



# City and County of San Francisco M/V *Cosco Busan* Oil Spill



## After Action Report



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## **CONTACT INFORMATION**

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## EXECUTIVE SUMMARY

On the morning of 7 November 2007, the motor vessel (M/V) *Cosco Busan* struck the Bay Bridge resulting in an oil spill of approximately 58,000 gallons in the San Francisco Bay. The City and County of San Francisco (CCSF) departments and agencies<sup>1</sup> mobilized to support the response and recovery efforts following the spill.

All emergency response efforts can be improved upon and should be evaluated for opportunities to do so. The purpose of this After Action Report (AAR) is to analyze CCSF's response efforts, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

This report was developed using a capabilities and performance-based approach, organized by the U.S. Department of Homeland Security's Target Capabilities List (TCL). The TCL supports the National Preparedness Goal by defining the capabilities needed to achieve national preparedness for all major events. In addition, the TCL defines and provides the basis for assessing preparedness. The M/V *Cosco Busan* Oil Spill primarily tested CCSF on the following target capabilities:



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- Intelligence/Information Sharing and Dissemination
- WMD/Hazardous Materials Response and Decontamination
- Emergency Operations Center Management
- Volunteer Management and Donations
- Emergency Public Information and Warning

In order to obtain a comprehensive account of the events that took place following the oil spill, a Hotwash session and personal interviews were conducted with CCSF department personnel who were involved in the response and recovery efforts. A total of 40 interviews were conducted over a two-week period in December 2007. In addition, volunteer agency representatives were surveyed to gather input and identify strengths and areas for improvement in regard to the oil spill response efforts. The observations contained within this report reflect common themes identified during the meeting and interview process.

The major strengths identified during the response are as follows:

- CCSF departments effectively worked together to develop and implement response strategies, including precautionary public health measures, volunteer management, and wildlife protection.
- CCSF has the capability to coordinate and provide resources to supplement command and control activities.

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<sup>1</sup> All CCSF departments/agencies will hereinafter be referred to as "departments."

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- CCSF departments and the Board of Supervisors demonstrated the ability to interact with Federal and State partners in the resolution of contentious issues and the execution of plans for volunteer use during an oil spill.
- Over 1,500 volunteers were successfully registered as Disaster Service Workers (DSWs).
- 311 is a valuable asset for the dissemination of public information.
- Volunteer organizations enhanced both the public communications and the response efforts.
- The Emergency Operations Center (EOC) provided an important common coordination point among San Francisco departments.

Throughout the response, several opportunities for improvement in CCSF's ability to respond to the incident were identified. The primary areas for improvement, including recommendations, are as follows:

- The integration of local government into Unified Command during oil spill response needs to be improved.
  - **Recommendation:** Actively engage in the *San Francisco 2005 Area Contingency Plan (ACP)* committee and work to improve local government integration into Unified Command during oil spills.
  - **Recommendation:** Improve communications between CCSF and State / Federal agencies by establishing stronger relationships, developing communications protocols, and exercising multi-jurisdictional plans on a regular basis.
- Information flow and inter-departmental coordination would have improved earlier in the response period if the EOC had been activated when the magnitude of the incident's response requirements and duration were initially realized.
  - **Recommendation:** Upon notification of an incident, consider the magnitude and likelihood of extended operations when determining need for a formal EOC activation; activate to the appropriate level in a timely manner.
- Incident information should come from an official source through a clearly defined mechanism/process.
  - **Recommendation:** Develop a standard operating procedure for distributing incident/emergency information to CCSF departments and for the ongoing sharing of information between departments.
- Hazard-specific plans should be updated to include just-in-time volunteer and DSW training materials and protocols where applicable and appropriate.
  - **Recommendation:** Update hazard-specific plans to include just-in-time volunteer and DSW training materials and protocols as necessary.

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- An improved system/structure for the management and coordination of public information is needed.
  - **Recommendation:** Develop an improved system/structure for the management and coordination of public information during incidents affecting CCSF, to include protocols for when the EOC is not activated.

