



COUNTY OF SAN MATEO
Inter-Departmental Correspondence

Board of Supervisors

DATE: January 11, 2008
BOARD MEETING DATE: February 12, 2008
SPECIAL NOTICE/HEARING None
VOTE REQUIRED Majority

TO: Honorable Board of Supervisors

FROM: Supervisors Mark Church and Adrienne Tissier *MC*
San Mateo County Sheriff's Area Office of Emergency Services *CB*

SUBJECT: Emergency Sanitation Annex

RECOMMENDATION:

Accept and approve the Emergency Sanitation Annex, which is a plan for providing emergency sanitation services in the event of a failure of all or parts of the sanitation system as result of a natural or manmade disaster.

VISION ALIGNMENT:

The Emergency Sanitation Annex is consistent with the commitment of ensuring basic health and safety for all, and is consistent with goal No.7 of maintaining and enhancing the public safety of residents and visitors.

BACKGROUND:

In 2004, the San Mateo County Board of Supervisors adopted the "Potable Water Procurement and Distribution Annex" in response to the vulnerabilities of our aging water system. The Emergency Sanitation Annex is a continuation of this planning process. The sanitation system is dependent on the viability of the water system. The failure of the water system would have severe consequences on the functionality of the sanitary sewer system and the Publicly Owned Treatment Works (POTW).

In July 2006, Supervisors Church and Tissier met with representatives from the San Mateo Sheriff's Area Office of Emergency Services (OES). This meeting led to the formation of an Emergency Sanitation Policy Committee and the preparation of the document called the "Emergency Sanitation Annex."

DISCUSSION:

The Emergency Sanitation Annex contains the logistics of an organized response to sanitation emergencies and the degradation of the functionality of the Publicly Owned Treatment Works (POTW) associated with natural disasters, technological incidents and national security terrorism emergencies. It includes options for providing emergency sanitation within existing government structures.

The guidance provided by the Annex is equally useable for cities or San Mateo Operational Area (SMOA) emergency managers. The community will benefit the greatest if all of the cities within the county develop and implement plans that are consistent with the Emergency Sanitation Annex.

The Emergency Sanitation Annex was developed by a multi-disciplinary team of professionals serving on the Emergency Sanitation Policy Committee and the Emergency Sanitation Operations Group, and from research done by the San Mateo County Sheriff's Area Office of Emergency Services.

The Emergency Sanitation Annex is divided into three parts:

Part One of the Annex provides the purpose, authority and responsibilities of the Emergency Sanitation Group, identifies how the Task Group works with the pre-defined Emergency Operations Centers (EOC) and Standardized Emergency Management System (SEMS) organization. It identifies the types of potential sanitation system failures and alternatives to them.

Part Two provides a checklist for each of the identified Task Group members and identifies the additional tasks assigned to the SEMS organization.

Part Three provides the Appendix with support documentation and resources needed for the Task Group to accomplish the given tasks.

FISCAL IMPACT:

There is no fiscal impact associated with the acceptance of the plan. However, there will be impact associated with implementation.

San Mateo County/Operational Area

EMERGENCY OPERATIONS PLAN

Emergency Sanitation Annex

Final Edition

January 28th 2008

County of San Mateo
Sheriff's Area Office of Emergency Services
400 County Center
Redwood City, CA 94063
Phone: 650.363.4790
Fax: 650.363.1868

User Instructions

(Quick reference for accessing the Task Group Annex during an emergency)

1. Refer to the Emergency Operations Center (EOC) Organization Chart below.
2. Determine your EOC function.
3. Review the functional checklists located on the noted page number. If no page number is listed for your function, refer to the Emergency Operations Plan (EOP).
4. Identify specific duties to perform.
5. Start an Activity Log (ICS 214 – see page 33).
6. Carry out your duties.

RECORD OF CHANGES

The purpose of this page is to note changes made to the San Mateo County/Operational Area's Emergency Operations Plan, Sanitation Annex. Once a change is made, complete your entry on this page and fax it to, or mail it to, the Operational Area OES.

Change Number	Date of Change	Section #, Header and Page #	Brief Description of Change	Initiated by (Department/Agency)
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County of San Mateo
 Sheriff's Area Office of Emergency Services
 400 County Center
 Redwood City, CA 94063
 Phone: 650.363.4790
 Fax: 650.363.1868

INTRODUCTION

On November 12, 2002, San Mateo County Board Supervisor Mark Church met with representatives from the San Mateo Sheriff's Area Office of Emergency Services (OES) to address a need for alternative sources of potable water following a catastrophic failure of the Hetch Hetchy Water System. It was clear that the plan was to describe how alternate water service will be delivered to each County/Operational Area after an emergency interruption or disaster. These actions led to the creation of the Potable Water Procurement and Distribution Annex. The next step envisioned by the Board of Supervisors was the creation of the Emergency Sanitation Annex. Supervisor Adrienne Tissier joined Supervisor Mark Church's efforts in 2006. In July 2006 the Emergency Sanitation Policy Group was convened. It was attended by members of the Health Department, Public Works Department, Bay Area Water Users. From this group an Operations Group was created to develop the necessary Annex. The Operations Group was chaired by Environmental Health and included County Office of Emergency Services, Brisbane Public Works, Daly City Water and Waste Water, Allied Waste, South Bayside System Authority and representatives of Supervisor Church's office.

The Sanitation Annex is envisioned as a component of the San Mateo Operational Area (SMOA) Emergency Operations Plan (EOP). The organization and actions required of the Annex remain consistent with the SMOA EOP. This Annex will be designed to create an organized response to sanitation emergency situations associated with natural disasters, technological incidents and national security/WMD terrorism emergencies throughout the SMOA. The guidance provided by the Annex is equally useable for public utility, private utility, city, or SMOA emergency managers.

- The Area OES Supervising District Coordinator prepared the initial draft of Annex A search of the other Operational Areas revealed that no other similar plans are in existence

MILESTONES

July 2006	The Sanitation Plan Policy Group under the directions of Supervisor Church and Tissier and the problem of a Emergency Sanitation Plan was discussed. It was decided to creat an Operations Group to create the first draft. They were directed to report to the Emergency Services Council by September 21, 2006. The Operations Group was chaired by Dean Peterson of Environmental Health services and the plan was written by Bill O'Callahan, OES Supervisor.
September 2006	The first draft of this annex was distributed to the Operations Group. The city template applied the concepts of this annex to the local government, using the Standardized Emergency Management System (SEMS/National Incident Management System) and Incident Command System (ICS).
November 2006	The second revision of the draft annex was completed and distributed for reviewed by by several cities. Each city was encouraged to customize the materials to fit their respective jurisdictions, with consultation and partnership of the sanitation utility service provider. From this point, the City Sanitation Coordinator and/or the City Emergency Coordinator accepted responsibility to manage the city plan and update it as needed and include key worksheets to further develop the plan.
January 2007	Comments from each city were incorporated in a 3 rd Draft
January 2008	Final revisions made for Operations Section

ANNEX COMPONENTS

Part One	Provides the purpose, authority and responsibilities of the Sanitation Group. Identifies how the Task Group works with the pre-defined Emergency Operations Center (EOC)
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Standardized Emergency Management System (SEMS) organization.

Part Two Provides forms and checklists for notifications and documentation purposes.

Part Three Provides the support documentation and materials needed for the Task Group to accomplish the given tasks.

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EMERGENCY SANITATION ANNEX

1.0 Purpose

The San Mateo Operational Area (SMOA) Emergency Operation Plan (EOP) provides the framework for responding to major emergencies or disasters associated with natural disasters, technological incidents, and national security/WMD terrorism emergencies. The overriding objective of this plan is to ensure that human waste is handled in a manner consistent with the protection of Public Health, to that end it is imperative to work closely with the San Mateo County Division of Environmental Health. The goals of this annex are to outline a strategy to prepare for, mitigate, respond to, and recover from an emergency or disaster that affects the sanitary sewer collection systems that serve the population within San Mateo County. As part of this strategy, this annex will:

- Identify the scope of potential hazards, which form the basis for Emergency Sanitation planning.
- Prevent the spread of diseases caused by enteric and helminthic organisms.
- Prevent contamination of domestic water supplies.
- Prevent degradation of surface and groundwater quality.
- Identify the utilities, other agencies and organizations with which planning and emergency response activities should be coordinated.
- Establish an official protocol for activation of the SMOA Emergency Command Center (ECC) or Emergency Operations Center (EOC), as needed.
- Identify authorities and assign responsibilities for planning and response activities within the ECC or EOC for sanitation
- Establish an Emergency Sanitation Task Group, which will manage emergency response issues related to the emergency sanitation and coordinate efforts with and between the sanitation utilities within the SMOA.
- Outline response actions, which will be taken by Area EOC Staff to mitigate the effects of the sanitation emergency.
- Outline the process of disseminating emergency information and instructions to the public.
- Describe the resources available to support emergency response activities.
- Establish responsibilities for the maintenance of the overall emergency sanitation program.
- Provide the basis for initial Emergency Sanitation training

1.1 Limitations

The annex is not designed for responding to every conceivable contingency, but it addresses the major hazards and general response/recovery considerations.

1.2 Personnel Assignments

Personnel who are assigned a responsibility in this Emergency Sanitation Annex should have a working knowledge of the functions and actions described herein. During an emergency or disaster, the procedures and EOC position checklists in this annex will provide guidance for each function to be performed.

1.3 Updates

The designated Environmental Health/Sanitation Coordinator will review the plan annually. Changes to improve procedures, checklists and other response actions will be incorporated into the annex as they are identified.

2.0 OVERVIEW

Sanitation refers to the hygienic disposal or recycling of waste, as well as the policy and practice of protecting health through hygienic measures to manage waste water to preserve public health.

Each community in San Mateo County (except certain unincorporated areas of the county where individual septic systems are employed to dispose of liquid waste) has a waste water system that is dependent on the functioning of the local water distribution systems. Much of the water provided to buildings, including residences, is subsequently placed into the sanitary sewer collection system through sink, shower or floor drains or toilets. Water and other liquids help convey solid materials found in sewage by gravity to waste water treatment plants. Lift stations are commonly needed to transport sewerage over hills or over long distances in relatively flat areas. Waste water treatment plants in San Mateo County are operated by cities and special districts. Several regional treatment plants that receive waste water from multiple communities are located in the County.

The wholesale water supplier for most local water distribution systems on the peninsula is the San Francisco Public Utilities Commission (SFPUC), which provides water per agreements with the individual systems and the Bay Area Water Supply and Conservation Agency (BAWSCA). Coastal communities are served by water districts. Water distribution systems are operated by cities, special districts and private companies.

Some privately-owned wells operate in both unincorporated and urban areas. In general well systems are typically connected to private septic systems.

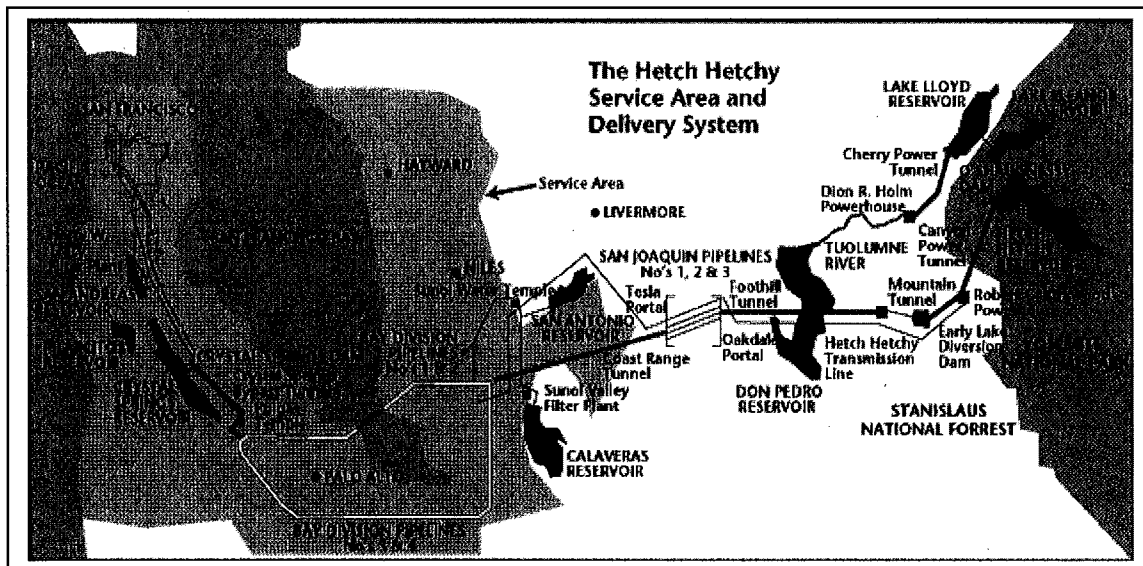


FIGURE 1: HETCH HETCHY WATER DELIVERY SYSTEM

2.1 Situation

Most of San Mateo County is heavily dependent on water supplies located hundreds of miles away from the delivery point. In turn, this water is distributed to consumers through an intricate network of pipes and mains, which are susceptible to damage from natural hazards such as earthquakes, floods, and wild land fires. Other disaster situations could develop from hazardous materials releases, major transportation accidents, and terrorist activities. Sanitation systems are primarily vulnerable in an earthquake.

