEAM

(September 2006)
(Area code 916 unless otherwise noted)

Employee Name	Function	Office Phone	Home Phone	Pager
Department Operations Center				
Sonny Fong	Emergency Preparedness Manager	654-6135		592-7953
	Flood Operations Center	574-2619 (24-hr)		
	Project Operations Center	574-2714 (24-hr)		
Central District Personnel				
Karl Winkler	Incident Commander	651-0722		592-6577
Bob Nozuka	Alt Incident Commander	651-0759		
Juan Escobar	Information/Safety Liaison	651-0752		
John Sarna	Alternate Info/Safety Liaison	651-0721		
Mike Mosbacher	Operations Chief	651-0777		
Ray Lee	Alternate Operations Chief	651-0701		
Ed Morris	Planning & Intelligence Chief	651-0736		
Marc Anderson	Alternate P&I Chief	651-0738		
Matt Nolberg	Logistics Chief	651-0700		
Shawn Mayr	Alternate Logistics Chief	651-0764		
Marilea Patrick	Finance & Admin Chief	651-0744		
Doris Hegner	Alt, Finance & Admin Chief	651-0745		

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Planning and Local Assistance
San Joaquin District
3374 East Shields Avenue
Fresno, CA 93726
(559) 230-3300

A Component of the
DWR Business Resumption Plan

Appendix A: San Joaquin District
Facility/Organization Recovery Action Plans

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INTRODUCTION

The San Joaquin District Facility and Organization Recovery Action Plan establishes a District Incident Command Team and a facility and organization recovery process to respond to disasters that affect the business functions of the District. The Facility and Organization RAP is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The Facility and Organization RAP is not intended to be a set-piece recovery plan with exact steps to follow. The nature and scope of an event that results in loss or interruption of District functions cannot be predicted. The RAP uses the National Incident Management System (NIMS) and the Standardized Emergency Management System to guide staff in the recovery of affected facilities and functions. The RAP includes:

- An Incident Command Team designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the District's functions that must be restored.
- A description of the initial steps necessary to implement a recovery plan.
- A checklist to facilitate the implementation of a recovery plan.

ORGANIZATIONAL STRUCTURE

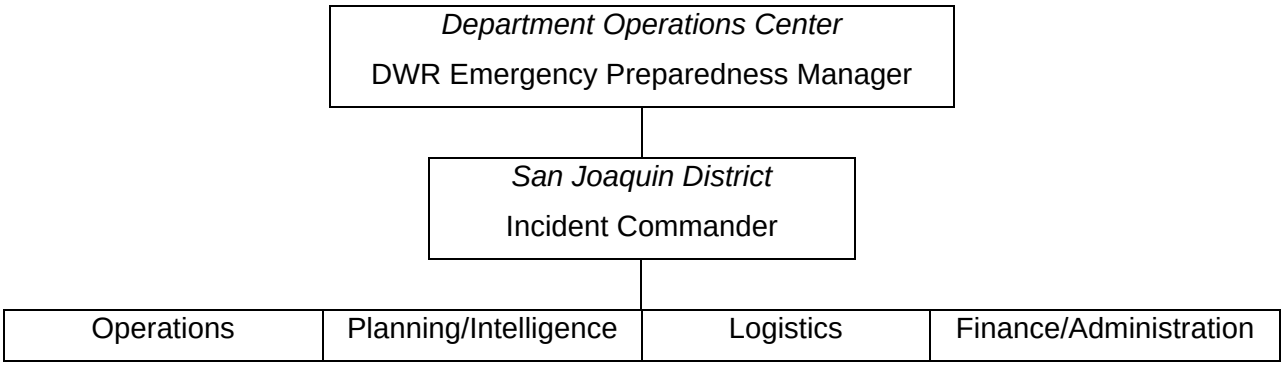
The District will be organized during the recovery, in accordance with the National Incident Management System (NIMS), the *Standardized Emergency Management System (SEMS)* and its field element, the *Incident Command System (ICS)*.

NIMS/SEMS is a method of organizing for emergency management. NIMS, SEMS and ICS utilize standard organization techniques, common terminology, and common functions and responsibilities that are applicable to almost any kind of emergency. All State agencies, and most of the city and county governments, in California are implementing NIMS/SEMS/ICS. The law requires the use of NIMS/SEMS/ICS by State agencies.

Incident Command Team

ICS will be used during the recovery from a disaster that results in the destruction of or loss of access to District facilities. The Incident Command Team will be formed and operated in conformance with NIMS/SEMS. ICS provides for common terminology and duties which allow considerable flexibility and adaptability in a wide variety of situations. While details of a particular event or incident may vary widely, the functions that must be carried out to deal with them are common to almost any kind of emergency. ICS can be and is used for a wide variety of emergency management activities. The ICS structure is shown below, followed by a brief description of the duties of each position related to the Recovery Action Plan.

Figure 1, Incident Command System Structure



Department Operations Center

The Department Operations Center (DOC), under supervision of the DWR Emergency Preparedness Manager, manages and coordinates the Department's recovery activities. The DOC will coordinate assistance from other DWR Divisions/offices when District resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The District Chief will be the Incident Commander, with a Deputy Incident Commander(s) to assist. The Incident Commander will receive guidance and report to DOC.

The Incident Commander and Deputies will be responsible for establishing objectives and goals, and for managing and coordinating the recovery efforts.

Operations Section Chief

The Operations Section Chief will supervise the implementation of the recovery plan. The Operations Section will implement the recovery plan with assigned staff.

Planning/Intelligence Section Chief

The Planning/Intelligence Section Chief will supervise the preparation of recovery plans and status reports for DWR management. The Planning/Intelligence Section will identify and track activities and resources needed for the recovery.

Logistics Section Chief

The Logistics Section Chief will supervise the requisition and distribution of resources necessary for the recovery plan. This will include supplies, facilities, vehicles, and equipment.

Finance/Administration Section Chief

The Finance/Administration Section Chief will supervise the financial and administrative functions necessary for the recovery plan. The Finance/Administration Section will be responsible for acquisition of resources, accounting and payment for resources (in cooperation with the Logistics Section) and accounts for, and pays for, activities related to the recovery plan. Timekeeping will also be the responsibility of this section. This section will be augmented by staff assigned by the DOC Logistics Section in proportion to the severity of the incident. The Finance/Administration Section will also prepare documentation to support potential FEMA reimbursement claims if a presidential declaration has been made.

FUNCTIONS

Department and District functions are separated into critical, essential, and necessary tasks. The classification of District functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide an entitlement, prevent financial hardship, or meet a legal requirement. The District does not, by this definition, engage in any critical tasks on a routine basis. During flood season, some of the District tasks support the Division of Flood Management and are classified as critical, particularly those in the areas of flood information, surface water measurement, and emergency response.

Essential tasks are those tasks that allow the District to accomplish its mission and which must be restored within 5 days. State Water Project contract accounting is classified as an essential task during certain times of the year.

Necessary tasks are those tasks that need to be restored within 21 days. Necessary tasks make up most of the District's functions.

Essential or necessary tasks may become critical depending upon time of year or other factors.

Table 1 lists the critical and essential functions (as they pertain to this plan) of the San Joaquin District. All other functions of the San Joaquin District are necessary tasks.

Table 1, San Joaquin District Critical and Essential Functions

What	Who	How	Criticality
Surface Water Measurement	Data Unit	Manual/ Computer	Critical during Flood Mobilizations, Flood Forecasting & Flood Alert
Emergency Response – Floods	SJD in support of DFM	Manual/ Computer	Critical during Flood Season
Emergency Response – Non-Flood	SJD in support of DWR	Manual/ Computer	Critical during State of Emergency
SWP Contract Administration	SJD in support of SWPAO	Manual/ Computer	Essential during certain parts of the year

RECOVERY ACTION PLAN

The Facility and Organization RAP is based on a sequence of events that will take place during an emergency. The principal elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on District functions, and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and periodic updates

Each employee will receive a copy of the plan to be kept offsite. Because this plan contains contact phone numbers, it should be considered a confidential document, and shared with non-DWR staff only when necessary.

Each year, the plan will be reviewed and an updated Incident Command Team composition and emergency contact list.

Copies of the RAP will be provided to the DWR Emergency Preparedness Manager, the Division of Planning and Local Assistance, and the Departmental Services Office.

Notification of Event

The District Chief or designee will notify the Department's Emergency Preparedness Manager immediately when an event requires implementation of RAP. See the San Joaquin District Recovery Action Plan Contact List for phone numbers.

Each supervisor, when notified by the ICT, will then notify subordinates. Each supervisor should maintain an appropriate contact list that should be considered confidential. The notification will include instructions, if needed, regarding a point of assembly, future contact procedures, and an initial procedure to carry out District functions.

In regard to the neutron probe used by the Water Conservation and Land & Water Use Section, special notification will be made to the District's Radiation Safety Officer, the State Department of Health Services and the manufacturer of the neutron probe (soil moisture). These phone numbers are listed in the contact list.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover District functions. The Incident Commander/Deputy will establish immediate and intermediate goals and objectives. The Operations Section Chief will implement appropriate notification and reporting procedures to District staff and take such immediate recovery steps as feasible. The Logistics Section Chief will establish immediate needs for resources. The Finance/Administration Section Chief will immediately implement emergency procurement and contracting procedures in accordance with the incident and coordinate with the DOC Finance/Administration Section to secure appropriate emergency financial authorizations and assistance. The ICT will allocate District staff to perform duties as required within the ICT structure.

Disaster Scenarios

The District's Facility and Organization Recovery Action Plan can be activated in both non-disaster and disaster scenarios.

The RAP defines non-disaster scenarios as any incident or event rendering the facility unusable for a short length of time that begins and ends within the duration of a business day.

The RAP defines two types of disaster scenarios:

- **Loss of Access** – A disaster or other incident preventing access to the San Joaquin District Office and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of the District Office and/or its contents.

Non-Disaster Scenarios

These scenarios assume that the District's documents, equipment, and facility remain intact and secure, but District staff are unable to use the facility. This may be due to an incident requiring a short-term evacuation or a facility-related incident that prevents District staff from carrying out their duties such as a power failure.

Evacuations

When an incident occurs requiring evacuation of the facility, District staff will immediately leave the facility and gather in the parking lot of the medical building immediately west of the state parking lot. Supervisors will be responsible for accounting for their staff and reporting to the Incident Commander. The ICT will meet and then issue further instructions.

Loss of Use

When an facility-related incident occurs that prevents District staff from carrying out their duties, the Incident Commander will consult with the ICT and issue appropriate instructions to District staff in accordance with DWR policies and procedures and after consulting, if necessary, with the Department's Emergency Preparedness Manager.

Disaster Scenario - Loss of Access

This scenario assumes that the District's documents, equipment, and facility are intact and secure, but District staff is unable to gain access. This may be due to a hazardous materials spill, a building problem, or some other type of incident. It is also assumed that access will be granted in the near future, but business must be restored prior to access being regained.

The ICT will meet and confer as soon as possible to assess the situation. The Department of General Services' Building Manager will be contacted as soon as possible to receive information on the status of the incident, its affect on the facility, and the probable date staff will regain access to the facility.

DWR's Emergency Preparedness Manager will be notified of the incident and informed on the immediate procedures for contacting the San Joaquin District. The standard notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or ICT member may be sent to the facility (or as close as possible) in case staff attempt

to report there. A notice with the appropriate information will be posted at, or as near as possible to, the facility.

Restoration of Critical Functions

Surface Water Measurements – DWR, U.S. Army Corps of Engineers, Kings River Water Association, and other organizations with surface water measuring capability will be immediately requested to take over monitoring of critical stations. Where applicable, these same agencies will be requested to loan trucks, crews, and/or equipment to help the District restore a minimum surface water measuring capability during flood season within 24 hours. For facility closures longer than 5 days, arrangements will be made to secure appropriate vehicles. Vendors will be contacted for rush delivery of equipment necessary to restore surface water measurement capabilities within 7 days. The ICT will arrange an interim facility for reporting and equipment storage.

Flood Emergency Response – SBC will be contacted to arrange an emergency automated referral to the Flood Operations Center for flood-related phone calls, to an alternate number for non-flood calls, or a call forward to an answering machine with an appropriate message. District staff on flood emergency status will be contacted to inform them of facility status and the alternate plans for their support. The Flood Operations Center will be requested to provide temporary logistic and administrative support to District staff on flood response. The FOC will be provided an appropriate contact procedure for additional assignment of staff to flood emergency missions. A temporary District flood fight coordination headquarters will be established as needed and the contact information provided to the FOC.

Non-Flood Emergency Response – The DOC will be notified, as described above, as the Department's coordinating authority during non-flood emergencies. The DOC Logistics Section and Finance/Administration Section will be notified to provide temporary assistance in supporting District staff assigned to emergency response duties. This will include providing direct logistical and financial support to staff (i.e., travel advances, supplies, and equipment) and/or arranging for the District Administration Branch to perform those functions through temporary arrangements for forms, documents, funds, and procedures.

Restoration of Essential Functions

SWP Contract Administration – Contract administration activities are classified as essential during parts of the year when delivery schedules. SWP contractors and SWPAO will be notified of the incident and new contact information. If the facility will not be accessible within 5 days, a computer system will be immediately procured with appropriate software and, using backup data from SWPAO, the contract administration functions recovered within 72 hours. A temporary facility will be secured depending upon the exact nature of the incident and the amount of time until access is gained to the District office. SWPAO assistance will be requested if needed. During non-essential periods, this function will be recovered along with other necessary functions.

Restoration of Necessary Functions

Section Chiefs will prepare an assessment of and a plan for restoring necessary functions for their respective sections. That plan will include the resources needed to perform the unit's functions until access is regained, a schedule for restoring all functions within the unit, and an assessment of the impact of those functions that cannot be restored within 21 days. The ICT will coordinate and integrate section plans, and implement a total recovery effort.

Disaster Scenario - Loss of Facility

This scenario assumes that the facility (and/or its contents) are destroyed or damaged beyond repair or recovery.

The ICT will meet and confer as soon as possible to assess the situation.

The Building Manager will be contacted as soon as possible to determine whether the alternate sites are available and for how long. The DOC Logistics Section will also be requested to assist in locating and arranging for a new office facility.

DWR's Emergency Preparedness Manager will be notified of the incident and informed on the immediate procedures for contacting the San Joaquin District staff. The notification procedure given below will be followed to alert employees of the incident. A staff member or ICT member may be sent to the facility (or as close as possible) in case staff attempt to report there. A notice with the appropriate information will be posted at the facility.

Restoration of Critical Functions

Surface Water Measurements – DWR, U.S. Army Corps of Engineers, Kings River Water Association, and other organizations with surface water measuring capability will be immediately requested to take over monitoring of critical stations. Where applicable, these same agencies will be requested to loan trucks, crews, and/or equipment to help the District restore a minimum surface water measuring capability during flood season within 24 hours. Vendors will be contacted for delivery of equipment necessary to restore surface water measurement capabilities as soon as possible. The ICT will arrange an interim facility for reporting and equipment storage.

Flood Emergency Response – SBC will be contacted to arrange an emergency automated referral to the Flood Operations Center for flood-related phone calls, to an alternate number for non-flood calls, or a call forward to an answering machine with an appropriate message. District staff on flood emergency status will be contacted to inform them of facility status and the alternate plans for their support. The FOC will be requested to provide interim logistic and administrative support to District staff on flood response until the District administrative support functions are restored. The FOC will be provided an appropriate contact procedure for additional assignment of staff to flood emergency missions. A temporary District flood-fight coordination headquarters will be established as needed and the contact information provided to the FOC. The ICT described in the District's Flood Emergency Response Plan will be integrated and modified, as necessary, to fit the situation.

Non-Flood Emergency Response- The Department Operations Center will be notified, as described above, as the Department's coordinating authority during non-flood emergencies. The DOC Logistics Section will be asked to provide interim assistance to District staff assigned to emergency response duties until the Districts administrative functions are restored. This will include providing direct logistical and financial support to staff (i.e., travel advances, supplies, and equipment).

Restoration of Essential Functions

SWP Contract Administration – Contract administration activities are classified as essential during parts of the year when delivery schedules. SWP contractors and SWPAO will be notified of the incident and new contact information. After a temporary facility is secured, a computer system will be immediately procured with appropriate software and, using backup data, contract administration functions will be restored within 5 days. SWPAO assistance will be requested if

needed. During non-essential periods, this function will be recovered along with other necessary functions.

Restoration of Necessary Functions

Section Chiefs will prepare an assessment of and a plan for restoring necessary functions for their respective sections. That plan will include the resources needed to perform the unit's functions until a complete new facility is provided, as well as a schedule for restoring all functions within the unit and assessing the impact of those functions that cannot be restored within 21 days. The ICT will coordinate and integrate section plans and implement a total recovery effort.

Alternate Sites

Incident Command Post

An Incident Command Post will be established as soon as possible. The State Building basement (2550 Mariposa Mall, Fresno 93721), with its available communications facilities, is the first choice. The ICT will be contacted to gather at that location. The private home of one of the ICT members may be used as an alternate gathering place.

Basic ICP Necessities

- Telephone Lines (2-4)
- Fax
- Office space for ICT
- 3 computer systems (Ops, P/I, Logistics/Finance/Admin)

State Building Basement (Emergency Center)

The State Building basement (2550 Mariposa Mall, Fresno 93721) includes an emergency center, which can also be used to house employees for a short time. Communications are available there.

State Building Auditorium

The Auditorium of the State Building in downtown Fresno can be used for a gathering place and for temporary office space using tables and chairs. However, there are definite communications deficiencies, such as a lack of telephones and access to the WAN. Cellular telephones will have to be used until phone lines are run into the room.

Checklist

The following is a checklist of procedures, facilities and other items that can be considered in conducting the recovery. Existing quantities are shown in parentheses and phone numbers are shown in the Contact List.

Operational Procedures

- ❑ Notifications
  - ❑ Emergency Preparedness Manager
  - ❑ DGS Building Manager
  - ❑ DPLA Division Chief
  - ❑ District Staff
  - ❑ Flood Operations Center
  - ❑ San Luis Field Division
  - ❑ San Joaquin Field Division
  - ❑ SBC
  - ❑ UPS, U.S. Postal Service
  - ❑ Other service providers
- ❑ Facility procurement
- ❑ Communications procurement
  - ❑ Telephones
  - ❑ Fax
  - ❑ Cell Phones
  - ❑ Pagers
- ❑ Mobile equipment
- ❑ Administration procedures
  - ❑ Personnel
  - ❑ Program Control
  - ❑ File Storage/Retrieval
  - ❑ Supply
  - ❑ Financial/Procurement

Facilities

- ❑ Office space (1,000 ft^2)
- ❑ Office furniture for technical staff (50)
- ❑ Office furniture for clerical staff (3)
- ❑ Office furniture for administration staff (5)
- ❑ Office furniture for data staff (10)
- ❑ Parking (22 State & 60 private)
- ❑ Workshop (3,000 ft^2)

Communications/Computers

- ❑ Standard PCs (60)
- ❑ GIS workstations (4)
- ❑ Network Equipment (Domain Controller, Exchange Server, Hydstra Server, 3 File Servers and accessories)
- ❑ Cellular telephones (up to 25)
- ❑ Telephone lines, incl. modem, fax (75)

Vehicles (26 total)

- Pool Vehicles (5-sedans, 1-van and 3-2wd p/u)
- Assigned Vehicles
  - Data Unit (2-2wd & 2-4wd p/u, 3 w/canopy)
  - Environmental Section (2-4wd SUV and 2-4wd p/u)
  - Other (1- 4wd crew cab p/u w/dual rear wheel, 3-4wd p/u, 1-4wd club-cab p/u (?), and 4-2wd p/u)

Equipment

- Surface water measurement equipment (3 sets)
- Field equipment, Environmental Section
- Field equipment, Water Conservation and Land and Water Use Section
- Field equipment, River Management Section
- Data Unit Workshop equipment

Pre-planning

Information Protection

Protection and backup of vital information are a vital part of this plan and the speedy recovery of all functions. Each section should review annually their procedures to protect critical data and to recover these data in case of a temporary or permanent business disruption.

Types of Data to be Stored Offsite

- Surface Water Flow and Quality Data
- Groundwater Level and Quality Data
- Water Well Driller's Reports
- Precipitation Data
- Land Use Field Data
- Field Survey Data
- GIS/Auto-Cad Data and Files
- Water Balance Computations
- SWP Water Data (SWP Contract Admin)
- Other computer based information

Data should be classified for backup according to criticality of function.

Exercises

Tabletop exercises are the most relevant type of exercise to test the Recovery Action Plan. A functional exercise is a possibility when combined with the desire to test the District's use of the ICS.

A tabletop exercise is a low stress, conference room exercise where a scenario is presented and the Facility/Organization RAP discussed, and actions and communications are coordinated. Based on these discussions, an RAP is adjusted and revised as necessary. A tabletop exercise will be held at least every three years.

Plan Administration

The RAP will be reviewed annually by the ICT. The Incident Command Team roster and Contact List will be revised and reissued each year. The business functions of the District will be reviewed and, if necessary, the plan will be revised to reflect changes to the District functions in the critical and essential categories.

INCIDENT COMMAND TEAM

(NIMS/SEMS/ICS trained in Italics)
(September 2006)

Incident Commander – *Paula Landis*
- Deputy Incident Commanders – *Brian Smith*
- Deputy Incident Commander – *Jose Faria*

Operations Section Chief – *Iris Yamagata*
- Alternate Section Chief – *Kevin Faulkenberry*

Planning/Intelligence Section Chief – *Ben Igawa*
- Alternate Section Chief – *Paul Romero*
- Advanced Planning – *Al Steele*
- Situation – *Ernie Taylor*
- Documentation – *Ciny Moffett (?)*
- Demobilization – *Al Steele*
- Clerical Asst. – Anna Mancillas (?)

Logistics Section Chief – *Dave Scruggs*
- Alternate Section Chief – *Karen Dulik (?)*
- Communications/Computers – Mark Chadwick
- Supply – Anna Mancillas

Finance/Administration Section Chief –Cheryl Moore
- Cost – Noemi Baca
- Contracts – Noemi Baca
- Procurement – Anna Mancillas
- Timekeeping – Johnie Hill

CONTACT LIST

DWR - Executive

Sonny Fong, Department Emergency Preparedness Manager	
Office	916-654-6135
Pager	916-592-7953
Cell	916-719-3244
Home	

State/Federal Flood Operations Center	916-574-2619
	1-800-952-5530

Division of Planning & Local Assistance

Mark Cowin, Division Chief	
Office	916-651-9202
Cell	916-947-9254
Home	

San Joaquin District (Home)

Paula Landis, District Chief	
Office	559-230-3310
Cell	559-779-8900
Home	
Brian Smith, Resources Assessment Branch Chief	
Office	559-230-3342
Cell	559-269-0180
Home	
Jose Faria, Special Investigations Branch Chief	
Office	559-230-3339
Home	
Cheryl Moore, Administrative Branch Chief	
Office	559-230-3321
Cell	559-696-8813
Home	

DWR – Division of Operations and Maintenance

San Luis Field Division ACC	209-827-0503
San Joaquin Field Division ACC	805-858-5560

Department of General Services

Building Manager	559-445-5084

California Highway Patrol

Non-emergency, 24hr	559-445-5400

Neutron Probe Contacts

David Scruggs, Radiation Safety Officer	
Office	559-230-3322
Home	
California Department of Health Services – Emergency, 24hr	800-852-7550
Neutron Probe Manufacturer	925-228-9770
Al Steele, San Joaquin District Safety Officer	
Office	559-230-3308
Cell	559-281-0985
Home	

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Planning and Local Assistance
Southern District
770 Fairmont Avenue, Suite 102
Glendale, CA 91203-1035
(818) 543-4600

A Component of the
DWR Business Resumption Plan

Appendix A: Southern District
Facility/Organization Recovery Action Plan

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INTRODUCTION

The Southern District Facility/Organization Recovery Action Plan establishes a District Incident Command Team and a facility and organization recovery process to respond to disasters that impact the business functions of the District. The RAP is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The RAP is not intended to be a set-piece recovery plan with exact plans to follow. The nature and scope of an event that result in loss or interruption of District functions cannot be predicted. The RAP is, a plan for a process with functions to be carried out, using the Standardized Emergency Management System, leading to recovery of District facilities and functions.

The RAP includes:

- An incident command team designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the District's functions that must be restored.
- A description of the initial steps necessary to implement a recovery plan.
- A checklist to ease the start of a recovery plan.

ORGANIZATIONAL STRUCTURE

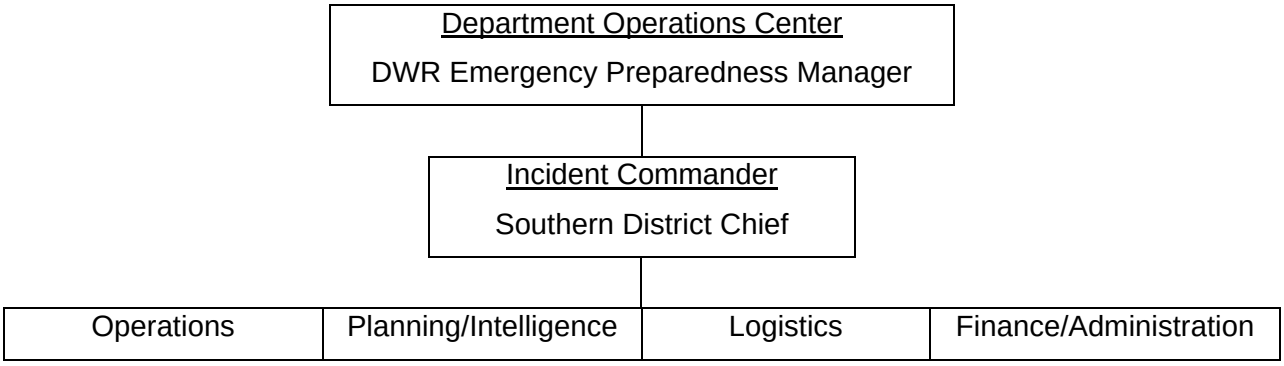
The organization of the District, during the recovery, will be in accordance with the Standardized Emergency Management System and its field element, the Incident Command System.

SEMS is a method of organizing emergency management. SEMS and ICS use standard organization techniques, a common terminology, and common functions and responsibilities that are applicable to almost any kind of emergency. All State agencies and most of the city and county governments in California use SEMS/ICS. Law requires the use of SEMS/ICS by State agencies.

Incident Command Team

ICS will be used during recovery from a disaster resulting in loss of access to District facilities. The ICT will be formed and operated in conformance with SEMS. The ICS, being used Department-wide for emergencies, provides for common terminology and duties providing flexibility and adaptability to a variety of situations. While details of a particular event or incident may vary, the functions that must be carried out to deal with them are common to almost any kind of emergency. ICS can, and is, used for a variety of emergency management activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position.

Figure 1, Incident Command System Structure



Department Operations Center

The Department Operations Center, under supervision of the DWR Emergency Preparedness Manager, is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR Divisions/offices when District resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The District Chief will be the Incident Commander with a Deputy Incident Commander assisting. The Incident Commander will receive guidance and report to the DOC. The Incident Commander and Deputy will be responsible for establishing objectives and goals, and management and coordination for the recovery efforts.

Operations Section Chief

The Operations Section Chief will implement the recovery plan.

Planning/Intelligence Section Chief

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for DWR management.

Logistics Section Chief

The Logistics Section Chief will requisition, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles and equipment.

Finance/Administration Section Chief

The Finance/Administration Section tracks (in cooperation with the Logistics Section), accounts for, and pays for activities related to the recovery plan. Timekeeping will also be the responsibility of this section. It is intended that this section will be augmented by staff as needed, in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Department and the District are separated into critical, essential and necessary tasks. The classification of District functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide an entitlement, prevent financial hardship or meet a legal requirement. The District does not, by this definition, engage in any critical tasks routinely. During flood season, some of the Districts tasks in support of the Division of Flood Management are classified as critical in the area of emergency response and flood information.

Essential tasks are those tasks that allow the District to accomplish its mission and which must be restored within 5 days.

Necessary tasks are those tasks that need to be restored within 21 days. Necessary tasks make up most of the District's functions.

Essential or necessary tasks may become critical depending upon the time of year or other factors.

Table 1 lists the Critical and Essential functions (as they pertain to this plan) of the District. All other functions of the District are necessary tasks.

Table 1, Critical and Essential Functions

What	Who	How	Criticality
Emergency Response – Floods	SD in support of DFM	Manual & Computer	Critical during Periods of Flooding
Emergency Response – Non-Flood	SD in support of DWR	Manual & Computer	Critical during State of Emergency

RECOVERY ACTION PLAN

The District RAP is based on a sequence of events that will take place. The elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on District functions and recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and periodic updates

Incident Command Team members will receive a copy of the plan to be kept offsite.

Copies of the Recovery Action Plan will be provided to the DWR EPM, Division of Planning and Local Assistance, and Departmental Services Office.

Notification of Event

The Incident Commander will notify the Department's EPM immediately upon an event that requires implementation of the Facility and Organization RAP. Refer to the Contact List on the last page of this plan.

The Operations Section will notify staff of the emergency. The notification will include instructions, if needed, regarding a point of assembly, future contact procedures, and an initial procedure to carry out District functions.

Special notification will be made to the State Department of Health Services and the manufacturer of the neutron probe (soil moisture).

Initial Assessment

The ICT will meet as soon as possible after the event to assess the situation and determine the steps necessary to recover District functions. The IC will establish immediate goals and objectives and the operational period. The Operations Section Chief will implement appropriate notification and reporting procedures to District staff and take such immediate recovery steps as feasible. The Planning/Intelligence Chief will develop an action plan and develop long-term goals. The Logistics Section Chief will establish immediate needs for resources. The Finance/Administration Section Chief will immediately implement emergency purchasing procedures as appropriate for the incident and coordinate with DOC to secure appropriate emergency financial authorizations and assistance.

Disaster Scenarios

The District's Facility and Organization Recovery Action Plan defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to the District Office and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of the District Office and/or its contents.

Loss of Access

This scenario assumes that the District's documents, equipment, and facility are intact and secure, but District staff is unable to gain access. This may be due to a hazardous materials spill, a building problem, or some other type of incident. It is also assumed that access will be granted in the near future but business must be restored prior to gaining access.

The ICT will meet and confer as soon as possible to assess the situation. The building owner/manager will be contacted as soon as possible to receive information on the status of the incident, its effect on the facility and the likely date to regain access to the facility.

DWR's EPM will be notified of the incident and the procedures for contacting the District will be initiated. The standard notification procedure given below will be followed to alert employees of the incident. A staff member or ICT member may be dispatched to the facility (or as close as possible) in case staff attempt to report there. A notice of some type will be posted at, or as near as possible to, the Facility with appropriate information.

Restoration of Critical Functions

Flood Emergency Response – Pacific Bell and DWR Telecommunications will be contacted to arrange an emergency automated referral to the Flood Operations Center for flood-related phone calls or to an alternate number for non-flood calls (or a call forward to an answering machine with an appropriate message). District staff on flood emergency status will be contacted to inform them of facility status and the alternate plans for their support. The FOC will be requested to provide temporary logistic and administrative support to District staff on flood response. The FOC will be provided an appropriate contact procedure for additional assignment of staff to flood emergency missions. A temporary district flood fight coordination headquarters will be established as needed and necessary and the contact information provided to the FOC.

Non-Flood Emergency Response - The DOC will be notified as above as the Department's coordinating authority during non-flood emergencies. The DOC will be notified to provide temporary assistance in supporting District staff assigned to emergency response duties. This will include providing direct logistical and financial support to staff (i.e., travel advances, supplies and equipment) and/or arranging for the District Administration Branch to perform those functions through temporary arrangements for forms, documents, funds, and procedures.

Restoration of Essential Functions

DTS will be contacted to provide PPP access to WAN/Internet resources for District Managers. District IT staff will be contacted to provide fax access and restoration of local computer hardware and file systems.

Restoration of Necessary Functions

Section Chiefs will prepare an assessment and a plan for restoration of necessary functions for their respective sections. That plan will include the resources needed to perform the units functions until access is regained, a schedule for restoration of all functions within the unit and assessment of the impact of those functions that cannot be restored within 21 days. The ICT will coordinate and integrate section plans and implement a recovery effort.

Loss of Facility

This scenario assumes that the facility (and/or its contents) are destroyed or damaged beyond repair or recovery.

The ICT will meet and confer as soon as possible to assess the situation.

The building owner/manager will be contacted as soon as possible to determine whether the alternate sites are available and for how long. DWR Departmental Services will be requested to assist in locating and arranging for a new office facility.

DWR's EPM will be notified of the incident and the procedures for contacting the District will be initiated. The notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or ICT member may be dispatched to the facility (or as close as possible) in case staff attempt to report there. A notice will be posted at the Facility with the appropriate information.

Restoration of Critical Functions

Flood Emergency Response – Pacific Bell and DWR Telecommunications will be contacted to arrange an emergency automated referral to the Flood Operations Center for flood-related phone calls or to an alternate number for non-flood calls (or a call forward to an answering machine). District staff on flood emergency status will be contacted to inform them of facility status and the alternate plans for their support. The FOC will be requested to provide interim logistic and administrative support to District staff on flood response until the District administrative support functions are restored. The FOC will be provided an appropriate contact procedure for additional assignment of staff to flood emergency missions. A temporary district flood fight coordination headquarters will be established as needed and necessary and the contact information provided to the FOC. The Incident Command Team under the District's Flood Emergency Response Plan will be integrated and modified, as necessary, to fit the situation.

Non-Flood Emergency Response - The DOC will be notified as above as the Department's coordinating authority during non-flood emergencies. DOC Logistics Section will be notified to provide interim assistance in supporting District staff assigned to emergency response duties until the District's administrative functions are restored. This will include providing direct logistical and financial support to staff (i.e., travel advances, supplies, and equipment).

Restoration of Essential Functions

DTS will be contacted to provide PPP access to WAN/Internet resources for District Managers. District IT staff will be contacted to provide fax access and restoration of local computer hardware and file systems.

Restoration of Necessary Functions

Section Chiefs will prepare an assessment and a plan for resolving necessary functions for their respective sections. That plan will include the resources needed to perform the unit's functions until a complete new facility is provided along with a schedule for restoration of all functions within the unit and assessment of the impact of those functions that cannot be restored within 21 days. The ICT will coordinate and integrate section plans and implement a recovery effort.

Alternate Sites

Incident Command Post

An Incident Command Post will be established as soon as possible. The Southern Field Division office in Castaic with its available communications facilities is the first choice. The ICT will be contacted to gather at that location. As an alternate, a private home of one of the ICT members will be used as available.

Basic ICP Necessities

- Telephone Lines (2-4)
- Fax
- Office space for ICT
- Computer systems (4) (Operations, Planning/Intelligence, Logistics, Finance/Administration)
- Two-Way Radios (3-4)

Other State Office Buildings

The Los Angeles County area has many state offices that could be used in the event of an emergency.

Checklist

Existing quantities are shown in parentheses.

Operational Procedures

- ❑ Notifications
  - ❑ Emergency Preparedness Manager
  - ❑ Building Owner/Manager
  - ❑ DPLA Division Chief
  - ❑ District Staff
  - ❑ Flood Operations Center
  - ❑ Southern Field Division
  - ❑ Pacific Bell and DWR Telecommunications
  - ❑ United Parcel Service, U.S. Postal Service
  - ❑ Other service providers
- ❑ Emergency facility procurement
- ❑ Emergency communications procurement
  - ❑ Telephones
  - ❑ Fax
  - ❑ Cell Phones
  - ❑ Pagers
  - ❑ Two-Way Radios
- ❑ Emergency mobile equipment
- ❑ Emergency administration procedures
  - ❑ Personnel
  - ❑ Program Control
  - ❑ File Storage/Retrieval
  - ❑ Supply

- Financial/Procurement

Facilities

- Office space (17,000 ft^2) and Furniture
  - District Chief & Administration Branch staff (9)
  - Water Management Branch staff (20)
  - Resources Assessment staff (16)
  - California Energy Resources Scheduling staff/consultants (7)
- Parking (10 state & 44 private)

Communications/Computers

- Standard PC's (54)
- GIS/digitizing workstations (6)
- Network servers (3) and Watermaster server (1)
- Cell phones (8)
- Telephone lines (60), plus 6 modem and fax lines.

Vehicles (11 total)

- Pool Vehicles (2-sedans, 2-vans (1-all wheel drive))
- Assigned Vehicles
  - Watermaster Section (1-4x4 Bronco, 1-2wd truck)
  - Water Conservation and Land & Water Use Section (2-Vans & 1-Truck)
  - Recreation Section (1-Van & 1-4x4 Truck)

Equipment

- Field equipment, Watermaster Section
- Field equipment, Water Conservation and Land & Water Use Section

Pre-planning

Information Protection

A vital part of this plan and the speedy recovery of all functions are the protection and backup of vital information. Each section should review on an annual basis their procedures to protect critical data and how best to recover these data in case of a temporary or permanent business disruption.

Types of Data to be backed-up and Stored Offsite (network disk drives are archived weekly)

- Surface Water Quality Data
- Groundwater Level and Quality Data
- Water Well Driller's Reports
- Land Use Field Data
- GIS/AutoCad Data and Files
- Water Balance Computations
- Watermaster Data

Data should be classified according to urgency of function to assess the importance of backup.

Exercises

To test emergency action plans, three types of exercises are used: tabletop, functional, and field. A tabletop exercise is the most relevant to test this plan. A functional exercise is a possibility when combined with the desire to test the District's use of the ICS. A field exercise is not necessary or practicable.

A tabletop exercise is a low stress conference room exercise where a scenario is presented and the RAP is discussed and actions and communications coordinated. Based on these discussions an EAP is adjusted and revised as necessary. A tabletop exercise will be held at least once a year.

A functional exercise simulates the real thing through the use of a master message list. A simulated ICP is created, communications passed and recorded with exercise simulators providing input and additional messages. In this case the exercise can be a fairly simple one that gives District staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held at least every five years.

Plan Administration

The RAP will be reviewed annually by the ICT. The organization of the ICT and vital contact telephone numbers will be revised and reissued annually. The business functions of the District will be reviewed and, if necessary, the plan will be revised to reflect changes to the District functions in the Critical and Essential categories.

INCIDENT COMMAND TEAM

(September 2006)

Incident Commander – Mark Stuart

Work: 818/500-1645 Home: Pager: none Cell: 818/207-9487

Deputy Incident Commander – Robert Pierotti

Work: 818/500-1645 Home: Pager: none Cell: 818/359-3373

Operations Section Chief – Garret Tam Sing

Work: 818/500-1645 Home: Pager: none

Planning /Intelligence Section Chief – Charles Keene

Work: 818/500-1645 Home: Pager: none Cell: 818/203-3127

Logistics Section Chief – David Inouye

Work: 818/500-1645 Home: Pager: none Cell: 818/604-0819

Communications/Computers – Tahnda Bailey

Work: 818/500-1645 Home: Pager: none

First Aid Supplies – Edwin Thompson

Work: 818/500-1645 Home: Pager: none

Finance/Administration Section Chief – Vacant

Work: 818/500-1645 Home: none Pager: none

CONTACT LIST

(September 2006)

DWR - Executive	
Sonny Fong, Emergency Preparedness Manager	Office 916/654-6135
	Pager 916/592-7953
	Home
State/Federal Flood Operations Center	916/574-2619
Division of Planning & Local Assistance	
Mark Cowin, Division Chief	Office 916/651-9202
	Home
	Cell 916/803-1789
Southern District	
Mark Stuart, District Chief	Home
	Cell 818/207-9487
Vacant, Administrative Branch Chief	
Bob Pierotti, Resources Assessment Branch Chief	Cell 818/359-3373
Charles Keene, Water Management Branch Chief	Home
	Cell 818/203-3127
Garret Tam Sing, Flood Fight Coordinator	Home
DWR – Division of Operations & Maintenance	
Southern Field Division Area Control Center (24-hour)	661/944-8600
State Water Project Operations Center (24hr)	916/574-2714
Building Owner/Manager	
Ben Chen, Owner	909/481-6388
	Cell 909/576-5848
Vahic Vahanian, Maintenance	Cell 818/321-3182
California Highway Patrol	
Non-emergency, 24-hr	626/296-8100
Emergency	911

Other Contacts

Gerald Zimmerman/Colorado River Board (sublessor)	Work 818/500-1625
	Home
	Cell 818-400-8988
Dave Scruggs/DWR's Liaison to CA Dept. Health Services	559/230-3322

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Operations and Maintenance
Oroville Field Division
460 Glen Drive
Oroville, CA 95966

A Component of the
DWR Business Resumption Plan

Appendix A: Oroville Field Division
Facility/Organization Recovery Action Plan

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FOREWORD

This Recovery Action Plan was written in order to meet the Department's commitment to establishing a BRP that addresses its various organizations and missions. Its purpose is to ensure that the Oroville Field Division is prepared to effectively and timely restore its functions in the event a disaster or other emergency conditions impact its continuous operation.

The Oroville Field Division operates 24-hours a day, and is critical to the operation of the California State Water Project and an essential participant in carrying out the Department's mission.

This plan is to provide guidelines for emergency preparedness prior to, and specific business-resumption information after such unforeseen situations as mentioned above. The BRAP is a component of the Department-wide BRP and both are living documents that will be updated annually.

INTRODUCTION

The Oroville Field Division is critical to the State Water Project operation and the DWR's mission. This RAP will provide the capability to mitigate the impact of a disruption to the Field Division's business. It will address a long-term business outage due to a loss of a facility, and short-term business outage due to a loss of access to a facility. The strategies listed address OFD's critical, essential, and necessary functions, and their role in the operation of the Field Division.

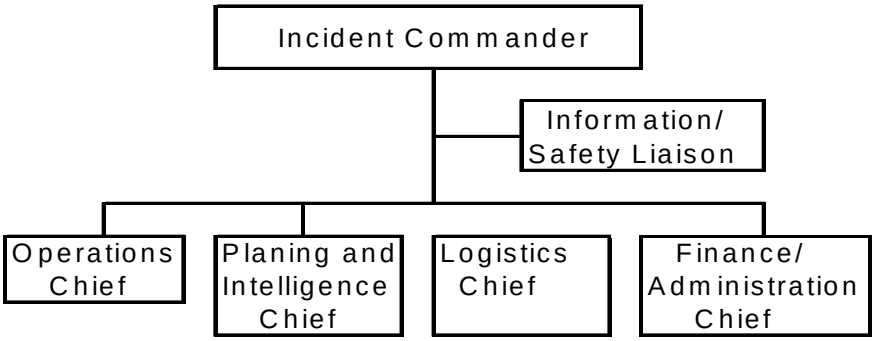
The plan builds upon the Standardized Emergency Management System to manage disasters and emergency situations that disrupt the daily business functions of the Oroville Field Division. It establishes their criticality and provides a sequence and procedures to follow for the recovery of business following the occurrence of any emergency condition, which partially or completely interrupts the daily business of the Field Division. In addition, this plan specifies preventive measures that will accelerate the implementation of the plan and consequently the prompt resumption of business.

It is important to note that the business recovery of the Field Division is ultimately entrusted to an Incident Command Team. It is not the intent of this plan to dictate particular assessments and actions of an organization member – such actions will be dictated by the unique situation that a disruptive emergency condition is likely to create.

ORGANIZATIONAL STRUCTURE

The Oroville Field Division establishes an Incident Command Team, a major component of the Business Recovery Action Plan. Its purpose is to manage an incident-specific response and resource allocation, following a disaster or other emergency condition affecting the operation of a State Water Project facility, in order to achieve specific business recovery objectives effectively and timely.

The following chart identifies the individuals, including alternates, their roles and responsibilities for the various aspects of the recovery plan.



Incident Commander

The Incident Commander is responsible for establishing objectives and goals and is the director of the recovery activities.

Operations Section

The Operations Chief is charged with implementing the recovery plan. He/She will give practical effect to and ensure the actual fulfillment of the recovery effort(s).

Planning/Intelligence Section

The Planning and Intelligence Chief is responsible for collecting, and evaluating information about the incident and to identify recovery activities and the necessary resources.

Logistics Section

The Logistics Chief is responsible for organizing, tracking, and allocating resources to the tasks assigned by the Operations Chief, which include facilities, personnel, equipment, and supplies.

Finance/Administration Section

The Finance/Administration Chief is responsible for ensuring that all activities related to the recovery plan, including time keeping, are tracked, accounted for, and paid.

Information/Safety Liaison

The information/safety Liaison is responsible for providing Public Information, Safety, and Liaison services for the recovery organization.

FUNCTIONS

In order to facilitate an organized recovery, the various major business functions performed by the Oroville Field Division have been identified and classified according to their impact to our mission.

Recovery of functions with the greatest impact to our mission will receive the highest priority as follows:

Critical Functions – Because of their immediate impact to our operation, and that of the State Water Project, the following functions must be restored within 24 hours. Failure to restore any of the critical functions in a timely manner will result in the negative consequences described below:

Flood Control – The Oroville Complex serves as a flood control facility during flood season (October 15 through June 15). It is critical that flood control capability be restored as quickly as possible. Failure to do so could result in loss of life and property.

Scheduled Water or Power Delivery – This is a critical function that must be restored within 24 hours. The failure to deliver scheduled water for stream flow mitigation or to State water contractors could have a major domino effect to their water customers due to agricultural needs year around. Failure to deliver scheduled power could result in large fines, loss of revenue, and jeopardize the FERC operating license.

Coordinate Work and Provide Feedback/Information to the POC – communications with the POC is critical. Loss of communications would prohibit us from receiving required pumping and generate schedules. In addition, loss of communications would prohibit feedback to the POC during an OFD emergency that would require an immediate POC response.

Critical Support Functions

Data Communications Maintenance – The fiber optic based data communication system provides complex-wide interconnection of the various control systems and administrative computers. A loss of this system would result in the inability to monitor or control any remote site - plant, dam or turnout sites.

Voice Communications Maintenance – The voice communication system is a combination of Nortel Meridian PBX's, fiber optic systems, commercial telephone services, radios, and cellular telephones. The loss of voice communications would result in the inability to coordinate the operation of the Oroville complex.

Control Systems/SCADA – Control systems enable automation, remote control, and monitoring of the SWP facilities. The loss of the control system would require manual operation and would tax existing resources.

Contracts and Departmental Service Agreements – The OFD is responsible for over 20 service contracts and 5 DSA's per year. Services range from janitorial and grounds keeping to hazardous materials and solid waste removal. The loss of this function will delay or postpone services that are needed on a timely basis. This function would be particularly critical in the event of an emergency which emergency services are required.

Procurement – Being responsible for purchasing over $1.2 million per year, in commodities, procurement plays a critical support function in the operation of the OFD. The loss of this function will delay or postpone the ordering of needed parts, supplies and/or materials. Again, this function would be particularly critical in the event of an emergency when emergency resources are needed.

Warehousing and Issuing – The warehouse of parts, materials and supplies serves as a critical support function. The warehouse is located at the O&M Center. The loss of this function will severely limit the availability and issuance of parts, materials and supplies.

Essential Functions – Listed below is a second group of major functions, which have been identified as essential and must be restored within 72 hours. Failure to restore any of the essential functions will result in negative consequences as explained below:

Maintain Pump and Generating Units in Operational Conditions – Failure to perform maintenance on pumping units and related equipment could result in the failure of the units to start or operate when needed to meet scheduled water deliveries and generation. In addition, the failure of units to start could also result in large fines by the ISO by not making scheduled deliveries of both water and power.

Lake Oroville, Forebay, and Afterbay Water Control Facility Maintenance – Failure to perform adequate maintenance on water control facilities would be considered essential anytime of the year. Water control facilities for the control of floodwaters, river flows, reservoir elevation and hatchery water are essential. High storm flows bring debris into the lake, which must be captured and moved into designated areas for disposal. Failure to perform this function would result in widespread dispersion of debris on the lake, possible damage to turbine runners, and other water convenience facilities.

Essential Support Functions

Engineering Support – This support function provides technical assistance for repair and maintenance of equipment. Incident investigations, analysis, and recommendations for changes are necessary to prevent equipment failure. The inability to perform this function, particularly in the event of performing modifications to restore plant operation, can have serious consequences in addition to delays.

Timekeeping – Entering employee time data for payroll purposes is considered an essential support function. The loss of this function will affect employees' pay, delay payroll checks or direct deposits, and delay cost recovery information.

Necessary Functions – The third group of major functions listed below has been identified as necessary; these functions must be restored within 21 days.

Environmental Clearances – This function refers to performing environmental assessments of projects located in threatened or endangered species habitat. Since no activities are to be conducted without a permit/clearance, civil maintenance activities will be impacted due to the loss of this function.

Encroachment Permits – The ability to issue permits to perform work on Department owned property/facilities is a necessary function. Should work be performed without a proper permit, the OFD would not be legally protected from the action of others.

Human Resources – This function refers to the responsibility to perform delegated testing and hiring of staff. Loss of this function will delay or postpone the filling of vacancies.

Revolving Fund – Travel advances are issued, expense claims are paid, and payroll advances are made from this fund. The loss of this function will delay or postpone the issuance of checks.

Correspondence and Reports – This administrative function consists of preparing correspondence and reports. The loss of this function will delay or postpone formal communications or documents.

Archives and Engineering Drawings – The maintenance of personnel official records, reports, documents, engineering drawings and correspondence is the last of the functions to be restored within 21 days. The loss of this function will delay the retrieval of all the above documentation.

It is important to note that failing to restore an essential or necessary function within the scheduled time may result in the escalation of priority of any such function.

RECOVERY ACTION PLAN

This plan establishes specific recovery responses to various disaster scenarios, which partially or completely disrupts the continuous operation of the Field Division.

For direction in responding to a specific type of emergency, the Oroville Field Division Emergency Action Plan will serve as a guide.

The type of disaster or incident such as earthquake, flood, fire, hazardous materials contamination, bomb threat, etc will dictate the prioritization of business recovery.

Loss of Access

This is a situation when **business must be conducted** without physical access to the resources contained in an affected facility. This scenario can be caused by a natural disaster or other business-disruptive occurrence. Typical conditions are as follows:

- Department staff is unable to gain access to a facility.
- Documents, equipment, and automated functions may be intact.
- Access will be restored sometime in the future.

Since this is a temporary situation, only the critical and critical support functions will be addressed. While access is being restored, business will be carried out in the interim-if possible-as follows:

Access Loss To The Plants – The following functions will be affected:

Scheduled Water or Power Delivery – With a loss of access, plant facilities shall be operated remotely, except for Hyatt Powerplant. Due to the complexities of operating and monitoring equipment in Hyatt Powerplant, if access is lost, this plant shall be shutdown.

Access Loss To Water Conveyance Facilities

Gate control will be remotely operated from the ACC. Water delivery capability at OFD can be controlled from the ACC for each individual delivery site.

Access Loss To The Area Control Center

Coordinate Work and Provide Feedback/Information to the POC – As soon as the area is declared inaccessible, coordination of the field division's operations with the POC will be done from the Hyatt Power Plant. Inherently, temporary relocation of this function to this location on short notice is possible since both facilities are connected to the same host.

Data Communications – Back-up ACC at Hyatt will be activated and load and water schedules will be coordinated via the Hyatt ECR.

Voice Communications – Back-up ACC at Hyatt will be activated and load and water schedules will be coordinated via the Hyatt ECR.

Control Systems/SCADA – Back-up ACC at Hyatt will be activated and load and water schedules will be coordinated via the Hyatt ECR.

Access Loss To The Administration Building

Contracts and Departmental Service Agreements (DSA) – Although one of the assumptions is that the loss is temporary, it will be treated as if the facility had been lost, since this function could not be performed, for all practical purposes. Therefore, "emergency only" contracts will be prepared during the period of inaccessibility. Emergency contracts and service agreements will be prepared manually at a different location, and using telephone bidding procedures

Procurement – The purchasing function will be moved to any location where a telephone is available. Purchase orders will be prepared manually soliciting bids by telephone. For commodities costing less than $1000, a state credit card can be used. A paper log will be developed to track purchases, uses, costs, and vendors.

Warehousing and Issuing – Warehousing staff will be directed to a temporary staging area. A transportation vehicle and plan for the delivery of parts, materials and supplies will be developed and implemented.

Loss of Facility

This is a situation when alternate sites for conducting business and alternate means of performing functions must be implemented. This scenario can be caused by a natural disaster, or any other disastrous business-disruptive occurrence. Typical conditions are as follows:

- The facility is destroyed, or damaged beyond repair.
- Equipment, documents, and automated functions, are destroyed, or damaged beyond repair.

This plan establishes the following response:

Total Loss Of Plants – In the event of the loss of a plant, the following functions will be disabled. No alternative way of conducting normal operations currently exists.

Scheduled Water or Power Delivery – In order to perform the most critical function, the plants must be operational. With a total loss of a plant, our ability to deliver water and power through the plant will be lost. The rebuilding of the plant is outside of the scope of this plan. Water delivery capability of OFD can be controlled from each individual delivery site. This will delay OFD's response time to make flow adjustments, and would tax the physical capabilities of existing resources.

Total Loss Of The Water Conveyance Facilities -- Temporary power will be used to operate the facilities; gate control will be manually operated at local control points. Water delivery capability at OFD can be controlled from each individual delivery site. This will delay OFD's response time to make flow adjustments, and would tax the physical capabilities of existing resources.

Maintaining Pump / Generator Units in Operational Conditions – Assuming the units are destroyed, this function cannot be performed either. The rebuilding of pumping units is beyond the scope of this plan.

Total Loss Of The Area Control Center – Functions normally performed at the Area Control Center will have to be relocated, or carried out differently. An alternate method of performing the following functions will be implemented as follows:

Coordinate Work and Provide Feedback/Information to the POC – Should the field division experience the loss of the Area Control Center, initial recovery action will be the same as the access loss response. Once the loss of the ACC is confirmed, coordination of the field division's operations with the POC will be performed from the BCC (Backup Control Center).

Data Communications – In the event of a total loss of the ACC, the initial response will be the manually staffing and control of all affected facilities. Since the loss is permanent, and all the contents destroyed, the Area Control Center will be relocated to a new location. Decisions about a permanent solution to a loss of this facility will not be addressed in this plan, since it is beyond the scope of this plan.

Voice Communications – Communications with manually controlled sites will be via landline, mobile radio, or cell phone.

Control Systems/SCADA – Same response as in data communications loss, above.

Total Loss Of Administration Building

Contracts and Departmental Service Agreements (DSA) – "Emergency only" contracts will be prepared. Emergency contracts and service agreements will be prepared manually at a different location, including use of telephone bidding procedures.

Procurement – The purchasing function will be moved to any location where a telephone is available. Purchase orders will be prepared manually and bids will be solicited by telephone. For commodities costing less than $1000, a state credit card can be used. A paper log will be developed to track purchases, uses, costs, and vendors.

Warehousing And Issuing

Engineering Support – This function can be performed from any of the power plants or O & M Center buildings that are available. Working drawings can be accessed electronically by any personal computer connected to the DWR network.

Environmental Clearances – The release of environmental clearances will take place at the alternate location given in section 3.3.

Encroachment Permits – Issuing of permits to others for performing work on Department owned property/facilities would be handled at alternate location.

Timekeeping – Clerical support staff record employees time monthly based on information received from field division supervisors. This will change with SAP. In the meantime, we would establish a staffed timekeeping location where supervisors can report employee time that would be recorded on a daily or weekly basis.

Revolving Fund – Revolving fund checks are stored at two locations: O&M Center Administration Building and the Warehouse. If either location becomes inaccessible, or has been destroyed, the check writing function will be handled at the other site. The checks can be prepared manually on typewriter and temporarily posted to a paper ledger.

Human Resources – The processing of hiring documents (Form 1090) will be prepared manually at either the O&M Center or the ACC.

Correspondence and Reports – Clerical support staff prepare the majority of formal correspondence. We would resume this function at either the O&M Center or the ACC.

Engineering Drawings and Archives – Field division archives are maintained at the O&M Center. Working engineering drawings are available at all the plants and major facilities. In addition, some key drawings can be accessed electronically by any personal computer connected to the DWR network. Some records we maintain are duplicates that exist at Sacramento headquarters or other locations, and could be retrieved, if necessary. A new archive location would be established in Chico or the ACC.

Alternate Sites

The following sites have been selected to function as alternate assembly locations, computer backup sites, or Incident Command Post. Incident conditions will determine partial or complete business relocation, and will be determined by the ICT following an assessment of the situation:

Original Site	Alternate Location
Oroville Field Division (O&M Center)	Area Control Center
	Incident Command Post
	Sacramento Headquarters
Oroville Backup Control Center (BCC)	Hyatt Powerplant or Thermalito Powerplant
Plants	ACC

ADDRESSES

Oroville Field Division
460 Glen Drive
Oroville, CA 95966

Incident Command Post
(location to be determined)
Oroville, CA

Sacramento Headquarters
1416 9th Street
Sacramento, CA 95814

Notifications

Employee Notification

Recovery information being generated by the Incident Command Team will be first relayed to the appropriate supervisor. Information will then flow the regular chain of command. Decisions about the means to do it will be dependent upon the circumstances and the means available at any given time.

Department Operation Center Notification

When an incident results in the access or total loss to a facility, where critical, essential, and necessary functions are performed, the following will occur:

The Field Division Chief and/or Incident Commander will notify the Emergency Preparedness Manager at (916) 654-6135, and/or the Department Operations Center as provided in the DWR Business Resumption Plan.

AWARENESS, AVAILABILITY, AND PLAN ADMINISTRATION

Awareness – Branch Chiefs and Supervisors have been informed of the development of this BRAP. A primary objective is to raise the awareness that a plan exists for business recovery that minimizes potential impacts to our operation.

Plan Availability – A copy of this plan will be distributed to the Branch Chiefs, Supervisors and other key staff.

Plan Administration– A tabletop exercise will be held each year. During this period, the BRAP will be reviewed, updated, and exercised. Revisions, modifications, and updates to be performed annually will keep this document as a “live” component of our operations. A tabletop exercise is a low stress conference room exercise where a scenario is presented, the BRAP discussed, and actions and communications coordinated.

A functional exercise will be held once every five years. A functional exercise is an exercise that simulates a real emergency through the use of a master message list, simulated ICP, and relayed communications.

MINIMUM RESOURCES

The dimension of the recovery will determine the resources that will suffice for a successful and complete recovery. To restore functional operations within the scheduled time, the following resources will be needed:

- Facilities – Pumping and Generating Plants
  Dam Sites
  Check Structures
  Turnouts

- Administration headquarters (Office Equipment and Space)

- An Area Control Center

- Electrical Power – To operate plant facilities.
  230 Kilovolts
  13.8 Kilovolts
  12.5 Kilovolts

- Information Technology equipment – Hardware, and software.

- Control and Communications Equipment – All the specialized equipment to enable data and voice communications. A Local Area Network (LAN).

- Data and Records

- Vehicles and Heavy Equipment

- Minimum Staff – The actual number will depend upon the goals and objectives of the Incident Commander, and will range from any given minimum to the actual full staff of the Field Division.

In addition, the following essential equipment and supplies must be available:

Equipment and/or Supplies	Location	Quantity On-Site
Stand-by Emergency Generators	See Inventory Below	9
Emergency Communications Systems (cell phones)	Administration Building	2
	Engineering	3
	Plant Maintenance	4
	Operations	4
	Civil Maintenance	5
Hand held radios	Plants and Facilities	32
Fuel Storage Systems - Gasoline	Oroville O&M Center	10000gal
Fuel Storage Systems - Diesel	Oroville O&M Center	10000gal
Emergency Lighting	Built-in feature in all facilities	N/A
Water	At all buildings	N/A
Lanterns/Flashlights	Every Plant Employee	N/A
Hand Pumps (to siphon gasoline)	Oroville	0

Inventory of Standby Emergency Generators-Plants/Facilities

Location of Standby Emergency Generators	Quantity On-Site	Tank Capacity (gallon)	Fuel Type
Oroville ACC	1	3000	Diesel
Oroville FD Headquarters	1	500	Diesel
Feather River Fish Hatchery	1	500	Diesel
Fish Hatchery Annex (Hwy. 99)	1	500	Diesel
Oroville Spillway Control Room	1	575	Propane
Thermalito Diversion Dam Control Rm.	1	1154	Propane
Thermalito Afterbay River Outlet Control Rm.	1	499	Propane
Western-Richvale Canals Control Rm.	1	1000	Propane
Sutter-Butte Canal Control Rm.	1	499	Propane

Incident Command Team

(September 2006)
AREA CODE: 530

	Work	Pager	Cellular	Home	Radio
Incident Commander					
Maury Miller **Operations Superintendent**	534-2425		521-4909		0130
Incident Commander Alternates					
Bill Cochran Operation Superintendent	534-2376		521-8487		0120
Operations Chief					
Dennis Babb Civil Maintenance Superintendent	534-2334	821-7054	521-4955		0150
Operations Chief Alternate					
Linda Sue Solomon	**534-2442**		**521-4954**		**0132**
Planning/Intelligence Chief					
John Morse	**534-2333**	**821-7235**	**521-3505**		**0155**
Planning/Intelligence Chief Alternate					
John Chips HEP Mechanical Supervisor	534-2314		521-9693		0143

	Work	Pager	Cellular	Home	Radio
Logistics Chief					
Cathy Shannon Admin Officer I	**534-2500**		N/A		
Logistics Chief Alternate					
Bob George	**534-2313**	**821-7198**	**521-8224**		**0125**
Finance/Administration Chief					
Shelly Byrne Regional Administrative Officer II	534-2310	821-7247	521-4901		0110
Finance/Administration Chief Alternate					
Vacant					
Information/Safety Liaison					
John Ford Guide II, Historical Monument	534-2306	821-7182	521-4918		0118
Information/Safety Liaison Alternate					
Rosemary Dicus **Ana Pina**					

KEY PERSONNEL

(Area Code 530)

	Work	Pager	Cellular	Home	Radio
Administration					
Pete Scheele Field Division Chief	534-2323		370-5037		0100
Shelly Byrne Administrative Officer II	534-2310	821-7247	521-4901		0110
Engineering					
Bill Cochran Senior HEP Utility Engineer	534-2376	821-7178	521-8487		0122
Bob George Control Technician III	534-2313	821-7198	521-8224		0125
Operations					
Maury Miller Operations Superintendent	534-2425		521-4909		0130
Linda Sue Solomon Chief HEP Operator	534-2442		521-4954		0132

	Work	Pager	Cellular	Home	Radio
Plant Maintenance					
Joe Strain Plant Maintenance Superintendent	534-2424	821-7056	521-4927		0140
James Jasinski HEP Electrical Supervisor	534-2444	821-7207	521-9694		0141
John Chips HEP Mechanical Supervisor	534-2460	821-7177	521-9693		0143
Civil Maintenance					
Dennis Babb Assistant CM Superintendent	534-2334	821-7054	521-4955		0151

CONTACT LIST

AGENCY	NUMBER
STATE-FEDERAL FLOOD OPERATIONS CENTER, SACRAMENTO (24 HOUR)	916-574-2619
STATE WATER PROJECT OPERATIONS CENTER (24 HOUR)	916-574-2714
CHP NON EMERGENCY PHONE	530-533-3822
CHP DISPATCH	530-895-4453
DWR O&M DIVISION CHIEF	916-653-8583
EMERGENCY PREPAREDNESS MANAGER	916-654-6135
DELTA FIELD DIVISION ACC	209-833-2180
SAN LUIS FIELD DIVISION ACC	209-827-5300
SAN JOAQUIN FIELD DIVISION ACC	661-858-5560
SOUTHERN FIELD DIVISION	661-944-1103
DEPARTMENT OF FISH AND GAME FISH HATCHERY	530-538-2222
DEPARTMENT OF PARKS AND RECREATION OROVILLE OFFICE	530-538-2200

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Operations and Maintenance
Delta Field Division
5280 Bruns Road
Byron, CA 94514

A Component of the
DWR Business Resumption Plan

Appendix A: Delta Field Division
Facility/Organization Recovery Action Plan

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INTRODUCTION

The Delta Field Division Facility and Organization Recovery Action Plan establishes a Field Division Incident Command Team and an organization recovery process to disasters that impact the business functions of the Delta Field Division. The Facility and Organization Recovery Action Plan is based on guidelines supplied by the Business Resumption Plan steering committee.

The Facility and Organization Recovery Action Plan is not intended to be a specific step-by-step recovery plan with exact instructions to follow. The nature and scope of an event that results in loss of facility or interruption of Field Division functions cannot be predicted. The range of disruption can be from earthquake, flood, to labor action. The Facility and Organization Recovery Action Plan is a plan for a process with functions to be carried out, using the Standardized Emergency Management System, leading to recovery of Field Division facilities and functions.

This document is intended to be used in conjunction with the Delta Field Division Emergency Action Plan.

The Facility and Organization Recovery Action Plan includes:

- An incident command team designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the Field Divisions functions that must be restored.
- A description of the initial steps necessary to implement a recovery plan.
- A checklist to facilitate the implementation of a recovery plan.

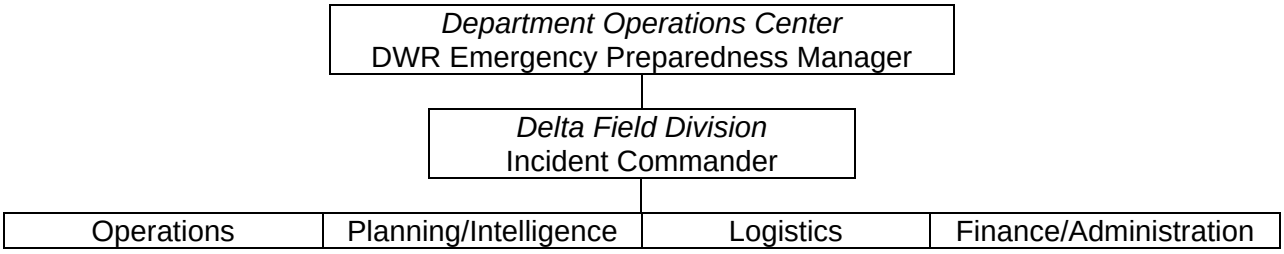
ORGANIZATIONAL STRUCTURE

The organization of the Delta Field Division during the recovery will be in accordance with the Standardized Emergency Management System and its field element, the Incident Command System. The Standardized Emergency Management System is a method of organizing for emergency management. These systems utilize standard organization techniques, a common terminology, common functions and responsibilities that are applicable to almost any kind of emergency. All state agencies and most of the city and county governments in California are implementing these systems. State law requires the use of the Standardized Emergency Management System and the Incident Command System by all state agencies.

The Incident Command System will be used during recovery from a disaster resulting in loss of access to Field Division facilities. The Incident Command Team will be formed and operated in conformance with Standardized Emergency Management System. It is the responsibility of the ICT to be aware of the Field Divisions' mission and respond accordingly. The team must also assess the need for resources required in carrying out the Recovery Plan. The Incident Command System, utilized for emergencies department-wide, provides for common terminology and duties. This provides considerable flexibility and adaptability to a wide variety of situations.

It is significant to recognize that no recovery plan is ever complete or all encompassing. With the variety of natural and man made disasters combined with severity, timing and other variables is far to great and complex to adequately address in a single document. The disaster recovery plan is based upon available knowledge, information and experience, and must be adjusted to changing circumstances. While details of a particular event or incident may vary widely, the functions that must be carried out to deal with them are common to almost any type of emergency. The Incident Command System can, and is, used for a wide variety of emergency management activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position.

Figure 1, Incident Command System Structure



Project Operations Center

The Project Operations Center is responsible for managing and coordinating overall recovery activities of the State Water Project. With the assistance of the Department Operations Center and Emergency Preparedness Manager, the Project Operations Center will coordinate assistance from other Department Field Divisions, District Offices and other state agencies when Field Division resources are not sufficient. The Project Operations Center may also reallocate available resources to higher priority functions within O&M.

Department Operations Center

The Department Operations Center, under supervision of the DWR Emergency Preparedness Manager, is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR divisions/offices when Headquarters' resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The Operations Superintendent will be the Incident Commander with a Deputy Incident Commander to assist. The Area Control Center Senior Operator may act as Incident Commander during the initial phase of the emergency. The Operations Superintendent or deputy will assume command after a full and complete briefing has been made.

The IC or Deputy will continue to report status to the Project Operations Center. Any requests for assistance, schedule changes, power requirements, relocation of facilities, and like items will be coordinated through the Project Operations Center.

The IC and Deputy will be responsible for establishing objectives, goals, management and coordination for the recovery efforts.

Operations Section Chief

The Operations Section Chief will implement the recovery plan.

Planning/Intelligence Section Chief

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate action plans and status reports on the recovery effort for DWR management.

Logistics Section Chief

The Logistics Section Chief will requisition, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles and equipment.

Finance/Administration Section Chief

The Finance/Administration Section tracks (in cooperation with the Logistics Section), accounts for, and pays for activities related to the recovery plan. Timekeeping will also be the responsibility of this Section. It is intended that this section will be augmented by staff from DWR's Department Services Office in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential Federal Emergency Management Agency reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of Delta Field Division are separated into Critical, Essential and Necessary tasks. The classification of Field Division functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide entitlement, prevent financial hardship or meet a legal requirement.

Essential tasks are those tasks that allow the Field Division to accomplish its mission and which must be restored within 3 to 5 days.

Necessary tasks are those tasks that need to be restored within 21 days.

Critical, Essential and Necessary tasks may become interchangeable depending upon the time of year, severity of event or other contributing factors.

Table 1, Delta Field Division Critical and Essential Functions

What	Who	How	Criticality
Flood Related Surface Water Measurement	Delta Field Division	Manual Computer	Critical during flood releases from Del Valle Reservoir
Emergency Response to Seismic Events	Delta Field Division Personnel	Manual Computer	Critical when it affects the field division functions. Status needed to resume operations
Emergency Flood Response	Delta Field Division Personnel	Manual	Critical during flood season

RECOVERY ACTION PLAN

The Facility and Organization Recovery Action Plan is based on a sequence of events that will, at some period, take place. Whether its floods, earthquakes, or the failure of facilities, our history demonstrates the probability is high that a Facility and Organization Action Plan will be necessary or required. The principal elements of the plan include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on Delta Field Division functions and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each year, the Incident Command Team and Contact List will be reviewed and updated. Emergency vehicle home storage permits will also be reviewed to ensure maximum efficiency when deployed.

Copies of the Recovery Action Plan will be provided to the Department of Water Resources Emergency Preparedness Manager, Project Operations Center, Area Control Center and ICT members.

Notification of Event

The Delta Field Division Chief, Area Control Center or designee will notify the Project Operations Center immediately upon an event that requires implementation of the Facility and Organization Recovery Action Plan. Refer to the Contact List for telephone numbers.

Each Supervisor, when notified by the ICT will then notify subordinates. The notification will include instructions, if needed, regarding a point of assembly, future contact procedures, and an initial procedure to carry out Field Division functions.

The Area Control Center will refer to the Delta Field Division Emergency Action Plan and make all required notifications as it relates to local governments, regulatory agencies, fire and police departments.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover Field Division functions. The IC or Deputy will establish immediate and intermediate goals and objectives and develop an Incident Action Plan. The Operations Section Chief will implement appropriate notification and reporting procedures to Field Division staff and take such immediate recovery steps as feasible. The Logistics Section Chief will establish immediate needs for resources. The Finance and Administration Section Chief will immediately implement emergency purchasing procedures in accordance with the incident and coordinate with Department of Water Resources Divisions of Management Services and Fiscal Services to secure appropriate emergency financial authorizations and assistance. In some emergency situations it will be necessary to secure an emergency contract through the Division of Engineering. The ICT will be responsible for evaluating the need for that function to return and what time frame is available for the Division of Engineering to initiate repairs.

If the ICT determines that the function cannot be returned to meet Field Division objectives, a contingency plan and/or work around will be developed. This work around will be, for the most part, temporary. The situation may require that additional personnel and resources are needed. In that event the IC will contact the DOC and/or EPM for assistance.

Disaster Scenarios

The Delta Field Divisions' Facility and Organization Recovery Action Plan defines two types of disasters:

- **Loss of Access** - A disaster or other incident prevents access to any of the facilities in the Delta Field Division. This would include generating plants, pumping plants, check structures, dams, stream releases, intake facilities, delivery systems and office locations.

- **Loss of Facility** - A disaster resulting in the destruction of any Delta Field Division facility.

Loss of Access

This scenario assumes that the Field Divisions' documents, equipment and facility are intact and secure, but Field Division staff is unable to gain access. This may be due to a hazardous materials spill, inclement weather causing road closures, or some other type of incident. It is also assumed that access will be granted in near future and that the operation of the Field Division is still continuing through the Area Control Center or has been taken over by the Project Operations Center. In some cases the generating and pumping plants will have staff on site to continue manual operation, if necessary, and communicate the current conditions.

The ICT will meet and confer as soon as possible to assess the situation and establish priorities. If it is determined that the function of the field division will be impacted due to the duration of lost access, an Incident Action Plan will be required. The ICT will coordinate with the Project Operations Center to minimize any impact to the operation of State Water Project.

Restoration of Critical Functions

Surface Water Measurement – The Delta Field Division has facilities that have flood release capabilities. These facilities have the ability to adversely impact seven Bay area counties in California and numerous cities. During flood operations it is imperative that the flood inflows and outflows are closely monitored. In the event of lost access equipment from other Field Division facilities will be redirected to support the physical monitoring. While this function is being restored the Area Control Center will monitor the surface elevations of Del Valle Reservoir and calculate the flood quantities to be released. In most flood emergencies it is very likely that the equipment needed to accomplish the function will already be mobilized and in the field. The ICT will evaluate the work needs and arrange for an alternate facility on state property for reporting and storage of equipment.

Emergency Response to Seismic Events – After a significant seismic event the Delta Field Division facilities are tripped out of operation by numerous relay actions. The members of the ICT have vehicle home storage permits for state vehicles. This allows the team to immediately deploy and contact the Area Control Center by radio. The Delta Field Division Emergency Action Plan also has areas of responsibility assigned to Field Division personnel (Emergency Response, Section 2.2). The objective is to communicate with the Area Control Center and establish the epicenter and status of surrounding facilities. From there the team focuses on

inspecting the facilities for damage and ensure access is available. Once the impacted area has been inspected and appears intact the Project Operations Center is informed that the Field Division is prepared to resume normal operation.

In the event a specific feature of the Field Division is not accessible, the ICT will establish an Incident Command Post and staging area for resources. It may become necessary to use existing contracts or emergency contracts if the situation warrants.

Aftershocks may occur for months after the initial event. The ICT will be responsible for evaluating the operational needs and developing an IAP that identifies interim facilities, staging areas, personnel, and equipment needed in the event of significant damage.

Loss of Facility

This scenario assumes that the facility (and/or its contents) are destroyed or damaged beyond repair or recovery. The ICT will meet and confer as soon as possible to assess the situation. The loss of facility has many different scenarios. If the facility were a pumping plant the consequences would be significant. The ICT would notify the Project Operations Center as soon as possible. The Division of Engineering would be called in to initiate immediate repairs or construct alternate temporary delivery system. If it were the loss of a dam the impact to the Department, water contractors and downstream communities would be catastrophic. Under the SEMS, the OES Regional Emergency Operation Center and/or Department Operations Center would be activated and the Field Division would serve as an Emergency Operation Center. It is also important to mention that numerous regulatory agencies would be taking an active part in returning the facilities to normal operation. However, the after effects of a dam failure will be handled at a much higher level than the Field Division ICT.

Restoration of Functions

This Facility and Organization Plan is not intended to address the loss of access or loss of facility at a level that cannot be restored by Field Division forces. This plan basically deals with minor field division functions and administrative office spaces. The following facilities cannot be supported by this plan in the event of loss.

- The loss of any pumping plant.
- The loss of any dam.
- The loss of any siphon.
- The loss of any check structure.
- The loss of any portion of aqueduct.
- The loss of any intake facility.
- The loss of any stream release facility.
- The loss of any reinforced concrete pipeline.
- The loss of any significant portion of the Delta Field Division facilities.

Under "Loss of Facility," all of these facilities and the restoration of critical, essential or necessary functions would be under the direction or the jurisdiction of the Department Management Team (Director and Deputy Directors) and possibly the regulatory agencies that oversee the State Water Project activities. They would not be addressed by the recovery action plan. However, the initial notification and mobilization of resources for the above facilities is addressed in Delta Field Division Emergency Action Plan.

Alternate Sites

Incident Command Post

An ICP will be established as soon as possible. The Area Control Center or the Delta O&M Center is the first choice of facilities with the necessary amount of equipment. If neither of these facilities is available the following locations have sufficient equipment to accommodate an ICP.

- Skinner Fish Protective Facility
- Patterson Reservoir Sub Center
- Delta Civil Maintenance Building

Basic Incident Command Post Requirements	Minimum Requirements
• Telephone lines (2-4)	• Telephone line
• Fiber phone	• Fiber phone
• Fax machine	• Computer
• E-mail	• E-mail
• Office space for Incident Command Team	•
• Base station radio system	•
• Fuel facilities	•
• Computers (3)	•

Area Control Center

In the event the Delta Area Control Center is destroyed or becomes non-functional for any reason, the Banks Pumping Plant control room has been programmed to act as a back-up control center. This feature was added with the installation of the new control system. All Senior Hydroelectric Plant Operators and supervisors are aware of this function and will report to the Banks Pumping Plant to staff the back-up control center.

The Project Operations Center can also take over the function of operating the field division if the Delta Area Control Center is out of service. In a transition from one location to the other, the Project Operations Center is prepared to take over the field division functions until the Banks location is up and operational.

Delta Administration Building

In the event either administration building is destroyed, the ICT will assess the work needs, employee commute, and the status of available appropriate work locations. The employees will then be directed to report to a new headquarters location until the damaged facility is rebuilt or alternative office space is secured.

North Bay Maintenance Office Facilities

In the event the North Bay Maintenance Office building is destroyed, the ICT will assess the work needs, employee commute, and the status of available appropriate work locations. The employees will then be directed to report to a new headquarters location until the damaged facility is rebuilt or alternative office space is secured. Current alternative sites are Cordelia or Barker Slough Pumping Plant Facilities.

Plan Administration

The Incident Command Team will annually review the Recovery Action Plan. The Incident Command Team and vital contact numbers will be revised and reissued each year. The business functions of the Field Division will be reviewed and, if necessary, the plan will be revised to reflect changes to the field Division functions.

Incident Command Team

(August 2006)

Management	Dave Duval
Incident Commander	Don Elmore
Deputy Incident Commander	Doug Thompson
Operations Section Chief	Rhett Cotter
Planning & Intelligence Section Chief	Pat Whitlock
Logistics Section Chief	Jim Hartline
Communications/Computers	Greg Brown
Finance and Administration Section Chief	Sarah Torgerson

Contact List

(August 2006)

DWR - Executive	
Sonny Fong- Department Emergency Preparedness Manager	
Office	916-654-6135
Pager	916-592-7953
Home	
DWR - Division of Operations & Maintenance	
Dave Duval - Management	
Office	209-833-2017
Cell Phone	209-481-2014
Pager	None
Home	
Don Elmore - Incident Commander	
Office	209-833-2043
Cell Phone	209-481-5245
Pager	209-472-4029
Home	
Pat Whitlock - Planning & Intelligence	
Office	209-833-2165
Cell Phone	209-481-5095
Pager	209-472-4589
Home	
Jim Hartline - Logistics	
Office	209-833-2058
Cell Phone	209-481-3891
Pager	209-472-4763
Home	
Rhett Cotter - Operations	
Office	209-833-2077
Cell Phone	209-481-1543
Pager	209-472-4688
Home	
SWP 24hr number	916-574-2750
DFD ACC	209-833-2180
State/Federal Flood Operation Center 24hr number	916-574-2619
Security number	
CHP – non-emergency	510-828-0466

State of California
The Resources Agency
Department of Water Resources
Division of Operations and Maintenance

Appendix A
Facility/Organization Recovery Action Plan

San Luis Field Division
31770 Gonzaga Road
Gustine, CA 95322
(209) 827-5100

A Component of the
DWR Business Resumption Plan

September 2006

Appendix A: San Luis Field Division
Recovery Action Plan

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FOREWORD

This Business Recovery Action Plan was written in order to meet the Department's commitment to establishing a BRP that addresses its various organizations and missions. Its purpose is to ensure that the San Luis Field Division is prepared to effectively and timely restore its functions in the event a disaster or other emergency conditions impact its continuous operation.

The San Luis Field Division operates 24-hours a day, and is, for that reason, critical to the operation of the California State Water Project and an essential participant in carrying out the Department's mission.

This plan provides guidelines for emergency preparedness prior to, and specific business-resumption information after such unforeseen situations as mentioned above. The RAP is a component of the Department-wide Business Resumption Plan.

INTRODUCTION

The San Luis Field Division is critical to the State Water Project operation and is important in the Department's mission. The RAP will provide the capability to mitigate the impact of a disruption to the Field Division's business. It will address a long-term business outage due to a loss of a facility, and short-term business outage due to a loss of access to a facility. The strategies listed address SLFD's critical, essential, and necessary functions, and their role in the operation of the Field Division.

The SLFD-RAP builds upon the Standardized Emergency Management System in order to manage both disaster and emergency situations, which disrupt the daily business functions of the San Luis Field Division. This document addresses the particular business functions of the Field Division. It establishes their criticality and provides a sequence and procedures to follow for the resumption of business following the occurrence of any emergency condition, which partially or completely interrupts the daily business of the Field Division. In addition, this plan specifies preventive measures, which will accelerate the implementation of the plan and consequently the prompt resumption of business.

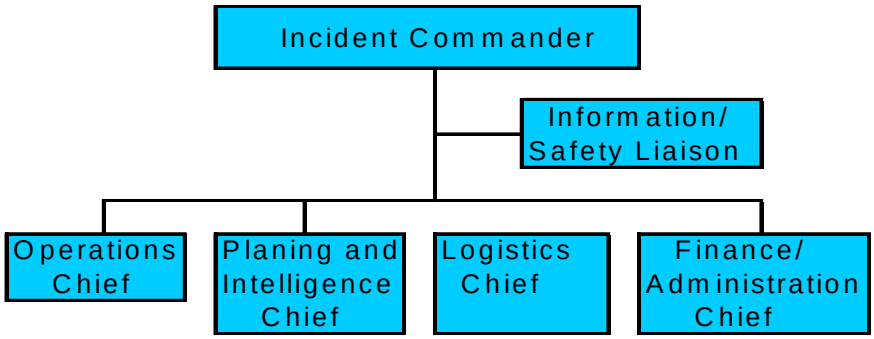
In addition, the BRAP is a component of the Department's Business Resumption Plan and is a "living" document, which is to be maintained and updated as part of a dynamic process.

It is important to note that the business recovery of the Field Division is ultimately entrusted to an Incident Command Team. It is not the intent of this plan to dictate particular assessments and actions of an organization member – such actions will be dictated by the unique situation that a disruptive emergency condition is likely to create.

CHAPTER 1
BUSINESS RECOVERY ORGANIZATION

The San Luis Field Division establishes an Incident Command Team, a major component of the Business Recovery Action Plan. Its purpose is to manage an incident-specific response and resource allocation, following a disaster or other emergency condition affecting the operation of the State Water Project in order to achieve specific business recovery objectives effectively and timely.

The following chart identifies the individuals, including alternates, their roles and responsibilities for the various aspects of the recovery plan.



INCIDENT COMMANDER- **April A. Petok**
HEP Operations Superintendent

ALTERNATE- **Gary Garcia**
Chief HEP Operator

The Incident Commander has overall responsibility in establishing objectives and goals for the management of the incident and recovery activity.

OPERATIONS CHIEF - **Jeannie Love**
Utility Craftworker Superintendent

ALTERNATE- **Don Arnett**
Assistant Utility Craftworker Superintendent

The Operations Chief is responsible for the direction and coordination of incident and recovery tactical operations.

PLANNING/ INTELLIGENCE CHIEF-	**Mandeep Bling** **Supervising HEP Utility Engineer**
ALTERNATE-	**Rob Dunlop** **Senior HEP Utility Engineer**
	The Planning and Intelligence Chief is responsible for the collection and evaluation of information about the incident and identify recovery activities and needed resources.
LOGISTICS CHIEF-	**Katie Hartline** **Regional Administrative Officer I**
ALTERNATE-	**Gary Classen** **Business Service Assistant**
	The Logistics Chief is responsible for organizing, tracking, and allocating resources for various tasks to meet all incidents and recovery needs.
FINANCE/ADMINISTRATION CHIEF-	**Lucy Gwin** **Regional Administrative Officer II**
ALTERNATE-	**Dan Mendibles** **Regional Administrative Officer I**
	The Finance/Administration Chief is responsible for monitoring incident and recovery related costs and administering any necessary procurement contracts.
INFORMATION/SAFETY/LIAISON-	**Bill Collins** **Health and Safety Officer**
ALTERNATE-	**VACANT**
PIO LIAISON	**Jim Thomas, Chief** **San Luis Field Division**
	Gilbert Lujan **Senior HEP Utility Engineer**
	The information, safety, and liaison are responsible for providing Public Information, Safety, and Liaison services for the recovery organization.

CHAPTER 2
SAN LUIS BUSINESS FUNCTIONS RECOVERY SCHEDULE

In order to facilitate an organized recovery, the various major business functions performed by the San Luis Field Division have been identified and classified according to their impact to our mission.

Resumption of functions with the greatest impact to our mission at any given time will receive the highest priority as follows:

2.1) CRITICAL FUNCTIONS

Because of their immediate impact to our operation, and that of the State Water Project, the following functions must be restored within 24 hours. Failure to restore any of the critical functions in a timely manner will result in the negative consequences described below:

Scheduled Water Delivery

The inability to meet scheduled water deliveries would have a catastrophic affect to the Water Contractors and their customers. During high irrigation demands the failure to deliver water would result in major crop failure, which would result in financial hardship, and failure to meet contractual obligations. Also, the inability to meet water schedules would have a domino effect to the Field Divisions downstream where they have no water storage capability.

Scheduled Generation

The inability to deliver scheduled power could result in large fines, and a loss of revenue. In an emergency situation power may be in large demand it would be essential to have generators available.