CCSF's overall response to the M/V *Cosco Busan* Oil Spill was pro-active and effective. The actions taken by departments were appropriate and demonstrated the capability to coordinate issues and work together. Successful response strategies were developed to address beach cleanup, protection of the waterfront, the use of volunteers through the implementation of a management plan, and supporting CCSF representatives at Unified Command. The high level of commitment and inter-agency cooperation exhibited by all CCSF department representatives is a result of the increased level of joint training, participation in planning meetings, and exercises conducted over the last few years. As with any response, capabilities were tested and areas for improvement were identified. Lessons learned will be addressed through the identification and implementation of corrective actions.

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## SECTION 1: INCIDENT OVERVIEW

### INCIDENT DETAILS

#### **Incident Name**

M/V *Cosco Busan* Oil Spill

#### **Date and Time**

November 7, 2007 at 0827 PST

#### **CCSF Response Duration**

November 7 – 25, 2007

#### **Location**

The motor vessel (M/V) *Cosco Busan*, a 902-foot container carrier, struck the base of the Delta tower of the Bay Bridge spilling approximately 58,000 gallons of heavy bunker fuel oil into the San Francisco Bay.

#### **Mission Areas**

Response and Recovery

#### **Capabilities**

- Intelligence/Information Sharing and Dissemination
- WMD/Hazardous Materials Response and Decontamination
- Emergency Operations Center Management
- Volunteer Management and Donations
- Emergency Public Information and Warning

### CCSF RESPONSE ORGANIZATIONS

#### **Departments and Agencies**

- 311 Customer Service Center
- Animal Care and Control
- Board of Supervisors
- Building Inspection, Department of
- City Administrator's Office
- City Attorney
- Controller's Office
- Emergency Management, Department of

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## M/V *Cosco Busan* Oil Spill



- Fire Department
- General Services Agency
- Human Resources
- Human Services Agency
- Mayor's Office
- Mayor's Office of Neighborhood Services
- Medical Examiner
- Municipal Transportation Agency, Department of Parking and Traffic
- Municipal Transportation Agency, Municipal Railway
- Police Department
- Port of San Francisco
- Public Health, Department of
- Public Utilities Commission
- Public Works, Department of
- Recreation and Park Department
- Redevelopment Agency
- Telecommunications and Information Services, Department of
- Treasure Island Development Authority

### **Volunteer Organizations**

- 211
- Baykeeper
- Golden Gate Audubon Society
- Kill the Spill
- Neighborhood Emergency Response Team (NERT)
- Oiled Wildlife Care Network
- SF Connect
- Save the Bay
- Surfrider
- The Volunteer Center
- Zuna Surf

### **INCIDENT SUMMARY**

On 7 November 2007 at 0827, the 902-foot container vessel, M/V *Cosco Busan*, accidentally hit the wooden fender protecting the Delta tower of the Bay Bridge. Dense fog blanketed the San Francisco Bay. The allision (occurs when a vessel strikes a fixed object) opened a 160-ft long gash in the ship's hull, spilling approximately 58,000 gallons of toxic fuel oil into the San

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San Francisco Bay at the time of the incident. The M/V *Cosco Busan* Oil Spill represents the largest oil spill in the San Francisco Bay in 20 years. The event also marks the first time that a ship has actually struck the Bay Bridge.

The pilot onboard the outbound vessel reported damage to the forward left side causing heavy bunker fuel oil (IFO380) to spill into the San Francisco Bay. Initial reports stated that 140 gallons of fuel had been released. At approximately noon on the day of the spill, Port offices in the Ferry Building were evacuated due to noxious vapors. Oil spill fumes became less prevalent as the oil dissipated, sank, evaporated, and were dispersed due to the currents. At 1539, a surfer reported to the San Francisco Fire Department a film of oil on his wetsuit and surfboard. Although these occurrences indicated a potentially larger problem, official notification to local governments regarding the true scale of the spill was delayed by several hours. It should be noted that this topic is under investigation by numerous other authorities and is beyond the scope of this report. The reader is referred to those reports as they become available.



U.S. Coast Guard

At 2115, the Coastal Office of Emergency Services (OES) convened a conference call with local emergency operational area representatives. The U.S. Coast Guard (USCG) also joined the call and revealed that approximately 58,000 gallons of bunker fuel had in fact leaked into the Bay, and that the Unified Command Post would be moved the following morning to Fort Mason from USCG Sector Command on Yerba Buena Island where it was initially set up. In accordance with Federal and State law, the USCG, the Department of Fish and Game (DFG), and *Cosco Busan*'s contractor, the O'Brien's Group, formed Unified Command. San Francisco city officials were instructed to interact with Unified Command through a liaison officer. Members of the San Francisco Department of Emergency Management (DEM) reported to the command post at Fort Mason on the morning of 8 November, but had difficulty interacting with the Unified Command through the established Liaison Officer.