2.2 Assumptions

Post earthquake damage from a San Andreas or Hayward Fault quake may result in significant damage to water distribution and sanitary sewer collection systems.

SFPUC Transmission Mains (3) supply water to most of the county. These water pipelines may be out of operation for more than 72 hours in the event of an earthquake. The two transmission mains supplying water to the City of San Francisco are attached to overpasses over Interstate 280 in the Broadmoor/Daly City area.

Harry W. Tracy Water Treatment Plant (Millbrae) This plant treats most of the water consumed in the northern portion of the county and may be inoperable for more than 72 hours. This plant is vulnerable due to its proximity to the surface rupture of the San Andreas Fault and its dependence on commercial electric power. The plant, however, can be bypassed without significant impact to the water supply system.

Water Supply

Several of the major water supply pipelines or aqueducts may sustain damage causing temporary interruptions in water supply. The numerous water reservoirs in the area provide ample storage to meet demands during the time required for repairs. However, because there are numerous independent water distribution systems, water cannot always be physically transferred from one water system to another, resulting in localized emergencies. There is a system of "interties" that may help in local areas. Damage to water transmission lines, local storage reservoirs, and pumping plants, as well as local distribution systems will affect water availability and pressure. The absence of electrical power for extended periods may preclude water deliveries where pumping is necessary even though conveyance facilities may be intact. Many areas could be dependent on tanker trucks or bottled water to provide their basic needs.

Waste Water Treatment

Sanitary sewage collection systems will sustain widespread damage particularly in the low-lying areas near the Bay. Many waste water treatment facilities located on structurally poor ground adjacent to the Bay may be damaged and may experience electrical power losses resulting in discharge of untreated or partially treated waste water into the Bay. Similarly lift stations that convey waste water uphill may be inoperable resulting in sewer mains becoming surcharged and over spilling into streets. Earth movement may also cause leakage from gravity mains into creeks, streets, and other publicly accessible areas.

2.3 Utility Responsibility

Following a major disaster, each waste water utility has the responsibility to:

1. Assess damage and initiate repairs within its service area to the extent possible.

2. POTW's (Sanitary Systems) Report initial and updated damage information to their EOC and the County EOC if they are off line.
3. Protect the public health by maintaining sanitation standards; and notifying their EOC and the SF Regional Water Quality Control Board if the waste water system is damaged by the disaster.
4. Request Mutual Aid or Mutual Assistance resources through the city or town EOC that they serve to the county EOC when needed. This request would go through the City or Town EOC Logistics section.
5. When requested, make Mutual Aid resources available to other utilities, without compromising own operation or response.
6. Resume normal operations as soon as possible.

2.4 Emergency Sanitation Planning

The following table identifies the Emergency Sanitation planning requirements for the unincorporated portions of San Mateo County. Each water and waste water utility within the County maintains its own planning guidance for emergency sanitation within the community. Each utility and city is encouraged to collaborate on the appropriate level of planning. The Health Department will be responsible for coordinating the appropriated response to damaged individual septic systems in the county.

The format for the table and information it contains comes from the Internet based Response Information Management System (RIMS) program managed by the State Office of Emergency Services (OES).

	Question	Response
1.	Name of your Jurisdiction/Agency	County of San Mateo (unincorporated)
2.	Estimate your jurisdiction's population	63,600
3.	Primary EOC Location	Physical Address/closest intersection 400 County Center, Redwood City
	a. Alternate EOC Location	Fire Station 17, 20 Tower Rd. San Mateo
4.	Water/Waste Water Sanitation Coordinator	Environmental Health
5.	Individual Septic Systems	Environmental Health
6.	Deputy Coordinator	
7.	County sanitation utilities	2 Public 1 Private
8.	Emergency Sanitation Supply locations (San Mateo County)	1) Tower Road 2) Fairgrounds 3) Grant Corp Yard 4) Princeton Corp Yard 5) Pescadero Corp Yard
9.	Emergency Sanitation Supply Vendor	
	a. PO#/Contract	To be determined
10.	Capability for mass distribution?	Personnel and equipment limitations.
11.	Storage for significant quantities of Emergency Sanitation Supplies	To be determined
12.	Equipment for Emergency Sanitation Repair	To be determined
13.	Sanitation distribution workforce (organizations/persons)	Sheriff's ESB, County Workforce, Volunteer Center of San Mateo County
14.	Ample Sanitation supply for residents	5 gallon Buckets, bleach, heavy duty plastic bags

	Question	Response

Below is a blank template to use for city/POTW planning purposes:

	Question	Response
1	Name of your Jurisdiction/Agency	
2	Estimate your jurisdiction's population	
3	Primary EOC Location	
	a. Alternate EOC Location	
4	Water/Waste Water Sanitation Coordinator	Environmental Health
5	Individual Septic Systems	Environmental Health
6	Deputy Coordinator	
7	County sanitation utilities	
8	Emergency Sanitation Supply locations	
9	Emergency Sanitation Supply Vendor	
	b. PO#/Contract	
10	Capability for mass distribution?	
11	Storage for significant quantities of Emergency Sanitation Supplies	
12	Equipment for Emergency Sanitation Repair	
13	Sanitation distribution workforce (organizations/persons)	
14	Ample Sanitation supply for residents	

3.0 CONCEPT OF OPERATIONS FOR SANITATION EMERGENCIES

3.1 Phases of Emergency Management

There are four primary phases of emergency management, which relate to federal, state, region, county, city, utility special district, publicly owned treatment works (POTW) and private utility activities before, during, and after an emergency or disaster has occurred.

a. MITIGATION

Mitigation activities are those that either prevent the occurrence of an emergency or reduce the utility's vulnerability in ways that minimize the adverse impact of a disaster or other emergency.

b. PREPAREDNESS

Preparedness activities include programs that improve public emergency preparedness. Providing information about how to conduct emergency sanitation and use emergency sanitation supplies.

c. PUBLICLY OWNED TREATMENT WORKS (POTW) RESPONSE

Response involves activities and programs designed to address the immediate and short-term effects of the onset of an emergency or disaster. The Emergency Sanitation Plan identifies three major points of failure in the Sanitation System

1. a waste water treatment plant is not fully functional or off line
2. lift station pumps are inoperable
3. sanitary sewer collection mains are broken or damaged

Response activities include alert and notification, EOC activation, direction and control, evacuation, etc. Other sanitation emergency response activities may include the following action steps:

- Assess and evaluate the emergency situation.
- Disseminate emergency public information as appropriate.
- Protect, control and allocate sanitation system resources.
- Restore or activate essential sanitation facilities and systems.
- Plan for immediate future needs, chemical, fuel and other supplies necessary to keep the systems operational.

c. 1 In the event the Publicly Operated Treatment Works (POTW) is not fully functional or off-line

- a. Determine and report facility status.
- b. If water distribution system disruption prevents water flows, POTW will not have flow and may shutdown, resulting in process units being bypassed and partially treated or untreated wastewater may be discharged into the San Francisco Bay or the Pacific Ocean (Coastal cities)
- c. The Regional Water Quality Control (510) 622-2300) must notified by the utility of the sanitary sewer overflow.
 1. How long will the system be off-line?
 2. What is the cause: mechanical, structural failure, power failure etc?
 3. What level of treatment is being done if any?
- d. County Public Information Officer notified that POTW is in bypass mode.
- e. County Counsel notified of Public Health problem.

c.2. In the event the POTW's sanitary sewer utility's waste water pumps or lift stations are not fully functional or off line

- a. If Pump/ lift stations fail due to lack of power attempt to provide emergency power
- b. Setup temporary bypass of inoperable lift station to POTW until repairs can be made
- c. If damaged - Pump sewage out with trash pump to holding tank, temporary pond, or open field if necessary

c.3. In the event of POTW's broken sanitary sewer pipe lines

Setup temporary bypass of sanitary sewer main until repairs can be made. Temporary flexible pipes can be used for most above ground breaks. If pipes are broken but no sewage is detectable on the street or creek then residents will continue to flush their toilets until the breaks are repaired. In the event there is no water available for flushing, residents will be told to continue to flush their toilets with what ever water they have (It is important that residents do not flush liquids that cannot be treated at wastewater treatment plant such as oils, paints, herbicides, or fuels.)

In the event sewage is detected on streets a decision maybe made in the local area to issue a "Do Not Flush Order" to the surrounding area. This order will be difficult to enforce. The following options are recommended in this situation to prevent the spread of disease.

- a. Deploy porta-potties if the area affected is limited i.e. a shelter or small neighborhood. (Active construction sites frequently have such facilities available, which can be relocated as a last resort.)
- b. Dig shallow trenches in the effected area (Schools- public parks) and line with heavy duty plastic sheeting and have vacuum trucks pump out the waste regularly and transport to an operational treatment facility. See Appendix Seven for details

- c. Encourage residents to dig shallow trenches on their property and to bury their waste.
See Appendix Seven for details.
 - d. Residents directed to place plastic bags over their toilets and to collect their solid human waste.
 - e. Residents are instructed to transport the plastic bags to pre-positioned 10 yard bins that are regularly picked up. (The limitation will be the number of available bins.)
 - f. Provide 5 gallon buckets with lids that are picked up by the local solid waste (refuse) hauler or placed in bins
 - g. Issue multi lingual instructions on how to manage waste until repairs are made.
- c. Individual Septic Systems Response (not POTW's)

Response involves activities and programs designed to address the immediate and short-term effects of the onset of an emergency or disaster. In most cases, private septic systems only affect an isolated property owner(s) and are unlikely to affect the health and safety of the general public. The Emergency Sanitation Plan identifies three major points of failure in the Sanitation

1. The local small water system or individual water well and pumps are off line
2. The septic system collection lines, tank and leach field are disrupted.

Response activities include alert and notification, possible EOC activation, direction and control, evacuation, etc. Other sanitation emergency response activities may include the following action steps:

- Assess and evaluate the emergency situation.
- Disseminate emergency public information as appropriate.
- Restore or activate essential septic system components such and lines, tank and leach field system.

d. **RECOVERY**

Recovery is the phase that involves restoring systems to normal. Short-term recovery actions are taken to assess damage and return sanitation and other vital life-support systems to minimum operating standards; long-term recovery actions may continue for many years. Breakage in pipes may not be detected for many years.

The post-emergency period has a number of objectives, which may include:

- Re-establish essential public services including sanitation.
- Restore public and private property.
- Identify residual hazards.
- Plan to mitigate future hazards.
- Recover costs associated with response and recovery efforts.

3.2 Standardized Emergency Management System (SEMS) Levels

The Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) applies equally to all public agencies and utilities, as it requires specific actions during multi-agency emergencies. While private utilities and response agencies are not required to follow SEMS, it makes good sense, establishes a reasonable "best practice", and reduces questions of liability when the utility complies. SEMS defines cities, counties and special districts as "local government". With that designation comes critical responsibilities to communicate and coordinate response during an emergency or disaster.

During response to an emergency/disaster, water and sanitation utilities would be responsible for managing their own resources and response within the respective service area. The SMOA ECC/EOC would be available to provide communication and coordination with and between the utilities, and may assist with mutual aid upon request.