Establish Adequate Aqueduct Pool Levels

Failure to establish and maintain elevations in the aqueduct pools would prohibit the ability to continue turnout deliveries in the event the pumping plants fail to operate. By establishing maximum storage we would be able to continue supplying smaller turnouts. Failure to control water surface elevations can result in failure of the aqueduct lining.

Coordinate Work and Provide Feedback/Information to the POC

Communications with the POC is critical. Loss of communications would prohibit us from receiving required pumping and generation schedules. It would prevent us from communicating an emergency situation, and the critical need of support and response.

CRITICAL SUPPORT FUNCTIONS

Data Communications Maintenance

The fiber optic based data communication system provides project-wide interconnection of the various control systems and administrative computers. A loss of this system would result in the inability to monitor or control aqueduct check-sites, and remotely operate our pumping and generating plants.

Voice Communications Maintenance

The voice communication system is a combination of Nortel Meridian PBX's, fiber optic systems, commercial telephone services, radios, and cellular telephones. The loss of voice communications would result in the inability to coordinate the operation of the water conveyance and pumping/generating facilities, and respond to emergencies.

Control Systems/SCADA

Control systems enable automation, remote control, and monitoring of the State Water Project aqueduct and hydroelectric facilities. The loss of the control systems, without manual intervention, would result in the inability to control water and power deliveries.

Contracts and Departmental Service Agreements (DSA)

The San Luis Field Division is responsible for over ten service contracts and ten DSA's per year. Services range from hazardous materials removal to laboratory sample analysis. The loss of this function will delay or postpone services that are needed on a timely basis. This function would be particularly critical in the event of an emergency when emergency services are likely to be required.

Procurement

Procurement plays a critical support function in the operation of the San Luis Field Division. The loss of this function will delay or postpone the ordering of needed parts, supplies and/or materials. This function would be particularly critical in the event of an emergency when emergency parts, supplies, etc. are likely to be required.

Warehousing and Issuing

One warehouse of parts, materials and supplies is maintained at the San Luis O&M Center to play a critical support function. A storeroom is maintained at the Coalinga O&M Subcenter. The loss of this function will severely limit the availability and issuance of parts, materials and supplies. This function would be particularly critical in the event of an emergency when extra parts, supplies, etc. are likely to be required.

2.2) ESSENTIAL FUNCTIONS

Listed below is a second group of major functions, which have been identified as essential; they must be restored within five days.

Maintain Pumping/Generating Units in Operational Condition

Failure to perform maintenance on pumping/generating units and related equipment could result in the failure of the units to start or operate when needed to meet scheduled deliveries. In addition, the failure of units to start could also result in large fines by the Independent System Operator.

ESSENTIAL SUPPORT FUNCTIONS

Engineering Support

Engineering support is required to facilitate the acquisition and implementation of technical information needed for recovery.

Timekeeping

Entering employee time data for payroll purposes is considered an essential support function. The loss of this function will affect employees' pay, delay payroll checks or direct deposits, and delay cost recovery information.

2.3) NECESSARY FUNCTIONS

The third group of major functions listed below has been identified as necessary; these functions must be restored within 21 days.

Environmental Clearances

As no activities can be conducted without a permit/clearance, civil maintenance activities will be impacted due to the loss of this function.

Revolving Fund

The loss of this function will delay or postpone the issuance of checks.

Correspondence and Reports

The loss of this function will delay or postpone formal communications or documents.

Archives and Engineering Drawings

The loss of this function will delay the retrieval of personnel records, reports, documents, engineering drawings and correspondence.

Chapter 3
RECOVERY ACTION PLAN

This plan establishes specific recovery responses to various disaster scenarios, which partially or completely disrupts the continuous operation of the Field Division.

For direction in responding to a specific type of emergency, the San Luis Field Division Emergency Action Plan will serve as a guide.

The business recovery choices opted for will be dictated by the conditions created by the disaster or other emergency such as earthquakes, floods, fire, hazardous materials contamination, bomb threats, etc.

Although complete by itself, this plan is simply a part of the Department-wide Business Resumption Plan. This Recovery Action Plan builds upon the Standardized Emergency Management System. It provides site-specific emergency management and detailed instructions for business recovery.

3.1) FACILITY ACCESS LOSS ACTION

This is a situation when business must be conducted without physical access to the resources contained in the facility. This scenario can be caused by a natural disaster or any other abnormal business-disruptive occurrence. Typical conditions are as follows:

- Department staff is unable to gain access to a facility.
- Documents, equipment, and automated functions may be intact.
- Access will be restored sometime in the future.

Since this is a temporary situation, only the critical and critical support functions will be addressed. While access is being restored, business will be carried out in the interim, if possible, as follows:

ACCESS LOSS TO PUMPING/GENERATING PLANTS

The following functions will be affected:

Scheduled Water Delivery/Generation - To be able to perform the most important function, the pumping/generating plants must be accessible. With a loss of access, the ability to deliver water and generate power should be disabled until access has been restored. With centralized control, in a critical situation plants could be operated and monitored from POC, but would not recommend without personnel to visually inspect prior to operating.

Establish Adequate Aqueduct Pool Levels – While this function is controlled at the Area Control Center, with a loss of access to the pumping/generating plants, the ability to perform this function would require the POC to control via centralized control, or if unable to, we would have to physically assign personnel at the sites to manually operate the gates for each flow change until access has been restored.

ACCESS LOSS TO THE AREA CONTROL CENTER

Coordinate Work and Provide Feedback/Information to the POC – Work coordination will be accomplished from a designated secondary command center.

Voice/Data Communications – Voice/data coordination will be coordinated from a designated secondary command center.

Control Systems/SCADA – Within two hours after it has been declared that access to the facility has been lost, the Project Operation Center will be asked to take over this area control center function.

ACCESS LOSS TO THE ADMINISTRATION BUILDING

Contracts and Departmental Service Agreements (DSA) –"Emergency only" contracts will be prepared during the period of inaccessibility. Emergency contracts and service agreements will be prepared manually at a different location, and using telephone bidding procedures.

Procurement – The purchasing function will be moved to any location where a telephone is available. Purchase orders will be prepared manually soliciting bids by telephone. For commodities costing less than $1000, a state credit card can be used. A paper log will be developed to track purchases, uses, costs, and vendors.

Warehousing and Issuing – Presumably, the warehouse will be fully functional. Warehousing staff will be directed to that location. A transportation vehicle and plan for the delivery of parts, materials and supplies will be developed and implemented.

3.2) FACILITY TOTAL LOSS ACTION

This is a situation when alternate sites for conducting business, and alternate means of performing functions must be implemented. This scenario can be caused by a natural disaster, or any other disastrous business-disruptive occurrence. Typical conditions are as follows:

- The facility is destroyed, or damaged beyond repair.
- Equipment, documents, and automated functions, are destroyed, or damaged beyond repair.

This plan establishes the following response as follows:

TOTAL LOSS OF PUMPING/GENERATING PLANTS

In the event of the loss of a pumping or pumping-generating plant, the following functions will be disabled. No alternative way of conducting normal operations is possible.

Scheduled Water and Power Delivery - The rebuilding of a pumping/generating plant is outside of the scope of this plan.

Establish Adequate Aqueduct Pool Levels – Aqueduct pools can be isolated either by remote control if available or manually.

TOTAL LOSS OF THE AREA CONTROL CENTER

Functions normally performed at the Area Control Center will have to be moved, or carried out differently. An alternate means of performing the following functions will be implemented as follows:

Coordinate Work and Provide Feedback/Information to the POC – Work will be coordinated from a designated secondary command center.

Data Communications – With the loss of the ACC, the plants and check sites would be manually staffed and controlled, and operations communicated from an alternative site. However, with the ability of centralized control, the POC would control these facilities.

Voice Communications - With the loss of the ACC, communications with POC and manually staffed sites would be via landline, mobile radios, cell and satellite phones.

TOTAL LOSS OF THE ADMINISTRATION BUILDING

Contracts and Departmental Service Agreements (DSA) – “Emergency only” contracts will be prepared. Emergency contracts and service agreements will be prepared manually at a different location, and using telephone bidding procedures.

Procurement – The purchasing function will be moved to any location where a telephone is available. Purchase orders will be prepared manually soliciting bids by telephone. For commodities costing less than $1000, a state credit card can be used. A paper log will be developed to track purchases, uses, costs, and vendors.

Warehousing and Issuing – Presumably, the warehouse will be fully functional. Warehousing staff will be directed to that location. A transportation vehicle and plan for the delivery of parts, materials and supplies will be developed and implemented.

Environmental Clearances – The release of environmental clearances will take place at the alternate location given in section 3.3. Data and records needed will be retrieved from back up tape or from the Fresno District Office.

Timekeeping – With SAP functions, timekeeping entry and access is available to supervisors and employees through any Field Division computer connected to the WAN.

Revolving Fund – Revolving fund checks are stored in the Administration Building. If this location becomes inaccessible, or has been destroyed, the check writing function would be shifted to the nearest Department location still functioning.

Correspondence and Reports –Support staff prepare the majority of formal correspondence. This function would be resumed at either the O&M Center or the Coalinga O&M Subcenter.

Engineering Drawings and Archives– Field division archives are maintained at San Luis Field Division O&M Center. Working engineering drawings are available at all the pumping plants and major facilities. In addition, the drawings can be accessed electronically by any personal computer connected to the DWR network. The records maintained are duplicates that exist at Sacramento headquarters or other locations, and could be retrieved, if necessary.

3.3) ALTERNATE SITES

The following sites have been selected to function as alternate assembly locations, computer backup sites, or Incident Command Post. Incident conditions will determine partial or complete business relocation, if any, which will be determined by the ICT following an assessment of the situation:

Primary

San Luis Area Control Center (Dos Amigos Pumping Plant)

Backup

San Luis Administration Building
Gianelli Pump Generating Plant
Coalinga O&M Subcenter
Romero Visitor's Center
Basalt Hill Campground (Mobile Command Center)

3.4) NOTIFICATIONS

Employee Notification

Recovery information being generated by the Incident Command Team will be first relayed to the appropriate supervisor. Information will then flow the regular chain of command. Decisions about the means to do it will be dependent upon the circumstances and the means available at any given time.

Additional Notifications

When an incident results in the access or total loss of a facility, where critical, essential, and necessary functions are performed, the following will occur:

The Field Division Chief and/or Incident Commander will notify the Emergency Preparedness Manager, Sonny Fong at (916) 654-6135 and/or the Department Operation's Center. In the event the ACC is unable to make the appropriate emergency notifications identified in Appendix E in the SLFD's Emergency Action Plan, this responsibility will be vested in the Project Operation's Center.

Chapter 4
AWARENESS, AVAILABILITY, AND PLAN ADMINISTRATION

Awareness – Branch Chiefs and Supervisors have been informed of the development of this Business Recovery Action Plan. A primary objective is to raise the awareness that there exists a plan for business recovery to minimize potential impacts to our operation.

Plan Availability – A copy of this plan will be distributed to the Branch Chiefs and Supervisors. In turn, employees will know how the Field Division has planned to recover after a disaster, or major interruption of our day-to-day business.

Plan Administration– A tabletop exercise will be held annually. At those times, this plan will be reviewed, updated, and exercised. Revisions, modifications, and updates to be performed annually will keep this document as a “live” component of our operations.

Chapter 5
ESSENTIAL EQUIPMENT AND MATERIALS

The following is a list of essential equipment and supplies that must be available:

Equipment and/or Supplies	Location
Standby Emergency Generators	Check Sites 9 – 21 Gianelli Pump-Generating Plant Dos Amigos Pumping Plant SLFD O&M Center Coalinga O&M Sub-Center
Emergency Communications	
Cell Phones	All Essential Personnel All Plants and Facilities
Satellite Phones	Gianelli Pump-Generating Plant Dos Amigos Pumping Plant Incident Command Post
Radios (Portable/Vehicle)	All Plants and Facilities All Personnel Responding to an Emergency
Fuel Storage (Gasoline/Diesel)	SLFD O&M Center Dos Amigos Pumping Plant Coalinga O&M Sub-Center
Water (Bottled)	All Plants and Facilities
Lanterns/Flashlights/Batteries	All Plants and Facilities All Employees

Chapter 6
CONTACT NUMBERS

INCIDENT COMMAND TEAM CONTACT LIST
SAN LUIS FIELD DIVISION
September 2006

*** Incident Command** – HEP Operations Superintendent = April Petok

Work	209-827-5333
Home	
Cellular	209-531-5919
Email	aprilp@water.ca.gov

Alternate Incident Command – Chief HEP Operator = Gary Garcia

Work	209-827-5335
Home	
Cellular	209-601-0007
Email	ggarcia@water.ca.gov

***Operations Chief** – Utility Crafts Superintendent = Jeannie Love

Work	209-827-5454 or 209-827-5138
Home	
Cellular	209-601-0009
Email	jlove@water.ca.gov

***Alternate Operations Chief** – Asst. Utility Crafts Superintendent = Don Arnett

Work	209-827-5127
Home	
Cellular	209-601-3580
Email	darnett@water.ca.gov

***Planning and Intelligence Chief** – Chief of Engineering = Mandeep Bling

Work	209-827-5110
Home	
Cellular	209-531-8276
Email	bling@water.ca.gov

Alternate Planning & Intelligence Chief – Senior HEP Utility Engineer = Rob Dunlop

Work	209-827-5106
Home	
Cellular	209-601-3510
Email	rdunlop@water.ca.gov

Logistics Chief – Administrative Officer I = Katie Hartline

Work	209-827-5103
Home (cell)	
Cellular (work)	209-402-3158
Email	khartlin@water.ca.gov

Alternate Logistics Chief – Business Service Assistant = Gary Classen

Work	209-827-5148
Home	
Cellular	209-617-6668 (PERSONAL PHONE – DAY ONLY)
Email	gclassen@water.ca.gov

Finance/Administration Chief – Administrative Officer II = Lucy Gwin

Work	209-827-5162
Home	
Cellular	209-601-8689
Email	lgwin@water.ca.gov

Alternate Finance/Administration Chief - Administrative Officer I = Dan Mendibles

Work	209-827-5111
Home	
Cellular	209-404-2781
Email	dmendibl@water.ca.gov

***Information/Safety/Liaison** – Safety Officer = Bill Collins

Work	209-827-5108
Home	
Cellular	209-483-8407
Email	bcollins@water.ca.gov

Alternate Information/Safety/Liaison – VACANT

Work	
Home	
Cellular	
Email	

***P.I.O/Liaison –** Chief, San Luis Field Division = Jim Thomas

Work	209-827-5150
Home	
Cellular	209-601-0010
Email	jthomas@water.ca.gov

Alternate P.I.O/Liaison – Senior HEP Utility Engineer = Gilbert Lujan

Work	209-827-5104
Home	
Cellular	NONE ASSIGNED
Email	glujan@water.ca.gov

*HOME STORAGE PERMIT

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Operations and Maintenance
San Joaquin Field Division
4201 Sabodan Street
Mettler, CA 93313

A Component of the
DWR Business Resumption Plan

Appendix A: San Joaquin Field Division
Facility/Organization Recovery Action Plan

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FOREWORD

This Recovery Action Plan was written in order to meet the Department's commitment to establishing a BRP that addresses its various organizations and missions. Its purpose is to ensure that the San Joaquin Field Division is prepared to effectively and timely restore its functions in the event a disaster or other emergency conditions impact its continuous operation.

The San Joaquin Field Division operates 24-hours a day and is critical to the operation of the California State Water Project and an essential participant in carrying out the Department's mission.

This plan provides guidelines for emergency preparedness prior to, and specific business-resumption information after such unforeseen situations as mentioned above. The BRAP is a component of the Department-wide Business Resumption Plan.

INTRODUCTION

The San Joaquin Field Division is critical to the State Water Project operation and an important player in the DWR's mission. The RAP will provide the capability to offset the effects of a disruption of the Field Division's business. It will address a long term business outage due to a loss of a facility, and short term business outage due to a loss of access to a facility. The strategies listed address SJFD's critical, essential, and necessary functions, and their role in the operation of the Field Division.

This plan builds upon the Standardized Emergency Management System in order to manage both disastrous and emergency situations, which disrupt the daily business functions of the San Joaquin Field Division. In that sense it is an extension of it. This document addresses the particular business functions of the Field Division. It establishes their criticality and provides a sequence and procedures to follow for the resumption of business following the occurrence of any emergency condition, which partially or completely interrupts the daily business of the Field Division. In addition, this plan specifies preventive measures, which will accelerate the implementation of the plan and consequently the prompter resumption of business.

In addition the BRAP is a component of the Department's Business Resumption Plan and is a "living" document, which is to be maintained and updated as part of a dynamic process.

It is important to note that the business recovery of the Field Division is ultimately entrusted to an Incident Command Team. It is not the intent of this plan to dictate particular assessments and actions of an organization member - such actions will be dictated by the unique situation that a disruptive emergency condition is likely to create.

ORGANIZATIONAL STRUCTURE

The San Joaquin Field Division has established an Incident Command Team as a major component of the Recovery Action Plan. Its purpose is to manage an incident-specific response and resource allocation, following a disaster or other emergency condition affecting the operation of this facility of the State Water Project, in order to achieve specific business recovery objectives effectively and timely.

The following chart identifies the individuals, including alternates, their roles and responsibilities for the various aspects of the recovery plan.

Incident Commander:

The Incident Commander is responsible for establishing objectives and goals. The IC manages recovery activities.

Operations Chief:

The Operations Chief is charged with implementing the recovery plan. The Operations Chief will give practical effect to and ensure the actual fulfillment of the recovery effort(s).

Planning/Intelligence Chief:

The Planning/Intelligence Chief is responsible for collecting, and evaluating information about the incident and to accordingly identify recovery activities and the resources needed for such.

Logistics Chief:

The Logistics Chief is responsible for organizing, tracking, and allocating resources to the tasks assigned by the Operations Chief, which include facilities, personnel, equipment, and supplies.

Finance/Administration Chief:

The Finance/Administration Chief is responsible for ensuring that all activities related to the recovery plan, including time keeping, are tracked, accounted for, and paid.

Information/Safety Liaison:

The information/safety Liaison is responsible for providing Public Information, Safety, and Liaison services for the recovery organization.

FUNCTIONS

In order to facilitate an organized recovery the various major business functions performed by the San Joaquin Field Division have been identified and classified according to their impact to our mission.

Recovery of functions with the greatest impact to our mission at any given time will receive the highest priority as follows:

Critical Functions – Because of their immediate impact to our operation, and that of the State Water Project, the following functions must be restored within 24 hours. Failure to restore any of the critical functions in a timely manner will result in the negative consequences described below:

Scheduled Water Delivery -- This is a critical function that must be restored within 24 hours. The failure to deliver scheduled water to water contractors could have a major domino affect to their water customers due to agricultural needs year around.

Establish Adequate Aqueduct Pool Levels – Failure to plan and establish maximum elevations in the aqueduct pools would prohibit the ability to continue turnout deliveries in the event the plants fail to operate as scheduled. By establishing maximum storage, we would be able to continue supplying smaller turnouts. Failure to maintain absolute minimum elevations could result in the loss of the integrity of the aqueduct lining.

Coordinate Work and Provide Feedback / Information to the POC – Communications with the POC is critical. Loss of communications would prohibit us from receiving required pump schedules needed to meet deliveries, and send water to Southern Field Division. In addition, loss of communications would prohibit feedback to the POC in the case of an emergency that may occur to the Field Division or aqueduct, which would require an immediate POC response.

Critical Support Functions

Date Communications Maintenance – The fiber optic based data communication system provides project-wide interconnection of the various control systems and administrative computers. A loss of this system would result in inability to monitor or control any remote site - pumping plant, or aqueduct check-site.

Voice Communications Maintenance – The voice communication system is a combination of Nortel Meridian PBX's, fiber optic systems, commercial telephone services, radios, and cellular telephones. The loss of voice communications would result in inability to coordinate the operation of the water conveyance and pumping facilities.

Control Systems / SCADA – A Control systems enable automation, remote control, and monitoring of the State Water Project aqueduct and pumping facilities. The loss of the control systems, without manual intervention, would result in uncontrolled pumping and water flows out of control.

Contracts and Departmental Service Agreements (DSA) – The San Joaquin Field Division is responsible for over 15 service contracts and 30 DSA's per year. Services range from janitorial and grounds-keeping to hazardous materials and solid waste removal. The loss of this function will delay or postpone services which are needed on timely bases. This function would be particularly critical in the event of an emergency when emergency services are likely to be required.

Procurement – Being responsible for purchasing over $2.8 million in commodities, procurement plays a critical support function in the operation of the San Joaquin Field Division. The loss of this function will delay or postpone the ordering of needed parts, supplies and/or materials. Again, this function would be particularly critical in the event of an emergency when emergency parts, supplies, etc. are likely to be required.

Warehousing and Issuing – Three warehouses of parts, materials and supplies are maintained to play a critical support function. Two warehouses are located at the O&M Center in Mettler, and one at the Lost Hills sub-center. The loss of this function will severely limit the availability and issuance of parts, materials and supplies. Once again, this function would be particularly critical in the event of an emergency when extra parts, supplies, etc. are likely to be required.

Essential Functions – Listed below is a second group of major functions, which have been identified as essential; they must be restored within five days. Failure to restore any of the essential functions in a timely manner will result in negative consequences as explained below:

Maintain Pumping Units in Operational Conditions – Failure to perform maintenance on pumping units and related equipment could result in the failure of the units to start or operate when needed to meet scheduled deliveries.

In addition, the failure of units to start could also result in large fines by the ISO by not using scheduled power.

Aqueduct Maintenance – The failure to perform aqueduct maintenance would be considered critical during the season of high winds and dry weeds. The weeds blow into the aqueduct and buildup in the forebays. When units are required to run, weeds prevent adequate water flow and causes units to trip off line. Maintenance personnel are called out to pull weeds, and at times, required to work around the clock. At times like this it is impossible to meet pump schedules.

Essential Support Functions

Engineering Support – It is the function of providing technical assistance for repair and maintenance of equipment. Incident investigations, analysis, and recommendations for changes are necessary to prevent equipment failure reoccurrences. Failure to perform this function, particularly in the event of performing modifications to restore pumping, can have serious consequences in addition to delays.

Timekeeping – Entering employee time data for payroll purposes is considered an essential support function. The loss of this function will affect employees pay, delay payroll checks or direct deposits, and delay cost recovery information.

Necessary Functions – The third group of major functions listed below has been identified as necessary; these functions must be restored within 21 days.

Environmental Clearances – It is the function of performing environmental assessments of projects located in threatened or endangered species habitat. Since no activities are to be conducted without a permit/clearance, civil maintenance activities will be impacted due to the loss of this function.

Encroachment Permits – It is the ability to issue permits to others for performing work on Department owned property/facilities. Should work be performed without a proper permit, the State would not be legally protected from the action of others.

Human Resources – This function refers to the responsibility to perform delegated testing and hiring staff. Loss of this function will delay or postpone the filling of vacancies.

Revolving Fund – Out of which travel advances are issued, expense claims are paid, and payroll advances made. The loss of this function will delay or postpone the issuance of checks.

Correspondence and Reports – It refers to the administration function of preparing correspondence and reports. The loss of this function will delay or postpone formal communications or documents.

Archives and Engineering Drawings – The maintenance of personnel official records, reports, documents, engineering drawings and correspondence is the last of the functions to be restored within 21 days. The loss of this function will delay the retrieval of all the above documentation.

It is important to note that failing to restore an essential or necessary function within the scheduled time may result in the escalation of priority of any such function.

RECOVERY ACTION PLAN

This plan establishes specific recovery responses to various disaster scenarios, which partially or completely disrupts the continuous operation of the Field Division.

For direction in responding to a specific type of emergency, the San Joaquin Field Division Emergency Action Plan will serve as a guide.

The business recovery choices to be opted for will be dictated by the conditions created by the disaster or other emergency such as earthquakes, floods, fire, hazardous materials contamination, bomb threats, etc.

Although complete by itself, this plan is simply a part of the Department-wide Business Resumption Plan. This Business Recovery Action Plan builds upon the Standardized Emergency Management System. It provides site-specific emergency management and detailed instructions for business recovery.

Loss of Access

This is a situation when business must be conducted without physical access to the resources contained in the facility. This scenario can be caused by a natural disaster or any other abnormal occurrence that disrupts business. Typical conditions are as follows:

- Department staff is unable to gain access to a facility.
- Documents, equipment, and automated functions may be intact.
- Access will be restored sometime in the future.

Since this is a temporary situation, only the critical and critical support functions will be addressed. While access is being restored, business will be carried out in the interim--if possible--as follows:

Access Loss to the Pumping Plants – The following functions will be affected:

Scheduled Water Delivery - To be able to perform our most important function, the pumping plants must be accessible. With a loss of access, our ability to deliver water will be disabled until the access has been restored.

Establish Adequate Aqueduct Pool Levels - While this function is generated at the Area Control Center, with a loss of access to the pumping plants, our ability to perform this function will be disabled until the access has been restored.

Access Loss to the Area Control Center

Coordinate Work and Provide Feedback/Information to the POC – As soon as the area is declared inaccessible, coordination work of the field division's operations with the POC will be done from the Administration Building, Control Technicians Shop. Inherently, temporary relocation of this function to this location on short notice is possible as both facilities are connected to the same host.

Data Communications - Within two hours after it has been declared that access to the facility has been lost, the Project Operation Center will be asked to take over this area control center function. This can be done by a telephone call. Flow of information should not be compromised as communication circuits will re-establish integrity necessary for POC control over this ACC

function. POC will take control of this Area Control function if jurisdiction is not already assigned to POC.

Voice Communications - Within two hours after it has been declared that access to the facility has been lost, the Project Operations Center will be asked to take over this area control center function. This can be done by a telephone call. Re-routing of information flow on emergency basis via alternate telecommunications/radio equipment is necessary for POC to take over this ACC function remotely.

Control Systems/SCADA - Within two hours after it has been declared that access to the facility has been lost, the Project Operations Center will be asked to take over this area control center function. This can be done by a telephone call. POC will take control of this Area Control function if jurisdiction is not already assigned to POC.

Access Loss to the Administration Building

Contracts and Departmental Service Agreements (DSA) - Although one of the assumptions is that the loss is temporary, it will be treated as if the facility had been lost, since this function could not be performed, for all practical purposes. Therefore, "emergency only" contracts will be prepared during the period of inaccessibility. Emergency contracts and service agreements will be prepared manually at a different location, and using telephone bidding procedures.

Procurement - The purchasing function will be moved to any location where a telephone is available. Purchase orders will be prepared manually soliciting bids by telephone. For commodities costing less than $1000, a state credit card can be used. A paper log will be developed to track purchases, uses, costs, and vendors.

Warehousing and Issuing - Presumably, one warehouse will be fully functional, either at the O&M Center or at Lost Hills (55 miles from the O&M Center). Warehousing staff will be directed to that location. A transportation vehicle and plan for the delivery of parts, materials and supplies will be developed and implemented.

Loss of Facility

This is a situation when alternate sites for conducting business, and alternate means of performing functions must be implemented. . This scenario can be caused by a natural disaster, or any other disastrous business-disruptive occurrence. Typical conditions are as follows:

- The facility is destroyed, or damaged beyond repair.
- Equipment, documents, and automated functions, are destroyed, or damaged beyond repair.

This plan establishes the following response as follows:

Total Loss of the Pumping Plants – In the event of the loss of a pumping plant, the following functions will be disabled. No alternative way of conducting normal operations is even possible.

Scheduled Water Delivery - To be able to deliver our most important function, the pumping plants must be operational. With a total loss of a pumping plant, our ability to deliver water will be disabled. The rebuilding of the pumping plant is outside of the scope of this plan.

Establish Adequate Aqueduct Pool Levels - While this function is generated at the Area Control Center, with the total loss of any of the pumping plants, our ability to deliver this function will be disabled. The rebuilding of the pumping plant is outside the scope of this plan.

Maintaining Pumping Units in Operational Conditions - If the units are presumed to have been destroyed, this function can not be performed either. Again, the rebuilding of the pumping units is outside the scope of this plan.

Total Loss of the Area Control Center–

Functions normally performed at the Area Control Center will have to be moved, or carried out differently. An alternate means of performing the following functions will be implemented as follows:

Coordinate Work and Provide Feedback/Information to the POC -Should the field division experience the loss of the Area Control Center, initial recovery action will be the same as the access loss response. Namely, as soon as the loss of the ACC/Chrisman Pumping Plant Control Room is confirmed, coordination work of the field division's operations with the POC will be done from the Administration Building, Control Technicians Shop or Teerink Pumping Plant Control Room as a lesser alternative. Inherently, temporary relocation of this function to this location on short notice is possible as both facilities are connected to the same host.

Data Communications - In the event of a total loss of the ACC, the initial response will be the same as the access loss response. Namely, within two hours after it has been declared that the facility has been lost, the Project Operations Center will be asked to take over this area control center function. This can be done by a telephone call. Flow of information should not be compromised as communication circuits will re-establish integrity necessary for POC control over this ACC function. POC will take control of this Area Control function if jurisdiction is not already assigned to POC. In addition, since the loss is permanent, and all the contents destroyed, the area control center will be relocated to a new location. Decisions about a permanent solution to a loss of this facility will not be addressed in this plan, as they are outside the scope of this plan. In the interim, POC control will be necessary.

Voice Communications - Same response as in data communications loss, above.

Control Systems/SCADA - Same response as in data communications loss, above.

Total Loss of the Administrative Building

Contracts and Departmental Service Agreements (DSA) - "Emergency only" contracts will be prepared. Emergency contracts and service agreements will be prepared manually at a different location, and using telephone bidding procedures.

Procurement - The purchasing function will be moved to any location where a telephone is available. Purchase orders will be prepared manually soliciting bids by telephone. For commodities costing less than $1000, a state credit card can be used. A paper log will be developed to track purchases, uses, costs, and vendors.

Warehousing and Issuing - Presumably, one warehouse will be fully functional, either at the O&M Center or at Lost Hills (55 miles from the O&M Center). Warehousing staff will be directed to that location. A transportation vehicle and plan for the delivery of parts, materials and supplies will be developed and implemented.

Engineering Support - This function can be performed from any of the pumping plants, as the minimal resources such as working drawings are readily available. Moreover, the drawings can be accessed electronically by any personal computer connected to the DWR network.

Environmental Clearances - The release of environmental clearances will take place at the alternate location given in section 3.3. Data and records needed will be accessed electronically by any personal computer connected to the DWR network. or from the Fresno District Office.

Encroachment Permits - Issuing of permits to others for performing work on Department owned property/facilities will be handled at an alternate field division location and Division of Engineering, Real Estate Branch.

Timekeeping - Clerical support staff record employees time monthly based on information received from field division supervisors. This will change with SAP. In the meantime, we would establish a staffed timekeeping location where supervisors can call in the employees' time and it would be recorded on a daily or weekly basis.

Revolving Fund – Revolving fund checks are stored at two locations: O&M Center Administration Building and the Warehouse. If either location becomes inaccessible, or has been destroyed, the check writing function will be handled at the other site. The checks can be prepared manually on typewriter and temporarily posted to a paper ledger.

Human Resources – The processing of hiring documents (Form 1090) will be prepared manually at either the O&M Center or Lost Hills administrative offices.

Correspondence and Reports - Clerical support staff prepare the majority of formal correspondence. We would resume this function at either the O&M Center or Lost Hills administrative offices.

Engineering Drawings and Archives – Field division archives are maintained at Edmonston Pumping Plant, and in the O&M Center warehouse. Working engineering drawings are available at all the pumping plants and major facilities. In addition, the drawings can be accessed electronically by any personal computer connected to the DWR network. The records we maintain are duplicates that exist at Sacramento Headquarters, OMDS database and could be retrieved by use of any personal computer with a network connection. A new archive location would be established at Lost Hills or Buena Vista Pumping Plant, if necessary.

Alternate Sites

The following sites have been selected to function as alternate assembly locations, computer backup sites, or Incident Command Post. Incident conditions will determine partial or complete business relocation, and that will be determined by the ICT following an assessment of the situation:

Original Site	**Alternate Location**
San Joaquin Field Division (O&M Center)	Lost Hills Sub-Center
	Coalinga Operations & Maintenance Center
	Southern Field Division
San Joaquin Area Control Center at Chrisman Pumping Plant	San Joaquin Field Division (O&M Center) Administration Bldg, CST Shop.
Lost Hills Sub-Center	San Joaquin Field Division (O&M Center)

	Coalinga Operations & Maintenance Center
Pumping Plants	None

Address List

San Joaquin Field Division
(San Joaquin O&M Center)
4201 Sabodan St.
Mettler, CA 93313

Lost Hills Sub-Center
21139 Highway 46
Lost Hills, CA 93249

Southern Field Division
31849 North Lake Hughes Rd.
Castaic, CA 91384

Coalinga Operations & Maintenance Center
California Aqueduct & Highway 145
Coalinga, CA 93210

Event Notification

Employee Notification

Recovery information being generated by the Incident Command Team will be first relayed to the appropriate supervisor. Information will then flow through the regular chain of command. Decisions about the means to do it will be dependent upon the circumstances and the means available at any given time.

Department Operation Center Notification

When an incident results in the access or total loss to a facility, where critical, essential, and necessary functions are performed, the following will occur:

The Incident Commander will notify the Emergency Preparedness Manager Sonny Fong at (916) 654-6135, and/or the Department Operations Center as provided in the DWR Business Resumption Plan.

AWARENESS, AVAILABILITY, AND PLAN ADMINISTRATION

Awareness - Branch Chiefs and Supervisors have been informed of the development of this Business Recovery Action Plan. A primary objective is to raise the awareness that there exists a plan for business recovery to minimize potential impacts to our operation.

Plan Availability - A copy of this plan will be distributed to the Branch Chiefs and Supervisors. In turn, the rest of the employees will know how the Field Division has planned to recover after a disaster, or major interruption of our day-to-day business.

Plan Administration- A tabletop exercise will be held annually. At those times, this plan will be reviewed, updated, and exercised. Revisions, modifications, and updates to be performed annually will keep this document as a "live" component of our operations.

RESOURCE LIST

The dimension of the recovery will determine the resources that will suffice for a successful and complete recovery. To restore functional operations within the scheduled time, the following resources will be needed:

- Facilities - Pumping Plants
  - Aqueduct
  - Check Structures
  - Turnouts
- Administration headquarters (Office Equipment and Space)
- An Area Control Center
- Electrical Power - To operate pumping facilities.
  - 230 Kilovolts
  - 115 Kilovolts
  - 69 Kilovolts
- Information Technology equipment - Hardware, and software.
- Control and Communications Equipment - All specialized equipment to enable data and voice communications. A Local Area Network.
- Data and Records
- Vehicles
- Minimum Staff - The actual number will depend upon the goals and objectives of the Incident Commander, and will range from one staff member to the full staff of the Field Division.

In addition, the following essential equipment and supplies must be available:

Equipment and/or Supplies	Location	Quantity On-Site
Stand-by Emergency Generators	See Inventory Below	46
Emergency Communications Systems (cell phones)	Administration Building	6
	Engineering	5
	Plant Maintenance	9
	Operations	9
	Civil Maintenance	5
Hand held radios	Plants and Facilities	86
Fuel Storage Systems - Gasoline	San Joaquin O&M Center	10000gal
	Lost Hills Sub-Center	10000gal
	Buena Vista Pumping Plant	1000gal
	Las Perillas Pumping Plant	1000gal
Fuel Storage Systems - Diesel	San Joaquin O&M Center	10000gal
	Lost Hills Sub-Center	10000gal
	Buena Vista Pumping Plant	1000gal
	Las Perillas Pumping Plant	1000gal
Emergency Lighting	Built-in feature in all facilities	
Water	At all buildings	
Lanterns	Every Plant Employee	
Hand Pumps (to siphon gasoline)	San Joaquin and Lost Hills	2

**Inventory of Standby Emergency Generators-
Plants/Facilities**

Location of Standby Emergency Generators	Quantity On-Site	Tank Capacity (gallon)	Fuel Type
A. D. Edmonston Pumping Plant	2	3000 (2ea)	Diesel
A. D. Edmonston Surge Tank	1	1000	Propane
Chrisman Pumping Plant	1	500	Propane
Teerink Pumping Plant	1	500	Propane
Buena Vista Pumping Plant	1	500	Propane
Badger Hill Pumping Plant	1	1000	Diesel
Badger Hill Headworks	1	250	Propane
Las Perillas Pumping Plant	1	1000	Diesel
Las Perillas Headworks	1	250	Propane
Las Perillas Residence	2	500	Propane
Devil's Den Pumping Plant	1	1000	Diesel
Bluestone Pumping Plant	1	1000	Diesel
Polonio Pass Pumping Plant	1	1000	Diesel
Tank Site 1	1	1000	Diesel
San Joaquin O&M Center	1	1000 Utility Connected	Propane Natural Gas
San Joaquin O&M Center (SPARE)	1	1000	Propane
San Joaquin O&M Center (Trailer Mounted SPARE)	1		Diesel
Lost Hills Sub-center(Trailer Mounted SPARE)	2		Diesel

Inventory of Standby Emergency Generators-Turnouts

Location of Standby Emergency Generators	Quantity On-Site	Tank Capacity (gallon)	Fuel Type
TLA Turnout	1	250	Propane
TLB Turnout	1	300	Propane
Los Hills 5 Turnout	1	250	Propane
Semitropic Turnout	2	250 (Ea.)	Propane
Buena Vista 2 Turnout	1	250	Propane
Cross Valley Turnout	1	250	Propane

Inventory of Standby Emergency Generators-Checksites

Location of Standby Emergency Generators	Quantity On-Site	Tank Capacity (gallon)	Fuel Type
Check #3	1	500	Propane
Check #4	1	500	Propane
Check #5	1	500	Propane
Check #22	1	500	Propane
Check #23	1	500	Propane
Check #24	1	500	Propane
Check #25	1	500	Propane
Check #26	1	500	Propane
Check #27	1	500	Propane
Check #28	1	500	Propane
Check #29	1	500	Propane
Check #31	1	500	Propane
Check #32	1	500	Propane
Check #33	1	500	Propane
Check #34	1	500	Propane
Check #37	1	500	Propane
Check #38	1	500	Propane
Check #39	1	500	Propane

INCIDENT COMMAND TEAM

(September 2006)

Area Code 661

	Work	Pager	Cellular	Home	Radio
Incident Commander					
Curtis Johnston HEP Operations Superintendent	858-5666		301-9986		J130
Incident Commander Alternates					
James Phillips Chief HEP Operator	858-5510		333-4102		J131
Dan Erreca Chief HEP Operator	858-5528		333-4104		J132
Operations Chief					
Terry Stutz Civil Maintenance Superintendent	858-5533	632-4823	333-4234		J 150
Operations Chief Alternate					
Art Vickers. Assistant Civil Maint.Superintendent	858-5539	636-3047	301-9990		J152
Planning And Intelligence Chief					
Gary Chee, Senior HEP Utility Engineer	858-5513	632-4777	301-4264		J160
Planning And Intelligence Chief Alternate					
Randy McBride HEP Mechanical Supv.	858-5721/ 858-5515	632-9569	301-9988		J161
Logistics Chief					
Ken Watts Plant Maintenance Superintendent	858-5566	632-3849	301-9995		J140
Logistics Chief Alternate					
Jamie Mulkey-Flink Regional Administrative Officer I	858-5504	632-3429	N/A		J112

	Work	Pager	Cellular	Home	Radio
Finance and Administration Chief					
Mike Placencia Regional Administrative Officer III	858-5665	321-1219	301-4428		J110
Finance and Administration Chief Alternate					
Gia Berrera Regional Administrative Officer I	858-5506	632-3137	N/A		J111
Information/Safety Liaison					
ALLEN THOMPSON Safety Officer	858-5509	632-3607	301-4128		N/A

KEY PERSONNEL

Area Code 661

	Work	Pager	Cellular	Home	Radio
Administration					
Jeff Said Field Division Chief	858-5554	632-9642	333-4143		J100
Mike Placencia Administrative Officer III	858-5665	321-1219	301-4428		J110
Engineering					
Gary Chee Senior HEP Utility Engineer	858-5513	632-4777	301-4264		J160
Vacant Senior HEP Utility Engineer					
George Gomez Control Technician III	858-5550	632-3762	333-4334		J122
John Munoz Control Technician II	858-5839	632-0612	N/A		J127
Operations					
Curtis Johnston Operations Superintendent	858-5666	636-2758	301-9986		J130
James Phillips Chief Operator	858-5510	632-3789	333-4102		J131
Dan Erreca Chief HEP Operator	858-5528		333-4104		J132
Jennifer Metcalf WR Tech II	858-5532	632-3091	342-4225		J030
Plant Maintenance					
Ken Watts Plant Maintenance Superintendent	858-5566	632-3849	301-9995		J140
Gary Hankins HEP Electrical Supervisor	858-5575	632-4496	301-9992		J142

	Work	Pager	Cellular	Home	Radio
Mark Richert HEP Electrical Supervisor	858-5574	632-9175	301-9993		J141
Randy McBride HEP Mechanical Supervisor	858-5515	632-9569	301-9988		J161
Elmer Gray HEP Mechanical Supervisor	858-5785/ 858-5571	632-4211	301-9994		J143
Vacant HEP Mechanical Supervisor	858-5711 / 858-5572		333-4335		J144
Civil Maintenance					
Terry Stutz Civil Maintenance Superintendent	858-5533	632-4823	333-4234		J150
Art Vickers Assistant CM Superintendent	858-5820	636-3047	301-9990		J152

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Operations and Maintenance
Southern Field Division
34534 116th Street East
Pearblossom, CA 93553

A Component of the
DWR Business Resumption Plan

Appendix A: Southern Field Division
Facility/Organization Recovery Action Plan

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INTRODUCTION

The Southern Field Division Facility and Organization Recovery Action Plan establishes a field division Incident Command Team and an organization recovery process to disasters that impact the business functions of the Southern Field Division. The Facility and Organization RAP is based on guidelines supplied by the Business Resumption Plan steering committee.

The RAP is not intended to be a specific step-by-step recovery plan with exact instructions to follow. The nature and scope of an event that results in loss of facility or interruption of field division functions cannot be predicted. The range of disruption can be from earthquake, flood, to labor action. The RAP is a plan for a process with functions to be carried out, using the Standardized Emergency Management System, leading to recovery of field division facilities and functions.

This document is intended to be used in conjunction with the Southern Field Division Emergency Action Plan.

The RAP includes:

- An incident command team designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the field division's functions that must be restored.
- A description of the initial steps necessary to implement a recovery plan.
- A checklist to facilitate the implementation of a recovery plan.

ORGANIZATIONAL STRUCTURE

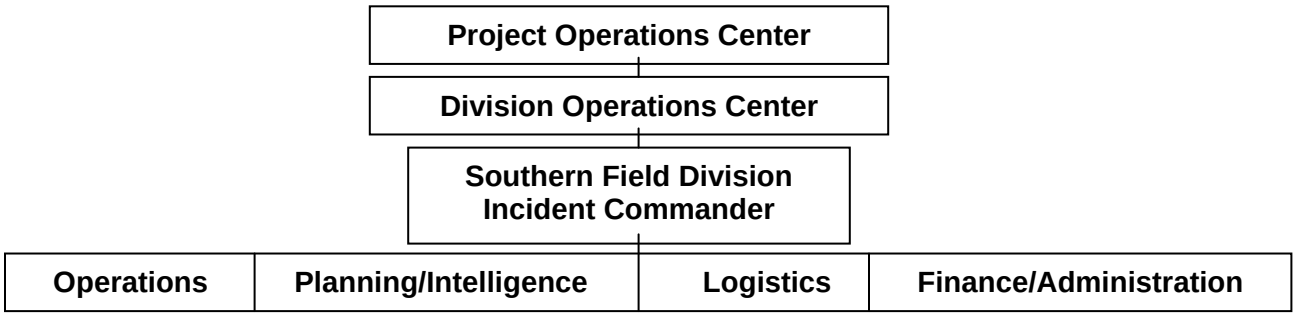
The Southern Field Division will be organized during the recovery process in accordance with the Standardized Emergency Management System and its field element, the Incident Command System. SEMS is a method of organizing for emergency management. These systems utilize standard organization techniques, a common terminology, common functions and responsibilities that are applicable to almost any kind of emergency. All State agencies and most of the city and county governments in California are implementing these systems. State law requires the use of SEMS and ICS by all state agencies.

Incident Command Team

ICS will be used during recovery from a disaster resulting in loss of access to field division facilities. The ICT will be formed and operated in conformance with Standardized Emergency Management System. It is the responsibility of the ICT to be aware of the field divisions' mission and respond accordingly. The team must also assess the need for resources required in carrying out the Recovery Plan. The ICS, utilized for emergencies department-wide, provides for common terminology and duties. This provides considerable flexibility and adaptability to a wide variety of situations.

It is significant to recognize that no recovery plan is ever complete or all encompassing. With the variety of natural and man made disasters combined with severity, timing and other variables is far too great and complex to adequately address in a single document. The disaster recovery plan is based upon available knowledge, information and experience, and must be adjusted to changing circumstances. While details of a particular event or incident may vary widely, the functions that must be carried out to deal with them are common to almost any type of emergency. ICS can, and is, used for a wide variety of emergency management activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position.

Figure 1, Incident Command System Structure



Department Operations Center

The Department Operations Center, under supervision of the DWR Emergency Preparedness Manager, is responsible for managing and coordinating the Department's recovery activities. The Department Operations Center will coordinate assistance from other Department field divisions, District Offices when field division resources are not sufficient. The DOC may also reallocate available resources to higher priority functions.

Project Operations Center

The Project Operations Center is responsible for managing and coordinating overall recovery activities of the State Water Project. With the assistance of the Department Operations Center and Emergency Preparedness Manager, the POC will coordinate assistance from other Department field divisions, District Offices and other state agencies when field division resources are not sufficient. The POC may also reallocate available resources to higher priority functions within O&M.

Incident Commander

The Operations Superintendent will be the Incident Commander with a Deputy Incident Commander to assist. The Area Control Center Senior Operator may act as Incident Commander during the initial phase of the emergency. The Operations Superintendent or deputy will assume command after a full and complete briefing has been made.

The IC or Deputy will continue to report status to the POC. Any requests for assistance, schedule changes, power requirements, relocation of facilities and like items will be coordinated through the POC.

The IC and Deputy will be responsible for establishing objectives, goals, management and coordination for the recovery efforts.

Operations Section Chief

The Operations Section Chief will implement the recovery plan.

Planning/Intelligence Section Chief

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate action plans and status reports on the recovery effort for DWR management.

Logistics Section Chief

The Logistics Section Chief will requisition, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles, and equipment.

Finance/Administration Section Chief

The Finance/Administration Section tracks (in cooperation with the Logistics Section), accounts for, and pays for activities related to the recovery plan. Timekeeping will also be the responsibility of this section. This section will be augmented by staff assigned by the DOC Logistics Section in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential Federal Emergency Management Agency reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of Southern Field Division are separated into critical, essential and necessary tasks. The classification of field division functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide entitlement, prevent financial hardship or meet a legal requirement.

Essential tasks are those tasks that allow the field division to accomplish its mission and which must be restored within 5 days.

Necessary tasks are those tasks that need to be restored within 21 days.

Critical, essential, and necessary tasks may become interchangeable depending upon the time of year, severity of event or other contributing factors.

Table 1. Southern Field Division Critical and Essential Functions

What	Who	How	Criticality
Flood Related Surface Water Measurement	SFD	Manual/ Computer	Critical during flood releases from Southern Field Division reservoirs
Emergency Response to Seismic Events	Field Division Personnel	Manual / Computer	Critical when it affects the field division functions. Status needed to resume operations

RECOVERY ACTION PLAN

The RAP is based on a sequence of events that will, at some period, take place. Whether its floods, earthquakes, or the failure of facilities, our history demonstrates the probability is high that a RAP will be necessary or required. The principal elements of the plan include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on Southern Field Division functions and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each year, the plan will be reviewed and updated by use of an annual appendix listing the ICT and a contact list. Emergency vehicle home storage permits will also be reviewed to ensure maximum efficiency when deployed.

Copies of the RAP will be provided to the Department of Water Resources Emergency Preparedness Manager, POC, ACC and ICT members.

Notification of Event

The Southern Field Division Chief, ACC or designee will notify the POC immediately upon an event that requires implementation of the Facility and Organization Recovery Action Plan. See the Southern Field Division RAP Contact List.

Each supervisor, when notified by the ICT will then notify subordinates. The notification will include instructions, if needed, regarding a point of assembly, future contact procedures, and an initial procedure to carry out field division functions.

The ACC will refer to the Southern Field Division Emergency Action Plan and make all required notifications as it relates to local governments, regulatory agencies, and fire and police departments.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover field division functions. The IC or Deputy will establish immediate and intermediate goals and objectives and develop an Incident Action Plan. The Operations Section Chief will implement appropriate notification and reporting procedures to field division staff and take such immediate recovery steps as feasible. The Logistics Section Chief will establish immediate needs for resources. The Finance and Administration Section Chief will immediately implement emergency purchasing procedures in accordance with the incident and coordinate with the DOC to secure appropriate emergency financial authorizations and assistance. In some emergency situations it will be necessary to secure an emergency contract through the Division of Engineering. The ICT will be responsible for evaluating the need for that function to return and what time frame is available for the Division of Engineering to initiate repairs.

If the ICT determines that the function cannot be returned to meet field division objectives, a contingency plan and/or workaround will be developed. This workaround will be, for the most

part, temporary. The situation may require that additional personnel and resources are needed. In that event the IC will contact the DOC and/or EPM for assistance.

Disaster Scenarios

The Southern Field Divisions' RAP defines two types of disasters:

- **Loss of Access** - A disaster or other incident prevents access to any of the facilities in the Southern Field Division. This would include generating plants, pumping plants, check structures, dams, stream releases, intake facilities, delivery systems and office locations.
- **Loss of Facility** - A disaster resulting in the destruction of any Southern Field Division facility.

Loss of Access

This scenario assumes that the field division's documents, equipment and facility are intact and secure, but field division staff is unable to gain access. This may be due to a hazardous materials spill, a snowstorm causing road closures, or some other type of incident. It is also assumed that access will be granted in the near future and that the operation of the field division is still continuing through the ACC or has been taken over by the POC. In some cases the generating and pumping plants will have staff on site to continue manual operation, if necessary, and communicate the current conditions.

The ICT will meet and confer as soon as possible to assess the situation and establish priorities. If it is determined that the function of the field division will be impacted due to the duration of lost access, an Incident Action Plan will be required. The ICT will coordinate with the POC to minimize any impact to the operation of State Water Project.

Restoration of Critical Functions

Surface Water Measurements – The Southern Field Division has facilities that have flood release capabilities. These facilities have the ability to adversely impact three counties in Southern California and numerous cities. During flood operations it is imperative that the flood inflows and outflows are closely monitored. In the event of lost access equipment from other field division facilities will be redirected to support the physical monitoring. While this function is being restored, the ACC will monitor the surface elevations of all lakes and calculate the flood quantities to be released. In most flood emergencies it is very likely that the equipment needed to accomplish the function will already be mobilized and in the field. The ICT will evaluate the work needs and arrange for an alternate facility on state property for reporting and storage of equipment.

Emergency Response to Seismic Events – After a significant seismic event the Southern Field Division facilities are tripped out of operation by numerous relay actions. The members of the ICT have vehicle home storage permits for state vehicles. This allows the team to immediately deploy and contact the ACC by radio/cell phone. The Southern Field Division Emergency Action Plan also has areas of responsibility assigned to field division personnel (Emergency Response, Section 2.2). The objective is to communicate with the ACC and establish the epicenter and status of surrounding facilities. From there the team focuses on inspecting the facilities for damage and ensures access is available. Once the impacted area has been

inspected and appears intact, the POC will be informed that the field division is prepared to resume normal operation.
If a specific feature of the field division is not accessible, the ICT will establish an Incident Command Post and staging area for resources. It may become necessary to use existing contracts or emergency contracts if the situation warrants.

Aftershocks may occur for months after the initial event. The ICT will be responsible for evaluating the operational needs and developing an IAP that identifies interim facilities, staging areas, personnel and equipment needed in the event of significant damage.

Loss of Facility

This scenario assumes that the facility (and/or its contents) are destroyed or damaged beyond repair or recovery. The ICT will meet and confer as soon as possible to assess the situation. The loss of facility has many different scenarios. If the facility were a pumping or generating plant the consequences would be significant. The ICT would notify the POC as soon as possible. The Division of Engineering would be called in to initiate immediate repairs or construct alternate temporary delivery system. If it were the loss of a dam the impact to the Department, water contractors and downstream communities would be catastrophic. Under SEMS, the OES Regional Emergency Operation Center and/or Department Operations Center would be activated and the field division serving as an Incident Command Post. Numerous regulatory agencies would be taking an active part in returning the facilities to normal operation. However, the after effects of a dam failure will be handled at a much higher level than the field division ICT.

Restoration of Functions

This RAP is not intended to address the loss of access or loss of facility at a level that cannot be restored by field division forces. This plan basically deals with minor field division functions and administrative office spaces. The following facilities cannot be supported by this plan in the event of loss.

- The loss of any generating plant.
- The loss of any pumping plant.
- The loss of any dam.
- The loss of any siphon.
- The loss of any check structure.
- The loss of any portion of aqueduct.
- The loss of any intake facility.
- The loss of any stream release facility.
- The loss of any reinforced concrete pipeline.
- The loss of any significant portion of the Southern Field Division facilities.

Under "Loss of Facility", all of these facilities and the restoration of critical, essential or necessary functions would be under the direction or the jurisdiction of the Department Management Team (Director and Deputy Directors) and possibly the regulatory agencies that oversee State Water Project activities. They would not be addressed by the recovery action plan. However, initial notification and mobilization of resources for the above facilities is addressed in the Southern Field Division Emergency Action Plan.

Alternate Sites

Incident Command Post

- An ICP will be established as soon as possible. The ACC or the Pearblossom O&M Center is the first choice of facilities with the necessary amount of equipment. If neither of these facilities is available the following locations have sufficient equipment to accommodate an ICP.

- Oso Pumping Plant
- Castaic O&M Center
- Castaic Civil Maintenance Building
- Devil Canyon Generating Plant

If these locations are inaccessible or damaged due to an incident, the following facilities can support an ICP with the minimum amount of equipment required.

- William Warne Generating Plant
- Alamo Generating Plant
- Mojave Siphon Generating Plant

Basic Incident Command Post Requirements	Minimum Requirements
Telephone lines (2-4)	Telephone line
Fiber phone	Fiber phone
Fax machine	Computer
E-mail	E-mail
Office space for Incident Command Team	
Base station radio system	
Fuel facilities	
Computers (3)	

Area Control Center

If the Pearblossom ACC is destroyed or becomes non-functional for any reason, the Oso Pumping Plant control room has been programmed to act as a back-up control center. This feature was added with the installation of the new control system. All Senior Hydroelectric Plant Operators and supervisors are aware of this function and will report to the Oso complex to staff the back-up control center.

The POC can also take over the function of operating the field division if the Pearblossom ACC is out of service. In a transition from one location to the other, the POC is prepared to take over the field division functions until the Oso location is up and operational.

Pearblossom and Castaic Administration Buildings

If either administration building is destroyed, the ICT will assess the work needs, employee commute, and the status of available appropriate work locations. The employees will then be

directed to report to a new headquarters location until the damaged facility is rebuilt or alternate office space is secured.

Cedar Springs Maintenance Yard

If the Cedar Springs Maintenance Yard is destroyed the employees will be directed to occupy the Cedar Springs Dam Control Building. This facility is only one mile away from the maintenance yard and can accommodate all the current activities. There is also sufficient parking to relocate all the heavy equipment currently stationed at the maintenance yard.

Pre-Planning

Exercises

The Southern Field Division is the largest field division in the SWP. Work needs often dictate that personnel and equipment be relocated to accomplish work on schedule, assist in an outage or respond to an emergency condition. The field division often uses these alternate plans in the course of normal business.

To test the recovery action plan three types of exercises may be used: Tabletop, Functional, and Field. A Tabletop Exercise is the most relevant to test this plan. A field exercise, in most instances, is not necessary or practicable.

A tabletop exercise is a low stress conference room exercise where a scenario is presented and the Facility and Organization Recovery Plan discussed with actions and communications coordinated. Based on this exercise the action plan is adjusted and revised as necessary. A tabletop exercise will be held at least once every year.

A functional exercise is an exercise that simulates the real incident through the use of a master message list. A simulated Incident Command Post is created and the messages are communicated to the appropriate contact. The information is then delivered to the appropriate responder and the actions are monitored and judged. The exercise can be fairly simple, and it gives the field division an opportunity to put the Standardized Emergency Management System into action. A functional exercise will be held once every five years.

Plan Administration

The Incident Command Team will annually review the RAP. The organization of the Incident Command Team and vital contact numbers will be revised and reissued each year. The business functions of the field division will be reviewed and, if necessary, the plan will be revised to reflect changes to the field Division functions.

Incident Command Team

(September 2006)

Management	Sebastian Perez
Incident Commander	John Bunce
Deputy Incident Commander	Geno Young
	Jim Mason
Operations Section Chief	Bryan Carter
Planning & Intelligence Section Chief	Surjit Bajaj
Advanced Planning	Tony Labon
Situation	Ron Hall
Documentation	Timmie DeRamos
Demobilization	Ron K. Wolfe
Clerical Assistant	Vilma Demafelis
Logistics Section Chief	Bruce Jackson
Communications/Computers	Dave Duecker
Supply	Laura Hubbard
	Marita Sparks
Finance and Administration Section Chief	Debbie Kastner
Cost	Denise Barnes
Procurement	Laura Delphina
Time	Rosa Blanchard

Contact List

(September 2006)

DWR - Executive	
Sonny Fong- Department Emergency Preparedness Manager	
Office	916-654-6135
Pager	916-592-7953
Home	
DWR- Division of Operations & Maintenance	
Sebastian Perez- Management	
Office	661-944-8519
Cell Phone	661-400-1257
Home	
John Bunce- Incident Commander	
Office	661-944-8527
Cell Phone	661-803-8024
Home	
Surjit Bajaj- Planning & Intelligence	
Office	661-944-8511
Cell Phone	661-916-4470
Home	
Bruce Jackson- Logistics	
Office	661-944-8501
Cell Phone	661-803-5794
Home	
Bryan Carter- Operations	
Office	661-944-8537
Cell Phone	661-400-2041
Home	
SWP 24hr number	916-574-2714
SFD ACC	661-944-8600
State/Federal Flood Operation Center 24hr number	916-574-2619
Inter-Con Security Services (Security)	626-535-2210
CHP – non emergency	661-294-5540

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Engineering
Sacramento Project Headquarters,
Project Geology and Project Safety Office
1801 Sixth Street
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix A: Sacramento Project Headquarters and Project Safety Office Facility/Organization Recovery Action Plan

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INTRODUCTION

The Facility Recovery Action Plan establishes an Incident Command Team to respond to disasters that impact the business functions at the facility. The RAP is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The RAP is not intended to be a set piece recovery plan with exact procedures to follow. The nature and scope of an event that results in loss or interruption of functions at the facility cannot be predicted. The Plan is rather a process with functions to be carried out using the Standardized Emergency Management System, leading to recovery of functions at the facility.

The Plan includes:

- An incident command team designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the facility's functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

ORGANIZATIONAL STRUCTURE

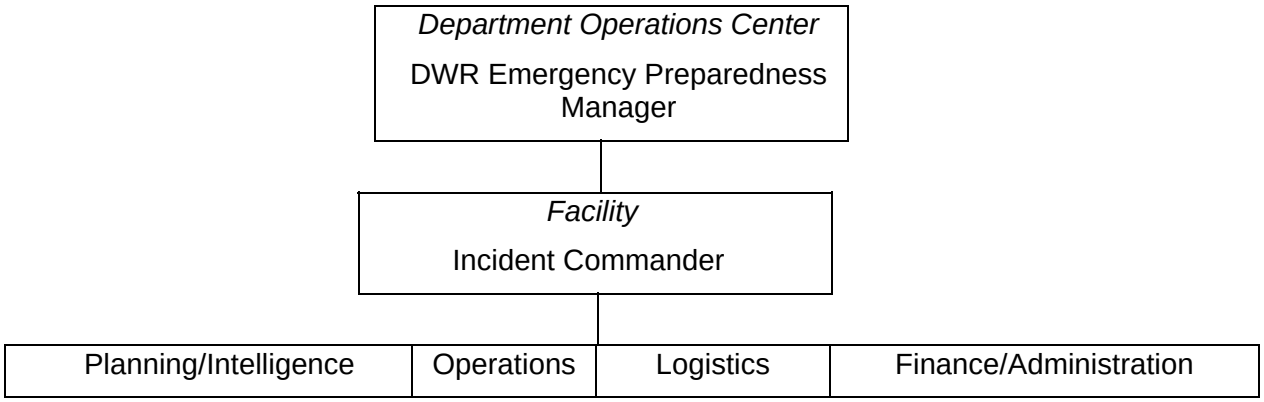
The organization of the facility, during the recovery, will be in accordance with the Standardized Emergency Management System and its field element, the ICS.

SEMS is a method of organizing for emergency management. SEMS and ICS utilize standard organization techniques, a common terminology, and common functions and responsibilities that are applicable to almost any kind of emergency. All State agencies and most city and county governments in California are implementing SEMS/ICS. Law requires the use of SEMS/ICS by State agencies.

Incident Command Team

The ICS will be used during recovery from a disaster resulting in loss of access to the facility. The Incident Command Team will be formed and operated in conformance with SEMS. The ICS, being used Department-wide for emergencies, provides for common terminology and duties that allow considerable flexibility and adaptability to a wide variety of situations. While details of a particular event or incident may vary widely, the functions that must be carried out to deal with them are common to almost any kind of emergency. The ICS can be, and is, used for a wide variety of emergency management activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position.

Figure 1, Incident Command System Structure



Department Operations Center

Under supervision of the DWR Emergency Preparedness Manager, the Department Operations Center is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR Divisions/offices when the facility's resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The Project Engineer will be the Incident Commander. The Incident Commander will receive guidance and report to the DOC. The DOC Chief is the Department's Emergency Preparedness Manager. The Incident Commander will be responsible for establishing objectives and goals as well as managing and coordinating recovery efforts.

Planning/Intelligence Chief

The Project Safety Officer will be the Planning and Intelligence Section Chief. The chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for DWR management.

Operations Section Chief

The Chief Inspector will be the Operations Section Chief. The chief will implement the recovery plan.

Logistics Section Chief

The Senior Engineer will be the Logistics Section Chief. The chief will request, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles, and equipment.

Finance/Administration Section Chief

The Project Engineer's secretary will be the Finance/Administration Section Chief. The chief will track (in cooperation with the Logistics Section) accounts and pay for activities related to the recovery plan. Timekeeping will also be the responsibility of this section. This section will be augmented by staff assigned by the DOC Logistics Section in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Department and the facility are separated into critical, essential, and necessary tasks. The classification of the facility's functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide entitlement, prevent financial hardship, or meet a legal requirement. The facility does not, by this definition, engage in any critical tasks on a routine basis. During flood season, some of the facility's tasks in support of the Division of Flood Management, Division of Operations and Maintenance Field Divisions, and urgent and emergency contracts are classified as critical, particularly those in the areas of inspection, construction, safety evaluation and implementation, and other emergency response.

Essential tasks are those tasks that allow the facility to accomplish its mission and which must be restored within 5 days. State Water Project contract supervision, inspection, and safety are classified as essential during certain times of the year.

Necessary tasks are those tasks that need to be restored within 21 days. Necessary tasks make up most of the facility's functions.

Essential or necessary tasks may become critical depending upon time of year or other factors.

Table 1 lists the critical and essential functions (as they pertain to this plan) of the facility. All other functions of the facility are necessary tasks.

Table 1, Critical and Essential Facility Functions

What	Who	How	Criticality
Emergency Response to SWP Facilities	Safety Officers, Construction Supervisors and Inspectors	Supervision, QC and Safety	Critical to SWP deliveries and power generation
Emergency Response to other Facilities or support to other group.	Safety Officers, Construction Supervisors and Inspectors	Expert advice on safety, supervision and QC	Critical during State Emergency
Construction Supervision, Safety and Inspection of SWP Facilities	Construction Supervisors, Safety Officers and Inspectors	Supervision, Safety and QC	Essential to O&M and other clients

RECOVERY ACTION PLAN

The RAP is based on a sequence of events that will take place. The principal elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on facility's functions, and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept off-site.

Each year the plan will be reviewed and updated.

Copies of the RAP will be provided to the DWR Emergency Preparedness Manager, DWR Division of Engineering Chief, and DWR Departmental Services Office.

Notification of Event

The Project Engineer or its designee will notify the Department's Emergency Preparedness Manager and the DOE Chief immediately upon an event that requires implementation of the RAP. The Project Engineer or its designee will also notify the Building Owner (Ramco Enterprises, Inc.). See the RAP Contact List.

When notified by the ICT, each supervisor will then notify subordinates. The notification will include instructions, information regarding point of assembly, future contact procedures, and an initial procedure to carry out facility functions.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover facility functions. The Incident Commander will establish immediate and intermediate goals and objectives. The Operations Section Chief will implement appropriate notification and reporting procedures to facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will establish immediate needs for resources. The Finance/Administration Section Chief will immediately implement emergency purchasing procedures in accordance with the incident, and coordinate DOC Finance/Administration Section to secure appropriate emergency financial authorizations and assistance.

Disaster Scenarios

The RAP defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to the facility and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of the facility and/or its contents.

Loss of Access

This scenario assumes that the facility's documents, equipment, and building are intact and secure, but facility staff is unable to gain access. This may be due to a hazardous materials spill, a building problem, or some other type of incident. It is also assumed that access will be granted in the near future, but business must be restored prior to access being regained.

The ICT will meet and confer as soon as possible to assess the situation. Ramco Enterprises, Inc., (building owner) will be contacted as soon as possible to receive information on the status of the incident, its effect on the facility, and the likely date to regain access to the facility.

The DWR's Emergency Preparedness Manager and the DOE Chief will be notified of the incident and procedures for contacting the staff will be initiated. The standard notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or ICT member may be dispatched to the facility (or as close as possible to the facility) in case staff attempt to report there. A notice of will be posted at, or as near as possible to the facility with appropriate information.

Restoration of Critical Functions

Emergency Response to SWP Facilities, other Facilities, or support to other groups – Other units of DOE or affected O&M field divisions will be immediately requested to take oversight of critical operations. Where applicable, these same groups will be requested to loan vehicles, crews, and/or equipment, enabling personnel to restore a minimum capability within 24 hours at a satellite location.

Restoration of Essential Functions

Construction Supervision, Safety and Inspection – These activities are classified as essential during SWP Facilities construction or modification. Contractors and affected O&M field divisions or other clients will be notified of the incident and new contact information will be issued. If access to the facility will not be available within 5 days, a temporary facility will be secured depending upon the exact nature of the incident and the amount of time until access is gained to the facility offices. Assistance will be requested if needed from the Division, DOC Logistics Section, or affected O&M field divisions. During non-essential periods, this function will be recovered along with other necessary functions.

Restoration of Necessary Functions

Supervisors will prepare an assessment and a plan for restoration of necessary functions for their respective sections. The plan will include the resources needed to perform the unit's functions until access is regained, a schedule for restoration of all functions within the unit, and assessment of the impact of those functions that cannot be restored within 21 days. The ICT will coordinate and integrate section plans and implement a total recovery effort.

Loss of Facility

This scenario assumes that the facility (and/or its contents) are destroyed or damaged beyond repair or recovery.

The ICT will meet and confer as soon as possible to assess the situation.

The building owner will be contacted as soon as possible to determine whether any alternate sites are available and for how long. Minimum facilities, vehicles, equipment, and other basic needs are listed below. The DOC Logistics Section will also be requested to assist in locating and arranging for a new office facility.

The DWR's Emergency Preparedness Manager and the DOE Chief will be notified of the incident and the immediate procedures for contacting the facility staff will be initiated. The notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or ICT member may be dispatched to the facility (or as close as possible to the facility) in case staff attempt to report there. A notice will be posted at, or as near as possible to, the facility with the appropriate information.

Restoration of Critical Functions

Emergency Response to SWP Facilities, Other Facilities or Support to Other Group – Other units of DOE or O&M field divisions that have jurisdiction of the project will be immediately requested to take oversight of critical operations. Where applicable, these same groups will be requested to loan vehicles, crews, and/or equipment, enabling personnel to restore a minimum capability within 24 hours.

Restoration of Essential Functions

SWP Contract Administration – Contract administration activities are classified as essential during parts of the year when deliveries are scheduled. Contractors and affected O&M field divisions or other clients will be notified of the incident and new contact information. A temporary facility will be secured, a computer system will be immediately procured with appropriate software and, using backup data, contract administration functions will be restored within 5 days. During nonessential periods, this function will be recovered along with other necessary functions.

Restoration of Necessary Functions

Section chiefs will prepare an assessment and a plan for restoration of necessary functions for their respective sections. The plan will include the resources needed to perform the daily functions until a complete new facility is provided along with a schedule for restoration of all functions and assessment of the impact of those functions that cannot be restored within 21 days. The ICT will coordinate and integrate section plans and implement a total recovery effort.

Alternate Sites

Incident Command Post

An Incident Command Post will be established as soon as possible. Any room with 400-sq. ft. of space at the Resources Building with its available communications facilities is the first choice. The ICT will be contacted to gather at that location. As an alternate, a Field Division facility or a private home of one of the ICT members will be used as available.

Basic ICP Necessities

- Telephone Lines (3)
- Fax machine with separate line
- Office space for ICT
- 2 computer systems (P/I and Logistics/Finance/Admin)

Checklist

Existing quantities shown in parentheses and contact phone numbers are shown in Appendix A.

Operational Procedures

- ❑ Notifications
- ❑ Emergency Preparedness Manager
- ❑ DOE Chief
- ❑ Building Owner
- ❑ 1801 6th Street Facility Staff
- ❑ Flood Operations Center
- ❑ Oroville Field Division
- ❑ Delta Field Division
- ❑ San Luis Field Division
- ❑ San Joaquin Field Division
- ❑ UPS, U.S. Postal Service
- ❑ Other Service Providers
- ❑ Emergency Facility Procurement
- ❑ Emergency Communications Procurement
- ❑ Telephones
- ❑ Fax Machine
- ❑ Cellular Telephones
- ❑ Pagers
- ❑ Emergency Mobile Equipment
- ❑ Emergency Administration Procedures
- Personnel
- ❑ Program Control
- ❑ File Storage/Retrieval
- ❑ Supply
- ❑ Financial/Procurement

Facilities

- ❑ Office Space (400 ft^2)
- ❑ Office Furniture for Staff (5)
- ❑ Office Furniture for Clerical Staff (1)
- ❑ Parking (6 state and 8 private)

Communications/Computers

- ❑ Standard PC's (2)
- ❑ Cellular Telephones (5)
- ❑ Telephone Lines, including. Modem and Fax machine (4)

Vehicles (5 total)

- ❑ Vehicles (1- 4x4 SUV, 4 - 4x4 pickup ½ton)

Pre-Planning

Information Protection

A vital part of this plan and the speedy recovery of all functions is the protection and backup of vital information. Each section should review annually their procedures to protect critical data and how best to recover this data in case of a temporary or permanent business disruption.

Types of Data to be Stored Off-site:

- Construction Pay Estimates
- Field Quantity Surveys
- Daily Inspection Reports
- Field Memorandums
- Memorandum Directives
- As-Built Plans and Drawings
- Contract Change Orders
- Other Computer Generated Contract Information

Data should be classified according to criticality of function to assess the importance of backup.

Exercises

To test recovery action plans, three types of exercises are used: tabletop, functional, and field. A tabletop exercise is the most relevant to test this plan. A functional exercise is a possibility when combined with the desire to test the facility's use of the ICS. A field exercise is not necessary or practicable.

A tabletop exercise is a low stress conference room exercise where a scenario is presented and the RAP discussed and actions and communications coordinated. Based on these discussions, the RAP is adjusted and revised as necessary. A tabletop exercise will be held at least once a year.

A functional exercise is an exercise that simulates the real emergency through the use of a master message list. A simulated ICP is created and communications are passed and recorded

with exercise simulators providing input and additional messages. In this case the exercise can be a fairly simple one that gives facility staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held at least once every five years.

Plan Administration

The RAP will be reviewed annually by the ICT. The names and titles of the ICT and vital contact telephone numbers will be revised and reissued each year. The business functions of the facility will be reviewed and, if necessary, the plan will be revised to reflect changes to the facility functions in the critical and essential categories.

Incident Command Team
(SEMS/ICS qualified in Italics)

(September 2006)

Incident Commander – Jim Peddy

Office: (916) 445-2533
Cell: (916) 769-5532
Home:

Deputy Incident Commander – Will be named later

Operations Section Chief – *Artemio Tapia*

Office: (916) 327-9479
Cell: (916) 952-8450
Home:

Planning /Intelligence Section Chief – *Albert Romero*

Office: (916) 322-4147
Cell: (916) 708-3983
Home:

Logistics Section Chief – Rey Ballesteros

Office: (916) 445-8428
Home:
Cell: (916) 802-4078

Finance/Administration Section Chief – *John Berringer*

Office: (916) 323-0227
Home:
Cell: (916) 952-9376

Contact List

(September 2006)

DWR - Executive

Sonny Fong, Department Emergency Preparedness Manager	
Office	916-654-6135
Pager	916-592-7953
Home	
State/Federal Flood Operations Center	916-574-2619

Division of Engineering

Richard Sanchez, Division Chief	
Office	916-653-3927
Home	

Facility (Home)

Jim Peddy, Chief, Sacramento Project Headquarters
Albert Romero, DOE Safety Officer
Artemio Tapia, Chief Inspector
John Berringer, Contract Administrator

DWR – Division of Operations & Maintenance

SWP Operations Center—24 hr. number	916-574-2614
Oroville Field Division ACC	530-534-2416
Delta Field Division ACC	209-833-2180
San Luis Field Division ACC	209-827-5300
San Joaquin Field Division ACC	661-858-5560

Sares Regis - Building Owner
1800 3rd Street, Suite 160A
Sacramento, CA. 95814

Contact: Raymond Moya	916 442-0332
After Hours Emergency Dispatch:	916 971-4296

California Highway Patrol

Non-emergency, 24hr	916-445-2895
CHP Dispatch	916-323-3844

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Engineering
Lancaster Project Headquarters
3121 East Avenue "I"
Lancaster, CA 93535
(805) 946-1024

A Component of the
DWR Business Resumption Plan

Appendix A: Lancaster Project Headquarters
Facility/Organization Recovery Action Plan

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INTRODUCTION

The Facility Recovery Action Plan establishes an Incident Command Team (ICT) to respond to disasters that impact the business functions of the Project Offices and Sites. The Recovery Action Plan is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The Plan is not intended to be a set-piece recovery plan with exact procedures to follow. The nature and scope of an event that results in loss or interruption of functions of the facility cannot be predicted. The Plan is, rather, a plan for a process with functions to be carried out, using the Standardized Emergency Management System, leading to recovery of facilities and functions.

The Plan includes:

- An incident command team designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the Facility's functions that must be restored.
- A description of the initial steps necessary to implement the Plan.
- A checklist to facilitate the implementation of the plan.

ORGANIZATIONAL STRUCTURE

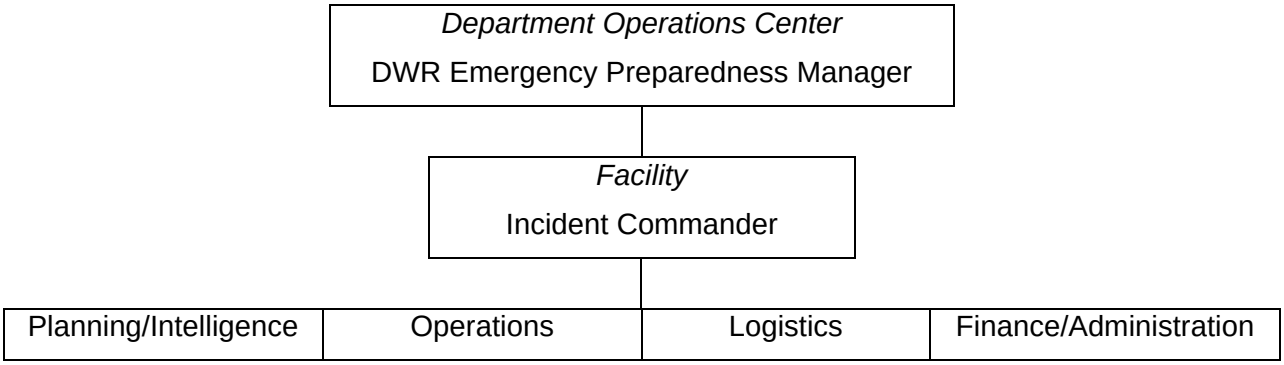
The organization of the Project, during the recovery, will be in accordance with the Standardized Emergency Management System and its field element, the Incident Command System.

SEMS is a method of organizing for emergency management. SEMS and ICS utilize standard organization techniques, a common terminology and common functions and responsibilities that are applicable to almost any kind of emergency. All state agencies and most of the city and county governments in California are implementing SEMS/ICS. Law requires the use of SEMS/ICS by state agencies.

Incident Command Structure

The Incident Command System will be used during recovery from a disaster resulting in loss of access to Facilities. The Incident Command Team will be formed and operated in conformance with SEMS. ICS, being used department-wide for emergencies, provides for common terminology and duties providing considerably flexibility and adaptability to a wide variety of situations. While details of a particular event or incident may vary widely, the functions that must be carried out to deal with them are common to almost any kind of emergency. ICS can be, and is, used for a wide variety of emergency management activities. The basic Incident Command System structure is shown below followed by a brief description of the duties of each position.

Figure 1, Incident Command System Structure



Department Operations Center

The Department Operations Center, under supervision of the DWR Emergency Preparedness Manager, is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR Divisions/offices when resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The Project Engineer will be the Incident Commander with a Deputy Incident Commander to assist. The Incident Commander will receive guidance and report to the Department Operations Center. The DOC Chief is the Department's Emergency Preparedness Manager.

The Incident Commander and Deputy will be responsible for establishing objectives and goals, and management and coordination for the recovery efforts.

Planning/Intelligence Chief

The Planning/Intelligence Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for DWR management.

Operations Section Chief

The Operations Chief will implement the recovery plan.

Logistics Chief

The Logistics Chief will requisition, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles and equipment.

Finance/Administration Chief

The Finance/Administration tracks (in cooperation with the Logistics), accounts for, and pays for activities related to the recovery plan. Timekeeping will also be the responsibility of this Section. It is intended that this Section will be augmented by staff assigned by the DOC Logistics Section in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Department and the Project are separated into Critical, Essential and Necessary tasks. The classification of functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide an entitlement, prevent financial hardship or meet a legal requirement. The Facility does not, by this definition, engage in any critical tasks on a routine basis. During flood season some of the Facility's tasks in support of the Division of Flood Management, San Joaquin and Southern Field Divisions, Urgent and Emergency Contracts are classified as critical, particularly those in the areas of flood and earthquake information, damaged or inoperable facilities and collateral structures, and emergency response.

Essential tasks are those tasks that allow the Facility to accomplish its mission and which must be restored within 5 days. State Water Project contract accounting is classified as an Essential Task during certain times of the year.

Necessary tasks are those tasks that need to be restored within 21 days. Necessary tasks make up most of the Facility's functions.

Essential or Necessary tasks may become critical depending upon time of year, water demand, or other factors.

Table 1 lists the Critical and Essential functions (as they pertain to this plan) of Facility. All other functions of the Facility are Necessary tasks.

Table 1, Facility Critical & Essential Functions

What	Who	How	Criticality
Emergency Contracts	Contract Administration & Inspection	Manual Computer	Critical during State of Emergency
Emergency Response – Floods	LPH in support of Div Flood Mgmt	Manual Computer	Critical during Flood Season
Emergency Response Non-Flood	LPH in support of DWR	Manual Computer	Critical during State of Emergency
SWP Contract Administration	LPH in support of SWPAO	Manual Computer	Essential during certain parts of the year

RECOVERY ACTION PLAN

The Recovery Action Plan is based on a sequence of events that will take place. The principal elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on Facility's functions and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept offsite.

Each year, the plan will be reviewed and the Incident Command Team roster and Contact List will be updated.

Copies of the Recovery Action Plan will be provided to the DWR Emergency Preparedness Manager, Division of Planning & Local Assistance, and Departmental Services Office.

Notification of Event

The Project Engineer or designee will notify the Department's Emergency Preparedness Manager and the Division Of Engineering Chief immediately upon an event that requires implementation of the Recovery Action Plan (see Contact List).

Each Supervisor, when notified by the Incident Command Team will then notify subordinates. The notification will include instructions, if needed, regarding a point of assembly, future contact procedures, and an initial procedure to carry out Project functions.

Special notification will be made to the State Department of Health Services and the manufacturer of the neutron probe (soil moisture) if the neutron probe is present.

Initial Assessment

The incident command team will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover Project functions. The Incident Commander/Deputy will establish immediate and intermediate goals and objectives. The Operations Chief will implement appropriate notification and reporting procedures to staff and take such immediate recovery steps as feasible. The Logistics Chief will establish immediate needs for resources. The Finance/Administration Chief will immediately implement emergency purchasing procedures in accordance with the incident and coordinate with the DOC to secure appropriate emergency financial authorizations and assistance.

Disaster Scenarios

The Facility Recovery Action Plan defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to the Facility and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of the Facility and/or its contents.

Loss of Access

This scenario assumes that the documents, equipment and facility are intact and secure, but staff is unable to gain access. This may be due to a hazardous materials spill, a building problem, or some other type of incident. It is also assumed that access will be granted in near future but business must be restored prior to access being regained.

The Incident Command Team will meet and confer as soon as possible to assess the situation. The Department of General Services' Building Manager will be contacted as soon as possible to receive information on the status of the incident, its effect on the facility and the likely date to regain access to the Facility.

DWR's Emergency Preparedness Manager will be notified of the incident and the procedures for contacting the facility will be initiated. The standard notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or Incident Command Team member may be dispatched to the facility (or as close as possible) in case staff attempt to report there. A notice of some type will be posted at, or as near as possible to, the Facility with appropriate information.

Restoration of Critical Functions

Emergency Contracts – DWR, MWD, and/or other water and other organizations with surface water conveyance capability may request immediate assistance to take over engineering and construction restoration of critical stations. Where applicable these same agencies may be requested to loan trucks, crews, and/or equipment enabling staff to restore a minimum of engineering and construction capability during a state of emergency within 24 hours. For Facility closures longer than 5 days arrangements will be made to secure appropriate vehicles. Vendors will be contacted for overnight delivery of equipment necessary to support engineering and construction capabilities within 7 days. The Incident Command Team will arrange an interim Facility for reporting and equipment storage.

Flood Emergency Response – General Telephone and Pacific Bell Telephone Companies will be contacted to arrange an emergency automated referral to the Flood Operations Center for flood-related phone calls or to an alternate number for non-flood calls (or a call forward to an answering machine with an appropriate message). Staff on flood emergency status will be contacted to inform them of Facility status and the alternate plans for their support. The Flood Operations Center will be requested to provide temporary logistic and administrative support to Project staff on flood response. The Flood Operations Center will be provided an appropriate contact procedure for additional assignment of staff to flood emergency missions. A temporary flood fight coordination headquarters will be established as needed and necessary and the contact information provided to the Flood Operations Center.

Non-Flood Emergency Response – The Department Operations Center will be notified as above as the Department's coordinating authority during non-flood emergencies. The DOC Logistics Section will be notified to provide temporary assistance in supporting staff assigned to emergency response duties. This will include providing direct logistical and financial support to staff (i.e. travel advances, supplies and equipment) and/or arranging for Administration Branch to perform those functions through temporary arrangements for forms, documents, funds and procedures.

Restoration of Essential Functions

SWP Contract Administration – Contract administration activities are classified as essential during parts of the year when deliveries are scheduled. SWP contractors and SWPAO will be notified of the incident and new contact information. If access to the Facility will not be within 5 days, a computer system will be immediately procured with appropriate software and, using backup data from SWPAO, the contract administration functions recovered within 72 hours. A temporary facility will be secured depending upon the exact nature of the incident and the amount of time until access is gained to the Project office. SWPAO assistance will be requested if needed. During non-essential periods, this function will be recovered along with other necessary functions.

Restoration of Necessary Functions

Section Chiefs will prepare an assessment and a plan for restoration of necessary functions for their respective sections. That plan will include the resources needed to perform the units functions until access is regained, a schedule for restoration of all functions within the unit and assessment of the impact of those functions that cannot be restored within 21 days. The Incident Command Team will coordinate and integrate section plans and implement a total recovery effort.

Loss of Facility

This scenario assumes that the facility (and/or its contents) are destroyed or damaged beyond repair or recovery.

The Incident Command Team will meet and confer as soon as possible to assess the situation.

The Building Manager will be contacted as soon as possible to determine whether the alternate sites are available and for how long. The DOC will also be requested to assist in locating and arranging for a new office facility.

DWR's Emergency Preparedness Manager will be notified of the incident and the procedures for contacting the office staff will be initiated. The notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or Incident Command Team member may be dispatched to the facility (or as close as possible) in case staff attempt to report there. A notice will be posted at the Facility with the appropriate information.

Restoration of Critical Functions

Emergency Contracts – DWR, MWD, and/or other water and other organizations with surface water conveyance capability may request immediate assistance to take over engineering and construction restoration of critical stations. Where applicable these same agencies may be requested to loan trucks, crews, and/or equipment enabling staff to restore a minimum of engineering and construction capability during a state of emergency within 24 hours. For facility closures longer than 5 days arrangements will be made to secure appropriate vehicles. Vendors will be contacted for overnight delivery of equipment necessary to support engineering and construction capabilities within 7 days. The Incident Command Team will arrange an interim Facility for reporting and equipment storage.

Flood Emergency Response – General Telephone and Pacific Bell Telephone Companies will be contacted to arrange an emergency automated referral to the Flood Operations Center for flood-related phone calls or to an alternate number for non-flood calls (or a call forward to an answering machine with an appropriate message). Staff on flood emergency status will be

contacted to inform them of facility status and the alternate plans for their support. The Flood Operations Center will be requested to provide interim logistic and administrative support to staff on flood response until the administrative support functions are restored. The Flood Operations Center will be provided an appropriate contact procedure for additional assignment of staff to flood emergency missions.