Shortly after the activation of Unified Command, San Francisco was asked to assist in relocating the command post. San Francisco DEM, the Treasure Island Development Authority, San Francisco Department of Public Works (DPW), and San Francisco Department of Telecommunication and Information Services worked around the clock to ensure the establishment of a fully functional command post on Treasure Island by the morning of Saturday, 10 November. Unified Command eventually included representatives from DEM, San Francisco Fire Department, Department of Public Health, and DPW.

Over a period of ten days, several additional San Francisco departments contributed to the City's operational level response including: the Mayor's Office, the Board of Supervisors, Port of San Francisco, San Francisco Fire Department, San Francisco Police Department, Department of Public Health, Public Utilities Commission, Recreation and Park Department, Department of Human Resources, General Services Agency, Mayor's Office of Neighborhood Services, Human Services Agency, Redevelopment Agency, Animal Care and Control, 311 Customer Service Center, Department of Building Inspection, Municipal Transportation Agency, the City Administrator's Office, the Controller's Office, and the City Attorney.

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Public health precautionary measures were taken around the Bay; several beaches were closed, fishing and swimming were prohibited, and the opening of crab season was delayed. Several forms of wildlife in the Bay Area were impacted by the spill. Habitats were disturbed and approximately 2,150 birds died as a result of the disaster. State biologists tested more than 1,100 samples of fish, mussels, and Dungeness crab in the San Francisco Bay and coastal waters outside the Golden Gate Bridge. They found unsafe levels of contaminants in mussels at both Rodeo Beach and the Berkeley pier.



U.S. Coast Guard

This incident galvanized an overwhelming public response. Many San Francisco citizens wanted to volunteer in the cleanup efforts and wildlife rescues. As the *San Francisco 2005 Area Contingency Plan (ACP)* does not permit the handling of hazardous materials by volunteers, public agencies worked to direct volunteers into non-contact activities. DFG organized and San Francisco hosted an informational session for volunteers that explained allowed activities. San Francisco officials continued to work at the Unified Command level to provide opportunities for volunteers to assist with beach cleanup. In the absence of an agreement from Unified Command, CCSF developed an opportunity for volunteers to clean a wetlands area not significantly affected by the spill. In addition, CCSF planned contingencies for the eventual use of volunteers to clean impacted beaches. At the Mayor's direction and with the approval of DFG, Golden Gate National Recreational Area, and the Environmental Protection Agency, CCSF implemented its contingency plan to utilize volunteers in the cleaning of oiled beaches. Coordination meetings with operational level representatives from participating departments were held at the San Francisco Emergency Operations Center (EOC) daily from 9-11 November. These meetings facilitated incident action planning and the coordination of joint information on the local level. As a result, a four-hour "Disaster Service Worker Volunteer Certification" course was offered, beginning on Monday, 12 November. Three courses were provided and approximately 1,500 volunteers were trained and deployed throughout the duration of the response. In order to continue the coordination and development of volunteer opportunities, as well as provide official documentation of activities, regular communications, and local public information, the San Francisco Emergency Operations Center was partially activated between Tuesday, 13 November and Saturday, 17 November. The last volunteer event occurred on Thanksgiving Day after a significant high tide.

Shoreline and bay cleaning continued through the end of November. Beaches began to re-open the weekend of 16 November and the fishing and the crabbing season suspension was lifted on 29 November. Unified Command remains active handling all residual tasks associated with oil spill cleanup efforts.



## SECTION 2: ANALYSIS OF CAPABILITIES

This section of the report reviews the performance of the capabilities, activities, and tasks associated with the City and County of San Francisco's (CCSF's) response efforts to the M/V *Cosco Busan* Oil Spill. In this chapter, observations are organized by capability and associated activities. For the M/V *Cosco Busan* Oil Spill, capabilities linked to the response are listed, followed by corresponding activities. Each activity is followed by related observations, which include references, analyses, and recommendations.