SEMS communication and reporting levels include Field Response, Local Government, Operational Area (OA), Region, and State. The following is an example of how SEMS is intended to work in a regional disaster with damage in multiple Operational Areas. The description assumes that appropriate emergency declarations/proclamations have been made:

a. **FIELD RESPONSE LEVEL**

Field crews within each affected City sanitation or water department, sanitation or water district or utility respond using the Incident Command System. Incident Command Posts may be established at various sites throughout the disaster area. Resources are requested via dispatch centers, department operations centers, and EOC's. The field crews report to the Incident Commander at the scene. The supervisor of the crew may communicate information to a special district EOC, utility EOC, city department operations center, or a city EOC. Direct communication to the Local Government Level is typically managed by radio and cell phone or through a dispatch center.

b. **LOCAL GOVERNMENT LEVEL**

City, county and special districts, individually, make up the Local Government Level. Within their respective service areas, the Local Government Level EOC mobilizes all available resources and establishes response priorities, and allocates available resources to support the field response. As needed the Local Government may activate a "Sanitation/Water Coordinator" position (as defined in this annex) to help manage information about the status of the water distribution and sanitary sewer systems. A utility may request assistance through the Operational Area. Independent water utilities would communicate and coordinate response issues with each Local Government in their service area, and provide reports of any damage to their service systems while responding with available agency crews / resources. Direct communication to the Operational Area Level may be managed by local government radio frequency, amateur radio, fax, landline and cell phone or via the Internet using the State OES Response Information Management System (RIMS).

c. **OPERATIONAL AREA LEVEL**

All political subdivisions within the geographic boundaries of a county have been organized into Operational Areas (OA) to ensure coordination, communication, resource allocation, and to avoid duplication in the response effort. The OA EOC assesses situations and damage assessments from multiple Local Governments within the OA. In response, the OA may activate its EOC and notify the State Office of Emergency Services Region Duty Officer about the emergency/disaster. **As needed the OA may activate a "Environmental Health/Sanitation Coordinator position (as defined in this annex) to help manage information about the status of the water distribution or sanitary sewer collection systems which will be staffed by Environmental Health** On an ongoing basis, the OA reports information to the Region Emergency Operations Center (REOC) and coordinates available resources, requests additional mutual aid resources through the EOC, and provides overall OA event/situation reports to the Local Governments. Direct communication between the OA and the Region Level may be accomplished by amateur radio, fax, landline and cell phone, OASIS radio or via the Internet using the State OES Response Information Management System (RIMS).

D. REGION LEVEL

When notified, the OES Region may activate the Region Emergency Operations Center (REOC) and notify the State OES Warning Center. Once functional, the REOC staff locates and mobilizes available resources within the region and from available state agencies. Additional resources are requested through the State Operations Center (SOC). State agency representatives staff the SOC to coordinate support to the disaster area. For water emergencies, the State Department of Health Services, Office of Drinking Water representative would report to the REOC in Oakland to liaison with the Operational Area via telephone or OASIS. Other REOC staff monitors the situation and updates the State Operations Center (SOC). Direct communication to the State Level may be managed by amateur radio, fax, landline and cell phone, OASIS radio or via the Internet using the State OES Response Information Management System (RIMS).

d. STATE LEVEL

The State Operations Center (SOC) is activated, as needed, and department/agency e.g. State Office of Drinking Water and The Regional Water Quality Control Board representatives are requested to staff the SOC to coordinate response and mobilization of mutual aid resources from unaffected regions. The SOC may direct activation of other OES REOCs to assist in resource mobilization. State agency department operations centers may be activated. Federal assistance may be requested, if needed. The SOC continuously monitors the situation via the REOC or the RIMS system.

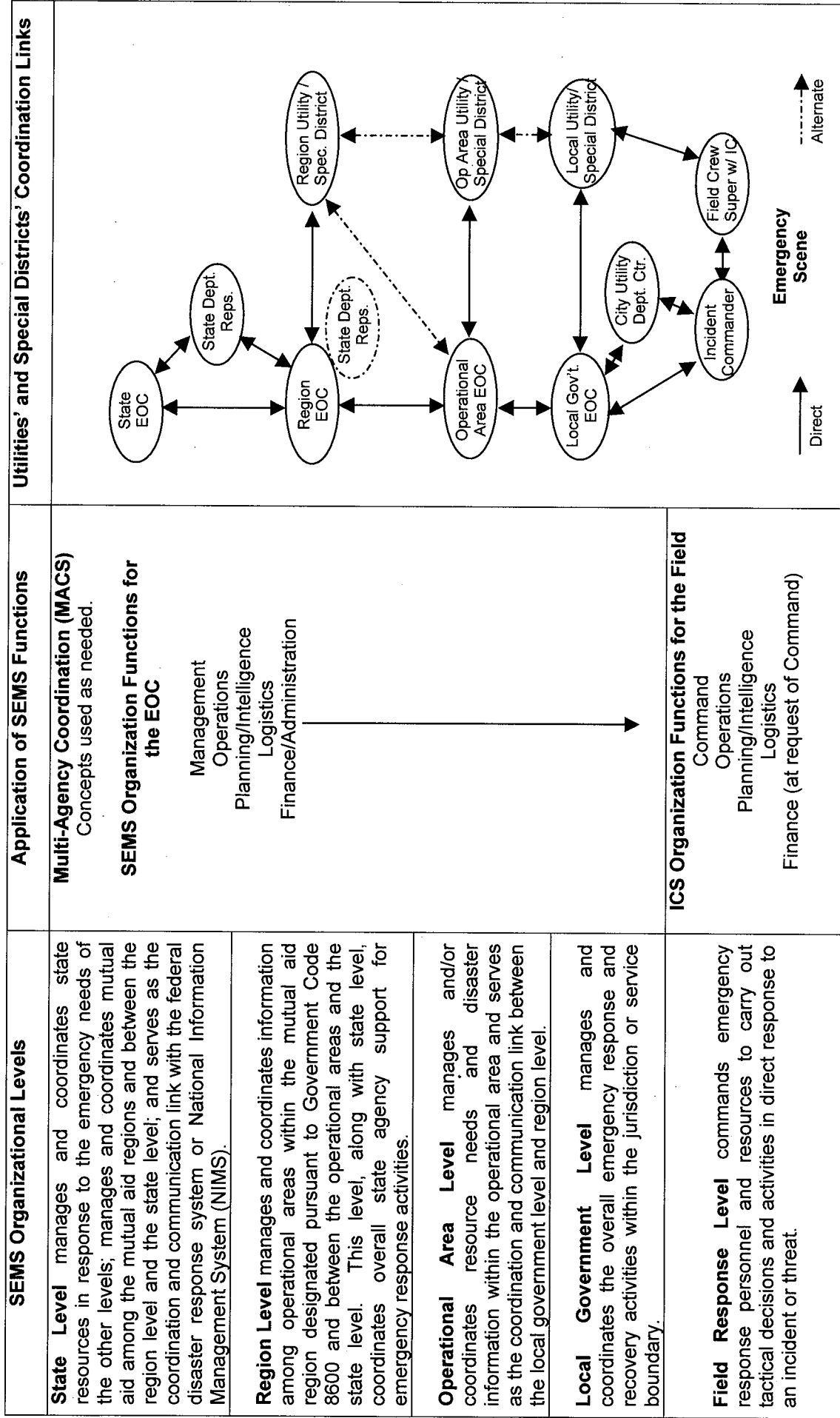


FIGURE 4: UTILITIES' INTEGRATION OF FIVE SEMS LEVEL

3.3 SEMS Emergency Operations Center (EOC) Functional Responsibilities

SEMS is utilized whenever the ECC/EOC is activated. Communication and coordination is to be established between each city/town Sanitation/Water Coordinator the affected water or waste water utility, State Department of Health Services and other appropriate resource agencies.

As defined in Government Code Section 8607(a), the SMOA EOC will use the Multi-Agency Coordination System (MACS) to coordinate response issues including all mutual aid efforts as needed with area water utilities to allow for the most efficient and effective use of available resources.

The San Mateo Operational Area EOC Organization follows the SEMS criteria used by State, Region, Operational Area, and Local Government levels for EOC Functions as follows:

- Management
- Operations
- Planning / Intelligence
- Logistics
- Finance / Administration

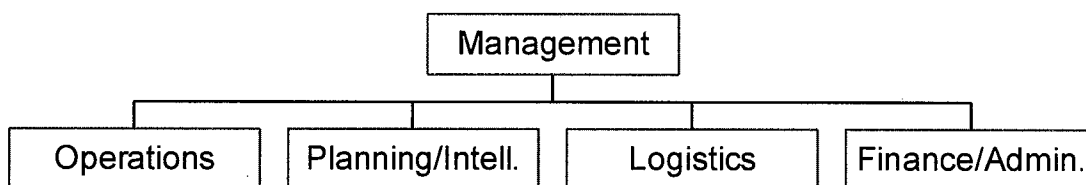


FIGURE 5: FIVE REQUIRED SEMS FUNCTIONS

a. MANAGEMENT

The Management group is responsible for overall emergency policy and coordination through the joint efforts of EOC Management Staff e.g. Director, PIO, Section Chiefs, etc. The group includes:

- **EOC Director –**
The EOC Director function represents the key decision-maker in the EOC and as such, is responsible for providing the direction and management decisions necessary to coordinate disaster response support and recovery efforts. The Director must also be able to communicate desired actions and delegate effectively. Recommendations made by the Director on repair priorities may have tremendous impact such as reinstating water service to the disaster area.
- **EOC Manager –**
The Area Coordinator acts as the EOC Manager, reports to the EOC Director, and serves as an advisor to the Director and Section Chiefs on all emergency management issues e.g. SEMS, Incident Command System functions and procedures. This function also assists EOC staff in identifying appropriate actions to be taken throughout the established operational period.
- **Public Information Officer –**

The Public Information Officer (PIO) function reports to the EOC Director. The PIO must be knowledgeable of information demands and associated tasks during a disaster, and leads the development of the Joint Information Center (JIC) as needed.

- **Safety and Security Officer –**

The Safety and Security Officer function reports to the EOC Director and coordinates job duties with the EOC Manager. This function may have additional personnel assigned in support. Responsibilities include developing and recommending measures for assuring personnel safety; assessing and/or anticipating hazardous and unsafe situations; providing 24 hour-a-day security for the EOC facility; and controlling personnel access to and from the EOC site by authority of the EOC Director.

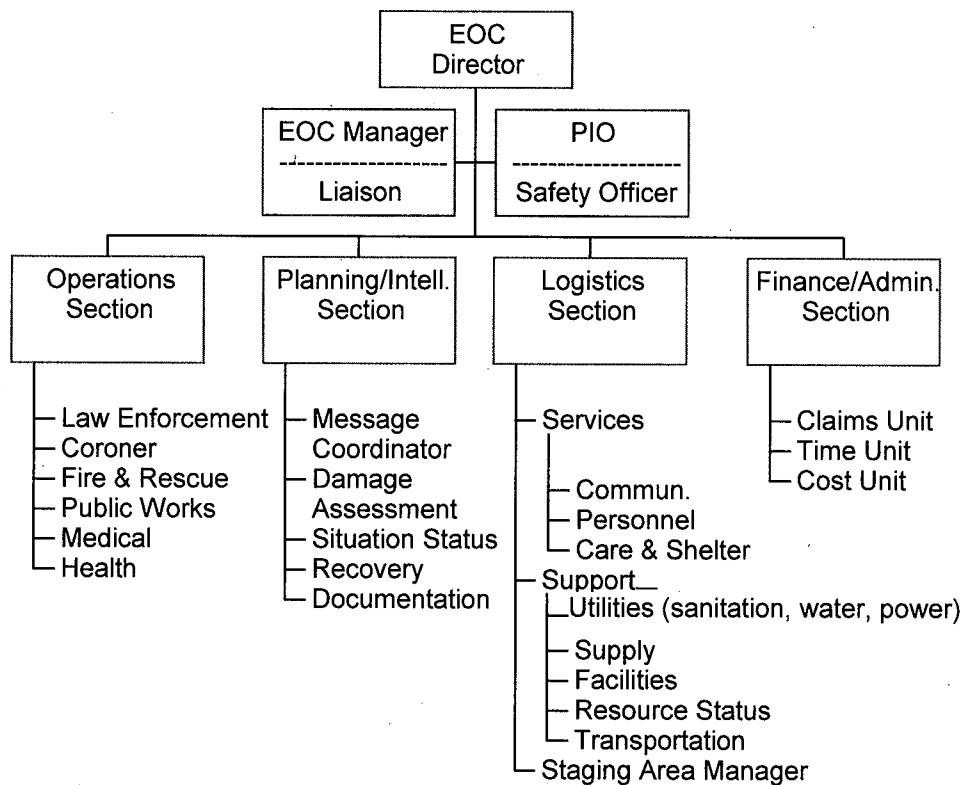


FIGURE 6: SAN MATEO OPERATIONAL AREA EOC STAFFING AS IDENTIFIED IN THE EOP

b. **OPERATIONS SECTION**

The Operations Section is responsible for developing and coordinating efforts for allocating and transporting water throughout the County based on damage assessment reports from water and wastewater utilities and for assisting each affected agency in maintaining its wastewater treatment functions. This function also implements the EOC Action Plan upon which these efforts are based.