Non-Flood Emergency Response- The Department Operations Center will be notified as above as the Department's coordinating authority during non-flood emergencies. The DOC Logistics Section will be notified to provide interim assistance in supporting staff assigned to emergency response duties until the administrative functions are restored. This will include providing direct logistical and financial support to staff (i.e. travel advances, supplies and equipment).

Restoration of Essential Functions

SWP Contract Administration – Contract administration activities are classified as essential during parts of the year when deliveries are scheduled. Contractors and affected O&M Field Divisions or other Clients will be notified of the incident and new contact information. A temporary facility will be secured and a computer system will be immediately procured with appropriate software and, using backup data, contract administration functions will be restored within 5 days. During non-essential periods, this function will be recovered along with other necessary functions.

Restoration of Necessary Functions

Section Chiefs will prepare an assessment and a plan for restoration of necessary functions for their respective sections. That plan will include the resources needed to perform the units functions until a complete new facility is provided along with a schedule for restoration of all functions within the unit and assessment of the impact of those functions that cannot be restored within 21 days. The Incident Command Team will coordinate and integrate section plans and implement a total recovery effort.

Alternate Sites

Incident Command Post

An Incident Command Post will be established as soon as possible. The Incident Command Team will be contacted to gather at that location. As an alternate, a private home of one of the Incident Command Team members will be used as available. Presently, no private home is available as the Incident Command Post. The Lancaster Project Headquarters Incident Command Post will be the conference room of the Civil Maintenance Office at the Pearblossom Pumping Plant O&M Center.

Basic Incident Command Post Necessities

- Telephone Lines (2-4)
- Fax machine with one separate line
- Office space for ICT
- 3 computer systems (Ops, P/I, Logistics/Finance/Admin)

San Joaquin Field Division (Training Center) - Metler

The San Joaquin Training Center includes an emergency center, which can also be used to house employees for a short period. Communications are available there.

Southern Field Division - Castaic

The Southern Field Division – Castaic videoconference room has the capability of being used for a gathering place and for temporary office space using tables and chairs. There are definite communications deficiencies. Cell phones will have to be used until additional phone lines are run into the room.

Checklist

Existing quantities shown in parentheses – see Contact List for phone numbers.

Operational Procedures

- ❑ Notifications
- ❑ Emergency Preparedness Manager
- ❑ Department of General Services Building Manager
- ❑ Division of PLA Division Chief
- ❑ Project Staff
- ❑ Flood Operations Center
- ❑ San Joaquin Field Division
- ❑ Southern Field Division
- ❑ Lancaster Project Office
- ❑ Gorman Field Office – No longer in existence
- ❑ Mojave Field Office – No longer in existence
- ❑ Devil Canyon Field Office
- ❑ Pearblossom Materials Laboratory – Part of the Southern Field Division
- ❑ Pacific Bell Telephone
- ❑ General Telephone
- ❑ UPS, U.S. Postal Service
- ❑ Other service providers
- ❑ Emergency facility procurement
- ❑ Emergency communications procurement
- ❑ Telephones
- ❑ Fax
- ❑ Cell Phones
- ❑ Pagers
- ❑ Emergency mobile equipment
- ❑ Emergency administration procedures
- ❑ Personnel
- ❑ Program Control
- ❑ File Storage/Retrieval
- ❑ Supply
- ❑ Financial/Procurement

Facilities

Office space (8,793 sf)

- Lancaster Office (Office 4,205 sf & Storage 2,588 sf)
- Devil Canyon Field Office (5 trailers = 2,000 sf)

Office furniture for staff (19)

- Lancaster (14)
- Devil Canyon Field Office (5)

Parking (18)

- Lancaster Office (12)
- Devil Canyon Field Office (6)

Communications/Computers

- Standard PC's Gateway 2000 MicroSoft NT OS = 6 @ Lancaster
- Cell phones (13)

Telephone lines, incl. modem, fax (13)

- Lancaster Office (1 fax, 1 modem, 6 lines)
- Mojave Field Office (1 fax, 1 modem, 3 lines)
- Pearblossom Materials Lab (none)

Vehicles (13 total)

Assigned Vehicles

- Lancaster Headquarters Office (6-2wdp/u, 1-4wd Broncos)
- Devil Canyon Field Office (none)

Equipment

Devil Canyon Field Office (materials laboratory mobile trailer)

Pre-Planning

Information Protection

A vital part of this plan and the speedy recovery of all functions are the protection and backup of vital information. Each Section should review on an annual basis their procedures to protect critical data and how best to recover these data in case of a temporary or permanent business disruption.

Types of Data to be Stored Offsite

- Construction pay estimates
- Field quantity surveys
- Daily inspection reports
- Daily extra work inspection reports
- Field memorandums
- Memorandum directives
- As-built plans and drawings
- Contract change orders
- Other computer generated contract information

Data should be classified according to criticality of function to assess the importance of backup.

Exercises

To test recovery action plans, three types of exercises are used: Tabletop, Functional and Field. A Tabletop Exercise is the most relevant to test this plan. A Functional Exercise is a possibility when combined with the desire to test the use of the Incident Command System. A Field Exercise is deemed not practicable and therefore not necessary.

A tabletop exercise is a low stress conference room exercise where a scenario is presented and the Facility/Organization Recovery Action Plan discussed and actions and communications coordinated. Based on these discussions an Facility/Organization Recovery Action Plan is adjusted and revised as necessary. A tabletop exercise will be held at least once per year.

A functional exercise is an exercise that simulates the real thing through the use of a master message list. A simulated ICP is created, communications passed and recorded with exercise simulators providing input and additional messages. In this case the exercise can be a fairly simple one that gives staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held at least once every five years.

Plan Administration

The Incident Command Team will annually review the Recovery Action Plan.

The Incident Command Team roster and Contact List will be revised and reissued each year. The business functions of the Lancaster Project Headquarters will be reviewed and, if necessary, the plan will be revised to reflect changes to the functions in the Critical and Essential categories.

INCIDENT COMMAND TEAM

(September 2006)

Incident Commander – William S. Ashton	Off.661-946-1024, Cell 909-318-7558 Home
Deputy Incident Commander – Robert M. Fill	Off.661-946-1024, Cell 661-803-9571 Home
Operations Section Chief – Vacant	Off. , Cell Home
Planning /Intelligence Section Chief – Vacant	Off. , Cell Home
Advanced Planning – Ken R. Craig	Off 661-946-1024, Home
Situation – David Sale	Off 661-946-1024, Cell 661-803-9198 Home
Documentation – Vacant	Off , Cell N/A Home
Demobilization – Audrie Tenney	Off , Cell N/A Home N/A
Clerical Asst. – Patty Blake	Off 661-946-1024, Home
Logistics Section Chief – Ken R. Craig	Off 661-946-1024, Home
Communications/Computers – Robert M. Fill	Off 661-946-1024, Home
Supply – Patty Blake	Off 661-946-1024, Home
Finance/Administration Section Chief – Vacant	Off. , Cell Home
Cost – Ken R. Craig	Off 661-946-1024, Home
Procurement – Vacant	Off , Cell Home
Time – Patty Blake	Off 661-946-1024, Home

CONTACT LIST

(September 2006)

DWR - Executive

Sonny Fong, Department Emergency Preparedness Manager	
Office	916-654-6135
Pager	916-592-7953
Home	
State/Federal Flood Operations Center	916-574-2619

San Joaquin Field Division (Pager)

Incident Commander: Curtis Johnston	661-858-5666
Operations Section Chief: Terry Stutz	661-858-5533
Planning/Intelligence Section Chief: Gary Chee	661-858-5513
Logistics Section Chief: Ken Watts	661-858-5566
Finance/Administration Section Chief: Michael Placencia	661-321-1219

Southern Field Division (Cellular)

Incident Commander: John Bunce	661-944-8527
Operations Section Chief: Bryan Carter	661-944-8537
Planning / Intelligence Section Chief: Surjit Bajaj	661-944-8511
Logistics Section Chief: Bruce Jackson	661-944-8501

Finance / Administration Section Chief: Not Available

DWR – Division of Operations & Maintenance

San Joaquin Field Division ACC	661-858-5560
Southern Field Division ACC	661-944-1103

Department of General Services

Building Manager: Susan Lemmon	916-653-4224

California Highway Patrol

Non-emergency, 24hr: Castaic: 661-294-5530; Grapevine: 661-858-2540; Fort Tejon: 661-248-6655

Inland: 909-889-1862; Lancaster 661-948-8541; Newhall: 661-257-6030; Newhall: 213-953-7383; San Bernardino: 909-383-4247; Victorville: 760-241-1186

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Engineering
Bryte Soils and Concrete Laboratory
1450 Riverbank Rd.
West Sacramento, CA 95605

A Component of the
DWR Business Resumption Plan

Appendix A: Bryte Soils and Concrete Laboratory
Recovery Action Plan

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Attachment A: Radiation Safety Plan **9**
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- Storage Location 15

INTRODUCTION

The Facility Recovery Action Plan establishes steps to be taken to respond to disasters that impact the business functions at the Soils and Concrete Laboratory. The RAP is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The RAP is not intended to be a set piece recovery plan with exact procedures to follow. The nature and scope of an event that results in loss or interruption of functions at the facility cannot be predicted. The plan is, rather, a plan to be carried out, using the Standardized Emergency Management System, leading to recovery of functions at the facility.

The RAP includes:

- Definitions and structure of a generic incident command team and a general description of the functions of the various members.
- A description of the Facility's functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

ORGANIZATIONAL STRUCTURE

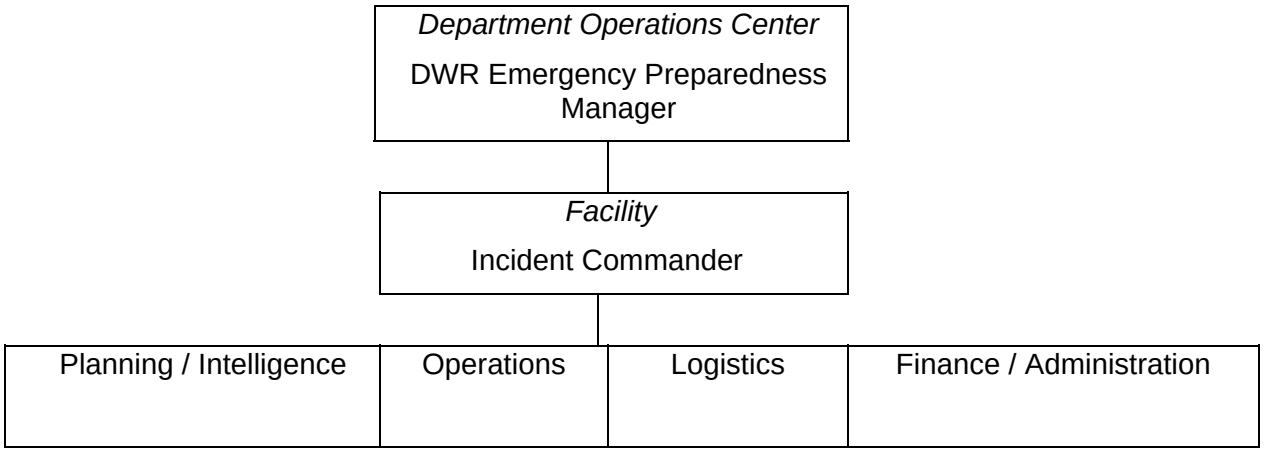
The Soils and Concrete Laboratory is part of the Division of Engineering. The Soils and Concrete Laboratory is located with the Sacramento Maintenance Yard (Division of Flood Management), Chemical Laboratory (Division of Environmental Services), and miscellaneous testing groups (Division of Planning and Local Assistance) at 1450 Riverbank Road in West Sacramento. The Soils and Concrete Laboratory includes an area for soils testing which is located in one building with the Maintenance Yard and the Chemical Lab. Concrete testing is performed in a building by itself. The Soils and Concrete Laboratory is currently and normally staffed with three people.

Soils and Concrete Laboratory staff will work under the Standardized Emergency Management System and its field element, the Incident Command System during and after a disaster. SEMS is a method of organizing for emergency management. SEMS and ICS utilize standard organization techniques, a common terminology and common functions and responsibilities that are applicable to almost any kind of emergency. All State agencies and most of the city and county governments in California are implementing SEMS/ICS. Law requires the use of SEMS/ICS by State agencies.

Incident Command System Structure

The ICS will be used during recovery from a disaster resulting in loss of access to the facility. The Incident Command Team will be formed and operated in conformance with SEMS. The ICS, being used Department-wide for emergencies, provides for common terminology and duties that allow considerable flexibility and adaptability to a wide variety of situations. While details of a particular event or incident may vary widely, the functions that must be carried out to deal with them are common to almost any kind of emergency. The ICS can, and is, used for a wide variety of emergency management activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position

Figure 1. Incident Command System Structure



Department Operations Center

The Department Operations Center, under supervision of the DWR Emergency Preparedness Manager, is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR Divisions/offices when the facility's resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The Incident Commander will receive guidance and report to the DOC. The Incident Commander will be responsible for establishing objectives and goals as well as managing and coordinating recovery efforts.

Operations Section Chief

The Operations Section Chief will implement the recovery plan.

Planning / Intelligence Chief

The Planning / Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports for the recovery effort.

Logistics Section Chief

The Logistics Section Chief will request, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles, and equipment.

Finance / Administration Section Chief

The Finance / Administration Section Chief tracks, accounts for, and pays for activities related to the recovery plan. This section will work closely with the Operations section. Timekeeping will also be the responsibility of this section. This section will be augmented by staff assigned by the DOC Logistics Section in accordance with the severity of the incident. The Finance / Administration Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Department and the facility are separated into critical, essential, and necessary tasks. The classification of facility's functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide entitlement, prevent financial hardship, or meet a legal requirement. The facility does not, by this definition, engage in any critical tasks on a routine basis.

Essential tasks are those tasks that allow the facility to accomplish its mission and which must be restored within 5 days.

Necessary tasks are those tasks that need to be restored within 21 days. Necessary tasks make up most of the functions of the Soils and Concrete Laboratory.

Essential or Necessary tasks may become critical depending upon the time of year or other factors. Table 1 lists the critical, essential, and necessary functions of the Soils and Concrete Laboratory. No critical or essential tasks were identified to be performed at the Soils and Concrete Laboratory.

Table 1, Facility Critical, Essential and Necessary Functions

What	Who	How	Criticality
Field Testing during construction of SWP Facilities	Laboratory Technicians (WREA's)	Manual	Necessary to O&M and other clients
Laboratory Testing to support Planning, Design, and Construction	Laboratory Technicians (WREA's)	Manual Computer	Necessary to O&M and other clients

RECOVERY ACTION PLAN

The RAP is based on a sequence of events that will take place. The principal elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on facility's functions, and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept off-site. A copy will also be retained on-site for reference.

Each year the plan will be reviewed and Copies of the RAP will be provided to the DWR Emergency Preparedness Manager, DWR Division of Engineering Chief, and DWR Departmental Services Office.

Notification of Event

The designated lead person at the Soils and Concrete Laboratory will notify the Department's Emergency Preparedness Manager and the DOE Chief immediately upon an event that requires implementation of the RAP. Soils and Laboratory staff will provide support roles under the appropriate ICS if required. Depending on the nature of the event, staff may work under an ICS established by either the Sacramento Project Headquarters or the Sacramento Maintenance Yard. The Department's Emergency Preparedness Manager and/or DOE Chief will decide which ICS, if any, will be appropriate.

Special notification will be made, if necessary, to the State Department of Health Services for any damage to nuclear gages stored at the Laboratory. The Bryte Laboratory's Radiation Safety Plan is attached as Attachment A and includes information for emergency notification in the event of an emergency.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover facility functions. The Incident Commander/Assistant will establish immediate and intermediate goals and objectives. The Operations Section Chief will implement appropriate notification and reporting procedures to facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will establish immediate needs for resources. The Finance / Administration Section Chief will immediately implement emergency purchasing procedures in accordance with the incident, and coordinate with the DOC Finance / Administration Section to secure appropriate emergency financial authorizations and assistance.

Disaster Scenarios

This RAP defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to the facility and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of the facility and/or its contents.

Loss of Access or Destruction of Facility

This assumes that: 1) the facility's documents, equipment, and building are intact and secure, but Facility staff are unable to gain access; or 2) that the facility (and/or its contents) are destroyed or damaged beyond repair or recovery. Possible events, which would qualify under the scenarios indicated above, include a hazardous materials spill, a building problem, large earthquake, or flood.

The DWR's Emergency Preparedness Manager and the DOE Chief will be notified of the incident and the immediate procedures for contacting the Soils and Concrete Laboratory. Based on direction from DWR's Emergency Preparedness Manager and/or DOE Chief, staff will either report to the appropriate Incident Command Center or they will report to DWR Headquarters (fifth floor) for further direction.

Restoration of Necessary Functions

The Unit Chief will prepare an assessment and a plan for restoration of necessary functions of the Soils and Concrete Laboratory. The plan will include the resources needed to perform the unit's functions until access is regained, a schedule for restoration of all functions within the unit, and an assessment of the impact of those functions that cannot be restored within 21 days.

Alternate Sites

Temporary conditions can be set up at DWR headquarters or Sacramento Project Headquarters to accommodate the Soils and Concrete Laboratory's employees. For extended periods (longer than one month), it may be prudent to set up a temporary trailer and equipment from which laboratory staff can work and perform the majority of laboratory tests. If possible, the trailer should be located within the laboratory facility.

Notification Checklist

- ❑ Emergency Preparedness Manager
- ❑ DOE Chief
- ❑ Staff
- ❑ State Department of Health Services*
- ❑ UPS, U.S. Postal Service and other Service Providers*
- ❑ Emergency Facility Procurement*
- ❑ Emergency Communications Procurement*
- ❑ Telephones*
- ❑ Fax Machine*
- ❑ Cellular Telephones*
- ❑ Pagers*
- ❑ Emergency Mobile Equipment*
- ❑ Emergency Administration Procedures*
- ❑ Personnel*
- ❑ Program Control*
- ❑ File Storage/Retrieval*
- ❑ Supply*
- ❑ Financial/Procurement*

* - If required.

Pre-Planning

Exercises

To test emergency action plans, three types of exercises can be used: tabletop, functional, and field exercises. A tabletop exercise is the most relevant to test this plan. A functional exercise is a possibility when combined with the desire to test the facility's use of ICS. A field exercise is not necessary or practicable.

A tabletop exercise is a low stress conference room exercise where a scenario is presented, the RAP discussed, and actions and communications coordinated. Based on these discussions, the RAP is adjusted and revised as necessary. For the Soils and Concrete Laboratory, a tabletop exercise will be performed annually along with Maintenance Yard and Chemical Lab staff, and/or Sacramento Project Headquarters staff.

A functional exercise is an exercise that simulates the real emergency through the use of a master message list. A simulated ICP is created, communications passed and recorded with exercise simulators providing input and additional messages. In this case the exercise can be a fairly simple one that gives facility staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held once every five years.

Plan Administration

Soils and Concrete Laboratory staff will review this RAP annually. A contact list is attached which contains the names, titles, and telephone numbers of vital contacts. This list will be revised and reissued each year. The business functions of the facility will also be reviewed and, if necessary, the plan will be revised to reflect changes to the facility functions in the critical and essential categories.

Contact List

(September 2006)

DWR - Executive

Sonny Fong, Department Emergency Preparedness Manager	
Office	916-654-6135
Pager	916-592-7953
Home	
State/Federal Flood Operations Center	916-574-2619

Division of Engineering

Richard Sanchez., Division Chief	
Office	916-653-3927
Home	
Cell	916-837-5059
Mike Driller, Unit Chief	
Office	916-657-5143
Home	
Cell	916-764-0277
State Department of Health Services	916-653-2799

Sacramento Project Headquarters

Jim Peddy, Project Engineer	916-445-2533
Al Romero, DOE Safety Officer	916-322-4147
John Berringer, Office Engineer	916-323-0227
Art Tapia, Chief Inspector	916-327-9479
June Pascual, Secretary for the Project Engineer	916-445-7243

DWR – Division of Operations & Maintenance

Oroville Field Division ACC	530-534-2416
Delta Field Division ACC	209-833-2180
San Luis Field Division ACC	209-827-5300
San Joaquin Field Division ACC	805-858-5560
SWP Operations Center, 24 hr	916-574-2714

California Highway Patrol

Non-emergency, 24hr	916-445-2895
CHP Dispatch	916-323-3844

Attachment A

CALIFORNIA DEPARTMENT OF WATER RESOURCES

RADIATION SAFETY PLAN

General

This Radiation Safety Plan covers the procedures for the safe and proper use and possession of radioactive material as contained in portable moisture/density gauges used to measure soil and other engineering materials. When handled in accordance with this plan, the radioactive materials present no hazard to the licensee's employees, customers, or the general public.

Radiation Safety Officer

All use and possession is under the direction and supervision of the Radiation Safety Officer. The RSO is a single point of accountability and responsibility between the Regulatory Agency and the Licensee. The RSO is responsible for all aspects of this Radiation Safety Plan, including the following specific duties:

1. To ensure that all terms and conditions of the license are being complied with and that the information contained is up-to-date and accurate.
2. To ensure that the gauges are only used by operators authorized by the RSO, and that they use the gauges in accordance with all relevant regulations. This will include wearing of a suitable personnel monitoring device.
3. To maintain records as required by the license and the regulations.
4. To ensure that all gauges are properly secured against unauthorized removal at all times when they are not in use.
5. To serve as a point of contact and give assistance in case of an emergency such as gauge damage in the field, theft, or fire, and to notify the proper authorities.
6. To ensure that all operators have read and understand this Radiation Safety Plan.
7. To arrange appropriate training for all operators.
8. To observe ALARA (As Low As Reasonably Achievable) principles by auditing field practices, scheduling safety meetings, and periodically reviewing practices.

In the absence of the RSO, the Alternate Radiation Safety Officer may assume the RSO duties.

Operator

1. The operator will exercise suitable control over the gauge at all times. The operator will follow established operating procedures and keep unauthorized persons away from the gauge. At no time is it to be left unattended or in the possession of an unauthorized person.

2. When not being used for field measurements, the gauge will be locked and returned to its storage/transportation case.
3. When testing is complete, the gauge will be returned to its permanent place of storage as soon as possible.
4. When using the gauge, the operator will wear the personnel monitoring device assigned. When the operator is not using the gauge, the monitoring device will be kept in a radiation free, low heat area.
5. At all times operators will observe ALARA principles to minimize any dose received.
6. While the equipment is in the operator's possession, the operator will have:
   - Copy of the License,
   - Copy of letter/card authorization from RSO,
   - Copy of this Radiation Safety Plan,
   - Copy of the Gauge Operations Manual, and
   - Copy of the current Leak Test Certificate.

Transportation

1. Transportation shall be in compliance with 49CFR170-185.
2. The gauge will only be transported in an approved DOT shipping container. The shipping case will be checked for integrity, and to verify that all labels are present and readable.
3. During transportation the operator will have a Shipping Paper, including an emergency contact telephone number and emergency response information, on the seat within arm's reach of the driver.
4. During transportation the gauge shall be braced to prevent movement during an accident, secured to prevent theft when not attended, and located away from personnel. When transported in a closed vehicle (car or van), the case will be locked and the vehicle will be locked when the operator is not with the vehicle. When transported in an open bed vehicle (pickup truck), the case will be locked and the case securely fastened and locked to the truck bed when the operator is not with the vehicle.
5. Sealed Source and Transit Case Certificates shall be maintained on file by the RSO.

Maintenance

1. Normal maintenance will include checking the shutter closure prior to use and cleaning the shutter chamber as required. The operator will have received proper instruction on how to clean the shutter area and will wear the assigned personnel monitoring device.
2. No maintenance will be performed in which the radioactive source is removed from the gauge. The gauge will be returned to the manufacturer or an approved service center for this type of service.

Personnel Monitoring

All personnel using the gauges will be assigned a personnel monitoring device of the film badge type. The badges will be changed monthly. Badge loss must be supported by a memo to the RSO that includes date of the loss, and a statement on gauge usage during the time period when the individual was not wearing personnel monitoring.

Any reported exposure greater than 10 percent of the allowable monthly dose will be investigated by the RSO. The RSO will write a memo to the file with information about the possible cause and corrective action taken.

Leak Testing

The gauge will be leak tested at an interval not to exceed one year or six months as specified in the license using an approved leak test kit (PNT 86), and in accordance with the gauge manufacture's instructions. The gauge will not be used unless the leak test is current. The wipe samples will be collected by the RSO, or a person approved in writing by the RSO, who has received proper instructions in collecting the wipe sample and is wearing the assigned monitoring device. Records of leak tests will be maintained for inspection. Any leak test revealing the presence of 0.005 micro curie or greater will be reported to the regulatory agency within 5 working days. The gauge will be removed from service immediately.

Posting

The following documents will be posted near the gauge storage room.

1. Notice to Employees, Form RH-2364.
2. Notice of who the Radiation Safety Officer is and where a copy of the License, Safety Plan, and the Regulations (Title 17 and 10CFR20) may be viewed.

Storage

See Diagrams 1 and 2 for a sketch showing gauge storage with a minimum of 10 ft. to any permanent work station, security against removal by unauthorized personnel, Caution Radioactive Material sign posting, provisions for charging, and zoned commercial.

While in-transit involving over night storage, the case should be covered so it is not visible from outside the vehicle while the operator is not present. If appropriate, the gauge in its case should be chain locked to the steering wheel in the cab of the truck.

Gauge usage will be recorded in a utilization log including: date out, destination, by whom, estimated date of return, and date actually returned.

Records

Records will be maintained of:

- License records,
- Personnel Monitoring,
- Leak Tests,
- Training

- Certification
- Hazmat refresher
- Safety refresher
- Utilization Log (serial number, operator, date out, destination, estimated date of return, date returned), and
- Physical Inventory (six months).

Training

All operators will complete an approved Operator's Training Course. Special training will be given as required for special work assignments. HAZMAT transportation training will be refreshed within **three** years. **Operator Safety Training will be refreshed within one year.**

Emergency Procedures

See Attachment for Emergency Response Telephone Numbers

Physical Damage

1. If any moving equipment is involved, stop its movement until the extent of damage to the sources, if any, can be established.
2. Cordon off the area around the incident. An area radius of 15 feet will be sufficient. Keep unauthorized persons outside the area, and prevent removal of the gauge until authorized by the RSO or regulatory agency.
3. Visually inspect the gauge to determine the extent of the damage to the source(s), source housing(s), and shielding. If there is any possibility the capsule might be ruptured, take action to minimize dispersement.
4. At the earliest possible time, when the situation is under control, contact the RSO. Describe the conditions and follow the instructions of the RSO. The RSO will make a judgment that: 1) the incident can be handled by on-site personnel, 2) the RSO or other personnel and equipment will be dispatched, or 3) outside services must be called in such as consultants or the regulatory agency.

   The RSO must report to the regulatory agency under the following conditions.

   Immediate notification:

   Contamination

   An event that may have caused or threatens to cause an individual to receive in a 24-hour period a dose five times the annual limits.

   24-hr notification:

   An event that may have caused or threatens to cause an individual to receive in a 24-hour period a dose exceeding the annual limits.

   30 day written report:

Any of the above, or

The level of radiation in an unrestricted area is in excess of 10 times the limits for the general public.

Theft or Loss

1) Immediately notify the RSO. The RSO will immediately notify the regulatory agency and the police.

Fire

1) Call the Fire Department.
2) Take action appropriate with a fire to protect personnel.
3) Notify the RSO.
4) Stand by to advise the fire fighters as to the nature, locations, and potential hazards of the radioactive materials. Supply them with an information packet consisting of the facility layout and a data sheet of the gauge including a photograph. Be sure to include any other important information (e.g., explosives, chemicals, guard dogs, etc.).

Melting Points:

	^{o}F	^{o}C
Stainless Steel	2550	1400
Carbide	2000	1090
Aluminum	1005	540
Lead	620	327
Poly	257	125

Temperatures in an industrial fire will normally range from 500°F at floor level to a high at the ceiling of 1400 to 1800°F. The poly and lead would melt in most fires; the aluminum only in a severe fire. The stainless steel capsule would not reach its melting point.

Disposal/Decommissioning

1. Disposal will only be performed by transfer to a properly licensed organization.

2. The regulatory agency will be notified 30 or more days in advance of any relocation of the storage area. Formal decommissioning will not be required, provided leak tests are current.

Date:_____ _____

Radiation Safety Officer

Contact List

Telephone Numbers

RSO:	Work:	916 375-6012	Douglas J. Najima
	Home:		
ARSO:	Work:	916 375-6012	Roland G. Johnson
	Home:		
Public Health:			
	Days:		
	Sacramento	916 445-0931	
	Berkeley	510 540-2014	
	San Jose	408 277-1600	
	Los Angeles	213 580-5788	
	24 Hr:	800 852-7550	
Police:	Business:	916 372-2461	West Sacramento Police Department
	Emergency:	911	
Fire:	Business:	916 373-5840	West Sacramento Fire Department
	Emergency:	911	
CPN Co:		(510) 228-9770	
Humboldt Scientific Inc:		(919) 832-6509	
	West Coast:	(510) 706-8300 PNT	
Troxler Electronics Inc:		(919) 549-8661	
	West Coast:	(916) 631-0234	
	Emergency:	(919) 549-9539	
Seaman Nuclear Corp:		(414) 762-5100	

STORAGE LOCATION

Plan view sketch

It should identify all surrounding areas, and address the five conditions of;

security (triple locks),
posting,
safety (10 ft),
charging, and
not residential zoning.

ABC Company
1234 Main Rd
Our Town, ST 12345
(123) 456-7890

1) Security Gauge/Case locked, Metal cabinet (72"hx36"wx24"d) locked, (keys issued to certified users), facility monitored during working hours, locked at other times.

2) Posting Posted with Caution Radioactive Material sign.

3) Safety Storage cabinet 10 ft from any permanent workstations.

4) Charging Cabinet includes circuit for charging.

5) Zoning Zoned commercial.

Maximum storage two gauges.

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Engineering
Field Survey Unit
1801 Sixth Street
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix A: Field Survey Unit

Facility/Organization Recovery Action Plan

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INTRODUCTION

The Facility Recovery Action Plan establishes an Incident Command Team to respond to disasters that impact the business functions at the Facility. The Recovery Action Plan is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The Plan is not intended to be a set piece recovery plan with exact procedures to follow. The nature and scope of an event that results in loss or interruption of functions at the Facility cannot be predicted. The Plan is rather a process with functions to be carried out using the Standardized Emergency Management System, leading to recovery of functions at the Facility.

The Plan includes:

- An incident command team designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the Facility's functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

ORGANIZATIONAL STRUCTURE

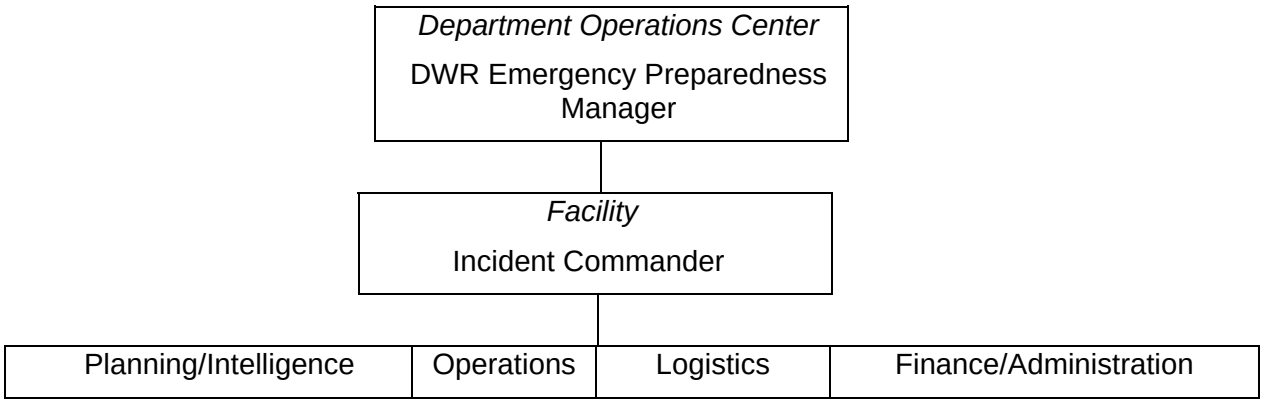
The organization of the Facility, during the recovery, will be in accordance with the Standardized Emergency Management System and its field element, the Incident Command System.

SEMS is a method of organizing for emergency management. SEMS and ICS utilize standard organization techniques, a common terminology and common functions and responsibilities that are applicable to almost any kind of emergency. All state agencies and most of the city and county governments in California are implementing SEMS/ICS. Law requires the use of SEMS/ICS by state agencies.

Incident Command Structure

The Incident Command System will be used during recovery from a disaster resulting in loss of access to the Facility. The Incident Command Team will be formed and operated in conformance with SEMS. The Incident Command System, being used department wide for emergencies, provides for common terminology and duties that allow considerable flexibility and adaptability to a wide variety of situations. While details of a particular event or incident may vary widely, the functions that must be carried out to deal with them are common to almost any kind of emergency. The Incident Command System can, and is, used for a wide variety of emergency management activities. The basic Incident Command System structure is shown below, followed by a brief description of the duties of each position.

Figure 1. Incident Command System Structure



Department Operations Center

Under supervision of the DWR Emergency Preparedness Manager, the Department Operations Center is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR Divisions/offices when the Facility's resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The Field Survey Unit Chief will be the Incident Commander. The Incident Commander will receive guidance and report to the DOC. The DOC Chief is the Department's Emergency Preparedness Manager. The Incident Commander will be responsible for establishing objectives and goals as well as managing and coordinating recovery efforts.

Planning/Intelligence Chief

The Field Survey Unit Office Support Lead will be the Planning and Intelligence Section Chief. He/she will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for DWR management.

Operations Section Chief

The Field Survey Crew Chief will be the Operations Section Chief. He/she will implement the recovery plan.

Logistics Section Chief

The Field Survey Crew Leadperson will be the Logistics Section Chief. He/she will request, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles, and equipment.

Finance/Administration Section Chief

The Finance/Administration Section Chief will track (in cooperation with the Logistics Section) account and pay for activities related to the recovery plan. Timekeeping will also be the responsibility of this Section. It is intended that this Section will be augmented by staff from DWR's Department Services Office in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Department and the Facility are separated into Critical, Essential, and Necessary tasks. The classification of the Facility's functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide entitlement, prevent financial hardship, or meet a legal requirement. The Facility does not, by this definition, engage in any critical tasks on a routine basis. During flood season, some of the Facility's tasks provide support to the Division of Flood Management and Division of Operations and Maintenance. Field survey work for Urgent and Emergency Contracts are classified as critical, particularly those in the areas of field survey data collection and other emergency response.

Essential tasks are those tasks that allow the Facility to accomplish its mission and which must be restored within 5 days. State Water Project contract supervision, inspection, and safety are classified as an Essential Task during certain times of the year.

Necessary tasks are those tasks that need to be restored within 21 days. Necessary tasks make up most of the Facility's functions.

Essential or Necessary tasks may become critical depending upon time of year or other factors.

Table 1 lists the Critical and Essential functions (as they pertain to this plan) of the Facility. All other functions of the Facility are Necessary tasks.

Table 1. Critical and Essential Facility Functions

What	Who	How	Criticality
Emergency Response to SWP Facilities	Survey Crews	Field Survey Data	Critical to SWP deliveries
Emergency Response to other Facilities or support to other divisions and agencies	Survey Crews	Field Survey Data	Critical during State Emergency
Construction Supervision, Safety and Inspection of SWP Facilities	Survey Crews	Field Survey Data	Essential to O&M and other clients

RECOVERY ACTION PLAN

The Recovery Action Plan is based on a sequence of events that will take place. The principal elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on Facility's functions, and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept offsite.

Each year the plan will be reviewed and updated by the use of an annual appendix that lists the incident command team and a contact list

Copies of the Recovery Action Plan will be provided to the DWR Emergency Preparedness Manager, DWR Division of Engineering Chief, and DWR Departmental Services Office.

Notification of Event

The Chief of the Field Survey Unit or his designee will notify the Department's Emergency Preparedness Manager and the Division of Engineering Chief immediately upon an event that requires implementation of the Recovery Action Plan. He will also notify the Building Owner (Ramco Enterprises, Inc.). See Attachment A – Facility Recovery Action Plan Contact List.

When notified by the Incident Command Team, each Supervisor will then notify subordinates. The notification will include instructions, information regarding point of assembly, future contact procedures, and an initial procedure to carry out Facility functions.

Initial Assessment

The Incident Command Team will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover Facility functions. The Incident Commander/Assistant will establish immediate and intermediate goals and objectives. The Operations Section Chief will implement appropriate notification and reporting procedures to Facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will establish immediate needs for resources. The Finance/Administration Section Chief will immediately implement emergency purchasing procedures in accordance with the incident, and coordinate with DWR Divisions of Management Services and Fiscal Services to secure appropriate emergency financial authorizations and assistance.

Disaster Scenarios

The Facility Recovery Action Plan defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to the Facility and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of the Facility and/or its contents.

Loss of Access

This scenario assumes that the Facility's documents, equipment, and building are intact and secure, but Facility staff is unable to gain access. This may be due to a hazardous materials spill, a building problem, or some other type of incident. It is also assumed that access will be granted in the near future, but business must be restored prior to access being regained.

The Incident Command Team will meet and confer as soon as possible to assess the situation. Ramco Enterprises, Inc., (building owner) will be contacted as soon as possible to receive information on the status of the incident, its effect on the Facility, and the likely date to regain access to the Facility.

The DWR's Emergency Preparedness Manager and the Division of Engineering Chief will be notified of the incident and the immediate procedures for contacting the Facility. The standard notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or ICT member may be dispatched to the Facility (or as close as possible to the Facility) in case staff attempt to report there. A notice of some type will be posted at, or as near as possible to the Facility with appropriate information.

Restoration of Critical Functions

Emergency Response to SWP Facilities, other Facilities, or support to other groups – Other units of Division of Engineering or impacted O&M Field Divisions will be immediately requested to take oversight of critical operations. Where applicable, these same groups will be requested to loan vehicles, crews, and/or equipment enabling the Facility to restore a minimum capability within 24 hours at a satellite location.

Restoration of Essential Functions

Field Survey Data Collection – These activities are classified as essential during SWP Facilities failures, construction or modification. Contractors and impacted O&M Field Division or other clients will be notified of the incident and new contact information will be issued. If access to the Facility will not be within 3 days, a temporary facility will be secured depending upon the exact nature of the incident and the amount of time until access is gained to the Facility offices. Assistance will be requested if needed from the Division or Departmental Services Office or impacted O&M Field Divisions. During non-essential periods, this function will be recovered along with other necessary functions.

Restoration of Necessary Functions

Supervisors will prepare an assessment and a plan for restoration of necessary functions for their respective sections. The plan will include the resources needed to perform the unit's functions until access is regained, a schedule for restoration of all functions within the unit and assessment of the impact of those functions that cannot be restored within 21 days. The Incident Command Team will coordinate and integrate section plans and implement a total recovery effort.

Loss of Facility

This scenario assumes that the Facility (and/or its contents) are destroyed or damaged beyond repair or recovery.

The Incident Command Team will meet and confer as soon as possible to assess the situation.

The Building Owner will be contacted as soon as possible to determine whether any alternate sites are available and for how long. Minimum facilities, vehicles, equipment, and other basic needs are listed below. Department of General Services will also be requested to assist in locating and arranging for a new office facility.

The DWR's Emergency Preparedness Manager and the Division of Land and Right of Way Chief will be notified of the incident and the immediate procedures for contacting the Facility. The notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or ICT member may be dispatched to the Facility (or as close as possible to the Facility) in case staff attempt to report there. A notice of some type will be posted at, or as near as possible to, the facility with the appropriate information.

Restoration of Critical Functions

Emergency Response to SWP Facilities, other Facilities or support to other group – Other Units of Division of Land and Right of Way or O&M Field Divisions that have jurisdiction of the project will be immediately requested to take oversight of critical operations. Where applicable, these same groups will be requested to loan vehicles, crews, and/or equipment enabling the Facility personnel to restore a minimum capability within 24 hours.

Restoration of Essential Functions

SWP Contract Administration – Contract administration activities are classified as essential during parts of the year when deliveries are scheduled. Contractors and affected O&M Field Divisions or other clients will be notified of the incident and new contact information. A temporary facility will be secured and a computer system will be immediately procured with appropriate software and, using backup data, contract administration functions will be restored within 5 days. During nonessential periods, this function will be recovered along with other necessary functions.

Restoration of Necessary Functions

Section Chiefs will prepare an assessment and a plan for restoration of necessary functions for their respective sections. The plan will include the resources needed to perform the daily functions until a complete new facility is provided along with a schedule for restoration of all functions within the unit and assessment of the impact of those functions that cannot be restored within 21 days. The Incident Command Team will coordinate and integrate section plans and implement a total recovery effort.

Alternate Sites

Incident Command Post

An Incident Command Post will be established as soon as possible. Any room with 400-sq. ft. of area at the Resources Building with its available communications facilities is the first choice. The ICT will be contacted to gather at that location. As an alternate, a Field Division Facility or a private home of one of the ICT members will be used as available.

Basic ICP Necessities

- Telephone Lines (3)
- Fax Machine with separate line
- Office space for ICT
- 5 computer systems (P/I and Logistics/Finance/Admin)

Checklist

Existing quantities shown in parentheses.

Operational Procedures

- ❑ Notifications
- ❑ Emergency Preparedness Manager
- ❑ Division of Engineering Chief
- ❑ Building Owner
- ❑ 1801 6th Street Facility Staff
- ❑ Flood Operations Center
- ❑ Oroville Field Division
- ❑ Delta Field Division
- ❑ San Luis Field Division
- ❑ San Joaquin Field Division
- ❑ UPS, U.S. Postal Service
- ❑ Other Service Providers
- ❑ Emergency Facility Procurement
- ❑ Emergency Communications Procurement
- ❑ Telephones
- ❑ Fax Machine
- ❑ Cellular Telephones
- ❑ Pagers
- ❑ Emergency Mobile Equipment
- ❑ Emergency Administration Procedures
- ❑ Personnel
- ❑ Program Control
- ❑ File Storage/Retrieval
- ❑ Supply
- ❑ Financial/Procurement

Facilities

- ❑ Office Space (400 ft^2)
- ❑ Office Furniture for Staff (11)
- ❑ Office Furniture for Clerical Staff (1)
- ❑ Parking (10 state & 8 private)

Communications/Computers

- ❑ Standard PC's (5)
- ❑ Cellular Telephones (3)
- ❑ Telephone Lines, including. Modem and Fax machine (4)

Vehicles (10 total)

Vehicles (1- 4x4 Expedition, 1 –11 Passenger Van, 4 – 4x4 ¾-ton Utility Body, 4- Utility Body Trucks)

Pre-Planning

Information Protection

A vital part of this plan and the speedy recovery of all functions are the protection and backup of vital information. Each Section should review on an annual basis their procedures to protect critical data and how best to recover this data in case of a temporary or permanent business disruption.

Types of Data to be Stored Offsite:

- Field Quantity Surveys
- Field Memorandums
- Memorandum Directives
- Field Survey Notes
- Other Computer Generated Contract Information

Data should be classified according to criticality of function to assess the importance of backup.

Exercises

To test emergency action plans, three types of exercises are used: Tabletop, Functional, and Field. A Tabletop Exercise is the most relevant to test this plan. A Functional Exercise is a possibility when combined with the desire to test the Facility's use of the Incident Command System. A Field Exercise is not necessary or practicable.

A tabletop exercise is a low stress conference room exercise where a scenario is presented and the Recovery Action Plan discussed and actions and communications coordinated. Based on these discussions, the Plan is adjusted and revised as necessary. A tabletop exercise will be held at least once a year.

A functional exercise is an exercise that simulates the real emergency through the use of a master message list. A simulated ICP is created, communications passed and recorded with exercise simulators providing input and additional messages. In this case the exercise can be a fairly simple one that gives Facility staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held at least once every five- (5) years.

Plan Administration

The Incident Command Team will annually review the Recovery Action Plan. The Incident Command Team and Contact List will be revised and reissued each year. The business functions of the Facility will be reviewed and, if necessary, the plan will be revised to reflect changes to the Facility functions in the Critical and Essential categories.

INCIDENT COMMAND TEAM

(September 2006)

Incident Commander – Fred Vonderscheer

Office: (916) 324-4834
Home:
Home:
Cell: (530) 917-8686

Deputy Incident Commander – Will be named later

Operations Section Chief – Abraham Magadaleno

Office: (916) 445-0175
Office: (916) 324-4834
Cell: (916) 769-5530
Home:

Planning /Intelligence Section Chief – Wayne Blackburn

Office: (916) 324-4834
Home:

Logistics Section Chief – Tim Johnston

Office: (916) 445-0175
Office: (916) 324-4834
Cell: (916) 296-0186
Home:

Finance/Administration Section Chief – Vacant

Contact List

(September 2006)

DWR - Executive

Sonny Fong, Department Emergency Preparedness Manager	
Office	916-654-6135
Pager	916-592-7953
Home	
State/Federal Flood Operations Center	916-574-2619

Division of Engineering

Richard Sanchez, Division Chief	
Office	916-653-3927
Home	
Cell	916-837-5059

Facility (Home)

Fred Vonderscheer
Martin Gonzales
Abraham Magdaleno
Wayne Blackburn

DWR – Division of Operations & Maintenance

Oroville Field Division ACC	530-534-2416
Delta Field Division ACC	209-833-2180
San Luis Field Division ACC	209-827-5300
San Joaquin Field Division ACC	805-858-5560

Ramco Enterprises, Inc. - Building Owner

Office, West Sacramento, California	916-372-6170
Frank Ramos, Owner (Home)	
Sharyn Verndon, Lease Property Manager (Home)	

California Highway Patrol

Non-emergency, 24hr	916-445-2895
CHP Dispatch	916-323-3844

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Environmental Services
901 P Street
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix A: Division of Environmental Services
Facility/Organization Recovery Action Plan

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Other Contacts **17**

INTRODUCTION

The Facility Recovery Action Plan establishes steps to be taken to respond to disasters that may impact the business functions at the Division of Environmental Services. The Recovery Action Plan is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The RAP is not intended to be a set piece recovery plan with exact procedures to follow. The nature and scope of an event that results in loss or interruption of functions at the Facility cannot be predicted. The RAP is, rather, a plan to be carried out, using the Standardized Emergency Management System, leading to recovery of functions at the Facility.

The RAP includes:

- Definitions and structure of a generic incident command team and a general description of the functions of the various members.
- A description of the Facility's functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

ORGANIZATIONAL STRUCTURE

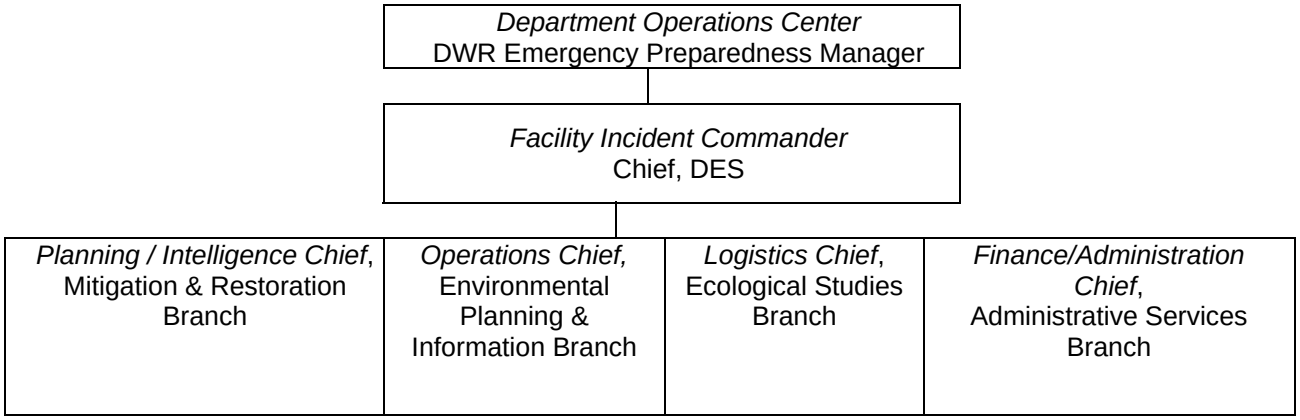
The Division of Environmental Services is located at 901 P Street in Sacramento, on the 4th floor. The office is part of a larger office complex known as the Bonderson Building and occupied by the Division of Planning and Local Assistance, DPLA, and Central District.

Environmental Services staff will work under the Standardized Emergency Management System and its field element, the Incident Command System during and after a disaster. SEMS is a method of organizing for emergency management. SEMS and ICS utilize standard organization techniques, a common terminology and common functions and responsibilities that are applicable to almost any kind of emergency. All state agencies and most of the city and county governments in California are implementing SEMS/ICS. Law requires the use of SEMS/ICS by State agencies.

Incident Command System

The ICS will be used during recovery from a disaster resulting in loss of access to the Facility. The ICT will be formed and operated in conformance with SEMS. The ICS being used department wide for emergencies provides for common terminology and duties that allow considerable flexibility and adaptability. While details of a particular event or incident may vary widely, the functions that must be carried out to deal with them are common to almost any kind of emergency. The basic ICS structure is shown below, followed by a brief description of the duties of each position

Figure 1. Incident Command System Structure



Department Operations Center

The Department Operations Center, under supervision of the DWR Emergency Preparedness Manager, is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR Divisions/Offices when the Facility's resources are not sufficient and may reallocate available resources to higher priority functions.

The Interagency Ecological Program file server is located off site. The Division of Environmental Services has recently purchased the necessary components to establish a formal procedure and backup process ensuring the safety of all essential computer files. These procedures will be in place and operational prior to June 30, 1999. One copy of the backup files will be stored off site and another in a fireproof safe. Additionally, all staff is directed to backup critical files on ZIP, CD, Floppy or Jazz drives.

Incident Commander

The IC will receive guidance and report to the DOC. The DOC Chief is the Department's Emergency Preparedness Manager. The Incident Commander will be responsible for establishing objectives and goals as well as managing and coordinating recovery efforts.

Operations Section Chief

The Operations Section Chief will implement the recovery plan.

Planning/Intelligence Chief

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports for the recovery effort.

Logistics Section Chief

The Logistics Section Chief will request, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles, and equipment.

Finance/Administration Section Chief

The Finance/Administration Section Chief tracks, accounts for, and pays for activities related to the recovery plan. This section will work closely with the Operations section. Timekeeping will also be the responsibility of this Section. It is intended that this Section may be augmented by staff from DWR's Department Services Office in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential FEMA reimbursement claims where a Presidential declaration has been made.

Temporary disruptions will be handled by the Finance/Administration Section head contacting the building owner to have services reconnected or area cleaned up. Staff would be told to remain near the office, temporarily relocate, or go home.

FUNCTIONS

The functions of the Department and the Facility are separated into Critical, Essential, and Necessary tasks. The classification of Facility's functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect employees and the public, provide entitlement, prevent financial hardship, or meet a legal requirement. Critical tasks at this Facility include (1) responding immediately to incidents involving life-threatening emergencies, and (2) continue the monitoring and maintenance functions of key California Data Exchange Center stations.

Essential tasks are those tasks that allow the Facility to accomplish its mission and which must be restored within 5 days. Essential or Necessary tasks may become critical depending upon the time of year or other factors. Essential tasks at this Facility include (1) restore compliance monitoring, (2) support Central District as requested for levee protection and flood fighting, and (3) purchasing for support of emergency and normal functions.

Necessary tasks are those tasks that need to be restored within 21 days. Necessary tasks at this Facility include (1) provide environmental compliance for emergency levee repairs as necessary, (2) monitoring and data collection for permit compliance, (3) dissemination of data, (4) continue emergency support to Central District as necessary (5) provide environmental compliance for emergency levee repair as necessary, and (6) re-establish all purchasing and finance functions.

RECOVERY ACTION PLAN

The RAP is based on a sequence of events that will take place. The principal elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its' impact on Facility functions, and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept off-site. A copy will also be retained on-site for reference.

Each year the plan will be reviewed and updated by the use of an annual appendix that lists the Incident Command Team and contact list (Attachment A).

Copies of the RAP will be provided to the DWR Emergency Preparedness Manager, and DWR Departmental Services Office.

Event Notification

If the Division of Environmental Services loses function, access, or facility, the IC shall notify the Emergency Preparedness Manager. Division staff will provide support roles under the appropriate ICS as required.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover Facility functions. The IC/designee will establish immediate and intermediate goals and objectives. The Operations Section Chief will implement appropriate notification and reporting procedures to Facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will establish immediate needs for resources. The Finance/ Administration Section Chief will immediately implement emergency purchasing procedures in accordance with the incident, and coordinate with DWR Divisions of Management Services and Fiscal Services to secure appropriate emergency financial authorizations and assistance.

The initial action will include identification of significant recovery related elements by the ICT. This will include: (1) determination of access to the 901 P Street facility, (2) determination if the facility has been destroyed or is beyond repair, and (3) review of business functions that may be impacted in connection with the event. Special review considerations shall be given to riots, floods, fires, earthquakes, and hazardous materials contamination. Also, an investigation of communications outages, power outages, computer failures, important documents, and available alternative sites will be promptly conducted.

To activate the recovery activities, the IC will review the recovery related elements in connection with the critical, essential, and necessary functions. The IC will have available information specific to a recovery activity that will include the following: (1) home phone numbers of all employees, (2) pager numbers, (3) available cellular phones, (4) vehicle and equipment information, (5) alternative site locations, and (6) off-site data storage locations. The IC will make a judgment on the minimum resources, including personnel, needed to restore operations and the approximate time required.

The IC will direct the Operations Chief to implement the plan in accordance with his determination. The Operations Chief will disseminate available information to employees, including determination of the method of contact. The Logistics Chief will prepare a report on resources and tasks developed by the Operations Chief. In cooperation with the Logistics Chief, the Finance/Administration Chief will track activities including timekeeping that will require concurrent attention and implement emergency purchasing procedures in accordance with the incident, and coordinate with DWR Divisions of Management Services and Fiscal Services to secure appropriate emergency financial authorizations and assistance.

During recovery activities for this type of function, the established SEMS/ICS will be coordinated with the Recovery Strategy Incident Command System. In some cases personnel will be involved in duplicate roles.

During a flood-fight event, staff may be requested to assist Central District and may relocate to Delta Twitchell Island facilities if the 901 P Street facility is destroyed or not accessible. A liaison will be stationed at the Joint Flood Operations Center on El Camino Avenue.

All of the members of this organization will have available to them the categories of major functions to be restored and critical information such as home phones and other key contacts. The most important duties will be responding to critical functions. Using SEMS and ICS, an expanded organizational structure will be established within the logistics section. The traditional purchasing authority of disaster declaration or mission statement through the Office of Emergency Services may not be adequate to implement this response plan. New delegation authority needs to be defined to ensure implementation.

The California Highway Patrol currently provides all on-site security. If the CHP determines not to call in private security for the office complex, in a coordinated effort, facility occupants (Division of Environmental Services, Central District and Department of Fish and Game -DFG) will arrange for private security through the Department's private security contract or DFG contract. Access to the building offices is through four common doors; access to the Division of Environmental Services and Central District are through the use of security cards that have separate access codes. Various doors are not controlled by these cards and can be opened by a key.

Disaster Scenarios

This RAP defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to the Facility and its contents.

- **Loss of Facility** – A disaster resulting in the destruction of the Facility and/or its contents.

Loss of Access or Destruction of Facility

This assumes that: 1) the Facility's documents, equipment, and building are intact and secure, but Facility staff are unable to gain access; or 2) that the Facility (and/or its contents) are destroyed or damaged beyond repair or recovery. Possible events, which would qualify under the scenarios indicated above, include a hazardous materials spill, a building problem, large earthquake, flood, fire, riot, or explosion.

The DWR Emergency Preparedness Manager will be notified of the incident and the immediate procedures for contacting the Division of Environmental Services. Based on direction from

DWR's Emergency Preparedness Manager and/or Environmental Services Division Chief, staff will either report to the appropriate Incident Command Center or to DWR Headquarters auditorium, Room 133, for further direction. Minor occurrences may only require staff to relocate to an adjacent parking lot until the incident is cleared.

Restoration of Necessary Functions

The IC will prepare an assessment and a plan for restoration of necessary functions of the Facility. The plan will include the resources needed to perform the unit's functions until access is regained, a schedule for restoration of all functions within the unit and an assessment of the impact of those functions that cannot be restored within 21 days.

The Interagency Ecological Program (IEP) file server is located off site. The Division has recently purchased the necessary components to establish a formal procedure and backup process ensuring the safety of all essential computer files. These procedures will be in place and operational prior to June 30, 1999. One copy of the backup files will be stored off site and another in a fireproof safe. Additionally, all staff are directed to backup critical files on ZIP, CD, Floppy or Jazz drives.

Restoration of Critical Functions

Emergency Water Quality Data - The Program Manager of the MWQIP would be notified immediately, as well the OWQ Branch Chief. The collection of WQ data during an emergency should not be disrupted if only the Headquarter facility office was unavailable, as the actual collection of data is coordinated through our field office at the Bryte Lab. Appropriate management personnel from OWQ Branch could be temporarily relocated to the field trailers to coordinate this effort, as needed. WQ data could then be disseminated through the Internet directly from the field office.

Emergency Water Quality Technical Support to the OWE - If the Headquarters office was unavailable, key WQ management and support staff could relocate to the field office at Bryte Lab. Adequate communication equipment exists to establish direct communication with the OWE to provide technical support.

Flood Response Support - The nature of this support requires Headquarter staff, as directed, to report to various locations throughout Sacramento or the Delta to provide flood response support. Staff would need to be notified to direct them to the appropriate off-site facility.

HazMat Response - Site Assessment Unit staff maintain a HazCat Chemical Identification System at DPLA Headquarter. This system is used for the on-site rapid identification of an unknown chemical substance. If access cannot be gained to the Headquarters site, it is recommended that a backup Identification be kept off-site, perhaps at the Bryte Lab field office.

Telephone Communications - The communications coordinator in Logistics Section, as well as the F/A Section Chief, would be notified immediately. The communications coordinator would contact the DOC Logistics Section Chief to obtain cell phones in order to establish a method of communication. Discussions with DOC Logistics Section would provide the necessary processes to be put in place to obtain or procure telephone, and computer equipment. No facilities have been identified at this writing for an alternate facility for DPLA Headquarters staff.

If Bryte Lab facilities were used as an interim measure to provide emergency water quality data; the communications coordinator and AO would relocate to that area.

Communications - computer network - The AO would notify the LAN administrator and the communications coordinator of the computer network problem. The LAN administrator would contact DWR HQ personnel to advise them of the situation and problem. If Bryte Lab facilities were used to provide water quality and HazCat response, the LAN administrator would accompany the AO and communications coordinator to that location. Discussions with DWR Headquarter personnel would start the necessary processes to obtain computer equipment, both new and surplus.

Restoration of Essential Functions

Provide Water Quality Data - The Municipal Water Quality Investigations Program provides WQ data to its stakeholders through its web site. This function can be provided without the Headquarters site as our web hosting occurs through the Resources Building, and not Headquarters. The Web service to our customers can continue for the MWQI program and the data it provides as long as service is not interrupted through the Resources Building. Data provided through our Web site can also be updated remotely from the Bryte Lab.

Provide Information From CIMIS – The Water Conservation Office provides CIMIS data to agricultural and urban customers through a computer housed in the Resources Building. The function can be provided without a computer connection at the Headquarters site. Service can continue to be provided to customers from the Resources Building.

Alternate Sites

Primary locations for temporary alternate sites would be other DWR or State facilities such as the Resources Building or intergovernmental arrangements. In addition, working from home, the Antioch Field Office and the San Carlos, 23rd & R building, Bryte Chemical Laboratory, the Department of Fish and Game Grizzly Island facility or the Yolo Basin Wildlife headquarters all provide possible alternatives for remote, off-site work locations in an emergency situation. Public facilities such as Mather Field, McClellan Air Force Base and available commercial offices would be evaluated last for long-term relocation.

Checklist

- ❑ Ensure safety of employees and the public.
- ❑ Determine extent of damage to the office, equipment, files, data, hardware and software.
- ❑ Notify employees of action to be taken.
- ❑ If limited damage, reference the Division of Environmental Services Emergency Safety Plan, which has been distributed to every employee. The Plan is to protect employees of DES in the event of any emergency condition such as flood, serious illness, fire, earthquake, bomb threat, enemy attack, or explosion.
- ❑ If incident involves major damage, loss of critical or essential functions, notify Emergency Preparedness Manager.
- ❑ UPS, U.S. Postal Service and other Service Providers*
- ❑ Emergency Facility Procurement*
- ❑ Emergency Communications Procurement*
- ❑ Telephones*
- ❑ Fax Machine*
- ❑ Cellular Telephones*
- ❑ Pagers*
- ❑ Emergency Mobile Equipment*
- ❑ Laptop Computers*
- ❑ Printers*
- ❑ Emergency Administration Procedures*
- ❑ Personnel*
- ❑ Copiers*
- ❑ File Storage/Retrieval*
- ❑ Supply*
- ❑ Financial/Procurement*

  * If required.

All users of cellular phones, pagers and vehicles will ensure the batteries for the cellular phones and pagers are maintained for use during an emergency and have assigned vehicles maintained on a regular schedule.

Pre-Planning

Information Protection:

A vital part of this plan and the speedy recovery of all functions are the protection and backup of vital information. Each section should review their procedures annually to protect critical data and learn how best to recover that data in case of a temporary or permanent business disruption.

Types of Data to be Stored Off-site:

- Surface Water Quality Data

Exercises

To test emergency action plans, three types of exercises can be used: Tabletop, Functional, and Field Exercises. A Tabletop Exercise is the most relevant to test this plan. A Functional Exercise is a possibility when combined with the desire to test the Facility's use of the Incident Command System. A Field Exercise is not necessary or practicable.

A tabletop exercise is a low stress conference room exercise where a scenario is presented, the RAP discussed, and the actions and communications coordinated. Based on these discussions, the RAP is adjusted and revised as necessary. The Division Chief will assign an employee to maintain the Plan. For the Division, a tabletop exercise will be performed annually along with the Antioch Field Office staff.

A functional exercise is an exercise that simulates the real emergency through the use of a master message list. A simulated ICP is created, communications passed and recorded with exercise simulators providing input and additional messages. In this case the exercise can be a fairly simple one that gives Facility staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held once every five years.

Plan Administration

Division of Environmental Services staff will review the RAP annually. A contact list is attached which contains the names, titles, and telephone numbers of vital contacts (Attachment A). This list will be revised and reissued each year. The business functions of the Facility will also be reviewed and, if necessary, the plan will be revised to reflect changes to the Facility functions in the Critical and Essential categories.

The goal of the RAP is to recover the operation of the Office/Facility within a reasonable time. Every effort will be made to update the Plan. Any unforeseen problem with the Plan will be resolved as it is discovered and improvements made as they are advanced by Office and Department employees.

This RAP has been drafted to be consistent with related emergency guidance documents, including:

Water Resources Engineering Memorandum No. 63
REM 58
Sacramento/San Joaquin Delta Emergency Water Plan
Delta Levee Emergency Response Concepts
Delta Area Operations Center Manual
DWR SEMS Operation Manual

RESOURCES LIST

Human Resources

14	Senior Environmental Scientists
16	Staff Environmental Scientists
40	Environmental Scientists
1	F&W Technician
27	Fish & Wildlife Scientific Aids
1	Supervising Engineer, WR
1	Senior Control Engineer, (Supv)
3	Senior Engineers
1	WR Engineering Associate (Spec)
5	Engineers, WR
8	IT Staff (including LAN Administration)
1	Environmental Program Manager II
5	Environmental Program Manager I
2	Student Assistants
3	Water Resources Technician II
2	Control Systems Technician II
1	Control Systems Technician I
1	Mate, Fish and Game Vessel
2	Recreation and Wildlife Advisors
1	Chief Engineer, Fisheries Vessel
1	Senior Environmental Planner (Archeology)
1	CEA
1	Staff Services Manager I
1	Executive Secretary
4	Associate Governmental Program Analysts
1	Business Service Assistant
1	Management Services Technician
1	Office Technician
1	Stock Clerk

Other Resources

119	Desktop personal computers
58	Laptop computers
16	Vessels/boats
6	Global Positioning Systems
6	Portable, handheld radios
70	Cellular telephones
16	Digital cameras
2	Video camera
3	Portable generators (gas)

A forklift will be required to move two of the generators.

Division of Environmental Services Emergency Contacts				
Employee	**Function**	**Office Phone**	**Home Phone**	**Pager/Cell Phone**
Barbara McDonnell	**Incident Commander**	(916) 651-9777		(916) 296-8679 (Cell)
Victor Pacheco	Alternate Incident Commander	(916) 651-9552		(916) 494-4418 (Cell)
Delores Brown	Alternate Incident Commander	(916) 651-9560		(916) 798-1753 (Cell)
Steve Ford	Alternate Incident Commander	(916) 651-9578		(916) 716-8656 (Cell)
Heidi Rooks	Alternate Incident Commander	(916) 651-9585		(916) 718-6951 (Cell)
Victor Pacheco	Alternate Incident Commander	(916) 651-9552		(916) 494-4418 (Cell)
Victor Pacheco	**Operations Chief**	(916) 651-9552		(916) 494-4418 (Cell)
Chris Enright	Alternate Operations Chief	(916) 651-0181		N/A
Delores Brown	**Planning and Intelligence Chief**	(916) 651-9560		(916) 296-6214 (Cell) (916) 798-1753 (Cell)
Stephani Spaar	Alternate Planning and Intelligence Chief	(916) 651-0139		916) 208-4504 (Cell)
Heidi Rooks	**Logistic Chief**	(916) 651-9585		(916) 718-6951 (Cell)
Steve Ford	Alternate Logistic Chief	(916) 651-9578		(916) 716-8656 (Cell)
Joanna Gonzales	**Finance/ Administrative Chief**	(916) 651-9588		N/A
Judi Sabella	Alternate Finance/ Administrative	(916) 651-9781		N/A

Division of Environmental Services Emergency Contacts (continued)						
Radio Call No.	**Type of Incident**	**Unit**	**Employee needed to respond**	**Home Phone**	**Cell Phone**	**Pager**
Environmental Water Quality & Estuarine Studies Branch						
D620		0360	Rich Breuer		916/812-0862	916/592-4005
D606		0360	Dean Messer		916/425-7175	N/A
D625		0360	Darrell Kaff		916/803-8895	N/A
D609		0360	Eric Santos		916/947-1161	N/A
D605		0360	Peggy Lehman		916/715-0845	N/A
D626		0360	Mike Dempsey		916/996-3708	N/A
D608		0360	Greg Schmidt		916/704-3796	N/A
D627		0360	Jay Aldrich		916/849-6930	N/A
D613		0360	Scott Waller		916/718-2461	N/A
D623		0360	Marc Vayssiere			N/A
D628		0360	Michael Rayfuse		916/717-9606	N/A
D624		0360	Anke Mueller-Solger		N/A	N/A
D622		0360	Karen Gehrts		916/718-2460	N/A
D625		0360	Heather Peterson		N/A	N/A
Environmental Compliance & Evaluation Branch						
D614		0320	Derrick Adachi			N/A
D616		0320	Chris Huitt		916/812-0863	N/A
D617		0320	Don Guy		916/799-9609	N/A
Administration and Program Control Branch						
D600		0300	Barbara McDonnell		916/296-9679	N/A
D602		0300	Joanna Gonzales		N/A	N/A
D607		0300	Alex Andrade		916/296-0192	N/A
--		0300	Judi Sabella		N/A	N/A
D604		0300	James Lee		916/715-2470	N/A

Division of Environmental Services Emergency Contacts (continued)						
Radio Call No.	**Type of Incident**	**Unit**	**Employee needed to respond**	**Home Phone**	**Cell Phone**	**Pager**
Environmental Planning & Information Branch						
D670		0340	Victor Pacheco		916/494-4418	N/A
D674		0340	Jim Sung		N/A	N/A
D671		0340	Chris Enright		707/484-9618	N/A
D676		0340	Karl Jacobs		916/803-8901	N/A
D680		0340	Angelo Garcia		916/799-4770	N/A
D681		0340	Rich Allen		916/799-4259	N/A
D683		0340	Randy Smith		916/803-3497	N/A
Mitigation & Restoration Branch						
D640		0350	Delores Brown		916/296-6214	N/A
D646		0350	Laura Flournoy		916/996-0517	N/A
D642		0350	Randy Mager		916/296-3475	N/A
D644		0350	Mike Hendrick		N/A	N/A
Ecological Studies Branch						
D690		0330	Heidi Rooks		916/718-6951	N/A
D691		0330	Brad Cavallo		916/425-9040	N/A
D692		0330	Marianne Kirkland		916/718-1223	N/A
Office of Water Quality						
D649		0315	Steve Ford		916/716-8656	N/A

Division of Environmental Services Emergency Contacts (continued)						
Radio Call No.	**Type of Incident**	**Unit**	**Employee needed to respond**	**Home Phone**	**Cell Phone**	**Pager**
Municipal Water Quality Program Branch						
D630		0370	Dan Otis		916/712-0175	N/A
D615		0370	Cindy Messer		916/947-6904	N/A
D633		0370	David Gonzalez		916/835-6980	N/A
D632		0370	Carol DiGiorgio		916/834-1794	N/A
Bryte Chemical Laboratory						
D651		0375	Bill Nickels		N/A	916/834-1794
D652		0375	Sid Fong		N/A	916/592-8447

OTHER DEPARTMENTAL AND GOVERNMENTAL CONTACTS

DWR - Executive

Sonny Fong, Department Emergency Preparedness Manager

Office	916-654-6135
Pager	916-592-7953
Home	

State/Federal Flood Operations Center	916-574-2619

DWR – Division of Operations & Maintenance

Oroville Field Division ACC	530-534-2416
Delta Field Division ACC	209-833-2180
San Luis Field Division ACC	209-827-5300
San Joaquin Field Division ACC	805-858-5560
SWP Operations Center, 24 hr	916-574-2714

California Highway Patrol

Non-emergency, 24hr	916-445-2895
CHP Dispatch	916-323-3844

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Environmental Services
Bryte Chemical Laboratory and Field Support Unit
1450 Riverbank Rd.
West Sacramento, CA 95605

A Component of the
DWR Business Resumption Plan

Appendix A: Bryte Chemical Laboratory
Facility/Organization Recovery Action Plan

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Incident Command Team **8**

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INTRODUCTION

The Facility Recovery Action Plan establishes steps to be taken to respond to disasters that may impact the business functions at the Division of Environmental Services' Bryte Chemical Laboratory in West Sacramento. The Recovery Action Plan is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

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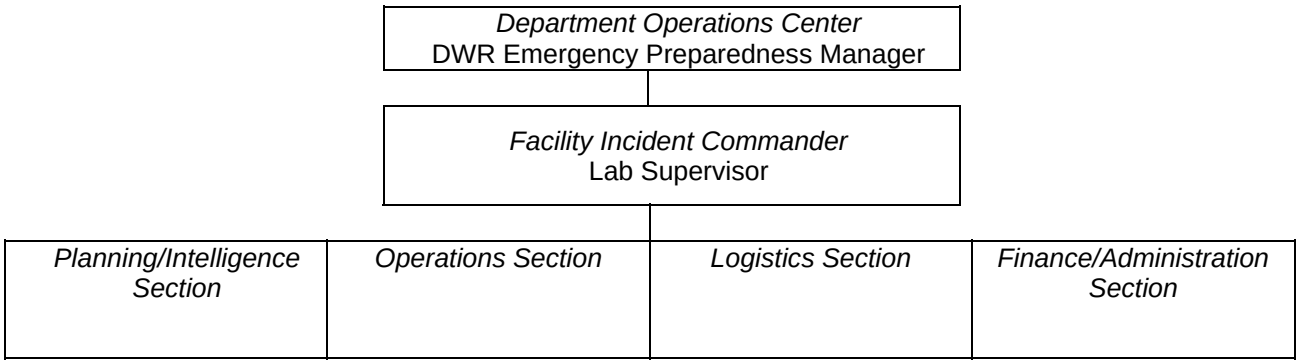

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FUNCTIONS

Bryte Chemical Laboratory

Generally, the operations performed by Bryte Chemical Laboratory are classified as **necessary functions**. The laboratory provides chemical and other related analytical laboratory services with appropriate Quality Assurance/Quality Control documentation in support of the State Water Project and various other surface and ground water quality programs within the Department.

On some occasions analytical analyses that could be classified as **critical** or **essential** are required. The analytical results are due as soon as possible or within 24 hours, or within a five-day period to assess any possible effects on water quality due to an accident or disaster. An example of this type of function would be hazardous material spill in the State Water Project.

Field Support Unit

The Field Support Unit provides sampling and field services for the programs and projects under the control of the Office of Water Quality Branch of DES located adjacent to the Bryte Chemical Laboratory. Normally the sampling work performed by this unit would not be classified as **critical** or **essential** functions for the Department. However, under certain circumstances this function could become **critical**, such as during a flood event or hazardous spill.

RECOVERY ACTION PLAN:

The Recovery Action Plan is a sequence of events. The principal elements include notification to appropriate authorities and staff of the disaster, an initial assessment of the event and its impact on the Inspection Section's functions, and implementation of recovery efforts.

Plan Distribution And Event Notification

Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept offsite. A copy of the RAP will be provided to the Division of Environmental Services Chief and the DWR Emergency Preparedness Manager.

The RAP will be reviewed annually by the ICT. The list of ICT members and vital contact telephone numbers will be revised and reissued each year. The business functions of the Lab will be reviewed and, if necessary, the plan will be revised to reflect changes to the Lab functions in the critical and essential categories.

Each year the plan will be reviewed and the Incident Command Team roster and Contact List will be updated.

Event Notification

Bryte Chemical Laboratory – When necessary, the Chief of Bryte Lab and the Lab Supervisor will notify the other nine Bryte Chemical Staff. The Office of Water Quality Branch Chief and DES Division Chief will in turn be notified by the Chief of Bryte Chemical Lab regarding the emergency situation and, if necessary, the Department's Emergency Preparedness Manager will be notified.

Field Support Unit – The Field Support Unit Supervisor is responsible for notifying the unit's staff about any emergency situation and assembly instructions on their work location and instructions. The supervisor is also responsible for notifying the Office of Water Quality Branch Chief and DES Headquarters.

Disaster Scenarios

Bryte Chemical Laboratory – If Bryte Chemical Laboratory is destroyed or access is lost for more than 48 hours, laboratory operations would continue through contract laboratories. The Bryte Laboratory currently has contracts for all analytical laboratory services it currently performs. All samples submitted, whether they are classified as critical, essential, or necessary, for analysis would be sent in the future to the laboratories under contract by the Department until regular laboratory operations could be restored at Bryte Laboratory.

All documentation generated by Bryte Chemical Laboratory (i.e., field, sample submittal, billing and analytical results, QA/QC data) is handled by the Field and Laboratory Information Management System. The FLIMS system server is currently being backed up every night at our facility and off site at the DES Headquarters Office, located at 901 P Street, Sacramento, CA, to protect against data loss due to any kind of disaster.

For a minor loss such as a power outage, battery backup systems are in place for our laboratory computers and computer controlled analytical instrumentation systems. An electrical generator is also on site to prevent the laboratory exhaust hoods from shutting down during critical laboratory operations and releasing dangerous fumes into the laboratory.

Field Support Unit – The Field Support Unit has a fully equipped 4x4 vehicle, as well as two customized vans equipped and fitted with specialized sampling equipment. If the facility or access to the facility is lost, sampling vehicles and equipment are available from other district locations, such as Central District.

Alternate Sites

Bryte Chemical Laboratory – Unfortunately there is no alternate laboratory location for the Department other than Bryte Chemical Laboratory for this type of analytical work.

Alternate assembly locations would be DES, Office of Water Quality, Field Unit located at 1450 Riverbank Rd, West Sacramento, CA, or DES Headquarters Office located at 901 P Street, Sacramento, CA.

DES Headquarters Office would serve as our Command Post and all computer-related operations (FLIMS) for the laboratory would be handled from this location.

Field Support Unit – A Alternate assembly locations, Bryte Chemical Laboratory 1450 Riverbank Rd., West Sacramento, CA, or DES Headquarters located at 901 P Street, Sacramento, CA.

Resources List

Bryte Chemical Laboratory

- Minimum resources; office space equipped with telephone, access to fax machine and computer to access the off-site storage backup database system located at DES Headquarters.

- A list of laboratories currently under contract by the Department to facilitate any critical or essential analytical work that may be requested during incident.

Field Support Unit

- Central District and/or other DES sampling vehicles and equipment from their field units could be used if necessary to fulfill the operations of Field Support Unit.

Plan Administration

Exercises

To test Recovery Action Plans, three types of exercises are used: tabletop, functional, and field. A tabletop exercise is the most relevant to test this plan. A functional exercise is a possibility when combined with the desire to test the District's use of the ICS. A field exercise is not necessary or practicable.

A tabletop exercise is a low stress, conference room exercise where a scenario is presented and the Facility/Organization RAP discussed, and actions and communications are coordinated. Based on these discussions, an RAP is adjusted and revised as necessary. A tabletop exercise will be held at least every three years.

A functional exercise is an exercise that simulates the real thing using a master message list. A simulated ICP is created, and communications are passed and recorded with exercise simulators providing input and additional messages. In this case, the exercise can be a fairly simple one that gives District staff the opportunity to see SEMS and ICS in operation.

INCIDENT COMMAND TEAM

(September 2006)

Bryte Chemical Laboratory

Incident Commander	Bill Nickels
Operations Chief	Bill Nickels
Planning/Logistics Chief	Sid Fong
Finance/Administration	Shelly Bains-Jordan

Field Support Unit

Incident/Operations Chief	David Gonzalez

CONTACT LIST

(February 2004)

Bryte Chemical Laboratory		
Bill Nickels	Work:	(916) 375-6008
	Home:	
	Pager:	(916) 948-4229
Alternate: Sid Fong	Work:	(916) 375-6008
	Home:	
	Pager:	(916) 592-8447
Field Support Unit		
David Gonzalez	Work:	(916) 371-3163
	Home:	
	Cell phone:	(916) 835-6980
Alternate: Steve San Julian	Work:	(916) 371-2284
	Home:	
	Cell Phone:	(916) 835-6981
Finance/Administration		
Shelly Bains-Jordan	Work:	(916) 375-6008
	Home:	
State-Federal Flood Operations Center (24 hr)		(916) 574-2619
State Water Project--Operations and Maintenance (24 hr)		
Daniel Peterson		
	Work:	(916) 653-9978
	Pager:	(916) 551-7221
Fire and Police		
CHP (non-emergency number)		(916) 445-2895
West Sacramento Police Department		
	Emergency:	911
	Business:	(916) 372-2461
West Sacramento Fire Department		
	Emergency:	911
	Business:	(916) 373-5840
Emergency Preparedness Manager		
Sonny Fong	Work	(916) 654-6135
	Pager	(916) 592-7953
	Home	

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Flood Management
Eureka Flood Center
302 Startare Drive
Eureka, CA 95501
(707) 445-6576

A Component of the
DWR Business Resumption Plan

Appendix A: Eureka Flood Center
Facility/Organization Recovery Action Plan

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INTRODUCTION

The Eureka Flood Center (EFC) Facility/Organization Recovery Action Plan (RAP) establishes an Emergency Response Team (ERT) and a facility and organization recovery process to respond to disasters that affect the business functions of the EFC. The RAP is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

This plan is intended to help bring the EFC back "on line". The RAP will outline in general and specific terms the facility's set-up and the means for backing up those components in a serious or crisis situation. The RAP uses the Standardized Emergency Management System (SEMS) to guide staff in the recovery of affected facilities and functions.

The EFC is co-located on Woodley Island in Humboldt Bay with the National Weather Service's Eureka Weather Forecast Office, and the U.S. Geological Survey's Eureka Satellite Field Office. A U.S. Army Corps of Engineers office is also located in a separate building on the island. The Department of Water Resources has ongoing cooperative agreements with these federal agencies to assist each other during severe weather and flood events. As a result, recovery acquisition is diverse with built-in options to communicate with the local region as well as with the various headquarters.

This RAP is not intended to be a set-piece recovery plan with exact steps to follow. The nature and scope of an event that results in loss or interruption of EFC functions cannot be predicted.

The RAP includes:

- An ERT designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of EFC functions that must be restored.
- A description of the initial steps necessary to implement a recovery plan.
- A checklist to facilitate the implementation of a recovery plan.

ORGANIZATIONAL STRUCTURE

During recovery from a disaster, event, or incident that results in total or partial loss of access to Eureka Flood Center facilities the EFC will be organized in accordance with the Standardized Emergency Management System (SEMS).

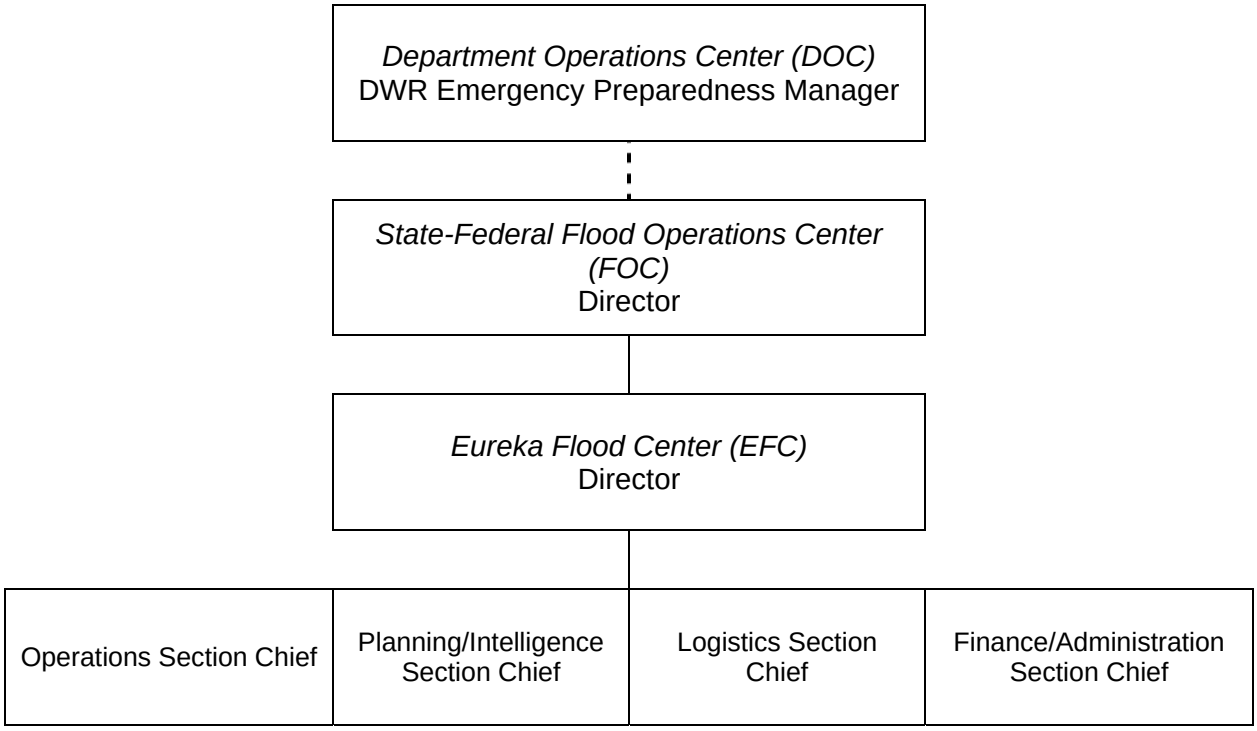
SEMS utilizes standard organization techniques, common terminology, and common functions and responsibilities applicable to almost any kind of emergency. SEMS allows considerable flexibility and adaptability in a wide variety of situations. While details of a particular situation may vary widely the functions carried out to deal with them are common to almost any kind of emergency. SEMS has been used for a wide variety of emergency management activities in California. California law requires the use of SEMS by State agencies, and all State agencies and many city and county governments in California have implemented SEMS since it became law in 1996.

Emergency Response Team

Staff from the Division of Flood Management and Northern District has received extensive SEMS training to respond to emergencies. The same SEMS organization used when the EFC is activated during flood emergencies will also be used for the EFC Facilities Recovery Plan with modifications possible depending on the specific situation. Staff from other areas of the Department may be utilized as necessary, particularly in non-flood emergencies.

Figure 1 shows the EFC organization developed for responding to flood emergencies. Brief descriptions of the primary units follow.

Figure 1 – Eureka Flood Center Organization



Department Operations Center

The DOC, under supervision of the DWR Emergency Preparedness Manager, manages and coordinates the Department's recovery activities. The DOC will coordinate assistance from other DWR Divisions and Offices when Division of Flood Management and Eureka Flood Center resources are not sufficient and may reallocate available resources to higher priority functions.

Director

The North Coast Flood Management Coordinator will be the Director of the EFC with a Deputy Director to assist. The Director will receive guidance from and report to the State-Federal Flood Operations Center Director.

The EFC Director and Deputy will be responsible for establishing objectives and goals, and for managing and coordinating the recovery efforts.

FOC Director

The FOC Director will keep the DOC appraised of all EFC activities and will help coordinate DOC assistance to the EFC. The dashed line between the DOC and FOC in the figure on page 2 indicates two-way coordination but not direct supervision or reporting relationships.

Operations Section Chief

The Operations Section Chief will implement the recovery plan.

Planning/Intelligence Section Chief

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate plans for and status reports about the recovery effort for DWR management.

Logistics Section Chief

The Logistics Section Chief will requisition, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles, and equipment.

Finance/Administration Section Chief

The Finance/Administration Section tracks (in cooperation with the Logistics Section), accounts for, and pays for activities related to the recovery plan. Timekeeping will also be the responsibility of this section. The Finance/Administration Section will also prepare documentation to support potential FEMA reimbursement claims when a presidential declaration has been made.

FUNCTIONS

Eureka Flood Center functions are separated into critical, essential, and necessary functions. The classification of EFC functions establishes priorities for recovery efforts.

Critical functions are those that must be restored within 24 hours. These functions must be restored to protect the public, provide an entitlement, prevent financial hardship, or meet a legal requirement. Examples include those in the areas of flood information and warning dissemination, telemetry system operations, and emergency response.

Essential functions are those that allow the District to accomplish its mission and which must be restored within 5 days.

Necessary functions are those that need to be restored within 21 days. Necessary functions make up the balance of EFC functions.

Essential or necessary functions may become critical depending upon time of year or other factors.

The North Coast Flood Warning System was developed through a cooperative effort, between the Department of Water Resources, the National Weather Service and the U.S. Geological Survey. The Flood Warning system allows the Eureka and Sacramento Flood Centers to receive up-to-the-minute rainfall and river flow data from 35 remote stations. These 35 data stations are located in the Smith, Trinity, Klamath, Redwood Creek, Mad, Van Duzen, Eel, Napa and Russian River basins.

During flood season the EFC has a critical function to make sure that the flood warning system works properly, and during the non-flood season the EFC has the necessary function of maintaining remote data stations.

Table 1 lists the critical and essential functions (as they pertain to this plan) of the Eureka Flood Center. All other functions of the EFC are necessary tasks.

Table 1. Eureka Flood Center Critical and Essential Functions

What	How	Criticality
Emergency Response – Floods	Computer, Telephone, Media	Critical during Flood Season
Emergency Response – All North Coast Water Related Issues	Computer, Telephone, Media	Critical all year

RECOVERY ACTION PLAN

The RAP is a sequence of events. The principal elements include event notification to appropriate authorities and staff, an initial assessment of the event and its impact on EFC functions, and implementation of recovery efforts.

After a partial or complete loss of the EFC the first priority will be to establish communication with DWR and NWS offices in Sacramento. Remaining communications options would be evaluated based on the severity of the event or disaster with the physical condition of the Woodley Island facilities being the prime determination. Initial formation of a SEMS team would also depend on the EFC's immediate post-event condition status. Fewer people would be available in more serious situations with potentially limited facilities to assemble for ICS organization and mobilization. One or two individuals would develop the most likely initial SEMS organization while initial damage and situational assessments are completed. Each SEMS function would be scaled up or down as needed.

Event Notification

The Eureka Flood Center North Coast Flood Management Coordinator (acting as the EFC Director) or designee will notify the Division of Flood Management's Flood Operations Branch Chief immediately when an event requires implementation of RAP. In the event the Branch Chief is unavailable the EFC Director shall notify the Flood Operations Center, which shall continue all remaining notification duties described in the following paragraph. The EFC Director shall then notify each of the four EFC SEMS Section Chiefs.

The Flood Operations Branch Chief (usually acting as the Flood Operations Center will in turn immediately notify Flood Operations Center staff, Chief of the Hydrology and Flood Operations Office, Division of Flood Management Chief, and the DWR Emergency Preparedness Manager.

When notified by the EFC Director each SEMS Section Chief will then notify subordinates. The notification will include any initial instructions regarding a point of assembly, future contact procedures, and an initial procedure to carry out EFC functions.

Initial Assessment

The ERT will meet as soon as practicable after the onset of the event to assess the situation and determine steps necessary to recover EFC functions. The EFC Director or Deputy will establish immediate and intermediate goals and objectives. The Operations Chief will implement the Recovery Action Plan. The Planning/Intelligence Section Chief will implement appropriate SEMS notification and reporting procedures to District staff and take such immediate recovery steps as feasible. The Logistics Section Chief will quantify immediate resource needs. The Finance/Administration Section Chief will immediately implement emergency purchasing procedures in accordance with the incident and coordinate with FOC and or DOC Finance/Administration Sections to secure appropriate emergency financial authorizations and assistance.

Disaster Scenarios

This plan defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to the Eureka Flood Center and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of the Eureka Flood Center and/or its contents.

Loss of Access

This scenario assumes that EFC documents, equipment, and facility are intact and secure, but that EFC staff is unable to gain access. This may be due to a hazardous materials spill, a building problem, or some other type of incident. It is also assumed that access will be granted in the near future, but business must be restored prior to access being regained.

The ERT will meet and confer as soon as possible to assess the situation. The National Weather Service (building owner) will be contacted as soon as possible to receive information on the status of the incident, its affect on the facility, and the probable date staff will regain access to the facility.

The Flood Operations Branch Chief will be notified of the incident and informed about the immediate procedures for contacting the EFC. The standard notification procedure given below will be followed to alert employees of the incident occurrence. A staff member or ERT member may be sent to the facility (or as close as possible) in case staff attempts to report there. A notice with the appropriate information will be posted at, or as near as possible to, the facility.

Restoration of Critical Functions

Flood Emergency Response – SBC Telephone will be contacted to arrange an emergency automated referral to the Flood Operations Center for flood-related phone calls, to an alternate number for non-flood calls, or a call forward to an answering machine with an appropriate message. Northern District and other Department staff on flood emergency status will be contacted to inform them of facility status and the alternate plans for their support. The FOC will be requested to provide temporary logistic and administrative support to District staff on flood response. The FOC will be provided an appropriate contact procedure for additional assignment of staff to flood emergency missions. A temporary District flood fight coordination headquarters will be established as needed and the contact information provided to the FOC.

Non-Flood Emergency Response – The DOC will be notified, as described above, as the Department's coordinating authority during non-flood emergencies. The DOC Logistics and Finance/Administration Sections will be notified to provide temporary assistance in supporting Northern District staff assigned to emergency response duties. This will include providing direct logistical and financial support to staff (i.e., travel advances, supplies, and equipment) and/or arranging for the District Administration Branch to perform those functions through temporary arrangements for forms, documents, funds, and procedures.

Restoration of Necessary Functions

Section Chiefs will prepare an assessment of and a plan for restoring necessary functions for their respective sections. That plan will include the resources needed to perform the unit's functions until access is regained, a schedule for restoring all functions within the unit, and an

assessment of the impact of those functions that cannot be restored within 21 days. The ERT will coordinate and integrate section plans, and implement a total recovery effort.

Loss of Facility

This scenario assumes that the EFC building is either completely destroyed or that the DWR portion of the building is destroyed.

The ERT will meet and confer at an alternate site as soon as possible to assess the situation.

The Flood Operations Branch Chief will be notified of the incident and informed about the immediate procedures for contacting EFC personnel. The standard notification procedure given below will be followed to alert employees of the incident occurrence.

Restoration of Critical Functions

Flood Emergency Response – SBC Telephone will be contacted to arrange an emergency automated referral to the Flood Operations Center for flood-related phone calls, to an alternate number for non-flood calls, or a call forward to an answering machine with an appropriate message. District staff on flood emergency status will be contacted and briefed. The FOC will be requested to provide interim logistic and administrative support to District staff on flood response until Northern District administrative support functions are restored. The FOC will be provided an appropriate contact procedure for additional assignment of staff to flood emergency missions. A temporary District flood-fight coordination headquarters will be established as needed and the contact information provided to the FOC. The ERT described in the District's Flood Emergency Response Plan will be integrated and modified, as necessary, to fit the situation.

Non-Flood Emergency Response – The Department Operations Center will be notified, as described above, as the Department's coordinating authority during non-flood emergencies. The DOC Logistics Section will be asked to provide interim assistance to District staff assigned to emergency response duties until the Districts administrative functions are restored. This will include providing direct logistical and financial support to staff (i.e., travel advances, supplies, and equipment).

Restoration of Necessary Functions

Section Chiefs will prepare an assessment of and a plan for restoring necessary functions for their respective sections. That plan will include the resources needed to perform the unit's functions until a new facility is provided, as well as a schedule for restoring all functions within the unit and assessing the impact of those functions that cannot be restored within 21 days. The ERT will coordinate and integrate section plans and implement a total recovery effort.

Alternate Sites

In the event of either type of loss critical functions will relocate to either:

- The EFC Manager's home residence.
- The Office of Emergency Services, Humboldt County.

Checklist

Operational Procedures

- ❑ Notifications
  - ❑ State-Federal Flood Operations Center (the FOC Director will then notify Division of Flood Management, the Emergency Preparedness Manager, and other DWR officials as necessary)
  - ❑ Northern District Chief
  - ❑ SBC
  - ❑ Other service providers
- ❑ Emergency facility procurement
- ❑ Emergency communications procurement
  - ❑ Telephones
  - ❑ Fax
  - ❑ Cell Phones
  - ❑ Pagers
- ❑ Emergency mobile equipment
- ❑ Emergency administration procedures
  - ❑ Personnel
  - ❑ Program Control
  - ❑ File Storage/Retrieval
  - ❑ Supply
  - ❑ Financial/Procurement

Facilities

- ❑ Office space (900 ft^2)
- ❑ Office furniture for technical staff (2)
- ❑ Office furniture for admin staff (2)
- ❑ Workshop (400 ft^2)

Communications/Computers

- ❑ Standard PCs (2)
- ❑ Scanner (1)
- ❑ Laptops (2)
- ❑ Digital Camera (1)
- ❑ Cellular telephones (1)
- ❑ Telephone lines, incl. modem, fax (3)

Vehicles (1)

- ❑ Assigned Vehicle, 1 4-2wd SUV

Pre-Planning

Information Protection

A vital part of this plan that ensures the speedy recovery of all functions is the protection and backup of vital data. The EFC should review their procedures annually to protect critical data and to develop recovery procedures in the event of temporary or permanent business disruption. Data should be classified according to criticality of function to determine the backup frequency.

Exercises

To test Recovery Action Plans three types of exercises are used: tabletop, functional, and field. A tabletop exercise is the most relevant to test this plan. A functional exercise is a possibility when combined with the desire to test EFC implementation of SEMS. A field exercise is not necessary or practicable.

A tabletop exercise is a low stress, conference room exercise where a scenario is presented and the Facility/Organization RAP discussed, and actions and communications are coordinated. Based on these discussions an RAP is adjusted and revised as necessary. A tabletop exercise will be held at least every three years.

A functional exercise simulates a real event. A simulated EFC is created and communications are passed and recorded with exercise simulators providing input and additional messages. In this case the exercise can be a fairly simple one that gives EFC staff the opportunity to see SEMS in operation.

Plan Administration

Plan Dissemination

Each team member will receive a copy of the plan to be kept offsite. Copies of the RAP will be provided to the DWR Emergency Preparedness Manager, the Division of Flood Management, the Northern District Office, and the Departmental Services Office.

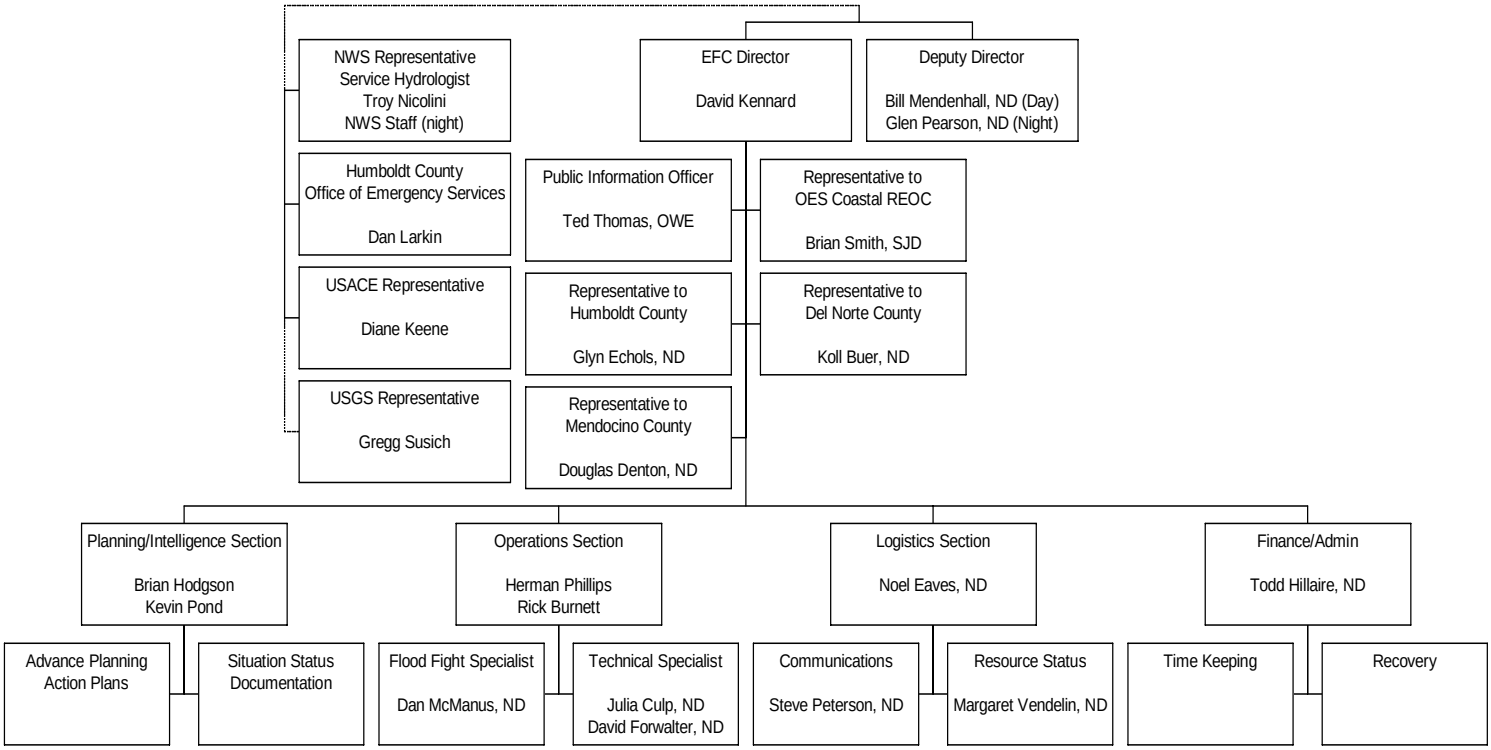
Annual Review and Periodic Updates

The plan will be reviewed annually in the fall prior to flood season. The Emergency Response Team roster and Contact List will also be updated as necessary.

The business functions of the Eureka Flood Center will be reviewed and, if necessary, the plan body will be revised to reflect EFC functional changes.

Emergency Response Team

(February 2004)



Note: Duties for Sections or Units not shown or staffed may be performed by personnel located at the State-Federal Flood Operations Center in Sacramento.

Contact List

(September 2006)

Refer to Business Resumption Plan Appendix C "Flood Emergency Phone Numbers". The Division of Flood Management updates this list annually. Another valuable contact list is the Directory of Flood Officials, which is also published annually by the Division.

DWR	Office	Other
Vacant, Flood Operations Branch Chief	(916) 574-2611	
State-Federal Flood Operations Center	(916) 574-2619	
Sonny Fong, Emergency Preparedness and Security Manager	(916) 654-6135	(916) 592-7953 (pager)

Primary Cooperating Agencies

NWS Eureka Weather Forecast Office Nancy Dean, Meteorologist in Charge	(707) 443-4162
U.S. Geological Survey, Eureka Field Office Greg Susich	(707) 442-3169
Humboldt County Office of Emergency Services Dan Larkin, Coordinator	(707) 268-2502
U.S. Army Corps of Engineers, Woodley Island Office Diane Keene	(707) 443-0855
California Department of Transportation, Hydrology Office	(707) 445-6386

Other Contacts

Humboldt Bay Harbor District Maintenance Section Matt Wardinski	(707) 443-6592
Eureka Fire Department, Office of Emergency Services Liaison Pam Powel	(707) 441-4000
California Highway Patrol, Humboldt County Office Officer Jim Van Horn	(707) 822-5981, or 911

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Flood Management
Sutter Maintenance Yard
State Route 20
Sutter, CA 95982
(530) 755-0071

A Component of the
DWR Business Resumption Plan

Appendix A: Sutter Maintenance Yard
Facility/Organization Recovery Action Plan

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INTRODUCTION

The Sutter Maintenance Yard (the Facility) maintains and operates 200 miles of levees, 40,000 acres of river and stream channels, three major weirs, three drainage / pumping plants, a major control structure, fifty miles of drainage canals, and related facilities in the upper Sacramento Valley. During high water, Facility staff patrols the levees and performs flood fights as necessary.

The Recovery Action Plan for this Facility establishes steps to be taken to respond to disasters that impact the business functions of the Facility. The RAP is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The RAP is not intended to be a recovery plan with exact procedures to follow. The nature and scope of an event that results in loss or interruption of functions at the Facility cannot be predicted. The plan is, rather, a plan to be carried out, using the Standardized Emergency Management System, leading to recovery of functions at the Facility.

The RAP includes:

- Definitions and structure of a generic incident command team and a general description of the functions of the various members.
- A description of the Facility's functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

ORGANIZATIONAL STRUCTURE

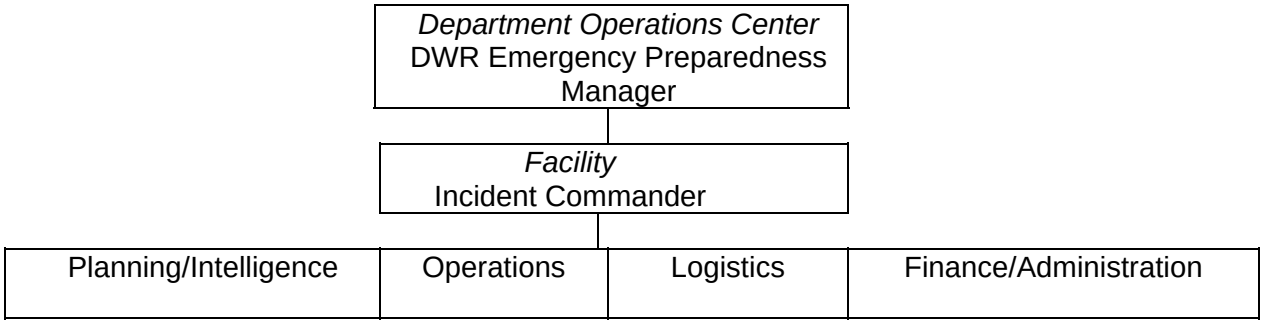
The Sutter Maintenance Yard is part of the Division of Flood Management. It is located at 6908 Colusa Highway (State Highway 20) in the town of Sutter. There are an office building and several outbuildings at this location. These buildings include a Maintenance Shop, Supply Building, Herbicide Storage and Fuel Station. The Facility has 24 staff members. Approximately 18 persons work off location as field staff.

Sutter Maintenance Yard staff will work under the Standardized Emergency Management System and its field element, the Incident Command System during and after a disaster. SEMS is a method of organizing for emergency management. SEMS and ICS utilize standard organization techniques, a common terminology and common functions and responsibilities that are applicable to almost any kind of emergency. All state agencies and most of the city and county governments in California are implementing SEMS/ICS. Law requires that State agencies use SEMS/ICS to organize for response to emergencies.

Incident Command System

ICS will be used during recovery from a disaster resulting in loss of access to the Facility. The Incident Command Team will be formed and operated in conformance with SEMS. ICS, being used department wide for emergencies, provides for common terminology and duties that allow considerable flexibility and adaptability to a wide variety of situations. While details of a particular event or incident may vary widely, most functions that must be carried out to deal with them are common to any kind of emergency. ICS can be, and is, used for a wide variety of emergency management activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position.

Figure 1. Incident Command System Structure



Department Operations Center

The Department Operations Center, under supervision of the DWR Emergency Preparedness Manager, is responsible for managing and coordinating overall recovery activities of the Department. The DOC Chief is the Department's Emergency Preparedness Manager or designated representative. The DOC will coordinate assistance from other DWR Divisions/Offices when the Facility's resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The Incident Commander will receive guidance from and report to the DOC. The IC will be responsible for establishing objectives and goals as well as managing and coordinating recovery efforts.

Operations Section Chief

The Operations Section Chief will implement the recovery plan.

Planning/Intelligence Section Chief

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports for the recovery effort.

Logistics Section Chief

The Logistics Section Chief will request, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles, and equipment.

Finance/Administration Section Chief

The Finance/Administration Section Chief tracks, accounts for, and pays for activities related to the recovery plan. This section will work closely with the Operations section. Timekeeping will also be the responsibility of this Section. It is intended that this Section will be augmented by staff from DWR's Department Services Office in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Department and the Facility are separated into Critical, Essential, and Necessary tasks. The classification of Facility's functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide entitlement, prevent financial hardship, or meet a legal requirement. This Facility's critical task is to prevent loss of life and property during flood events.

Essential tasks are those tasks that allow the Facility to accomplish its mission and which must be restored within 5 days. Depending on the situation, some patrolling due to high river flows may be considered an essential task.

Necessary tasks are those tasks that need to be restored within 21 days. Necessary tasks make up most of the functions of the Facility.

Essential or **Necessary** tasks may become critical depending upon the time of year or other factors. Table 1 lists the **Critical, Essential** and **Necessary** functions of the Sutter Maintenance Facility. The nature and severity of the event determines the level at which the Facility responds.

Table 1, Facility Critical, Essential and Necessary Functions

What	Who	How	Criticality
Flood fighting during high water periods	Management and Utility Crafts Workers	Manual and/or mechanical	**Critical** to protect people and property from flooding
Patrolling and inspecting levees and flood system	Management and Utility Crafts Workers	Manual and/or mechanical	**Critical** to protect people and property from flooding
Regulating and operating control structures, weirs and drainage systems during flood season	Management and Utility Crafts Workers	Manual and/or mechanical	**Critical** to protect people and property from flooding
Regulating and operating Sutter Bypass pumping plants in any season when needed	Management and Utility Crafts Workers	Manual and/or mechanical	**Critical** to protect property from flooding
Patrolling levees during prolonged flow recession where there is no actual or expected levee stress	Management and Utility Crafts Workers	Manual and/or mechanical	**Essential** to protect people and property from flooding

RECOVERY ACTION PLAN

The Recovery Action Plan is based on a sequence of events that will take place. The principal elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on Facility's functions, and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept offsite. A copy will also be retained on site for reference.

Copies of the Recovery Action Plan will be provided to the DWR Emergency Preparedness Manager, DWR Division of Flood Management Chief, and DWR Departmental Services Office.

Each year the plan will be reviewed and the Incident Command Team roster and Contact List will be updated.

Event Notification

The person in charge at the Facility will notify the Department's Emergency Preparedness Manager and the Chief, Division of Flood Management immediately upon an event that requires implementation of the Recovery Action Plan. Facility staff will provide support roles under the appropriate Incident Command System if required. Depending on the nature of the event, staff may work under an Incident Command System established by either the Facility or the DOC. The decision on which Incident Command System will be appropriate, if any, will come from the Department's Emergency Preparedness Manager and/or Flood Management Chief.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover Facility functions. The Incident Commander will establish immediate and intermediate goals and objectives. The Operations Section Chief will implement appropriate notification and reporting procedures to Facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will establish immediate needs for resources. The Finance / Administration Section Chief will immediately implement emergency purchasing procedures in accordance with the incident, and coordinate with DWR Divisions of Management Services and Fiscal Services to secure appropriate emergency financial authorizations and assistance.

Disaster Scenarios

This Recovery Action Plan defines two types of disasters:

- Loss of Access – A disaster or other incident preventing access to the Facility and its contents.
- Loss of Facility – A disaster resulting in the destruction of the Facility and/or its contents.

Loss of Access or Destruction of Facility

This assumes that: 1) the Facility's documents, equipment, and building are intact and secure, but Facility staff is unable to gain access; or 2) that the Facility (and/or its contents) are destroyed or damaged beyond repair or recovery. Possible events, which would qualify under the scenarios indicated above, include a hazardous materials spill, a building problem, large earthquake or flood.

The DWR Emergency Preparedness Manager and the Chief, Division of Flood Management will be notified of the incident and the immediate procedures for contacting the Facility. Based on direction from the Emergency Preparedness Manager and/or the Chief, Division of Flood Management, staff will report to the appropriate Incident Command Center or they will report to the Sutter Community Hall for further direction.

Sutter Community Hall
Acacia Street and Butte House Road
Sutter, California

Restoration of Necessary Functions

The ICT will prepare an assessment and a plan for restoration of necessary functions of the Facility. The plan will include the resources needed to perform the unit's functions until access is regained, a schedule for restoration of all functions within the unit and an assessment of the impact of those functions that cannot be restored within 21 days.

Alternate Sites

A temporary facility can be set up at Sutter Community Hall to accommodate Sutter Maintenance Yard operations. For extended periods (longer than one month) it may be prudent to set up a temporary trailer and equipment from which office staff can coordinate operations. If possible, the trailer should be located within the facility. An outbuilding located at the Facility may be used as an alternate site, depending on the severity of the event.

Pre-Planning

To test emergency action plans, three types of exercises can be used: tabletop, functional, and field exercises. A tabletop exercise is the most relevant to test this plan. A functional exercise is a possibility when combined with the desire to test the Facility's use of the Incident Command System. A field exercise is not necessary or practicable.

A tabletop exercise is a low stress conference room exercise where a scenario is presented, the Recovery Action Plan is discussed, and actions and communications are coordinated. Based on these discussions, the RAP is adjusted and revised as necessary. For this Facility, a tabletop exercise will be performed annually along with Flood Management Headquarters staff.

A functional exercise is an exercise that simulates the real emergency through the use of a master message list. A simulated ICP is created and communications are passed and recorded with exercise simulators providing input and additional messages. In this case the exercise can be a fairly simple one that gives Facility staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held once every five years.

Plan Administration

Each year the plan will be reviewed and the Incident Command Team roster and Contact List will be updated. The business functions of the Facility will also be reviewed and, if necessary, the plan will be revised to reflect changes to the Facility functions in the Critical and Essential categories.

Notification Checklist

- ❑ Emergency Preparedness Manager
- ❑ Flood Management Chief
- ❑ Staff
- ❑ Safety Office
- ❑ State Department of Health Services*
- ❑ U.S. Postal Service*
- ❑ Sutter County*
- ❑ Pacific Gas and Electric Co.*
  - Power and Gas
- ❑ Departmental Services Office*
  - Emergency Facility Procurement, File Storage/Retrieval, Supplies
- ❑ Telecommunications Office*
  - Emergency Communications, Telephones, Cellular Telephones, Fax Machines, Pagers
- ❑ Mobile Equipment Office*
  - Emergency Mobile Equipment, Trailers
- ❑ Management Analysis Office*
  - Emergency Administrative Procedures
- ❑ Personnel*
- ❑ Division of Fiscal Services*

* - If required.

INCIDENT COMMAND TEAMS

(Area Codes; * indicates 916; all others are 530)

	Office	Cellular	Pager	Home
1. For Single-Shift Operation				
Incident Commander				
Ken Dickerson	751-8360	370-5869	*821-7397	
Operations Section Chief				
Karen Hull	751-8361	370-5769	*821-7132	
Planning/Intelligence Section Chief				
Steve Beckley	751-8362	559-4873	None	
Logistics Section Chief				
Bryan Reniff	751-8359	913-5341	None	
Finance/Administration Section Chief				
Vicki Zwald	751-8369	755-6361	None	
2. For Two-Shift Operation				
Incident Commander				
Ken Dickerson	751-8360	370-5869	*821-7397	
Alternate – Karen Hull	751-8361	370-5769	*821-7132	
Operations Section Chief				
Jason Cooper	751-8363	559-6186	None	
Alternate – Joel Farias	751-8364	755-6575	None	
Planning/Intelligence Section Chief				
Steve Beckley	751-8362	559-4873	None	
Alternate – Paul Casillas	755-0071	755-6803	None	
Logistics Section Chief				
Bryan Reniff	751-8359	913-5341	None	
Alternate – Jeromy Sanner	755-0071	559-6481	None	
Finance/Administration Section Chief				
Vicki Zwald	751-8369	755-6361	None	
Alternate - Mary Weitnayer	755-0071	None	None	

Contact List

(September 2006)

Appendix C contains the "Flood Emergency Phone Numbers" card published annually by the Division of Flood Management. The following numbers supplement that card:

Department of Water Resources	
Division of Flood Management	
Ken Dickerson, Superintendent	
Office	530-751-8360
Home	
Cellular	916-716-1923
Sacramento Project Headquarters	
Irv Michael, Project Safety Office	916-322-4148
Don George, Project Engineer	916-445-9132
Division of Management Services	
Departmental Services Office	916-653-7233
Telecommunications Office	916-654-0707
Fleet Management Office	916-653-2950
Personnel Office	916-653-7807
Management Analysis Office	916-653-5559
Division of Fiscal Services	
General Accounting Office	916-653-8472
California Highway Patrol	
Non-emergency, 24hr	916-445-2895
CHP Dispatch	916-323-3844
State Department of Health Services	916-653-2799
U.S. Post Office, Sutter	530-755-0588
Sutter County	530-822-7307
Pacific Gas and Electric Co.	1-800-743-5000

State of California
The Resources Agency
Department of Water Resources

Appendix A
Facility/Organization Recovery Action Plan

Division of Flood Management
Sacramento Maintenance Yard
1450 Riverbank Rd.
West Sacramento, CA 95605
(916) 375-6000

A Component of the
DWR Business Resumption Plan

Appendix A: Sacramento Maintenance Yard
Facility/Organization Recovery Action Plan

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INTRODUCTION

This Recovery Action Plan establishes steps to be taken to respond to disasters that impact the business functions of the Sacramento Maintenance Yard

The plan is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The plan is not intended to be a set piece recovery plan with exact procedures to follow. The nature and scope of an event that results in loss or interruption of functions at the facility cannot be predicted. The plan is, rather, a plan to be carried out, using the Standardized Emergency Management System, leading to recovery of functions at the facility.

The Plan includes:

- Definitions and structure of a generic incident command team and a general description of the functions of the various members.
- A description of the Yard's functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

ORGANIZATIONAL STRUCTURE

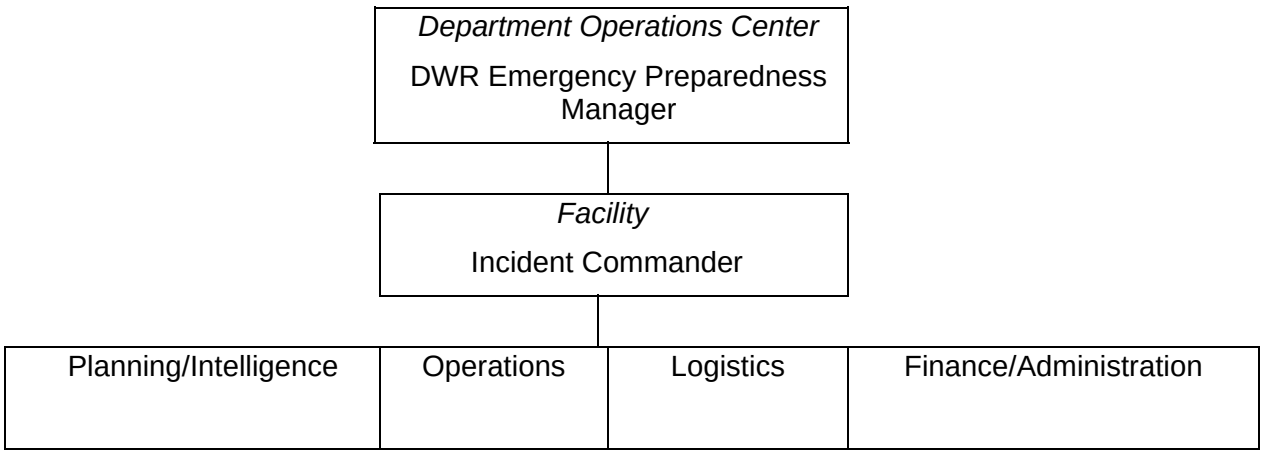
The Sacramento Maintenance Yard is part of the Division of Flood Management. It is located with the Soils/Concrete Lab (Division of Engineering), Chemical Laboratory (Division of Environmental Services), and miscellaneous testing groups (Division of Planning and Local Assistance) at 1450 Riverbank Road in West Sacramento. The SMY office is located in one building with the Soils/Concrete Lab. and the Chemical Lab. There are several outbuildings at this location. These buildings include a Maintenance Shop, Supply Building, Mobile Equipment Shop, Flood Materials Warehouse and Fuel Station. The maintenance facility has 30 staff members. Approximately twenty personnel work off location as field staff.

Sacramento Maintenance staff will work under the Standardized Emergency Management System and its field element, the Incident Command System during and after a disaster. SEMS is a method of organizing for emergency management. SEMS and ICS utilize standard organization techniques, a common terminology and common functions and responsibilities that are applicable to almost any kind of emergency. All state agencies and most of the city and county governments in California are implementing SEMS/ICS. Law requires the use of SEMS/ICS by state agencies.

Incident Command Structure

The ICS will be used during recovery from a disaster resulting in loss of access to the facility. The Incident Command Team will be formed and operated in conformance with SEMS. The ICS, being used department wide for emergencies, provides for common terminology and duties that allow considerable flexibility and adaptability to a wide variety of situations. While details of a particular event or incident may vary widely, the functions that must be carried out to deal with them are common to almost any kind of emergency. The ICS can, and is, used for a wide variety of emergency management activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position

Figure 1. Incident Command System Structure



Department Operations Center

The Department Operations Center, under supervision of the DWR Emergency Preparedness Manager, is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR Divisions/offices when the Yard's resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The IC will receive guidance and report to the DOC. The Department's Emergency Preparedness Manager serves as the DOC Chief. The IC will be responsible for establishing objectives and goals as well as managing and coordinating recovery efforts.

Operations Section Chief

The Operations Section Chief will implement the recovery plan.

Planning/Intelligence Chief

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports for the recovery effort.

Logistics Section Chief

The Logistics Section Chief will request, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles, and equipment.

Finance/Administration Section Chief

The Finance/Administration Section Chief tracks, accounts for, and pays for activities related to the recovery plan. This section will work closely with the Operations section. Timekeeping will also be the responsibility of this Section. It is intended that this Section will be augmented by staff from DWR's Department Services Office in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Department and the Yard are separated into critical, essential, and necessary tasks. The classification of the Yard's functions establishes priorities for recovery efforts.

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public, provide entitlement, prevent financial hardship, or meet a legal requirement. This Yard critical task is to prevent loss of life and property during flood events.

Essential tasks are those tasks that allow the Yard to accomplish its mission and which must be restored within 5 days. Depending on the situation, some flood events such as prolonged flood patrols due to high river flows will be considered essential tasks.

Necessary tasks are those tasks that need to be restored within 21 days. Necessary tasks make up most of the functions of the Sacramento Maintenance Yard.

Essential or **Necessary** tasks may become critical depending upon the time of year or other factors. Table 1 lists the **Critical, Essential,** and **Necessary** functions of the Sacramento Maintenance Yard. The nature and severity of said events determined at which level the Sacramento Maintenance Yard responds.

Table 1, Critical, Essential and Necessary Functions

What	Who	How	Criticality
Flood fighting during high water periods	Management and Utility Crafts Workers	Manual and/or mechanical	**Critical** to protect people and property from flooding
Patrolling and inspecting levees and flood system	Management and Utility Crafts Workers	Manual and/or mechanical	**Critical** to protect people and property from flooding
Regulating and operating control structures, weirs and drainage systems during flood season	Management and Utility Crafts Workers	Manual and/or mechanical	**Critical** to protect people and property from flooding

RECOVERY ACTION PLAN

The Recovery Action Plan is based on a sequence of events that will take place. The principal elements include notification of the disaster to appropriate authorities and staff, an initial assessment of the event and its impact on the Yard's functions, and implementation of recovery efforts.

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept offsite. A copy will also be retained on site for reference.

Copies of the Recovery Action Plan will be provided to the DWR Emergency Preparedness Manager, DWR Division of Flood Management Chief, and DWR Departmental Services Office.

Each year the plan will be reviewed and the Incident Command Team roster and Contact List will be updated.

Event Notification

The designated lead person at the Sacramento Maintenance Yard will notify the Department's Emergency Preparedness Manager and the Chief, Division of Flood Management immediately upon an event that requires implementation of the Recovery Action Plan. Sacramento Maintenance staff will provide support roles under the appropriate Incident Command System if required. Depending on the nature of the event, staff may work under an Incident Command System established by either the Sacramento Maintenance Yard or the Sacramento Project Headquarters. The decision on which Incident Command System will be appropriate, if any, will come from the Department's Emergency Preparedness Manager and/or Flood Management Chief.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover Yard functions. The Incident Commander/Assistant will establish immediate and intermediate goals and objectives. The Operations Section Chief will implement appropriate notification and reporting procedures to Facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will establish immediate needs for resources. The Finance/Administration Section Chief will immediately implement emergency purchasing procedures in accordance with the incident, and coordinate with DWR Divisions of Management Services and Fiscal Services to secure appropriate emergency financial authorizations and assistance.

Facility Responsibilities

The Sacramento Maintenance Yard is responsible for maintenance of the State-maintained portions of the Sacramento River Flood Control Project. The Yard has a primary interest in, and is committed to, ensuring that the channels, levees, and structures of flood control projects and debris basins are maintained in accordance with federal regulations and California Water Code.

Activities

- Maintenance (under Water Code Section 8361) of levees, weirs, drain ditches, overflows and bypass channels, and other related structures.
- Maintenance (under Water Code Section 12878) of levees in maintenance areas.
- Maintenance (under agreements with the Corps of Engineers) of the Sacramento Deep Water Channel.

Critical Operations

The Yard is responsible for maintaining flood control project facilities and also responsible for flood emergency preparedness. This includes training personnel in flood fighting methods and stocking flood fight materials.

The Corps of Engineers requires that federal flood projects levees be patrolled when river stages exceed warning levels. To comply with Corps requirements, the Yard must do comprehensive patrolling with increasing frequency as floodwater rises and have a plan that provides for quick emergency response.

Early detection and evaluation of a developing trouble spot is the key to protecting lives and property during high water events. Levee patrols are the first line of defense against levee failure at such times. Patrols must be able to deliver a high standard of performance, even when working long hours in hostile weather and under difficult conditions.

Potential Risk

If the Yard is unable to perform critical functions during emergency operations, the result may be a loss of life and/or property.

Disaster Scenarios

Loss of Access

Personnel would report to designated alternate work location and receive instructions regarding steps to be taken to implement emergency response.

Loss (Destruction) of Facility

Copies of all important documents are kept off-site at the Division of Flood Management Headquarters, located at 3310 El Camino Avenue, Sacramento, California. The same location may be used as an alternate site for conducting business. Due to the nature of our location and the way the Yard is designed, it is highly probable that our secondary building may be usable an alternate site. If the entire location is destroyed, employees could be relocated to the Flood Operations Center located at 3310 El Camino Ave 95821. Replacement vehicles can be obtained from other field units and/or the Fleet Management Office.

Loss of Function

Alternate communications, such as cellular telephones and portable two-way radios, are in place. In the event of a power outage we have portable generators for emergency usage. The nature of our operation would allow us to function without computers for a short period of time.

Alternate Sites:

1) Flood Operations Center: 3310 El Camino Ave, Sacramento, California
2) Corps of Engineers Yard: 1460 Riverbank Road, West Sacramento, California
3) Resources Building: 1416 9th Street, Sacramento, California

Resources

Mobile Equipment

The Yard is equipped with fourteen (14) pickups and six (6) heavy-duty trucks with two-way radios. Additional equipment and transportation can be obtained through Sutter Maintenance Yard and the Fleet Management Office. All vehicles needed for daily operations and backup are under a preventive maintenance program year around. Spare parts are located at the mobile equipment shop located at 1450 Riverbank Road, West Sacramento, California.

Flood Fight Materials

Essential flood materials are stored on-site. Additional flood materials can be obtained with assistance from the State-Federal Flood Operations Center.

Pre-Planning

Exercises

To test emergency action plans, three types of exercises can be used: Tabletop, Functional, and Field Exercises. A Tabletop Exercise is the most relevant to test this plan. A Functional Exercise is a possibility when combined with the desire to test the Facility's use of the Incident Command System. A Field Exercise is not necessary or practicable.

A tabletop exercise is a low stress conference room exercise where a scenario is presented and the Recovery Action Plan discussed and actions and communications coordinated. Based on these discussions, the RAP is adjusted and revised as necessary. For the Sacramento Maintenance Yard, a tabletop exercise will be performed annually along with Soils/Concrete Lab and Chemical Lab staff, and/or Flood Management Joint Operations Center staff.

A functional exercise is an exercise that simulates the real emergency through the use of a master message list. A simulated ICP is created, communications passed and recorded with exercise simulators providing input and additional messages. In this case the exercise can be a fairly simple one that gives Facility staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held once every five years.

Plan Administration

Sacramento Maintenance staff will review the Recovery Action Plan annually. A contact list is attached which contains the names, titles, and telephone numbers of vital contacts. This list will be revised and reissued each year. The business functions of the Yard will also be reviewed

and, if necessary, the plan will be revised to reflect changes to the Yard functions in the Critical and Essential categories.

Notification Checklist

- ❑ Emergency Preparedness Manager
- ❑ Flood Management Chief
- ❑ Staff
- ❑ State Department of Health Services*
- ❑ U.S. Postal Service and other Service Providers*
- ❑ Emergency Facility Procurement*
- ❑ Emergency Communications Procurement*
- ❑ Telephones*
- ❑ Fax Machine*
- ❑ Cellular Telephones*
- ❑ Pagers*
- ❑ Emergency Mobile Equipment*
- ❑ Emergency Administration Procedures*
- ❑ Personnel*
- ❑ Program Control*
- ❑ File Storage/Retrieval*
- ❑ Supply*
- ❑ Financial/Procurement*

* - If required.

INCIDENT COMMAND TEAM

(September, 2006)

Incident Commander – Russ Eckman
Office: 916-375-6004
Cellular: 916-952-8445
Pager:
Home:

Operations Section Chief – Vacant
Office:
Cellular:
Pager:
Home:

Planning/Intelligence Section Chief – Phil Carey
Office: 916-375-6000
Cellular: 916-799-4227
Pager:
Home:

Logistics Section Chief – Jacqueline McGill
Office: 916-375-6003
Home:

Finance/Administration Section Chief – Sharon Engleman
Office: 916-375-6000
Home:

CONTACT LIST

(September 2006)

Business Resumption Plan Appendix C is the annual "Flood Emergency Phone Numbers" card published by the Division of Flood Management. The following numbers supplement that card:

Russ Eckman, Superintendent	
Office	916-375-6004
Cellular	916-952-8445
Pager	
Home	
State Department of Health Services	916-653-2799
Sacramento Project Headquarters	
Jon Hickey, Project Safety Office	916-322-4148
California Highway Patrol	
Non-emergency, (8am – 5pm)	916-657-7261
(24 hr.)	916-861-1300
Non-emergency, Woodland	530-662-4685
CHP Dispatch	916-323-3844
CHP Emergency	911

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Earthquake Engineering

Fleet Management Office

Division of Flood Management

Hydrology and Flood Operations Branches

Flood Project Inspection Section

California Energy Resources Scheduling

Joint Operations Center Common Infrastructure

Division of Technology Services

Data Center

Network and Communications Support Office

Public Affairs Office

Division of Safety of Dams

Division of Fiscal Services

Division of Management Services

Departmental Services Office

Personnel Office

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Operations and Maintenance
Operations Control Office
3310 El Camino Avenue
Sacramento, CA 95821

A Component of the
DWR Business Resumption Plan

Appendix B: Operations Control Office
Function Recovery Action Plan

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PURPOSE

The purpose of this Recovery Action Plan is to identify overall preventative and recovery strategies to ensure continuation of the supporting business functions of the Operations Control Office for directing overall State Water Project operations and maintenance.

The plan is an element of the overall DWR Business Resumption Plan, requires integration with the development of other elements, and requires periodic updating as procedures, equipment, and personnel change, and as experience is gained through actual use or in the implementation of planned exercises.

Business functions include daily water and power Project operations, studies for projecting water availability and to provide guidelines for flood operation, negotiating the sale and purchase of electrical power as required for the economical operation of SWP pumping and generating plants, and executing its water and power operations. The RAP addresses the business functions and recovery measures by individual section and also identifies general procedures to review and update the document including exercises and/or demonstrations.

The RAP builds upon and is used in conjunction with other plans and documents referenced in the RAP to ensure continuity of operations and recovery from various incidents and disasters. These plans include:

- *Appendix B Recovery Action Plan, Joint Operations Center Common Infrastructure* – This plan is intended to supplement other Appendix B Function Recovery Action Plans written to address the more detailed operational continuity and recovery requirements of specific units housed in the Joint Operations Center (JOC). It specifically discusses joint use equipment, components, and service infrastructure used in common by multiple JOC tenants.
- *DWR Computer Operations Recovery Plan* – Section 2.200 addresses data information storage and equipment needs of the Project Operations Center.
- *DWR Operations and Maintenance Order E-PC 600.19A* – Implements Section 2.200 of the Computer Operations Recovery Plan to address disruption of essential computer services for the POC and to satisfy the North American Electric Reliability Council Operations Planning Policy 6 which requires back-up plans for the Project Operations Center.
- *DWR Emergency Response Plan*
- *Delta Field Division Emergency Action Plan*
- *DWR Strategic Business Plan*
- *Emergency Action Plan, Employee Handbook*, Joint Operations Center.

The *Emergency Action Plan, Employee Handbook* for the Joint Operations Center outlines employee safety measures for events such as bomb threats and earthquakes. That plan was developed jointly by the agencies occupying the building as a building occupant emergency plan. While it does establish a command center and support staff to address events such as fire, floods, and explosions, it does not address continuity and recovery of business functions.

INTRODUCTION

The Operations Control Office is a 24-hour operation critical to the continued operation of the State Water Project and plays an important role in the Department's Mission. The OCO is located in the Joint Operations Center, a leased multiple occupancy building at 3310 El Camino Avenue in Sacramento. Some of the co-tenants require open public access during normal working hours. Although several other entities located within the Joint Operations Center contribute to the business functions of the OCO, the RAP does not address the business functions and needs of these other entities. However the RAP can serve as a model for these entities to prepare and execute similar measures to ensure continuation of their business functions.

Within the OCO the Project Operations Center operates 24 hours a day, 7 days per week. It is staffed with two Water and Power Dispatchers and a Senior Water and Power Dispatcher acting as shift supervisor. There are three operator consoles for the operators. There is a fourth console that is used for training and for development work. The POC has a large static map board with a map of California that is overlain with the facilities of the State Water Project. The map board is populated with digital displays indicating various water and power data, and status light indicating warning and alarm states for the SWP facilities. Electrical power to POC is supported with an Uninterruptible Power Supply.

Although the RAP acknowledges the coordination with environmental and regulatory agencies in developing, planning and implementing SWP operations to meet fish, water, and environmental requirements for the Delta, it does not identify preventative and/or recovery measures for those agencies.

ORGANIZATIONAL STRUCTURE

During recovery from a disaster, event, or incident that results in loss of function or access the Operations Control Office will be organized in accordance with the Standardized Emergency Management System (SEMS). A feature of the SEMS is the Incident Command System that includes incident organization, incident facilities, an Incident Action Plan, and span of control.

SEMS utilizes standard organization techniques, common terminology, and common functions and responsibilities applicable to almost any kind of emergency. SEMS allows considerable flexibility and adaptability in a wide variety of situations. While details of a particular situation may vary widely the functions carried out to deal with them are common to almost any kind of emergency. SEMS has been used for a wide variety of emergency management activities in California. California law requires the use of SEMS by State agencies, and all State agencies and many city and county governments in California have implemented SEMS since it became law in 1996.

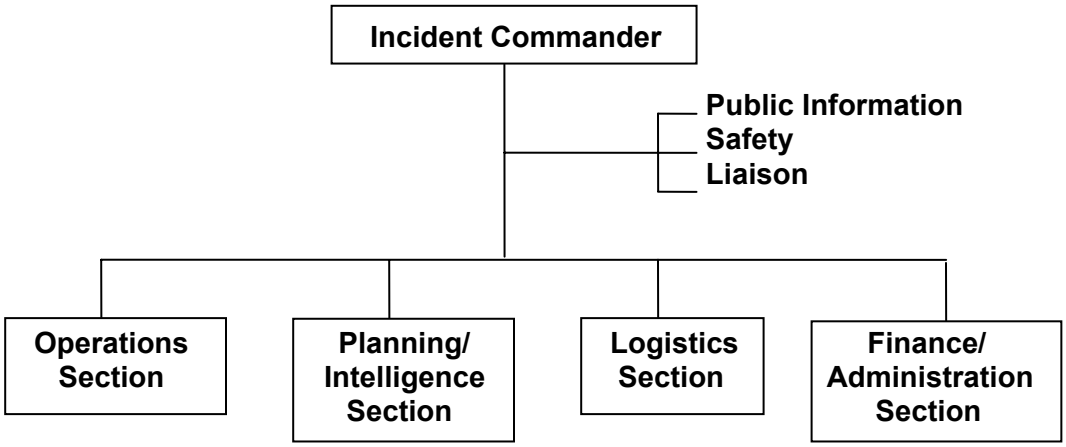
The OCO has established an Incident Command Team to carry out the plan. Its purpose is to manage an incident-specific response and resource allocation following a disaster or other emergency condition affecting the operation of this facility of the State Water Project in order to achieve specific business recovery objectives effectively and timely.

Incident Command Post

As a result of the Operations Control Office's remote location from Department Headquarters a separate Incident Command Post will be established to manage the site-specific response and allocate resources to achieve specific business recovery objectives. This ICP will be responsible for addressing the five primary management functions of ICS: Incident Command, Operations, Planning/Intelligence, Logistics and Finance/Administration. The individuals for each role are identified below along with their responsibilities. In addition, an alternate has been identified that must be prepared to carry out the responsibilities in the event the lead individual is unavailable.

The ICS structure is shown below followed by a brief description of the duties of each position related to the Recovery Action Plan.

Figure 1, OCO Incident Command Post Organization



Incident Commander

The Incident Commander is responsible for establishing overall emergency goals and objectives and for coordination of recovery activities. The IC may assign personnel for both a Command Staff and a General Staff. The Command Staff provides Public Information, Safety, and Liaison services for the entire organization. The General Staff are assigned major functional authority for Operations, Planning/Intelligence, Logistics, and Finance/Administration. Assignments to these positions can be made in the event the individuals identified below are not available.

Operations Section

The Operations Section Chief is responsible for implementing the recovery plan and coordinating all jurisdictional functions in support of the response to the emergency. The Operations Section Chief identifies, assigns and organizes resources that may be necessary during an incident to achieve identified objectives.

Planning/Intelligence Section

The Planning/Intelligence Section Chief is responsible for collecting, evaluating, and displaying information regarding the incident. Other responsibilities include planning demobilization efforts, maintaining resources status information, and documentation of the incident. In addition, the P/I Chief is responsible for developing Incident Action Plans, and conducting long range planning to identify activities and resources needed in the future.

Logistics Section

The Logistics Section Chief is responsible for organizing, tracking, and allocating services and support needs of an incident including and obtaining essential personnel, facilities, equipment, and supplies assigned by the Operations Chief.

Finance/Administration Section

The Finance/Administration Section Chief is responsible for ensuring that activities related to the recovery plan are tracked, accounted for, paid and other on-site financial management as needed. Potential units in this section include Time Unit, Procurement Unit, Compensation/Claims Unit, and Cost Unit. However, not all of the units may be required, and they will be established based upon need.

Project Operations Center Emergency Management Team

In addition staff personnel have been identified under the Planning/Intelligence Section for managing a specific response and allocation of resources to restore the scheduling and dispatching of water and power operations. Immediately following an occurrence or incident that is estimated to disrupt essential Project Operations Center functions for more than 24 hours, the POC Emergency Management Team, as described below, is to be activated.

Emergency Manager

The Emergency Manager is responsible for instituting and coordinating dispatching procedures from the backup POC location.

Assistant Manager

Serves as an alternate Emergency Manager.

Computer Equipment Manager

The Computer Equipment Manager is responsible for acquiring and installing any required computer hardware necessary to make the POC backup operational.

Data Communications Manager

The Data Communications Manager is responsible for acquiring and installing necessary data communications into the backup POC location.

Software and Data Manager

The Software and Data Manager is responsible for installing backup software and restoring all programs and data files required for backup POC location.

Voice Communications Manager

The Voice Communications Manager is responsible for acquisition and installation of necessary voice communications into the backup POC location.

FUNCTIONS

The Operations Control Office directs the overall water and power operations of the State Water Project. The OCO is responsible for daily water and power operations of the Project and coordinates its operations with environmental and regulatory agencies. The OCO also coordinates with other Department Divisions and Offices as well as State, federal, and State Water Contractor agencies as well as public and private power utilities to develop studies for projecting water availability and to provide guidelines for flood operation. In addition there exist several interdependencies between the POC and other organizations or DWR business functions that affect its ability to perform POC business functions as described below:

Other Organizations

CA ISO – The Independent System Operator coordinates electrical power scheduling and transactions between organizations including the Department. This coordination results in the validation of balanced load and resource schedules. It also manages the reliability of the transmission grid through which the Department's electric power is delivered to its facilities. State Water Project Operations cannot be performed without communication with the ISO.

CA Power Exchange – The PX acts as a market clearinghouse establishing the market clearing price for electricity bought or sold in California.

DWR Division of Flood Management – DFM provides hydrological data for use in preparing SWP operations and provides real time data through the California Data Exchange Center for multiple monitoring stations. During flood conditions DFM provides near-term runoff forecasts that are essential to operate SWP flood control facilities and provide protection to life and property.

PG&E –- Pacific Gas & Electric provides transmission rights for Department energy through existing contracts. It also serves as the scheduling coordinator for businesses in its service area.

SCE – Southern California Edison provides transmission rights, exchanges of capacity, and energy through existing contracts. It also serves as scheduling coordinator for businesses in its service area.

SBC – Provides communications links between the Department and outside organizations such as the fiber optic network.

USBR CVO – The USBR Central Valley Operations controls the operations of the Central Valley Project and is essential for coordinated operations of the CVP and SWP in meeting contractual and regulatory requirements.

U.S. National Weather Service – The NWS provides weather forecasts for SWP operations.

The following is a simplified classification of the OCO business functions. Although there is considerable coordination between the OCO and other entities, as described above, in carrying out its business functions, the RAP does not identify preventative and/or recovery measures for those entities. In addition, the importance of certain functions can vary by season, water year conditions, and the developing nature of the electrical market.

Critical Functions – These functions are critical to continuing operations of the Project Operations Center and must be restored to a minimum operating level in **less than** 24 hours.

Real-time water and power operations (scheduling facility operations) – The POC adjusts water schedules established in advance by the Water and Power Scheduling to meet real-time needs. It coordinates operation of facilities to meet planned or adjusted schedules.

Maintain balance of loads and resources (Selling/purchasing energy) – The POC coordinates real-time purchasing and selling of power for SWP facilities.

Provide facility operations schedules to the five Area Control Centers – The POC provides overall direction in implementing facility operations to the Area Control Centers.

Backup Area Control Centers – The POC can remotely operate all SWP operations from its location as needed in the event any ACC is unavailable.

Coordinate operations for response to SWP emergency response – The POC serves as the coordination point for responses to SWP emergencies.

Centralized outage clearinghouse – The POC acts as the clearinghouse for assuring safety in switching and clearances for repair of SWP facilities.

Critical Support Functions - These support functions are critical to maintaining operations of the POC and must be restored to a minimum operating level in **less than** 24 hours.

Data Communications – Provide connectivity services of fiber optics and microwave essential in transmission of project facility operational data.

Voice Communications – Provide phone and FAX services necessary to continue project operations.

Operations Information Storage – Maintain operational scheduling and reporting information.

Information Technology Service – Provide general computer and software support including hardware acquisition and internet and intranet connections.

SCADA – Supervisory Control And Data Acquisition software and computer system that monitors project facility operations, stores data, and communicates the information to the Project Operations Center.

Environmental Control System – Provides control of working environmental conditions for personnel as well as equipment.

Power Supply – Provides necessary building service to continue operation of equipment and other utilities to maintain business functions.

Water Supply – Provides needed water for environmental control system and other needed utilities to continue business functions.

Essential Functions – These functions can be suspended temporarily, but must be restored within 5 days to ensure continuation of critical functions and OCO operations.

Pre-Scheduling and Outage Section – Prepares hourly SWP operation schedules and coordinates the purchasing and selling of energy. Provides oversight of facility outages. The interface with the ISO is becoming more complex, thus making Pre-scheduling more critical

Operations Scheduling Section – This section coordinates scheduling of water deliveries and power necessary to operate the SWP to meet identified objectives.

Power Reconciliation Section – This section administers the accounting for electrical energy purchased and sold by the Department. This includes billing, paying, and settlement of disputes with other organizations.

Delta Environmental Compliance Section – This section monitors water quality and project operations to ensure compliance with regulatory and contractual obligations.

Necessary Functions – These functions generally support essential or critical functions and must be restored within 21 days or may become essential or critical to continuing operations of the POC.

Mobile Equipment – Transport of backup tapes to and from depository is necessary to ensure operations data is available if needed.

Purchasing/Supplies – Under a disaster scenario immediate purchases could be made with Department Purchase Orders and/or credit cards, but large purchases would likely require more formal procedures. Supplies to maintain office operations will be necessary to continue business functions.

Accounting – Services to maintain agreements and/or contracts with organizations conducting business with the SWP operations need to be implemented. Continuation of payroll can become an issue with dispatchers who typically receive bi-weekly warrants.

RECOVERY ACTION PLAN

Note: *The OCO constantly maintains an Incident Action Plan that covers the structure and activation of the OCO Incident Command Team and the OCO Emergency Operations Center. Since the JOC is a 24-hour operation, the OCO Incident Commander during non-business hours (1700-0700) is the senior dispatcher on duty. If the JOC must be evacuated, the senior dispatcher will activate the Incident Command Team.*

This Recovery Action Plan follows the Standardized Emergency Management System as a method of managing both large and small incidents that may affect business functions of the Operations Control Office. The Operations Control Office is operational 24 hours a day and the impact of an incident, which impairs business functions, is experienced immediately. This Plan provides instructions on how to activate the recovery effort, procedures to be used before services and resources are restored, procedures to restore interim operations, and procedures to re-establish critical operations.

In addition to the interdependencies described earlier, the OCO is also dependent on other outside organizations for services and/or support that may affect its ability to continue performing its business functions. For example, the power for the building is provided by SMUD, gas service for building heating system is provided by PG&E, water is provided by the County of Sacramento, and sewer service is provided by the Sacramento Regional Sanitation District. Although measures can be taken to address temporary loss of these and other services, this plan does not address recovery measures for these and other organizations the OCO is dependent upon.

Plan Dissemination and Periodic Updates

Dissemination of information contained within the RAP and personnel training (including SEMS/ICS) are essential to producing and implementing an effective Business Recovery Action Plan.

Each employee will receive a copy of the plan to be kept offsite. Because this plan contains contact phone numbers, it should be considered a confidential document, and shared with non-DWR staff only when necessary.

Each year, the plan will be reviewed and the Incident Command Team roster and Contact List will be updated.

Copies of the RAP will be provided to the DWR Emergency Preparedness Manager, the Chief of the Division of Operations and Maintenance, and the Departmental Services Office.

Disaster Scenarios

This plan defines three types of disasters:

- **Loss of Function** – A temporary loss of one or more functions.
- **Loss of Access** – A disaster of other incident preventing access to the Operations Control Office.
- **Loss of Facility** – A disaster resulting in the destruction of the Operations Control Office.

Loss of Function – The following are initial steps to activate the recovery effort for temporary loss of function due to incidents such as fire, power outages or computer failure.

- Determine extent of function loss and availability of back-up and/or redundant processes. Implement specific recovery measures for a particular business function.
- Notify the DWR Emergency Preparedness Manager and/or the Department Operations Center as defined in the DWR Business Resumption Plan.
- Notify the Operations Control Office Incident Command Post and the POC Emergency Management Team.
- If function loss requires relocation of the Project Operations Center, follow procedures outlined in the section Alternative Sites below.

Loss of Access – The following are initial steps to activate the recovery effort for inaccessibility to a work site due to bomb threat or public disruption. Documents, equipment and business functions can continue at the facility, but staff is unable to gain access. Although access may be restored sometime in the future, business functions must be carried out during the interim.

- Determine extent of damage and/or safety of staff on site.
- Notify the DWR Emergency Preparedness Manager and/or the Department Operation Center as defined in the DWR Business Resumption Plan.
- Notify the Operations Control Office Incident Command Post and the POC Emergency Management Team.
- If function loss requires relocation of the Project Operations Center, follow procedures outlined in the section Alternative Sites below.

Loss of Facility – The following are initial steps to activate the recovery effort if the work site is destroyed, including documents and equipment. Staff is unable to gain access due to earthquake, or fire and access will not be restored until sometime in the future. Alternative measures for carrying out business functions must be implemented including alternative sites, copies of data/documents, and back-up equipment.

- Determine extent of damage and safety of staff on site. An in-depth assessment of physical plant condition is to be performed by A & A Properties since this is a leased facility. The contact is the Building Manager at (916) 381-3843 or after hours at (916) 344-5034.

- Notify the DWR Emergency Preparedness Manager and/or the Department Operation Center as defined in the DWR Business Resumption Plan.

- Notify the Operations Control Office Incident Command Post and the POC Emergency Management Team.

- Mitigate the effects of the disaster AFTER obtaining clearance, as necessary, from fire, toxic, electrical, and building personnel. If site clearance cannot be obtained within one hour assume, for interim operations, the center is a total loss.

- Assess impact on equipment: Determine which subsystems are (A) operational, (B) field repairable, (C) must be replaced in total, and (D) can be eliminated from the system. Note: Use vendor personnel where available.

- Assess conditions of physical plant. A & A Properties will perform this task since this is a leased facility. If the physical plant has other than minor damage, management should be notified and interim operations should be put in place.

- Relocate the Project Operations Center as outlined in the section Alternate Sites below.

Alternate Sites

The primary catastrophic back-up location for the POC is identified in the Operations Control Office Standard Operating Order E-PC 600.19A as the Resources Building at 1416 9th Street. The POC would be relocated to the 7th Floor in the Data Center. This facility is designed as a temporary location to facilitate continuation of project operations. However, this facility was not developed to provide long-term operations due to space and equipment limitations. This room has a sufficient number of terminals, UOI's and PCs that are connected to the backup computers (UNISYS Dorado 140 and DEC Alphaservers) and necessary real-time data communications plus voice communication so that all critical functions of the POC can be carried out. The UNISYS Dorado 140 and the DEC Alphaservers in the computer room on the 7th floor have been configured to provide backup computer support for all SCADA functions and the continued scheduling, dispatching, and accounting for the Project's water and power operation. Software is available from the vault in the 7th floor computer room and the National Safe Depository.

The Delta ACC operates as the reporting location for operational changes during the transition of the POC to any backup location. However, it cannot provide a secondary catastrophic back-up location since an ECN (direct communication link to the ISO) must be established in order to implement business functions associated with the ISO/PX.

The following procedures will be carried out to restore critical operations at the alternate site until full operations can be restored.

- The Delta ACC operator (POC dispatcher if time permits) will notify all field division ACCs and other outside agencies that an emergency affecting the primary POC has occurred, and that their contact for the Project is to be the Delta ACC until such time as the catastrophic backup POC is in operation. Such notification will be carried out in conformance with the procedures contained in O&M Standing Operating Order EC 600.19A

- The Board Dispatchers and Scheduling and Outage Managers will relocate to the seventh floor of the Resources Building.

- The most recent copy of the production software and databases from the OCO production site will be loaded on the UNISYS Dorado 140 computer in the 7th floor computer room.

Procedures to be used when operating in degraded mode
Operations in the backup location will focus on providing the minimum business functions necessary to continue project operations. Flexibility in the business functions will be provided to react to changing needs and those functions may change as necessary to adapt to specific situations.

Procedures to re-establish normal operations.
Following establishment of interim operations from the backup center, resources will be allocated to the establishment of full dispatch capability from the primary POC location. This will consist of the acquisition of replacement computer hardware, other peripheral equipment, and restoration of all real-time data communications.

Dispatchers will reestablish control of the SWP from the primary POC location. Once the primary POC establishes firm control of the water and power operations of the SWP, the dispatchers at the catastrophic backup POC location will be released.

Notification Procedures

- Determine extent of function loss and availability of back-up and/or redundant processes.

- Determine extent of damage and/or safety of staff on site.

- Notify the DWR Emergency Preparedness Manager and/or the Department Operation Center as defined in the DWR Business Resumption Plan.

- Notify the Operations Control Office Incident Command Post.

- Notify the Building Manager at (916) 381-3843 or after hours at (916) 344-5034.

Check List

The Emergency Action Plan for the Joint Operations Center lists specific emergency procedures to address:

- ❑ Evacuation
- ❑ Injury and Illness
- ❑ Fire
- ❑ Bomb Threats
- ❑ Bomb Search and Location
- ❑ Explosions
- ❑ Weapons
- ❑ Assault
- ❑ Hostage

- ❑ Demonstrations
- ❑ Earthquake
- ❑ Flood, and
- ❑ Hazardous Materials

Resources List

The following is a general summary of the minimum resources necessary to continue business functions of the Operations Control Office. Sharing of resources will be implemented to the extent feasible where resources are repetitive.

Minimum Staff Requirements – The minimum staff necessary will be those necessary to run the POC and provide minimal hardware and software support to continue operations.

- Senior Dispatcher
- Water Dispatcher
- Power Dispatcher
- Scheduling Dispatcher
- Software Support Staff
- Hardware Support Staff

Information Technology – This includes hardware, software, and all the necessary equipment to perform the business functions of the office.

Personal Computers

- Pentium Processors w/ 21" Monitors (4 each)
- Laserjet Printers (2 each)

UNISYS computer equipment

Qty Style	Description
1 CS7412-2	SYS:SGL DOMAIN, ZERO MB,
1 INI7-1GB	MEM:INITIAL ORDER MEMORY
1 UPG7002-INT	UPGRD:2ND DOMAIN W/O 220
1 UPG7822-INT	UPGRD:INTEL NODE
5 PCI3-MOD	I/F:PCI MODULE 3.3 VOLT
2 FCH720113-P64	CTRL:FIBRE GLS LP8000 ES
2 ETH23312-P64	LAN HW:GIGABIT ETH CPR
1 PCI2053-12	I/F:PD2 POD 5&3V W/BRD
1 ETH32112-PCI	COMM HW: 10/100MBPS, 1CH
1 ES70036-RIP	DISK:2X36GB DISK/RAID CT
1 PSP7490016-2MH	PROC:4X900MHZ HV SUBPOD
1 RAM7-8GB	MEM 8 GB MEM.1GB DIMM
2 DSH600004-TBT	CABLE:TW PAR 10BAST,4M
1 SWX16-BAS	INSTL:BASE SWITCH SYS, 1
2 OSM1000-PRC	PWR CORD:IEC320-C13/C14
1 USE1936-LC6	PWR CORD:C20/NEMA L6-20P
2 HMP5000-WS	WRKST:HMP WORKSTATION
2 CS7802-CNS	CONSOLE:VOYAGER
2 TPI264011-DAT	TAPE:40GB 26I DDS4 NC

2 ADP68501-FTF	ADPTR:68 TO 50 PIN FEMAL
2 ES202141-PS	POWER:250 WATT HOT PLUG
2 B25-LC	PWR CORD:LINE CORD
1 CS7802-KIO	COMM HW:CSIOPK PC ASSEMB
3 PCI32-GEC	COMM HW:32B PCI 1G ETHER
2 FTE25-3U	INSTL:3U FEEDTHRU W/25FT
2 FTE25-6U	INSTL:6U FEEDTHRU W/25FT
1 RM5-CA4	INSTL:CHANNEL ADPTR MOD
2 FCA662-SW	COMM HW:HGH PERF FIBRE C
2 CA3000-ETH	I/F: ETHERNET
2 CA332-SCI	ADPTR:DIFF SCSI 2W ULTRA
1 DSA27200-LTO	TAPE:LTO 200 GB LVD
2 APA1000-AC2	POWER:AC ENTRY MOD 3 PH
1 MDM56-LAN	COMM HW:56K LAN MODEM
1 MON2145-LCD	DISPLAY: 1U LCD MONITOR
1 CBL121-SWC	CABLE:12FT SYS TO ADJ RK
7 DSH600015-TBT	CABLE:TW PAR 10BAST,15M
4 VX4000-XCR	COMM HW:TRANSCEIVER
1 GCS577046-873	GROUNDING KIT - REF GROU
1 OST5136-1D1	TAPE:1 RM 36TRK DRV 1ACL
1 CBL133-20	CABLE:20 FT SCSI-3 CABLE
1 OST5136-1D1	TAPE:1 RM 36TRK DRV 1ACL
1 CBL133-20	CABLE:20 FT SCSI-3 CABLE
2 ADP25421-FTM	ADPTR:VHD68 TO HD68
1 CAB8530-73	EMDDISK:8530-73CAB8530-7
2 DSK8031-36M	EMCDISK:35.8GB MIRRORED
2 DSK8031-73M	EMCDISK:72.17GB MIRRORED
1 MEM2048-3	EMCDISK:2048MB CACHE MEM
2 DPC3-FC3	EMCDISK2GB FC DIR 4PT MU
4 FC30-M	EMCDISK:FC30M-50M
1 SYM1000-US	EMCDISK:MODEM USA

Communications Equipment – Equipment necessary to continue voice and data communications. Includes specialized equipment to recover Local Area Network (LAN), phone systems, etc.

<u>Equipment</u>
- Multi-line Phones (4 each)
- Facsimile Machines (2 each)
- Cellular Phone/Pagers
- Copier

<u>Data communication lines</u>
- PMS-A
- PMS-B
- DELTA FD-NORTH
- DELTA FD-SOUTH
- SAN JOAQUIN FD-NORTH
- SAN JOAQUIN FD-SOUTH
- SAN LUIS FD-NORTH

- SAN LUIS FD-SOUTH
- SOUTHERN FD-NORTH
- SOUTHERN FD-SOUTH
- OROVILLE LINK-A
- OROVILLE LINK-B

Voice communication lines

- POC TO OROVILLE ACC
- POC TO DELTA ACC
- POC TO SAN LUIS ACC
- POC TO SAN JOAQUIN ACC
- POC TO SOUTHERN ACC

Additional Support Staff – Staff necessary to perform business functions in support of critical and/or essential office functions.

- Water and Power Pre-Scheduling - The close coordination necessary between this section and the POC would require relocation to offices in close proximity of the POC.

- Operations Scheduling - The close coordination necessary between this section, Water and Power Pre-Scheduling, and the POC would require relocation to offices in close proximity of the POC.

- Power Reconciliation - The close coordination necessary between this section, and Water and Power Pre-Scheduling, would require relocation to offices in reasonable proximity of the POC.

- Compliance Monitoring - The coordination necessary between this section, Operations Scheduling, Water and Power Pre-Scheduling, and the POC would require relocation to offices in reasonable proximity of the POC.

- Records and Reports - The close coordination necessary between this section, Power Reconciliation, Water and Power Pre-Scheduling, Operations Scheduling, and the POC would require relocation to offices in reasonable proximity of the POC.

- Administration - The close coordination necessary between this section, and other supporting sections for the Operations Control Office require relocation to offices in reasonable proximity.

- Data/Vital Records - Data/records necessary to continue specific business functions.

Plan Administration

Implementation of the Operations Control Office - Recovery Action Plan (OCO-RAP) requires advance planning, scheduled exercises, ongoing updates, and coordination. The following is a general description of the administrative activities necessary for implementation of the plan.

- Advance planning to ensure availability of resources necessary to continue business functions.

- Scheduled exercises provide the opportunity to ensure the plan is up to date, identify potential areas for improvement, and familiarize staff with the plan.

- Coordination prior, during, and following plan implementation is necessary since many of these functions are reliant on outside organizations in developing, planning and implementing SWP operations to meet fish, water, and environmental requirements for the Delta.

- Although several other entities located within the Joint Operations Center contribute to the business functions of the OCO, the RAP does not include these other entities at this time. However, the RAP can serve as a model for these entities to prepare and execute similar measures to ensure continuation of their business functions

- This plan will also require integration with the development of an overall Department Business Resumption Plan. In addition, it will require updating as procedures, equipment, and personnel change and as experience is gained through actual use or in the implementation of planned exercises to ensure continuation of OCO business functions.

INCIDENT COMMAND TEAM
(September 2006)

OCO Incident Command Post

Incident Commander: Terry Dennis, POC Chief
O: (916) 574-2693; H: C: (916) 709-1284;

Alternate: Glenn Solberg, Assistant POC Chief

Operations Section Chief: Tio Zasso, Outage Planning Section
O: (916) 574-2769; H: C: (916) 715-1028

Alternate: Tuan Bui, Special Projects and Analysis Section

Planning / Intelligence Section Chief: John Leahigh, Project Operations Planning Branch Chief
O: (916) 574-2722; H: C: (916) 801-6310

Alternate: Lori Mathis, Operations Scheduling Section Chief

Logistics Section Chief: Dan Hester, POC Engineering Section Chief
O: (916) 574-2683

Alternate: Guy Masier, Operations Records and Reports Section Chief

Finance/Administration Section Chief: Jessica Roles, OCO Administrative Assistance
O: (916) 574-2651; P: (530) 521-2516; H:

Alternate: Linda Sprecher, OCO Administrative Assistant

POC Emergency Management Team

Emergency Manager: Terry Dennis, Chief Water and Power Dispatcher
O: (916) 574-2693; H: C: (916) 813-1297;

Assistant Manager: Glenn Solberg, Assistant Chief Water and Power Dispatcher
O: (916) 574-2671

Computer Equipment Manager: Joel Ledesma, Project Operations Support Branch Chief
O: (916) 574-2680

Data Communications Manager: Debbie Lewis-Barbour, Network Management Section Chief, DTS Network and Communications Support Office
O: (916) 653-8737;

Software and Data Manager: Marilyn Kehlet, System Software Support Section Chief
O: (916) 574-2744; C: (916) 539-0872; H:

Voice Communications Manager: Chuck Leni, LAN and Telecommunications Branch Chief, DTS Network and Communications Support Office
O: (916) 654-0707

CONTACT LIST
(September 2006)

SWP Facilities	Public Number
Oroville Field Division	(530) 534-0276
Delta Field Division	(209) 833-2180
San Luis Field Division	(209) 827-5300
San Joaquin Field Division	(661) 858-5560
Southern Field Division	(661) 944-8600

SUPPORT/SERVICES ORGANIZATIONS

Organization	Emergency Contact Number
CA Independent System Operator	(916) 351-2489
SBC	(916) ___-____
SMUD	(916) 732-5177 Real-time Operations
PG&E	(415) 973-1968 Shift Supervisor
City of Sacramento	(916) ___-____
County of Sacramento	(916) ___-____

JOC EMERGENCY TEAM

	Office	Cell
Emergency Coordinator		
David Haynes	(916) 574-2485	(916) 296-6902
Alternate, Jaima Spencer	(916) 574-2987	(916) 717-9843
Lower Level Warden		
Lori Buford	(916) 574-0609	
Alternate, Cindy Ungacta	(916) 574-1213	
First Floor Warden		
Amanda Bedal	(916) 574-1293	
Alternate, Lynne Bitnoff	(916) 574-1294	
Second Floor Warden		
Ray Welch	(916) 574-2631	
Alternate: Lenore Keen	(916) 574-2870	
Third Floor Warden		
Tio Zasso	(916) 574-2769	
Alternate: Erma Ash	(916) 574-2650	

OUTSIDE AGENCY PHONE NUMBERS

Agency/Contact	Number
Los Angeles Department of Water and Power/ Senior Load Dispatcher	(818) 771-6633
Metropolitan Water District Dispatch	(626) 844-5610
Nevada Power Company System Dispatcher	(702) 451-2086
Office of Emergency Services Warning Controller	(800) 852-7550 (916) 845-8911
Pacific Gas and Electric Shift Supervisor	(415) 973-1968
Pine Flat Power Plant Senior Operator	(559) 787-2577
Southern California Edison Grid Ops Real Time Dispatch	 (626) 308-6717 (626) 307-4403
US Bureau of Reclamation System Controller	(916) 988-8114
Western Area Power Administration Dispatch	(916) 353-2200
State Water Contractors	(916) 447-7357
Bonneville Power Authority	(503) 230-3341
Safety of Dams	(916) 227-4628
NCPA Dispatch	(916) 786-3510
Federal Energy Regulatory Commission	(415) 369-3300

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Operations and Maintenance
Control Systems Branch
Resources Building
1416 Ninth Street, Room 640
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix B: Control Systems Branch
Function Recovery Action Plan

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Control Systems Branch
Function Recovery Action Plan

1.0 Organizational Structure

The Control Systems Branch of the Operations Support Office provides engineering development and other technical support for the control systems used by system operators in the Project Operations Center, the five Area Control Centers, and the various hydroelectric plants and other facilities that make up the State Water Project. The control systems are designed to include various backups and alternate control modes that can be invoked by system operators as needed to protect against foreseeable failures and catastrophic events. Additionally, the branch has technical resources to rebuild or restore operating systems that may have been destroyed by catastrophic events. To manage the response by the Branch to a catastrophic event, the following assignments are made.

1.1 Incident Commander

Primary: Chief, Control Systems Branch – Ed Trevino
Alternate: Chief, SCADA Systems Section – Joe Kimbriel
Alternate: Chief, Plant and Aqueduct Controls Section - Tom Ciszewski

1.2 Operations Chief

Primary: Chief, SCADA Systems Section – Joe Kimbriel
Alternate: POC Control Systems Specialist – Anthony Boardingham

1.3 Planning and Intelligence Chief

Primary: Chief, Control Systems Branch – Ed Trevino
Alternate: Chief, Supervisory Systems Section – Joe Kimbriel
Alternate: Chief, Plant and Aqueduct Controls Section – Tom Ciszewski

1.4 Logistics Chief

Primary: Chief, Control Systems Branch – Ed Trevino
Alternate: Chief, Plant and Aqueduct Controls Section - Tom Ciszewski
Alternate: Chief, Supervisory Systems Section – Joe Kimbriel

1.5 Finance/Administration Chief

Primary: Chief, Control Systems Branch – Ed Trevino
Alternate: Chief, Plant and Aqueduct Controls Section – Tom Ciszewski
Alternate: Chief, Supervisory Systems Section – Joe Kimbriel
(With support from Administrative Assistant – Debbie Benson)

2.0 Functions Performed by Control Systems Branch

The Control System Branch provides engineering and software services in support of the data telemetry and control center computer systems that provide remote, coordinated operation of the water conveyance, power generation, and turnout delivery features located throughout the State Water Project. A staff of 18 is located on the 6th floor of the

Resources Building with space that includes offices and a software laboratory containing the computers used to diagnose problems, develop new software applications, and maintain software backups for the on line systems. All SWP control centers are provided with redundant computer equipment and, except for the Oroville ACC, the control functions of the POC and each ACC can be transferred to a predefined alternate location. For the purposes of this plan, criticality of the functions provided by the control systems and the services provided by the branch can be summarized as follows.

2.1 Critical Functions – Restore within 24 hours

2.1.1 Water Deliveries

Water deliveries require the coordinated operation of pumping plants, generation plants, aqueduct check gates, and turnout facilities. Depending on the specific event, certain facilities potentially could be operated manually but, in general, water delivery requires remote POC or ACC control over all or most SWP facilities. The required equipment can be summarized to include SCADA control computers for the POC and ACC's, North Hub Front End Processor (FEP) at the Delta ACC, South Hub FEP at the Devil Canyon Power Plant, and primary or backup communication paths to control sites and plants along the aqueducts. Front End Processors for the Oroville Hydraulic sites are co-located with the ACC computer system.

2.1.2 Avoid SWP Facilities Failures

The control system provides protection for project facilities through remote water level monitoring and control. Loss of water level control can lead to mismatch in flows causing the aqueduct water levels to exceed rise or fall limits. Excess rises will cause the aqueduct to overflow, which in turn can result in damage to project or private properties. Excess or rapid reductions in water level may cause damage to the aqueduct. Protecting pumping and generation plants is not a function within the control systems. The control systems role in preventing facility failures is essentially the same as the requirement to deliver water.

2.1.3 Technical Support for On Line Systems

Following an event, Control Systems technical staff must have access to a minimum level of equipment needed to provide assistance for field technicians and the POC/ACC operators. Full access is normally provided from the branch offices in the Resources Building but critical access can be from any POC or ACC operator's position except the Oroville ACC.

2.2 Essential Functions – Restore within 5 days

2.2.1 Power Deliveries

Operations on the electric power grid require normal interactions between the Control Systems, the Dispatch System, and the Independent System Operator (ISO). Communication paths provided by Communications Branch are required to exchange real time data with the ISO. If both POC SCADA and CBPOC SCADA were lost, power operations would be substantially curtailed.

2.2.2 Temporary Technical Support Base

Software backups for all control systems are kept within the Resources Building software lab with an added copy is retained at the Joint Operations Center. A technical support

base adequate to support a staff of 5 engineers for on line Critical (water delivery) and Essential (power delivery) functions must be available.

2.3 Necessary Functions – Restore within 21 days
Technical Development and Support Base
All branch personnel must be have a base of operation equivalent to the existing offices in the Resources Building. This base must have access to the SCADA Network, telephone services, adequate space, and electrical power to temporarily stage control equipment for off line testing prior to use in service. From this base, the necessary actions can be performed to restore or rebuild control system equipment that has been damaged or destroyed.

3.0 Recovery Action Plan

3.1 Scenarios for Disaster

3.1.1 Actions in the event a facility is inaccessible

3.1.1.1 Control centers; POC, CBPOC, and ACC's from Delta through Southern
The control functions for each of these centers can be assumed from an alternate location. The CBPOC provides a backup control center for the POC. The POC and CBPOC are backup control centers for ACC operations. The Oroville ACC has no functional backup.

The action plan for the POC staff and each individual ACC organization should be consulted for planned actions if their respective control centers become inaccessible.

3.1.1.2 Resources Building/Control Systems Branch Offices
Technical Support for On Line Systems will be relocated to the computer room at the POC upon notice that the branch offices are not accessible. The existing computer room space is adequate for two engineers to perform the required services. If conflict arises in the use of this space, the POC Training Console or any ACC operator position from Delta through Southern could be also used.

3.1.2 Actions in the event a facility is destroyed

3.1.2.1 Control centers; POC, CBPOC, and ACC's from Delta through Southern (excluding Oroville)
The control functions for each of these centers can be assumed from an alternate location. The plan for the POC staff and each ACC organization should be consulted for actions if their respective control centers are destroyed. No alternate for the computer system within the Oroville ACC exists.

3.1.2.2 Temporary Technical Support Base
A Temporary Technical Support Base will be implemented within the computer room at the POC. Adequate office space is reserved for the branch personnel on the 2nd floor and limited space exists within the computer room for 5 engineers to support the critical and essential systems for a limited period of time.

3.2 Actions in the event a function cannot be performed

3.2.1 Water Delivery Control

Delta through Southern Field Divisions – For each field division from Delta through Southern, three control centers and three different computer systems have the ability to operate the aqueduct; the POC, CBPOC, and the respective ACC. Transfer between these facilities is a software function controlled by system operators and requires no other intervention. These alternatives are called operational modes with NORMAL MODE from the POC control system in effect unless operational problems are encountered. The order of precedence for using alternate modes is defined in Standing Operating Order PC600.23 as follows.

Backup – CBPOC SCADA in control
Fallback – FD ACC SCADA in control
Lifeline (local backup) –, includes check sites only (except Oroville)

Oroville Field Division – No functional backup to the Oroville ACC exists. Loss of remote control from the ACC will require a manual operation and possible accommodating adjustments to water conveyance schedules.

3.2.2 Power Delivery Control

Power delivery normally requires the POC SCADA and its data connection to the ISO. Its functional backup is the CBPOC on the 7th floor of the Resources Building. Complete loss of both SCADA systems would cause power operations to be curtailed to prescheduled operations that would be implemented manually by plant operators.

3.3 Alternate Sites

Considerations to maintain control system functions from alternate sites are contained within the preplanned operating modes addressed in 3.2.1above.

Short-term options for continuing critical and essential control systems branch functions in the event the Resources Building were not available are identified in 3.1.1.2 and 3.1.2.2 above. No plan has been identified to relocate the Control Systems Branch on a long-term basis in the event an eventual return to the Resources Building is impractical.

3.4 Resources List

3.4.1 Control Systems Equipment

In general, sufficient redundancy exists within the control systems equipment that no immediate hardware replacements should be required to restore critical and essential functions. Exceptions are as follows

Checks, turnouts, and dams – These are control locations throughout the SWP and are widely separated geographically. Control systems equipment at these locations is not redundant and a control equipment loss at these sites requires manual backup control. Loss of control equipment at one or even a small number of individual sites is possible under some disaster scenarios but not to a degree that would exceed the ability to revert to manual backup operations.

Oroville ACC – The Oroville ACC has no functional backup.

3.4.2 Control Systems Software
Control system software is backed up weekly with copies stored within Control Systems Branch software lab. At least once a month a copy is stored at the JOC. Software for any RTU, any plant, and any control center within the SWP can be restored from these software backups.

3.4.3 Documentation
Reference manuals for both hardware and software exist only within the Control Systems Branch software lab. After some initial delay, vendor manuals can be replaced. As built documents that may be lost under a disaster scenario are largely also available within the respective field divisions as well and are a resource in recovery.

3.5 Notification

3.5.1 Notification of Event
The Incident Commander will notify the Department's Emergency Preparedness Manager immediately when an event occurs that requires implementation of the Facility and Organization Recovery Action Plan.

The Operations Section will notify staff of the emergency. Notification will include instructions, if needed, regarding a point of assembly, future contact procedures, and an initial procedure to carry out Headquarters units/offices functions.

Special notifications (hazardous materials, air quality, water quality, Cal/OSHA, etc.) as determined by the ICT, will be made by the Operations Section or its designee.

<u>Emergency Preparedness Manager</u>
Sonny Fong, Emergency Preparedness Manager Office 916/654-6135
Pager 916/592-7953
Home

3.5.3 Implementing Restorations
The Incident Commander for control systems will ensure that a complete assessment of impacts on operating control systems equipment has been performed. The Emergency Preparedness Manager will be apprised of the results. Any system changes or restorative actions will be coordinated using normal work procedures with the POC Outage Coordinator, the Senior POC Dispatcher on duty at the time or, the appropriate Area Control Centers if needed. Contacts for coordinating work are as follows.