- **Operations Section Chief –**

The Operations Section Chief function reports to the EOC Director. This function must have a working knowledge of Mutual Aid agreements, the impacts of the emergency and resources deployed to the emergency.

c. **PLANNING / INTELLIGENCE SECTION**

The Planning/Intelligence Section is responsible for collecting, evaluating, disseminating intelligence and information; developing the EOC Action Plan in coordination with other functions; and maintaining documentation.

- **Planning / Intelligence Section Chief –**

The Planning/Intelligence Section Chief function reports to the EOC Director. This function is responsible for collecting, evaluating, and disseminating information; developing the EOC Action plan in coordination with other functions; and maintaining documentation.

- **Situation Status Unit –**

The Situation Status Unit function reports to the Planning / Intelligence Section Chief and is responsible for collecting and analyzing information and documentation about the event. The information is passed onto the Documentation Unit who is responsible for coordinating and maintaining all activity logs, messages, and written EOC documentation to provide evidence of activities occurring during the operational period. The Situation Status Unit also assists in developing the EOC Action Plan and in preparing the After Action Report.

d. **LOGISTICS SECTION**

Logistics is responsible for managing all requests made for services and support during a disaster recovery operation.

- **Logistics Section Chief -**

The Logistics Section Chief function reports to the EOC Director and is responsible for identifying and coordinating agency resources and the participation of area contractors, equipment, and supply vendors to support Mutual Aid requests from water and waste water utilities as needed. This function also coordinates with the Finance / Administration Section in purchasing necessary supplies/equipment to sustain EOC operations.

e. **FINANCE/ADMINISTRATION SECTION**

Finance/Administration is responsible for all financial and administrative issues related to the disaster recovery operation.

- **Finance/Administration Section Chief -**

The Finance/Administration Section Chief function reports to the EOC Director and is responsible for all EOC financial, cost analysis and administrative activities associated with supporting the EOC operations.

3.4 **Emergency Environmental Health/Sanitation Operations Group**

The primary responsibility of the SMOA EOC during a sanitation emergency is to provide emergency sanitation supplies and sanitation restoration assistance water for populations and sanitation utilities throughout the county/area and to jurisdictions that request assistance in emergency sanitation issues. To meet this mission, the Environmental Health /Sanitation Operations Group is to activate, as needed, and operate response and recovery efforts from the primary SMOA EOC with assistance by the Area OES.

If it is clear that there is an imminent or actual water emergency following an initial or ongoing assessment of the emergency by the EOC staff, the Environmental Health/Sanitation Operations Group will be summoned. The Task Group consists of several positions in various parts of the SEMS organization, as the demands for Emergency Sanitation cross over the Section responsibilities.

When the Task Group is required for response, it must interact with several previously mentioned SEMS functions, which requires additional assignments. The additional duties are noted below. The responsibilities of those specifically assigned to the Task Group are also noted below. All **EOC Staff assigned to a specific Task Group function should review the checklist for that function.** (See Emergency Operations Plan for the standard Functional Checklists.)

To enhance coordination each person assigned to the Task Group should review and become familiar with the checklists for each Task Group member in the event that a reassignment of functions may be required.

a. **MANAGEMENT**

• **EOC Director –**

In addition to the notes in Section 3.3, the EOC Director function has the authority to proclaim "emergency conditions" and authorize/commit County resources and funding relating to sanitation interruption.

• **Public Information Officer –**

In addition to the notes in Section 3.3, the PIO coordinates with the utility and State Department of Health Services on all emergency public information bulletins regarding water and sanitation issues.

• **Sanitation Utility Representative –**

The Sanitation Utility Representative (SUR) reports to the Liaison function. The SUR communicates with the city Sanitation Coordinators via radio or telephone. This position would facilitate communication between the SMOA EOC, the water utilities and the cities within the county. This position is activated as needed.

d. **OPERATIONS SECTION**

• **Operations Section Chief –**

The Chief must be briefed on the institutional considerations for allocating water and sanitation issues. This function must be made aware of the potential effects of restricted flow patterns among the water utilities and disruption of sanitation systems, the impact of water loss in the area, and have a clear understanding of how the sanitation systems operate in the county.

• **Public Health Officer –**

The Public Health Officer (PHO) function reports to the Health Branch as part of the Operations Section and is responsible for conferring with water-waste water (POTW) utilities and city water department's EOC staff on matters of water supply and sanitation, and consult with waste water utilities regarding the condition of the system. This function must have knowledge of water and waste water quality standards as established by the California State Department of Health Services and the SF Regional Water Quality Control Board.

As initial damage assessment reports are received, the PHO **identifies water supply and waste water collection system concerns.** These areas may be

confined to one district, cover several local government jurisdictions, or the entire County.

Prior to a disaster, the PHO should become familiar with the Drinking Water Department representatives from the State and County Health Offices. Once a disaster occurs, the PHO should be ready to contact the State and County representatives to report the water quality status and supply, request water quality and supply information and support Department of Health Services Public Health Water Quality Advisory Notices for the Op Area.

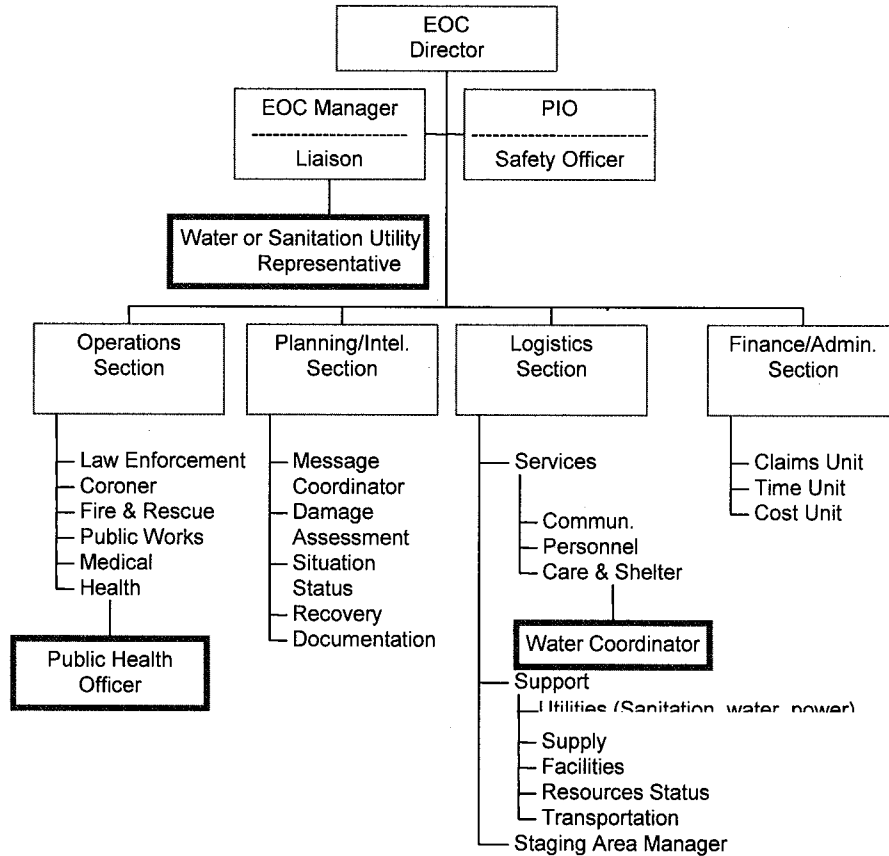


Figure 7: EOC Staffing with Sanitation Coordinator Position in Logistics-Utilities Group

e. **PLANNING / INTELLIGENCE SECTION**

No additional staffing or tasks.

c. **LOGISTICS SECTION**

- **Sanitation/ Water Coordinator -**

In a Sanitation only emergency, this position reports directly to the EOC Director and/or EOC Manager. The Environmental Health/Sanitation Coordinator works in consultation with the City Emergency Services Coordinator and to implement and manage the response and recovery action using SEMS.

The function's primary responsibility is to lead the effort to implement the response and recovery activities in the restoration of sanitation systems, assistance with emergency sanitation solutions and distribution of emergency

sanitation supplies: Responsibilities include evaluating situation assessments and prioritizing resource allocation.

When necessary, the Environmental/Sanitation Coordinator will activate the Sanitation Task Group. The size, make up and specific assignment of the group will depend on the magnitude of the problem.

d. **FINANCE / ADMINISTRATION SECTION**

No additional staffing or tasks.

4.0 ACTIVATION AND NOTIFICATION

4.1 Automatic Activation

The ECC can be activated automatically following an M 6.0 or greater earthquake in the Bay Area. An earthquake, which occurs outside San Mateo County but is strong enough to disrupt public phone systems or cause visible damage, could also cause activation of the Emergency Sanitation Task Group, OES Duty Officer and Supervisor to begin assessing the damage.

The EOC can be activated at the direction of the EOC Director.

The Emergency Sanitation Annex will be activated when a disaster strikes, which affects a water or waste water utility. Specific events that would qualify as disasters include:

- An earthquake on a major fault, such as the San Andreas that may result in an interruption of normal water and sewage system operations in/around San Mateo County;
- An earthquake on a local fault such as the Hayward that may cause heavy damage to the regional water supply system or sewage collection pipes and waste water treatment facilities.
- Flood in any area of the County that may result in substantial damage to the water and sanitary sewer system;
- An uncontrolled release or failure of dams or reservoirs
- A regional fire affecting the water supply and sanitary sewer collection systems and sanitation supply and water distribution systems of two or more water utilities;
- A major hazardous material spill or release, which could effect or threaten the water quality of one or more water utilities;
- Terrorist attack on any sanitation/water department, utility or district; and/or
- Any other major emergency and disaster causing heavy damage to San Mateo County water delivery facilities that: (1) results in an interruption of service and disruption of the sewage system and (2) requires a significant commitment of resources over an extended period of time involving several sanitation utilities.

4.2 Activation with Notification

Another condition in which the ECC/EOC can be activated is **by notification** when requested by:

- EOC Director

- Sheriff
- Sheriff's Operations Captain
- Area OES Coordinator
- OES Supervisor
- OES Duty Officer

Whenever a major emergency or disaster threatens or affects the regional San Mateo County, the OES Duty Officer has the initial responsibility for the notification and EOC activation process.

A Notification Protocol (Section 4.5 and Figure 8) provides the EOC Director with guidance for determining conditions warranting EOC Activation. When the Duty Officer receives notification of a disaster, the officer will attempt to contact the essential staff, Department heads including Environmental Health and the County Manager. Contact telephone numbers are listed in Part Three, Emergency Sanitation Notification List.

For the ECC/EOC to become operational, the Duty Officer will assess the overall condition/status of the San Mateo County water systems and facilities serving the County. Preliminary contact will be made with each sanitation utility to determine if: (1) existing water facilities have been damaged and (2) whether any assistance is required.

4.3 Initial Activation

From 7am to 5pm, Monday through Friday, the ECC maintains a normal staffing plan. In the evening through each night and over the weekends, an OES Duty Officer is on call and can be reached by pager through County Dispatch (650-363-4963). As needed, the OES Duty Officer once notified of an emergency that impacts a Sanitation system, will contact the SMOA Sanitation Coordinator. Day to day OES is advised of Sanitation overflows and advises the state Warning Center. The Area/County Sanitation/Environmental Health Coordinator will lead the activation of this annex and the management of Sanitation emergencies and utilize the ECC/EOC and staff to facilitate expediting requests for or offers of Mutual Aid resources in personnel and equipment.

In the event of a regional disaster, the OES Duty Officer and SMOA Sanitation/Environmental Health Coordinator will begin activating the EOC and notifying essential personnel to:

1. Collect Damage Assessment reports from cities/towns and special districts.
2. Learn the overall condition of sanitation supply system.
3. Notify the Emergency Sanitation Operations Group
4. Identify needs of water and waste water utilities.
5. Quantify available Mutual Aid resources within the County.
6. Request/coordinate emergency sanitation efforts and system restoration
7. Maintain liaison with San Francisco Water Dept. and other water and waste water utilities
8. Document all actions taken and reported.
9. Prepare an After Action Report.

4.4 Hazard Specific Activations

a. EARTHQUAKE

Following the temblor and depending on its epicenter (point of origin), intensity (visible damage) and magnitude (energy released) it will be necessary to monitor as many communication sources as possible i.e. AM radio, TV and Police/Fire/Public Works radio traffic, to determine the impact.

The ECC will automatically activate when an M 6.0 or greater earthquake occurs in the Bay Area region. The OES Duty Officer and the Sanitation Coordinator and Water Coordinator will respond to the ECC and begin notifications (as needed) and track situations. An earthquake measuring **M 5.0 or less** should not require activation except when requested by the OES Duty Officer or the Emergency Services Coordinator

b. FLOOD/DAM FAILURE

The ECC will activate to level one if there is imminent flooding and/or after dam failure. (See the EOP for details for the levels of emergency.) The Sanitation Coordinator will be contacted by the ECC for response instructions as needed.

c. ALL OTHER HAZARDS/EVENTS

Following an event or situation and depending on its point of origin, intensity and magnitude, it will be necessary to monitor as many communication sources as possible i.e. AM radio, TV and Police/Fire/Public Works radio traffic, to determine the impact.