POC Outage Desk 916/574-2782
POC Senior Dispatcher 916/574-2714
Oroville ACC 530/534-2416
Delta ACC 209/833-2180
San Luis ACC 209/827-5300
San Joaquin ACC 661/858-5560
Southern ACC 661/944-8800

3.5.3 Control Systems Branch Contact Points
These are the primary contacts within the Control Systems Branch

Contact	Work Phone	Home Phone	Pager/Cell
Chief, Control Systems Branch			
Ed Trevino	(916) 574-2606		(916) 947-7885
Chief, Plant and Aqueduct Controls			
Tom Ciszewski	(916) 653-8527		(916) 761-1889
Chief, Supervisory Control Systems			
Joe Kimbriel	(916)653-8181		(916)849-4778
POC Control Systems Specialist			
Anthony Boardingham	(916) 574-2710		(916) 834-4370

These additional persons can provide technical assistance under emergency conditions.

Associate Control Engineer (Control Centers)		
Gene Sours	(916) 653-4987	(916) 712-4635
Associate Control Engineer (Plants)		
Jon Edney	(916) 653-0437	(916) 803-8885
Associate Control Engineer (Aqueduct)		
Hans Pettersen	(916) 653-9630	(916) 769-6081

3.6 Checklist

Ensure safety of employees and public. Follow instructions of emergency personnel at the site.

Determine the extent of the damage to control systems equipment and the extent to which functions are compromised.

Determine the recommended restorative action based on the defined order of precedence for the use of alternate modes.

Apprise the Incident Commander, if on site, or the Senior Dispatcher on duty in the POC of the recommended restorative action.

If the Incident Commander and the Senior Dispatcher are not available, the Senior Operator on duty in each ACC should be contacted and apprised of the restorative action plan appropriate to them.

Remain on site and assist emergency support personnel as directed.

4.0 Equipment and Material Maintenance

4.1 Remote Terminal Units

Field Division technicians are provided with spare parts on hand to repair RTU failures as they occur.

4.2 SCADA System Computers

Computers for POC/CBPOC, the ACC's, and the major plants use Digital Equipment Corp. computers. The Control Systems Branch maintains service agreements with HP for onsite computer maintenance and repair. Service may be requested by the Chief, SCADA Systems Engineering Section or by the Control Systems Technician designated by each field division to place such requests.

4.3 Local Plant Control and Historical Data Recorders

Personal computers running control software are used for the plant control system as a backup to the SCADA system. These PC based systems are also the Historical Data Recorders (HDR). Replacement spare computers and their associated applications are stored in the Resources Building. To assume their role in any particular facility, these spares will require installation of appropriate software from the backup software libraries described above.

5.0 Recovery Plan Administration

5.1 Preplan Preparation

5.1.1 Plan Review

This plan must be reviewed at least annually to incorporate changes required by alterations in the systems or by changes in staff. Also, any new system features and functions discussed or planned for implementation, will include consideration for impact on existing capabilities to restore systems.

5.1.2 Software Backups

Control system software is backed up weekly with copies stored within Control Systems Branch software lab. At least once a month a copy is stored at the JOC. This process will continue unless further experience indicates a need for change.

5.2 Plan Exercises

5.2.1 Verifying Alternate Modes of Operation

Paragraph 3.2.1 described the alternate modes that are designed into the SCADA systems and can be invoked by the system operators. The schedules for verifying alternate modes as follows.

Mode	Frequency of Verification
POC NORMAL – ACC's in JURISDICTION	Every 6 Months or on DB update
POC NORMAL – Failover (verify redundancy)	Every 6 Months or on DB update
POC NORMAL – POC in JURISDICTION	Delta FD continuously with other FD
to follow upon migration to centralize operations.	
CBPOC BACKUP– ACC in JURISDICTION	Every 6 Months or on DB update
CBPOC BACKUP – POC in JURISDICTION	Every 6 Months or on DB update
ACC FALLBACK	Every 6 Months or on DB update

5.2.2 Tabletop and Functional Exercises

A tabletop exercise is a low stress conference room exercise where a scenario is presented, the RAP discussed, and actions and communications coordinated. Based on these discussions, the RAP is adjusted and revised as necessary. A tabletop exercise will be performed annually by the Control Systems Branch.

A functional exercise is an exercise that simulates the real emergency through the use of a master message list. A simulated ICP is created, communications passed and recorded with exercise simulators providing input and additional messages. This type of exercise is a fairly simple one that gives staff the opportunity to see Standard Emergency Management System (SEMS) and Incident Command Center (ICS) in operation. A functional exercise will be held once every five years.

5.2.3 Restoring Systems

The processes that would be required to restore or rebuild systems that may have been destroyed in an emergency event are potentially disruptive to online operations. The CSB does not plan to conduct trial exercises to demonstrate this capability.

6.0 System Backups and Recovery Procedures

6.1 General SCADA Recovery

Any instance of SCADA software for the POC and ACCs or plant SCADA from Delta through Southern Field Divisions can be rebuilt from the source code and database information residing on the computer known as DSA located in the CSB Software Lab.

Except for the Catastrophic Backup SCADA, all SCADA systems include an installed redundant processor as a hot standby. For most events, this standby provides immediate recovery for loss of the online computer. In the event that an entire SCADA computer hardware set is destroyed and replacements are not immediately possible, installed redundant computers at various other locations can be used to restore SCADA hardware as follows:

This Hardware	Can be Rebuilt From This Hardware
POC SCADA A or B (PCA, B) CatBack (CBA), Information Server (IGA) & (IGB)	Development System (DSA)
Delta ACC SCADA A or B (DTA, B) San Luis SCADA A or B (SLA, B)	San Luis SCADA A or B (SLA, B) Delta ACC SCADA A or B (DTA, B)
San Joaquin ACC SCADA A or B (SJA, B) Southern ACC SCADA (SLS, SLB)	Southern ACC SCADA (SLS, SLB) San Joaquin ACC SCADA A or B (SJA, B)
Any major plant SCADA A or B	Any major plant SCADA A or B
Any Plant/ACC hardware failure	Development Lab equipment

6.2 SCADA Runtime Software Recovery

In the event that the CSB Software Lab cannot be accessed to rebuild SCADA software, standardized software throughout the control systems allows any installed SCADA system, together with the backup tapes, to be used to rebuild the runtime software for any other SCADA processor.

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Operations and Maintenance
Earthquake Engineering
Resources Building
1416 Ninth Street
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix B: Earthquake Engineering
Function Recovery Action Plan

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Incident Command Team **7**

INTRODUCTION

The Earthquake Engineering Section of the Engineering and Test Branch is in the Water and Plant Engineering Office of the Division of Operations and Maintenance. The physical locations are in Rooms 204-7, 204-10, 204-12, and 204-13 of the Resources Building.

EE has a two-part mission. The first is to monitor the earthquake activity in California for the purpose of notifying the Project Operations Center of potentially damaging earthquakes to the State Water Project. Safety of Dams and other agencies who have a need to know are notified as well.

The second mission of EE is to record accelerations at or near Department facilities for use by Department engineers. Accelerographs are located in dams, pumping plants, power plants and along parts of the Project.

This RAP is not intended to be a set-piece recovery plan with exact steps to follow. The nature and scope of an event that results in loss or interruption of EFC functions cannot be predicted. The RAP includes:

- An ICT designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of functions to be restored.
- A description of the initial steps necessary to implement a recovery plan.
- A checklist to facilitate the implementation of a recovery plan.

ORGANIZATIONAL STRUCTURE

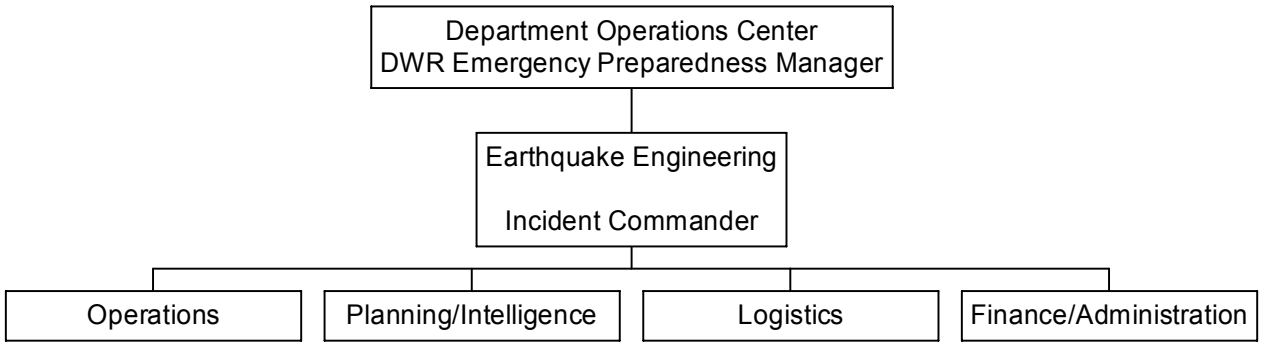
During recovery efforts the Earthquake Engineering Section will be organized in accordance with the Standardized Emergency Management System and its field element, the Incident Command System.

SEMS is a system of organizing emergency management and minimizing duplication of efforts based on ICS. SEMS and ICS utilize standard organization techniques, a common terminology, and common functions and responsibilities that are applicable to almost any type of emergency. All state agencies and most city and local governments in California are implementing SEMS/ICS. Through Governor Executive Order W-9-9-1, all state agencies were mandated to use SEMS/ICS to manage and coordinate responses to emergencies.

Incident Command Team

The Incident Command System will be used during recovery from a disaster that prevents access to Section offices. The ICT will be formed and operated in conformance with SEMS. ICS, utilized Department-wide for emergencies, provides considerable flexibility and adaptability to a wide range of situations. While details of a particular event or incident may vary greatly, the functions are common to almost any type of emergency. The ICS can be, and is, used for a wide variety of emergency activities. The basic ICS structure is shown below, followed by a brief description of the duties of each position.

Figure 1, Incident Command Team Structure



Department Operations Center

The Department Operations Center, under supervision of the DWR Emergency Preparedness Manager, is responsible for managing and coordinating overall recovery activities of the Department. The DOC will coordinate assistance from other DWR divisions/offices when Headquarters' resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The IC will be responsible for establishing objectives and goals, and for managing and coordinating the recovery efforts.

Operations Section Chief

The Operations Section Chief is responsible for implementing the recovery plan and meeting the objectives and goals established by the IC.

Planning/Intelligence Chief

The Planning/Intelligence Section Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for the IC.

Logistics Section Chief

The Logistics Section Chief will requisition, organize, distribute, and track resources necessary for the recovery plan. This includes supplies, vehicles, and equipment.

Finance/Administration Section Chief

The Finance/Administration Section Chief tracks (in cooperation with the Logistics Section), accounts for, and pays for activities related to the recovery plan. Timekeeping will also be the responsibility of this section. This section will also prepare documentation (in cooperation with the DWR FEMA Coordinator) in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

Critical tasks are those that must be restored within 24 hours. These tasks must be restored to protect the public and/or Department staff, provide entitlement(s), prevent financial hardship, or meet a legal requirement.

Essential tasks are those tasks that need to be restored within 5 days. These tasks generally are those that are not needed immediately, but will prevent the Department from carrying out its mission if they are not returned to operation. These tasks may become “critical” depending upon the time of year or length of time they are not available.

Necessary tasks are those tasks that generally need to be restored within 21 days. These tasks have no short-term effect on the Department’s ability to carry out its mission. However, these tasks may become critical depending upon the time of year or if they are not available for an extended period of time.

The following Earthquake Engineering functions are normally classified as **Necessary**, although one or more of these may become essential or critical in the event of a large earthquake near a Department facility.

- Record, locate, and determine the size of earthquakes within California.
- Report the size and location of the earthquake to the POC and other agencies that need to know.
- Maintain the Department’s sensitive earthquake monitoring instrumentation.
- Record accelerations of strong earthquakes near Department facilities.
- Maintain the Department’s strong motion accelerographs.

- Maintain the Department's earthquake & strong motion computerized database.
- Maintain the Department's SHAKECAST computer server
- Maintain emergency backup facilities at the JOC.

RECOVERY ACTION PLAN

Plan Distribution and Event Notification

Plan Dissemination and Periodic Updates

Each office and section chief will receive a copy of the plan to be kept offsite.

Copies of the RAP will be provided to the Division Chief, Administrative Officer, Departmental Services Office, and members of the ICT.

Notification of Event

The senior seismologist will alert the associate seismologist and the precision electronic specialist. If the associate seismologist is the one to discover the outage, he will alert the senior.

Initial Assessment

The ICT will meet as soon as practicable after the event occurs to assess the situation and determine the steps necessary to recover affected functions.

The IC will establish immediate goals and objectives, and the operational period.

The Operations Section Chief will implement appropriate notification and reporting procedures to Division staff and take such immediate recovery steps as feasible.

The Planning/Intelligence Section Chief will develop an action plan and short-/long-term goals.

The Logistics Section Chief will establish immediate needs for resources.

The Finance/Administration Section Chief will immediately implement emergency purchasing procedures that are appropriate for the incident and coordinate with the Divisions of Management Services and Fiscal Services to secure appropriate emergency financial authorizations and assistance.

Disaster Scenarios

Loss of one or more functions (communication and/or power outage, or, computer failure)

1. Determine the cause and extent of the damage, if any.
2. If the event involves fire or loss of power, follow the procedure outlined in the O&M emergency procedures.
3. If the event involves communication lines, notify the appropriate telephone company, microwave agency, or fiber optic personnel.
4. If the event involves a computer system, repair or replace the system or equipment.

5. Inform anyone who has a need to know of the loss, the extent of the loss, and the duration.
6. Set up a PC and modem to obtain earthquake epicenter and magnitude from the USGS.
7. Switch earthquake data collection activities to the backup facility at the JOC, if necessary.

Loss of access to the Resources Building

1. Obtain clearance from the Building Manager, law enforcement, fire department, hazardous material specialist, etc. before entering any restricted zones.
2. Use remote logins to determine if computer systems are up and running.
3. If systems, applications, or databases are no longer available, follow the plan outlined above in *Loss of Functions.*
4. Determine how long access will be unavailable.
5. Determine if systems will remain in operations without assistance for the duration of the loss.
6. If the loss of access will exceed 21 days, switch data collection activities to the JOC's alternate site for acquisition and analysis.

Loss of the Resources Building

1. If the Resources Building were destroyed, earthquake data would be obtained from the USGS via modem and PC, as well as from the alternate data collection site at the JOC.
2. Copies of acquisition and analysis software and epicenter database ~~should be~~ are stored off site.
3. Spare discriminators can be purchased and stored off-site. ~~or,~~

Alternate Sites

EE is in the planning stage now to set up an alternate site at the JOC which could possibly be utilized, and we expect to have it operational by the end of calendar year 2006 or early 2007.

Resources List

Within 24 hours
All members of the EE staff. This response will determine the nature of the emergency. Minimum equipment and office needs are 11 telephone lines, three fiber optic lines, and three microwave lines. One PC is needed for data acquisition, and one SUN workstation is needed for analysis.

Within 5 days
All members of EE will need to be located in a single location with desks, phones, computers, communication lines, communication racks, and Internet connections.

Checklist

- ❑ Ensure the safety of EE staff. Follow the instructions of any emergency personnel present.
- ❑ Determine the extent of the damage, if possible.
- ❑ If event is due to a power outage, follow the instructions in the Civil Maintenance Emergency Procedures Manual.

- ❑ If the event is due a communications outage, notify personnel in Com-Div or telco.

Plan Administration

The Incident Command Team will review the Recovery Action Plan annually. The Incident Command Team roster will be revised and reissued each year. The business functions will be reviewed and, if necessary, the plan will be revised to reflect changes to the critical and essential functions.

A tabletop exercise will be held once a year to review the RAP. At that time, members of EE will meet together and go over the plan, section by section. Any change in personnel, applications, equipment, software, or vendors will be addressed.

Once every five years a functional exercise simulating a real situation or incident will be conducted.

INCIDENT COMMAND TEAM

(September 2006)

	Inside normal hours	Outside normal hours	Pager
Incident Commander			
Jim Agnew	916-653-6150		916-948-0331
Operations Chief			
Jim Agnew	916-653-6150		916-948-0331
Planning and Intelligence Chief			
Dave Parke	916-653-6150		916-948-4550
Logistics Chief	916-653-5472		916-948-0235
Danny Fisher			
Finance/Administration Chief			
Jim Agnew	916-653-6150		916-948-0331
Emergency Preparedness Manager			
Sonny Fong	916-654-6135		916-592-7953
Project Operations Center	916-574-2714		

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Operations and Maintenance
Fleet Management Office
Resources Building
1416 Ninth Street, Room 650
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix B: Fleet Management Office
Function Recovery Action Plan

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INTRODUCTION

This is the RAP for the Fleet Management Office. FMO headquarters is in Room 650 of the Resources Building, located at 1416 Ninth Street, Sacramento, California. The ten mobile equipment shops located statewide would follow each field division's and/or maintenance yard's RAP. Each ME shop will coordinate through their field division and report activities to the FMO headquarters.

This plan establishes an Incident Command Team to respond to disasters that impact the business functions of the Fleet Management Office, and is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The RAP is not intended to include exact procedures to follow but rather is to be used as a guideline. The nature and scope of each event that results in loss or interruption of operation cannot be predicted.

The RAP includes:

- An ICT designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the business functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

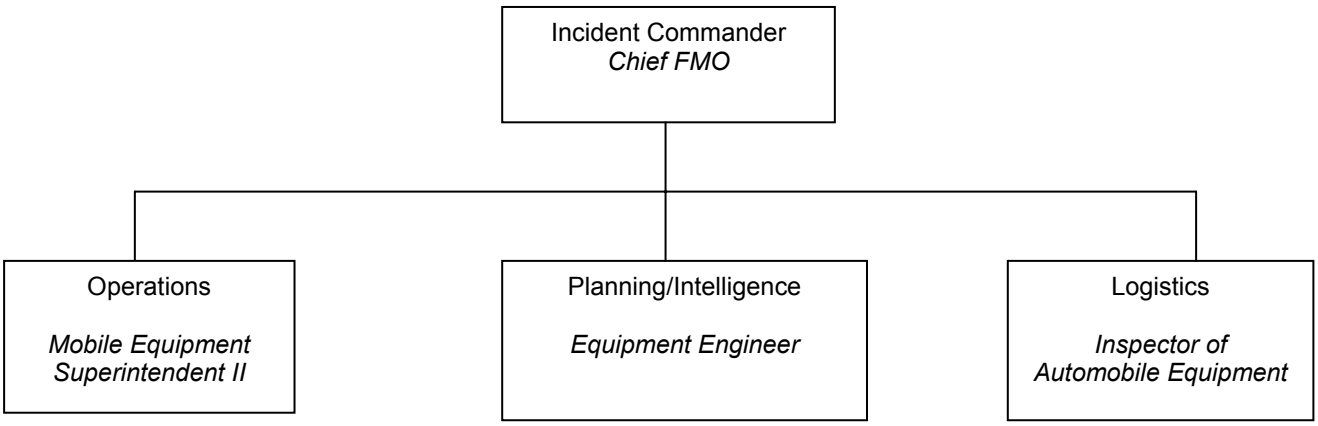
ORGANIZATIONAL STRUCTURE

The organization of functions during the recovery will be in accordance with the Standardized Emergency Management System and its field element, the Incident Command System. SEMS is a system organizing emergency management. SEMS and ICS utilize standard organizational techniques and common terminology, functions and responsibilities that are applicable to most emergency situations. All state agencies and most city and county governments in California have implemented or are implementing SEMS/ICS. Law requires the use of SEMS/ICS by state agencies.

Incident Command System Structure

The ICS will be used during recovery from disasters. The Incident Command Team will form and operate in conformance with SEMS. The ICS being used department-wide for emergencies provides for common terminology and duties that allow considerable flexibility and adaptability to most situations. While details of a particular event or incident may vary widely the functions that must be carried out are common. The ICS can and is used for a wide variety of emergency management activities. The basic ICS structure is shown in Figure 1 below followed by a brief description of the duties of each position.

Figure 1: Fleet Management Office Incident Command Team Organization



Incident Commander

Responsible for overall emergency policy and coordination. The Incident Commander may assign personnel for both a Command Staff and a General Staff. The Command Staff provides information, safety and liaison services for the entire organization. The General Staff are assigned major functional authority for Operations, Planning/Intelligence, Logistics and Finance/Administration.

Operations

Responsible for coordinating all jurisdictional functions in support of the response to the emergency. Identifies, assigns and organizes resources which may be necessary during an emergency incident.

Planning and Intelligence

Responsible for collecting, evaluating and displaying information regarding the incident. Develop Incident Action Plans, conduct long-range planning, plan demobilization efforts and maintain resources status information and documentation.

Logistics

Responsible for all of the services and support needs of an incident, including obtaining essential personnel, facilities, equipment and supplies.

FUNCTIONS

Functions are separated into critical, essential, and necessary tasks. The classification of tasks establishes priorities for recovery efforts.

Critical tasks (Must be restored within 24 hours):

- Establish a fully operational emergency fleet management response center.
- Establish a liaison with the requesting user to ease the flow of information and mobile equipment requirements.
- Establish availability and location of mobile equipment within the Department to satisfy the identified requirements.
- Establish other State/city/county agencies and/or contractors who can provide mobile equipment for short-term and long-term use.
- Establish logistics requirements (e.g., personnel, supplies and equipment, facilities and communication).

Essential tasks (Must be restored within five days):

- Provide locations of mobile equipment shops that will perform maintenance and repairs.
- Provide Accounts Payable for outstanding invoices within our purchasing delegation.
- Assignment and reassignment of mobile equipment to meet operational needs.

Necessary tasks (Should be restored within 21 days):

- Review and approve Application for Assignment of Mobile Equipment (DWR 509).
- Prepare contracts for crane inspections, equipment and/or nautical transportation, etc.
- Process and review vehicle accident reports.
- Approve and purchase mobile equipment for the Department.
- Inventory and survey mobile equipment.
- Review and approve modifications to the Department's fleet.
- Draft and review equipment specifications for purchases.

RECOVERY ACTION PLAN

The goal of this plan is to provide coordination of the Department's transportation, which includes any vehicle and/or equipment (construction, maintenance-type or nautical) to support in recovering the operation of the Department's critical functions.

The plan is a sequence of events. The principal elements include notification to appropriate authorities and staff of the disaster, an initial assessment of the event and its impact on functions of the Office, and implementation of recovery efforts.

Event Notification

The Incident Commander or designee will notify the Fleet Management Office Chief, the Division of Operations and Maintenance Chief, and the Department's Emergency Preparedness Manager immediately after an incident that requires implementation of the RAP.

When notified by the ICT each Supervisor will then notify subordinates. The notification will include instructions to include information regarding point of assembly, future contact procedures, and an initial procedure to carry out facility functions.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover facility functions. The Incident Commander will establish immediate and intermediate goals and objectives for recovery. The Operations Section Chief will implement the recovery plan. The Planning/Intelligence Section Chief will implement appropriate notification and reporting procedures to facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will list immediate needs for resources. The Finance/Administration Section Chief will implement emergency purchasing procedures as appropriate for the incident, and coordinate with DOC Finance/Administration Section to site emergency financial authorizations and assistance.

Disaster Scenarios

This plan defines three types of disasters:

- **Loss of Function** – A disaster resulting in the inability to perform one or more mission functions.
- **Loss of Access** – A disaster or other incident preventing complete access to the Fleet Management Office.
- **Loss of Facility** – A disaster resulting in the destruction of the Fleet Management Office and / or its contents.

Loss of Access

1. Determine the safety of employees on site and the extent of damage.
2. Calculate degree of coordination and/or support needed.
3. Notify appropriate incident recovery staff.
4. Establish a fully operational emergency mobile equipment response center.

Loss of Facility

1. Determine safety of employees on site and extent of damage.
2. Calculate degree of coordination and/or support needed.
3. Notify appropriate incident recovery staff.
4. Establish a fully operational emergency fleet management response center.
5. Start backup and/or alternative procedures for mobile equipment maintenance and repairs facilities.

Loss of Function

1. Determine safety of employees on site and extent of damage.
2. Calculate degree of coordination and/or support needed.
3. Notify appropriate incident recovery staff.
4. Establish a fully operational emergency fleet management response center.
5. Implement backup and/or alternative procedures for mobile equipment maintenance and repairs facilities.

Alternate Sites

If FMO headquarters and/or an ME Shop cannot be occupied for a period greater than one day, the Division of Operations and Maintenance would obtain temporary or permanent office/shop space.

Resources List

Minimum resources needed within **24 hours**:

FMO Headquarters

Staff - 3 employees - (1-Chief, 1-Superintendent II, 1-Equipment Engineer)

Space - 12' X 12' - Office

Equipment and Supplies -
- Desktop PC computers (2)
- Laptop computer (1)
- Vehicles (2)
- Telephone Lines (2)
- Printer (1)
- Cellular Phones (4)
- Restroom Facilities

Each ME Shop

Staff - 3 Employees - (1-Superintendent I and 2-Mechanics)

Space - 24' X 24' - Warehouse

Equipment and Supplies -
- Service Truck (1-ton w/utility body) (1)
  - a. Mechanic Hand Tools
    Wrenches, Screwdrivers, Socket Set, Pliers, Tool Box, Hammers
  - b. Three 5-gallon containers (Gasoline-Diesel-Hydraulic Oil)
  - c. Air Compressor (2-inch Drill, Sockets & 100-foot air hose)
  - d. 225-amp Welder/Generator
  - e. Emergency Spill Kit
  - f. 500 feet of 2-inch Rope
  - g. Portable Lights
- Two- ton Pickup (1)
- Laptop Computer (1)
- Telephone Line (1)
- Cellular Phones (2)
- Restroom Facilities

Minimum resources needed within **5 days**:

FMO Headquarters

Staff - 3 employees - (1- Chief, 1- Superintendent II, 1 - Equipment Engineer) rotating shift.

Space - 12' X 12' - Office

Equipment and Supplies -
- Desktop PC computers (3)
- Laptop computer (1)
- Vehicles (2)
- Telephone Lines (4)
- Printer (1)

Cellular Phones (4)
Restroom Facilities

Each ME Shop

Staff - 5 Employees - (1- Superintendent I and 4- Mechanics) rotating shift.

Space - 24' X 24' - Warehouse

Equipment and Supplies -
Service Truck (1-ton w/utility body) (1)
a. Mechanic Hand Tools
Wrenches, Screwdrivers, Socket Set, Pliers, Tool Box, Hammers
b. Three 5-gallon containers (Gasoline-Diesel-Hydraulic Oil)
c. Air Compressor (2-inch drill, Sockets, & 100 feet of air hose)
d. 225-amp Welder/Generator
e. Emergency Spill Kit
f. 500 feet of 2-inch Rope
g. Portable Lights
Two-ton Pickup (1)
Laptop Computer (1)
Telephone Line (1)
Cellular Phones (2)
Pagers Staff (2)
Utilities (Water-Electrical-Sewer)
Restroom Facilities
Cleaning facilities for equipment parts
Oils, antifreeze and other waste recovery system
Laundry services for employee uniforms

Minimum resources needed within **21 days**:

FMO Headquarters

Staff - 6 employees - (1-Chief, 1-Superintendent , 1-Equipment Engineer) rotating shift.

Space - 12' X 12' - Office

Equipment and Supplies -
Desktop PC computers (3)
Laptop computer (1)
Vehicles (3)
Telephone Lines (3)
Printer (1)
Cellular Phones (3)

Each ME Shop

Staff - 5 Employees - (1-Superintendent I and 4-Mechanics) rotating shift.

Space - 24' X 24' - Warehouse

Equipment and Supplies -
Service Truck (1-ton w/utility body) (1)
a. Mechanic Hand Tools
Wrenches, Screwdrivers, Socket Set, Pliers, Tool Box, Hammers
b. Three 5-gallon containers (Gasoline-Diesel-Hydraulic Oil)
c. Air Compressor (2-inch Drill, Sockets & 100 feet of air hose)
d. 225-amp Welder/Generator
e. Emergency Spill Kit
f. 500 feet of 2-inch Rope
g. Portable Lights
Two-ton Pickup (1)
Laptop Computer (1)
Telephone Lines (2)
Cellular Phones (2)
Pagers Staff (4)
Cleaning facilities for employees and equipment parts
oils, antifreeze and other waste recovery system

Checklist

- ❑ Determine extent of damage and business function loss.
- ❑ Notify Incident Recovery Team as necessary.
- ❑ Notify appropriate agencies.
- ❑ Determine availability of personnel.
- ❑ Determine availability of equipment and supplies within Department.
- ❑ Determine availability of equipment and supplies outside Department.
- ❑ Notify emergency preparedness manager or DOC liaison staff.
- ❑ Notify CHP, Caltrans and/or local authorities if situation warrants.

Plan Administration

Plan Dissemination

Each Incident Command Team member will receive a copy of the plan to be kept offisite.

Every employee should be familiar with the RAP so they are aware of their responsibilities during a loss of function, access, or local facilities in an emergency.

Annual Review

FMO Chief will assign an employee to maintain the plan. The plan will be reviewed and updated annually.

Exercises

Each ME Shop should conduct a tabletop exercise of the plan once a year, so that all employees are aware of their responsibilities during a loss of function, access or local facility in an emergency.

A full functional exercise of the plan should be conducted every five years, with participation by the affected divisions and offices of the Department. This could identify problems with the operation of the plan.

Incident Command Team

(September 2006)

(916) area code unless otherwise noted

Position / Name	Home	Work	Cell
Incident Commander		653-2950	
Vacant, Chief, Fleet Management Office			
Alternate		661-333-0625	661-333-0625
Brian Borlace, Mobile Equipment Superintendent			
Operations		661-333-0625	661-333-0625
Brian Borlace, Mobile Equipment Superintendent			
Alternate		653-9047	947-1578
James Wynne, Inspector of Automotive Equipment			
Planning / Intelligence		653-7681	798-9832
Joe Reilly, Mechanical Engineer			
Alternate		653-9047	947-1578
James Wynne, Inspector of Automotive Equipment			
Logistics		653-9047	947-1578
James Wynne, Inspector of Automotive Equipment			
Alternate		653-7681	798-9832
Joe Reilly, Mechanical Engineer			

ME Shop Essential Staff

Name	Home	Work	Pager	Cell
Oroville/Sutter Shop				
Mike Harhen		530-534-2342	916-592-4421	530-730-0634
Delta/Sacramento Shop				
Bud Jones		209-833-2090	209-472-4631	209-481-2608
San Luis/Coalinga Shop				
Chris Carlotti		209-827-5170	209-573-9093	209-481-8120
Bakersfield/Lost Hills Shop				
Paul Jones		661-858-5545		661-333-0460
Pearblossom/Castaic Shop				
Richard Bostick		661-944-8551		661-400-4900

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Flood Management
Hydrology and Flood Operations Branches
Joint Operations Center
3310 El Camino Avenue
Sacramento, CA 95821

A Component of the
DWR Business Resumption Plan

Appendix B: Hydrology and Flood Operations Branches
Function Recovery Action Plan

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INTRODUCTION

The Hydrology and Flood Operations Branches provide hydrologic forecasts, flood warnings, and assistance to emergency response agencies during high water. The Flood Operations Center is activated during flood emergencies to direct the Department's flood emergency response activities and to disseminate flood information. The California Data Exchange Center operates a real-time system that collects precipitation and streamflow data for forecasting and reservoir operations. Forecasts are produced in cooperation with the National Weather Service's California-Nevada River Forecast Center.

This Function Recovery Action Plan (RAP) establishes an Incident Command Team (ICT) to respond to disasters that impact the business functions of the Hydrology and Flood Operations Branches at their facility located on the 2nd floor of the Joint Operations Center (JOC). The RAP is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The plan is an element of the overall DWR Business Resumption Plan, requires integration with other plans, and requires periodic updating as procedures, equipment, and personnel change, and as experience is gained through actual use or in the implementation of planned exercises. It builds upon and is used along with other plans to ensure continuity of operations and recovery from various incidents and disasters. Other plans include:

- *Appendix B Recovery Action Plan, Joint Operations Center Common Infrastructure* – This plan is intended to supplement other Appendix B Function Recovery Action Plans written to address the more detailed operational continuity and recovery requirements of specific units housed in the Joint Operations Center (JOC). It specifically discusses joint use equipment, components, and service infrastructure used in common by multiple JOC tenants.
- *DWR Computer Operations Recovery Plan* – Section 3.300 addresses data information storage and equipment needs of the Division of Flood Management.
- *DWR Emergency Response Plan*
- *Emergency Action Plan, Employee Handbook*, Joint Operations Center.

The *Emergency Action Plan, Employee Handbook* for the Joint Operations Center outlines employee safety measures for events such as bomb threats and earthquakes. That plan was developed jointly by the agencies occupying the building as a building occupant emergency plan. While it does establish a command center and support staff to address events such as fire, floods, and explosions, it does not address continuity and recovery of business functions.

The RAP is not intended to include exact procedures to follow but rather is to be used as a guideline. The nature and scope of each event that results in loss or interruption of operation cannot be predicted.

The RAP includes:

- An ICT designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the business functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

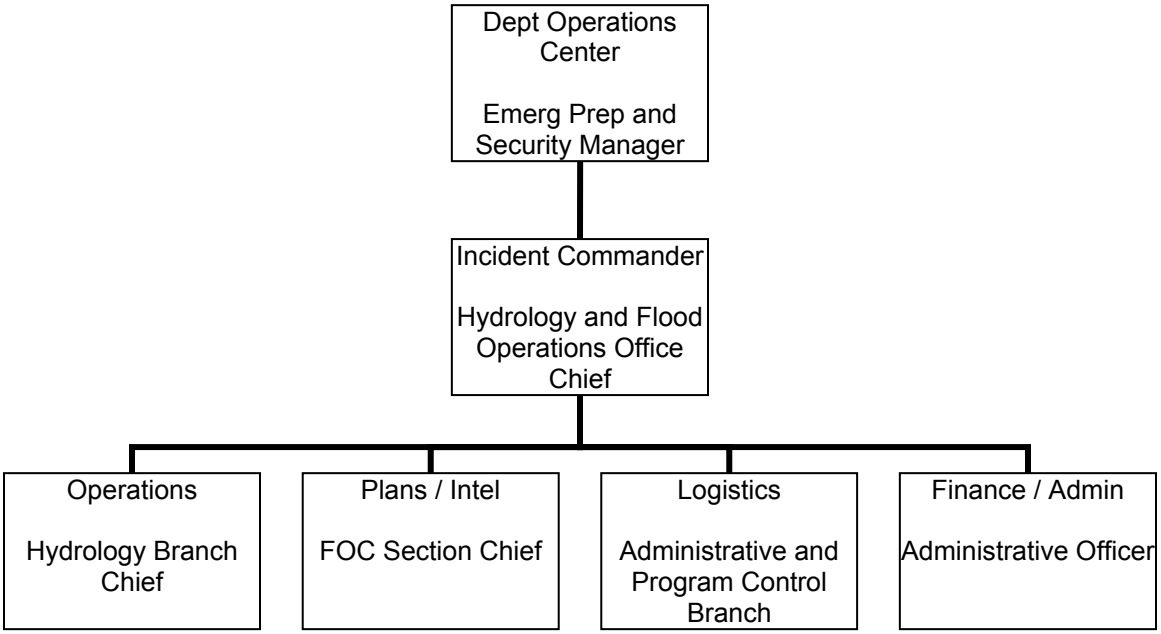
ORGANIZATIONAL STRUCTURE

The organization of the functions during the recovery will be in accordance with the Standardized Emergency Management System and its field element, the Incident Command System. SEMS is a system organizing emergency management. SEMS and ICS utilize standard organizational techniques and common terminology, functions and responsibilities that are applicable to most emergency situations. All state agencies and most city and county governments in California have implemented or are implementing SEMS/ICS. Law requires the use of SEMS/ICS by state agencies.

Incident Command System Structure

The ICS will be used during recovery from a disaster resulting in loss of access to the facility. The Incident Command Team will form and operate in conformance with SEMS. The ICS being used department-wide for emergencies provides for common terminology and duties that allow considerable flexibility and adaptability to most situations. While details of a particular event or incident may vary widely the functions that must be carried out are common. The ICS can and is used for a wide variety of emergency management activities. The basic ICS structure is shown in Figure 1 below followed by a brief description of the duties of each position.

Figure 1: Hydrology and Flood Operations Recovery Action Plan Organization



Department Operations Center

Under supervision of the DWR Emergency Preparedness Manager, the Department Operations Center is responsible for managing and coordinating recovery activities of the Department. The DOC will coordinate assistance from other DWR Divisions/offices when the facility's resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The Incident Commander will be responsible for establishing recovery objectives as well as directing recovery activities. The Incident Commander will keep the DOC apprised of all recovery activities.

Operations

The Operations Section Chief will implement the recovery plan and identify, assign, and organizes resources.

Planning and Intelligence

The Planning/Intelligence Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for DWR management.

Logistics

The Logistics Section Chief will request, organize, distribute, and track resources necessary for the recovery plan. This will include personnel, supplies, facilities, vehicles, and equipment.

Finance and Administration

Finance/Administration Section Chief will track (in cooperation with the Logistics Section) account and pay for activities related to the recovery plan. Timekeeping will also be the responsibility of this Section. The Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Department and the facility are separated into critical, essential, and necessary tasks. The classification of tasks establishes priorities for recovery efforts.

Critical tasks protect the public, prevent financial hardship, or meet a legal requirement and must be restored within 24 hours:

- Flood Operations Center – dissemination of flood warnings, direction of flood emergency response actions, provide assistance to emergency response agencies and levee maintaining agencies
- Flood Forecasting – issue flood forecasts in cooperation with the California-Nevada River Forecast Center
- California Data Exchange Center – collect real-time hydrologic information for flood forecasting and flood operations

Essential tasks allow the function to accomplish its mission and must be restored within five days:

- Snowmelt Runoff Forecasts – issue forecasts of snowmelt runoff for the major reservoirs

Necessary tasks to be restored within 21 days:

- Climatology – provide climatologic information to the public
- Meteorology – provide meteorologic information to the public

RECOVERY ACTION PLAN

The Recovery Action Plan is a sequence of events. The principal elements include notification to appropriate authorities and staff of the disaster, an initial assessment of the event and its impact on functions of the Hydrology and Flood Operations Branches functions, and implementation of recovery efforts.

Event Notification

The Incident Commander or designee will notify the Department's Emergency Preparedness Manager, the Flood Operations Branch Chief, the Hydrology Branch Chief, the Hydrology and Flood Operations Office Chief, and Flood Management Division Chief immediately after an incident that requires implementation of the RAP.

When notified by the ICT each Supervisor will then notify subordinates. The notification will include instructions to include information regarding point of assembly, future contact procedures, and an initial procedure to carry out facility functions.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover facility functions. The Incident Commander/Assistant will establish immediate and intermediate goals and objectives for recovery. The Operations Section Chief will implement the recovery plan. The Planning/Intelligence Section Chief will implement appropriate notification and reporting procedures to facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will list immediate needs for resources. The Finance/Administration Section Chief will implement emergency purchasing procedures as appropriate for the incident, and coordinate with DOC Finance/Administration Section to site emergency financial authorizations and assistance.

Objectives

- Ensure employee and public safety
- Protect equipment, files, hardware, and software
- Restore functions in order of priority as dictated by hydrologic conditions

Disaster Scenarios

This plan defines three types of disasters:

- **Loss of Function** – A disaster resulting in the inability to perform one or more mission functions.
- **Loss of Access** – A disaster or other incident preventing complete access to the Joint Operations Center or access to specific portions of the JOC.
- **Loss of Facility** – A disaster resulting in the destruction of the JOC and / or its contents.

Loss of Function

The JOC building is intact however one or more critical functions cannot be performed due to a power outage, communications outage, computer failure, or other incident.

- ❑ Notify DWR Emergency Preparedness Manager
- ❑ Determine extent of failure
- ❑ Redirect network communications to CDEC backup system in Resources Building
- ❑ Evaluate number of personnel needed to relocate to restore critical functions based on hydrologic conditions
- ❑ Notify and relocate staff to backup site(s)
- ❑ Activate emergency communications with key agencies as needed

Loss of Access

Equipment, systems, and documents are intact; however, employees cannot enter and occupy the JOC.

- ❑ Check safety of employees
- ❑ Notify DWR Emergency Preparedness Manager
- ❑ Perform external test of CDEC automatic data collection processes
- ❑ Redirect network communications to CDEC backup system in Resources Building, if necessary
- ❑ Determine number of personnel needed to relocate to alternate site
- ❑ Notify and relocate staff to backup site(s)
- ❑ Restore critical functions based on hydrologic conditions
- ❑ Activate emergency communications with key agencies as needed

Loss of Facility

The building is damaged or destroyed along with the building contents.

- ❑ Check safety of employees
- ❑ Notify DWR Emergency Preparedness Manager
- ❑ Determine extent of damage to CDEC and Flood Operations Center
- ❑ Redirect network communications to CDEC backup system in Resources Building
- ❑ Evaluate number of personnel needed to relocate to restore critical functions based on hydrologic conditions
- ❑ Notify and relocate staff to backup site(s)
- ❑ Activate emergency communications with key agencies as needed

Alternate Sites

Resources Building, 16th Floor

Critical flood forecasting and flood operations functions will relocate to the Sixteenth Floor of the Resources Building if the JOC cannot be occupied. Backup microwave and satellite data collection systems will be activated. A database server, a web server, and a data collection exchange server are operational at the Resources Building and function as a primary backup system.

All existing data collection and dissemination software used to access CDEC from the JOC will be replicated in the Resources Building backup system. Complete CDEC operational recovery procedures are contained in Section 3.300 of the DWR Computer Operations Recovery Plan.

Data exchange with the Corps of Engineers, Bureau of Reclamation, and other agencies will be rerouted to appropriate Resource Building network addresses.

Hydrologic conditions will dictate the number of forecasting and flood operations staff needed to relocate to respond to flood emergencies. Conference Room 1603 and adjacent offices will be used in an emergency as a backup Flood Operations Center.

If the JOC cannot be occupied for an extended period of time, DFM will request the Departmental Services Office to obtain temporary space for DFM staff at the Resources Building displaced by activating the backup Flood Operations Center.

NWS Alternate Locations

National Weather Service weather forecasting operations will relocate to the NWS Reno or San Joaquin Valley, Hanford office. National Weather Service river forecasting operations will relocate along with the DWR forecast team to the 16th floor of the Resources Building. The nearest alternate NWS River Forecast Center is located in Portland, Oregon.

U.S. Bureau of Reclamation Alternate Locations

The Central Valley Operations Office will relocate to their emergency operations center at the Regional Office on Cottage Way in Sacramento. The Central Valley Control Center's operations will transfer to facilities at Keswick Dam north of Redding.

Sacramento Maintenance Yard

Snow Surveys staff will relocate to the Sacramento Maintenance Yard, 1450 Riverbank Road, West Sacramento. Existing shop space will be utilized as a temporary office to produce snowmelt runoff forecasts during an extended JOC outage.

CDEC field staff will also relocate to the Sacramento Maintenance Yard.

Resources List

Minimum Resources needed within 24 hours

Staff – 14 employees, rotating shifts (4, flood operations; 6, forecasting (including 3 from California-Nevada River Forecast Center); 3, CDEC; 1, support)

Space – Room 1603 Conference Room, 16th Floor Computer Room, and 8 adjacent office cubicles

Equipment and Supplies

10 – Desktop PCs with network access
8 – Telephone lines
3 – Laserjet printers
2 – Fax machines
4 – Cellular telephones
3 – Pagers

Note: During a major flood event requiring flood mobilization, additional DWR personnel and resources will be requested as needed.

Resources needed within 3 days

Staff – Snow Surveys, 5 employees

Space – Existing shop space at Sacramento Maintenance Yard

Equipment and Supplies maintained at SMY:

2 - Desktop Computers
2 - X- terminals
2 - Laptop computers (currently used for DCP programming)
1 - Mini-network hub
1 - Laser printer
1 - Dot matrix printer- 12 volt
2 - Cellular telephones (normally in Snow Survey Vehicles)
1 - Local area network connection
1 - Telephone line
2 - Trucks (from JOC)
1 - 60 watt Solar Panel
1 - 12volt Battery bank
1 - 500 watt inverter
1 - 10KV generator
2 - Packet radio sets for snow course data communication

Additional resources needed if JOC is unavailable beyond three days

4 – Telephone lines

Checklist

- ❑ Check on employee safety and follow JOC Emergency Action Plan if evacuation is necessary
- ❑ Determine extent of damage and loss of function
- ❑ Notify DWR Emergency Preparedness Manager
- ❑ Notify Incident Recovery Team
- ❑ Supervisors notify staff and provide instructions on relocation
- ❑ Notify appropriate agencies
- ❑ Follow CDEC operational recovery procedures in Section 3.300 of DWR Computer Operations Recovery Plan

Pre-Planning

Preplanning is essential for a speedy recovery of all functions and for the protection and backup of vital information. The Planning/Intelligence Section should review on an annual basis the procedures to protect critical data and how best to recover this data in case of a temporary or permanent business disruption.

Plan Administration

Plan Dissemination

Each employee will receive a copy of the plan to be kept offsite. A copy of the RAP will be provided to the Branch, Office, and Division chiefs, and the DWR Emergency Preparedness Manager.

Annual Review

Each year the ICT will review the plan.

Names and telephone numbers of members of the Incident Command Team and the Contact List will be updated and reissued each year. Additional emergency notification numbers in Appendix C (Flood Emergency Card) also will be updated annually prior to flood season by Flood Operations Branch staff.

Program business functions and RAP objectives will be reviewed annually and, if necessary, the plan body will be will be updated to meet changing requirements.

Exercises

A tabletop exercise will be conducted as needed, but at least every five years to review roles, responsibilities, and modifications to the plan.

A CDEC functional recovery test is conducted prior to each flood season. The test assumes a complete system failure has occurred at the JOC and that data collection operations will be transferred to the Resources Building.

Incident Command Team

(September 2006)

(916) area code unless otherwise noted

Position	Work	Home	Other
Department Operations Center			
Sonny Fong	654-6135	719-3244	592-7953 (pager)
Emergency Preparedness and Security Manager			
Incident Commander			
Gary Bardini	574-2612	933-1951	296-6565 (cell)
Hydrology and Flood Operations Office Chief			
Deputy: Vacant	574-2611		
Flood Operations Branch Chief			
Operations			
Arthur Hinojosa	574-2613	489-4278	947-3136 (cell)
Hydrology Branch Chief			
Deputy: Dave Rizzardo	574-2617	408-2051	
Forecasting Section			
Planning / Intelligence			
Kevin Elcock	574-2619	784-1428	812-3804 (cell)
FOC Section Chief			
Deputy: Eric Butler	574-2619	(530) 268-9660	(530) 308-2838 (cell)
Decision Support Systems Specialist			
Logistics Section (or CDEC / DSS staff)			
Lenore Keen	574-2870	784-9276	
Administrative and Program Control Branch			
Deputy: Anna Fong	574-2632		762-2669 (pager)
Finance/Administration Section			
Garry Smith	574-0690	791-2528	296-8393 (cell)
Administrative Officer			
Rosemarie Mirsepassi	574-0647	483-5750	402-9976 (cell)

Contact List

(September 2006)

Most emergency notification phone numbers are listed in Appendix C, Flood Emergency Phone Numbers which is published annually by DFM. Section supervisors will notify DFM employees at the JOC that an incident has occurred that requires activating the Recovery Action Plan. Additional phone contacts are shown below. All numbers are (916) unless otherwise noted.

Name	Work	Home
Agency Phone Numbers	Business	
State Water Project POC (24 hr)	574-2714	
Eureka Flood Center	(707) 445-6576	
OES State Warning Center (24 hr)	845-8911	
U.S. Army Corps of Engineers (24 hr)	452-1535, Sacramento District EOC	
USBR CVO Control Center (24 hr)	979-3002	
California-Nevada RFC	979-3056	
NWS, Sacramento (unlisted)	979-3049	
NWS, Eureka	(707) 443-4162	

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Flood Management
Flood Project Integrity and Inspection Branch
Joint Operations Center
Sacramento, CA 95821

A Component of the
DWR Business Resumption Plan

Appendix B: Flood Project Integrity and Inspection Branch Function Recovery Action Plan

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INTRODUCTION

The Flood Project Integrity and Inspection Branch inspects and reports on the status of maintenance of flood control levees, channels, and other flood control project features operated under cooperative arrangements between the federal, State and local public agencies. During flood emergencies Branch staff work as flood fight specialists in the field, and at the State-Federal Flood Operations Center (FOC).

This Function Recovery Action Plan (RAP) establishes an Incident Command Team (ICT) to respond to disasters that impact the business functions of the Branch at their facility located in Room LL30 on the lower level of the Joint Operations Center (JOC). The RAP is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The plan is an element of the overall DWR Business Resumption Plan, requires integration with other plans, and requires periodic updating as procedures, equipment, and personnel change, and as experience is gained through actual use or in the implementation of planned exercises. It builds upon and is used along with other plans to ensure continuity of operations and recovery from various incidents and disasters. Other plans include:

- *Appendix B Recovery Action Plan, Joint Operations Center Common Infrastructure* – This plan is intended to supplement other Appendix B Function Recovery Action Plans written to address the more detailed operational continuity and recovery requirements of specific units housed in the Joint Operations Center (JOC). It specifically discusses joint use equipment, components, and service infrastructure used in common by multiple JOC tenants.
- *DWR Computer Operations Recovery Plan* – Section 3.300 addresses data information storage and equipment needs of the Division of Flood Management.
- *DWR Emergency Response Plan*
- *Emergency Action Plan, Employee Handbook*, Joint Operations Center.

The *Emergency Action Plan, Employee Handbook* for the Joint Operations Center outlines employee safety measures for events such as bomb threats and earthquakes. That plan was developed jointly by the agencies occupying the building as a building occupant emergency plan. While it does establish a command center and support staff to address events such as fire, floods, and explosions, it does not address continuity and recovery of business functions.

The RAP is not intended to include exact procedures to follow but rather is to be used as a guideline. The nature and scope of each event that results in loss or interruption of operation cannot be predicted.

The RAP includes:

- An ICT designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the business functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

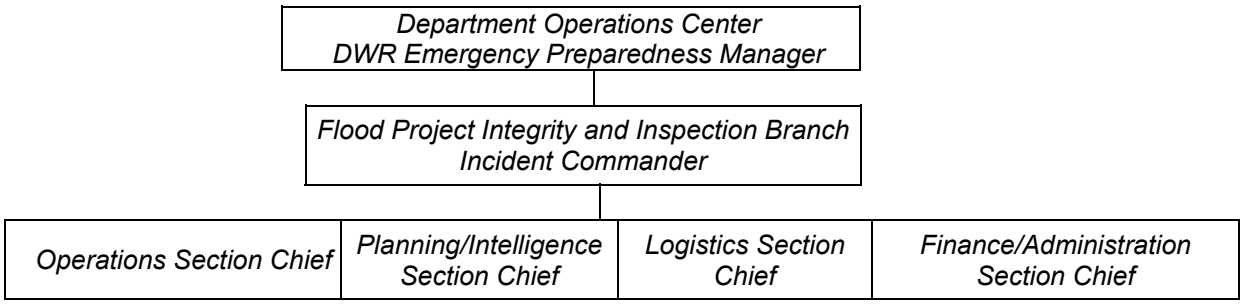
ORGANIZATIONAL STRUCTURE

The organization of the functions during the recovery will be in accordance with the Standardized Emergency Management System and its field element, the Incident Command System. SEMS is a system organizing emergency management. SEMS and ICS utilize standard organizational techniques and common terminology, functions and responsibilities that are applicable to most emergency situations. All state agencies and most city and county governments in California have implemented or are implementing SEMS/ICS. Law requires the use of SEMS/ICS by state agencies.

Incident Command System Structure

The ICS will be used during recovery from a disaster resulting in loss of access to the facility. The Incident Command Team will form and operate in conformance with SEMS. The ICS being used department-wide for emergencies provides for common terminology and duties that allow considerable flexibility and adaptability to most situations. While details of a particular event or incident may vary widely the functions that must be carried out are common. The ICS can and is used for a wide variety of emergency management activities. The basic ICS structure is shown below followed by a brief description of the duties of each position.

Figure 1: Flood Project Inspection Section Incident Command Team Organization



Department Operations Center

The DOC, under supervision of the DWR Emergency Preparedness Manager, manages and coordinates the Department's recovery activities. The DOC will coordinate assistance from other DWR Divisions and Offices when Division of Flood Management and Flood Project Integrity and Inspection Branch resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

Flood Project Integrity and Inspection Branch Chief
Alternate, Flood Project Inspection Section Chief

The Incident Commander will receive guidance and report to the DOC. The DOC Chief is the Department's Emergency Preparedness Manager. The Incident Commander will be responsible for establishing objectives and goals as well as managing and coordinating recovery efforts.

Operations Section Chief

The Operations Section Chief will implement the recovery plan.

Planning/Intelligence Chief

The Planning/Intelligence Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for DWR management.

Logistics Section Chief

The Logistics Section Chief will request, organize, distribute, and track resources necessary for the recovery plan. This will include supplies, facilities, vehicles, and equipment.

Finance/Administration Section Chief

Finance/Administration Section Chief will track (in cooperation with the Logistics Section) account and pay for activities related to the recovery plan. Timekeeping will also be the responsibility of this Section. It is intended that this Section will be augmented by staff assigned by the DOC Logistics Section in accordance with the severity of the incident. The Finance/Administration Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Section are separated into critical, essential, and necessary tasks. The classification of functions establishes priorities for recovery efforts.

Critical functions are those that must be restored within 24 hours. These functions must be restored to protect the public, prevent financial hardship, or meet a legal requirement. The Flood Projection Inspection Section does not, by this definition, engage in any critical functions on a routine basis. However, during flood emergencies the provision of technical assistance to local agencies is a critical function.

Essential functions are those that allow the Section to accomplish its mission and which must be restored within 5 days. Inspection of weakened or otherwise suspect levees is an essential function during the flood season.

Necessary functions are those that need to be restored within 21 days. Necessary functions make up most of the functions of the Section.

Essential or necessary functions may be upgraded to critical depending upon time of year and other factors.

Table 1 lists the critical and essential functions as they pertain to this plan. All other functions are necessary functions.

Table 1, Critical and Essential Functions

What	Who	How	Criticality
Emergency Response to Floods	Flood Fight Specialists	By providing technical assistance to local flood management agencies	Critical due to public safety concerns
Inspection of weakened or suspect levees	Levee Inspectors	Visual Inspections	Essential function but could become a critical due to public safety concerns during the flood season.

RECOVERY ACTION PLAN

The Recovery Action Plan is a sequence of events. The principal elements include event notification to appropriate authorities and staff, an initial assessment of the event and its impact on Inspection Section functions, and implementation of recovery efforts.

Event Notification

The Incident Commander or designee will notify the Department's Emergency Preparedness Manager, the Flood Operations Branch Chief, and Flood Management Division Chief immediately after an incident that requires implementation of the RAP. The Flood Project Integrity and Inspection Branch Chief or designee will also notify the Building Owner (Buzz Oates, Inc.) See Contact List.

When notified by the ICT each Supervisor will then notify subordinates. The notification will include instructions to include information regarding point of assembly, future contact procedures, and an initial procedure to carry out facility functions.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover facility functions. The Incident Commander/Assistant will establish immediate and intermediate goals and objectives for recovery. The Operations Section Chief will implement the recovery plan. The Planning/Intelligence Section Chief will implement appropriate notification and reporting procedures to facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will list immediate needs for resources. The Finance/Administration Section Chief will implement emergency purchasing procedures as appropriate for the incident, and coordinate with DOC Finance/Administration Section to site emergency financial authorizations and assistance.

Disaster Scenarios

The RAP defines two types of disasters:

- **Loss of Access** – A disaster or other incident preventing access to Section offices and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of Section offices and/or contents.

Loss of Access

This scenario assumes that the facility's documents, equipment, and building are intact and secure, but facility staff is unable to gain access. It is assumed that access will be granted in the near future, but business must be restored prior to access being regained.

- The ICT will assemble as soon as possible to assess the situation.
- Country Club Centre, Buzz Oates Real Estate, Inc., (building owner) will be contacted as soon as possible for an update on the status of the incident, its effect on the facility, and a likely re-entry time to access the facility.
- The DWR Emergency Preparedness Manager, Flood Operations Branch Chief, and DFM Chief will be notified of the incident. The standard notification procedure given below will be followed to alert employees of the incident occurrence.

- The person in charge will make a verification call to building security to confirm their awareness of the incident and to verify the incident. Security will post a notice at the facility with instructions for staff and an appropriate description of the incident.

Restoration of Critical and Essential Functions

Emergency Response to floods – Other units of DFM will be immediately requested to take oversight of critical operations. Where applicable, these groups will be requested to loan vehicles, crews, and/or equipment to restore a functional capability at a satellite location within 24 hours.

Restoration of Necessary Functions

The Planning/Intelligence Section will prepare an assessment and a plan for restoration of necessary functions. The plan will include the resources needed to perform their unit's functions until access is regained, a schedule for restoration of all functions within the unit is devised and an assessment of the impact of those functions that cannot be restored within 21 days is made. The ICT will coordinate and integrate section plans and implement a total recovery effort.

Loss of Facility

In the event the facility (and/or its contents) are destroyed or damaged beyond repair or recovery, the ICT will assembly to assess the situation. The Building Owner will be contacted as soon as possible to determine the availability of alternate sites and how long they might be used. Minimum facilities, vehicles, equipment, and other basic needs are listed below. The DOC Logistics Section will also be requested to assist in locating and arranging for a new office facility.

The Emergency Preparedness Manager, Flood Operations Branch Chief, and DFM Chief will be notified of the incident and the immediate procedures for contacting the staff will be initiated. The notification procedure given below will be followed to alert employees of the incident. The person in charge will make a verification call to building security to confirm their awareness of the incident and to verify the incident. Security will post a notice at the facility with instructions for staff and an appropriate description of the incident.

Restoration of Critical and Essential Functions

Emergency Response to Floods – Other Units of DFM will be directed to take oversight of critical operations. Where applicable, these groups will loan vehicles, crews, and/or equipment enabling the facility personnel to restore a minimum of capability within 24 hours.

Restoration of Necessary Functions

The Planning/Intelligence Section will prepare an assessment and recovery plan of necessary functions for their respective sections. The plan will include the resources needed to perform the daily functions until a complete new facility is provided including a schedule for restoration of all functions within the unit and a listing of limitations and impact of functions that cannot be restored within 21 days.

Alternate Sites

Incident Command Post

An Incident Command Post will be established as soon as possible at Room 1603 in the Resources Building.

Basic ICP Necessities

- Telephone Lines (3)
- Fax Machine with separate line
- Office space for ICT
- 2 computer systems (P/I and Logistics/Finance/Admin)

The Sacramento Maintenance Yard may also be considered as an alternate site.

Checklist

Existing quantities shown in parentheses and contact phone numbers are shown in the contact list.

Operational Procedures

- ❑ Notifications
- ❑ Flood Operations Branch Chief
- ❑ Emergency Preparedness Manager
- ❑ DFM Chief
- ❑ Building Owner
- ❑ Joint Operations Center Facility Staff
- ❑ Flood Operations Center
- ❑ UPS, U.S. Postal Service
- ❑ Other Service Providers
- ❑ Emergency Facility Procurement
- ❑ Emergency Communications Procurement
- ❑ Telephones
- ❑ Fax Machine
- ❑ Cellular Telephones
- ❑ Pagers
- ❑ Emergency Mobile Equipment
- ❑ Emergency Administration Procedures
- ❑ Personnel
- ❑ Program Control
- ❑ File Storage/Retrieval
- ❑ Supply
- ❑ Financial/Procurement

Facilities

- ❑ Office Space (400 ft^2)
- ❑ Office Furniture for Staff (5)
- ❑ Office Furniture for Support Staff (1)
- ❑ Parking (6 state and 8 private)

Communications/Computers

- ❑ Standard PC's (2)
- ❑ Cellular Telephones (5)
- ❑ Telephone Lines, including. Modem and Fax machine (4)

Vehicles (10 total)

- ❑ Vehicles (5- 4x4 SUV, 5 - 4x4 p/u ½ton)

Pre-Planning

Information Protection

A vital part of this plan that ensures the speedy recovery of all functions is the protection and backup of vital data. The Planning/Intelligence Section should review their procedures annually to protect critical data and to develop recovery procedures to follow in the event of temporary or permanent business disruption. Data should be classified according to criticality of function to determine the backup frequency. To facilitate a speedy recovery of all functions the following items should be considered.

- Copies of all application/permit folders, maps, flood control project operations and maintenance manuals should be stored in another earthquake and flood proof building.

- Maps and data stored on hard copies should be converted to electronic format for easy access and move during temporary or permanent disruption.

Exercises

A tabletop exercise will be conducted as necessary, but at least every five years to review roles and responsibilities and modifications to the plan.

Plan Administration

Plan Dissemination

Each team member will receive a copy of the plan to be kept offsite. A copy of the RAP will be provided to the Flood Management Division Chief, the Flood Operations Branch Chief, and the DWR Emergency Preparedness Manager.

Annual Review

The plan will be reviewed annually in the fall prior to flood season.

Names and telephone numbers of members of the Incident Command Team and the Contact List will be updated and reissued each year.

Program business functions will be reviewed and, if necessary, the plan body will be will be updated as well to reflect those changes.

Incident Command Team

(September 2006)
(Also refer to BRP Appendix C, "Flood Emergency Phone Numbers")

(916) area code unless otherwise noted

Position / Name	Work	Home	Other
Department Operations Center			
Sonny Fong	654-6135		592-7953 (pager)
Emergency Preparedness and Security Manager			
Incident Commander			
Vacant	574-1212		
Flood Project Integrity and Inspection Branch Chief			
Deputy: Vacant	574-2611		
Flood Operations Branch Chief			
Operations Section			
Richard Willoughby	574-1206		799-5307 (cell)
Flood Project Integrity Section B			592-2818 (pager)
Deputy: Clay Thomas	574-1208		712-1207 (cell)
Flood Project Integrity Section A			592-0291 (pager)
Planning/Intelligence Section			
Shawn Perkins	574-1209		803-8863 (cell)
Flood Project Integrity Section B			
Deputy: Vacant			
Logistics Section			
Herman Phillips	574-1207		769-5385 (cell)
Flood Project Inspection Section			592-5933 (pager)
Deputy: Gerry Snow	574-1205		717-9611 (cell)
Flood Project Inspection Section			592-1112 (pager)
Finance/Administration Section			
Cindy Ungacta	574-1213		
Administrative Officer			
Deputy: Mark Soto	574-1204		712-2013 (cell)
Flood Project Inspection Section			592-0220 (pager)

Contact List

(September 2006)
(Also refer to BRP Appendix C, "Flood Emergency Phone Numbers")

(916) area code unless otherwise noted

State-Federal Flood Operations Center	572-2619
Country Club Centre, Buzz Oates Real Estate, Inc. - Building Owner Office, 8615 Elder Creek Rd. Sacramento, California	381-0609

<u>Building Security</u>

Lobby Security Desk	485-7482 799-4308 (cell) 592-0806 (pager)

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

California Energy Resources Scheduling
Joint Operations Center
3310 El Camino Avenue
Sacramento, CA 95821

A Component of the
DWR Business Resumption Plan

Appendix B: California Energy Resources Scheduling Function Recovery Action Plan

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INTRODUCTION

The California Energy Resource Scheduling (CERS) division conducts business in the deregulated electrical energy market and supports the long-term energy contracts entered into by DWR on behalf of the Investor Owned Utilities. This support also includes the negotiation and support of fuel contracts and futures and oversight of the annual unit tests. The recent CPUC order transferring the scheduling of the real-time net short of energy and $43 billion long term energy contracts to the Investor Owned Utilities (IOUs) have increased the number of systems being developed and supported. For DWR to successfully compete technically and financially in the electrical energy marketplace, CERS staff must, on a demand and time critical basis; analyze, review, and authorize the expenditure of funds to and by the IOUs in order to support the ongoing revenue bonds. Various related electrical energy, gas future, and other data files must be downloaded from or uploaded to many diverse organizations internal and external to DWR. As the renegotiations of the energy contracts progress and operating requirements change, these data requirements will continue to evolve as will the complex computer applications and systems being utilized to produce and/or process these many types of data files.

The data repositories created to support the ongoing litigation surrounding the electrical crisis continues to grow. Data backup and archival systems are crucial to the support of the litigation and are complex due to the proprietary requirements of segregation of the data and access.

This Function Recovery Action Plan (RAP) establishes an Incident Command Team (ICT) to respond to disasters that impact CERS business functions on the first floor of the Joint Operations Center (JOC). The RAP is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The plan is an element of the overall DWR Business Resumption Plan, requires integration with other plans, and requires periodic updating as procedures, equipment, and personnel change, and as experience is gained through actual use or in the implementation of planned exercises. It builds upon and is used along with other plans to ensure continuity of operations and recovery from various incidents and disasters. Other plans include:

- *Appendix B Recovery Action Plan, Joint Operations Center Common Infrastructure* – This plan is intended to supplement other Appendix B Function Recovery Action Plans written to address the more detailed operational continuity and recovery requirements of specific units housed in the Joint Operations Center (JOC). It specifically discusses joint use equipment, components, and service infrastructure used in common by multiple JOC tenants.
- *DWR Computer Operations Recovery Plan* – Section 5.500 addresses data information storage and equipment needs of CERS.
- *DWR Emergency Response Plan*
- *Emergency Action Plan, Employee Handbook*, Joint Operations Center.

The *Emergency Action Plan, Employee Handbook* for the Joint Operations Center outlines employee safety measures for events such as bomb threats and earthquakes. That plan was developed jointly by the agencies occupying the building as a building occupant emergency plan. While it does establish a command center and support staff to address events such as fire, floods, and explosions, it does not address continuity and recovery of business functions.

The RAP is not intended to include exact procedures to follow but rather is to be used as a guideline. The nature and scope of each event that results in loss or interruption of operation cannot be predicted.

The RAP includes:

- ·An ICT designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the business functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

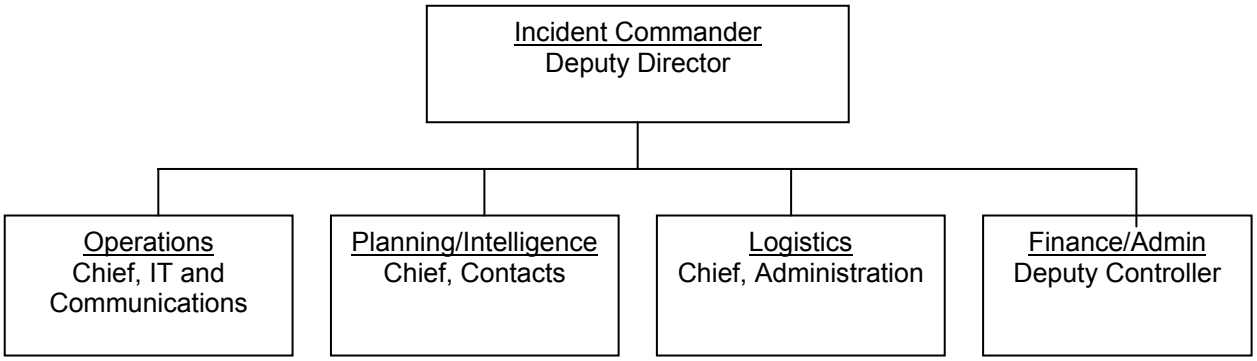
ORGANIZATIONAL STRUCTURE

The organization of CERS during disaster recovery will be in accordance with the Standardized Emergency Management System and its field element, the Incident Command System. SEMS is a system organizing emergency management. SEMS and ICS utilize standard organizational techniques and common terminology, functions and responsibilities that are applicable to most emergency situations. All state agencies and most city and county governments in California have implemented or are implementing SEMS/ICS. Law requires state agencies to use SEMS/ICS.

Incident Command System Structure

The ICS will be used during recovery from a disaster resulting in loss of access to the facility. The Incident Command Team will form and operate in conformance with SEMS. The ICS being used department-wide for emergencies provides for common terminology and duties that allow considerable flexibility and adaptability to most situations. While details of a particular event or incident may vary widely the functions that must be carried out are common. The ICS can and is used for a wide variety of emergency management activities. The basic ICS structure is shown below followed by a brief description of the duties of each position.

Figure 1: CERS Incident Command Team Organization



Incident Commander

Establishes recovery objectives and directs recovery activities.

Operations Section

Identifies, assigns, and organizes resources needed during an incident.

Planning / Intelligence Section

Documents incident and maintains resources status information.

Logistics Section

Obtains essential services and support, including personnel, facilities, equipment, and supplies.

Finance and Administration

Tracks expenditures for emergency purchases.

FUNCTIONS

CERS functions are separated into essential and necessary tasks. The classification of functions establishes priorities for recovery efforts.

Essential Functions to be restored within three days:

- Invoice Validation – Accounts and settles with Western Systems Power Pool (WSPP) contracts on the 20th day of the month following delivery and other contracts within three days of delivery. These financial settlements are dependent upon our financial institution and the State Controller's Office availability. Software: MS Access and Excel and access to the networked drive.

- IOU Remittance – Accounts and settles with the California Independent Systems Operator and/or IOUs beginning 38 business days following the date of delivery. Has time constraint on dispute process. Each day is a deadline for preliminary and final statement disputes. MS Access, Excel, networked drives, and secure data servers.

Necessary Functions to be restored within 7 days:

- Reporting and Revenue Requirements - Functionality of the Branch.
- Contract Management Office – Functionality of the Office.
- Fuels – Functionality of the Branch

RECOVERY ACTION PLAN

Should DWR declare an emergency that requires evacuation of the JOC, and contingent on the scenario of the emergency, CERS staff will be relocated to backup sites as needed to meet critical needs.

Objectives

- Ensure employee and public safety
- Protect equipment, files, hardware, and software
- Restore Settlements and general office functionality.

Event Notification

The Emergency Notification list contained in Section 710.04 of the Computer Operation Recovery Plan will be used by unit supervisors to notify CERS employees at the JOC that an incident has occurred that requires activating the Recovery Action Plan. Additional phone contacts are listed on the Incident Command Team and Contact List.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover facility functions. The Incident Commander will establish immediate and intermediate goals and objectives for recovery. The Operations Section Chief will implement the recovery plan. The Planning/Intelligence Section Chief will implement appropriate notification and reporting procedures to facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will list immediate needs for resources. The Finance/Administration Section Chief will implement emergency purchasing procedures as appropriate for the incident, and coordinate with DOC Finance/Administration Section to site emergency financial authorizations and assistance.

Disaster Scenarios

Loss of access – equipment, systems, network, communication, and documents are intact; however, employees cannot enter and occupy the JOC.

- Check safety of employees
- Notify DWR Emergency Preparedness Manager
- Perform external test of CERS' network drives and server availability from Headquarters. See Operation Recovery Plan, Section 5.
- Redirect network communications to designated CERS work area at Headquarters.
- Notify and relocate staff to backup site(s)
- Coordinate with the necessary DWR internal business partners and external partners. These include DWR's finance office, State Controller's office, Attorney General's office, the CA ISO, and the three Investor Owned Utilities.

a. **Loss of facility** – building is damaged or destroyed along with the building contents. Employees are redirected to DWR Headquarters.

- Check safety of employees
- Notify DWR Emergency Preparedness Manager.
- Determine extent of damage to JOC first floor
- Redirect network communications to CERS designated work area in Resources Building. See Operation Recovery Plan, Section 5.
- Evaluate number of personnel needed to relocate and restore critical functions
- Notify and relocate staff to backup site(s)
- Coordinate with the necessary DWR internal business partners and external partners. These include DWR's finance office, State Controller's office, Attorney General's office, the CA ISO, and the three Investor Owned Utilities.

Loss of function – building is intact; however, critical functions cannot be performed due to a power outage, communications outage, computer failure, or other incident. Employees will be directed to DWR Headquarters.

- Check safety of employees
- Notify DWR Emergency Preparedness Manager
- Determine extent of failure
- Evaluate number of personnel needed to relocate and restore critical functions based on incident
- Notify and relocate staff to backup site(s)
- Re-direct workstations to backup network servers. See Computer Operations Recovery Plan, Section 5.
- Coordinate with the necessary DWR internal business partners and external partners. These include DWR's finance office, State Controller's office, Attorney General's office, the CA ISO, and the three Investor Owned Utilities.

Alternate Sites

Resources Building

Designated CERS settlement, finance and contract personnel will relocate to the Resources Building if the JOC cannot be occupied. If the DWR Wide Area Network (WAN) is intact, the staff can be networked to the CERS networked drives and data servers.

Complete CERS operational recovery procedures are contained in Section 5 .500 of the Computer Operations Recovery Plan.

If the JOC cannot be occupied for an extended period of time, CERS will request the Departmental Services Office to obtain temporary space for CERS staff at the Resources Building.

Resource List

Resources needed within 3 days:

Staff – 7 Settlements people
Space – To be determined
Equipment and Supplies needed:
- 7 - Desktop Computers
- 1 - Laser printer
- 2 - Cellular telephones
- 1 - WAN access
- 1 – ECN access
- 1 - Local area network connection
- 1 - Telephone line

Additional resources needed if JOC is unavailable beyond three days:

Staff – Twenty people with computers and access to CERS network drives and servers.

Checklist

- ❑ Check on employee safety and follow JOC Emergency Action Plan if evacuation is necessary
- ❑ Determine extent of damage and loss of function
- ❑ Notify DWR Emergency Preparedness Manager
- ❑ Notify Incident Recovery Team
- ❑ Supervisors notify staff and provide instructions on relocation
- ❑ Notify appropriate agencies
- ❑ Follow operation recovery procedures in Section 5 of Computer Operations Recovery Plan.

Plan Administration

Plan Dissemination

Each team member will receive a copy of the plan to be kept offsite. A copy of the RAP will be provided to the DWR Emergency Preparedness Manager.

Annual Review

The plan will be reviewed annually. Names and telephone numbers of members of the Incident Command Team and the Contact List will be updated and reissued each year.

Program business functions will be reviewed and, if necessary, the plan body will be will be updated as well to reflect those changes. RAP objectives will be reviewed annually and modified as needed to meet changing requirements.

Incident Command Team

(September 2006)

(916) area code

Department Operations Center	Work Phone
Sonny Fong, Department Emergency Preparedness Manager	654-6135
Incident Commander	
Tim Haines – Deputy Director	574-1299
Alternate: Jim Spence – Chief, Emergency Operations	574-0292
Operations Section	
Jain Fong – Chief, IT and Communications	574-2682
Alternate: Larry Yu – Systems Support Lead	
Planning/Intelligence Section	
Jim Spence – Chief, Contracts	574-0292
Alternate: HEP Utility Engineer, Water Resources	
Logistics Section	
Lynne Bitnoff – Chief, Administration Branch	574-1294
Alternate: Cindy Percival – Assistant Govt Prog Analyst	574-1293
Finance/Administration Section	
Jim Olson – Deputy Comptroller	574-1297
Alternate: Carol Bird –	574-1296

Contact List

(September 2006)

(916) area code

State-Federal Flood Operations Center	574-2619
Country Club Centre, Buzz Oates Real Estate, Inc. - Building Owner Office, 8615 Elder Creek Rd. Sacramento, California	381-0609

Building Security

Lobby Security Desk	485-7482 799-4308 (cell) 592-0806 (pager)

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Joint Operations Center Common Infrastructure
3310 El Camino Avenue
Sacramento, CA 95821

A Component of the
DWR Business Resumption Plan

Appendix B: Joint Operations Center Common Infrastructure Function Recovery Action Plan

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Miscellaneous Building Support 6

INTRODUCTION

Purpose

This plan is intended to supplement other Appendix B Function Recovery Action Plans written to address the more detailed operational continuity and recovery requirements of specific units housed in the Joint Operations Center (JOC). It specifically discusses joint use equipment, components, and service infrastructure used in common by multiple JOC tenants.

Separate Appendix B Function Recovery Action Plans have been developed for the following Joint Operations Center units:

- *Division of Operations and Maintenance, Operations Control Office*
- *Division of Flood Management, Hydrology and Flood Operations Branches*
- *Division of Flood Management, Flood Project Integrity and Inspection Branch*
- *California Energy Resources Scheduling*

Location

The JOC is located in a leased concrete and steel building in the Country Club Centre shopping center at Watt and El Camino Avenues in eastern Sacramento. The lease term is ten years beginning August 1995 with an option to extend the lease for an additional ten years. The ten-year extension has been enacted.

JOC Tenants

The JOC houses the following agencies:

- Department of Water Resources
  - Division of Operations and Maintenance, State Water Project Operations Control Office, (3rd floor – other O&M units occupy the 2nd floor)
  - Division of Flood Management, all units except Maintenance Yards and Eureka Flood Center (lower level, 1st and 2nd floors)
  - California Energy Resources Scheduling (1st floor)
  - State Water Project Accounting Office (lower level)
- Reclamation Board (lower level)
- National Weather Service
  - Sacramento Weather Forecast Office (2nd floor)
  - California-Nevada River Forecast Center (2nd floor)
- United States Bureau of Reclamation
  - Central Valley Operations Office (3rd floor and 2nd floor)
- United States Internal Revenue Service
  - Sacramento Appeals Office (1st floor)

The building location was specifically selected to be out of the 100-year floodplain.

Related Plans

Other related plans and procedures include:

- *DWR Computer Operations Recovery Plan* – Section 2.200 addresses data information storage and equipment needs of the Project Operations Center.

- *DWR Operations and Maintenance Order E-PC 600.19A* – Implements Section 2.200 of the Operations Recovery Plan to address disruption of essential computer services for the POC and to satisfy the North American Electric Reliability Council Operations Planning Policy 6 which requires back-up plans for the Project Operations Center.
- *Emergency Action Plan, Employee Handbook, Joint Operations Center* – The emergency action plan for personnel response to general emergencies at the building. It is an action plan only and does not address recovery.

Note: Emergency and recovery action plans for the Reclamation Board, NWS, USBR, and IRS are not addressed in this or any other DWR plan.

Operational Schedules

The Sacramento Weather Forecast Office, SWP Project Operations Center, and Central Valley Operations Control Center conduct operations 24-hours per day, seven days per week year round.

The River Forecast Center conducts seven days per week operations from approximately mid-October through mid-April, and expands to 24-hour operations during high-water periods.

The Division of Flood Management also expands its hours up to 24-hour per day to activate the State-Federal Flood Operations Center on the 2nd floor during flood emergencies.

INFRASTRUCTURE

Parking

General parking for employees is available in the shopping center parking lot. In addition to general parking, secure parking is available for 51 vehicles. The secure parking area is available for pool vehicles and by employees performing shift work.

Security

There are four levels of card key electronic security in the building and the parking lot. Card key access is required for vehicle entry into the secure parking lot; in addition, there are two person gates for entry through the fenced enclosure. Card key access is required for entry into the building at the front door, the back door, and a side door on the west side of the building.

Card key access is required to operate the elevators for access to the second and third floors and to exit the north and south stairwells onto the second and third floors.

Card key access is required for entry to the general office spaces on the lower level, first floor, second and third floors. Designated public access doors leading into general office areas are held open with electromagnetic devices during normal working hours on each floor. The only exception to this is the IRS, which maintains a 24X7 locked access.

Card key access is required for entry into the POC, the CVOCC, computer rooms, communications equipment, network center, Uninterruptible Power Supply, and battery rooms. The electrical and power closets are locked with a hard key and only designated maintenance personnel have key access. Access to these rooms is restricted to those personnel with a need for access.

The west side access road is closed to public access via hydraulic barrier arms located at the north end of the road adjacent to the building and south end of the road adjacent to the building.

There are two security guards on duty 24X7 with one stationed at the south entrance doors and the other at the north entrance doors. The north security station has security camera controls and monitors for the building perimeter, secure parking area, second and third floor access hallways, and the third floor DWR computer room. The west side barrier gates are also controlled from this station.

Electrical Utility and Emergency Generator

The Sacramento Municipal Utility District supplies electrical power for the building. Service is through a 2500 Amp 277/480 Volt service. Power to the second and third floors and portions of the lower level and first floor is supplied through four dedicated 800a circuit breakers. Each of these breakers provides normal utility power to four 800a transfer switches. The emergency side of the transfer switches is connected to a 1250 kW emergency generator. The emergency generator has 4000 gallons of diesel fuel stored in an underground fuel tank.

Uninterruptible Power Source

Three UPS units support mission critical functions for each of the three agencies on the second and third floors of the building. The UPS for the Department of Water Resources supplies power for the POC, computer equipment in the third floor computer room, communications equipment in the communications room, and DFM computer equipment in the second floor computer room. The DWR UPS has external Nickel-Cadmium batteries located in a separate and adjacent battery room. The UPS for the USBR supports their CVOCC, computer equipment in the third floor computer room, and communications equipment in the

communications room. This UPS also has external batteries; however, these batteries are lead-acid batteries and are located in the same adjacent battery room. UPS power for DWR and USBR is distributed through Liebert Power Distribution Units located in the operation centers, computer, and communication rooms.

The NWS UPS supplies power to equipment in their operations areas, the second floor computer room, and AWIPS workstations in the Flood Operations Center and one Division of Flood Management office cubicle along the north side of the second floor. The NWS UPS has internal batteries. UPS power is distributed through distribution panels located in the second floor computer room.

The UPS equipment room is cooled by a stand-alone Liebert air conditioner that is backed up by the building HVAC.

UPS power is supplied to the Central Valley Operations Control Center through one 30kVa PDU.

Computer Rooms

The third floor computer room is shared by DWR and USBR. This room has UPS power through two 30kVa PDUs for DWR and one 30kVa PDU for USBR. The computer room also is supplied with SMUD/standby emergency generator power. The computer room has four self-contained Liebert air conditioning units that are separate from the building HVAC. The second floor computer room is shared by NWS and DFM. This room also has both UPS power and SMUD/SEG power. The UPS power for DFM is distributed through a 30kVa PDU; UPS power for NWS is distributed through distribution panels directly connected to the NWS UPS. This computer room has three Liebert air conditioning units; two are active and the other is on standby. CERS maintains a computer room in a secure room located on the first floor. This computer room is supplied with SMUD/SEG power and has stand-alone UPS systems. The computer room is cooled via a separate dedicated air conditioning unit.

Communications Equipment Room

The communications room is located on the third floor. Radio and WAN communications are routed through this room. As with the computer rooms, both UPS power and SMUD/SEG power are available in this room. DWR has a 30kVa PDU; the USBR has a 15kVa PDU. The room has a dedicated roof mounted air conditioner for cooling. The building HVAC provides the backup cooling for the room.

Network Center

A network center is located on the third floor. This network center is a back up to the primary network center located in the Resources Building. The network center controls the routing of traffic over various components of the DWR wide-area network.

WAN Communications

There are two T1 communication paths between the JOC and the Resources Building for the general purpose WAN. There is also a direct T1 path for the primary Supervisory Control and Data Acquisition system communication path with the backup path routed through the network center in the Resources Building.

There is also a direct connection to the Electric Communications Network, a private WAN, to communicate with the California Independent System Operator. This communication is used to

submit energy and Ancillary Services bids to the ISO. The path is also used to submit meter data to the ISO and receive notices, final schedules, and settlement statements from the ISO. A backup T1 connection to the ECN is routed through the Resources Building. A second T1 communication connection to the ECN will soon be implemented to provide regulation services to the ISO. Again, a backup T1 will be implemented at the Resources Building.

LAN Communications

The lower level, first, second and third floors are wired through for twisted pair LAN communication. The servers for CERS, OCO and DFM are housed in the respective computer rooms.

Radio Communications Tower

A 40-foot tower and platform is mounted on the roof and acts as a base for microwave, UHF, and satellite antennas. DWR, USBR and NWS share the tower.

News Media Microwave Connections

The 2nd floor Media Center provides two types of connections for TV news crews to transmit live broadcasts: (1) direct news vehicle connections to a weatherproof panel inside the outer fence adjacent to the south parking area and (2) connections to junction boxes in the 2nd floor kitchen to connect temporary microwave antennas.

Building HVAC

Two 40,000 CFM air handlers are mounted on the roof to distribute air to the second and third floors. One unit provides air to the north end while the other provides air to the south end of the building. The air is a mixture of fresh air and re-circulated building air that is chilled as needed, using a refrigeration unit with evaporative assist on the condenser. A natural gas fired boiler and radiators inside of the ductwork provide heat on an as-needed basis for zones at the perimeter of the building.

Zone temperature is controlled through a central computer and zone sensors. Each zone can be provided with individual set points.

Lighting

Central clocks that turn the lights off during non-working hours control lighting in the building. The clocks run on a seven-day cycle. This feature can be overridden at the light switches and manually turned on and off as required.

Fire Alarms

There are two fire alarm systems for the building. The second and third floors are covered by a smoke detection system. When smoke is detected, audible alarms are sounded along with flashing strobe lights. The detection system for the first floor and the basement is a flow sensor system in the plumbing for the fire sprinklers. If a fire sprinkler were to be activated, water would flow through the pipe and initiate an alarm. The two systems are connected so that an event in the top two floors, the first floor, or the basement will activate the building's alarm.

When an alarm is activated, power is cut to the electromagnetic hold opens for the fire doors to control the spread of any fire and to prevent access to the elevators. A signal is also sent to Sacramento Controls and the local fire station when an alarm is activated.

Fire Suppression

Fire suppression for the general office spaces and public areas is accomplished through a wet standpipe sprinkler system. The fire sprinkler standpipes in the second and third floor computer rooms are normally dry. The system in those rooms would be charged with water if smoke were detected in those rooms. A sprinkler would only be activated at a localized hot spot.

Miscellaneous Building Support

Demarcs (demarcation points) for telephone service for both voice and data are located in a small room in the basement. This room is wired to the communication room located on the third floor and has been wired for power from the standby emergency generator. The Pacific Bell Communications equipment used by DWR and USBR has an internal UPS rated for four hours of operation at full load. This equipment has been placed on SMUD/SEG power. There is also a dedicated stand-alone cooling unit utilized for this room.

A water boost pump is located in the basement to maintain adequate water pressure in the building. This is especially critical for the two HVAC units located on the roof. The chillers require supplemental evaporative cooling for the condensers. Standby generator power has also been provided to the water boost pump.

The building is equipped with a sewage lift pump to move sewage to the city sewer. Standby power has been provided to this pump.

The north and south stairwell lighting is on the SMUD/SEG electrical circuits in case of prolonged power outages.

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Technology Services
Data Center
Resources Building
1416 Ninth Street
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix B: DTS Data Center
Function Recovery Action Plan

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INTRODUCTION

Several aspects of the Department's day-to-day business would be greatly affected if the Division of Technology Services' (DTS) Data Center were unable to recover and resume its support functions in the aftermath of a disaster or during an emergency. This Recovery Action Plan establishes the processes that the Data Center will follow in the event of unexpected loss or outage.

The Recovery Action Plan establishes an Incident Command Team and a recovery process to respond to disasters that impact the business functions of the Data Center. The RAP is based on guidelines outlined in the Department's Business Resumption Plan.

Structure of the Recovery Action Plan

The nature and scope of an event that results in loss or interruption of Data Center functions cannot be predicted. With this in mind, the RAP outlines the general steps that should be followed in the event of loss of function, access, or facility. It conforms to the Standardized Emergency Management System and guides an Incident Command Team in the recovery of critical and essential functions. The RAP is updated and will be exercised annually to ensure DTS is properly prepared for events that could affect Data Center activities.

The RAP includes:

- A list of Incident Command Team members who are responsible for managing the recovery effort and a description of the responsibilities of each member.
- A description of the critical and essential functions that must be restored within the Data Center.
- An Incident Action Plan describing the necessary steps in response to a specific type of loss.
- A Checklist to highlight the key aspects of each major tasks or decisions.

ORGANIZATIONAL STRUCTURE

The Incident Command System, being used department-wide for emergencies, provides for common terminology and duties with considerably flexibility and adaptability to a wide variety of situations. While details of a particular event or incident may vary widely, the functions that must be carried out to deal with them are common to almost any kind of emergency.

Responsibilities: The working titles of those responsible for the various aspects of the recovery plan and the interactions between them are as follows:

The *Incident Commander* is responsible for establishing objectives and goals, and directing recovery activities.

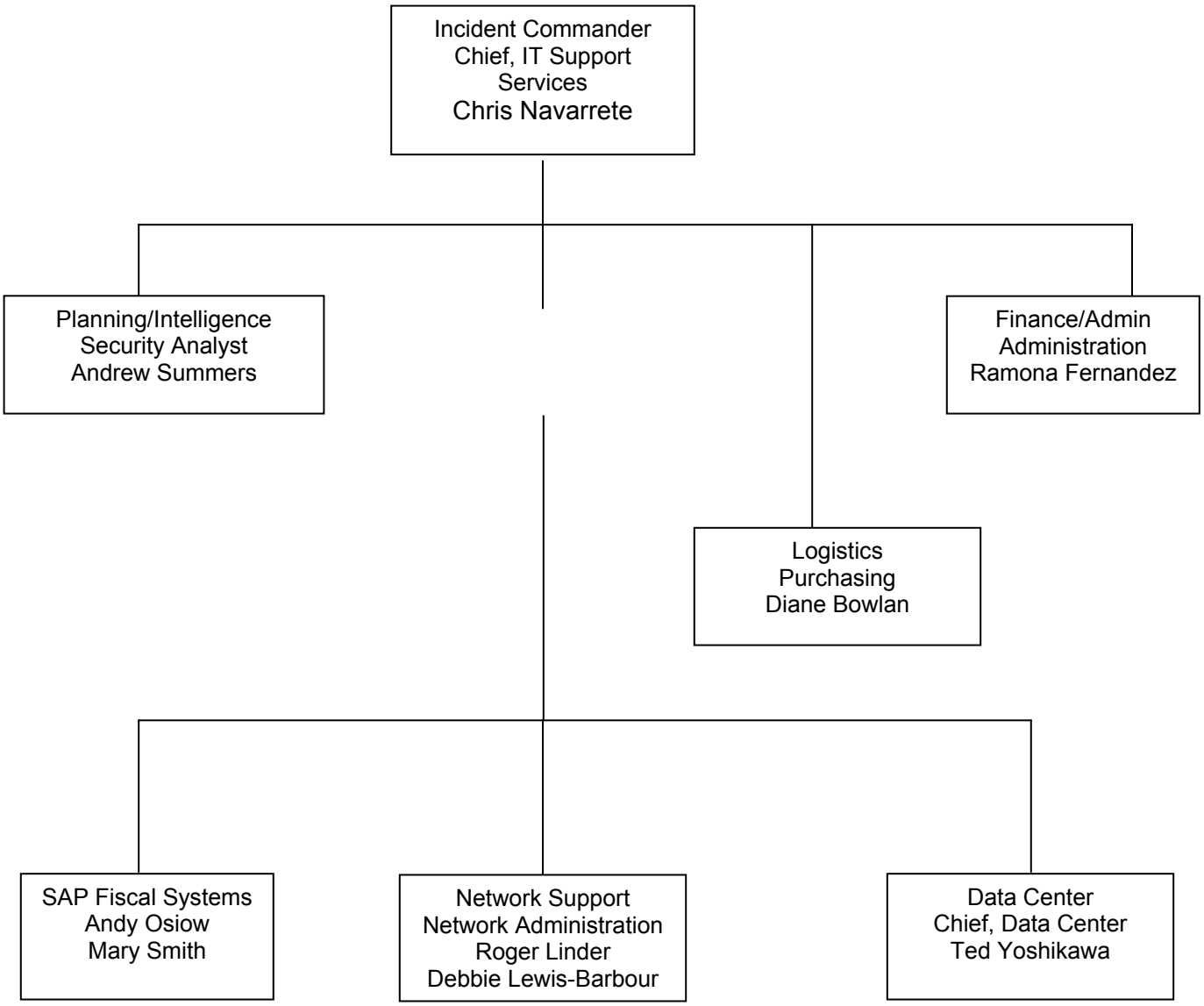
The *Operations Chief* implements the recovery plan.

The *Planning/Intelligence Chief* identifies what activities and resources will be needed for recovery and prepares appropriate plans and status reports on the recovery effort.

The *Logistics Chief* requisitions, organizes, tracks, and allocates resources to the tasks assigned by the Operations Chief. Resources include supplies, facilities, equipment, and personnel.

The *Finance/Administration Chief* ensures that activities related to the recovery plan are tracked, accounted for and paid. Time keeping is also this section's responsibility.

Figure 1, Incident Command Organization



FUNCTIONS

The functions of the Department and the facility are separated into **critical, essential, and necessary** tasks. The classification of functions establishes priorities for recovery efforts.

Critical – Restored within 24 hours following a major disaster or outage*

- Domain Naming System service for Internet connectivity
- Exchange and Active Directory (HQ and JOC) – See Computer Operations Recovery Plan, Section 6. 600

Essential – Restored within 5 days following a major disaster or outage*

- SAP Enterprise Resource Planning database and application servers
- CIMIS especially during the dry months (April through September)
- Exchange and Domain Controllers service for the rest of the Department – See Computer Operations Recovery Plan Section 6. 600

Necessary – Restored within 21 days following a major disaster or outage*

- External and Internal Web hosting services

*In evaluating possible disaster scenarios, most outages would be treated as disruptions in service rather than State and/or federally declared disasters. Every attempt will be made to restore Essential or Necessary systems as quickly as possible following a disruption in service. Such disruptions would include:

Lost or erased data files	Disk failure
Local power outage (short-term)	Communication Hub failure
Building power outage (short-term)	Workstation/client failure
Non-database server failure	Local LAN failure

Several systems within the 7th floor Data Center serve as backups for Critical or Essential computers or communication equipment, with the primary systems located elsewhere. Recovery plans for these backup systems will be addressed in the Computer Operations Recovery Plan for the primary systems. The criticality of the backups, at any given moment, will depend on the status of the primary system, i.e., if the primary system is unavailable the backup may become critical.

RECOVERY ACTION PLAN

Incident Objectives

- Ensure staff and public safety
- Mitigate the effects of the incident on: 1) data, 2) software, and 3) hardware
- Provide all necessary support to maintain critical Department operations
- Restore critical Domain Name Server service
- Restore critical Exchange and Active Directory service at HQ and JOC
- Restore all essential systems to full operations
- Restore all necessary systems to full operations

Event Notification

The initial notification of most emergency events will occur as described in the Data Center Emergency Procedures. Once staff is aware of an emergency, the appropriate ICT members, maintenance personnel, and support staff will be contacted. Notification will be handled in accordance with the DTS Confidential Phone List or Emergency Contact List.

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover facility functions. The Incident Commander will establish immediate and intermediate goals and objectives for recovery. The Operations Section Chief will implement the recovery plan. The Planning/Intelligence Section Chief will implement appropriate notification and reporting procedures to facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will list immediate needs for resources. The Finance/Administration Section Chief will implement emergency purchasing procedures as appropriate for the incident, and coordinate with DOC Finance/Administration Section to site emergency financial authorizations and assistance.

Disaster Scenarios

Loss of function – One or more critical or essential systems or IT services are lost due to hardware failure, software corruption, database corruption, major power outage, major network failure, etc. Or the system or service must be taken “off-line” due to a potential threat such as overheating or a water leak.

1. Determine the cause of outage and the extent of damage.

2. If incident involves loss of power, loss of air conditioning, water leak, or fire/smoke, follow the procedures outlined in the Data Center Emergency Procedures.

3. If the incident is not adequately covered in the Emergency Procedures or there is significant damage, use the DTS Confidential Phone List to contact all of the appropriate ICT members.

4. If outage involves department-wide DNS server or SMTP e-mail server, ensure stand-by systems in Room 307 are functioning properly.

5. Inform system and data owners, using e-mail aliases and phone list, of impact and estimated duration of outage.

6. Inform system users, using e-mail aliases (if available), of outage.

7. Repair or replace system or equipment under maintenance contracts, or purchase or lease new equipment.

8. If the outage duration will exceed five days, implement the Computer Operation Recovery Plan and appropriate back-up systems.

Loss of access – Access to the 7th floor Data Center, the 7th floor, or the entire building is lost (or access is prohibited) due to civil demonstrations, bomb threat, flooding of surface streets, possible earthquake damage, hazardous material spill, or the building is evacuated for other reasons. There is, however, no apparent damage to the Data Center or its contents, nor are any of the support services or utilities affected (i.e., functionality is not lost).

1. Obtain clearance from building manager, law enforcement, fire department, hazardous material specialists, etc. before entering any restricted zones.
2. Determine through remote logins if critical, essential, and necessary systems, applications, and databases are still available and functioning properly. If so, continue to administer systems remotely.

3. If systems, applications, or databases are no longer available, follow the action plan outlined above in Loss of Function.

4. Determine how long normal access will be unavailable. Determine whether systems can continue to function without physical intervention (e.g., changing tapes in database backup systems) for that length of time. If not, take systems off-line and respond to loss of function as outlined above.

5. If the Department-wide DNS or e-mail servers will eventually be lost, ensure stand-by systems in Room 307 are functioning properly and can take over when main services fails. If Room 307 is also off limits, activate the secondary backup systems at JOC.

6. If loss of access will extend beyond five days, or the 7th floor or the entire building is involved, coordinate action with the Emergency Preparedness Manager as per DWR's Business Recovery Plan.

7. If loss of access will extend beyond 5 days and essential systems cannot be maintained remotely, activate Computer Operations Recovery Plan.

Loss of facility – The Data Center, 7th floor, or entire building has been damaged due to a natural disaster (e.g., fire or earthquake) or an intentional act (e.g., bomb or arson). Functionality is lost as are most or all of the computer and communications equipment, paper files, manuals, etc.

1. If the Resources Building is damaged or destroyed or other critical or essential functions are lost, coordinate action with Emergency Preparedness Manager and/or Department Operations Center as per the DWR BRP.

2. Only after obtaining clearance from emergency personnel attempt to mitigate or control the effects of the disaster to the Data Center (e.g., protect any undamaged equipment from water).

3. Assess the condition of the site. If site has other than minor damage, expect an outage of more than 5 days and activate the ORP for essential systems.

4. Determine the extent of damage and assess the impact on essential systems. Determine what equipment is operational, field repairable, must be replaced in total, or what can be eliminated from the system without major loss of functionality.

5. If the primary and standby DNS and e-mail servers are lost, ensure the secondary backup systems at the JOC are functioning properly and can take over for the primary and standby systems.

Alternate Sites

DNS

A stand-by DNS server is available in Room 307, with a secondary backup located at the JOC.

SAP Enterprise Resource Planning

A RAP is being developed for the SAP database and application servers located in the Resource Building Data Center. This plan will include backup systems at JOC.

CIMIS

There is no predefined backup system for the CIMIS server; however; an existing Sun UNIX Server could be reconfigured at a secondary site. A more difficult task will be the reconfiguration at an alternate site. The CIMIS database is backed up and stored off-site.

Exchange and Active Directory Services

See Computer Operations Recovery Plan section 6.600. Primary and secondary send-mail servers are located at HQ and JOC respectively. Exchange servers and Domain Controllers are dispersed throughout the Department allowing e-mail service to continue should the Data Center be impacted.

Minimum Resources

Within 24 hours of a disaster

The initial response will involve all members of the ICT except Finance/Administration and Logistics. The members of this initial response team will assess the nature of the emergency and prepare an incident-specific action plan.

Within 5 days of a disaster

All members of the ICT will need to be located at one command center with desks, phones, computers, and network connections (DWR wide area network and Internet) for each member of the team. In addition, members of the appropriate Operational Recovery Team for both DTS and Fiscal Services will be assigned to the designated backup sites as per the Computer Operations Recovery Plan. Any equipment not already at the backup sites will need to be borrowed from other DWR locations, or procured through emergency purchase, maintenance contract, or lease.

Checklist

- ❑ Ensure safety of employees and public. Follow instructions of emergency personnel at the site.
- ❑ Determine the extent of the damage to the physical plant, equipment, applications, and data.
- ❑ If incident is due to air conditioning outage, power outage, water leaks, or fire and smoke, follow instructions contained in the Data Center Emergency Procedures.
- ❑ If the incident warrants, contact members of ICT and prepare a specific IAP.
- ❑ If incident involves major damage, or loss of several essential functions, contact the Emergency Preparedness Manager.
- ❑ If essential systems will be lost for more than five days implement interim operations in accordance with the Computer Operations Recovery Plan.

Plan Administration

Plan Dissemination

Each team member will receive a copy of the plan to be kept offsite. A copy of the RAP will be provided to the DWR Emergency Preparedness Manager.

Annual Review

The plan will be reviewed annually. Names and telephone numbers of members of the Incident Command Team will be updated and reissued each year.

Program business functions will be reviewed and, if necessary, the plan body will be will be updated as well to reflect those changes. RAP objectives will be reviewed annually and modified as needed to meet changing requirements.

Exercises

A tabletop test is held at least once a year, usually in October, to review the Computer Operations Recovery Plan. At that time, members of the Fiscal Services and DTS teams meet as a group to walkthrough each subsection of the plan and to discuss any changes in personnel, applications, equipment, software, or vendors. As a result of that meeting, the ORP is updated and submitted to the Department of Information Technology in January.

A similar exercise will be conducted on the RAP prior to the Computer Operations Recovery Plan tabletop test. This exercise will include all members of the Incident Command Organization.

DATA CENTER EMERGENCY PROCEDURES

It is essential that reasonable protective measures be instituted to minimize damage, protect files and provide for continuing computer processing. Loss of data and processing time could result in costly delays.

The actions taken to protect resources in any specific situation will vary depending on the time, number of personnel, and circumstances. There is no substitute for good judgment. Operation and supervisory personnel must be made aware of the emergency plans and control measures available, and be prepared to take such actions as are deemed advisable in the situation. The actions outlined in the following sections are intended to be a guide for handling these scenarios.

Electrical Outage

This is an outage that affects the Data Center's electrical grid, power distribution units, 16th floor Uninterruptible Power Supply generator, or total building power. These procedures apply only to unplanned electrical outages.

How We Find Out

The Data Center is connected to the Cornerstone Protective Services alarm and monitoring system on a seven days a week, 24 hours a day connection. Data Center Operations staff are alerted for response.

Occupied	**Unoccupied**
Data Center Operations staff or other DTS staff are present during normal working hours. The following alerts or alarms occur when there is an "unplanned" electrical outage:	When there is no one present in the Data Center or there is no one there knowledgeable to respond to the event or emergency, the following alerts occur:
• Data Center Power Distribution Units (PDUs) alarms will begin beeping/alarming. • Data Center UPS connected to file servers begin sounding alarms. • Liebert Air-Chiller alarm electrical "environmental" failure and signal Cornerstone Protective Services. • Data Center's ceiling high-temperature sensors will alarm when chillers fail and signal Cornerstone Protective Services. • Cornerstone Protective Services will telephone the DWR Data Center and alert Operations staff of an electrical outage.	• Cornerstone Protective Services receives the alarm. (See occupied for types of alarms.) • Cornerstone Protective Services calls a telephone call list of pre-authorized Data Center Operations staff and the Building Manager. Calls are made until there is a contact response.

Initial Response - Phase I

These are the steps after notification of the alarm.

Occupied	Unoccupied
Data Center Operations staff provide initial response. An initial response consists of physical checks of computer equipment, UPS, air conditioning-chillers, Power Distribution Units (PDUs) for electrical power on.	When there is no one present in the Data Center or there is no one knowledgeable to respond to the event or emergency, the following responses occur:
• Data Center Supervisor, or his/her backup, alerts IT Support Services Branch Chief of electrical outage. • IT Support Services Branch Chief alerts Systems Administrators. • Data Center Supervisor alerts Developmental Services and Office of Building and Grounds of the alarm. • Data Center Supervisor assigns Data Center staff to call Central Plant 653-0009 for additional information and assistance. • Data Center Supervisor assigns staff to notify the DWR HELP DESK.	• Before coming to Data Center, on call Data Center staff call Central Plant 653-0009 to request information and assistance. • On call Data Center Operations staff call Data Center Manager, IT Support Services Branch Chief, Database System Administrator Manager or their backups. • IT Support Services Branch Chief calls Systems Administrators of affected systems. • System Administrators either monitor and administer systems remotely or come to the Data Center. • Data Center staff come to the Data Center to assess the situation.

Initial Response - Phase 2

Operations staff and Systems Administrators are present and examine the Data Center, Systems, and Applications to determine the extent of damage (outage):

- Data Center Operations staff evaluate the Unisys and correct any problems for which they are trained.
- Data Center Operations staff check source of electrical power outage and inform Central Plant (653-0009) of any problems they find and cannot correct.
- Data Center Operations staff check UPS systems and inform System Administrators of time remaining on UPS systems.
- Systems Administrators evaluate Data Center file servers, workstations.

If power continues to be down:

- Data Center Operations staff call Central Plant 653-0009 for emergency support when power continues to be down.
- Database Administrators shut down critical databases and notify System Administrators when shut down is complete.
- Systems Administrators begin a controlled shutdown of remaining servers after the Database Administrator has shutdown databases.

Assessment of Systems and Applications Impacted

Operations staff and IT Support Services Branch examine the systems and applications to determine which LAN Administrators, application owners, and users will be impacted:

- Data Center Operations staff and IT Support Services Branch evaluate systems and applications on the Unisys.
- Systems Administrators check applications and database for discrepancies.

Notification of Owners, Administrators, and Users

Once the initial response is complete, additional notifications need to be made based on the assessment results:

- Data Center Operations staff notify others affected, e.g. Operations and Maintenance at the POC for Unisys Systems Administrators.
- Data Center Operations staff notify Operations and Maintenance Communications Branch.
- IT Support Services Branch Chief notifies LAN Administrators. (This may be done through the DWR HELP DESK if during business hours.)
- Data Center Manager notifies DWR Help Desk after start of business hours.
- The DWR Help Desk notifies application managers and affected clients of outage status.

Restoration

- When power resumes, Data Center Manager determines status of power by contacting Central Plant staff.
- Data Center Operations staff confirms power at each UPS system.
- Data Center Manager notifies IT Support Services Branch Chief that systems may be restarted.
- Data Center Manager notifies DWR HELP DESK.
- IT Support Services Branch Chief notifies System Administrators to restart systems.
- System Administrators in accordance with desk manuals restart Systems. Appropriate Database Administrators are notified when systems are restored.
- Database Administrators restart Databases, check application and database for discrepancies and notify the DWR HELP DESK.
- DWR HELP DESK confirms availability of systems and notifies users.

Air Conditioning Outage

This is an outage that affects the Data Center's air conditioning. Limited and partial air conditioning outages can and do occur. These procedures apply only to unplanned air conditioning outages.

How We Find Out

The Data Center is connected to the Cornerstone Protective Services alarm and monitoring system on a seven days a week, 24 hours a day connection. Data Center Operations staff are alerted for response.

Occupied	Unoccupied
Data Center Operations staff or other DTS staff are present during normal working hours. The following alerts or alarms occur when there is an "unplanned" air conditioning outage:	When there is no one present in the Data Center or there is no one there knowledgeable to respond to the event or emergency, the following alerts occur:
• Liebert Air-Chiller beeps and signals an alarm of an "environmental" failure and signals Cornerstone Protective Services. Liebert LCD display indicates an alarm status. • Data Center's ceiling high-temperature sensors will signal Cornerstone Protective Services when temperature is above 80 degrees. (No audible alarm is produced.) • Cornerstone Protective Services Company will telephone the DWR Data Center and alert Operations staff of the high temperature. • Data Center "Sensaphone" calls preset call list to notify of the high temperature.	• Cornerstone Protective Services receives the alarm. (See occupied for types of alarms.) • Cornerstone Protective Services calls a telephone call list of pre-authorized on call Data Center Operations staff and the Building Manager. Calls are made until there is a contact response. • Data Center "Sensaphone" calls preset call list to notify of the high temperature. • Data Center staff call Central Plant 653-0009 for additional information and assistance.

Initial Response - Phase I

These are the steps after notification of the alarm.

Occupied	Unoccupied
Data Center Operations staff provide initial response. An initial response consists of physical checks of computer equipment, UPS, air conditioning-chillers, Power Distribution Units (PDUs) for electrical power on.	When there is no one present in the Data Center or there is no one knowledgeable to respond to the event or emergency, the following responses occur:
• Data Center Supervisor, or the backup, alerts IT Support Services Branch Chief of air conditioning outage. • Data Center staff call Data Center Manager, IT Support Services Branch Chief, Database System Administrator Manager or the backups. • Data Center Supervisor alerts Developmental Services and Office of Building and Grounds of the alarm. • Data Center Supervisor assigns Data Center staff to call Central Plant 653-0009 for additional information and assistance. • Data Center Supervisor assigns staff	• On call Data Center staff calls "Sensaphone" to determine temperature. **If below 78º (Sensaphone):** • On call Data Center staff calls Data Center Manager. • On call Data Center staff reports to the Data Center to assess the situation. Note: If it is expected by the on call Data Center staff to take more than 20 minutes to arrive at the Data Center, the Data Center Manager monitors the "Sensaphone" every 10 minutes. If temperature

who notifies the DWR HELP DESK of the status.	rises above 78º, the "above 78º" procedure is implemented. **If above 78º (Sensaphone):** • On call Data Center staff calls Data Center Manager or his/her backup and proceeds to the Data Center. • Data Center Manager calls IT Support Services Branch Chief, Database System Administrator Manager or their backups. • Systems Software Support calls Systems Administrators Manager. • System Administrators either monitor and administer systems remotely or report to the Data Center.

Initial Response - Phase 2

Operations staff and Systems Administrators are present and examine the Data Center, Systems, and Applications to determine the extent of damage (outage):

- Data Center Staff evaluate air conditioning.
- If loss of one chiller occurs and the Data Center temperature is stable as shown on the "Temperature/Humidity" recorder:
  - Power off chiller.
  - Notify Central Plant (653-0009).
- If loss of chilled water:
  - Notify Central Plant.
- Notify Data Center Manager.
- Start up the 2 back up HVAC units. The 2 back up HVACs should provide substantial cooling.
- Shut down Unisys if necessary.
- Place portable Movin & Cools units and activate if necessary.
- Place fans to cool hottest racks if necessary.
- Data Center Operations staff evaluate the Unisys and correct any problems for which they are trained.
- Systems Administrators evaluate Data Center file servers, workstations.
- Data Center Operations staff call Central Plant 653-0009 for emergency support when chillers/air conditioning continues to be down.
- Database Administrators shut down critical databases and notify System Administrators when shut down is complete.
- Systems Administrators begin a controlled shutdown of remaining servers after the Database Administrator has shutdown databases.

Assessment of Systems and Applications Impacted

Operations staff and Systems Administrators examine the systems and applications to determine which LAN Administrators, application owners, and users will be impacted. Follow the assessment procedures outlined in the Electrical Outage Section above.

Notification of Owners, Administrators and Users

Once the initial response is complete, additional notifications need to be made based on the results of the assessment. Follow the notification procedures outlined in the Electrical Outage Section above.

Restoration

- When chillers/air conditioning resumes, Data Center Manager determines status of power by contacting Central Plant staff.
- Data Center Manager notifies IT Support Services Chief that systems may be restarted.
- Data Center Manager notifies DWR HELP DESK.
- IT Support Services Branch Chief notifies System Administrators to restart systems.
- System Administrators, in accordance with desk manuals, restart Systems. Appropriate Database Administrators are notified when systems are restored.
- Database Administrators restart Databases and notify the DWR HELP DESK
- DWR HELP DESK confirms availability of systems and notifies users.

Fire and Smoke

This is an event where fire or smoke is detected or suspected.

How We Find Out

The Data Center is connected to the Cornerstone Protective Services alarm and monitoring system on a seven days a week, 24 hours a day connection. The California Highway Patrol is first notified and then Data Center Operations staff are alerted for response.

Occupied	**Unoccupied**
Data Center Operations staff or DTS staff are present during normal working hours. The following alerts or alarms may occur indicating a possibility of fire or smoke:	When there is no one present in the Data Center or there is no one knowledgeable to respond to the event or emergency, the following alerts occur:
• Data Center staff see or smell smoke or fire, or notice unusual heat coming from equipment. • The Simplex fire alarm system is activated and sounds its alarm in the Data Center and notifies. (The Simplex fire alarm system can be activated by: 1) Two smoke detectors sensing smoke either at the ceiling or under the raised tile floor, 2) High temperature at ceiling sensor, or 3) Manual pull fire alarms located throughout the Data Center complex.) • Company will telephone the DWR Data Center and alert Operations staff of a temperature rise or smoke alarm.	• The Simplex fire alarm system is activated and sounds its alarm in the Data Center and notifies. (When unoccupied the Simplex fire alarm system can be activated by: 1) Two smoke detectors sensing smoke either at the ceiling or under the raised tile floor, or 2) High temperature at ceiling sensor. • Calls the California Highway Patrol and then calls a telephone call list of pre-authorized Data Center Operations staff. Calls are made until there is a contact response. If no Operations staff are reached, the Building Manager is called. • Liebert air chillers will automatically shutdown if the fire alarm is activated.

Initial Response - Phase I

These are the immediate steps after notification of the alarm.

Safety of our employees and guests is our primary concern. If in doubt, always call the Fire Department and evacuate people first.

Occupied	**Unoccupied**
Data Center Operations staff provide initial response. An initial response may consist of physical checks of source of fire and impacted equipment, notification of Fire Department and evacuation of employees.	When there is no one present in the Data Center or there is no one knowledgeable to respond to the event or emergency, the following responses occur:
• Small Fire - (e.g. trash can). If the fire appears easily contained and you are trained: 1) Employee uses the appropriate type extinguisher to put out fire. 2) Employee notifies Data Center Manager. 3) Data Center Manager notifies Office of Support Services, the Building Manager and DTS Management. • Large Fire 1) Pull fire alarm if not already sounding. 2) Contact the Emergency Coordinator or Alternate Coordinator. 3) Evacuate the Data Center. 4) Close doors to contain the fire. 5) If necessary, evacuate to the Second Floor. 6) Inform Data Center Manager of details (after moving to designated evacuation area, if evacuation is necessary). 7) Data Center Manager informs Office of Support Services and the Building Manager of the details. 8) Data Center Manager informs IT Support Services Branch Chief of details. 9) Systems Software Support alerts Systems Administrators who remotely shut down servers, if possible. • Liebert air chillers will automatically shutdown if fire alarm is activated.	• Data Center staff call Data Center Manager, IT Support Services Branch Chief, Database System Administrator Manager or their back-ups. • IT Support Services Branch Chief calls Systems Administrators. • System Administrators attempt to shut down databases and systems remotely in coordination with Database System Administrators. • Data Center Manager and staff report to the Data Center to assess the situation.

Initial Response - Phase 2

Operations staff and Systems Administrators are present. After receiving all clear from the Fire Department, staff examines the Data Center, Systems, and Applications to determine the extent of damage:

- Data Center Operations staff evaluate the Data Center equipment.
- Systems Administrators evaluate Data Center file servers and workstations in person or remotely, as appropriate.
- Systems Administrators begin a controlled shutdown of remaining file servers after the Database Administrator has shutdown databases, as appropriate.

Assessment of Systems and Applications Impacted

IT Support Services Branch examine the systems and applications to determine which LAN Administrators, application owners, and users will be impacted. Follow the assessment procedures outlined in the Electrical Outage Section above.

Notification of Owners, Administrators and Users

Once the initial response is complete, additional notifications need to be made based on the results of the assessment. Follow the notification procedures outlined in the Electrical Outage Section above

Restoration

If the Data Center can be reoccupied after the all clear from the Fire Department, staff restart and restore systems in accordance with desk manuals.

- Fire Department resets the 1st floor alarm panel and then the 7th floor alarm panel.
- Data Center Manager directs any cleanup or repairs required.
- Liebert chillers must be physically reset to resume normal operation. They should be reset in coordination with Central Plant's restoration of air conditioning.
- All those impacted by the system and application outages are notified by DWR HELP DESK when systems are back on line.
- Data Center Manager works with Developmental Services, Office of Buildings and Grounds, and fire alarm system company to return all fire protection systems to normal operation.
- If appropriate, Disaster Recovery Coordinator activates Computer Operations Recovery Plan.

Ceiling Water Leak or Fire Sprinkler Water Discharge

This is an event that affects the Data Center due to ceiling water leak or fire sprinkler activation.

How We Find Out

The Data Center is connected to the Cornerstone Protective Services alarm and monitoring system on a seven days a week, 24 hours a day connection. Data Center Operations staff are alerted for response.

Occupied	Unoccupied
Data Center Operations staff or other DTS staff are present during normal working hours. The following alerts or alarms occur when there is a ceiling water leak or fire sprinkler water discharge:	When there is no one present in the Data Center or there is no one knowledgeable to respond to the event or emergency, the following alerts occur:
• Employees notice water coming from ceiling. • LTM1000 Water Alarm System sensors under the floor tiles will activate a blue strobe light in the ceiling of the Data Center. • LTM1000 will signal a water detection and signal Cornerstone Protective Services. • Cornerstone Protective Services Company will telephone the DWR Data Center and alert Operations staff of a water leak.	• Cornerstone Protective Services receives the alarm. • Cornerstone Protective Services calls the telephone call list of pre-authorized Data Center Operations staff and the Building Manager if no one else is available. Calls are made until there is a contact response.

Initial Response - Phase I

These are the immediate steps after notification of the alarm.

Occupied	Unoccupied
Data Center Operations staff provide initial response. An initial response consists of physically checking for source of water leak and covering up impacted equipment with plastic sheets.	When there is no one present in the Data Center or there is no one knowledgeable to respond to the event or emergency, the following responses occur:
• Data Center staff covers up impacted equipment with plastic sheets. • Data Center Supervisor alerts IT Support Services Branch Chief of ceiling water leak or fire sprinkler water discharge, as appropriate. • IT Support Services Branch Chief alerts Systems Administrators, if appropriate. • Developmental Services and Office of Building and Grounds are alerted of the alarm, if appropriate. • Data Center Operations staff evaluate water source.	• Data Center staff call Data Center Manager. • Data Center staff report to the Data Center to assess the situation. • Data Center staff covers up impacted equipment with plastic sheets. • Data Center Operations staff evaluate water source.

Initial Response - Phase 2

Operations staff and Systems Administrators are now physically present and examine the Data Center, Systems, and Applications to determine the extent of damage (outage):

- Data Center Operations staff evaluate the Unisys and correct any problems for which they are trained.
- Data Center Operations staff check source of water and inform Central Plant (653-0009) of any problems they find and cannot correct.
- Systems Administrators evaluate Data Center file servers and workstations, as appropriate.
- Database Administrators shut down critical databases and notify System Administrators when shut down is complete, if appropriate.
- Systems Administrators begin a controlled shutdown of remaining servers after the Database Administrator has shutdown databases, if appropriate.

Assessment of Systems and Applications Impacted

Operations staff, IT Support Services Branch examines the systems and applications to determine which LAN Administrators, application owners, and users will be impacted. Follow the assessment procedures outlined in the Electrical Outage Section above.

Notification of Owners, Administrators and Users

The initial response is complete, additional notifications need to be made based on the results of the assessment. Follow the notification procedures outlined in the Electrical Outage Section above.

Restoration

- Based on assessment of the situation and consultation with Developmental Services and OB&G, Data Center Manager notifies System Software Support Manager that systems may be restarted.
- Data Center Manager notifies DWR HELP DESK.
- System Software Support Manager notifies System Administrators to restart systems.
- System Administrators in accordance with desk manuals restart Systems. Appropriate Database Administrators are notified when systems are restored.
- Database Administrators restart Databases and notify the DWR HELP DESK.
- DWR HELP DESK confirms availability of systems and notifies users.

Incident Command Team

(September 2006)

Function	Name	Work #	Other #
Incident Commander, Chief, Infrastructure	Chris Navarrete	653-6854	502-2671 (cell)
Planning/Intelligence	Andrew Summers	653-0941	698-3275 (cell)
IT Support Services Branch Chief	Chris Navarrete	653-6854	502-2671 (cell)
Finance/Admin, Chief Admin	Ramona Fernandez	653-9670	592-0700 (pager) 812-3586 (cell)
Logistics, Purchasing	Janice Davis	653-7937	
SAP Fiscal Systems, Chief,	Andy Osiow Mary Smith	653-3916 653-9967	296-7388 (cell) 592-0877 (pager) 296-6627 (cell)
Network Comms, Network Admin	Roger Linder	653-6842	592-2812 (pager) 223-2966 (cell)
Data Center, Chief, Data Center	Ted Yoshikawa Debbie Lewis-Barbour	653-7316 653-8737	592-0261 (pager) 947-5406 (cell)

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Technical Services
Network and Communications Support Office
Resources Building
1416 Ninth Street, Room 620
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix B: Network and Communications Support Office
Function Recovery Action Plan

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INTRODUCTION

The Network and Communications Support Office provides communications services that support various critical and essential applications for the Department. The communications systems have been configured to withstand the loss of a single site without compromising those applications on the communications networks that have been deemed critical and do not terminate at the lost site. During an incident, the Communications Office will undertake four roles/actions:

1) Stabilize and restore the Department's Communications Network.
2) Provide cellular phones, offsite telephone facilities provided by the local utility; possible erect a portable repeater to enable mobile radio communications; liaison/notification to Department of General Services.
3) Provide communications support services to Departmental Divisions, especially those with emergency response and/or jurisdictional responsibilities; alternate and/or temporary communications services for critical/essential functions; support communications installations at alternate facility locations during the incident.
4) Provide Department with continual staff support, as needed, for the Incident Command Post, Flood Operations Center and Department Operations Center.

The Network and Communications Support Office, under the direction of the Office Chief (Supervising Telecommunications Engineer), is comprised of four Branches: Network Management, Communications Engineering, LAN and Telecommunications, and Computer Network Interface.

The RAP is not intended to include exact procedures to follow but rather is to be used as a guideline. The nature and scope of each event that results in loss or interruption of operation cannot be predicted.

The RAP includes:

- An ICT designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the business functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

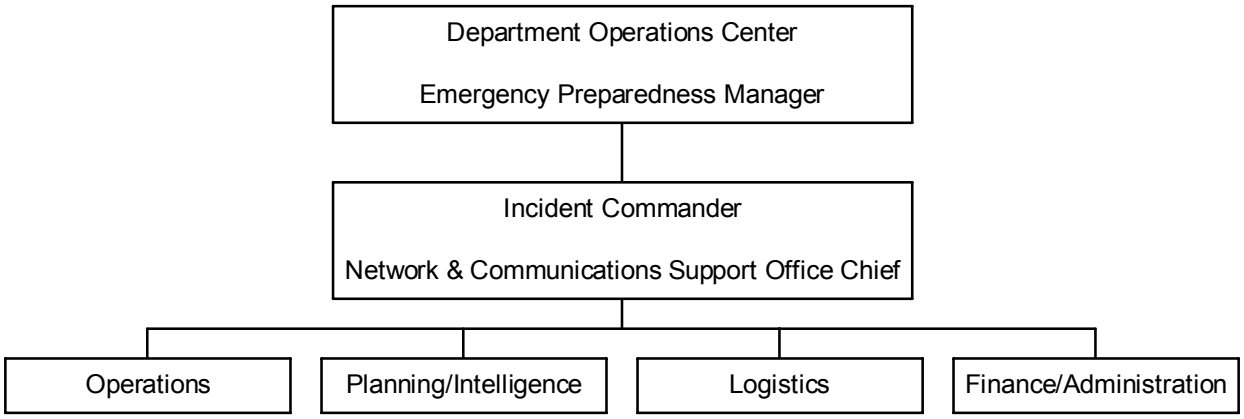
ORGANIZATIONAL STRUCTURE

The organization of the functions during the recovery will be in accordance with the Standardized Emergency Management System and its field element, the Incident Command System. SEMS is a system organizing emergency management. SEMS and ICS utilize standard organizational techniques and common terminology, functions and responsibilities that are applicable to most emergency situations. All state agencies and most city and county governments in California have implemented or are implementing SEMS/ICS. Law requires the use of SEMS/ICS by state agencies.

Incident Command System Structure

The ICS will be used during recovery from a disaster resulting in loss of access to the facility. The Incident Command Team will form and operate in conformance with SEMS. The ICS being used department-wide for emergencies provides for common terminology and duties that allow considerable flexibility and adaptability to most situations. While details of a particular event or incident may vary widely the functions that must be carried out are common. The ICS can and is used for a wide variety of emergency management activities. The basic ICS structure is shown in Figure 1 below followed by a brief description of the duties of each position.

Figure 1: Incident Command System Organization



Department Operations Center

Under supervision of the DWR Emergency Preparedness Manager, the Department Operations Center is responsible for managing and coordinating recovery activities of the Department. The DOC will coordinate assistance from other DWR Divisions/offices when Office resources are not sufficient and may reallocate available resources to higher priority functions.

Incident Commander

The Incident Commander will be responsible for establishing recovery objectives as well as directing recovery activities. The Incident Commander will keep the DOC apprised of all recovery activities.

Operations

The Operations Section Chief will implement the recovery plan and identify, assign, and organizes resources.

Planning and Intelligence

The Planning/Intelligence Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for DWR management.

Logistics

The Logistics Section Chief will request, organize, distribute, and track resources necessary for the recovery plan. This will include personnel, supplies, facilities, vehicles, and equipment.

Finance and Administration

Finance/Administration Section Chief will track (in cooperation with the Logistics Section) account and pay for activities related to the recovery plan. Timekeeping will also be the responsibility of this Section. The Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Office are separated into critical, essential, and necessary functions. The classification of functions establishes priorities for recovery efforts.

Critical Functions - Restore within 24 hours

Establish communications – Provide cellular phones; offsite telephone facilities provided by the local utility; possibly erect a portable repeater to enable mobile radio communications; liaison/notification to Department of General Services.

Critical Systems - Restore within 24 hours

Lightwave/Microwave/Copper Communications Network[1]
9000 Multiplexer Communications Network[1]
SCADA Wide Area Network [1]
Radio/Telemetry System

Essential Functions - Restored within 5 days

Provide communications support services to Departmental Divisions, especially those with emergency response and/or jurisdictional responsibilities.

Essential Systems- Restored within 5 days

DWR Business Wide Area Network
T-Router for CAISO Meters

(Note: due to the critical nature of the below listed management stations, the Communications Office maintains two Network Centers, one in Room 307 of the Resources Building and the second in Room 339 at the Joint Operations Center. If both centers are simultaneously impacted, management station restoration will be reclassified to critical. If only one center is impacted, restoration of these stations will either be essential or downgraded to necessary status.)

Network Management Station for Racal 9000 System [1]
Network Management Station for Harris System
Network Management Station for SCADAWAN Routers
Network Management Station for DWRWAN Routers
POP-45/Rectifier Alarm Management System

Note: due to the critical nature of the below listed leased services, the Communications Office maintains two connections, one terminating at the Resources Building and the second terminating at the Joint Operations Center. If both connections are simultaneously impacted, restoration of the connection will be reclassified to critical. If only one connection is impacted, restoration of these connections will either be essential or downgraded to necessary status.)

Internet connection and/or firewall
PPP/VPN access
ECN Scheduling connection and/or firewall[2]
ECN ICCP connection and/or firewall [2]

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[1]Loss could impact delivery of water and power.
[2]Loss could impact delivery of water and power.

Necessary Systems - Restored within 21 days

Aqueduct Fiber Telephone System
Video Surveillance Equipment
Video Conference System Equipment
USGS Business to Business connection
NWS Business to Business connection
USBR Business to Business connection
USACE Business to Business connection
Teale/SCO connection

As noted earlier, the above systems provide communications services for various applications. Many of these applications provide critical and essential functions to the Department. Attachment 4 lists the applications that are carried on the Department's Communications Network and the applications contacts. Status of restoration for a facility/service will be dependent upon the critical/essential function applications that are affected and will require coordination with the application contact.

Incident Objectives

1. Ensure staff and public safety.
2. Mitigate the effects on the communications systems.
3. Provide all necessary support to ensure critical functions and applications are restored to operability.
4. Restore critical and essential functions and applications.
5. Restore all systems to full operation.

RECOVERY ACTION PLAN

The Network Management Branch supports the Communications Network with assistance from the Engineering Branch. These two Branches are staffed with two Senior Telecommunications Engineers, six Telecommunications Engineers, one control System Technician and one Telecommunications System analyst. Depending on the magnitude of an incident, the Network Management Branch will need to secure the services of the Control System Technicians from field divisions and various contract services.

Event Notification

Notification will be handled by the Network and Communications Support Office Chief and/or by Branch Chiefs. (see Notification and Contact List)

Initial Assessment

The ICT will meet as soon as practicable after the event to assess the situation and determine the steps necessary to recover facility functions. The Incident Commander/Assistant will establish immediate and intermediate goals and objectives for recovery. The Operations Section Chief will implement the recovery plan. The Planning/Intelligence Section Chief will implement appropriate notification and reporting procedures to facility staff and take such immediate recovery steps as feasible. The Logistics Section Chief will list immediate needs for resources. The Finance/Administration Section Chief will implement emergency purchasing procedures as appropriate for the incident, and coordinate with DOC Finance/Administration Section to site emergency financial authorizations and assistance.

Disaster Scenarios

This plan defines three types of disasters:

- **Loss of Function** – A disaster resulting in the inability to perform one or more mission functions.
- **Loss of Access** – A disaster or other incident preventing complete access to one or more facilities.
- **Loss of Facility** – A disaster resulting in the destruction of one or more facilities.

Loss of Function – Single Site or Area

This scenario assumes that, due to some incident, the communications services can no longer be provided. In this case, the facility is not affected, only the communications equipment and the functions they provide. Examples include power outages, fiber/copper cable cuts, and equipment failure.

1. Determine cause of outage and extent of damage.
2. Identify critical /essential/necessary applications affected.
3. Notify Project Operation Center and appropriate users of services affected (i.e., phone, e-mail, fax). Attachment 4 lists the applications that are carried on the Department's Communications Network and the applications contacts.
4. Ensure critical applications backup/alternate communications services are operational. Restore

as many services as possible which do not directly terminate at the incident site, based upon priority levels.

5. Determine what, if any, temporary services/functions can be provided until service is restored. Coordinate with designated site contact for incident and POC as necessary.
6. Coordinate with field division Control System Technicians, service providers, and/or equipment vendors as necessary to begin restoration.

Global Functional Failure[3]

This scenario would cover the entire functional loss of a system (e.g. fiber/microwave transmission, multiplexed network, wide area network, telemetry) due to some widespread cause (e.g. system corruption/failure, virus). In this scenario, there is no apparent physical damage to the equipment. It is uncertain if the equipment/system can be repaired or reset. It may be necessary to replace all impacted items with a product from another vendor. Anticipated downtime until full system replacement may range from 3 months to 9 months.

Scenario 1 - Loss of fiber and/or microwave transmission system

1. Determine type of equipment and scale of outage.
2. Recommend that users who have applications carried on the impacted equipment or system transfer to their emergency/alternate communications systems if available or have application user activate the recovery action plan for the application.
3. Secure emergency leased services and/or install alternate vendor equipment for bypass and restoration as appropriate.

Scenario 2 - Loss of Multiplexer System

1. Determine type of equipment and scale of outage.
2. Recommend that users who have applications carried on the impacted equipment or system transfer to their emergency/alternate communications systems if available or have application user activate the recovery action plan for the application.
3. Install equipment to bypass multiplexers and drop directly onto transmission system as appropriate and/or install equipment to replace affected systems.
4. Lease emergency services as necessary.

Scenario 3 - Loss of Wide Area Network Equipment

1. Determine type of equipment and scale of outage.
2. Recommend that applications that have emergency/alternate communications systems in place, transfer as appropriate.
3. Lease emergency services as appropriate.

[3]Primary critical application functions for the Department which would take precedence during a global incident are: 1) water deliveries and project operation, 2) flood management, dam safety, and emergency assistance, and 3) fiscal services.

4. Install alternate vendor equipment for restoration as appropriate.

Loss of Access

This scenario would cover the loss of access to any floor or building at the Resources Building, Joint Operations Center, or any other SWP facility where communications equipment is installed and operational. In this scenario there is no apparent damage to any communications equipment nor are any systems/services interrupted.

1. Determine through appropriate remote login, as applicable, that equipment/systems are on line and operational. If primary Network Center is affected, transfer management station controls to secondary Network Center.
2. If systems/equipment are no longer functioning, determine if action plan identified in Loss of Function needs to be implemented.
3. Determine how long access will be unavailable.
4. Determine if critical function applications will need to be activated at alternate location if loss of access is in excess of 24 hours. Network Management Branch will provide support services as necessary.
5. Determine if essential function applications will need to be activated at alternate location if loss of access is in excess of 5 days. Network Management Branch will provide support services as necessary.
6. Determine if necessary function applications will need to be activated at alternate location if loss of access is in excess of 21 days. Network Management Branch will provide support services as necessary.

Loss of Facility

This scenario assumes the loss of the communications room or facility due to such disaster as fire, flood, or earthquake. All equipment, as-built documentation, manuals, software, etc. at facility have been lost.

1. Identify the damaged site. Inventory which communications equipment has been lost and assess the extent of the damages.
2. If the site includes a Network Center, ensure that management control has been transferred to the alternate Network Center.
3. Stabilize the remaining communications system as much as possible. Ensure critical applications backup/alternate communications services are operational. Restore as many services as possible that do not directly terminate at the incident site based upon priority levels.
4. Secure resources and implement bypass site, as appropriate, to stabilize remaining communications system.
5. Coordinate with Emergency Preparedness Manager and POC, as necessary, for activation of alternate site or relocation of services/functions.
6. Determine what, if any, temporary services/functions can be provided until service is restored. Refer to site and or division's RAP to determine which application functions need to be restored, in what priority order, and in what locations. Initiate as necessary.
7. Determine at what point the site will be available to begin the restoration process of the incident site.

Alternate Sites

JOC Communications Network Center

The JOC Communications Network Center has standby Network Management Stations, Equipment Manuals, and As-Built Documentation. Sufficient room exists for Communications Office personnel to stage and coordinate work out of the JOC Communications Network Center and adjoining Equipment Room.

Resources

Within 24 hours of disaster

The initial response will involve all members of the Incident Command Team except Logistics and Finance/Administration. The members of the initial response team will assess the nature and extent of the emergency in coordination with the Project Operations Center. The initial response team will begin notification of other team members or communications staff members as appropriate. This team will meet in the Communications Network Center of the JOC in the event that the Resources Building is not accessible.

Within 5 days of disaster

Loss of Resources Building

All members of the Incident Command Team will need to be located at a single command center with desks, phones, computers, and network connections for each member of the team. In addition, Office staff providing field support will require laptop PCs, cellular telephones, and tool kits. Equipment required for restoration or temporary service that is not available from storage will need to be purchased, leased, or borrowed.

Incident Command Team resources needs:

Space	100 to 200 square feet.
Equipment and Supplies	2 tables and 6 chairs, 4 phones (or cellular phones), basic office supplies, fax machine, copier.
IT	3 computers with network connections, basic Microsoft Office software, 1 printer.

LAN & Telecommunications Branch resources needs:

Staff	3 shifts of 2 Telecommunications employees per shift.
Space	100 to 200 square feet.
Equipment and Supplies	2 tables and 7 chairs, 4 phones (or cellular phones), basic office supplies, network test equipment, basic telco tools.
IT	3 computers with network connections, basic Microsoft Office software, phone system software, 1 printer.
Data/Vital	DWR Phone Directory, pager database, telco database, telco contact

Records	list.
Vehicles	1 van for Telecommunications.

Network Management, Network Interface and Communications Engineering staff will temporarily reside at the JOC Communications Network Center until relocation facilities can be secured. Additional chairs and telephones would need to be secured for this interim.

Network Management, Computer Network Interface and Communications Engineering resources needs:

Equipment and Supplies	2 tables and 6 chairs, 4 cellular phones, basic office supplies, fax machine.
IT	4 laptop computers with network connections, basic Microsoft Office software, Procomm Software, 1 network printer.

Loss of Resources Building and Joint Operations Center

Space will need to be secured at an Area Control Center (Delta ACC, Southern ACC, San Luis ACC or San Joaquin ACC) near the communications equipment for an Emergency Network Center. The Emergency Network Center would require at a very minimum a Sun Sparc 10 loaded with Sun OS 4.1.3-U1 and Racal CMS 10A.3 software. All members of the Incident Command Team will need to be located at a single command center with desks, phones, computers, and network connections for each member of the team. In addition, Communications Branch staff providing field support will require laptop PCs equipped with modems, cellular telephones, and tool kits. Equipment required for restoration or temporary service that is not available from storage will need to be purchased.

Within 21 days of disaster (Loss of Resources Building)

Office personnel will need to be located at a single location with desks, phones, computers, and network connections for each member of the team.

Checklist

- ❑ Ensure safety of employees and public. Follow instructions of emergency personnel at site.
- ❑ Determine what communications services have been lost or impacted. Assess extent of damages and approximate restoration times.
- ❑ Contact POC and apprise of situation if State Water Project is impacted. Contact other customers as appropriate.
- ❑ Activate alternate services where available and if appropriate for outage estimates.
- ❑ If incident involves major damages and/or loss of several critical/essential functions, contact the Emergency Preparedness Manager.
- ❑ Contact management and support staff using contact list.

Plan Administration

Plan Dissemination

Each member of the Incident Command Team will receive a copy of the plan to be kept offsite. Copies will also be provided to Chiefs and the DWR Emergency Preparedness Manager.

Annual Review

The Incident Command Team and/or BRP Steering Committee will annually review the Recovery Action Plan. The document and attachments containing the organization of the Incident Command Team and Notification and Contact List phone numbers will be revised and reissued each year. The business functions of the Network and Communications Support Office will be reviewed and, if necessary, the plan will be revised to reflect changes to the Office's critical and essential functions.

Exercises

To test Recovery Action Plans, three types of exercises are used: tabletop, functional, and field. A tabletop exercise is the most relevant to test this plan. A functional exercise is a possibility when combined with the desire to test the Headquarters use of the Incident Command System. A field exercise, in most instances, is not necessary or practicable.

A tabletop exercise is a conference room-type exercise where a scenario is presented, the RAP is discussed, actions are proposed and communications coordinated. Based on these discussions, the RAP is adjusted and revised as necessary. A tabletop exercise will be held at least once a year, if there are no large planned outages in the year.

A functional exercise is an exercise that simulates a real situation or incident through the use of a scripted master message list. A simulated ICP is created, and communications are passed and recorded with exercise simulators providing input and additional messages. In this case, the exercise can be fairly simple to give Headquarters staff the opportunity to see SEMS and ICS in operation. A functional exercise will be held at least every five years if mandated by the Emergency Preparedness Manager.

Incident Command Team

(February 2004)

Command - The Incident Commander is responsible for all incident or event activity.

Primary: Chief, Network & Communications Support Office - Ramon Murillo
Alternate: Senior Telecom. Engr. - Debbie Lewis-Barbour
Alternate: Senior Information Systems Analyst – Chuck Leni

Operations - the Operations Section is responsible for directing the tactical actions to meet the incident objectives.

Primary: Senior Telecom. Engr. – Debbie Lewis-Barbour
Alternate: Associate Telecom. Engr. – Angela Bauman

Planning/Intelligence - The Planning/Intelligence Section is responsible for the collection, evaluation, and display of incident information, maintaining status of resources, and preparing the Incident Action Plan and incident-related documentation.

Primary: Senior Information Systems Analyst – Chuck Leni
Alternate: Associate Telecom. Engr. – Pedro Santos

Logistics - The Logistics Section is responsible for providing adequate services and support to meet all incident or event needs.

Primary: Senior Telecom. Engr. – Matt Chinakwe
Alternate: Senior Telecom. Engr. – Jim Crettol

Finance/Administration - The Finance/Administration Section is responsible for keeping track of incident-related costs, personnel and equipment records, and administering procurement contracts associated with the incident or event.

Primary: Telecom. Systems Analyst - Ana Rodriguez
Alternate: Administrative Officer - Janice Davis (DTS)

Notification and Contact List
(2006)

Name	Office Phone*	Pager*	Cell Phone*
Ramon Murillo, Chief Network & Communications Support Office	653-6133		425-4900
Jim Crettol	653-8027	948-0851	
Archie Noriega (RA)	653-9687		
Debbie Lewis-Barbour, Chief Network Management Branch	653-8737		947-5406
Angela Bauman	653-4627		502-1333
Chris Impens	574-2173		849-4777
Luis Ramos	654-1384		769-1642
Ben Rivera	654-5344		723-3100
Ana Rodriguez	653-7933		717-6321
Pedro Santos	653-7586		704-1036
Matthew Chinakwe, Chief Communication Engineering Branch	653-2092	535-4349	947-3055
Peter Chan	653-3851		
Joe Medina	653-9572	535-4438	606-5097
Steve Oh	653-0842		
Ulysses Salazar	653-8033	948-9150	
Roger Linder	653-6842	592-2812	223-2966
Frank Farmer	653-4820	592-3797	524-8279
Chuck Leni, Chief LAN & Telecommunications Branch	654-0707	592-0906	
Jill Breault	654-0707		203-3912
Yolanda Evangelista	654-0707		869-8495
Victor Garcia	653-5544	592-9028	869-5275
Eileen Hue	654-0707		869-8485
Dave Keene	654-0707	552-4144	826-6058
Joyce Novoa	654-0707		826-6060
Wilma Ordiz	653-8830	592-9024	835-6987
Raymond Valdovino	654-0707		826-6061

***All phone numbers are (916) area code unless noted otherwise.**

Notification and Contact List
(2006)

Name	Office Phone	Cell
Ben Williams, Chief Division of Technology Services	653-8364	834-7604
Ed Trevino, Chief Control Systems Branch	653-1174	
ERP Manager Sonny Fong	654-6135	719-3244 592-7953 pgr
POC	574-2714 or 2715	
Oroville ACC	(530) 534-2416	
Delta ACC	(209) 833-2180	
San Luis ACC	(209) 827-0503	
San Joaquin ACC	(661) 858-5560 (661) 858-2001	
Southern ACC	(661) 944-8600	
Flood Ops Center	(916) 574-2619	
CAISO Help Desk	(888) 889-0450	
DGS Microwave Center	657-9997	
Qwest	(877) 886-6515	
MCI/Verizon (cable security) (Network Surveillance)	(800) 624-9675 (800) 873-7866 opt 6	
SBC CMAC	(800) 303-0103	
Resources Building Mngr.	657-4380	
CHP (non-emergency)	455-2895	

***All phone numbers are (916) area code unless noted otherwise.**

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Public Affairs Office
Resources Building
1416 Ninth Street
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix B: Public Affairs Office
Function Recovery Action Plan

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Organizational Structure **1**

Functions **2**

Recovery Action Plan **3**

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Incident Command Team Contact List **6**

INTRODUCTION

This Recovery Action Plan is an element of the Department's Business Resumption Plan, which has been prepared to ensure that the Department can effectively restore its functions in the event of an emergency.

This plan:

- Identifies individuals responsible for recovery; describe major functions to be restored; and to identify specific actions.
- Incorporates the PAO Crisis Information Management Plan, which deals with specific emergency response.
- Conforms to the Standardized Emergency Management System.

ORGANIZATIONAL STRUCTURE

Responsible individuals during an emergency include:

Incident Commander: Chief of Office
Responsibility: Establishes objectives and goals, and directs recovery activities.

Operations Chief: Chief of Information Services Branch
Responsibility: Assigns tasks to implement recovery plan.

Planning/Intelligence Chief: Lead Public Information Officer for Emergency Preparedness
Responsibility: Identifies activities and resources needed in the future.

Logistics Chief: Chief of Water Education and Administration Branch, assisted by Chief of Graphic Services Branch.
Responsibility: Organizes, tracks, and allocates resources to assigned tasks.
Resources include personnel, supplies, equipment, and facilities.

Finance/Administration Chief: Administrative Officer, WEA Branch
Responsibility: Tracks activities, accounts for funds, supervises timekeeping.

FUNCTIONS

Critical functions (to be restored in 24 hours):

- Ability to communicate both internally (to Department executive team, management, and employees), and externally (news media and public) about the general nature of the emergency affecting the Department and response actions being taken.

  Inability to perform this function could result in confusion about the facts of the emergency and inaccuracy in media reporting.

- Ability to monitor news coverage of the emergency

  Inability to perform this function could result in inaccuracy in media reporting and rumors among employees or the general public.

- Ability to document the emergency with photographs and videotape at the request of Department units, including Legal Counsel.

  Inability to perform this function could have legal or financial consequences.

Essential functions (to be restored within five days):

- Ability to respond to more detailed inquiries from news media and the public about the nature of the emergency.

  Inability to perform this function could reduce the Department's credibility.

- Ability to communicate effects of emergency via Internet home page.

  Inability to perform this function could affect our ability to respond quickly to inquiries from news media

Necessary functions (to be restored within 21 days):

- Ability to perform the functions necessary to operate the non-emergency programs of the Public Affairs Office (School Education, Visitor Center Services, Tour Services, Community Outreach, Administrative, Publications, Computer Services, non-departmental responsibilities of Graphic Services Branch)

Note: Depending on the nature of the emergency, some aspects of each of these programs may be needed earlier, such as Tour Services, in arranging visits to an affected area.

RECOVERY ACTION PLAN

Notify Employees

Office Chief and Branch Chiefs would use the call-out procedure established in the PAO Crisis Information Management Plan (*Section D. Know What to Do If an Emergency Occurs*)

Initial Assessment

Determine need to relocate office:

In case of an emergency that makes it impossible to access the headquarters office, PAO Chief will contact Department Emergency Preparedness Manager and will determine which of the following two primary relocation sites will be used. Chief will contact PAO branch chiefs who in turn will call their employees individually to advise them of the relocation.

Alternate Sites

PAO will relocate to one of the following primary relocation sites:

Joint Operations Center
3310 El Camino Avenue (near Watt Avenue)
Sacramento

The Flood Operations Center at this site has enough computers to enable PAO public information staff to perform critical functions.

This location would enable the PAO Information Services Branch staff (information officers, and support staff) to function in an Incident Command Post that might be established there for the Department.

If that location is not accessible, PAO will use space available at:

Bonderson Building
901 P Street
Sacramento

This location does not have additional computers.

Secondary Relocation Site: If headquarters is damaged beyond repair, PAO will consider using one of the above locations.

Resources List

Determine need for staff resources to perform critical, essential, and necessary functions

- Minimum Resources Needed for Critical functions:

  Staff (6):

  - PAO Chief
  - Chief of Information Services Branch
  - Chief of Administration and Water Education Branch
  - One Public Information Officer
  - Administrative Officer
  - One Support person (phones/typing)

  Equipment:

  - Desks (available) for six people in Media Center at the Flood Operations Center
  - 6 telephones (Have 2 at Flood Center; at least 4 more needed)
  - Use of computers/printers for word processing and Internet and CDEC access (minimum of two computers needed in Media Center; computers in Flood Operations Center can be used as well.)
  - Use of copying machine, fax, and office supplies (if DOC is established at the Flood Operations Center, these would be furnished by the Logistics Section.)

- Minimum Resources Needed for Essential Functions:

  Staff (11):

  - PAO Chief
  - Chief of Information Services Branch
  - Two Public Information Officers
  - Chief of Administration and Water Education Branch

  Administrative Officer

  - Assistant to Administrative Officer
  - Computer Administrator
  - Chief of Graphic Services Branch
  - Two support persons (phones/typing)

  Equipment:

- Minimum Resources Needed for Necessary Functions:

  Staff (18):

  - PAO Chief
  - Secretary to Chief, PAO
  - Chief of Information Services Branch
  - Three Public Information Officers
  - Chief of Administration and Water Education Branch

  Administrative Officer

  - Assistant to Administrative Officer
  - Office Assistant/Timekeeper
  - Computer Administrator
  - Assistant to Computer Administrator
  - Chief of Graphics Services Branch
  - Graphic Design Unit Supervisor
  - Motion Picture and Television Unit Supervisor
  - Photography Unit Supervisor
  - Two support persons (phones/typing)

Balance of staff assigned to public information, educational services, visitor center services, outreach, and tour services would have to be located at other office space within the Joint Operations Center if normal office space is not restored after 21 days.

During the emergency, still and video photographers and graphic artists would be furnishing visual support services to the Department for as long as needed. Graphic artists would have to be relocated to suitably equipped quarters. Consideration should be given to obtaining space in another State agency's graphic arts office, or renting space at a private company. Restoration of normal photo lab, video, and audio-visual equipment services provided by Graphic Services Branch would be subject to restoration of space and equipment in the Resources Building. Such services would have to be contracted for in the meantime to fulfill job orders from the Department and other state agencies.

Plan Administration

Plan Dissemination:

This plan will be distributed to all PAO employees.

Plan Updating:

This plan will be reviewed and updated annually by the PAO Chief and branch chiefs.

Plan Exercises:

Each year after adoption of the plan, PAO staff will conduct a tabletop exercise to test the plan.

Incident Command Team

(September 2006)

(916) area code unless otherwise noted

Incident Commander: Chief of Office
Susan Sims
Work: 651-7242
Cell: 769-4237
Home:

Operations Chief: Chief of Information Services Branch
Ted Thomas
Work: 653-9712
Cell: 798-1701

Planning/Intelligence Chief: Lead Public Information Officer for Emergency Preparedness
Don Strickland
Work: 653-9515
Cell: 712-3904

Logistics Chief: Chief of Water Education and Administration Branch
Dorothy Benjamin
Work: 653-6032
Cell: 834-4017

Assisted by Chief of Graphic Services Branch
Teresa Chaney
Work: 653-1074
Cell: 798-3668

Finance/Administration Chief: Administrative Officer, WEA branch
Debbie Jackson
Work: 653-2643

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Safety of Dams
2200 X Street, Suite 200
Sacramento, CA 95818

A Component of the
DWR Business Resumption Plan

Appendix B: Division of Safety of Dams
Function Recovery Action Plan

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INTRODUCTION

This is the RAP for the Division of Safety of Dams. The Division is on the second floor of a two-story office building located at 2200 X Street, Suite 200, Sacramento, corner of 22nd and X Streets. The building is located on a surface street next to the elevated W-X Freeway portion of the Interstate 80 (Business) Capital City Freeway. Building is owned by the Buzz Oats Properties Inc. Portions of the first and second floors are occupied by California Highway Patrol support staff. Part of the first floor is occupied by the Department of Real Estate's Examination Unit.

DSOD has a critical function to respond immediately to incidents involving potential dam failure, preventing loss of life and destruction of property. Because of the critical function of DSOD, business resumption is a high priority.

This Function Recovery Action Plan (RAP) establishes an Incident Command Team to respond to disasters that impact the business functions of the Division. The RAP is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The RAP is not intended to be a recovery plan with exact procedures to follow but rather a guideline. The nature and scope of each event that results in loss or interruption of operation cannot be predicted. The RAP is rather a process with functions to be carried out using the Standardized Emergency Management System, leading to a return to normal Division operations.

The RAP includes:

- An Incident Command Team designated to manage the re effort and a description of the functions of the various members of that team.
- A description of the business functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

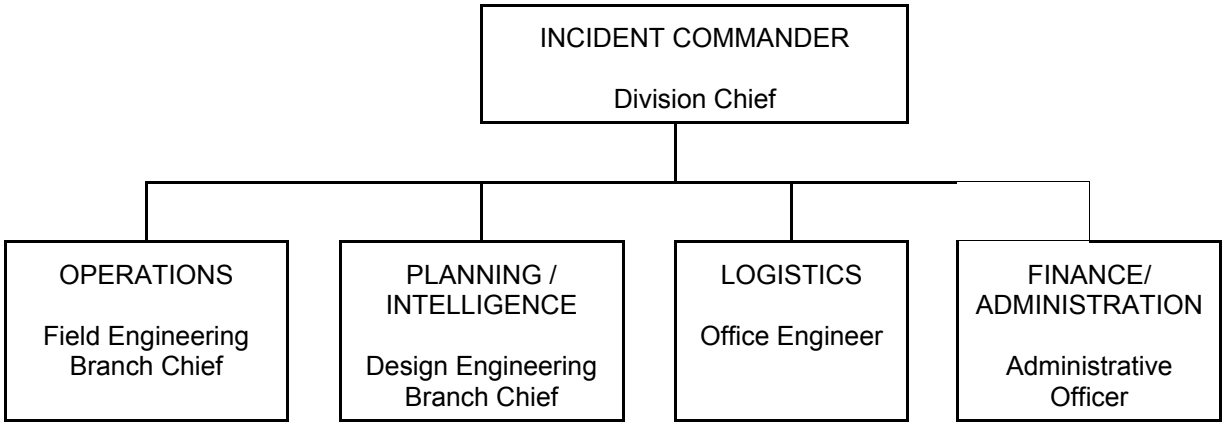
ORGANIZATIONAL STRUCTURE

The organization of the functions during the recovery will be in accordance with the Standardized Emergency Management System (SEMS) and its field element, the Incident Command System. SEMS is a system organizing emergency management. SEMS and ICS utilize standard organizational techniques and common terminology, functions and responsibilities that are applicable to most emergency situations. All state agencies and most city and county governments in California have implemented or are implementing SEMS/ICS. Law requires the use of SEMS/ICS by state agencies.

Incident Command System Structure

The ICS will be used during recovery from a disaster resulting in loss of access to the facility. The Incident Command Team will form and operate in conformance with SEMS. The ICS being used department-wide for emergencies provides for common terminology and duties that allow considerable flexibility and adaptability to most situations. While details of a particular event or incident may vary widely the functions that must be carried out are common. The ICS can and is used for a wide variety of emergency management activities. The basic ICS structure is shown in Figure 1 below followed by a brief description of the duties of each position.

Figure 1: Safety of Dams Recovery Action Plan Organization



The Incident Commander is responsible for establishing overall goals and objectives, and for coordinating recovery activities.

The Operations Section Chief is responsible for implementing the recovery plan.

The Planning/Intelligence Section Chief is responsible for collecting, evaluating, and displaying information regarding the incident.

The Logistics Section Chief is responsible for organizing, tracking, and allocating services and needs.

The Finance/Administration Section Chief is responsible for ensuring the activities related to the recovery plan are tracked, accounted for, and paid, and for other financial management as needed.

FUNCTIONS

The functions of the Division are separated into **critical, essential, and necessary** tasks. The classification of tasks establishes priorities for recovery efforts.

Critical tasks (must be restored within 24 hours, and protect the public, prevent financial hardship, or meet a legal requirement):

- Respond immediately to incidents involving potential dam failure.

Essential functions (Must be restored within five days, and allow the Division to accomplish its mission):

- Inspection of construction of new dams and dam modifications.
- Ensure quality of federally constructed dams.

Necessary functions (Must be restored within 21 days):

- Review and approve applications, plans, and specifications.
- Ensure the safe physical performance of all jurisdictional dams.
- Abate illegal dams.
- Evaluate and implement research that furthers understanding of California's geologic and seismic hazards.

RECOVERY ACTION PLAN

The Recovery Action Plan is a sequence of events. The principal elements include notification to appropriate authorities and staff of the disaster, an initial assessment of the event and its impact on Division functions, and implementation of recovery efforts.

Objectives:

- Ensure employee and public safety.
- Mitigate effects on office, equipment, files, plans, data, hardware, and software.
- Restore critical functions.
- Restore essential functions.
- Restore necessary functions.

Event Notification

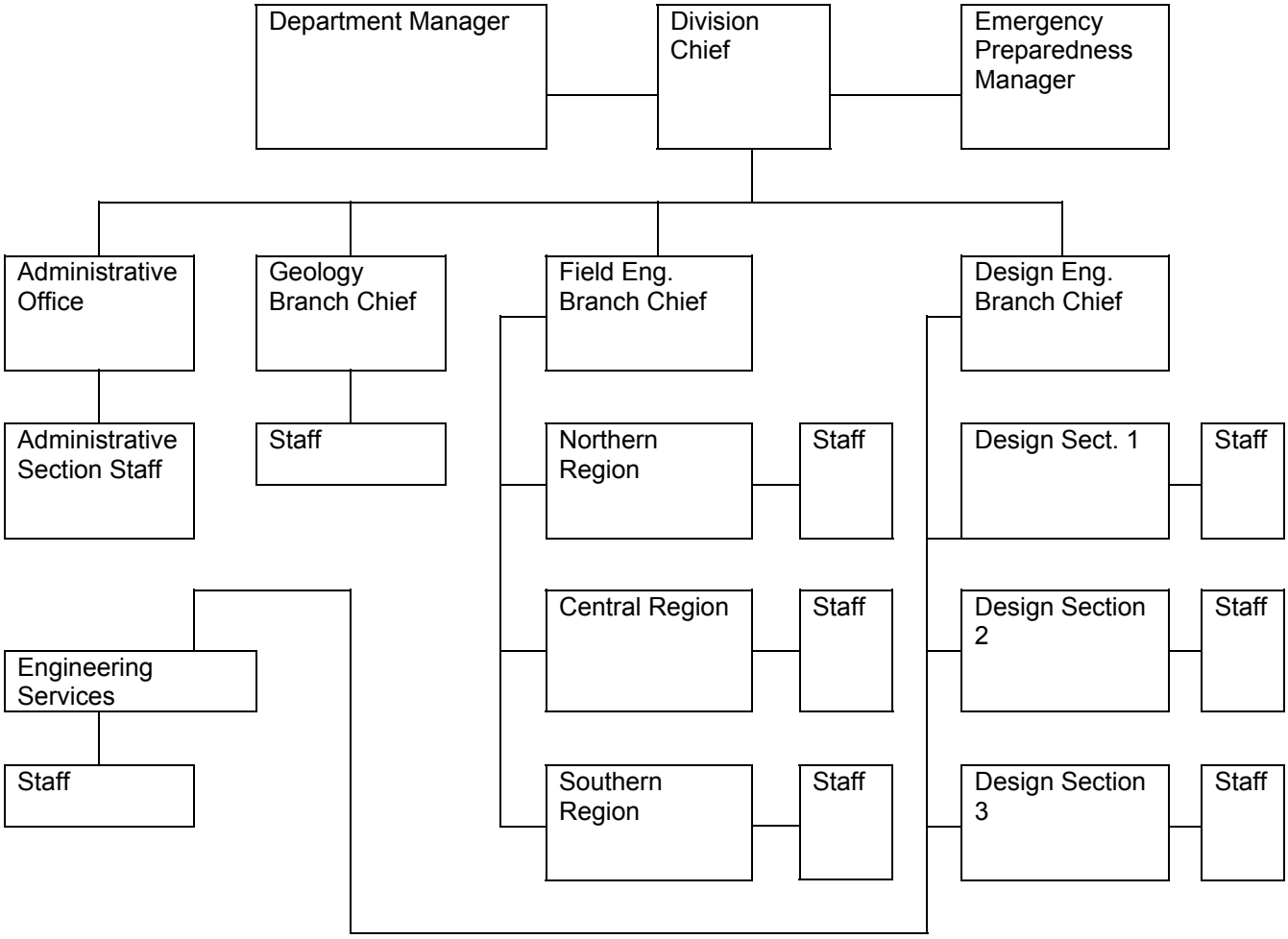
Should DSOD lose function, access, or facility, the Incident Commander shall notify Department management and the Emergency Preparedness Manager.

Personnel of the Division during working hours would be notified by their respective supervisors (personally or telephone) or an announcement over the intercom system on what action will be taken during the loss of function, access, or facility.

During non-working hours, the Division Chief would be the highest authority notified of the loss of function, access, or facility by the building owner or their representatives. The Administrative Officer may also be notified and would notify the Division Chief. The Division Chief would notify Branch and Administration Section Chiefs, they would notify their Section Chiefs, Regional Engineers, and those they supervise and they in turn would notify the employees they supervise of what actions would be expected of them.

Supervisors shall maintain a list of employees and their home telephone numbers to be able to call employees at any time of day.

Notification Flowchart



Disaster Scenarios

The RAP defines three types of disasters:

- **Loss of Function** – A condition affecting the health and welfare of employees.
- **Loss of Access** – A disaster or other incident preventing access to the facility and its contents.
- **Loss of Facility** – A disaster resulting in the destruction of the facility and/or its contents.

Loss of Function

Loss of function for the Division could be a power outage, fire, explosion, riot, terrorism, noxious vapors in the air, or any condition affecting the health and welfare of employees. During loss of function in the office, the Incident Commander (Division Chief) would ensure the safety and security of employees remaining in the building. Perimeter security should be arranged.

Loss of Access

Loss of access would be the inability to enter the Division offices, due to flooding of the downtown area, an earthquake destroying the road system and water supply, riot, terrorism, or other disasters around the Division offices. Perimeter security should be arranged.

Loss of Facility

Loss of facility could be the partial or total destruction of the office, due to flooding of the downtown area, riot, terrorism, earthquake destroying the building, and fire destroying the building. Perimeter security should be arranged.

The Division computers would be unavailable to run the critical program "QUAKE", during the loss of function, access, or facility. This program allows Division personnel to determine the jurisdictional and federal dams located within a certain distance of the epicenter of a large earthquake. This allows Division engineers to contact the owners of these dams and get preliminary assessments of the effect of the earthquake on their dam.

Overseeing the incident in DSOD is the Division Chief as the Incident Commander, Field Engineering Branch Chief as the Operations Section Chief, Design Engineering Branch Chief as the Planning/Intelligence Section Chief, Office Engineer as the Logistics Section Chief, and Administrative Officer as the Finance/Administration Section Chief.

Division staff can handle any temporary disruption in the operation of the Division. Overall charge of the incident would be the Incident Commander.

Temporary disruptions would be handled by the Finance/Administration Section Chief contacting the building owner to have service reconnected or area cleaned up.

Staff would be designated to remain near the office, to temporarily relocate, or to go home.

Loss of all Division records and data would be devastating. Some data could be recovered from the dam owner files. In some cases, however, our files on dams are better than the dam owners. Division files and drawings have been periodically microfilmed. Division of Management Services' Micro-graphics has supplied one copy of the file and drawing microfilms to the Division and has retained one copy. Digitizing files and drawings should be accomplished as funding allows.
See Alternate Sites for disruptions beyond temporary.

Resources List

design and field engineers (civil) (46)
engineering geologists (6)
support staff (6)
desktop PC computers (80)
laptop computers (assigned or in the office) (26)
servers (5)

- File Servers (3)
- NAS Appliance Server (1)
- Test Server (1)

printers (10)

- HP Color Laser 4500 (2)
- HP Color Laser 4600 (2)
- Dell5200 Laser (2)
- Brother 1270E (1)
- HP LaserJet 5N (2)
- HP Laser Jet 2100 TN (1)

HP Scanners (10)
HP Plotter Design Jet (2)
telephone lines (70)
4-wheel drive vehicles with radios (5)
Automobile (1)
portable radios (10)
cellular telephones (assigned or in the office) (26)
pagers (assigned or in the office) (14)
Files and plans
Library

Coordination Of Multiple Tenants

Private security during the evening is arranged for through the California Highway Patrol. If the CHP chooses not to call in private security, the Division will have to arrange for private security through the Department's private security contract. Access to the building is through three common doors, access to the Division offices and the CHP offices are through the use of security cards, which have separate access codes. Evacuation of all building occupants should be orderly, because of the wide corridors and the total number of occupants of the building.

Alternate Sites

Disruptions of any length would require action by the Incident Command Team to assure the capability to fulfill the critical function of the Division. A number of Division personnel have the ”QUAKE“ program on their personal computers at home. The Incident Commander would make the determination whether selected personnel should be temporarily assigned to work at their residence to be able to run the critical program. If a damaging earthquake occurs, the selected personnel would determine in which Region the earthquake happened. The Regional Engineer would be notified and he/she notify the applicable Area Engineer. The Area Engineer would determine the affected dams within a specified radius of the earthquake epicenter from personnel that have ”QUAKE“. The Area Engineer would begin contacting the owners of affected dams and determining the damage the earthquake may have caused to jurisdictional dams. Area Engineers would maintain a list of dam owners and their telephone numbers for their area.

If the building and office cannot be occupied for a period longer than one day, DSOD Logistics Section and/or Departments Operations Center (DOC) Logistics Section would get temporary or permanent office space.

Whether temporary or permanent, the DSOD Logistics Section and/or DOC Logistics Section would arrange for the office and equipment, telephone service, vehicles, and computers.

To restore the Division to full operation would require the assistance of the DOC Command Team that has charge of the incident beyond the Division.

Minimum Resources To Restore Critical Functions

Minimum resources needed within 24 hours:

- 3,000 square feet of office space
- computers, 1.9 GHz, 512MB ram, +40 Gigabytes hard drives (10)
- Internet access for Computers
- laser jet type printers (2)
- Telephone connections (10)
- 4-WD vehicles with radios and cellular telephones (3)
- Dam database computer files, or use of file hard copies

Disruptions of less than three hours would not require the relocation of the critical function to an alternate site. Disruptions longer than three hours would require that arrangements be made through the Logistics Section to find temporary office space to accommodate a small staff to continue the critical function of the Division. This space would have a minimum of 3,000 square feet and have at least ten computers. Computers could be moved from the Division office to the temporary location, if they are accessible. Telephone service and high speed internet access must be relocated to the temporary office space, with critical telephone numbers rerouted (Division Chief’s, Field Engineering and Design Engineering Branch Chiefs’ telephone numbers). Three 4-wheel drive vehicles would be used to inspect dams that have been reported to have had damage, determine the potential for failure of the dam, and prevent the dam from failing.

Design Engineering Branch and Field Engineering Branch Chiefs would select the engineers and support staff to relocate temporarily.

Minimum Resources needed within 5 days:

- 3,000 square feet of office space
- computers, 1.9 GHz, 512MB ram, +40 Gigabytes hard drives (10)
- Internet access for computers
- laser jet type printers (2)
- Telephone connections (20)
- 4-WD vehicles with radios and cellular telephones (6)
- Dam database computer files, or use of file hard copies

Disruptions of 5 days would require arrangements be made through the Logistics Section to find temporary office space to accommodate a small staff to continue the critical function of the Division. This space would have a minimum of 3,000 square feet and have at least ten computers. Computers and Division files could be moved from the Division office to the temporary location, if they are accessible. Two laser jet type printers would be required. Telephone service and high speed internet access must be relocated to the temporary office space, with critical telephone numbers rerouted (Division Chief's, Field Engineering and Design Engineering Branch Chiefs' telephone numbers). Three 4-wheel drive vehicles would be used to inspect dams that have been reported to have had damage, determine the potential for failure of the dam, and prevent the dam from failing.

Design Engineering Branch and Field Engineering Branch Chiefs would select the engineers and support staff to relocate temporarily.

Minimum resources needed for full recovery within 21 days:

- 22,000 square feet of office space
- design and field engineers (48)
- Engineering geologists (6)
- support staff (7)
- servers (3)
- desktop PC computers, + 1.9 GHz, 512 MB ram, + 40 Gigabytes hard drives (75)
- telephone lines (70)
- laser jet type printers (16)
- 4-WD vehicles with radios (8)
- cellular telephones (29)
- Automobiles (1)
- Access to Division files
- Microfilm reader/printer

Full recovery would require arrangements to be made through the DSOD Logistics Section and/or the DOC Logistics Section to find temporary or permanent office space to accommodate the full staff of the Division of Safety of Dams. This space would have a minimum of 22,000 square feet and have at least sixty-eight desktop computers. Computers could be moved from the Division office to the temporary location, if they are accessible. Sixteen laser jet type printers would be required. Telephone service must be relocated to the temporary office space, with critical telephone numbers rerouted (Division Chief's, Field Engineering and Design Engineering Branch Chiefs' telephone numbers). Eight 4-wheel drive vehicles would be used to inspect dams that have been reported to have had damage, determine the potential for failure of the dam, prevent the dam

from failing, and make required inspections.
If the Division's files and record drawings are destroyed, they will have to be recreated from dam owner's files. The Division's files and drawings have been periodically microfilmed by the Division of Management Services' Micro-graphics. Micro-graphics retained one copy of the microfilms. Arrangements will have to be made to get copies of the microfilms to recreate the Division files and drawings. A microfilm reader/printer will have to be obtained to allow use of the microfilms.

Checklist

- ❑ Ensure safety of employees and the public.
- ❑ Determine extent of damage to the office, equipment, files, data, hardware, and software.
- ❑ Notify employees of DSOD of action to be taken.
- ❑ Notify Department management and the EPM of extent of damage.
- ❑ If limited damage, see DSOD Emergency Safety Plan, which has been distributed to every employee. Plan is to protect employees of the Division in the event of any emergency condition such as serious illness, fire, earthquake, bomb threat, enemy attack, or explosion.
- ❑ If incident involves major damage, loss of critical or essential functions, notify Department management and the EPM.

Plan Administration

The RAP's goal is to recover the operation of the Division within a reasonable time. Every effort will be made to update the plan. Any unforeseen problem with the plan will be resolved as they are discovered and improvements made as they are advanced by Division and Department employees.

Division Chief will assign an employee to maintain the plan. The plan will be reviewed and updated every two years

The primary backup system is the maintenance of the critical program "QUAKE". Planning and Intelligence Section is assigned to periodically update the program and distribute the program to selected personnel in the Division for possible use at their residences. Emergency procedures (DSOD Emergency Safety Plan) shall be tested annually. The Logistics Section will ensure batteries for cellular telephones are maintained for use during an emergency, have the vehicles maintained on a regular schedule, and have emergency supplies kept at a sustainable level.

Planning and Intelligence Section shall maintain a backup file for the dam statistics file.

Plan Exercise

Every employee of the Division should be familiar with the RAP, so they are aware of their responsibilities and what actions are necessary to recover the Division's operation.

Tabletop Exercise

The Division should conduct a tabletop exercise of the RAP every four years, so that all employees are aware of their responsibilities during a loss of function, loss of access, loss of facility, and an emergency.

Functional Exercise

A functional exercise of the plan should be conducted every six years, with participation by the

affected Divisions and Offices. This would discover problems with the plan's operation.

REFERENCES

1. DWR Emergency Response Plan
2. DWR Strategic Business Plan
3. DWR Computer Operations Recovery Plan
4. DSOD Emergency Safety Plan
5. DSOD Procedure 2-5, d, Investigation of Major Occurrences
6. DSOD Procedure 2-1, h, Earthquake Reporting and Staff Response
7. Public Affairs Office Crisis Information Management Plan

Incident Command Team

(September 2006)

INCIDENT COMMANDER—Division Chief – David A. Gutierrez
Work (916) 227-9800
Home
Cellular (916) 799-4121

OPERATIONS--Field Eng. Br Chief – Frederick J. Sage
Work (916) 227-4667
Home
Cellular (916) 834-2629

PLANNING/INTELLIGENCE--Design Eng. Br Chief John L. Vrymoed
Work (916) 227-4660
Home

LOGISTICS--Office Engineer – Chuck B. Wong
Work (916) 227-4601
Home
Pager (916) 592-8327

FINANCE/ADMINISTRATION--Administrative Officer (Acting) – Kathye L. Miller
Work (916) 227-4640
Home

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Fiscal Services
1416 Ninth Street
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix B: Division of Fiscal Services
Function Recovery Action Plan

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Incident Command Team and Contact List **12**

INTRODUCTION

This plan contains general guidelines for the continuation and/or restoration of the Division of Fiscal Services essential business functions in the aftermath of a disaster to Headquarters, local or regional areas (including Department of Water Resources facilities), and the State Control Agencies. The SCA was included in this plan because they provide critical business functions to support the DWR-DFS day-to-day business activities. DFS recognizes priorities for restoration of essential services to the public health safety and welfare will normally take precedence over the recovery of an individual organization or offices. To that end, in the event of a disaster, this plan would provide a more expeditious restoration of the DWR essential functions.

IT Operational Recovery

The plan excludes the operational recovery of Information Technology related disasters. That subject matter is covered in the DWR "Computer Operations Recovery Plan". The recovery plan identifies critical computer applications and information assets (including hardware that serves the Department) and the actions necessary for the resumption of operations following a disaster that affects critical applications.