The ECC will automatically activate after a major event or when a significant situation occurs. The OES Duty Officer will respond to the ECC and/or the EOC of the affected jurisdiction and begin notifications (including the Water Coordinator if needed) and track problems.

4.5 Notification and Response Protocol

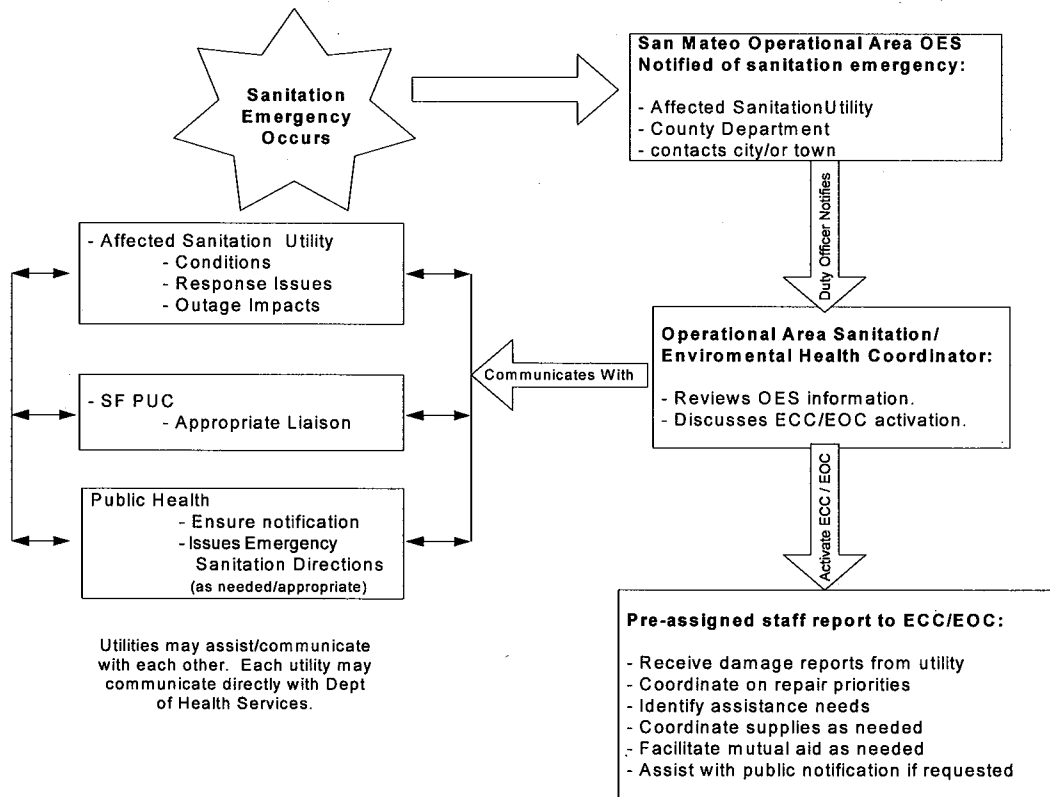


FIGURE 8: NOTIFICATION PROTOCOL

When a utility or (POTW) is affected by a Sanitation emergency to the point where to the utility must either contact the OES, a County Department or the County Sanitation/Environmental Health Coordinator. The following Notification and Response Protocol Chart outlines how the Sanitation/Environmental Coordinator could be notified of an incident, the subsequent notification and response actions taken by County/OA, and primary functions performed by OES and the Water Coordinator.

4.6 Mutual Aid Resources

Each utility and POTW within San Mateo has agreed to abide by the following:

- Request mutual aid resources including equipment and personnel as needed from other utilities within the County/Op Area during very localized events.
- When requests cannot be fulfilled, route equipment and personnel request through the city or town to the County; using the Standard Emergency Management System. The city or town may use the Resource Information Management System (RIMS) to send the request. All resource requests should originate in the Logistics section of the city or town. All requests should be documented and followed up on.
- Provide a Liaison to the city or town they serve where the problem exists and remain in communication until the problem is resolved and the system is sanitation system is functional.
- Equipment such as backhoes, graders, portable generators, pump valves, coupling, pipe segments, etc. will be made available to the requesting agency when available.

Depending upon the size and type of emergency affecting the utilities within the County/Operational Area, it may not be necessary to fully activate on a countywide basis. Emergencies confined to a specific area (s) e.g. flooding, rural/urban fires, etc., may only require the activation of the sanitation utility and city/town, which is affected by the emergency. Regardless, a water/sanitation utility may request assistance from the OES and/or Water/Sanitation Coordinator in support of their activities.

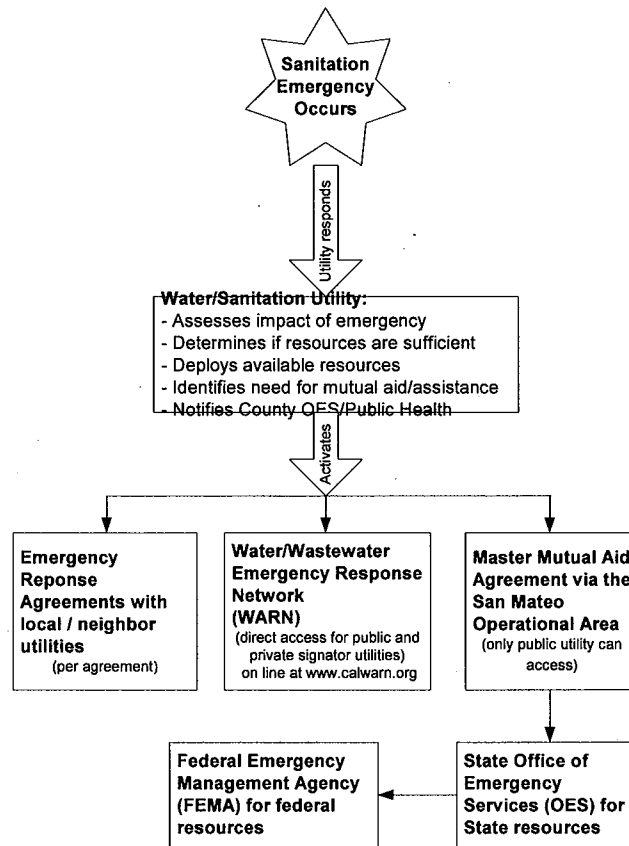


FIGURE 9: MUTUAL AID REQUEST PROTOCOL

5.0 PUBLIC HEALTH NOTIFICATION

5.1 General Procedures

Individual utilities are responsible for protecting public health and sanitation service to their customers. If an imminent sanitation problem occurs, it is the utility's responsibility to inform the County Environmental Health the State Department of Health Services or Regional Water Quality Control Board. Communication may be difficult or impossible during disasters and the Area OES can assist utilities as a communications backup to the Department of Health Services or RWCQB via the County Environmental Health and EMS Mutual Aid Coordinator at the ECC/EOC.

Sewer and sanitation system may occur due to several natural and/or human-caused disasters. Earthquakes are of primary concern in California, but disruption may result due to major flooding, power failures, watershed fires, chemical spills, civil disorders, biological agents, and radioactive fallout. Support may include:

- Initiate an alert of an imminent sanitation system failure affecting a utility in San Mateo County.
- Provide an additional or alternate communication link between the individual utility and the State and County Environmental Health Services through the County Operational Area (OA) Emergency Operations Center (EOC).

- Assist utilities in reporting sanitation system status through the use of public information bulletin (PIB).
- Report to other agencies about the status of the sanitation systems in San Mateo County.

5.2 Sanitation System Reporting Procedures

Sanitation systems and utilities experiencing damages should report that they have "Damage that affects others" on the Damage Assessment Report. This could include multi-agency and regional facilities.

If deemed necessary, the Public Health Officer (PHO) can request more detailed damage assessment information from specific sanitation system utilities via OES to identify and/or better understand a potential sanitation system concern area. The PHO/Environmental Health will interface with both the Operations Chief and the Planning/Intelligence Chief to complete an accurate assessment of the Sanitation systems functionality in San Mateo County.

The PHO/Environmental Health Officer should confer with the EOC Director and the Public Information Officer to formulate Public Information Bulletins (PIB) regarding the correct Emergency Sanitation strategy to use. The PIB cannot be released without coordinating with the sanitation utility... The PHO/Environmental Health, EOC Director, and Public Information Officer should advise and suggest appropriate release by the Op Area's Joint Information Center.

Examples of Public Health Water Quality Advisory Notices are included in Appendix 5 of this Annex – **FORMS and SUPPORT DOCUMENTS**.

5.3 Public Notification Procedures

The authority to release "Emergency Sanitation Procedure" notification rests with the County Health Officer.

During a major disaster, a representative from the State Department of Health Services, Office of Drinking Water will be located at the State Regional EOC (REOC) at Oakland. The ECC is not responsible for utilities contacting the REOC, but may provide backup communication to this location if an agency's communications efforts are interrupted.

5.4 Emergency Sanitation Notification Procedures

Each utility is responsible to notify the public if there is imminent danger to health if the due to the damage to the waste water system The affected utility contacts the California Department of Health Services, Office of Drinking Water only if the damage to the system effects drinking water, if such notification is a consequence of an emergency, and communication systems allow for notification. The utility must notify San Francisco Bay Region Water Quality Control Board.

The PHO/Environmental Health will contact all member utilities affected by the emergency. S/He will request utilities to implement their emergency sanitation procedure plans and if necessary, request their PIO to contact the Area EOC PIO. The county PIO may elect to activate a Joint Information Center (JIC) to coordinate public information.

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PART TWO – ATTACHMENTS

The following list of checklists is in order of how notification of a Sanitation emergency may occur. Once the Emergency Command Center (ECC) or Emergency Operations Center (EOC) is activated these checklists supplement the functional checklists in the Emergency Operations Plan (EOP). These do not replace the EOP checklists.

Please note the organization chart on the next page. This series of checklists only address the ones noted with a page number. All other position checklists may be found in the EOP.

No	Content	Page
	(In order of notification)	
A.	Office of Emergency Services Duty Officer Sanitation Emergency Action Checklist	25
B.	San Mateo Operational Area Environmental Health Emergency Action Checklist	26
C.	Public Information Officer Water Emergency Action Checklist.....	27
D.	Sanitation Utility Representative Emergency Action Checklist.....	28
E.	Operations Section Chief Sanitation Emergency Action Checklist.....	29
F.	Public Health Officer Sanitation Emergency Action Checklist.....	30
G.	Planning/Intelligence Section Chief Sanitation Emergency Action Checklist.....	31
H.	Logistics Section Chief Sanitation Emergency Action Checklist.....	32

ATTACHMENT A

OFFICE OF EMERGENCY SERVICES ON DUTY OFFICER

SANITATION EMERGENCY ACTION CHECKLIST

Task: Accumulate and organize information necessary for the EOC Director or the EOC Manager to determine level of ECC/EOC activation and appropriate notification. At the discretion of the OES Duty Officer, a level one ECC activation may follow an M 5.0 earthquake in or nearby County limits, to gather damage assessment reports. Report to the EOC Director.

Action: Automatic: if you can determine a M 5.0 or 6.0 earthquake, immediately report to the EOC. ***Follow procedures in the EOP.*** Evaluate need to incorporate the following checklist items.

Notification: If a Waste water emergency occurs and notification was made by a Waste water utility, take the following actions.

- Contact affected utility (or all water utilities). Establish communications with the lead EOC representative.
- Gather the following information to pass onto the Water Coordinator:
 - o Severity of situation;
 - o Damage occurred;
 - o Any possibility of outage;
 - o Where will outage occur (e.g. city or other area);
 - o Length of possible outage;
 - o Potential impacts to other agencies and surrounding infrastructure;
 - o Potential impacts to utility facilities;
 - o Other wastewater utilities affected;
 - o Potential impacts to the essential facilities in the county (e.g. hospitals, schools, etc.); and/or
 - o Requests for mutual assistance.
- As soon as possible, contact the San Mateo Operational Area and the Public Health Officer. Provide information, discuss situation, and activate the ECC or EOC, as appropriate.
- Notify the EOC Manager (OES Supervisor) or EOC Director as needed. Make other notifications required if ECC or EOC is activated.
- Notify jurisdictions that could be affected by the wastewater utility outage.
- Generate a Response Information Management System (RIMS) Event Report.
- Assist other jurisdictions in completing any RIMS forms (e.g. Situation Reports, etc.)
- As appropriate develop a SEMS Action Plan:
 - o Establish an operational period;
 - o Set priorities;
 - o Clarify EOC responsibilities and coordination links;
 - o Identify EOC planned response activities; and
 - o Provide guidance on EOC procedures with those EOC functions, which are activated.
- As appropriate, deactivate according to EOP Procedures.

ATTACHMENT B

SAN MATEO OPERATIONAL AREA PUBLIC HEALTH OFFICER
SANITATION EMERGENCY ACTION CHECKLIST

Task: Accumulate and organize information necessary from the OES Duty Officer to determine notification and ECC/EOC activation. In consultation with the OES Duty Officer, the Public Health Officer, may suggest a level one ECC activation following a M 5.0 earthquake in or near by County limits. Purpose would be to gather damage/situation reports from water sanitation (POTW) utilities and or affected jurisdictions. Report to the EOC Director during a sole Sanitation emergency.

Action: Automatic: if you can determine n M 5.0 or 6.0 earthquake, immediately report to the EOC. ***Follow procedures in the EOP.***

Notification: If a water emergency occurs and notification was made by a water utility, take the following actions.

- Contact the affected utility (or all wastewater utilities). Establish communications with the waste water utility representative. Request status of all waste water utilities.
- Gather the following information to pass onto the EOC Manager
 - o Severity of situation;
 - o Damage occurred;
 - o Any possibility of outage;
 - o Where will outage extend (e.g. city or other area);
 - o Length of possible outage;
 - o Potential impacts to other agencies and surrounding infrastructure;
 - o Potential impacts to utility facilities;
 - o Other water utilities affected;
 - o Potential impacts to the essential facilities in the county (e.g. hospitals, schools, etc.); and/or
 - o Requests for mutual assistance.
- Contact cities and other wastewater utilities to determine conditions. As needed request the presence of a city/utility representative at the ECC/EOC.
- Evaluate needs for emergency sanitation supply delivery for each utility.
- Maintain communications and receive routine status reports about conditions from the utilities and the cities involved.
- Provide input on EOC Action Plans developed in response to the emergency.
- Activate the Emergency Sanitation Group, as needed.
- Deactivate according to the EOP procedures.

ATTACHMENT C

PUBLIC INFORMATION OFFICER

SANITATION EMERGENCY ACTION CHECKLIST

Task: Provide assistance and coordination to affected cities/towns and wastewater districts/utilities, on related media releases. Serve as the dissemination point for all public information released for such an event. As needed activate a Joint Information Center JIC/EOC for the affected area(s). Report to the EOC Director.

Action: The following actions supplement those listed in the Emergency Operations Plan. **Follow procedures in the EOP.** Evaluate need to incorporate the following checklist items.

- Maintain contact with Planning / Intelligence Section Chief on areas or conditions of special interest for public information action. Coordinate information with the Public Health Officer on water issues.
- Only The County Public Health Officer and the utility can distribute Emergency Sanitation Notices. Communicate with the utility PIO.
- Activate a Joint Information Center as needed to announce sanitation issues.
- Ensure that all outgoing information is consistent, accurate, and timely, and is forwarded to all appropriate utilities.
- Contact affected utilities to offer assistance in coordinating their public information efforts. In doing so, emphasize the need to keep the EOC PIO function informed about each utility's PIO efforts.
- Maintain contact with and provide information updates on media and wastewater utility response activities to all EOCs and appropriate utilities.

ATTACHMENT D

SANITATION UTILITY REPRESENTATIVE
SANITATION EMERGENCY ACTION CHECKLIST

Task: Serve as the on-site Liaison between the San Mateo County Operational Area (OA) EOC and the affected waste water utilities all wastewater related issues affected by the disaster Provide reports to the Utility EOC Director. Coordinate information and utility priorities with the OA EOC Director.

Personnel from (to be determined) may be the best suited for this task, but this function can be fulfilled by another utility that is not affected by the emergency.

Action: Take appropriate action on the following checklist items.

- Check in with County Public Health Officer (or designated function).
- Obtain briefing from the County Public Health Officer and/or Liaison Officer.
- Open and maintain an activity log (ICS 214 form, page 33).
- Work closely with the County OA EOC Liaison Officer and Utility EOC Director to coordinate response efforts and share information. Maintain contact with Planning / Intelligence Chief on areas / conditions of special interest for public information action. Coordinate information with Public Health Officer on water issues.
- Provide updates on wastewater (POTW) system issues, and sanitation alternatives when requested by the OA EOC Liaison Officer and through OA EOC briefings as appropriate
- Maintain ongoing communication with the Utilities EOC.
- Join Logistics section in Support Branch under utilities if directed.
- If relieved, brief your relief staff at time of shift change. Follow established check out procedures when leaving the OA EOC.
- Coordinate deactivation of your function with the EOC Manager and the utility.
- Ensure that any follow-up activities are identified for completion.
- Close out activities log. Provide copies to OA EOC Liaison Officer and utility EOC Planning / Intelligence Chief upon return there.
- Be prepared to provide input to the After Action Report prepared by the utility.

ATTACHMENT E
OPERATIONS SECTION CHIEF
SANITATION EMERGENCY ACTION CHECKLIST

Task: Manage Operations Section. Develop and coordinate response support re: wastewater system mutual aid in the Area/County based on damage assessment reports from jurisdictions including wastewater utilities. Report to the EOC Director.

Action: The following actions supplement those listed in the Emergency Operations Plan. **Follow procedures in the EOP.** Evaluate need to incorporate the following checklist items.

- Review incoming damage assessment reports with the EOC Director and Public Health Officer to determine the capability of the various wastewater (POTW) systems in San Mateo County.
- Maintain close communication with Planning / Intelligence Chief for continual updates on changing conditions which could affect previous actions taken on wastewater utility status.

ATTACHMENT F
PUBLIC HEALTH OFFICER
SANITATION EMERGENCY ACTION CHECKLIST

Task: Provide technical expertise to the EOC Management Staff on the wastewater utility status of San Mateo County wastewater systems affected by the disaster throughout the operational period. Report to the Operations Section Chief.

Action: Evaluate need to incorporate the following checklist items.

- Check in upon arrival at the EOC; obtain briefing from Operations Section; and review the following functional responsibilities.
- Open and maintain an activity log (ICS 214 form, page 33).
- Review incoming damage assessment reports with Operations Chief and Public Works identifying possible points of failure in wastewater systems.
- Review and coordinate possible responses to wastewater quality problems for all participating utilities.
- Maintain contact with and keep abreast of water quality reports from State / County Health Departments, SF Water Dept./S.F.P.U.C. and other water utilities.
- Coordinate efforts with County OA and Calif. State Office of Drinking Water on water quality issues. Work with ECC/EOC and/or Public Information Officer on developing public information releases for affected utilities e.g. Water Quality Advisory Notices and emergency sanitation notices from the Joint Information Center.
- Participate in briefings held by the EOC Director.
- Brief your relief at time of shift change and follow established check out procedures when leaving the EOC.
- Advise all appropriate contacts of plans to deactivate your function.
- Close out activities log and turn in to Operations Section Chief.
- Be prepared to provide input to the After Action Report.

ATTACHMENT G

PLANNING / INTELLIGENCE SECTION CHIEF

SANITATION EMERGENCY ACTION CHECKLIST

Task: Responsible for collecting, evaluating, and disseminating incoming information; developing the EOC Action Plan in coordination with other functions, and maintaining documentation of the overall operation. Report to the EOC Director.

Action: The following actions supplement those listed in the Emergency Operations Plan. **Follow procedures in the EOP.** Evaluate need to incorporate the following checklist items.

- Evaluate all incoming damage assessment reports for accuracy. Post the critical information on EOC status boards for evaluation and planning purposes. Continue to record messages on Master Message Log as they are received.
- Coordinate the inclusion of wastewater systems and utility impact issues in the EOC Action Plan.
- Include the Public Health Officer, the Operational Area Water Coordinator in the EOC Action Planning process as appropriate.

EOC Action Plan Process Reminder:

- A. The primary responsibility for preparing the EOC Action Plan is assigned to the Planning / Intelligence Section.
- B. Action planning is an effective management tool involving two essential items:
 - 1. A process to identify objectives, priorities, and assignments related to emergency response or recovery actions; and
 - 2. A Plan that documents the priorities, objectives, tasks and personnel assignments associated with meeting the objectives.
- C. Action Plans should focus on overall water or wastewater utility issues and are based on the use of an **operational period**:
 - 1. The length of an operational period is determined by first establishing a set of objectives and priority actions that need to be performed.
 - 2. Establishing a reasonable time frame for accomplishing those actions. Actions requiring the longest time period will define the length of the operational period.
 - 3. Typically, operational periods at the beginning of an emergency are short, sometimes only a few hours. As the emergency progresses, operational periods may be longer, but should not exceed twenty-four (24) hours. Operational periods should not be confused with staffing patterns or shift change periods.
- D. The initial EOC Action Plan may be verbal, put together in the first hour following EOC activation. The EOC Director in cooperation with the EOC Management Staff usually does it. **Once the EOC is fully activated, EOC Action Plans should be written.**

ATTACHMENT H
LOGISTICS SECTION CHIEF
SANITATION EMERGENCY ACTION CHECKLIST

Task: Manage all mutual aid requests and provide logistical support to public water and waste water utilities. Report to EOC Director.

Action: The following actions supplement those listed in the Emergency Operations Plan. **Follow procedures in the EOP.** Evaluate need to incorporate the following checklist items.

- While the utilities may activate the Water/Wastewater Agency Response Network (WARN) mutual assistance program for needs specific to a sanitation utility, activate existing Mutual Aid Agreements to ensure a priority response to anticipated emergency sanitation requests.
- Identify and coordinate the participation of area contractors, equipment, and supply vendors (pre-identified if possible) in supporting the utility and the Emergency Sanitation needs of the Operation Section.
- Establish Utility Section under Support Branch with Sanitation Utility representative if necessary. Use checklist for

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PART THREE – FORMS AND SUPPORT DOCUMENTS

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**EMERGENCY SANITATION ANNEX
APPENDIX 1**

NOTIFICATION LIST

EMERGENCY SANITATION GROUP FOR COUNTY AREA

Name	Department	24-hour Phone	Pager
	San Mateo County EMS	599-2737	
	County Human Services	595-7515	
	County Planning	363-1861	
	County Chief Financial Officer	363-4891	
	OES Area Coordinator	599-1295	
	County Environmental Health Services	363-4981	

COUNTY/OPERATIONAL AREA MUTUAL AID

TITLE	NAME	24-hour Phone/PAGER
OES DUTY OFFICER	ON CALL (REACH THROUGH DISPATCH)	650-363-4790
ENVIRONMENTAL HEALTH	DEAN PETERSON	650 224-7293
LAW COORDINATOR	SHERIFF'S OPERATIONS	363-4000
FIRE MUTUAL AID COORDINATOR	CHIEF TOM REAVES	286-3350
COUNTY PUBLIC WORKS DIRECTOR	JIM PORTER	599-1421
EMS/MEDICAL	ON CALL	363-4981
PUBLIC HEALTH OFFICER	ON CALL	363-4981
ENVIRONMENTAL HEALTH	ON CALL	363-4981
PIO/JIC COORDINATOR	Marshall Wilson	363-4153

**EMERGENCY SANITATION ANNEX
APPENDIX 3**

ACTIVITY LOG	1. Incident Name	2. Date Prepared	3. Time Prepared
4. Unit Name EMERGENCY SANITATION GROUP	5. Unit Leader (Name and Position)		6. Operational Period
7. Personnel Roster Assigned			
Name	ICS Position		Home Base
	1. EOC DIRECTOR		
	2. EOC MANAGER		
	3. SAFETY & SECURITY OFFICER		
	4. PUBLIC INFORMATION OFFICER		
	5. SANITATION UTILITY REPRESENTATIVE		
	6. AREA OES DUTY OFFICER		
	7. PUBLIC HEALTH OFFICER		
	8. OPERATIONS SECTION CHIEF		
	9. PLANNING/INTELLIGENCE SECTION CHIEF		
	10. LOGISTICS SECTION CHIEF		
	11. WATER COORDINATOR		
	12. FINANCE/ADMINISTRATION SECTION CHIEF		
	13. WASTE WATER COORDINATOR		
	14.		
	15.		
	16.		
8. Activity Log			
Time	Major Events		

EMERGENCY SANITATION ANNEX
APPENDIX 4

EMERGENCY OPERATIONS CENTER 24-HOUR STAFFING ROSTER

Function/Position	1st Shift 6am to 6pm	2nd Shift 6pm to 6am
EOC DIRECTOR		
EOC MANAGER		
HEALTH/SAFETY & SECURITY		
LEGAL ADVISOR		
PUBLIC INFORMATION OFFICER		
SANITATION /WATER UTILITY REPRESENTATIVE		
AREA ENVIRONMENTAL HEALTH SANITATION COORDINATOR		
OPERATIONS SECTION CHIEF		
PUBLIC HEALTH OFFICER		
PLANNING / INTELL. SECTION CHIEF		
SITUATION STATUS UNIT		
LOGISTICS SECTION CHIEF		
SERVICES BRANCH MANAGER		
OPERATIONAL AREA ENVIRONMENTAL HEALTH SANITATION COORD.		
FINANCE/ADMN. SECTION CHIEF		

**EMERGENCY SANITATION ANNEX
APPENDIX 5 - A**

EMERGENCY SANITATION ADVISORY – BAG HUMAN WASTE

***DO NOT RELEASE THIS INFORMATION. ENVIRONMENTAL HEALTH SERVICES AND THE UTILITY MUST
CONCUR AND BE PART OF THE DECISION.***

NOTIFICATION

DATE

EMERGENCY SANITATION ADVISORY

Due to the recent earthquake (or other emergency situation), the _____ (Agency Name)
is advising residents of _____ (City / Area) to bag all human waste and bring it to the 10
yard bin located at _____ (location)
Alternately place the bagged human waste in a 5 gallon bucket (sealed) and place it at your curb. It will be picked up by
_____ Agency on _____.