ORGANIZATIONAL STRUCTURE

Standardized Emergency Management System

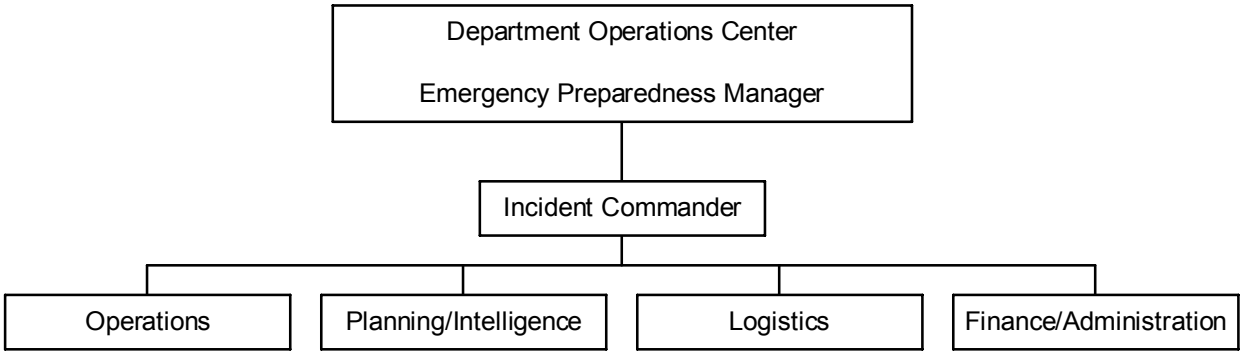
The RAP is modeled after the Standardized Emergency Management System. The legislature made SEMS (Senate Bill 1841) effective January 1, 1993. It can be found in Section 8607 of the Government Code. The SEMS incorporates the use of the Incident Command System. Whether the disaster is large or small, the ICS normally comprises five organizations with lines of supervisory authority, unity of command, and formal reporting relationships with the five organizations.

Incident Command System Structure

When an incident occurs in the Department of Water Resources, the Incident Commander notifies the Department Operations Center commander, the DOC Commander then puts the DOC on alert. The DOC is responsible for managing and coordinating overall recovery and resumption activities. As the incident escalates, further resources are allocated or re-allocated based on higher priority functions. As resources become more exhausted, the team must re-evaluate priorities further.

DWR utilizes a Management Team that provides policy guidance to the DOC for business recovery and resumption. It also provides a linkage to the Resources Agency and to the Governor. The team includes: Director, Chief Deputy Director, and Deputy Directors.

Figure 1: DFS Incident Command Team Organization



Incident Commander and Staff

The Incident Commander is responsible for overall management of the incident. In most incidents a single Incident Commander carries out the command activity. The Incident Command Team consists of:

Operations Section Chief

Responsible for the management of tactical operations. The Chief develops the operations portion of the RAP and supervises the execution of the RAP.

Planning/Intelligence Section Chief

Collects, evaluates, processes, and disseminates information for use at the incident.

Logistics Section Chief

Responsible for providing services and providing support to meet all incident or event needs.

Finance/Administration Section Chief

Manages all financial aspects of an incident. Since not all incidents will require Finance/Administration services, this section will only be involved when there is a specific need. These services include time keeping, procurement, compensation, claims, and costing.

The DFS can also function as the Finance/Administration component of the ICS. This component is activated when an Incident Commander who is managing the recovery operation for a regional or local disaster (may also include a DWR facility) requests Finance/Administration assistance. The DFS' primary function is to provide funding, process claims, record the disaster recovery cost, and obtain reimbursement from the Department of Finance and FEMA. These recovery costs would include Employee compensation, supplies and equipment. Costs are assigned to work orders and processed in the DFS' program Cost Accounting system. The Division of Flood Management FEMA coordinator and any DWR organization participating in the disaster recovery work establish the work orders.

After completion of the disaster recovery effort, a Fiscal Accounting staff will work with the FEMA coordinator and the Budget Officer to obtain reimbursement for the Department's cost associated with the recovery work.

If a DWR facility is affected by a disaster, the Chief of Accounts Payable Office will contact the IC or the Administrative Officer of the facility to determine which of the facility's fiscal operations could be restored rapidly and or which fiscal operations would need to be transferred elsewhere. Communications would include special instruction for time-keeping records, petty cash, check stocks, and Cash Purchase Vouchers. Payroll instructions would be coordinated with the Department's Personnel Officer.

FUNCTIONS

The functions of the Division are classified into critical, essential, and necessary functions. The classification of functions establishes priorities for recovery efforts. They are:

Critical Functions (functions that must be restored in 24 hrs);

Essential Functions (functions that must be restored in less then 5 days);

Necessary Functions (functions that must be restored in less then 21 days).

DFS business functions are classified as Essential Functions. In the event of a disaster at Headquarters or to a SCA, the DFS Recovery Action Plan must ensure that the following essential functions are restored in less than 5 days. They are:

- receipts of revenue, billings, vendor payments (including Travel Expense Claims and Travel Advances)
- and payroll releases, (coordinated with appropriate personnel)

Depending upon the circumstances, the DFS business functions can be elevated to “critical”.

RECOVERY ACTION PLAN

Definition of a Disaster/Incident:

An example of a Disaster/Incident, as referred to in this plan, is an event such as flooding, earthquake, war, fire, acts of terrorism, hazardous material spill or any event that disrupts the business services provided to or from DWR-DFS.

Establish Current Objectives

Each RAP must contain a set of objectives to build an action plan. If the assessment described above resulted in the control agency not being able to render services within 5 days then the DFS objective would be to continue the services that would normally be provided by the SCA. These objectives would be based on the comparatively critical nature of the bills to be paid or the monies needing to be deposited immediately to cover cash flow.

Determine Current Action Plan

The Operations Section Chief of the ICTS will ensure that the actions necessary to meet the current objectives described above are implemented. The action plan may include, but is not limited to the following:

- Notify Procurement and Contract offices to limit purchases to absolute essentials until the Accounting Branch Chief develops the current cash availability (cash flow purposes).
- Analyze and prioritize payments to vendors based on small and minority-Owned business rules.
- Notify Bank of America that the Department will increase the Office Revolving Fund by diverting revenue to the ORF Checking Account.
- All receipts of monies, checks, and wire transfer would be deposited to Bank of America.
- Request credit card limits to be raised to pay vendors for goods and services
- Expenditure limits on CPV and Department's Purchase Orders could be raised to accommodate large purchases.
- ORF restrictions could be removed so that payments could be made for any goods and services.
- The Fiscal Officer would notify Bank of America to create a line of credit to DWR should the ORF not be replenished or increased (this should be negotiated before a disaster).
- Salary advances could be used in lieu of payroll.
- Commercial paper could be sold to finance the operation.
- The State Treasurer's Office and/or State Controller's Office would determine with which banks the Department could do business.
- The Budget Officer would notify Department of Finance of emergency financing.
- Notification must be given to the Procurement and Contract Offices to limit expenditures to absolute essential purchases until the Accounting Branch Chief can determine the DWR's general cash position.

Supplies and Support Services

The Logistics Section Chief will make the necessary arrangements to acquire supplies or resources. The most essential supplies would be:

- Check Stock
- Additional Cal Card availability
- Travel Expense Claim
- Travel Advances

Recovery Operation Objectives

The recovery operation objective for any incident or disaster is to continue to provide financing for the operation of the State Water Project. In addition the Department's role in the "State Emergency Plan" includes the Department's flood emergency response, and continued funding of dam inspections must be accommodated.

Some of the general objectives are; ensuring that functions are performed consistent with SEMS guidelines, monitoring section activities so that resources are consistent with activity, and supporting other elements consistent with established priorities. Finance / Administration maintains procedures for emergency encumbrances and vendor payments, maintains procedures to track emergency response costs, and maintains emergency phone list. The Budget function obtains expenditure authorization and funding through state and federal channels, reports total damage cost estimates, and coordinates between DFS internal units.

(Special note.)

The Department, through Division of Fiscal Services, contacts State Control Agencies to provide us with their business resumption plan to support the business function of the Department and other Agencies. If a plan(s) does not exist, DFS may address the deficiency through the establishment of Memorandum of Understanding with the SCA. In addition, we will contact Bank of America to discuss their involvement in this scenario.

The following will provide scenario and instructions related to the three types of losses associated with a disaster or incident.

Disaster Scenarios

This plan addresses three types of losses associated with a disaster or incident. The losses are described as scenarios with instructions on how to implement a RAP for each scenario. A disaster for DFS can be any of the following:

- **Loss of Function** – Isolated disasters to the SCA that would prevent vendor payments, prevent payroll distribution, or discontinue the ability to receipt monies.
- **Loss of Access** – A disaster preventing employee access to the 8th floor at headquarters.
- **Loss of Facility** – A disaster causing loss of the DWR headquarters building, all or in part.

Loss of Function

Scenario: *A disaster directly affecting an SCA such as the State Controllers and/or Treasurer's Office and not the DWR.*

This type of disaster would prevent the State from being able to deposit revenue and pay vendor bills. The DFS would activate the ICS and communicate the RAP to the identified sections of DFS providing the recovery support. The RAP is an organization of key staff members and office groups who would temporarily continue to pay vendors, remit monies, and release payroll. This plan would be in effect until the SCA could resume their business activities.

The Operations Section will establish communications with the SCA to determine their ability to render their services to DWR. After communications, the Operation Section will notify the Incident Commander and the Planning/Intelligence Section Chief to assess the impact of not having the SCA services. The IC instructs the Operation Section to execute the appropriate RAP to address the disaster. The Planning/Intel Officer provides consulting service through the course of restoring the business activity. The IC will notify the Department's Emergency Preparedness Manager of the disaster. The notification would include the extent of the disaster as it relates to SCA and the course of action DFS is taking to continue or to restore essential business functions.

Current Objectives

Each RAP must contain a set of objectives to build an action plan. If the assessment, described above, resulted in the control agency not being able to render services within 5 days then the DFS objective would be to provide the services that would normally be provided by the SCA. These objectives would be based on the comparatively critical nature of the bills to be paid or the monies needing to be deposited immediately to cover cash flow.

Action Plan

The Operations Chief of the ICT supervises the actions necessary to meet the current objectives described above. The current plan for this scenario may include but is not limited to the following:

- Notify Procurement and Contract offices to limit purchases to absolute essentials until the Accounting Branch Chief develops the current cash availability (cash flow purposes).
- Analyze and prioritize payments to vendors based on Small and Minority-Owned business rules.
- Notify Bank of America that the Department will increase the Office Revolving Fund (ORF) by diverting revenue to the ORF Checking Account.
- All receipts of monies, checks, and wire transfer would be deposited to Bank of America.
- Request credit card limits to be raised to pay vendors for goods and services
- Expenditure limits on Department's Purchase Orders could be raised to accommodate large purchases.
- ORF restrictions could be removed so that payments could be made for any goods and services.

- The Fiscal Officer would notify Bank of America to create a line of credit to DWR should the ORF not be replenished or increased (this should be negotiated before a disaster).
- Salary advances could be used in lieu of payroll.
- Commercial paper could be sold to finance the operation.
- The State Treasurer's Office and/or State Controller's Office would determine with which banks the Department could do business.
- The Budget Officer would notify Department of Finance of emergency financing.
- Notification would be issue to the Procurement and Contract Offices to limit expenditures to absolute essential purchases until the Accounting Branch Chief can determine the DWR's general cash position.

Resources (Supplies and Support Services)

The Logistic Section will make the necessary arrangements to acquire supplies or resources. The most essential supplies would be:

- Check Stock
- Travel Expense Claim
- Travel Advances

Recovery Operation Objectives

The recovery operation objectives for this scenario, and for any other incident or disaster, are to continue to provide financing for the following: the operation of the State Water Project and the Department's emergency response role in the "State Emergency Plan"

Loss of Access

Scenario A: *A disaster during non-working hours that would prevent DFS personnel from working on the 8th floor, for a period of 5 – 20 days.*

All Office Chiefs within the Division will be notified by the ICT of the incident status. The ICT will assess the damages and determine a course of action to begin restoring operations. The assessment must include the availability of mail; phone services; PCs and the mainframe computer; services from procurement, Information Systems and Services Office, and personnel offices and, also, the availability of service from outside the SCA. If the SCA are not available (refer to scenario type 1 for guidelines) Office Chiefs must make every effort to contact their respective employees to determine if they are personally effected by the disaster and let them know when they can return to work. If the Office Chiefs are unable to contact their employees they should contact the Public Information Officer to utilize any means of public communications to notify DFS employees of when they can return to work.

If the disaster causes minor damage and it's been determined that the facility is safe—based on assessment by ICT and Facilities staff—for employees to return to work, the Office Chiefs will direct the clean-up work within their respective areas. In addition, the Office Chiefs must notify SCA of any financial reporting delays. This includes remittances, reports, and reconciliations. The DFS Office Chiefs will work with staff members of the Office of Support Services to render the best service possible under the given circumstances. This may mean modifying current

business functions or practices until normal operating procedures can resume. An example of modifying business functions can include validating transactions after the fact.

Current Objectives

- Obtain mapping of effected areas, and estimated extent of work needed prior to employees returning to work.
- Identify which employees must be notified not to report to work until told otherwise. If some employees would be useful in clean up, notify to that extent.
- Provide for a safe and complete 'return to work' as soon as possible.

Action Plan

- ICT requests the Information Officer to notify radios, local news programs to ask their assistance in notifying employees on the air. Notification by telephone to individual staff will accompany the broadcasts.
- Direct the clean up of the site, to more clearly identify the amount of damage as well as the amount of the facility and equipment still in okay condition.
- Once facility is ready for employees to return to work, repeat the original notification process to alert staff to return to work.

***Scenario B**: A disaster at headquarters during working hours that would call for evacuation of all or part of the building, for durations of 5 – 20 days.*

The ICT's first priority is the safe evacuation of all personnel to their designated staging area. If it has been determined that it is safe to use the stairs for evacuation purposes, then notification by phone, fire alarm system or the building's PA system will be used to provide instructions for evacuation. When all employees are present and accounted for, a decision by their respective Office Chiefs and IC will be made to determine if and when employees can report to an alternate work site. It is important that, prior to such an emergency, employees who may require some accommodation in exiting the building have been identified in advance of a disaster. Refer to Loss of Facility scenario for alternate work site instructions.

If the building stairwells are determined to be unsafe, or portions of the building have collapsed, then the IC or Building Manager will coordinate applicable emergency search and rescue operations. After employees are present and accounted for, a decision by their respective Office Chiefs and IC will be made as to when essential employees should report to an alternate work site.

Current Objectives

- Safe evacuation of all personnel, organizers should ensure the evacuation of personnel with limited mobility. Make sure these individuals are in a location where emergency services personnel will know where to look. (Make sure the emergency personnel are made aware there are individuals needing assistance.)
- Determine how many employees will be needed to staff a temporary office facility.
- Obtain the necessary equipment, and supplies required.
- Retrieve the necessary computer backup tapes, and hard copy forms from our off site storage location, to allow somewhat normal functions.

Action Plan

- Establish Incident Command Post and implement RAP.
- Assign staff who will work from the temporary facility. Provide direction to staff remaining on duty in the temporary facility. They will need to know what is expected of them.
- Ensure that employees are informed of incident status on a regular basis.
- Notify the Emergency Preparedness Manager.

Loss of Facility

Scenario: *The disaster causes major damages to the facility and it's been determined to be unsafe for more than 20 days.*

In such an emergency alternate work sites, and staff relocations become the viable alternative. When determining staffing required for temporary relocation of the DFS, the following items should be considered:

Essential Staffing
Essential staffing is defined as those employees needed to process claims, billings, receipts of moneys, and payroll releases. During relocation, consideration must be given to employees whose homes and families are affected by the disaster. If essential staffing is needed, notification should be sent to them to report to the alternate work site.

Essential Equipment and Supplies
Each alternate work site must have equipment and work supplies on hand to perform the essential support duties. These supplies include all preprinted forms necessary to support claims processing, billings, receipts of moneys, and payroll releases. Equipment and supplies also include: paper, envelopes, postage stamps, calculators, PC's and printers, posting documents, SAP desk procedures and supporting documents, Accounting Input Documents. The computers will need the most recent back ups of all applications to enable their operation. Copies of desk procedures would be useful reference materials.

The IC or Division Chief will immediately instruct all Office Chiefs to begin emergency relocation of key personnel (Key personnel are those personnel needed to perform essential support work). The relocation work must be coordinated with the DOC. The DOC and IC will determine the relocation work site for the Division. These sites include DWR and other State and private facilities. There are four possible DWR relocation sites. They are the Joint Operations Center, Central District, Oroville, and Delta facilities. The DOC will normally determine non-DWR facilities.

Current Objectives

- Work with Incident Commander and Logistics Section in locating an alternate work site.
- Determine the essential staffing needs.
- Determine essential equipment/offices needs.

- Search for the best and safest means of returning to headquarters facility (assuming the building is repairable).

Action Plan

- Make assignments of staff that are to report to temporary facility (possible rotating assignments).
- Once equipment and office supplies are located, assign staff to gather all the items and stock the temporary facility.
- Notify the Emergency Preparedness Manager.

Incident Command Team and Contact List

(September 2006)

(916) area code unless otherwise noted

Role	Name	Pager/ Cell Ph	Work #	Home #
Incident Commander	Perla Netto-Brown, Comptroller	**709-5409**	**653-9836**	
Operations Section	Theresa Lightle, Deputy Comptroller	**956-0252**	**653-6148**	
Planning / Intelligence	Gail Chong, Chief Funds Assignment	**718-9325**	**653-9395**	
Logistics Section	Linnet Fong		**653-8472**	
Finance / Administration	Kathie Kishaba, Chief Budget Office	**799-9523**	**653-6071**	
Building Manager			**654-0680**	**445-2895 (via State Police**
Emergency Preparedness Manager	Sonny Fong	**592-7953**	**654-6135**	
State/Federal Flood Operations Center			**574-2619**	
SWP Project Operations Center			**574-2714**	
California Highway Patrol			**Non Emergency, 24hr 445-2895**	

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Management Services
Departmental Services Office
Resources Building
1416 Ninth Street
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix B: Departmental Services Office
Function Recovery Action Plan

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INTRODUCTION

The Departmental Services Office, comprised of 159 employees, provides support services to the Department's critical functions in the areas of communications services and technical assistance on telecommunications matters, facilities management, purchasing services, contract services, mobile equipment, physical security, and additional staffing if needed.

The Departmental Services Office is primarily housed in the Resources Building at 1416 Ninth Street in Sacramento. DSO also has a warehouse facility located at 1730 14th Street, a Records Management warehouse at 1810 Sixth Street in Sacramento, and a printing production facility at 1400 Enterprise Boulevard, Suite A in West Sacramento.

Due to the nature of the support function it provides to the Department's Field Divisions and Maintenance Yards, a separate Recovery Action Plan was prepared for the Fleet Management Office.

This plan establishes an Incident Command Team to respond to disasters that impact the business functions of the DSO. It is based on guidelines from the Department's Emergency Preparedness Manager and Business Resumption Plan Committee.

The RAP is not intended to include exact procedures to follow but rather is to be used as a guideline. The nature and scope of each event that results in loss or interruption of operation cannot be predicted.

The RAP includes:

- An ICT designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the business functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

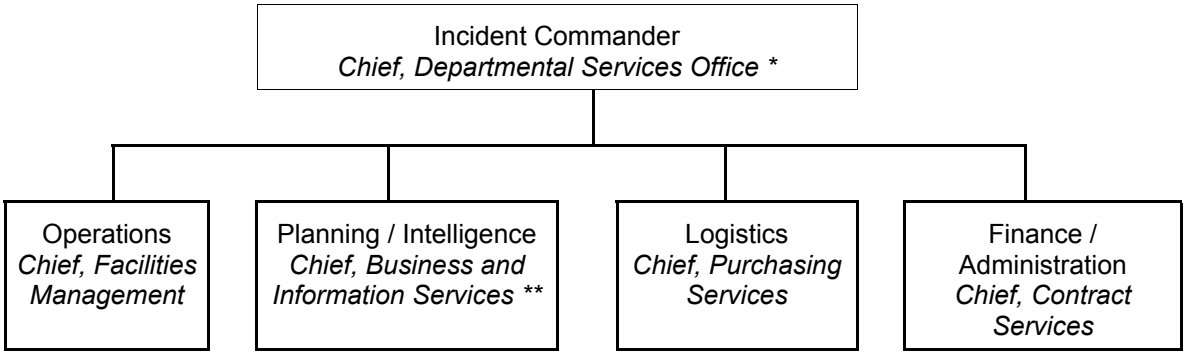
ORGANIZATIONAL STRUCTURE

The organization of the functions during the recovery will be in accordance with the Standardized Emergency Management System and its field element, the Incident Command System. SEMS is a system organizing emergency management. SEMS and ICS utilize standard organizational techniques and common terminology, functions and responsibilities that are applicable to most emergency situations. All state agencies and most city and county governments in California have implemented or are implementing SEMS/ICS. State agencies are required by law to use SEMS/ICS.

Incident Command System Structure

The ICS will be used during recovery from a disaster resulting in loss of access to the facility. The Incident Command Team will form and operate in conformance with SEMS. The ICS being used department-wide for emergencies provides for common terminology and duties that allow considerable flexibility and adaptability to most situations. While details of a particular event or incident may vary widely the functions that must be carried out are common. The ICS can and is used for a wide variety of emergency management activities. The basic ICS structure is shown in Figure 1 below followed by a brief description of the duties of each position.

Figure 1: Incident Command System Structure



* Under the Department's overall Business Resumption Plan, DSO's Incident Commander also serves as the Incident Commander to the Department Operations (Command) Center. In a major incident in which the Department Operations Center is activated, DSO's Incident Commander will assume the role of DOC Incident Commander and DSO's Alternate Incident Commander will become DSO's Incident Commander.

Incident Commander

Responsible for overall emergency policy and coordination. The Incident Commander may assign personnel for both a Command Staff and a General Staff. The Command Staff provides information, safety, and liaison services for the entire organization. The General Staff are assigned major functional authority for Operations, Planning/Intelligence, Logistics, and Finance/Administration.

Operations

Responsible for coordinating all jurisdictional functions in support of the response to the emergency. Identifies, assigns, and organizes resources which may be necessary during an incident.

Planning / Intelligence

Responsible for collecting, evaluating, and displaying information regarding the incident. Develop Incident Action Plans, conduct long-range planning, plan demobilization efforts, maintain resources status information, and documentation.

Logistics

Responsible for all of the services and support needs of an incident, including and obtaining essential personnel, facilities, equipment, and supplies.

Finance and Administration

Responsible for on-site financial management as needed. Potential units in this section include Time Unit, Procurement Unit, Compensation/Claims Unit, and Cost Unit. However, not all of the units may be required, and they will be established based upon need.

FUNCTIONS

Critical Functions *(must be restored within 24 hours)*:

Establish alternate assembly locations – Secure office space for Department's emergency response personnel and assist in setup (including procurement of new and/or suitable used furniture).

Establish communications – Provide cellular phones and computer modems; offsite telephone facilities provided by the local utility; possibly erect a portable repeater to enable mobile radio communications; liaison/notification to Department of General Services in case any primary microwave communication links have been disrupted or destroyed.

Provide mobile equipment – Implement Fleet Management Office's Recovery Action Plan.

Provide office equipment – Assess specific needs at work site and locate new and/or suitable used equipment (e.g., copiers, typewriters, calculators, etc.).

Provide resources – Assess specific needs at work site and procure necessary supplies and equipment (if needed).

Provide meals – May provide meals during a declared emergency in accordance with DPA Rule 5899.622, 599.623, 599.624 and 599.625.

Essential Functions *(must be restored within five days)*:

Mobilize additional staff needed to provide support to Department's emergency response efforts.

Secure office space to accommodate additional staff required.

Procure office equipment to accommodate additional staff required.

Provide Department with continual staff support, as needed, for the Department Operations Center, Flood Operations Center, and Incident Command Posts.

Necessary Functions *(should be restored within 21 days)*:

Prepare contracts, interagency and cooperative agreements to provide necessary services.

Establish mail distribution system.

RECOVERY ACTION PLAN

Event Notification

Notify DSO essential staff per **Contact List** at the end of this document.

Disaster Scenarios

Any or all of the three categories of losses (loss of access, loss of facility, or loss of function) could result from a variety of natural or man-made disasters (i.e., earthquake, fire, flood, hazardous materials crisis, terrorist act, act of public disturbance, etc.). This includes a power outage, loss of water supply, environmental contamination (air, water, etc.), or destruction of work site. In each case, the following will need to be done:

- Determine the extent of the loss and/or threat to staff/public on site.
- Notify appropriate incident recovery staff.
- Contact the appropriate Department of General Services staff.
- Determine estimated duration of loss (i.e., permanent loss or duration of temporary loss).
- Implement procedure to mobilize staff and provide any and all support.

Alternate Sites

The DSO Incident Commander shall contact the DOC Logistics Chief to determine alternate site of DWR emergency response staff.

DSO staff not critical to on-site support services at alternate sites may establish an alternate recovery action site at the warehouse facility at 1730 14th Street, if accessible.

Checklist

- ❑ Determine extent of damage and business function loss.
- ❑ Notify Incident Command Team as necessary.
- ❑ Notify appropriate agencies.
- ❑ Mobilize Facilities Management staff.
- ❑ Mobilize Fleet Management staff; implement Fleet Management's Action Plan.
- ❑ Notify Emergency Preparedness Manager or DOC liaison staff.
- ❑ Notify California Highway Patrol if situation warrants.

Resources List

Minimum resources needed within **24 hours**

Staff	3 shifts of 3 Facilities Management employees per shift. 3 shifts of 2 Purchasing employees per shift.
Space	250 to 500 square feet.
Equipment and Supplies	3 tables and 7 chairs, 4 phones (or cellular phones), basic office supplies.
IT	5 computers with network connections, basic Microsoft Office software, phone system software, 3 printers.
Data/Vital Records	DWR Phone Directory.
Vehicles	1 van for Facilities Management.

Minimum resources needed within **5 days**

Same as above.

Minimum resources needed within **21 days**

Contracts Staff:

- 1 shift of 2 Contract Services staff
- 1 table
- 2 chairs
- 1 phone
- 1 personal computer
- 1 printer

Plan Administration

The Departmental Services Office's Recovery Action Plan goal is to provide support in recovering the operation of the Department's critical functions.

DSO Chief will assign an employee to maintain the plan. The plan will be reviewed and updated in October of each year in conjunction with a Tabletop Test of the Plan. At that time members of the DSO Incident Command Team will meet and review each section of the Plan. Any changes in personnel, applications, equipment, software, or vendors will be made at that time.

Every employee should be familiar with the Recovery Action Plan so they are aware of their responsibilities during a loss of function, loss of access, loss of facilities, and an emergency.

A full functional exercise of the plan should be conducted every five years, with participation by the affected Divisions and Offices of the Department. This would identify problems with the operation of the plan.

Incident Command Team

(September 2006)

Incident Commander
Tom Speer, Chief, Departmental Services Office
Alternate: Kim Oliphint, Chief, Business Information and Services Office

Operations
Jenny Alonzo, Chief, Facilities Management Office
Alternate: Tim Vice, Associate Business Management Analyst

Planning / Intelligence
Kim Oliphint, Chief, Business Information and Services Office
Alternate: Russell Kiriu, Chief of Management Analysis

Logistics
Dave Kearney, Chief, Purchasing Services Office
Alternate: Sonny Eboigbe, Associate Business Management Analyst

Finance / Administration
Lynne Baker, Chief, Contract Services Office
Alternate: Maria Gomez, Associate Governmental Program Analyst

Contact List

(September 2006)

(916) area code unless otherwise noted

Department Operations Center

Name	Home Phone	Work Phone	Pager	Cellular Phone
Sonny Fong		654-6135	592-7953	719-3244

DSO Essential Staff

Name	Home Phone	Work Phone	Pager	Cellular Phone
DEPARTMENTAL SERVICES OFFICE				
Kim Oliphint		653-5561	none	600-2640
Michelle Rivera		653-0717	none	none
Sandy Marino		653-8922	none	none
PROCUREMENT AND CONTRACTING OFFICE				
Bill Fackenthall		653-4827	none	600-2640
FACILITIES MANAGEMENT				
Jennie Alonzo		653-7233	none	502-2534
Tim Vice		653-6561	592-1418	716-1922
Susan Lemmon		653-4224	592-7398	715-0609
Michelle Alvarado		653-6115	none	717-9842
Pat Cannedy		653-7796	none	717-9841
David Haynes		653-9636	592-2453	296-6902
Jaima Spencer		574-2485	none	717-9843
Theresa Moser		653-4794	202-6595	None
Bud Miller		653-3322	none	834-4012
Victor Mascul		653-9549	none	716-1915
Jeff McCallister		653-9303	none	717-9840

TRANSPORTATION OFFICE (moving to Division of Operations and Maintenance)				
Name	Home Phone	Work Phone	Pager	Cellular Phone
James Pearson		653-9051	597-4416	798-9838
Linda McCarthy		653-2939	none	none
Mark Storz		653-9043	none	none

PURCHASING SERVICES OFFICE				
Dave Kearney		653-6088	none	none
Mike Bingaman		654-2522		804-8157
Derek Yagi		653-7128	none	549-4740
William Mahon		653-6167	none	213-7887
Ronald Thomas		653-7573	none	none
Sonny Eboigbe		651-6929	none	769-2836
Pam Hart		653-7755	none	none
Sharin Schellbach		654-0533	none	None
Edward Locks		327-8210	none	798-9830

CONTRACTS AND BUSINESS SERVICES				
Name	Home Phone	Work Phone	Pager	Cellular Phone
Lynne Baker		657-5219	592-0556	none
Maria Gomez		653-7201	none	none
Shannon Lee		653-5526	none	none
Susie Beesley		653-1192	None	none
Scotia Brosnan		653-6097	None	none
Chanda Nelson		653-7413	none	none
Ann Valdez		654-2481	none	none
Stacy Garrett		654-0633	none	none

MANAGEMENT ANALYSIS OFFICE				
Vicki Price		651-6077	none	871-7865
Lorinda Drysdale		653-4443	none	none
Pauline Moreno		654-0693	none	837-0864
Sandee Firch		654-1321	none	none
Raquel Jaimes		653-3341	none	none
Cheryl Garrett		657-5350	None	715-8525
Victoria Whipkey				
Stephanie Varrelman		654-1080	None	none

DEPARTMENT OF GENERAL SERVICES				
Gab Andrade, Building Manager		422-3143	none	869-2735
Ben McCauley, Trades Supervisor			855-9445	869-2743
Central Plant (for HVAC and chilled water)		653-0009		

State of California
The Resources Agency
Department of Water Resources

Appendix B
Function Recovery Action Plan

Division of Management Services
Personnel Office
Resources Building
1416 Ninth Street, Room 320
Sacramento, CA 95814

A Component of the
DWR Business Resumption Plan

Appendix B: Personnel Office
Function Recovery Action Plan

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Incident Command Team **7**

INTRODUCTION

This is the RAP for the Department of Water Resources Personnel Office. The office is located on the third floor of the Resources Building, Room 320.

In the event of employee work-related injuries and/or deaths, the office may be involved in the critical function of notifying the next of kin, and would be involved in notifying the California Department of Occupational Health and Safety Agency and, under certain circumstances, notifying the Attorney General's Office. In addition, the office would be involved in essential and/or necessary functions associated with the payroll and hiring processes that may need to continue during certain emergency/disaster events.

The purpose of this plan is to identify procedures and resources needed to resume Personnel Office business functions in the identified health and safety, payroll, and hiring process areas within a reasonable time.

The RAP is not intended to be a recovery plan with exact procedures to follow but rather a guideline. The nature and scope of each event that results in loss or interruption of operation cannot be predicted. The RAP is rather a process with functions to be carried out using the Standardized Emergency Management System, leading to a return to normal operations.

The RAP includes:

- An Incident Command Team designated to manage the recovery effort and a description of the functions of the various members of that team.
- A description of the business functions that must be restored.
- A description of the initial steps necessary to implement the plan.
- A checklist to facilitate the implementation of the plan.

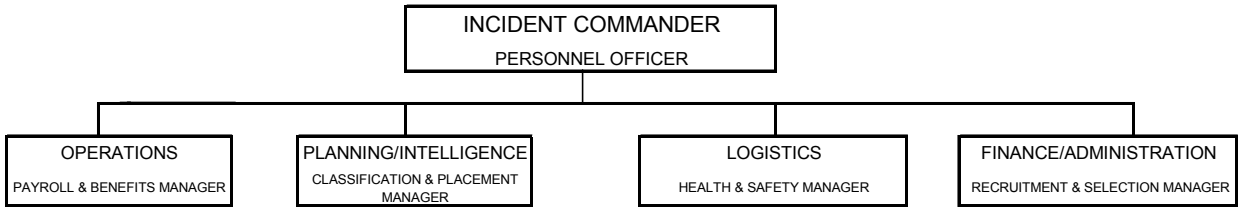
ORGANIZATIONAL STRUCTURE

The organization of the functions during the recovery will be in accordance with the Standardized Emergency Management System (SEMS) and its field element, the Incident Command System. SEMS is a system organizing emergency management. SEMS and ICS utilize standard organizational techniques and common terminology, functions and responsibilities that are applicable to most emergency situations. All state agencies and most city and county governments in California have implemented or are implementing SEMS/ICS. Law requires the use of SEMS/ICS by state agencies.

Incident Command System Structure

The ICS will be used during recovery from a disaster resulting in loss of access to the facility. The Incident Command Team will form and operate in conformance with SEMS. The ICS being used department-wide for emergencies provides for common terminology and duties that allow considerable flexibility and adaptability to most situations. While details of a particular event or incident may vary widely the functions that must be carried out are common. The ICS can and is used for a wide variety of emergency management activities. The basic ICS structure is shown in Figure 1 below followed by a brief description of the duties of each position.

Figure 1: Personnel Office Incident Command Team Organization



Incident Commander

The Incident Commander will be responsible for establishing recovery objectives as well as directing recovery activities. The Incident Commander will keep the Emergency Preparedness Manager appraised of all recovery activities.

Operations

The Operations Section Chief will implement the recovery plan and identify, assign, and organizes resources.

Planning and Intelligence

The Planning/Intelligence Chief will identify activities and resources needed for recovery and prepare appropriate plans and status reports on the recovery effort for DWR management.

Logistics

The Logistics Section Chief will request, organize, distribute, and track resources necessary for the recovery plan. This will include personnel, supplies, facilities, vehicles, and equipment.

Finance and Administration

Finance/Administration Section Chief will track (in cooperation with the Logistics Section) account and pay for activities related to the recovery plan. Timekeeping will also be the responsibility of this Section. The Section will also prepare documentation in support of potential FEMA reimbursement claims where a presidential declaration has been made.

FUNCTIONS

The functions of the Department and the facility are separated into **critical, essential, and necessary** tasks. The classification of functions establishes priorities for recovery efforts.

Critical tasks (protect the public, prevent financial hardship, or meet a legal requirement and must be restored within 24 hours):

- Ability to notify/assist line organizations in notifying next of kin, and under certain circumstances, the Attorney General's Office in the event of employee work- related deaths or injuries.

Essential tasks (allow the function to accomplish its mission and must be restored within five days):

- None listed

Necessary tasks (to be restored within 5 to 21 days):

- Payroll and hiring processes
- Health and Safety functions

RECOVERY ACTION PLAN

The Recovery Action Plan is a sequence of events. The principal elements include notification to appropriate authorities and staff of the disaster, an initial assessment of the event and its impact on the Inspection Section's functions, and implementation of recovery efforts.

Objectives

- Restore ability to perform health and safety functions.
- Restore ability to perform payroll and hiring process functions.

Event Notification

Should the Personnel Office experience loss of function, access, or facility, the IC will notify the DOC Commander.

If the loss of function, access, or facility occurs during business hours Personnel Office staff will be notified by their respective supervisors (personally or by telephone), and/or they will receive information over the building public address system regarding action(s) necessary.

After business hours, upon receiving notice of loss of function, access, or facility, the IC (Personnel Officer) would notify Personnel Office supervisors, who will then notify employees assigned to their respective sections.

The Personnel Officer and Personnel Office section managers will maintain a list of employees including their home telephone numbers to be able to contact employees during non-business hours.

Disaster Scenarios

Loss of Function

The loss of function for the Personnel Office could be a power outage, fire, explosion, riot, terrorism, noxious vapors in the air, or any condition affecting the health and welfare of employees. During the loss of function, the Incident Commander (Personnel Officer) would ensure the safety and security of employees remaining in the Resources Building.

Loss of Access

The loss of access would be the inability to enter the Resources Building and/or the Personnel Office, due to flooding of the downtown area, earthquake destroying the road system and utilities, riot, terrorism, or other disruptions around the Resources Building.

Loss of Facility

The loss of facility would be the partial or total destruction of the Resources Building and/or the Personnel Office, due to flooding of the downtown area, an earthquake, terrorism, fire, etc.

Overseeing the incident in the Personnel Office is the Personnel Officer as the Incident Commander. The Payroll and Benefits Section Manager is the Operations Chief, the Health and Safety Section Manager is Logistics Chief, and the Recruitment and Selection Manager acts as Finance / Administration Chief.

Primarily office staff can handle any temporary disruption in Personnel Office operations. The Incident Commander would have overall charge of the incident.

Temporary disruptions would be handled by the Operations Chief who would contact the Building Manager regarding service restoration and cleanup. Staff would be directed to remain near the office, temporarily relocate, or allowed to go home.

Loss of personnel records would be problematic considering that only one hard copy of each personnel jacket is maintained in the office by Records Management staff. However, it is anticipated that all information such as health/dental/vision benefit documentation, adverse/corrective action documentation, appraisal and development/pay for performance documentation, emergency notification forms, etc., could be reconstructed and/or recovered from either the line organization's personnel records, and the following control agencies: The Public Employee's Retirement System, the Department of Personnel Administration, the State Controller's Office, and the State Personnel Board.

Coordination of Multiple Tenants

The Personnel Office Incident Commander will coordinate with the Departmental Services Office and Emergency Preparedness Manager on multiple tenant issues.

Alternate Sites

More lengthy disruptions would require action by the ICT to ensure that the Personnel Office's functional capabilities are maintained. This requires that the IC coordinate ICT needs/efforts with the DOC and any appropriate Resources Building ICP(s) to arrange for necessary office space, office equipment, telephone service, vehicles (if necessary), and computers along with the necessary network connections for electronic communication with SCO for payroll, benefits and hiring process work, and with DPA and SPB for hiring process work.

Minimum Resources

Minimum Resources Needed within 24 Hours:

- 500 square feet of office space
- Telephone service

Disruptions of less than 24 hours would not require the relocation of critical functions to an alternate site. Disruptions of longer than 24 hours would require arrangements to be made through the DOC/Logistics Chief to find temporary office space to accommodate the Personnel Office ICT (Incident Commander and four incident command staff). At least four telephones must be made available (two telephones for Critical Function 2.a. outlined above, and two telephones for ongoing incident command operations).

Minimum Resources Needed within 5-21 Days for Payroll/Hiring Processes:

- 2,250 square feet of office space
- 3.4 GHz, 512 MB of RAM (min. req'd) personal computers (14)
- LAN/Network connections for 14 computer connections to control agencies
- telephone lines (10)
- (1) Multi function device (copier, printer, fax, scanner)
- Access to Personnel Office Records

If the Personnel Office records are destroyed, they will have to be reconstructed and/or recovered.

Resources List

Personnel Office staff (42)
Desktop personal computers (42)
Printers (21)
- HP Laser Jet 4000 (2)
- HP Laser Jet 4050n (1)
- HP Laser Jet 4100n (7)
- HP Laser Jet 4200n (3)
- HP Laser Jet 4240 (1)
- HP Laser Jet 4250 (5)
- HP Laser Jet 4600 (1)
- Lexmark Optran 4040-245 (1)

Personnel Office Files
Xerox Work Center Pro 665 (1)
Xerox 7024 telecopier (1)
Telephone lines (38)
Sharp ARM 455n (2)

Checklist

- ❑ Ensure safety of employees and the public.
- ❑ Determine the extent of damage to the office, equipment, files, data, hardware, and software.
- ❑ Notify EPM of extent of damage.
- ❑ Notify Personnel Office employees of action to be taken.
- ❑ If incident involves major damage, loss of critical/essential functions, notify EPM.

Plan Administration

Plan Dissemination and Periodic Updates

Each employee will receive a copy of the plan to be kept offsite. A copy of the RAP will be provided to the Branch, Office, and Division chiefs, and the DWR Emergency Preparedness Manager.

Every effort will be made to update the plan as necessary. Any unforeseen problem(s) with the plan will be addressed and resolved as they are discovered and/or brought forth by participants.

The Personnel Officer will assign a supervisory level-staff member to maintain and update the plan. The plan will be reviewed and updated annually as necessary.

Exercises

Every employee in the Personnel Office will be familiarized with the plan, so they are aware of their responsibilities and what actions are necessary to recover operation of the office.

Annual Tabletop Exercise

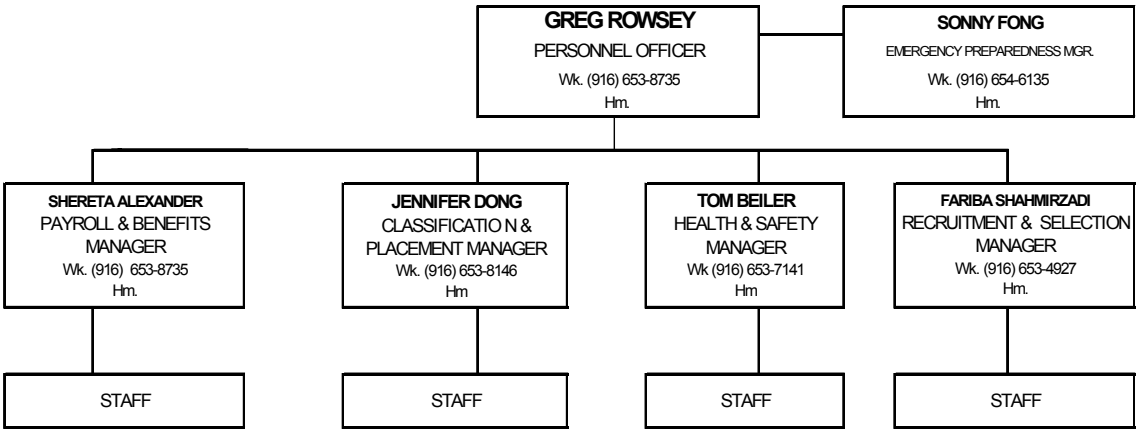
The Office will conduct an annual tabletop exercise of the plan, so that all employees are aware of their responsibilities during a loss of function, loss of access, loss of facility, or other emergency.

Functional Exercise

A functional exercise of the plan should be conducted every five years, with participation by appropriate Divisions and Offices of the Department. This would assist in identifying problems with the plan's operation.

Incident Command Team

(September 2006)



Annual Flood Emergency Telephone Number Card

(published annually under separate cover)

This card lists both office and personnel telephone numbers of key emergency responders from the DWR and other State and federal agencies involved in flood operations, forecasting, warning notification, and related flood emergency response efforts

The card is updated and published each fall by the Division of Flood Management

A DWR mailing list is used to distribute hard copies throughout and outside DWR Additional copies may be obtained by contacting the State-Federal Flood Operations Center at (916) 574-2619

Department of Water Resources
Business Resumption Plan

Computer Operation Recovery Plan

March 2007

Arnold Schwarzenegger
Governor

Mike Chrisman
Secretary for Resources
The Resources Agency

Lester A. Snow
Director
Department of Water Resources

DWR CONFIDENTIAL

Foreword

Having a well planned, flexible process for the successful resumption of The Department of Water Resources (DWR) business functions after a disruptive event is vital. Two-thirds of the State's population and much of its agribusiness depend on our ability to provide an uninterrupted water supply. As technology advances, and business functions become more complex, the need for a formal response process becomes critical.

DWR has developed a comprehensive Business Resumption Plan (BRP) to meet this need on a department-wide basis. This BRP establishes an overall structure and process for addressing business recovery and resumption for DWR. It establishes a process for defining business functions, necessary support, and decision-making and notification processes. Division Chiefs are responsible for maintaining and exercising this plan through the coordination with DWR's Emergency Preparedness Manager.

As a State agency with major responsibilities under the State Emergency Plan (SEP), Department Administrative Orders, and Government Code Sections 8595 through 8598, the BRP is crucial for DWR to effectively restore its business in order to meet its assigned tasks. Moreover, the BRP enables DWR to address its own critical needs during a crisis so it can recover to assist State and local governments, and the public.

Nancy J. Saracino
Chief Deputy Director

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BUSINESS RESUMPTION PLAN

DEPARTMENT INTRODUCTION

DWR performs numerous water resources planning and management activities throughout California. In addition, DWR is responsible for protecting life and property from catastrophic events such as flood, drought, and dam or levee failure. The SEP and Section 128 of the Water Code also give DWR certain responsibilities and authorities during State or federal emergency proclamation. Thus, the State would be greatly affected if DWR were unable to recover and resume business functions following a disaster or during an emergency. This BRP establishes a process that DWR will follow to recover after such events.

Structure of the Business Resumption Plan

This BRP follows the Standardized Emergency Management System (SEMS) and defines functions, necessary support, decision-making processes, and notification processes. It contains an overall structure and process for addressing business recovery and resumption, including specific plans for critical functions and computer operations. This Plan will be updated and exercised annually to ensure DWR is properly prepared for events that could affect its activities.

Major Department Responsibilities

DWR has seven major responsibilities:

1. *Plan and manage statewide water resources.* DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development statewide. These principles are reflected in DWR's California Water Plan Update, which guides development and management of the State's water resources. DWR also conducts other planning functions, including those related to urban and agricultural water use, fish and wildlife, recreation, groundwater, agricultural drainage, and water quality.

2. *Develop, operate, and maintain the State Water Resources Development System.* Through the State Water Project (SWP), DWR supplies water for municipal, industrial, agricultural, and recreational uses, and for protecting and enhancing fish and wildlife.

3. *Protect the Sacramento-San Joaquin Delta.* DWR, in cooperation with other Agencies, provides Delta protection by controlling salinity, providing water for use, planning long-term solutions for environmental and water use problems, administering Delta levee maintenance reimbursements, and special flood control projects.

4. *Provide dam safety, flood management, and emergency assistance.* DWR is responsible for protecting public health, life, and property by regulating dams, providing flood protection, and responding to emergencies. DWR protects life and property by continually supervising the design, construction, enlargement, alteration, repair, removal, operation, and maintenance of more than 1,200 jurisdictional dams; encouraging preventive floodplain management;

regulating activities along Central Valley floodways; maintaining and operating specific Central Valley flood control facilities; cooperating in flood control planning and facility development; providing flood advisory information to other agencies and the public; and cooperating in flood emergency activities. The SEP and DWR Administrative Orders also identify specific emergency responsibilities for DWR.

5. *Educate the public.* DWR is responsible for educating the public on the importance of water, its proper use, it's dangers; collecting, analyzing, and distributing water-related information to the general public and to the scientific, technical, educational, and water management communities.

6. *Provide local assistance.* DWR provides technical assistance; cooperates with local agencies, groups, and individuals on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of groundwater and surface water; provides planning and advice on water recycling and desalination programs; administers local assistance grant and loan programs; facilitates voluntary water transfers; and, when needed, operates a State Drought Water Bank and Emergency Drought Center.

7. *Support Long-Term Energy Contracts.* DWR is responsible for supporting the long-term energy contracts entered into by the State on behalf of the Investor Owned Utilities (IOU). DWR must analyze, review, and authorize the expenditure of funds to and by the IOUs in order to support ongoing revenue bonds.

BUSINESS ANALYSIS

Critical Operations

The functions performed by DWR can be separated into critical, essential, and necessary tasks. Critical functions are those that must be returned to some level of operation to protect and preserve the health and welfare of the public, to provide an entitlement (as mandated by the Legislature), to minimize financial hardship, or to meet legal requirements. Generally, critical activities must be resumed within 24 hours. Essential functions are those that are not needed immediately, but will prevent DWR from carrying out its mission if they are not returned to operation within five days. Necessary functions generally need to be restored within 21 days. While loss of essential and necessary functions will inconvenience the public to some degree, this loss will not jeopardize public health or safety. Furthermore, if these functions are restored to some level of activity within specified times, they will ensure DWR meets legal requirements and minimizes potential financial hardships on the public. Either essential or necessary functions may become critical depending upon the time of year or length of disruption.

Primary responsibilities have been identified and critical and essential functions categorized. These functions are:

1. *Plan and manage statewide water resources.*

There are no critical or essential functions.

2. *Develop, operate, and maintain the State Water Resources Development System.*

Critical and essential functions are:

- Managing the SWP by planning, designing, constructing, operating, and maintaining facilities. Some aspects of managing the SWP are not normally critical. For example, planning and designing activities will not have to be restored within 24 hours (planning and design staff does not generally work on holidays, weekends, or nights). Other aspects of managing the SWP normally do not require that tasks be performed after regular business hours; however, such tasks can become critical if they are needed for repair work during emergencies. Construction and maintenance activities usually fall within these areas.

  One essential aspect of managing the SWP is operations. This function has two basic features: Directing the operations of the SWP and controlling operations at various SWP facilities. Directing operations include: dispatching schedules to the five Area Control Centers (ACCs), providing backup capability for the ACCs in the event of an outage, coordinating schedules with electrical utilities through Independent System Operator and the Bureau of Reclamation, planning the long-term operations of the SWP, and determining annual water allocations for SWP contractors. Disaster responses (i.e. floods or chemical spills) are centrally coordinated through the SWP Project Operations Center.

  A second essential aspect involves controlling operations at the various SWP facilities. Operations are performed by each Field Division and include inspecting, monitoring, and operating facilities. SWP monitoring and control is primarily performed via the control system and communications system.

3. *Protect the Sacramento-San Joaquin Delta.*

Critical and essential functions are:

- Monitoring and collecting environmental and water quality data. Collection of Delta water quality data requires accumulation of a large amount of data in real-time using telemetry equipment linked to the California Data Exchange Center and/or the Bureau of Reclamation's control system for the Central Valley Project.

- Protecting Delta Levees. DWR administers the Delta Levees Subventions and Special Flood Control Projects programs that provide flood control assistance to local Delta districts for levee maintenance and improvement projects throughout the year. These activities require regular inspections of Delta levees in cooperation with local districts. During flood operations, DWR activates an operation center, under the auspices of the DFM, to assist with Delta flood fight operations.

4. *Provide dam safety, flood management, and emergency assistance.*

Critical and essential functions are:

- Avoiding dam failures and preventing loss of life and property.

- Providing flood forecasting and emergency response. Flood forecasts for the major rivers of California are issued in cooperation with the National Weather Service. A Flood Operation Center (FOC) is activated to provide emergency response to flood events. A key information gathering function is performed by the California Data Exchange Center (CDEC). CDEC collects and disseminates real-time hydrologic data from remote sites and maintains a continuous data exchange with other water management agencies.

- DWR provides assistance to local agencies during flood mobilization, including personnel and flood fight materials for local agencies that have exhausted their resources. DWR may also request assistance from the U.S. Army Corps of Engineers if additional resources are needed. Emergency response activities during floods are coordinated through the SEMS.

- Safeguarding flood protection facilities. DWR inspects the quality of maintenance and regulates encroachment on flood protection facilities in the Central Valley. This activity is done in coordination with the Reclamation Board. Other related activities include clearing sediment and vegetation; repairing damage caused by, and guarding against, erosion and subsidence; and making appropriate repairs and improvements to flood control facilities

5. *Educate the public.*

Critical or essential functions are:

- Providing crisis information to the public and media during emergency events. The organization responsible for addressing the disaster may provide initial response to inquiries. For example, during the initial phase of a flood, the Division of Flood Management (DFM) may utilize its own staff to brief the media. The Public Affairs Office (PAO) would then provide assistance as needed.

6. *Provide local assistance.*

Critical or essential functions are:

- Assisting local agencies with disaster avoidance, response, and recovery.

- Operating a State Drought Water Bank.

- Operating a State Drought Center during prolonged droughts.

7. *Support Long-Term Energy Contracts*.

Critical or essential functions are:

- The California Energy Resource Scheduling Division conducts business in the deregulated electrical energy market and supports the long-term energy contracts entered into by DWR on behalf of the IOU. While a California Public Utility Commission order transferred the scheduling of the real-time net short of energy and long-term energy contracts to the IOUs, CERS must still analyze, review, and authorize the expenditure of funds to and by the IOUs in connection with of the multibillion dollar revenue bonds that the State entered into in response to the energy crisis.

Critical and Essential Support Functions

Critical and essential support functions enable DWR to conduct its business. In some cases, business can function for a brief period of time, but eventually, DWR will be unable to effectively carry out its mission unless these activities are restored.

- By providing fiscal services, DWR must maintain the ability to pay vendors and employees in a timely manner. This function is primarily performed by the Divisions of Fiscal Services and Management Services. Critical or essential financial activities are:

  - Accounts payable and contracts payable
  - Payroll
  - Utility cost and program cost accounting
  - Billings and receipts

- Provide communication links that will allow DWR to maintain essential internal and external communications and services with other State, Federal, and Local Agencies. These links are necessary to coordinate emergency response, effectively operate flood control or water supply facilities, and provide information to the public. Critical communications activities are:

  - DWR's Communications Network. This network includes the control system for the SWP, Supervisory Control and Data Acquisition wide area network for the SWP, and Department's Wide Area Network.
  - Connection to the Governor's Office of Emergency Services
  - Connection to the Independent System Operator as part of the deregulated electrical industry.
  - Connection to the Internet
  - Connection to the Bureau of Reclamation
  - Connection to the National Weather Service
  - Connection to the U.S. Army Corps of Engineers
  - Dial-up capability for the California Data Exchange Center as backup access to CDEC in the event Internet access is interrupted.
  - Security of information technology data and systems
  - Maintain communications: telephone, cellular, portable radio, etc.

- Maintain Information Technology systems (hardware and software)

- Provide required support. This function is performed by the Division of Management Services (DMS). Critical activities performed by this office are:

  - Purchase special supplies and equipment
  - Provide mobile equipment
  - Provide basic supplies (paper, pencils, etc; also includes purchasing documents and forms)
  - Maintain physical security
  - Provide facilities
  - Distribute mail

- Establish Command/Operations Centers.

- Prepare contracts. Presently, contract preparation is a collaborative effort by the division requesting the contract and the Departmental Services Office (DSO). The various types of contracts that DWR enters into are:

  - Service contracts
  - Construction contracts
  - Master Service Agreements
  - Interagency agreements
  - Cooperative support (this activity would probably be done up front)
  - Memorandum of Understanding

- Maintain critical personnel functions to ensure employee/family health, safety, payroll, and job responsibilities are carried out. This function is performed by the Personnel Office.

- Provide critical land and right of way services to secure rights of entry and to purchase property. This function is performed by the Division of Engineering.

IMPACT ANALYSIS

Potential Risks

All emergencies are different and do not require the same level of response. Some emergencies may have significant impacts on a specific region within the State, but may not significantly impact DWR's business. Some emergencies may affect several of DWR's functions or facilities, requiring a coordinated effort to restore critical functions. Other emergencies may be so enormous that assistance from the Governor's Office of Emergency Services will be needed to restore DWR's critical business.

DWR has not quantified the risks of each type of event. However, several observations have been made; these observations form the basis for DWR's response to different types of emergencies.

- The Joint Operations Center (JOC) is presently located outside the 100-year floodplain and is not in an area known to have frequent seismic activity. It is believed to be reasonably secure from natural disasters, is easily accessible to Department staff, and is located near businesses that could provide supplies and services on short notice.

- DWR's Headquarters is presently located within the 100-year floodplain and is susceptible to flooding. The Headquarters facility, also known as the Resources Building, houses the support functions that have been identified as critical to DWR's effort to restore business functions. In the event the Resources Building becomes inaccessible or is damaged, these critical support functions will be initially restored at the JOC. To make room for resources (personnel and supplies) for these functions, noncritical and nonessential staff located at the JOC may be displaced on a temporary basis.

- Major earthquakes affecting DWR's business are likely to occur in the San Francisco Bay Area, San Joaquin Valley, and Southern California. Such earthquakes may impact SWP operations and disrupt water delivery. If needed, Department resources could be allocated from other areas within the State to help resume water deliveries. Local agencies may need assistance in repairing water conveyance and treatment systems.

Possible Operational Impacts

Risk falls into three basic categories: impacts to business due to loss of function, loss of access to facilities, and loss of facilities.

- Loss of function means the function cannot be performed. In this case, the facility is not affected, but the function is. Examples include communications outages, power outages, or computer failure.

- Loss of access to facilities means documents, equipment, and automated functions have not been damaged or destroyed, but Department staff are unable to gain access to them. Such events can include riots, water supply or sewage leaks, hazardous materials contamination, power outages, or flooding.

- Loss of facilities means facilities have been destroyed (or damaged beyond repair) and *all* documents and equipment stored in the buildings, as well as automated functions (performed in the buildings) are lost. Examples include earthquakes, fires, and floods.

RECOVERY STRATEGY

Recovery strategies follow the Standardized Emergency Management System/Incident Command System (SEMS/ICS). SEMS/ICS was established to facilitate fire fighting statewide. For more information on the structure of SEMS/ICS and the related processes, please see the SEP, dated May 1998; the Department of Water Resources Emergency Response Plan; and the Office of Emergency Services California Specialized Training Institute approved SEMS Field Course manual.

Using the SEMS structure, DWR BRP establishes a Management Team, a Department Operations (command) Center, and Incident Command Posts to respond to disasters that impact the business functions of DWR. It contains function recovery action plans for critical functions.

In addition, the BRP delineates a specific process to follow when an event that may impact Department business has been identified. The following paragraphs describe the process and the teams that are established. They also define the terms used in the Function Recovery Action Plans.

BRP Activation

When an incident occurs, the Incident Commander notifies the Department Operations Center Commander (DOCC). The DOCC then places the Department Operations Center (DOC) on alert. If the incident escalates and resources are required beyond the capabilities of the local Incident Command Post, the DOC is activated and begins allocating resources. The DOC may also be activated when multiple incidents occur, requiring coordination between two or more ICPs. If the DOC is unable to allocate sufficient resources to all ICPs, it will re-evaluate the priorities for business resumption and allocate available resources accordingly. It is possible that resumption of some functions, identified as critical to DWR's business, may be delayed so that higher priority functions may be restored. For example, restoring flood fighting capability during a flood emergency event would be a higher priority than restoring DWR's ability to administer a drought water bank.

Emergency Classification and Response Strategies

DWR has developed a system for ranking emergencies and disasters; these rankings range from events that have only isolated impact on DWR's business functions to regional events that may have significant impacts. The rankings and the anticipated level of response are identified below:

- Level 1 Emergency: This type of emergency is isolated to one facility and affects non-critical functions (activities that do not have to be restored to some level of functionality within 24 hours).

- Level 2 Emergency: This type of emergency affects two or more facilities and non-critical functions.

- Level 3 Emergency: This type of emergency has an impact at a regional level; it may also require DWR to provide emergency services through the Governor's OES. However, a Level 3 Emergency does not impact critical Department functions.

- Level 4 Emergency: This type of emergency is isolated to one facility, but it affects a critical function. An example of a Level 4 Emergency would be water damage to the seventh floor of the Resources Building – such damage could require relocation of DWR's Data Center. In

this case, the DOC would be placed on alert and would be prepared to provide guidance and/or assistance with the relocation of the Data Center to an alternate location.

- Level 5 Emergency: This type of emergency affects two or more facilities and critical functions. An example of a Level 5 Emergency would be a fire in the Resources Building that requires DWR to relocate all critical functions, and critical support functions, housed in the facility. In this case, the DOC would be activated and would relocate to the JOC.

- Level 6 Emergency: This level of emergency has a regional impact and affects critical Department functions. It may also require DWR to provide emergency services through the Governor's OES. An example of a Level 6 Emergency would be a levee failure in downtown Sacramento during DWR's response to a Northern California flood event.

Management Team

The Management Team provides policy guidance to the DOC for business recovery and resumption. It also provides the communication linkage to the Resources Agency and the Governor. The team includes:

Director
Chief Deputy Director
Deputy Director, Business Operations
Deputy Director, California Energy Resources Scheduling
Deputy Director, Public Safety & Security
Deputy Director, State Water Project
Deputy Director, Water Resources Planning & Management

Department Operation's Center (DOC)

The DOC is responsible for managing and coordinating overall recovery and resumption activities. If a disaster causes a shortage of resources, the DOC will provide guidance to the Emergency Operation Center and/or Incident Command Post for reallocating resources to higher priority functions. The DOC is commanded by the Emergency Preparedness Manager. The assistants to the Chief Deputy Director and the two Deputy Directors are liaisons to the Management Team. Division Chiefs and Engineering Assistants serve as alternates for the EPM. The DOC is staffed as follows:

DOC Commander:	Emergency Preparedness Manager or Assistants to the Chief Deputy Director/Deputy Directors
Deputy Commander:	Chief, Departmental Services Office
Operations Chief:	Chief, Fleet Management Office, and/or Chief, Facilities Management Office
Planning and Intelligence Chief:	Chief, Management Analysis Office

Logistics Chief: Chief, Contracts and Purchasing Office

Finance/Administrative Chief: Chief, Accounting and Fiscal Systems and/or Deputy Controller

Emergency Operation Center: Manages multiple Incident Command Posts within a geographic area.

Incident Command Post (ICP)

The ICP manages the site-specific response and allocates resources to achieve specific business recovery objectives. The ICP can perform its functions under a single incident command structure or a unified command structure (utilized when multiple incidents or jurisdictions are involved). Both of these methods provide direction to an Operations Section Chief, Planning and Intelligence Section Chief, Logistics Section Chief, and Finance/Administration Section Chief.

Function Recovery Action Plan

Function recovery action plans, including Operation Recovery Plans (ORP), facilitate business recovery and resumption for specific critical functions. Plans for these critical functions are contained in this document in headings of Recovery Action Plans and ORP.

Recovery Action Plans include the following sections.

- Organizational Structure: This chart identifies personnel responsible for the various aspects of the recovery plan and describes the interactions between these individuals.
    - The Incident Commander is responsible for establishing objectives and goals, and directing recovery activities.
    - The Operations Chief implements the recovery plan.
    - The Planning and Intelligence Chief identifies what activities and resources will be needed in the future.
    - The Logistics Chief organizes, tracks, and allocates resources to the tasks assigned by the Operations Chief. Resources include supplies, facilities, equipment, and personnel.
    - The Finance/Administration Chief ensures that activities related to the recovery plan are tracked, accounted for, and paid. Timekeeping is also this section's responsibility.
- Functions performed: This is a list of the major critical, essential, and necessary functions that are performed. The list includes a short description of how the loss of critical or essential functions would affect key programs, operations, or systems. These functions also include a reference to any outside organizations or functions that, because of their

interdependencies, must be available at the same time or housed in the same facility as the critical or essential functions.

- General Incident Action Plan (IAP): This Plan identifies actions that will be taken to facilitate business recovery. This Plan prescribes actions that will be taken under most circumstances. When an incident occurs, a specific IAP must be created to address the conditions that exist at the time of the incident. If the circumstances are similar to those covered in the general IAP, then the specific IAP can reference and implement the general IAP contained in the RAP. Either plan must include:

  a. List of actions to be implemented. For the general IAP, this list will be broken down into three types of recovery scenarios.

     i. *Actions taken in the event the function cannot be performed.* In this scenario, the facility is not affected, but critical or essential functions are. Examples include communications outages, power outages, or computer failure. Loss of function can also include the loss of external services provided to DWR, such as those provided by the State Controllers Office and State Treasurer Office.

     ii. *Actions taken in the event access to the facility is lost*. While documents, equipment, and automated processes may be intact, Department staff is unable to gain access to them. Such events can include riots, floods, hazardous materials contamination, etc. Scenarios for this type of disaster can assume that access will be restored sometime in the future, but business must be conducted without physical access to resources contained in the facility. The actions taken should include coordination with other tenants in the facility (e.g., security, health, etc.).

     iii. *Actions taken in the event the facility is destroyed.* In this scenario, the facility is destroyed (or damaged beyond repair) and its contents are destroyed (documents, equipment, and automated processes). Planning for this type of disaster should consider offsite storage of copies of important documents, alternate sites for conducting business, and alternate means of performing functions dependent upon equipment that was housed in the facility.

  b. Alternate Sites: This is a list of sites that could function as alternate assembly locations; sites where secondary computer systems are, or can be located; or Incident Command Posts.

  c. Resources List: These are the minimum resources needed within 24 hours, 5 days, and 21 days. When mission critical databases or records are used in support of critical or essential functions, the resources list also includes information about backup procedures and offsite storage.

In addition to the above, the general IAP must include the following:

a. Notification list: This list describes how emergency response and BRP information is disseminated to all employees, and how employees are contacted in the event of an actual emergency. Notification also includes information on when and how to contact DWR's Emergency Preparedness Manager or the DOC.

b. Checklist: The checklist is a quick reference used to facilitate implementation of the IAP. This checklist includes key words or phrases for each task that will be performed.

- Recovery Plan Administration. This section addresses:

  a. Preplanning preparation. This section identifies annual goals and specific tasks to be performed in order to accomplish the goals. This section should be reviewed and updated annually.

  b. Plan exercises. This section contains procedures for performing tests of the recovery plan. All recovery plans should be reviewed and updated annually. Each year, a tabletop exercise or staff review of the Plan should be performed to test the Plan. If the Plan includes processes to activate backup systems at remote sites, then these processes should be tested at least once every five years (functional exercise).

- Equipment and Material Maintenance: Equipment that is utilized on a daily basis for critical business or as backup support needs to be maintained and kept in working order. A preventative maintenance program needs to be instituted if one does not already exist and spare parts for crucial components should be stockpiled, if feasible. A list of vendors, parts, and material suppliers with their addresses, name of contact, business and after hours phone number should also be developed and readily available. Any materials/supplies in stock or storage need to be rotated, kept to minimum levels, and checked for use during times of need. For example, batteries should be stocked for an emergency generator, flashlights, cellular telephones, portable hand–held radios, spare vehicles, etc. The Logistics Chief, designated in a Recovery Action Plan for each office, is responsible for maintaining equipment and material to ensure preparedness for and the response to emergencies.

BUSINESS RESUMPTION PLAN ADMINISTRATION

Updates will be made as organizations change and functions are modified. The Emergency Preparedness Manager is the steward of DWR's BRP. The EPM will schedule periodic meetings of the BRP Steering Committee and Subcommittee. Together, these committees will review the BRP and make recommendations for changes. The BRP Steering Committee includes the Assistants to the Deputy Directors and the Chief of DSO. The BRP Subcommittee includes a representative from each division and from the PAO.

A complete BRP will be issued to the Director, Deputy Directors and their assistants, DOC members, and Division Chiefs. Each Division Chief is responsible for determining the number of additional copies of the BRP for distribution to appropriate staff within their Division. A written request to the EPM shall be made for the additional BRP copies and will list the name and title of the person to receive a copy.

A partial copy of the BRP will be issued to Field Division and District Office Chiefs, Administrative Officers, and each primary member of a Recovery Plan Incident Command Team. A partial copy of the Plan includes the appropriate Recovery Action Plan. Each IC is responsible for furnishing an updated list of ICT members and emergency contact numbers to the EPM on a biannual basis or when requested by the EPM. The IC is also responsible for updating and maintaining the Recovery Action Plan annually and furnishing the updated information to the EPM by the required date or as requested by the EPM.

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COMPUTER OPERATION RECOVERY PLANS

SECTION 1. 100.00-INTRODUCTION

100.10-Administrative Requirements

The ORP has been prepared in compliance with Section 4843.1 of the State Administrative Manual, which requires that each State agency develop and maintain an operational recovery plan that identifies critical computer applications and information assets. The BRP includes actions necessary for the resumption of operations following a disaster that affects critical applications.

The ORP is part of a larger BRP that DWR will follow to recover and resume business functions following a disaster or during an emergency.

An updated copy of the ORP is to be filed with the Department of Finance (DOF) each year. Individual incident reports are also required for any incident involving accidental destruction, modification, disclosure, or loss of assets. Incident reports are also required for intentional loss or damage to these assets. Annual updates will be coordinated by DWR's Information Security Officer with an internal deadline for revisions two months prior to Finance's due date.

100.20-Recovery Strategy and Priorities

The BRP - of which the Operation Recovery Plan is one part - follows the SEMS/Incident Command System (SEMS/ICS). The ORP defines critical and essential functions, necessary support, decision-making processes, and notification processes. The ORP supports the BRP and contains an overall structure and process for addressing computer system recovery and interim operations.

Under the SEMS structure, DWR's BRP establishes a Management Team, a Department Operations (command) Center (DOC), and Incident Command Posts to respond to disasters that impact the business functions and systems of DWR.

The BRP delineates a specific process to follow whenever one or more events that may impact DWR's business or mission have been identified. The BRP outlines a system for ranking emergencies and disasters; these rankings range from events that have only isolated impact on DWR's business functions to regional events that may have significant impacts. The "Emergency Classification and Response Strategies" section of the BRP describes the six emergency levels.

The DOC is responsible for managing and coordinating overall recovery and resumption

activities. If a disaster causes a shortage of resources, the DOC will provide guidance to the Emergency Operation Center and/or Incident Command Post for reallocating resources to higher priority functions. The Emergency Preparedness Manager (EPM) commands the DOC. The assistants to the Chief Deputy Director and the three Deputy Directors are liaisons to the Management Team. Division Chiefs and Engineering Assistants serve as alternates for the EPM.

The DOC will make decisions regarding resource allocation during the recovery of critical or essential computer systems. Such decisions will consider the criticality of the systems as well as the timing and level of the emergency or disaster. For example, a flood event would increase the urgency of restoring the DFM's critical and essential systems first. On the other hand, SAP (DWR's Enterprise Resource Planning system) would have higher priority if it suffered a prolonged outage during Fiscal Services' summer year-end-closing process.

100.30-Plan Distribution

One copy of the BRP will be distributed to each of the following: the Director, Chief Deputy Director, Deputy Directors, affected Division Chiefs, and individual members of the Emergency Response Teams that are identified in each section. This limited distribution will assure availability of the BRP should implementation ever be necessary and will limit the numbers to allow prompt and accurate revisions and updates.

It will be the responsibility of each Emergency Response Team Leader to ensure that an adequate number of copies are stored off site.

100.40-Use of the Plan

The ORP is to be implemented, in accordance with the procedures outlined in the broader BRP, when a disaster occurs and will remain in effect until normal operations resume at the primary data center or its replacement and control is returned to the functional manager.

Many different processes can trigger the ORP, including normal problem solving procedures.

100.50-Disaster Declaration

A disaster will be declared as soon as an outage at any data processing center exceeds the following preset levels:

- 24 hours for SWP operations.
- 2 hours for flood forecasting and operations during a flood event.
- 5 days for the Enterprise Resource Planning System (SAP).
- 5 days for CERS power contracts and settlements.
- 24 hours for Exchange and Active Directory at Headquarters and the JOC, 5 days for all

others.

Obviously, any event must meet more than one test to be a bona fide disaster. For example, the two-hour limit for flood data interruption is only applicable if a disaster occurs during a major flood event.

100.60-Notification

When a disaster occurs, members of the appropriate Emergency Response Teams are to be notified. A team has been established for each of DWR's five critical or essential computer systems. Names and phone numbers are listed in Section 810. Once the initial emergency has been managed, Department management is to be notified by using DWR's existing emergency notification process. Notification should begin with the appropriate division chief and proceed to the Director if circumstances warrant.

Regardless of the type of incident, the first responsibility of the employee or official notified is to properly respond to the emergency situation. If there is a fire, the fire department should be called. If there are injuries, an ambulance should be called. Listed below are telephone numbers for available emergency services:

Emergency Services

Fire Department	For all emergencies from a State phone, call 9-911
California Highway Patrol	From a non-State phone, call 911
City Police	
Ambulance	

Sacramento Municipal Utility District (SMUD)	888-456-7638
Building Manager	916-654-0680
Cooling/Heating	916-653-0009

Employees on site should take reasonable action to minimize further damage. For example, tapes should be moved to a dry area in the case of flooding.

NOTE: Use Caution and Common Sense. Do Not Risk Life or Injury.

Emergency Response Teams are trained to assess damage and initiate recovery of a specific division's critical application(s) and/or data processing facilities. Basic responsibilities are to minimize loss and begin the steps necessary for the most timely return to operations possible. Emergency Response Teams are listed in the following sections by division and/or critical application. Specific goals and objectives for each team are outlined.

100.70-Confidentiality

This Plan includes private and sensitive information, such as unlisted home telephone numbers and specific hardware and software configuration. It is a confidential document.

100.80-Public Information

Only the Director or his designee(s) (e.g. Public Affairs Office personnel, Chief Deputy Director, Deputy Directors) will communicate with the press following a declared disaster.

100.90-Organization of Plan

Section 1. Introduction; This section contains brief statements related to the need for the Plan and its distribution and use.

Section 2. Water and Power Operations/Operations and Maintenance; All data processing necessary to run the SWP, including its power generation function, is critical from both a public safety and fiscal perspective.

Section 3. Flood Operations/Flood Management; Information processing, used for flood forecasting and flood operations during a flood event, is critical to public safety.

Section 4. The Enterprise Resource Planning System (SAP); Handling the majority of the financial, administrative and human resources activities for the Department of Water Resources is essential. Loss of the SAP ERP System could have significant financial and operational implications for DWR.

Section 5. California Energy Resources Scheduling; Supporting administration of the State power contracts and verifying and preparing account settlements for the State's IOU is essential.

Section 6. Enterprise E-mail and Network Accounts; Active Directory authenticates users, authorizes access, and organizes network resources for managing computers and applications. Exchange is an enterprise-messaging platform that includes e-mail, calendaring, contact and task management, and workflow. Exchange directory information is stored within Active Directory. Loss of either system could have significant financial and operational implications for DWR and would be critical for Headquarters and the Joint Operation Center.

Section 7. Technical Appendices (DWR Confidential)

Section 8. Emergency Team Contact Lists (DWR Confidential)

SECTION 2. 200-OPERATIONS AND MAINTENANCE

Location of computer center-JOC, 3rd floor, Room 319
3310 El Camino Avenue, Sacramento, California

210.00-Water and Power Operations Critical Application-Definition

DESCRIPTION OF CRITICAL APPLICATION: The critical application of the Project Operations Center (POC) is twofold; first it provides backup control capability for the Area Control Centers (ACC), and second it provides the capability to schedule and dispatch the water and power operations of the SWP.

CONSEQUENCE OF COMPUTER FAILURE: Loss of the POC computer complex would not seriously jeopardize direct control of Project facilities since that is normally done from the Area Control Centers. Control would be jeopardized only if an Area Control Center and the POC were out of service simultaneously. Under these conditions, the Project's operation will be carried out manually until a replacement for the affected Area Control Center or the POC can be implemented.

Project water and power scheduling as well as dispatching functions will be jeopardized and the ability to automatically collect operating data will be lost if the POC computer(s) are lost. With respect to the Project's power operation, the North American Electric Reliability Council (NERC) operating criteria stipulate that "each control area shall have a plan to continue operation in the event its control center becomes inoperable." The Plan must ensure that the control area will not be a burden to the Interconnection if its own control center becomes inoperable.

Although the SWP is not a Control Area and does not currently meet the NERC backup requirements, implementation of backup to its power operations capability is underway for good utility practices. In the interim, however, capability to provide interchange scheduling must exist. Inadvertent interchange management and accounting must be maintained if the Project is to continue with its power operation. Without power, Project water cannot be delivered.

210.10-Emergency Management

Immediately following an occurrence estimated to disrupt essential POC computer capability for more than 24 hours, the Emergency Response Team (ERT) is to be activated. See Section 810.01 for an Emergency Contact List:

The goal of the Emergency Response Team is to restore the scheduling and dispatching of water and power operations as soon as possible after a disaster.

Team Responsibilities: Chief Dispatcher is the ERT Leader and is responsible for instituting and coordinating dispatching procedures from the backup POC location.

Assistant Chief Dispatcher is the alternate ERT Leader.

Chief, Energy Management System Branch is responsible for acquiring and installing any required computer hardware necessary to make the POC backup operational.

Chief, System Technical Services Section is responsible for installing backup software and restoring all programs and data files required for backup POC operation.

Chief, Network and Communications Support Office is responsible for acquiring and installing necessary data communications into the backup POC location.

Chief, LAN and Telecommunications Branch is responsible for acquisition and installation of necessary voice communication into the backup POC location.

Team Objectives:

- Mitigate effects of the disaster AFTER obtaining clearance, as necessary, from fire, toxic, electrical, and building personnel. If site clearance cannot be obtained within one hour assume, for interim operations, the center is a total loss.

- Assess impact on equipment: Determine which subsystems are: (A) operational, (B) field repairable, (C) must be replaced in total, and (D) can be eliminated from the system. Note: Use vendor personnel where available.

- Assess conditions of physical plant. If the physical plant has other than minor damage, management should be notified and interim operations should be put in place. An in-depth assessment should be deferred until interim operations are in place. Assessment of physical plant condition is to be performed by A & A Properties. Contact:

Role	Normal hours	After Hours
Building Manager	(916) 381-3843	(916) 344-5034

210.20-Interim Operating Procedures

DESCRIPTION OF INTERIM PROCEDURES: Interim operating procedures are to be carried out in accordance with Standing Operating Order E-PC 600.19D (See Section 210.50). Hardware and software have been provided to allow operation until the primary POC facilities are brought back into service.

The POC operation will be moved from the JOC to the catastrophic backup center on the 7th floor of the Resources Building in space available in Room 706. This room has a sufficient number of workstations and PCs that are connected to California Independent Systems Operator's (CAISO) Scheduling Infrastructure and DWR's Supervisory Control and Data Acquisition (SCADA) network, as well as the necessary real-time data communications and voice communications, so that all critical functions of the POC can be carried out. The DWR computer room on the 7th floor has been configured to provide backup computer support for all SCADA functions and the continued scheduling and dispatching for the Project's water and

power operation.

A secondary step will be taken to expand to a more robust catastrophic backup center, if deemed appropriate. This second step will include activating the following services and applications on one or more Windows servers:

- System Recovery Image for restoring applications and data from backup media
- ACES Scheduling Application and Database
- CaISO Gateway for two way network communications with CaISO
- Tagging for generating the electronic tags required by NERC

The most recent copy of the production software and databases will be loaded on the ACES computers. Backup tapes will be found in the vault in the 7th floor computer room.

The following procedures are to be carried out upon declaration of a disaster affecting the primary Project Operations Center located at 3310 El Camino Avenue.

- The Delta ACC operator (POC dispatcher if time permits) will notify all field division ACCs and other outside agencies that an emergency affecting the primary POC has occurred, and that their contact for the Project is to be the Delta ACC until such time as the catastrophic backup POC is in operation. Such notification will be carried out in conformance with the procedures contained in Appendix I, Section 210.51.

- The Board Dispatchers and Scheduling and Outage Managers will relocate to the temporary center on the 7th floor of the Resources Building.

210.30-Operational Recovery Procedures

Following the establishment of interim operations from the backup center, resources will be allocated to the re-establishment of full dispatch capability from the primary POC location. This will consist of the acquisition of replacement computer hardware, other peripheral equipment, and restoration of all real-time data communications.

210.31-Hardware Recovery

See Section 710.10 for a listing of the Unisys and Windows computer equipment, and voice and data communication lines that are necessary for full dispatch and power scheduling operations:

210.32-Software Recovery

Software is available from the vault in the 7th floor computer room and the current off-site storage facility.

210.50-Emergency Operating Procedures

210.51-Standard Operating Order Number - PC 600.19 - D

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES
Division of Operations and Maintenance
Operations Control Office

STANDARD OPERATING ORDER NUMBER - PC 600.19 - D

SUBJECT: Emergency relocation plan for the Project Operations Center

PURPOSE: Provides a plan to relocate the POC operation to:

1. The Catastrophic Backup POC in the Resources Building, located at 1416 Ninth Street, Sacramento, California; or

2. The Delta Area Control Center (ACC), located at 5280 Bruns Road, Byron, California 94514, for disasters that necessitate evacuation of the Sacramento area.

I. Initial Emergency Response:

A. Once notified by the appropriate authority that the POC must be evacuated, the Senior Dispatcher on duty in the POC will begin relocating the dispatch operation as follows:

1. If time permits, make notifications as listed in Attachment 1. In an effort to maintain continuity of operation, an attempt should be made to staff the new location prior to the evacuation of the primary POC. Under no circumstance should that attempt compromise the safety of personnel.

2. If time does not permit, and the POC must be evacuated immediately, notify the Delta ACC operator of the evacuation plans. Interim operations will begin at that time. The Delta ACC operator will be the point of contact and will make the notifications listed in Attachment 1. The Delta ACC operator will remain the point of contact until dispatch personnel are set up at the emergency location.

3. Ensure the evacuation kit, as described in Attachment 2, is transported to the emergency location. The relocating dispatchers will carry the Senior Dispatcher's cell phone (916-952-1851) and the three POC satellite phones (254-381-5086, 254-381-5088, and 254-381-5089). The satellite phones are operational only in open areas (i.e., outside of buildings).

4. If the relocating dispatchers do not have access cards to the Resources

Building, access to the CBPOC will be obtained by calling Facilities Management, who will meet the relocating dispatchers at the Resources Building:

Lynne Esparza work 916-653-7233

II. Interim Operation

A. The following operating criteria are to be observed during the interim operation of the POC:

1. All field division operators shall use their best judgment in carrying out orders in effect at the time of transition.

2. Each field division will be responsible for adjusting Aqueduct gate settings to maintain normal water levels in its area.

3. Each field division will be responsible for reservoir operations that adhere to flood control stream release and drawdown criteria.

4. Field division operational changes normally logged and reported to the POC will be logged and reported to the Delta ACC.

5. The Delta ACC will be responsible for reporting unscheduled significant load changes to the California Independent System Operator.

6. When the POC dispatchers have set up operations at the relocated POC, they will notify all field division ACCs and outside agencies and confirm the telephone numbers to be used to reach the dispatchers. The POC will resume normal responsibilities unless otherwise specified by the Senior Dispatcher on duty.

III. Return to Normal Conditions

A. When the emergency is over, the POC dispatchers will re-establish control of the SWP from the JOC located at 3310 El Camino Avenue, Sacramento, California. The Senior Dispatcher on duty will make notifications to the field divisions and outside agencies.

IV. Periodic Inspection and Testing

A. Following is a partial summary of the periodic inspection and testing necessary to ensure disaster readiness:

1. On a monthly basis, relief Dispatchers will inspect the CBPOC (Resources Building) to ensure that all equipment is intact and operating normally.

The Dispatchers will also perform coordinated jurisdictional testing with the Control System Branch of project facilities as conditions allow.

2. On a quarterly basis, dispatchers will test the operational functionality of the CBPOC. This will include the actual real-time operation of the SWP facilities for a four (4) hour period.

3. Semi-annually, relief dispatchers will inspect the Delta Cat-Back facility to ensure that all equipment is intact and operating normally.

4. Monthly, dispatchers will inspect the evacuation kit, use the satellite phones, and charge the satellite phone batteries.

5. Field divisions should establish a permanent location and testing procedure for their emergency cell and/or satellite phones.

Terry Dennis, Chief Dispatcher
Project Operations Center
Division of Operations and Maintenance

Issued: November 1, 2002

Attachment 1: I. SWP Phone Numbers, II. Department of Water Resources Contacts, III. Outside Agency Contacts, IV. Transportable Supplies Located in POC Emergency Relocation Cabinet, V. Delta Area Control Center Maps

ATTACHMENT 1

STATE WATER PROJECT PHONE NUMBERS

I. SWP Phone Numbers

A. Resources Building Catastrophic Backup Center numbers: 916-657-2911
916-657-3094
916-657-4769
916-657-4840

B. Oroville Field Division 530-534-2426
530-534-2427
530-534-2416

C. Delta Field Division 209-833-2180
209-833-2181

D. San Luis Field Division 209-827-0503
209-827-5300
209-827 6300

E. San Joaquin Field Division 661-858-5560
661-858-5561

F. Southern Field Division 661-944-8600
661-944-8601

II. Department of Water Resources Contacts

Name	Office Phone
Carl Torgersen	916-653-8583
David Roose	916-574-2656
Terry Dennis	916-574-2693
Coe Hall	916-574-2664
Joel Ledesma	916-574-2680
Keith Work	916-574-2696
Sue Kong	916-574-2688
Brian Leary	916-574-2683

III. Outside Agency Contacts

Agency Name	Contact	Phone
CAISO	Shift Supervisor	916-351-2490 Real-Time 351-2495 Hour-Ahead 351-4409
Los Angeles Department of Water and Power (LADWP)	Load Dispatcher	818-771-6634
Metropolitan Water District (MWD)	System Operator	626-844-5610
Nevada Power Company (NPC)	System Dispatcher	702-862-7116
Governor's Office of Emergency Services (OES)	Warning Controller	916-845-8911
Pacific Gas and Electric Company (PG&E)	Real-time Scheduler	415-973-1969
Pine Flat Power Plant	Senior Operator	559-787-2477
Southern California Edison (SCE)	System Dispatcher	626-308-6717
Bureau of Reclamation (Bureau) Emergency Backup at Folsom Power House	Control Center	916-979-3003 Cell 769-5716 916-979-5716 Cell 769-5716
Western Area Power Administration (WAPA)	System Dispatcher	916-353-2232

IV. Transportable Supplies located in POC Emergency Relocation Cabinet

A. Laptop computer loaded with required applications and extra floppy
B. Satellite phone
C. Flashlight
D. Batteries
E. Notepads, pens, and pencils
F. Single-line diagrams of the plant transmission grid
G. Basic Facts handbook
H. Copy of Standing Operating Order Number PC 600.19-D

V. Delta Area Control Center Maps

* Interim Control During POC Evacuation

Section 3. 300-FLOOD MANAGEMENT

Location of computer centers: Resources Building, 16th floor, Room 1609-10, 1416 Ninth Street, Sacramento, and
JOC: 2nd floor, Room 235, 3310 El Camino Avenue, Sacramento, California

310.00-Flood Operations Critical Application-Definition

DESCRIPTION OF CRITICAL APPLICATION. The California Data Exchange Center (CDEC) collects, stores, disseminates, and exchanges hydrometeorological data and related information. Over 50 agencies participate in a program to collect information from about 2,000 locations. This information is available via the Internet to thousands of users.