Failure to follow this advisory may result in exposure to stomach or intestinal illness.

The _____ (Agency Name) will notify residents as soon as it can be determined that
it is safe to flush toilets?

For more information call:

Emergency Sanitation Hotline _____

San Mateo County Environmental Health Services _____

**ANNEX
EMERGENCY SANITATION APPENDIX 5 - B**

EMERGENCY SANITATION ADVISORY – BAG HUMAN WASTE (Spanish version)

DO NOT RELEASE THIS INFORMATION. ENVIRONMENTAL HEALTH SERVICES AND THE UTILITY MUST CONCUR AND BE PART OF THE DECISION.

**SANEAMIENTO DE EMERGENCIA
ANEXO APENDICE 5 – B (Spanish version)**

**ASESORIA SOBRE SANEAMIENTO DE EMERGENCIA
ALMACENAJE Y DEPOSITO DE EXCREMENTO HUMANO**

NO COMPARTA ESTA INFORMACION. EL DEPARTAMENTO DE SERVICIOS DE SALUD Y MEDIO AMBIENTE JUNTO A LOS TECNICOS TOMARAN LAS DECISIONES DEL CASO.

NOTIFICACION

FECHA

ASESORIA DE SANEAMIENTO DE EMERGENCIA

Debido al terremoto reciente (u otra situación de emergencia), El _____ (Nombre de la Agencia) esta asesorando a los residentes de _____ (Ciudad/Área) para que empaqueten el excremento de todas las personas que habitan en su casa en bolsa que se les proveerá, dichas bolsas deberán ser trasladadas y depositadas en el compartimiento de 10 yardas, localizado en _____ (Dirección).

Otra alternativa es que dichos desechos sean depositados en cubos de 5 galones que deberán sellarse y colocarlos en la acera de su casa para que la agencia encargada pase a recogerlos el día _____.

Es importante seguir con estas indicaciones, para evitar epidemias.

El _____ (Nombre de la Agencia) notificara a los residentes tan pronto sea posible cuando se pueden utilizar de nuevo los inodoros.

Para más información llame al:

Saneamiento de Emergencia Hotline _____
Servicios de Salud y Medio del Condado de San Mateo _____

**EMERGENCY SANITATION ANNEX
APPENDIX 5 - C**

EMERGENCY SANITATION - CANCELLATION

**DO NOT RELEASE THIS INFORMATION.
ENVIRONMENTAL HEALTH SERVICES AND THE UTILITY MUST CONCUR AND BE PART OF THE DECISION.**

NOTIFICATION

DATE

CANCELLATION OF EMERGENCY SANITATION ALERT

On ___ (date) _____ you were notified of the need to BAG HUMAN WASTE The _____ (Water Dept./ District / Utility) in conjunction with the _____ (Local Health Department), has determined that, through abatement of the health hazard followed by THE REPAIR AND RESTORATION OF THE SANITATION SYSTEM. **It is no longer necessary to bag your human waste**

For more information contact:

District or Utility

Name, title and phone of Sanitation Dept., District, or Utility representative

San Mateo County Health Department _____

**EMERGENCY SANITATION ANNEX
APPENDIX 5 - C**

EMERGENCY SANITATION - CANCELLATION (Spanish)

RECLAS DE SANEAMIENTO EN CASOS DE EMERGENCIA ANEXO APENDICE 5-C

ORDEN DE CANCELACION DE LAS RECLAS DE SANEAMIENTO EN CASOS DE EMERGENCIA

NO COMPARTA ESTA INFORMACION HASTA QUE: LOS DEPARTAMENTOS DE SALUD PUBICA Y MEDIO AMBIENTO JUNTO CON LOS DEPARTAMENTOS DE SERVICIO PUBLICO DE UTILIDADES ESTEN DE ACUERDO CON ESTA DECISION.

Notificacion Fecha

En _____ (la fecha) usted fue notificado de la necesidad de poner sus heces fecales (excremento) en bolsas plasticas. El _____ (Departamento de Aqua, Distrito, Servicio de Utilidades Puplicas) en conjunto con el Departamento local de Salud Publica ha determinando que despues DE HACER LAS REPARACIONES Y HABER PUESTO EN FUNCIONAMIENTO EL SISTEMA DE AGUA LAS TUBERIAS DE LOS SERVICIOS SANITARIONS ya no es necesario seguir usando bolsas plasticas para deshacerse de las heces fecales (excremento). Dado que el peligro a la salud publica ha sido eliminado.

Para mas informacion llame a:

Distrito o Compania de Servicio Publico de Utilidades

Nombre, Titulo, telephono de el Departamento de Sanidad, Distrito o representante de la Compania de Servicio de Utilidades Publicas

Departamento De Salud Publicia de El Condado De San Mateo

**EMERGENCY SANITATION ANNEX
APPENDIX 6****Emergency Sanitation Resources****WHITE CAP: Gloves, Buckets**

1-800-944-8322

415-522-5300 ... San Francisco

888-428-9290... Dublin

Home Depot: Gloves, Shovels, Plastic, Disinfectants, Buckets

650-462-6800... Palo Alto

650-592-9200... San Carlos

650-525-9343... San Mateo

Grainger: Gloves, Shovels, Plastic, Disinfectants, Buckets

1-888-361-8649/24 hours

Orchard Hardware Supplies: Gloves, Shovels, Plastic, Disinfectants, Buckets

650-365-7376... Redwood City

650-525-2100... Foster City

650-691-2000... Mountain View

Five Gallon Buckets

Norton Packaging Hayward California 1 510 786-3445

Kelly Moore Paints San Carlos 595-1654

Other Companies: visquine, Plastic, Vinyl

United Rentals.... (786) 402-5920 (Mike Holm 24hrs)

508-250-4919 /Rollin Kay 24 hrs

Bayside Building Material.... 650-349-5141 San Mateo

San Mateo Lumber Co Inc.... 650-342-6400 San Mateo

Portable Toilets:

Ben's Toilet Rentals.... 530-846-4110 Colusa

Ajax Portable Services (Waste Management)....

510-728-7290 Hayward

Able Emergency Support 800-598-3009/Brad Able 916-769-2335 Camino

Appendix 6 Emergency Sanitation Resources continued

ACME and Sons, AKA United Site Services800-295-2263/408-295-2263(24 hr)/ 707-373-9177(Debbie Thorton Rep) San Jose

Waste Water Pumpers:

Ajax Portable Services (Waste Management)....
510-728-7290 Hayward

Able Emergency Support800-598-3009/Brad Able 916-769-2335 Camino

El Dorado Water and Showers....888-622-0153 Placerville

ACME and Sons, AKA United Site Services800-295-2263/408-295-2263(24 hr)/ 707-373-9177(Debbie Thorton Rep) San Jose

A Able Septic Tank Service....408-377-9990 San Jose

Environmental Health maintains an active list of septic pumpers throughout the county

EMERGENCY SANITATION ANNEX

APPENDIX 7

Emergency Sanitation Instruction on Four Latrine Construction Options

Latrine Options

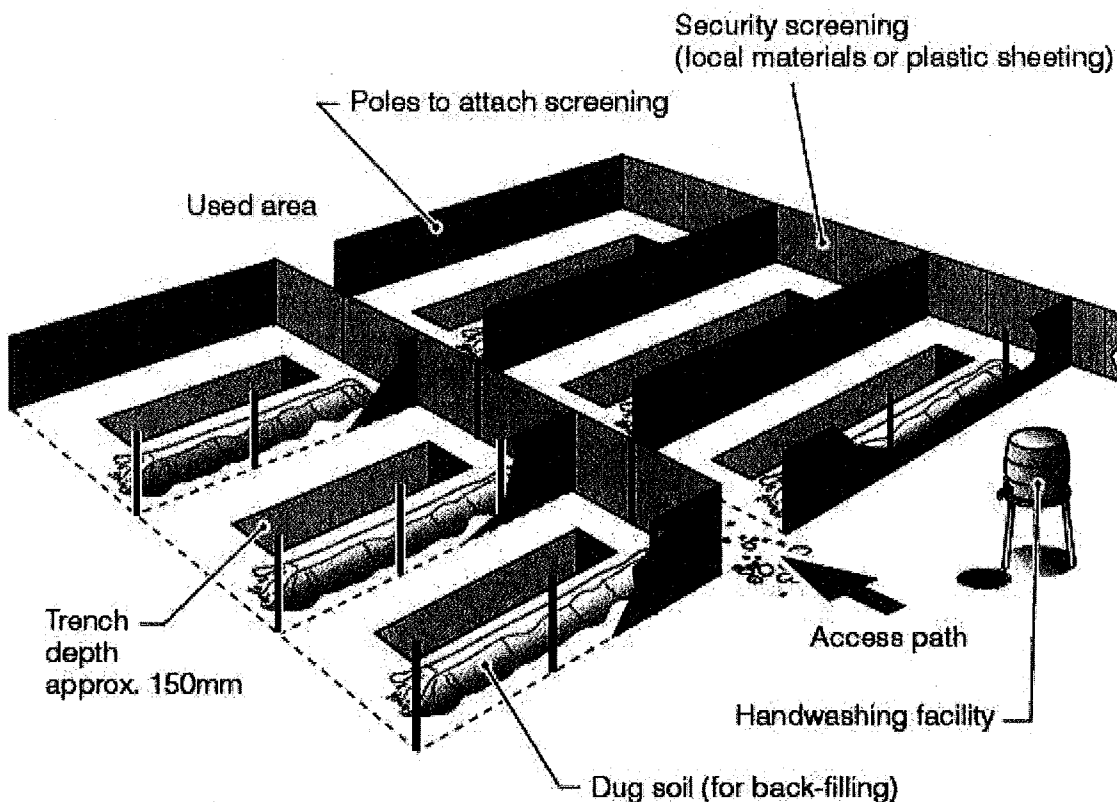
1. Shallow trench latrines

A simple improvement on open defecation fields is to provide shallow trenches in which people can defecate. This allows users to cover feces and improves the overall hygiene and convenience of an open defecation system. Trenches need only be 20-30cm wide (8-12inches) and 15cm (6 inches) deep, and shovels may be provided to allow each user to cover their excreta with soil. Divide the field into strips 1.5m wide with access paths. Use strips furthest from the entrance first. When a section of trench has its bottom layer fully covered with excreta it is filled in. Only short lengths of trench should be opened for use at any one time to encourage the full utilization of the trench in a short time. It may be appropriate to have a number of trenches open at the same time. A rule of thumb is to allow 0.25 m² (0.30 yards) of 10 square inches of land per person per day. This means 250 m² (300 yards) per 10,000 people per day, or nearly 2 hectares per week. Men and women's areas should always be separated.

Advantages: Rapid to implement (one worker can dig 50m (1,968inches) of trench per day); feces can be covered easily with soil.

Constraints: Limited privacy; short life-span; considerable space required.