CONSEQUENCE OF COMPUTER FAILURE. The political and geographic diversity of California requires reservoir and flood control project operators to operate in a semiautonomous fashion. To accomplish this, each operator must have knowledge of conditions that affect a particular project. The impact of lack of current information ranges from a slight inconvenience in maintaining scheduling to a major threat to life and property if weather conditions are unfavorable.

310.10-Emergency Management

Immediately following an occurrence estimated to disrupt essential data processing for more than two hours during a flood event, the Emergency Response Team is to be notified.

Role	Name	Work
Emergency Leader	David Parker	916-574-2630
Alternate Leader	Art Hinojosa	916-574-2613
LAN Leader	Mike Kelly	916-574-2619
Alternate LAN Leader	Terry Howell	916-574-2608
Members:	Ray Welch	916-574-2631
	Bing Zhang	916-547-2783
	Paul Kawata	916-574-2667
	Mohsen Nasseri	916-574-2870
	CDEC pager *	916-552-0973
	Anna Fong	916-574-2632

* (Call the pager from a touch-tone phone. After the beep, punch in your number with area code. You may also leave a short email message on the pager by sending your email to 9165520973@mobilecomm.net)

Team Responsibilities: Restore flood forecasting and operations processes.

Mohsen Nasseri is responsible for Systems Hardware, facilities, including all environmental needs such as power, air conditioning, cabling, etc.

Bing Zhang is responsible for software documentation, system backup, and system

administration.

Paul Kawata is responsible for data collection software (LRGS and Microwave).

Mike Kelly and Terry Howell are responsible for the Division LAN, including installing and setting up personal computers, network cards, Unix LAN servers, and peripherals associated with the LAN.

Ray Welch is responsible for operating systems software, Data Exchange and Oracle applications.

David Parker is responsible for Oracle database administration, Oracle applications, and internal applications.

Bing Zhang and Ray Welch are responsible for web server administration, web applications, and system administration.

Team Objectives:

- Mitigate effects of the disaster AFTER obtaining clearance, as necessary, from fire, toxic, electrical, and building personnel. If site clearance cannot be obtained within one hour, assume, for interim operations, that the center is a total loss.

- Assess impact on equipment: Determine which subsystems are: (A) operational, (B) field repairable, (C) must be replaced in total, and (D) can be eliminated from the system. Note: Use vendor personnel where available, see Section 720.

- Assess criticality of operations: (A) current, 12-hour, 24-hour, and longer weather expectations, (B) water operations Delta needs, and (C) other cooperator needs as necessary.

- Assess conditions of the physical building. If the physical building has other than minor damage, management should be notified and interim operations should be put in place. An in-depth assessment should be deferred until interim operations are in place. Assessment of physical plant condition is to be performed by the Department of General Services. Contact:

Role	Normal Hours	After Hours
Resource Building Manager	916-654-0680	(via CHP) 916-445-2895
JOC	916-381-3843	(A&A Properties) 916-381-3843

310.20-Interim Operating Procedures

DESCRIPTION OF INTERIM PROCEDURE: The purpose of interim procedures is to provide the minimum level of service required at that time. Weather conditions will dictate procedures; however, all procedures will involve establishing basic data communications,

producing necessary forecast, and making this information available as required.

Immediate action required:

- Notify management of need to move to alternative location.

- Collect data at the Resources Building, 16th floor. This is a microwave PC and a DOMSAT PC that interrogates data. Contact:

Name	Work
Paul Kawata	916-574-2667

- Move on-duty forecast and operations personnel to Resources Building.

Name	Work
Rosemarie Mirsepassi	916-574-0647

- Notify off-duty personnel of new work location. Section Chiefs will schedule and notify their personnel.

- Notify Office of Emergency Services, U.S. Army Corps of Engineers, and Bureau of Reclamation of move to backup location.

OES Warning Center (24 hours)	916-845-8911
COE (24 hours)	916-557-7911
	or 916-452-1535
Bureau CVP Control Center (24 hours)	916-979-3002
POCC	916-574-2714
RFC	916-979-3056
Sacramento Office of NWS	916-979-3051
Eureka Office of NWS	707-443-4162

- Activate modem pool at Resources Building to provide access to the backup database. Districts will be notified about telephone number change. Necessary district information is contained in the Directory of Flood Control Officials stored at the Resources Building, 16th floor, Computer Room.

- Manually distribute forecasts to other users as necessary.

- Activate backup systems: database, dial-up Intranet access, Web Server.

- Activate data exchange with other agencies (alternate IP addresses).

- **Implementation timetable:** *Implementation will start immediately and take no longer than*

four hours.

310.30-Operational Recovery Procedures

Operational Recovery Procedures are based on total loss of the Joint Operation Center at 3310 El Camino Avenue, Sacramento. Equipment located at the Resources Building, 16th floor, Computer Room.

- **Activate DOMSAT data exchange from CDF.**

  Curtis Yee work 916-653-4752

- **Activate Microwave data collection.**

  Paul Kawata work 916-574-2667

- **Change route from tornado to vortex for data exchange and notify the following:**

  Bureau - Rohitkumar Desai work 916-979-2188
  COE - Bob Haavisto work 916-557-7112
  O&M - Paul Hultin work 916-574-2689
  NWS - Andy Morin work 916-979-3056
  SMUD – Randy Jensen work 916-732-5841
  PG&E – Gary Freeman work 415-973-5320

- **Activate alternate web server, cloud and change DNS registration.**

- **Network router and firewall changes:**

  Angela Bauman cell - 916-502-1333 work 916-653-4627

- **Gateway firewall contact person:**

  Frank Farmer (DTS) pager - 916-592-3797 work 916-653-4820

310.31-Hardware Recovery

Based on damage report, determine what equipment must be replaced.

Remove salvageable equipment and refurbish as necessary.

NOTE: Computer equipment can only be moved under the direction of the manufacturer's system engineer. To attempt to move without proper preparation will destroy some subsystems.

Purchase equipment as necessary. See Section 720.50 for vendor contact and Section 720.30 for

equipment list. Install, re-cable, and test.

310.32-Software Recovery

Complete copies of system application software and data files for all processors are stored at the Resources Building, 16th floor, Computer Room.

Contact persons:

Name	Work
Bing Zhang	916-574-2783
Ray Welch	916-574-2631

In addition, system software (magnetic media) and manuals are available from the systems vendors. See software listings for vendor information, Sections 720.40 and 720.50.

310.50-Technical Appendices

See Section 720 for Power Requirements, Telephone and Lease-line Equipment, Hardware and Support, Software and Support, and List of Vendors.

SECTION 4. 400-ENTERPRISE RESOURCE PLANNING SYSTEM

Location of computer center: Resources Building, 7th floor, Room 706, 1416 Ninth Street, Sacramento
Location of warm-site: JOC, 3rd floor, 3310 El Camino Avenue, Sacramento

410.00- SAP Critical Application – Definitions

DESCRIPTION OF CRITICAL APPLICATIONS: The SAP System is an integrated Enterprise Resource Planning system, which processes the majority of the financial, administrative, human resources, and operations and maintenace activities for the Department of Water Resources. Configured business processes in DWR's implementation of the SAP ERP System include:

- Logistics – Purchasing
  - Warehousing
  - Inventory
  - BarCoding
  - Construction Contracts
- Finance
  - Create/Change/Post Invoices
  - Payments
  - General Ledger
  - Accounts Receivable
  - Master Data
  - Automated Claim Schedule Processing
  - Travel
  - Asset Management
- Funds Management – Budget
  - DOF Reporting Requirements
- CARA (Cost Allocation and Repayment Analysis
- Project Systems
- Controlling
  - SWP Future Cost Planning
  - Program and OCC Cost Planning
  - Allocations
  - Reporting
  - Master Data and Maintenance
- Human Resources – Personnel
  - Multiple Entry Time Recording
  - Separation Action
  - Promotion
  - Hire Action
  - Training and Events
  - Recruitment and Selection
- Production Planning
  - Capture of Water Delivery Data
  - Provides information for CARA
- Plant Maintenance
  - Plant Maintenance Information System
  - Notification and Order Processing
  - Equipment History

CONSEQUENCE OF APPLICATION FAILURE: Loss of the SAP ERP System could have significant financial and operational implications for DWR. Failure of the System would result in a lack of budgetary and fiscal control. This includes DWR's ability to account for and bill the

SWP Water Contractors for operations and debt services cost. DWR would not be able to account for the expenditures of State Funds and revenues as required by the Government Code. Payroll would not be met and claims would not be paid. Materials management and facilities and equipment maintenance would be negatively impacted.

DEFINITION OF A DISASTER: The ERP production environment consists of four application servers, and a server for accessing the Oracle database. If one or more application servers go down the others provide the application services for users logging on to SAP.

The loss of any of the system component could result in a disruption of services. In evaluating possible disaster scenarios, most outages would be treated as disruptions in service rather than declared disasters. Such disruptions would include:

Local power outage (short-term)	Communication Hub failure
Building power outage (short-term)	Disk failure
An application server failure	Local LAN failure
Lost or erased data files	Backup Tape system failure

For a loss to trigger the implementation of this Plan, either the database server, the Headquarters' Backbone Network, DWR's Wide Area Network, the 7th floor Data Center, or the Resources Building would have to be unusable for an extended period of time.

For the SAP ERP, the definition of a declared disaster would be a complete outage of five or more days.

410.10-Emergency Management and Damage Assessment

Following a defined disaster, a Division of Technology Services' Emergency Response Team would be dispatched to assess the extent of the damage and implement appropriate recovery procedures. The ERT Leader under this Plan would be Chris Navarrete. The team from DTS would consist of selected members from Operations, Software Support, Database System Administration, Network Support, and Application Development. The team from DTS would be selected from the staff found in Section 810.03, Emergency Contact List.

Team Responsibility: Mitigate effects of disaster and assess impact.

Team Objectives:

- Mitigate effects of the disaster AFTER obtaining clearance, as necessary, from fire, toxic, electrical, and building security personnel. Follow all safety procedures. If clearance to enter the Data Center or Resources Building cannot be obtained within four hours assume, for interim operations, the Data Center is inoperable.

- Assess impact on equipment. Determine which components are: (A) operational, (B) field repairable, (C) must be replaced in total, and (D) can be eliminated during interim operations.

- Assess conditions of the physical plant. If the physical plant has other than minor damage, management must be notified and appropriate interim operations should be put in place. An in-depth assessment should be deferred until interim operations are in place. Formal assessment of the physical plant is to be performed by the Department of General Services with arrangements made through Business Services and the building manager.

Role	Name	Work Phone
Building Manager	Gabe Andrade	916-654-0680
Data Center Support	Tim Vice	916-653-6561
Facilities	Susan Lemmon	916-653-4224
DGS Central Plant		916-653-0009
DGS Electrical		916-657-0203
	Tony Rodriguez	916-657-0203
CA Highway Patrol		916-445-2895

In addition, Debbie Lewis-Barbour (from Network Management) and David Keene (from Telecommunications) would be contacted should the emergency affect either the Wide Area Network or the Communication Center in Room 307.

Name*	Work Phone	Mobile Phone
Debbie Lewis-Barbour	916-653-8737	916-947-5406
Angela Bauman	916-653-4627	916-502-1333
Charles (Chuck) Leni	916-654-0707	916-592-0906 Pager
David Keene	916-654-0707	916-826-6058

* Communication staff may be contacted via the Help Desk pager.

Staff from the DWR SAP Team would also be contacted. See Section 810.03 for SAP ERT Members Emergency Contact List.

Team Responsibilities: Ensure all critical ERP applications are restored and that the integrity and security of all current and future data are maintained during emergency management and interim operations.

410.20-Interim Operating Procedures

Should DWR declare an emergency, interim-operating procedures would be put in place in accordance with the extent and severity of the disaster.

For a loss to qualify as a disaster requiring implementation of interim operating procedures, either the Oracle database server, the Headquarters' Backbone Network, DWR's Wide Area Network, the 7th floor Data Center, or the Resources Building would have to be unusable for five or more days.

410.21-Loss of the Back-end Database Server

Should the Oracle database server, sapprod1 be lost, our current network infrastructure will allow us to restore service by using a designated stand-by server. DTS is creating a warm-site at the Joint Operation Center in Northeast Sacramento. This warm-site will be a nearly complete recovery site with most of the necessary hardware, network connections, and software in place and the rest readily available.

A server (drprod1) in the computer room at the JOC, attached to the DWR utility LAN, provides emergency back-up services for the SAP production database and acts as an application server as well. drprod1 will run in stand-by mode that allows Redo/Archive logs from the production database server sapprod1 to be transferred electronically to drprod1 daily to ensure point-in-time recovery.

In addition to restoring the back-end database, the front-end application must also be available to the clients. The application files currently reside on four application servers: sapweb4, sapweb5, sapweb6 and sapver. A copy will also be kept on two warm-site application servers (drweb1 and drweb2). If the production application servers were inaccessible, the SAP clients would access the application through the GUI front-end running off these application servers. Remote access is possible through direct dial-up (Point-to-Point Protocol) connections at Headquarters and the JOC.

The Enterprise Portal application will also be available to the clients for Work Clearance Management and other departmental functions. The application files currently reside on sapweb12 and a copy will be kept on drweb1.

In addition, back-up copies of the production database and application files are made nightly using the VERITAS Netbackup tape back-up. Copies are stored off-site following the weekend back-up. If necessary, the back-up tapes could be restored on drprod1.

Task	Staff Assigned	Est. SAP Down Time
Transfer Operations to drprod1		
1. If sapprod1 is still available, synchronize the production database with drprod1 the disaster recovery node (i.e., move 'redo' logs to drprod1). If drprod1 has been in stand-by mode, then redo logs have been transferred electronically from the production database servers to drprod1 every 15 minutes.	OS Support	1 hr.
2. Change the DWR Domain Name Server to point SAP users to the disaster recovery node. Begin normal transactions.	OS Support	2 hrs. for all users.
3. Change the DWR Domain Name Server to point Portal users to the portal disaster recovery node.	OS Support	1 hr.

Task	Staff Assigned	Est. SAP Down Time
4. If there are problems with the stand-by database and application residing on drprod1, drweb1, or drweb2, relocate backup tapes from off-site storage to JOC, import tapes into disaster recovery nodes to restore SAP application files and/or production database.	OS Support Basis Team	48-60 hrs.
5. Bring up and test NextWave Production system running on drprod1. Conduct analysis of lost transactions. If possible, check what jobs were running on sapprod1. Check for possible corrupted data.	Basis Team	0-8 hrs.
When Possible, Transfer Operations Back to the Primary server sapprod1		
6. Online backup of SAP/Oracle database and logs.	Basis Team	6-8 hrs.
7. Move backup tapes to production cluster, import tapes into the NextWave production server, sapprod1.	OS Support	24 hrs.
8. Restore database tables and redo logs from drprod1 to production server, sapprod1. Copy and apply latest archive logs to production server, sapprod1.Shutdown SAP on drprod1, switch log files, copy last logs to server. Activate Oracle Database on server, Start SAP	Basis Team	24-36 hrs.
9. Change the DWR Domain Name Server to point SAP users to the production node.	OS Support	2 hrs. for all users.
10. Change the DWR Domain Name Server to point Portal users to the portal production node.	OS Support	1 hr.
11. Bring up and test NextWave Production system running on production server.	OS Support Basis Team	1-2 hrs.

Role	Name	Work Phone	Mobile Phone
Team Leader	Andy Osiow	916-653-3916	916-296-7188
Basis Leader	Bill Looper	916-653-9998	916-337-7023
DR Site Basis Leader	Dat Tu	916-653-1216	916-502-0004
Basis	Steve Croft	916-654-9398	916-607-1825
Basis	Corinne Martell	916-653-2768	N/A
Basis	Alan Thach	916-653-3825	916-806-6558
SAP Security	Diane Huey	916-653-2280	N/A
SAP Security	Ward Shigaki	916-653-3532	916-869-0759

410.22-Loss of the Headquarters' Backbone Network or WAN

If the disaster was to cut the Headquarters' Backbone Network or DWR's WAN, back-up or redundant network communication services would be needed. Currently, the JOC operates as the backup site for most of DWR's important infrastructure services, including DNS, mail services, and SAP. The JOC and the other non-Headquarters locations use a dual ring and mesh network topology to connect to the 3rd and 7th floor of the Resources Building. This topology allows direct connectivity to non-Headquarters' facilities from multiple paths including either the Resources Building or the JOC. There are also other connectivity options available, including Point-to-Point Protocol dial-up connections directly into the JOC.

410.23-Loss of the 7th Floor Data Center

If the 7th Floor Data Center is lost, the impact would be similar to a combination of the first two scenarios. In addition to the back-end database server and application servers, the necessary network naming service (i.e., DNS) will be available through the JOC as part of the warm-site configuration.

410.24-Loss of the Resources Building

If the Resources Building is lost, an additional complication would arise, i.e., where to locate DWR management and Fiscal Services' staff during the interim recovery period. The JOC or the DWR Training Center at 13th and R streets have been identified as locations for housing a DOC and temporary office space for SAP and Fiscal Services' interim-operations teams. Another option would involve several smaller sites using PPP remote dial-in capabilities. The SAP front-end GUI would need to be added to the available clients.

410.30-Operational Recovery Procedures

410.31-Hardware Recovery

Hardware technical specifications for the SAP ERP production servers are kept onsite and are maintained using Aperture software. A current backup copy will be sent to the off-site storage facility quarterly. See Section 810.03 for an Emergency Contact List.

Name	Work Phone	Mobile Phone
Ted Yoshikawa	916-653-7316	Pgr. 916-592-0261
Michael Kahn	916-653-5609	N/A

If access to the Resources Building is restricted, replacement hardware will be needed for some SAP clients, with the SAPgui already installed on the existing computers in the DWR Training Centers (Sacramento and San Joaquin Field Division), services organizations (Fiscal, Human Resources, and Logistics) could continue near normal accounts and contracts processing.

410.32-Software and Data Recovery

Software technical specifications for the SAP ERP production servers are kept onsite and are maintained using Aperture software. A current backup copy will be sent to the off-site storage facility quarterly.

Database Files: The database server, sapprod1, is backed up nightly by a VERITAS Netbackup system which provides both backup and recovery options. The backup software handles scheduling and its own tape tracking, which is done by means of a bar code reader. Back-up copies of the Oracle database and bar code tracking file are stored off-site at Vanguard Vaults.

Vendor Name	Work Phone
Vanguard Vaults	916-686-8286

Authorized personnel currently on the list with Vanguard Vaults to recall tapes:

Name	Work Phone	Mobile Phone
Ted Yoshikawa	916-653-7316	916-592-0261 Pager
Barbara Graham	916-653-7117	N/A
Julianne Miller	916-653-7463	N/A
Bert Pierroz	916-653-9896	916-425-8142
Chris Navarrete	916-653-6854	916-502-2671
Jeff Bowen	916-659-5657	916-712-0005

Applications: Currently, the production SAP application files are backed up nightly off the application servers in the 7th floor Data Center using the Netbackup tape backup system physically attached to machine name “Boa”. Off-site storage takes place weekly.

Warm-site: The warm-site at the JOC includes the necessary Netbackup tape recovery hardware and software. It is possible to restore the off-site copies of all production databases on the back-up server within hours. Should Headquarters' office space be lost, necessary client desktop computers and front-end software will be purchased as emergency purchases or obtained from other DWR sites.

Technical support would be required for full restoration of operating systems, application software, and data files. Support team members would include representatives from Software Support, System Administration, and the SAP Team. See Section 810.03 for the Emergency Contact List.

410.40-Testing-Client/Server Critical Application Recovery

The disaster of most concern would be a full closure of the Resources Building. This would require the deployment of a Department Operation Center and identification of alternative office space for SAP, Fiscal Services, Human Resources, and Purchasing and DTS staff. These

procedures have been developed as part of the DWR BRP and were tested by means of a Tabletop Test.

DWR has implemented an annual "Operational Recovery Switch-Over Exercise." This exercise consists of switching-over the SAP system to our standby (warm-site) system located at the SWP Operations Control Office. The exercise switches all Departmental users and system processing to our standby system for a short test period not to exceed 2 weeks.

410.50-Technical Appendices

The Technical Appendices covering hardware and operating system software are maintained in an Aperture database and are available through the Data Center Manager. A copy is stored off-site (part of the normal backups) and updated as appropriate.

420.10-Emergency Procedures

It is essential that reasonable protective measures be instituted to minimize damage, protect files and provide for continuing computer processing. Loss of data and processing time could result in costly delays to facilitate management decisions.

The actions to be taken to protect resources in any specific situation will vary depending on the time, number of personnel, and circumstances. There is no substitute for good judgment. Operation and supervisory personnel must be made aware of the emergency plans and control measures available, and be prepared to take such actions as are deemed advisable in the situation. The actions outlined in the Data Center Emergency Procedures, Section 760, are intended to be a guide for handling these scenarios.

SECTION 5. 500-CALIFORNIA ENERGY RESOURCES SCHEDULING

Location: JOC, 1st floor
3310 El Camino Avenue, Sacramento, California

510.00-CERS – Definition

DESCRIPTION OF ESSENTIAL FUNCTION:

The California Public Utilities Commission's order transferring the scheduling of the real-time net short of energy and $43 billion long-term energy contracts to the IOU (IOUs) significantly changed the role that the California Energy Resources Scheduling (CERS) division plays in the deregulated energy market. Up until December 2002, CERS scheduled and transacted energy directly with the California Independent System Operator in the real-time, hour-ahead and day-ahead markets for the three IOUs, Southern California Edison, Pacific Gas and Electric, and San Diego Gas and Electric. During this time, Altra Power was the critical software application that CERS used to schedule energy, and to support the long-term energy contracts entered into on behalf of the IOUs. An Operation Recovery Plan for Altra Power and the Real-time Trade Room was included in this Section.

CERS now performs statutory, legal, and fiduciary responsibilities in connection with the management of the State's long-term power contracts and the servicing of power revenue bonds. These responsibilities, while critical business functions, are no longer time sensitive nor dependent on the Altra Power application or the Real-time Trade Room. CERS will continue to be an essential function under DWR's BRP, but the Altra Power system and Trade Room will no longer be part of DWR's Operation Recovery Plan.

SECTION 6. 600-ENTERPRISE E-MAIL AND NETWORK ACCOUNTS

Computer locations -

- *HQ Data Center [AD Forest Root, Active Directory Domain Controller, DNS and Exchange 2000 Server site, Goodlink Server] Resources Building, 1416 Ninth Street, 7th floor, Room 706, Sacramento, CA 95814*
- *JOC AD Forest Root replication, Active Directory Domain Controller, DNS and Exchange 2000 Server site - CA DWR, JOC,3rd floor, 3310 El Camino Avenue, Sacramento (section 430)*

Remote computer locations

- *Northern District [Active Directory Domain Controller, DNS and Exchange 2000 Server site] - CA DWR Northern District, 2440 Main Street, Red Bluff, CA 96080*
- *San Joaquin District [Active Directory Domain Controller, DNS and Exchange 2000 Server site] - CA DWR San Joaquin District, 3374 East Shields Avenue, Fresno, CA 93726*
- *Southern District [Active Directory Domain Controller, DNS and Exchange 2000 Server site] - CA DWR Southern District, 770 Fairmont Avenue, #102, Glendale, CA 91203*
- *Oroville Field Division [Exchange 2000 Server site] - CA DWR, Division of Operations and Maintenance, Oroville Field Division, 460 Glen Drive, Oroville, CA 95966*
- *Delta Field Division [AD Forest Root replication, Active Directory Domain Controller, DNS and Exchange 2000 Server site] - CA DWR, Division of Operations and Maintenance, Delta Field Division, 5280 Bruns Road, Route 1, Box 39, Byron, CA 94514*
- *San Luis Field Division [Active Directory Domain Controller, DNS and Exchange 2000 server site] - CA DWR, Division of Operations and Maintenance, San Luis Field Division, 31770 Gonzaga Road, Gustine, CA 95322*
- *San Joaquin Field Division [Active Directory Domain Controller, DNS and Exchange 2000 Server site] - CA DWR, Division of Operations and Maintenance, San Joaquin Field Division, 4201 Sabodan Street, Mettler, CA 93313*
- *Southern Field Division [Active Directory Domain Controller, DNS and Exchange 2000 Server site] - CA DWR, Division of Operations and Maintenance, Southern Field Division, 34534 116th Street East, Pearblossom, CA 93553*

<u>610.00- Active Directory and Exchange Applications - Definitions</u>

DESCRIPTION OF CRITICAL APPLICATIONS:

Active Directory (AD): Active Directory is the directory database for DWR's Windows 2000 network operating system infrastructure. It is a core component of Windows client and server operating systems and provides essential data to both the enterprise and other components within each member client or server. Active Directory provides a central service for administrators to organize network resources, manage users, computers, and applications.

Many different objects can be stored in the Active Directory, including:

- Users.
- Groups.
- Security credentials (e.g., certificates).

- System resources (e.g., computers (or servers) and printers).
- Replication components.
- Rules and policies to control the working environment.

The Active Directory database is operated on Windows 2000 Server Domain Controllers (DCs). Each DC updates Active Directory data and replicate changes to other DCs, ensuring that each one hosts a current and accurate version of the directory database. Some of the DCs are assigned special Flexible Single Master Operation (FSMO) roles. Most of the FSMO roles can be transferred from one DC to another. For DWR, however, the Schema Master and Domain Naming Master FSMO roles are limited to the Forest Root DCs.

Active Directory is dependent upon the following underlying network technologies:

- Local-Area Network (LAN) communications
- Wide-Area Network (WAN) communications
- Domain Name System (DNS)

Exchange 2000 (EX2K): Exchange 2000 is an enterprise-messaging platform with built-in services such as e-mail, calendaring, contact and task management, discussion groups, resource scheduling, and document-centric workflow.

DWR's Exchange 2000 system operates on multiple Windows 2000 Servers and is dependent upon Active Directory services. All Exchange 2000 directory information (including configuration information regarding mailboxes, servers, and sites) is stored within Active Directory. Items such as distribution lists and access permissions for users and groups are also stored within Active Directory.

Goodlink Server: The Goodlink Server is a Windows 2000 server running Good Technology's mobile middleware software application. Goodlink is a wireless messaging system that provides a two-way wireless synchronized connection between a user's mailbox on the Exchange server and a PDA phone using wireless carrier service. With Goodlink, users have instant access to their e-mail, calendar, contacts, notes and tasks, as well as attachments. In addition to receiving mail, users also are able to compose and send e-mail from their wireless devices. This wireless messaging system is currently being made available to key DWR management staff.

Active Directory DNS Configuration: In total, DWR implemented two forward lookup DNS zones to support the Active Directory Enterprise. Supporting these zones required the involvement of nine of the thirteen domain controllers in production. Additionally, multiple reverse lookup zones were implemented to support DWR's numerous subnets.

The forest root zone (root.water.ca.gov, or ROOT) follows a primary/secondary configuration. This configuration allows only a single server to ever write changes to the zone file. Multiple secondary servers are configured to provide name resolution only, and do not have the ability to write zone information. In the event of primary server (SACNS1) failure, any configured secondary server (SACDC1 or JOCDC1) for the zone could easily be promoted as a primary without suffering any zone integrity degradation.

The zone that supports the majority of Enterprise name resolution requirements is ad.water.ca.gov (WATER). As with the forest root zone, WATER is arranged in a primary/secondary zone holder configuration. This configuration follows the same constraints as the ROOT zone in that only a single server (SACNS1) may write changes to the zone, and multiple secondary servers (SACDC1, JOCDC1, SJFDC1, SLFDC1, SFDDC1, SJDDC1, SDDC1, and NDDC1) may provide name resolution to existing records only. Additionally, any available secondary could easily be promoted to the role of primary zone holder if the need ever presented itself.

Domain Controller List:

Domain Controller	*IP Address*	*Location*
SACFR1 (Root)	136.200.117.12	HQ
SACDC1	136.200.117.13	HQ
SACNS1	136.200.117.17	HQ
JOCFR1 (Root)	136.200.141.11	JOC
JOCDC1	136.200.141.13	JOC
NDDC1	136.200.224.241	Northern District
DELTAFR1 (Root)	136.200.24.145	Delta Field Division
DELTADC1	136.200.24.141	Delta Field Division
SLFDC1	136.200.104.181	San Luis Field Division
SJFDC1	136.200.232.141	San Joaquin Field Division
SJDDC1	136.200.76.11	San Joaquin District
SFDDC1	136.200.44.181	Southern Field Division
SDDC1	136.200.56.141	Southern District

CONSEQUENCE OF LOSS OR FAILURE

Loss or failure of the MS Windows 2000 Active Directory could have significant operational implications because of its role as a central point of management for DWR's Windows 2000 single AD forest infrastructure. Loss or failure would impact Exchange 2000, network resource access, file and resource permissions, and desktop and server security configurations. By default, most Department Windows workstations and some AD dependent servers would use locally cached user authentication and network information to complete regular computing tasks; long term use of cached credentials and network information is not easily tested and the impacts to normal business operations are unknown. Additionally, all new Windows account requests, modifications, and deletions would be frozen until the Active Directory Database became operational.

Loss or failure of the Exchange 2000 Server enterprise-messaging platform would disrupt e-mail, calendaring, resource scheduling, collaboration, and efficient workflow throughout DWR, leaving the following options for critical communications (e.g., water and power scheduling):

- Telephones
- Fax machines
- Legacy SMTP and POP3 Sendmail servers
- Private messaging services (e.g., MS Hotmail, Yahoo Mail, AOL)

Loss of the Goodlink Server would result in a disruption of wireless access to Exchange messaging services from a PDA phone.

DEFINITION OF A DISASTER:

The loss or failure of any of the system components or supporting infrastructure could result in a disruption of services for some or all users. In evaluating possible disaster scenarios, most outages would be treated as disruptions in service rather than declared disasters. Such disruptions for MS Active Directory, Exchange 2000 Server, or Goodlink Server would include:

Local power outage (short-term)	Communication Router/Hub failure
Building power outage (short-term)	Disk/RAID failure
Systems software failure	Local LAN failure
Application Database Corruption	Network Name Service Failure
Virus Outbreak	Wide Area Network Failure

Loss, or expected loss, of any one of the following, for an extended period of time (see following paragraphs for definition of extended periods of time), would trigger the implementation of this Plan:

- All Forest Root Server (at HQ, JOC, and Delta Field Division)
- HQ Backbone Network
- Department's Wide Area Network
- AD/Exchange Servers at HQ or JOC
- HQ Data Center (Resources Building, Room 706)
- Resources Building
- Computer room at the JOC
- JOC
- Remote Exchange 2000 Server sites or servers.

For MS Windows 2000 Active Directory and MS Exchange 2000 Server services, the definition of a declared disaster would be a complete outage of any of the following sites for the indicated number of days:

Joint Operations Center (JOC)	1 or more days
Resources Building (HQ)	2 or more days
Northern District (ND)	5 or more days
San Joaquin District (SJD)	5 or more days
Southern District (SD)	5 or more days
Delta Field Division (DFD)	5 or more days
Oroville Field Division (OFD)	5 or more days
San Joaquin Field Division (SJFD)	5 or more days
San Luis Field Division (SLFD)	5 or more days
Southern Field Division (SFD)	5 or more days

610.10-Emergency Management and Damage Assessment

610.11-DTS Emergency Response Team

Following a defined disaster, a DTS Emergency Response Team would be dispatched to assess the extent of the damage and implement interim recovery procedures. The Emergency Leader under this Plan would be Chris Navarrete. For any declared disaster involving AD/Exchange operations at the JOC, the DTS Emergency Response Team would coordinate activities with Jain Fong, JOC Information Systems Manager. The team from DTS would consist of selected members from the Data Center, IT Support Services, and Communications Support. See Section 810.05 for additional contact information.

Name	Unit	Work
Chris Navarrete	IT Support Services Br Chief	916-653-6854
Jain Fong	Info Sys Mgr, JOC	916-574-2682
Michael Hom	AD/Windows Servers	916-654-5914
Meng Huang		916-653-2306
Robert Jarumay		916-653-4786
Ash Keval		916-653-4209
Vacant	Exchange Servers	916-653-0249
David Poukish		916-654-6422
George Medina		916-653-7350
Ned Pimshan		916-651-6493
Eliza Yam	Central Tech Support	916-651-6494
Jeff Bowen		916-654-9448
Ted Yoshikawa	Data Center	916-653-7316
Roger Linder	Computing Network Interface	916-653-6842
Andrew Summers	DTS Info Security	916-653-0941

TEAM RESPONSIBILITY: Assess impact and mitigate effects of disaster.

TEAM OBJECTIVES:

- Mitigate effects of the disaster AFTER obtaining clearance, as necessary, from fire, toxic, electrical, and building security personnel. Follow all safety procedures. If clearance to enter the HQ Data Center, Resources Building, JOC Data Center, JOC Building, or any remote site location cannot be obtained within four hours assume, for interim operations, the location is inoperable. For all remote site locations, the DTS Emergency Response Team will work in cooperation with the designated LAN Administrator and management of the specific Division/District/Office.

Name	Location	Work
Larry Shuman	ND	530-529-7305
Bob Lewis	OFD	530-534-2397
Rod Simunek	DFD	209-833-2052
Andy Guzman	SLFD	209-827-5304
Mark Chadwick	SJD	559-230-3344
Noe Perez	SJFD	661-858-5500
Dave Duecker	SFD	661-257-3610
Tahnda Bailey	SD	818-543-4615

- Assess impact on equipment. Determine which components are: (A) operational, (B) field repairable, (C) must be replaced in total, and (D) can be eliminated during interim operations.

- Assess impact on production software, data, and tape backups.

- Assess conditions of the physical plant. If the physical plant has other than minor damage, management must be notified and appropriate interim operations should be put in place. An in-depth assessment should be deferred until interim operations are in place. For the Sacramento Resources Building, formal assessment of the physical plant is to be performed by the Department of General Services with arrangements made through Business Services and the building manager.

Name	Work	After Hours
Sac Resources Building Manager	916-654-0680	(via state police) 916-445-2895
DWR Support Services	916-653-6050	
DGS Central Plant	916-653-0009	pager 916-592-6048
DGS Electrical		pager 916-855-9445

For the JOC, formal assessment of the physical plant is to be performed by the Facilities Management Unit within the DMS.

Name	Work	Mobile Phone
Jaima Spencer	916-574-2485	916-717-9843

Should the emergency affect the Wide Area Network, HQ Data Center (Resources Building, Room 706), or the communications center at the JOC, personnel from the Network & Communications Support office would also be contacted. See Section 810.05 for additional contact information.

Name	Unit	Work
Debbie Lewis-Barbour	Network Management	916-653-8737
Angela Bauman	Network Management	916-653-4627
Chuck Leni	LAN & Telecommunications Branch	916-654-0707

610.20- Interim Operating Procedures – Active Directory and Exchange

610.21-Loss of Forest Root Servers at HQ, JOC, and Delta Field Division

Active Directory and Exchange 2000 would remain functional for all DWR offices and users with the loss of one or two of the Forest Root servers. However, prolonged use of Active Directory Services and Exchange 2000, with the loss of all Forest Root Domain Controllers, could result in data corruption for one or both services.

If all Forest Root Domain Controllers are down due to a LAN/WAN outage, then the interim procedure is to wait for the LAN/WAN to be operational or move the Forest Root Domain Controllers to an active LAN/WAN connection.

If all Forest Root Domain Controllers are inoperable due to hardware, operating system, or Active Directory failure, then the interim procedure is to repair/replace hardware and/or restore from backup. Once one of the Forest Root Domain Controllers is functioning, then the remaining FSMO roles would be transferred to another DC.

610.22-Loss of the HQ Backbone Network or WAN

One of the main concerns would be the availability of the PDC Emulator (currently SACDC1), another FSMO. Depending on the outage length and impact to the few remaining NT4 workstations, NT4 Servers, and trusting NT4 domains, the PDC Emulator may need to be transferred to another DC.

Loss of the HQ Backbone Network would result in a complete loss of functionality between client machines and servers on different subnets for users in the Sacramento Resources Building and downtown Sacramento area. Users in these areas would be unable to communicate with any AD or Exchange 2000 servers located in the HQ Data Center. Users at the JOC and remote DWR sites would be unable to communicate with users in the Resources Building and other downtown Sacramento offices, but otherwise they would have complete AD and Exchange 2000 functionality. Division/Offices in the Resources Building and downtown Sacramento offices that would be unable to send or receive mail via Exchange 2000 are:

Sacramento Exchange Mail Store Listing

Server	***Storage Group***	***Mailstore***	***Services Division Users***
SACEX1			
136.200.117.21	CalFed Storage Group	Calfed Mail	Calfed (contained)
	HQ Exec Storage Group	Exec Mail	Executive

Server	*Storage Group*	*Mailstore*	*Services Division Users*
		Fiscal Mail	Fiscal
		Legal Mail	Exec-legal/attorneys
	HQ Svcs Storage Group	DTS Mail	Div Tech Svcs
		DMS Mail	Div Management Svcs/HR
SACEX2			
136.200.117.23	Planning Storage Group	DPLA Mail	DPLA Divisions (Sacto, C.Dist)
	SWP Storage Group	SWPAO Mail	SWPAO
		OSWPP Mail	OSWPP (Planning)
	Sac OandM Storage Group	OMHQ Mail	O&M HQ / Eng&Test
SACEX3			
136.200.117.25	DOE Storage Group	DoE	Div of Engineering/YucaipaC. O.
	Sac Area Div Storage Group	SoD	Safety of Dams
		ESO	Env. Svcs Office
		OWE	Office Water Edu.
		LRW	Engineering
SACEX4			
136.200.117.30	Goodlink Storage Group	Goodlink Mail	Goodlink Admin Mailbox
SACEX5			
136.200.117.33	HQ Litigation Hold Storage Group	HQ Litigation Hold Archive 1	All DWR Divisions/Offices
		HQ Litigation Hold Archive 2	All DWR Divisions/Offices
		HQ Litigation Hold Archive 3	All DWR Divisions/Offices
		HQ Litigation Hold Mail	All DWR Divisions/Offices
		HQ Litigation Hold Standard Mailbox Limits	All DWR Divisions/Offices

Loss of WAN connectivity (including alternate communications routes) would result in a complete loss of functionality between client machines and servers at affected remote sites. Users at remote sites would be unable to communicate to other DWR sites (via Exchange) or the outside world (via the Internet), but they would be able to communicate within their own site (via Exchange) provided their site has an Active Directory Domain Controller and Global Catalogue server. All remote sites have a Domain Controller and Global Catalogue server except Oroville Field Division. There is also a Domain Controller and Global Catalogue server located at HQ and the JOC. The following is a breakdown of mail services at each remote DWR site:

Remote Site Exchange Mail Store Listing

Server	***Storage Group***	***Mailstore***	***Services Division Users***
JOCEX2			
136.200.141.26	CERSJOCEX2 Storage Group	CERSJOCEX2 Mail	CERS
	DFMJOCEX2 Storage Group	DFMJOCEX2 Mail	Flood
	OCOJOCEX2 Storage Group	OCOJOCEX2 Mail	OCO
JOCEX3			
136.200.141.28	First Storage Group	Mailbox Store	All DWR Divisions/Offices
DELTAEX1			
136.200.24.143	Delta Storage Group	Delta Mail	Delta ACC and Field sites
NDEX1			
136.200.224.243	ND DPLA Storage Group	North Mail	Northern District
OFDEX1			
136.200.168.143	Oroville Storage Group	Oroville Field Mail	Oroville ACC and Field sites
	OFD Litigation Hold Storage Group	OFD Litigation Hold Mail	All OFD Users
SDEX1			
136.200.56.143	SD DPLA Storage Group	South Mail	Southern District
	SD Litigation Hold Storage Group	SD Litigation Hold Mail	Southern District
SFDEX1			
136.200.44.183	SFD OandM Storage Group	PearBlossom Mail	Pear Blossom
		Castaic ACC Mail	Castaic
		South Field Mail	Remote O&M So.Field Sites
	SFD Litigation Hold Storage Group	SFD Litigation Hold Mail	All SFD Users
SJDEX1			
136.200.76.13	SJD DPLA Storage Group	SJD Mail	San Joaquin District sites
SJFEX1			
136.200.232.143	SJF OandM Storage Group	SJ Field Mail	San Joaquin Field O&M sites
	SJF Litigation Hold Storage Group	SJF Litigation Hold Mail	All SJFD Users
SLFEX1			
136.200.104.183	SLF OandM Storage Group	San Luis Mail	San Luis Field O&M sites
	SFD Litigation Hold Storage Group	SFD Litigation Hold Mail	All SFD Users
		SFD Litigation Hold Standard Mailbox Limits	All SFD Users

If Intranet/Internet e-mail services are required for critical staff at remote sites before WAN communications can be restored, DTS could facilitate remote access through DWR's PPP or

VPN services. DTS could create temporary mailboxes on an Exchange 2000 server at an unaffected site and enable Outlook Web Access for remote users. During this interim period, remote users would be able to send and receive mail, but they would not have access to their historical Exchange 2000 mailbox components (i.e., e-mail, calendaring, contacts, tasks, etc.). Alternatively, DTS could establish accounts for SMTP and POP3 services on available UNIX server(s) with LAN and Internet connectivity and configure appropriate Sendmail routing and client communications.

610.23-Loss of the 7th Floor Data Center/Loss of Resources Building

Should the HQ Data Center be lost, the necessary network naming and information services (i.e., DNS) for Active Directory servers and clients will be available through the JOC and San Joaquin Field Division site servers for users located at the JOC and remote DWR sites. Exchange 2000 services for users in the Resources Building and downtown Sacramento locations would be inaccessible until either:

- Temporary mailboxes could be established for users at the Resources Building on an Exchange Server either at the JOC or at a remote Exchange Server site. DTS would prioritize users based on business need and reestablish mailboxes for those with the highest priority first. DTS Exchange Administrators would be responsible for creating the temporary mailboxes. It would take approximately ten (10) minutes to create each temporary mailbox, providing users with email and calendar functionality but no access to historical email or calendar information.

- HQ server(s) mailboxes with historical data could be restored from backup tape to servers at the JOC or remote Exchange Server sites. This would require the purchase/acquisition of replacement server hardware. Users would not have access to any data stored in their desktop .pst files unless their Division/Office has implemented a plan for off-site storage, retrieval and restoration of personal computer data.

The Goodlink Server resides in the 7th Flood Data Center. Wireless access to Exchange messaging services would be unavailable until the Goodlink Server is restored on a server at a remote site. The Goodlink Administrator's mailbox would also need to be restored from tape back-up to an Exchange server at the remote site.

610.24-Loss of the JOC Computer Room/Loss of JOC

Should the JOC Computer Room become inoperable, the necessary network naming and information services (i.e., DNS) for Active Directory servers and clients outside the JOC will be available from HQ and San Joaquin Field Division site servers. Exchange 2000 services for users at the JOC would be inaccessible until either:

- Temporary mailboxes could be established on an Exchange Server either at HQ or at a remote Exchange Server site. DTS would prioritize users based on business need and

reestablish mailboxes for those with the highest priority first (e.g., users working in POC Catastrophic Backup Center at HQ). DTS Exchange Administrators would be responsible for creating the temporary mailboxes. It would take approximately ten (10) minutes to create each temporary mailbox, providing users with email and calendar functionality but no access to historical email or calendar information.

- JOC Exchange server(s) mailboxes with historical data could be restored from backup tape to equipment in the Exchange Test Lab at HQ. Users would not have access to any data stored in their desktop .pst files unless their Division/Office has implemented a plan for off-site storage, retrieval and restoration of personal computer data.

JOC Exchange Mail Store Listing

Server	***Storage Group***	***Mailstore***	***Services Division Users***
JOCEX2			
	CERSJOCEX2 Storage Group	CERSJOCEX2 Mail	CERS
	DFMJOCEX2 Storage Group	DFMJOCEX2 Mail	Flood
	OCOJOCEX2 Storage Group	OCOJOCEX2 Mail	OCO
JOCEX3			
	First Storage Group	Mailbox Store	All JOC Users

610.25-Loss of Individual Remote Exchange 2000 Server Sites

Loss of an individual remote Exchange 2000 server site would result in a complete loss of e-mail functionality at the remote site, but would not impact AD services or Exchange 2000 services elsewhere in DWR. If W2K or a remaining NT4 with DSClient workstation in the local site cannot reach a DNS or a WINS server, then the workstation will logon with cached credentials. If an NT4 without DSClient workstation in the local site cannot reach a WINS server, then the workstation will logon with cached credentials.

Users relocated to an alternate DWR site would be set up with interim mailboxes on another DWR Exchange 2000 server until such time the affected Exchange 2000 server(s) could be restored at an alternate site. During this interim period users would be able to send and receive e-mail, but would not have access to their historical Exchange 2000 mailbox components (i.e., e-mail, calendaring, contacts, tasks, etc.). Users would not have access to any data stored in their desktop .pst files unless their Division/Office has implemented a plan for off-site storage, retrieval and restoration of personal computer data.

<u>610.30-Operational Recovery Procedures</u>

610.31-Hardware Recovery

Hardware technical specifications for the AD/Exchange 2000 production servers are kept onsite in the Resources Building with the DTS Windows Servers staff in Room 734-A (see Section 750.00 - Technical Appendices). A copy of the spreadsheet is stored at the off-site storage facility for backup tapes and can be retrieved by designated DTS staff and the DWR Information Security Officer. See Section 810.05 for additional contact information.

Name	Unit	Work	Mobile Phone
Michael Hom	Windows Servers	916-654-5914	916-7995065
Meng Huang		916-653-2306	Pgr. 916-592-9302
Robert Jarumay		916-653-4786	916-502-1300
Ash Keval		916-653-4209	906-803-8896
Ted Yoshikawa	Data Center	916-653-7316	Pgr. 916-592-0261
Barbara Graham		916-653-7117	N/A
Julianne Munoz-Miller		916-653-7463	916-803-3108
Tony Lourick	DWR ISO	916-653-2137	916-761-1246
Vacant	Exchange Servers	916-653-0249	
David Poukish		916-654-6422	916-425-4941
George Medina		916-653-7350	916-716-6266
Ned Pimshan		916-651-6493	N/A
Eliza Yam		916-651-6494	916-803-8890
Andrew Summers	DTS Info Security	916-653-0941	916-698-3275

610.32- Hardware Support

Coverage	Contact
24X7	1-800-633-3600, Service Agreement No.-04055282D

610.33- Surplus/Replacement Hardware

The Exchange 2000 test lab includes a number of servers which could be used to replace damaged equipment at HQ, JOC, or any of the remote AD or Exchange server sites. See Section 750.00-Technical Appendices for a listing of hardware in the test lab.

If access to the Resources Building is restricted, surplus/replacement hardware stored in the HQ Data Center would be inaccessible.

610.34-Software and Data Recovery

Software technical specifications for the AD/Exchange 2000 production servers are kept onsite

in the Resources Building with the DTS Windows Servers staff in Room 734-A (see Section 750.00-Technical Appendices). A copy of the spreadsheet is stored at the off-site storage facility for backup tapes and can be retrieved by designated DTS staff and the DWR Information Security Officer. See Section 810.05 for additional contact information.

Name	Unit	Work	Mobile Phone
Michael Hom	Windows Servers	916-654-5914	916-7995065
Meng Huang		916-653-2306	Pgr. 916-592-9302
Robert Jarumay		916-653-4786	916-502-1300
Ash Keval		916-653-4209	906-803-8896
Ted Yoshikawa	Data Center	916-653-7316	Pgr. 916-592-0261
Barbara Graham		916-653-7117	N/A
Julianne Munoz-Miller		916-653-7463	916-803-3108
Tony Lourick	DWR ISO	916-653-2137	916-761-1246
Vacant	Exchange Servers	916-653-0249	
David Poukish		916-654-6422	916-425-4941
George Medina		916-653-7350	916-716-6266
Ned Pimshan		916-651-6493	N/A
Eliza Yam		916-651-6494	916-803-8890
Andrew Summers	DTS Info Security	916-653-0941	916-698-3275

610.35-Software Support

Microsoft

Coverage	Contact
24X7	1-800-936-4900 (Microsoft) CalCard Holder: Ash Keval, Bud Scribner

Goodlink

Coverage	Contact
5-5pm PST	(408)352-7100 (Goodlink) Account Number: 9210 Server License Key: 538F-6538-0134-CCCC-4138-1955 Serial Number: TG10044272

610.36-Data Backup

Ten sites are hosting the Exchange 2000 servers and Windows 2000 domain controllers. One Master Backup server, SACBU1, is located at HQ in the 7th Floor Data Center and one Master Backup server, JOCBU1, is located in the 3rd Flood JOC Data Center. In addition to performing backups for AD and EX2K servers in the Data Centers, they are responsible for scheduling and maintaining database indexes at all backup sites. Media Servers located in various remote sites are responsible for backups locally within their respective sites. The strategy is to keep data backups locally at each site to reduce network traffic across the wide area network. DTS Backup

Administrators maintain a detailed backup plan that includes the overall design, equipment and software inventory, and backup schedules. A copy of this plan is kept offsite at Vanguard Vaults along with other technical documentation.

Vendor name	Emergency Phone
Vanguard Vaults 9750 Kent St, Elk Grove, CA	916-686-8286

The retention period for the backup of AD and Exchange servers is one month. At the end of one-month, tapes are recycled.

Daily full backup tapes for HQ AD/Exchange servers are stored in storage shelves designated for AD/Exchange in the HQ Data Center. Daily full backup tapes for the JOC AD/Exchange servers are stored in the tape library at the JOC Data Center. Remote site AD/Exchange backup tapes are stored in the respective sites.

Weekly back-up tapes for HQ AD/Exchange servers are sent offsite to the Vanguard Vaults facility every Tuesday. Tapes are returned after 4 weeks. Weekly back-up tapes for JOC AD/Exchange servers are transported every Friday to HQ by DTS Central Technical Support staff for offsite storage in the HQ Data Center. There is no offsite storage of back-up tapes for the remote sites.

DWR's contract with Vanguard Vaults specifies a two-hour turnaround for critical/emergency backup tapes. The following personnel are authorized to recall backup tapes from Vanguard Vaults:

Name	Unit	Work	Mobile
Ted Yoshikawa	Data Center	916-653-7316	Pgr. 916-592-0261
Barbara Graham		916-653-7117	N/A
Julianne Munoz-Miller		916-653-7463	916-803-3108
Tony Lourick	DWR ISO	916-653-2137	916-761-1246
Vacant	Exchange Servers	916-653-0249	

610.37-Technical Support for Backups/Restorations

Technical support would be required for full restoration of domain controllers, Active Directory, and Exchange 2000 Server machines. Support team members would include representatives from DTS Central Technical Support, Remote Site LAN Administrators, and the DTS AD/Exchange Team. See Section 810.05 for additional contact information.

Name	DTS Unit	Work	Mobile
Eliza Yam	Central Technical Support/Backups	916-651-6494	916-803-8890
Jeff Bowen		916-654-9448	916-712-0005
Michael Hom	AD/Windows Servers	916-654-5914	916-799-5065
Meng Huang		916-653-2306	Pgr. 916-592-9302
Robert Jarumay		916-653-4786	916-502-1300
Ash Keval		916-653-4209	916-803-8896
Vacant	Exchange Servers	916-653-0249	
David Poukish		916-654-6422	916-425-4941
George Medina		916-653-7350	916-716-6266
Ned Pimshan		916-651-6493	N/A

LAN Admin	Location	Work	Mobile
Larry Shuman	ND	530-529-7305	530-941-8529
Bob Lewis	OFD	530-534-2397	N/A
Rod Simunek	DFD	209-833-2052	N/A
Andy Guzman	SLFD	209-827-5304	N/A
Mark Chadwick	SJD	559-230-3344	559-283-2582
Noe Perez	SJFD	661-858-5500	N/A
Dave Duecker	SFD	661-257-3610	(661) 400-2601
Tahnda Bailey	SD	818-543-4615	N/A

610.38-Software and Data Recovery Priorities

Should DWR declare an emergency, software and data recovery procedures would be put in place in accordance with the extent and severity of the disaster. Because Exchange 2000 uses the directory information within Active Directory, Active Directory must be up and running prior to restoring an Exchange 2000 server. An AD Domain Controller and Global Catalogue server must be available for Outlook to run on the client's desktop. An Outlook client cannot access Exchange using cached credentials only. See Appendix A for recovery procedures.

610.40-Testing-Active Directory/Exchange Operational Recovery

DTS will conduct an annual table top test of the plan to measure its accuracy and effectiveness. Improvements to the plan will be incorporated following the table top test and follow-up comments and actions by the participants and responsible parties. Changes to contact information will be checked and updated quarterly. Testing of recovery procedures is ongoing in the Exchange Test Lab along with hardware/software upgrades and system and application patches.

610.41-Recovery Tests

- September 2002: Restoration of SACEX1 in Exchange Test Lab.
  The total time to restore SACEX1 (containing the largest databases) was 15 hours 40 minutes. It took 13.5 hours alone to restore the database from backup, including 6.5 hours to import the tape image into the lab environment. Notes: It would not have been necessary to import the image first had it been the production server.

- April 2003: Active Directory/Exchange system rebuild. Rebuilt Active Directory/Exchange Test Lab from scratch.

- January 2004: Conducted tabletop review of Active Directory/Exchange disaster recovery plan with members of the Active Directory and Exchange Teams.

- December 2004: Conducted a read-through of the Active Directory/Exchange disaster recovery plan with members of the Active Directory and Exchange Teams. In addition, during the last year multiple production Exchange servers were recovered in Production Test Lab as part of the routine process to recover deleted mail for end users. The recovery process followed revalidated the Exchange server recovery process documented in the Disaster Recovery Plan.

- December 2005. Conducted a read-through of the Active Directory/Exchange Operational Recovery Plan. As in previous years, performed multiple Exchange server and Exchange database restores in the Production Test Lab as part of the routine process to recover deleted mail for end users. The recovery process validated the back-up process and server recovery process documented in the Operational Recovery Plan. During the 2006 calendar year, the Exchange and Active Directory Teams plan to set up second test lab environment and perform a hands-on recovery of Active Directory and Exchange.

- June 2006. Active Directory/Exchange system rebuild. Recovered Active Directory/Exchange from back-up tapes in an informal test lab. Operational recovery plans were validated and/or modified as necessary.

Appendix A

Software and Data Recovery Procedures

Active Directory

Tasks	Estimated Completion	Staff Assigned
HP/Compaq Hardware Configuration	1 hour	AD System Admins
Base Operating System Installation	2 hours	AD System Admins
Operating System Customization Disk Partitioning ❑ File/Folder View ❑ Display Settings ❑ Internet Explorer Settings ❑ SNMP ❑ Copy System Files ❑ Hot-Fixes ❑ Support Tools ❑ Resource Kit ❑ Remote Command Server Service ❑ System Recovery ❑ Compaq Windows 2000 Drivers ❑ NIC Teaming ❑ Disable Automatic Private IP Addressing (APIPA). ❑ Configure Computer Name and Network Settings	2 hours	AD System Admins
Post Service Pack Hot-fixes	1 hour	AD System Admins
DC Promo and System State restore	2 hours	AD System Admins & Backup Admins

Exchange 2000 Server

Requirements	Windows 2000 and Exchange 2000 installation CDs: This includes any applicable service packs or hot fixes as outlined in the Windows 2000 and Exchange 2000 release notes.
	Full backups of the system drive: This includes any other logical drives where critical application data is installed.
	Recent Windows 2000 system state backup: A system state backup captures and saves system configuration information that a file system backup normally fails to back up. System configuration information, such as the Windows registry and IIS metabase data, is included in a system state backup.
	Backups of Exchange databases: These are online backups of the Web Storage System databases.

	A server object in Active Directory for the server you want to restore: If an Exchange 2000 server is damaged, the server object in Active Directory must be intact. If the server object is deleted from Active Directory, using either Exchange System Manager snap-in or Active Directory Users and Computers snap-in, recovery cannot succeed. Following a disaster, avoid changing the server object until the actual server is recovered.

Tasks	Estimated Completion	Staff Assigned
1. Reinstall Windows 2000 (If required) ❑ Install Windows 2000 as a stand-alone server - follow procedures developed by Lucent entitled "Exchange 2000 Server Build Procedures." (Copies of these procedures are kept by the AD/Exchange Team. At least one copy is stored offsite at Vanguard Vaults.) ❑ Install the same version of Windows 2000 that was previously installed. ❑ Install Windows 2000 to the same hard drive and paths to which it was previously installed. Configure the drives to match the previous logical drive configuration. ❑ Enter same server name as the original server. ❑ Select all of the same components installed on the original server. ❑ Leave the server in a workgroup. ❑ Reinstall the service packs or hot fixes that were previously installed.	2 hours	Windows Server Admins
2. Reinstall Backup Software ❑ Install Veritas NetBackup Datacenter (client) ❑ Install Veritas Database Agents (Exchange) ❑ Reboot the system (Note: SACBU1 and remote sites running Veritas NetBackup Datacenter Version NB_452. JOCBU1 is running NB_514.)	20 minutes	Backup Admins
3. Restore the System Drive ❑ Restore full backups of the system drive or any other logical drives where critical application data was installed. Use Veritas Netbackup to restore file system backups to the computer on which Windows 2000 was restored (select "overwrite existing files).	45 minutes	Backup Admins
4. Restore Windows 2000 System State ❑ Use Veritas Netbackup to restore the Windows 2000 system state (select "overwrite existing files). After the restore, follow prompt to restart system.	15 minutes	Backup Admins
5. Run Exchange Setup in Disaster Recovery Mode ❑ From the Exchange 2000 CD, run setup /DisasterRecovery. ❑ In Exchange 2000 Setup Wizard, set every component originally installed on the computer to the Disaster Recovery option. If necessary, select all the originally installed components for Disaster Recovery. ❑ Install Exchange 2000 to the same drive and directory on which it was installed on the original server. ❑ Use Exchange System Manager to verify that the server object exists for the server being restored. If the server object does not exist, the recovery process will not succeed.	20 minutes	Exchange Admins
6. Reinstall latest Exchange Service Pack.	20 minutes	Exchange

Tasks	Estimated Completion	Staff Assigned
❑ Install latest Exchange Service Pack with the /DisasterRecovery switch.		Admins
7. Reinstall latest Exchange Post Service Pack Hotfixes ❑ Install the latest Post Service Pack Hotfixes starting with the oldest hotfix and the most recent hotfix last. (See Change Control Log Sheets.)	10 minutes	Exchange Admins
8. Recover Databases ❑ Restore only one database at a time using Veritas NetBackup. ❑ Check the following option in the properties for each mail store: "This database can be overwritten by a restore." ❑ Verify that the directories for each of database file exist on the Data Drive. ❑ Following the restore, verify that the databases are mounted before restarting the system. Check the properties of each mail store and verify that "Do not mount this store at start-up" is unchecked. ❑ Restart the system. ❑ After restarting, verify that all of the mail stores are mounted and check the settings again in the properties for the mail stores.	[~3.3 hours per GB of data] [13.5 hours for SACEX1 in most recent test]	Backup Admins & Exchange Admins
9. Reinstall Anti-Virus Software.	30 minutes	DTS Info Security
10. Verify mail stores mounted, recheck mail store settings, return restored server to its previous role in the Exchange organization, and move contents of temporary mailboxes back to “home” server.	N/A	Exchange Admins
11. If necessary, rebuild Goodlink server and restore Goodlink Administrator’s Mailbox from back-up tape.	4 hours	Exchange Admins

SECTION 7. 700-TECHNICAL APPENDICES (DWR CONFIDENTIAL) Maintained Locally

710.00-Operations and Maintenance
710.10- Unisys computer equipment
710.20- Data communication lines
710.30- Voice communication lines

720.00-Flood Management
720.10-Power Requirements
720.20-Telephone and Leaseline Equipment
720.30-Hardware and Support
720.40-Software and Support
720.50-List of Vendors

730.00-Enterprise Resource Planning (SAP)

740.00-California Energy Resources Scheduling

750.00- Enterprise E-mail and Network Accounts

760.00-Data Center Emergency Procedures
760.10- Electrical Outage
760.20- Air Conditioning Outage
760.30- Fire and Smoke
760.40- Ceiling Water Leak or Fire Sprinkler Water Discharge

770.00- Communication Branch Circuit List and Applications
770.10-Active Maintenance Contracts
770.20-Leased Service Provider List (Attachment #3)
770.30-SWP Network Circuit List and Application Contacts

SECTION 8. 800-EMERGENCY TEAM CONTACT LISTS (DWR CONFIDENTIAL)

Maintained Locally

SECTION 9. ACCRONYM KEY

DWR	-	Department of Water Resources
BRP	-	Business Resumption Plan
ACC	-	Area Control Center
SWP	-	State Water Project
DFM	-	Division of Flood Management
FOC	-	Flood Operation Center
CDEC	-	California Data Exchange Center
PAO	-	Public Affairs Office
IOU	-	Investor Owned Utilities
DMS	-	Division of management Services
DSO	-	Departmental Services Office
DOE	-	Division of Engineering
JOC	-	Joint Operations Center
DOC	-	Department Operations Center
DOCC	-	Department Operations Center Commander
ICP	-	Incident Command Post

Computer Security Incident Action Plan

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Introduction

The Computer Security Incident Action Plan (CSIAP) establishes a Computer Security Incident Response Team (CSIRT) and incident handling procedures to respond to computer security-related incidents that impact the business functions of the Department.

A security-related incident in this document is defined as any irregular or adverse event that occurs on any part of a computing system or network resource that is used in support of the Department's mission. Some possible incident categories include loss of system resource availability, compromise of system integrity, loss of confidentiality, illegal access to a system, malicious use of system resources, malicious code infection, or any intentional damage to a system.

The Computer Security Incident Action Plan is based on guidelines outlined in the Department's Business Resumption Plan (BRP). The CSIRT is organized in accordance with the Standard Emergency Management System's (SEMS) incident command model.

Structure of the Security Incident Action Plan

Much of the Department's critical computer and networking infrastructure operates seven days a week, 24 hours a day. Security-related incidents cannot be predicted and can occur at anytime of the day or night. With this in mind, the CSIAP outlines the general steps to be followed in the event of a security-related incident. The Plan is updated and will be exercised yearly as part of the Department's Business Resumption Plan.

The CSIAP includes:

- The Department's objectives in handling a security incident.
- Classification categories for systems and functions in terms of maximum allowable outages.
- A list of Computer Security Incident Response Team members, and procedures for contacting Team members.
- A General Action Plan detailing the types of information that should be logged, a list of contacts, release of information guidelines, and a recommendation for post incident follow-up analysis.
- An Incident Specific Action Plan for virus and worm incidents.
- An Incident Specific Action Plan for network or system intrusions.
- An Incident Specific Action Plan for denial of service attacks.

Objectives

The objective of the CSIAP is to provide a set of guidelines and procedures for DWR personnel and CSIRT members to use in protecting the confidentiality, availability, and integrity of DWR computer systems and network resources, and in responding to incidents impacting those resources. The CSIRT will cooperate with law enforcement as appropriate under the direction of the Incident Commander or DWR Information Security Officer (ISO). The CSIRT must operate within the guidelines of any IT Security Standards proposed by the State's Information Technology control agencies and State Administrative Manual.

Objectives in handling a security incident:

- Protection of the system and data.
- Identification of the problem.

- Containment of the problem.
- Documentation and preservation of evidence.
- Eradication of the problem.
- Operation recovery and follow-up analysis.

Criticality of Systems and Functions

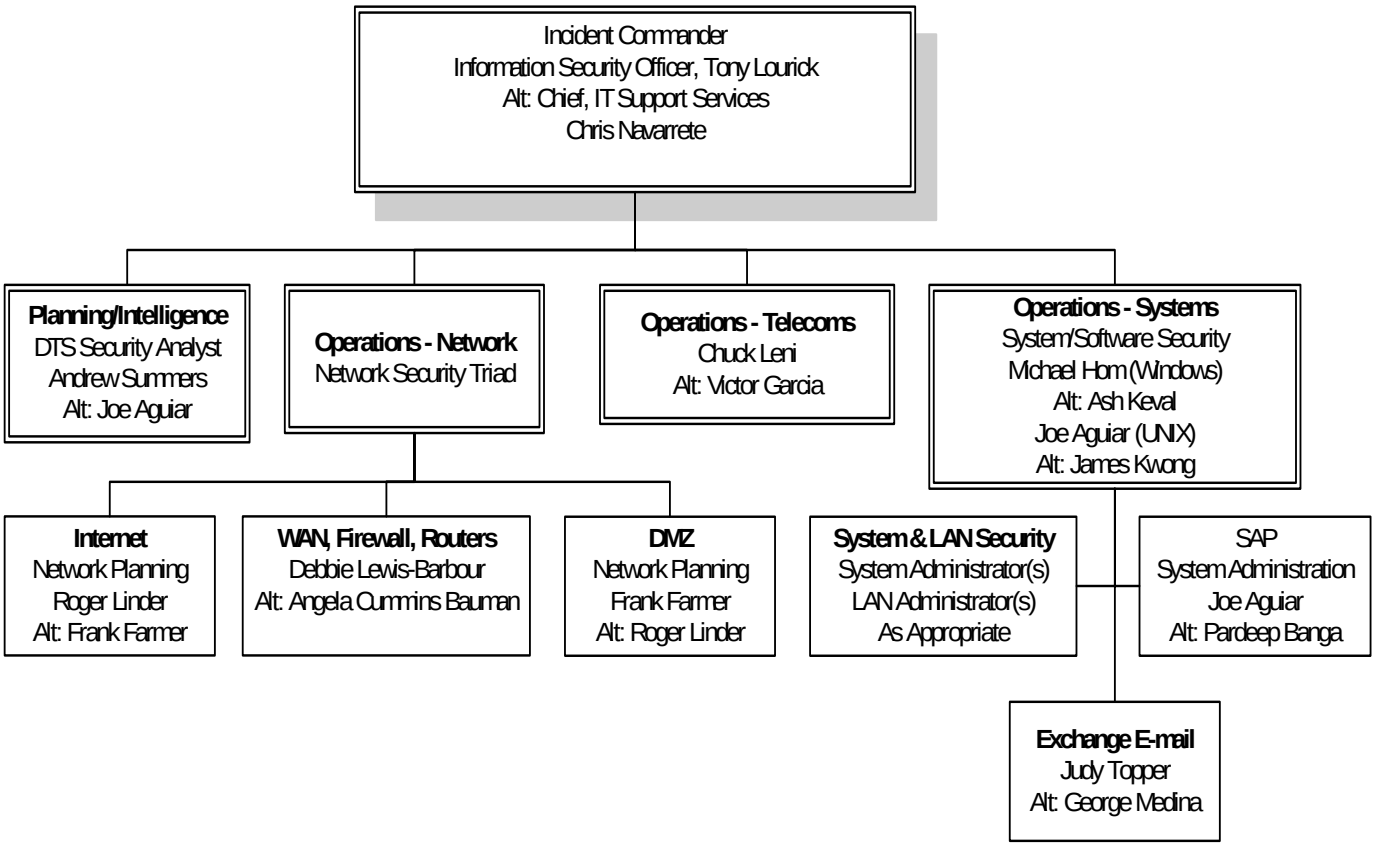
There are three classifications of systems and functions listed in the general Business Resumption Plan. These are:

1. Critical – restored functionality within 24 hours
2. Essential – restored functionality within 5 days
3. Necessary – restored functionality within 21 days

The systems that fall within the first two classifications are defined in either the Recovery Action Plan or Operation Recovery Plan sections of the BRP.

Organizational Structure

The CSIRT will act as the incident coordination team for all computer security- related incidents.



The CSIRT Organizational Structure loosely follows the Standardized Emergency Management System/Incident Command System (SEMS/ICS).

- The *Incident Commander* is responsible for establishing objectives and goals, and directing and coordinating incident activities based on intelligence and on input from the active members of the Operations Teams.

- *Operations are divided among 3 sections: Network, Telecommunications, and Systems. The Network section functions as a team with responsibility for three integrated parts: Internet, WAN/Firewall, and DMZ.* Each Team Leader, depending on the nature of the incident, is responsible for taking appropriate action within his or her area of expertise to identify, contain, respond to, and recover from the incident.

- The *Planning and Intelligence Chief* collects information and identifies what activities and resources will be needed in addressing the incident now and in the future.

Reporting Incidents to the Help Desk or CSIRT

It is anticipated that Incidents will be detected by end-users during normal working hours and by LAN Administrators, System Administrators, or Security staff at any time in response to system anomalies or intrusion detection alarms.

A call list will be established for members of the CSIRT and will be updated as needed. Copies of an initial call list will be made available to the primary LAN and System Administrators along with a copy of this Computer Security Incident Action Plan. The DWR Help Desk will keep an updated call list of all CSIRT members for security incident response.

The DWR Help Desk can initiate a Trouble Ticket to the Security Group; contact the Division of Technology Services' Information Security Analyst (ISA), the ISO, or other members of CSIRT directly. If outside of normal business hours, the Help Desk may also contact the Division of Technology's after-hours pager for dispatching. The action taken will depend on the nature of the incident, the role of the caller, and whether the incident is being reported during or outside of normal work hours.

If the first person on the call list cannot be reached within a reasonable time frame (10-15 minutes), then the second person must be called in addition to the first[1]. It will be the responsibility of the people on the call list to determine if they can respond within an acceptable period or if someone else should respond.

General Action Plan

<u>Response Team Call-up</u>

[1] Most members of the CSIRT carry alphanumeric pagers or mobile phones and may be contacted through e-mail sent directly to their pagers/mobile phones.

The first CSIRT member contacted is responsible for informing other members of the CSIRT. The ISO, DTS ISA, or Alternate Incident Commander must be informed of all security-related incidents as soon as the incidents are confirmed. The ISO or DTS ISA will contact the appropriate LAN and System Administrators and data owners. LAN and System Administrators are considered an integral part of the CSIRT because they maintain privileged account access on systems and have an in-depth knowledge of the systems they administer.

Depending on the nature of the incident and the number of CSIRT members involved, the Incident Commander may contact Telecommunications and request that a telephone conference bridge be opened for the Team. The bridge would remain open for conference calls until the incident is resolved.

Keep a Log Book

A written log should be kept for all security incidents that are under investigation or require follow-up analysis. Involving the Help Desk will facilitate the documentation of the incident through the creation of a trouble ticket and case log. The implications from each security incident are not always known at the beginning of, or even during, the course of an incident. Logging of information is critical in situations where law enforcement becomes involved.

The types of information that should be logged are:

- Dates and times when incident-related events were discovered or occurred.
- Dates and times of incident-related telephone calls.
- Action taken and amount of time spent working on incident-related tasks.
- Names and locations of people involved.
- Names of systems, programs, or networks that have been affected.

Escalation

A possible security incident must be reported to either the Help Desk, the Information Security Analyst, or the ISO as soon as possible. If the Help Desk is first contacted, it will submit a Trouble Ticket to the Security Group, and may, depending on the severity and time of the incident, contact the ISO, ISA, or a member of the CSIRT (if the ISO and ISA are not available) directly. Once notified, the ISA, the ISO, or CSIRT member will investigate the potential security incident to confirm or deny its validity. If there is evidence that an incident is in progress or has occurred, the appropriate members of the CSIRT must be contacted and the corresponding Incident Specific Action Plan activated.

Depending on the extent of the incident and the criticality of the system or systems impacted, the ISA or ISO will notify the Chief, Division of Technology Services (DTS), the Emergency Preparedness Manager, and/or the Chief, Deputy Director.

Upon verifying that a significant incident has occurred, the ISO, or in his or her absence the ISA, will contact the CHP's Emergency Notification and Tactical Alert Center (ENTAC) at 916-657-8287 with an initial report. Examples of significant incidents would include those which: might spread or escalate, could potentially involve similar attacks against other agencies, involve

sensitive data or critical systems, or may be of unique interest to law enforcement or the media. See Attachment A for additional information on CHP Notification.

Release of Information

All requests for press releases concerning a security incident must be forwarded to the Chief, Office of Water Education and the Chief, DTS.

Any suspicious requests for security related information (i.e., requests made by unknown callers or individuals claiming to be from another agency) should be forwarded to the ISO.

The Department maintains personal information (e.g., name, social security number, and driver's license number) on current and previous DWR employees. In accordance with *California Civil Code Section 1798.29*, if it is determined that an incident has compromised the security, confidentiality, or integrity of this information, the ISO will advise the Chief Deputy Director and the Chiefs of the Office of Water Education, Human Resources Office, and Division of Technology Services of the need to notify those impacted through the Department's emergency notification procedure. Before any such notification takes place, the CHP and State Office of Privacy Protection will be contacted for assistance in verifying the loss and in composing an appropriate message.

In addition to an employee memorandum, the notification procedure may include the use of departmental e-mail, an emergency notification Web site, and an automated voice response phone system. When appropriate, those no longer working for the Department will be contacted by letter sent to their last known home address or to their current place of employment if known.

Follow-up Analysis

After an incident has been fully handled and all systems are restored to a normal mode of operation, a follow-up analysis should be performed. All involved parties (or a representative from each group) should meet and discuss actions that were taken and the lessons learned.

Incident Specific Action Plans

Virus and Worm Incidents

Computer viruses are not self-replicating but demand immediate attention due to the speed with which they can saturate system resources once triggered by a computer program or some user action. By contrast, worms are self-replicating and can require an even quicker response to prevent widespread damage to system and network resources. Some of the newer worm-like viruses represent "blended threats", i.e., these viruses continue to propagate via e-mail, network shares, and http without user intervention and provide a backdoor opportunity for a hacker to take over an infected machine.

Actions

- Identify the Problem
  Try to identify and isolate the suspected virus or worm-related files and processes. An infected computer should be physically disconnected from the network whenever there is a credible threat that the Department's anti-virus software cannot prevent the spread of the malicious code to other internal or external systems. Before removing any files or killing any processes on an infected machine, computer security advisories and anti-virus vendors should be consulted for information and instructions.

- Isolate the Problem
  If the malicious code spreads automatically (e.g., a worm) by e-mail, TCP/IP ports, or network file servers, it may be necessary to isolate certain locations, subnets, or offices by, for example, removing SMTP, Exchange, or Windows servers from the network or adding filters to key routers. The ISO or Chief, IT Support Services must be notified as soon as possible regarding the isolation of any significant server or subnet on the DWR network. In an extreme case, it may be necessary to block all traffic of a specific type (e.g., smtp, http) or even block all access to or from the Internet. Such action must be approved by the ISO, Emergency Preparedness Manager, or Chief, DTS.

- Notify the Appropriate People
  DTS Information Security Analyst and DWR ISO must be notified of any suspicious activity related to viruses or worms. LAN and System Administrators will be notified by the Help Desk or CSIRT member either through e-mail, phone, or pager, depending on the circumstances. If access to servers, subnets, or the Internet is blocked or disrupted, critical or essential system owners as defined in the Operation Recovery Plan should be notified at soon as possible.

  If the incident is confirmed, the ISO or in his or her absence the ISA will notify the CHP's Emergency Notification and Tactical Alert Center (916-657-8287) with an initial report as per Attachment A.

  The Incident Commander or Chief of Planning/Intelligence may notify (or direct the Help Desk to notify) all DWR employees of the potential threat.

- Counterattack
  Assess the current status of the Department's anti-virus protection. Possible Incident Response Team actions, depending on the nature of the infection, include:
  1. Blocking e-mail attachments based on the type of file extension,
  2. Updating the anti-virus pattern files on the MS Exchange servers
  3. Updating the anti-virus pattern files at the gateway e-mail servers,
  4. Updating the anti-virus pattern files on local file and e-mail servers, and
  5. Updating the anti-virus pattern files on the client distribution servers and manually pushing the pattern files to the clients.

  Worms and blended threats often take advantage of existing and known vulnerabilities in operating systems or applications (e.g., Slammer and Blaster Worms) and spread by means of assigned TCP or UDP ports. Assess the threat to critical or essential systems

(e.g., Active Directory and Exchange servers). In addition to the above actions, possible countermeasures - depending on the extent of the vulnerabilities and lead time - include:

1. Disabling or removing any vulnerable processes or services;
2. Applying Security Patches and updates to vulnerable systems;
3. Applying ACL filters to block known 'at-risk' ports on key internal routers; and
4. Removing vulnerable systems from the DWR network until they are patched off-line using removable media.

- Clean the Infected System(s)
  Fixes and/or patches, as well as updated pattern and scan engine files, should be installed to scan, clean, and inoculate the system(s) against further attack.

  All suspicious processes should be halted and removed from an infected system, followed by the removal of all suspected infected files or worm code. The more sophisticated viruses and worms may require several coordinated steps, for example:
  1. Stopping the infected process
  2. Installing a Security Patch
  3. Cleaning the Windows Registry
  4. Updating the anti-virus engine and pattern files
  5. Rebooting to clean an infection from memory.

- Return to a Normal Operating Mode
  LAN and System Administrators should wait to receive instructions from a CSIRT member or the Help Desk concerning final clean-up and recovery steps and an "All Clear" message before resuming normal activities.

- Perform a Follow-up Analysis

<u>Network or System Intrusion Incidents</u>

Intrusions can be divided into three types:

1. Attempts to gain access to a system
2. An active session on a system
3. Events which have been discovered after the fact

Responses to an intrusion attempt or a real-time intrusion may differ depending on the criticality of the system(s) involved, whether or not confidential or private information needs to be protected, and whether the instigator appears to be an outsider or a DWR employee or contractor.

Primary Strategy

The primary strategy of the CSIAP calls for the protection and preservation of computer, data, and networking resources, with the resumption of normal operations as soon as possible following an incident. This strategy includes actively interfering with intruder attempts, immediately assessing damage, and beginning recovery procedures.

Exceptions to the primary strategy are permitted for non-critical system resources and non-sensitive data under the following conditions:

- Technically competent support staff is actively monitoring an intrusion for the purpose of gathering evidence.
- Good backups are available.
- The risk to current assets is outweighed by the risk of future penetrations.
- Intruder access can be controlled.
- The Department is working in conjunction with law enforcement and within relevant guidelines of the State's Information Technology control agencies.

Attempted Probes into a DWR Network System

Examples of attempted probes would include continued port scans through the firewall or attempted telnet or ftp sessions on systems protected with TCP wrappers.

Actions

- Identify the Problem

- Notify DWR ISO or DTS ISA
  If the source of the attacks can be identified, the ISO, ISA or a designated CSIRT member will contact the system administrator or security analyst for that site or request that external access be blocked at the firewall.

  Notify the CSIRT and appropriate LAN Administrators of the intrusion attempt, if there is evidence of continued malicious attempts.

- Conduct a follow-up analysis

Active Intrusion Activity

Examples of active intrusion activity would include an active rlogin or telnet session, an active ftp session, or a successful remote control (e.g., Back Orifice or Subseven) attempt.

Notifying Appropriate Parties

- Any employee or Administrator who detects such activity must notify the DWR Help Desk, ISA, or ISO as soon as possible. If the ISO or DTS's ISA can not be reached within 10 minutes, the CSIRT's backup Incident Commander or another member of the CSIRT must be contacted.

- The ISO, ISA, or alternate Incident Commander will convene the CSIRT as soon as possible. If unable to reach a Team member within ten minutes, his/her backup person should be contacted.

- If the incident is confirmed, the ISO or ISA will notify the CHP's Emergency Notification and Tactical Alert Center (916-657-8287) with an initial report as per Attachment A.

- If it appears that a DWR employee or contractor is responsible, the ISO or Incident Commander will also contact the Internal Audit Office.

Removing an Intruder from the System

Actions

- Snap-shot the System
  Make copies of all audit trail information such as system log and history files, and store them in a safe place.

- Lock out the Intruder
  Kill all active processes and remove any files or programs that he/she may have left on the system. Change passwords for all accounts that may have been accessed by the attacker.

  Note: Identifying and removing all backdoors and other Trojan horses left by the attacker will require an extensive evaluation of the current system configuration and should involve reloading the system files.

- Begin actively monitoring systems and network traffic for further inappropriate activity.

- Notify Other LAN or System Administrators that might be at risk.

- Restore the System
  Install patches or fixes to close any security vulnerabilities that the intruder may have exploited. Inform the appropriate people.

- File an Incident Report (DWR Form 4200) through the ISO to the appropriate agencies (e.g., IT Control Agencies and FBI).

- Conduct follow-up analysis as needed

Monitoring an Intruder's Activity

There are no set procedures for monitoring the activity of an attacker. Each incident will be dealt with a case by case basis (See the Primary Strategy section above). The Incident Commander or DWR ISO (or the designated person authorizing the monitoring activity) should provide direction to those doing the monitoring.

<u>Evidence of Past Intrusion</u>

Any DWR employee who discovers evidence that someone has successfully broken into a DWR

system in the past should either directly or through his/her supervisor notify the DWR ISO or DTS ISA immediately. The DWR ISO will be responsible for notifying the CSIRT and investigating the incident. If the incident is confirmed, the ISO or ISA will notify the CHP's Emergency Notification and Tactical Center (916-657-8287) with an initial report as per Attachment A. Within five days from discovery, the Administrator responsible for the compromised system shall submit a formal Incident Report (DWR Form 4200) to the ISO.

Denial of Service Attacks

A denial of service attack could be directed at one or more of the Department's public Web sites, e-mail server(s), or a component of the network infrastructure (e.g., an Internet router or DNS server). Most likely such an attack would originate from an external source, but it is possible that an attack could originate internally behind the firewall (e.g., the result of a worm or other malicious code). The attack may come from a single source or involve multiple IP addresses (i.e., a Distributed Denial of Service) All these factors must enter into the CSIRT's decision on how to proceed to mitigate or counter the attack.

Actions

- Determine the nature and target of the attack
  Is the attack causing a degraded response or an actual service outage? Can network monitoring reliably determine what protocols or services are being used to initiate the attack? Have security advisory services been checked (e.g., CERT, CIAC, NIPC, SANS) for relevant information?

- Identify the originating IP address or addresses
  Can network monitoring reliably determine the source IP address(es)? Is the attack originating from external systems, systems on our DMZ, systems on our internal subnets, or a combination of external and internal sources?

- Take appropriate countermeasures
  If the attack is already creating a service outage, block access to the DWR host(s) under attack until an appropriate response can be determined. With advance planning, it may be possible rollover DWR public access site to a backup server at a different address, or to make Intranet access available to trusted users through dial-up, extranet, or VPN connections.

  If the attack is originating from the Internet, and the source IP addresses or destination port number (e.g., TCP, UDP) can be identified, attempt to block the address or port at the Internet router. If internal DWR systems have been compromised and are participating in a distributed denial of service attack, disconnect those systems from our network or block their ingress and egress access at the closest router or switch.

- Notify appropriate parties
  Once the incident is confirmed, the ISO or ISA will notify the CHP's Emergency Notification and Tactical Center (916-657-8287) with an initial report as per Attachment

A.

If the source IP address(es) have been identified, attempt to notify the appropriate Internet Service Provider.

File an Incident Report through the ISO to the appropriate control agencies.

- Conduct a follow-up analysis

Internal Investigations

In addition to the actions taken to remove an attacker, monitor his or her activity, or follow up on prior incident, it may be necessary to conduct an internal investigation of employee wrong doing. The Internal Audit Office (IAO) would conduct such an investigation. If appropriate, members of the CSIRT would assist in the investigation at the request of the IAO. Depending on the nature of the investigation, the Personnel and Legal Offices might also be involved.

Internal Audit's investigation of a computer security incident may originate from several sources, including:

- Finding an exception during the course of an regular audit
- A request from law enforcement or a control agency
- A request from executive management
- A referral from the ISO or other CSIRT members.

Example of internal activity that could warrant an investigation include: accessing information or systems without authority, misusing Administrator or superuser privileges, conducting fraudulent transactions, or intentionally disclosing sensitive computer information to an unauthorized individual.

Maintenance of the Security Incident Action Plan

Annual Updating of the Plan

As part of the Department's Business Resumption Plan, the Security Incident Action Plan will be reviewed and updated each year.

Exercising the Plan

The CSIRT will meet, at least once a year, to conduct a Tabletop Test or similar exercise to validate the Plan.

Attachment A - Reporting Incidents to the CHP

Definition of an Incident

The CHP's Emergency Notification Center is to be notified of computer crimes and IT security incidents as soon as it is determined that an incident has occurred. Details are in SAM and in

California Penal Code, with a summary provided below:

- State-owned or State-managed data, without authorization, was damaged, destroyed, deleted, shared, altered, or copied, or used for non-State business. This includes computer documentation and configuration information, as well as electronic and non-electronic data and reports.
- Unauthorized parties accessed one or more State computers, computer systems, or computer networks. This includes deliberate and unauthorized uses of state-owned computer services, as well as ”hacker attacks.”
- Someone has accessed and without permission added, altered, damaged, deleted, or destroyed any computer software or computer programs which reside or exist internal or external to a State computer, computer system, or computer network.
- Disruption of state computer services or denial of computer services occurs in a manner that appears to have been caused by deliberate and unauthorized acts.
- A contaminant was introduced into any State computer, computer system, or computer network. This includes, but is not limited to viruses, Trojans, worms, and other types of malicious attacks.
- Internet domain names and/or user account names have been used without permission in connection with the sending of one or more electronic mail messages, and thereby caused damage to a state computer, computer system, or computer network, or misrepresented the state or state employees in electronic communications.
- Damage or destruction of state information processing facilities has occurred.
- Physical intrusions into state facilities have occurred that may have resulted in compromise of state data or computer systems.

Additionally, SAM Section 4845 and Penal Code Section 502 (c) contain detailed definitions of IT security incidents and/or computer-related crimes.

<u>Initial Report</u>
The following information should be provided when reporting IT security incidents and computer-related crimes to the CHP.

- Name and address of the reporting agency.
- Name, address, e-mail address, and phone number(s) of the reporting person. Note: DWR employees must receive clearance through the ISO or Incident Commander before contacting the ENTAC directly.
- Name, address, e-mail address, and phone number(s) of the Information Security Officer (ISO).
- Name, address, e-mail address, and phone number(s) of the alternate contact (e.g., alternate ISO, system administrator, etc.)
- Description of the incident.
- Date and time the incident occurred.
- Date and time the incident was discovered.
- Make/model of the affected computer(s).
- Operating System of the affected computer(s).

- Location of the affected computer(s).

The following information is considered DWR Confidential, and requires ISO or CIO authorization before being released.

- IP address of the affected computer(s).
- Assigned name of the affected computer(s).