Shallow trench latrines



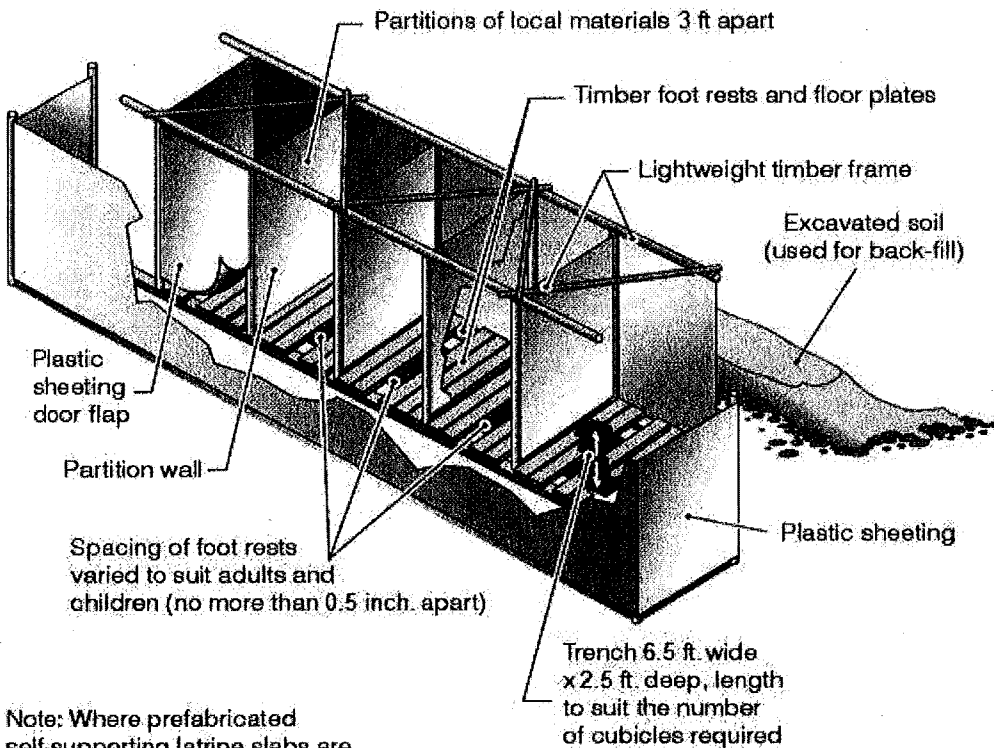
2. Deep trench latrines

Deep trench latrines are often constructed in the immediate stage of an emergency and will be appropriate if there are sufficient tools, materials and human resources available. These involve the siting of several cubicles above a single trench which is used to collect the excreta. However, care should be taken not to provide too many latrines side by side. The recommended maximum length of trench is 6m, providing six cubicles. Trenches should be 0.8 -0.9m (31inches -35inches) wide and at least the top 0.5m (19inches) of the pit should be lined. After the trench has been dug the quickest option is to put self-supporting plastic slabs straight over the trench. If slabs are not available then wooden planks can be secured across the trench until proper wooden or concrete slabs can be made. The trench should be covered with planks leaving out every third or fourth plank, which is where people defecate. Ideally, all designs should be previously discussed with the community and should take into account the safety of women and children and elderly or disabled people.

Advantages: Cheap; quick to construct; no water needed for operation; easily understood.

Constraints: Unsuitable where water table is high; soil is too unstable to dig or ground is very rocky; often odor problems; cleaning and maintenance of communal trench latrines are often poorly carried out by users.

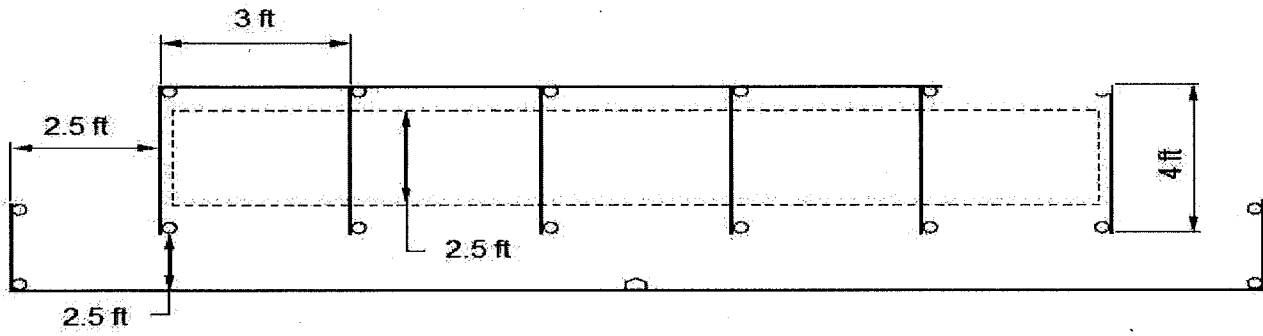
Deep trench Latrines



Note: Where prefabricated self-supporting latrine slabs are to be used in place of timber cubicle sizes may need to be adjusted to fit slab width (e.g. 2.5 ft.)

Superstructure

Deep trench Latrines continues



Plan view

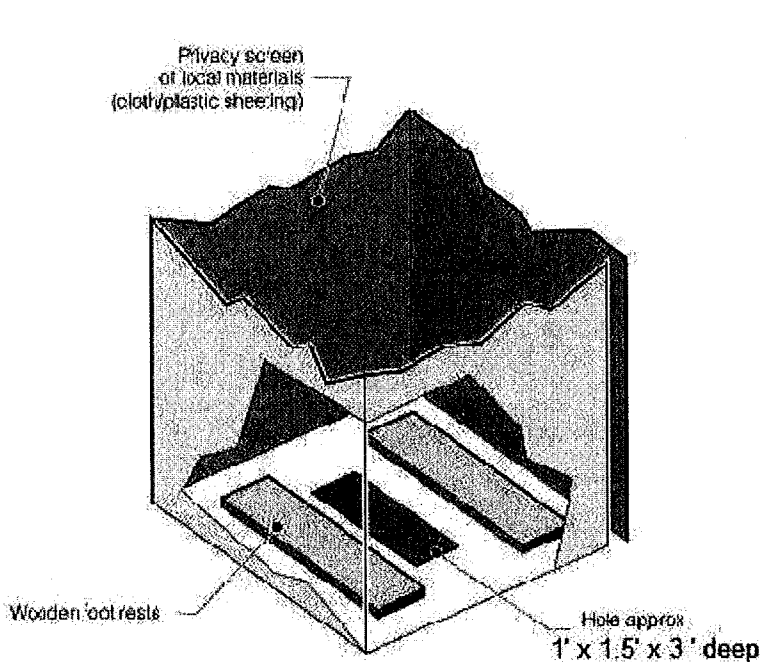
3. Shallow family latrines

In some situations it may be more appropriate to provide shallow family (rather than trench) latrines. This is particularly suitable where people are keen to build their own latrines or have experience of latrine construction. A shallow pit of approximately 0.3m x 0.5m x 1m (11in x 19in x 39in) depth may be excavated. Wooden foot rests or a latrine slab (approximately 0.8m x 0.6m (31inches x 24inches)) can be placed over this, overlapping by at least 15cm (6inches) on each side. This latrine should be an immediate measure only and backfilling should occur when the pit is full to within 0.2m (7inches) of the slab. A simple superstructure for privacy can be made from local materials.

Advantages: Increased privacy; rapid to implement; reduced labor input from agency; allow people to actively participate in finding an appropriate solution.

Constraints: Community must be willing and able to construct family latrines; difficult to manage sitting and back-filling of pits; large tools and materials required.

Shallow Family Latrine



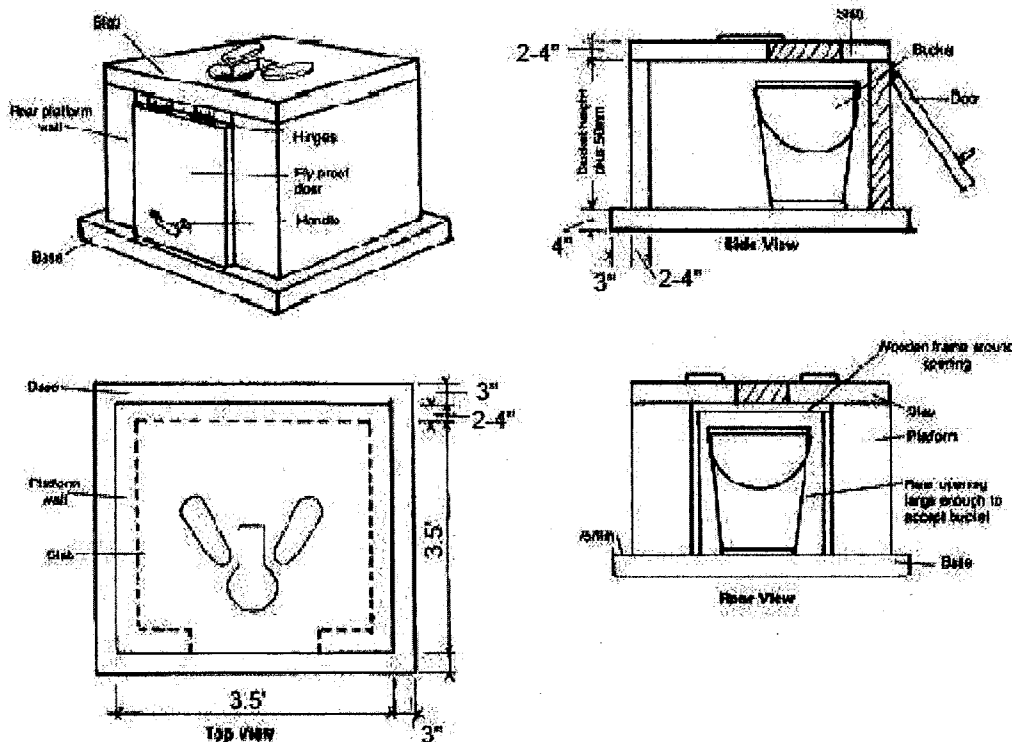
4. Bucket latrines

In situations where there is limited space it may be appropriate to provide buckets or containers in which people can defecate. These should have tight-fitting lids and should be emptied at least daily. Disinfectant may be added to reduce contamination risks and odor. Containers can be emptied into a sewerage system, a landfill site or waste-stabilization ponds. This measure will only be appropriate where there are no other immediate action options and users find the method acceptable, it is therefore not used in most situations.

Advantages: Defecation containers can be easily procured (see resource list in Appendix 6) and transported; once containers are provided only the final disposal system need be constructed; can be used in flooded areas.

Constraints: Many people find the method unacceptable; large quantities of containers and disinfectant are required; extensive education regarding final disposal required; containers may be used for alternative purposes.

Bucket Latrine



This information was taken from the draft 2004 "Excreta Disposal in Emergencies:"

A field manual "Edited by Peter Harvey and written for Oxfam International

EMERGENCY SANITATION ANNEX

APPENDIX 8

AUTHORITIES AND REFERENCES

The following authorities and references establish:

- The legal basis (statutes, ordinances, executive orders, regulations, proclamations) for emergency operations.
- The basis for delegation of emergency authority, i.e., enabling measures sufficient to ensure that specific emergency-related legal authorities can be exercised by water utility management or their designated successors.

The California Emergency Plan, promulgated in accordance with provisions of the Act, provides statewide authorities and responsibilities and describes the functions and operations of government at all levels during extraordinary emergencies, including war. Section 8568 of the Act states in part that "the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof."

A. AUTHORITIES

State

- ☐ California Emergency Services Act (Chapter 7 of Division 1 of Title 2 of the Government Code)
- ☐ Government Code 8607(a), and California Code of Regulations, Title 19, Division 2, Chapter 5, NDAA, Section 2900(y) Special Districts, and Sections 2400-2450 (Standardized Emergency Management System - SEMS)
- ☐ Water Code, Division 1, Chapter 2, Article I, Section 128 (California Department of Water Resources - Flood Fighting)
- ☐ Water Code, Division 20.5, § 73500 (formerly AB 1823, Papan, 2002)

B. REFERENCES

State

- ☐ California State Emergency Plan
- ☐ California Master Mutual Aid Agreement
- ☐ Government Code, Title I, Division 4, Chapter 8, Sections 3100-3109:
 1. Declares all public employees to be disaster service workers
 2. Defines disaster service worker
 3. Defines public employees (excludes aliens)
 4. Describes Loyalty Oath requirement

Local

- ☐ County of San Mateo Resolution, November 28, 1950, adopting the California Master Mutual Aid Agreement
- ☐ Operational Area Agreement of the County of San Mateo and Political Subdivisions (to include Special Districts) 1995
- ☐ San Mateo County Emergency Operation Plan Adopted July 2007