### CAPABILITY: INTELLIGENCE/INFORMATION SHARING AND DISSEMINATION

**Capability Summary:** The Intelligence/Information Sharing and Dissemination capability is the multi-jurisdictional, multidisciplinary exchange and dissemination of information and intelligence among the Federal, State, local, and Tribal layers of government, the private sector and citizens. The goal of sharing and dissemination is to facilitate the distribution of relevant, actionable, timely, and preferably declassified or unclassified information and/or intelligence that is updated frequently to the consumers who need it. More simply, the goal is to get the right information to the right people at the right time.

Information sharing regarding the oil spill fell into three overarching categories:

1. City and County of San Francisco (CCSF) communications with Unified Command;
2. Communications between CCSF departments; and
3. Communications with the public.

This section of the report covers observations related to the first two categories. Communications with the public is discussed under the Emergency Public Information and Warning Capability, which can be found on page 29.

Initial reports regarding the collision of the motor vessel (M/V) *Cosco Busan* with the Bay Bridge were received from multiple sources at various times on the morning of 7 November 2007. The magnitude of the oil spill was initially thought to be nominal (140 gallons), but twelve hours after the collision; it was communicated to local officials by the U.S. Coast Guard (USCG) to be approximately 58,000 gallons released.

Communications between CCSF departments were primarily achieved through personal phone calls between colleagues, conference calls scheduled by the San Francisco Department of Emergency Management (DEM), and coordination meetings held at the San Francisco Emergency Operations Center (EOC). This course of action worked well, however can be improved by establishing a clearly defined process and schedule for sharing information in the absence of a formal Emergency Operations Center (EOC) activation. Once the EOC was activated, lines of communication were better understood by CCSF departments. Establishing a point of coordination lessened redundancy of efforts and further enhanced all communication.

Communications between CCSF representatives and Unified Command Liaison Officers at the command post were very poor during the first two days of the response. Requests for

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information made by DEM representatives at the command post were not met. The situation improved somewhat due to the presence of high level City officials at Unified Command. Beginning on the third day following the spill, situation status reports were sporadically provided to CCSF representatives.

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### **Activity 1: Incorporate All Stakeholders in Information Flow**

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**Observation 1.1: (Area for Improvement)** The initial notification of the allision of the M/V *Cosco Busan* with the Bay Bridge tower was received by various CCSF departments from multiple sources (i.e. media, Regional Terrorism Threat Assessment Center). Most initial notifications stated that the incident was not terrorism-related and did not reference an associated oil spill. No official notification of the oil spill was made using normal channels [i.e., State Warning Center, Coastal Office of Emergency Services (OES)] in the early hours of the event. At a 1300 conference call, the USCG acknowledged the oil spill and reported that the amount was 140 gallons. CCSF did not receive official notification that the spill was actually 58,000 gallons until the 2100 conference call convened by Coastal OES.

#### **Reference(s):**

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Pre.Ald 3.1*; Share information and/or intelligence between Federal, State, local, and tribal levels by using clearly defined mechanisms/processes.

**Analysis:** The initial reports received by CCSF departments were from a number of sources at various times on the morning of 7 November. The available information suggested that the appropriate response from CCSF departments was to monitor the situation. Although many departments received information of the allision and oil spill (140 gallons), often the information did not come from an official source or through a clearly defined mechanism/process.

Standard protocols are needed for notifying CCSF departments and for the ongoing sharing of information between departments. This will help to provide verifiable, timely, and coordinated messages regarding incidents affecting or potentially affecting the City. The protocol should identify the lead agency responsible for providing the information, along with a pre-designated distribution list of departments and associated personnel to be notified and updated on incidents/emergencies. Once notification is made, each department will be responsible for keeping their respective staffs informed and updated. Ideally, such notification protocols will be “all-hazards.” Generally, a different protocol for every conceivable scenario is not necessary. However, certain scenarios, such as a Marine Casualty, require specific and/or immediate actions on the part of individuals that would not normally be included in an “all-hazards” notification list.



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### Lessons Learned and Associated Recommendation(s):

1. Incident information should come from an official source through a clearly defined mechanism/process.
    - a. **Recommendation:** Develop a standard operating procedure for distributing incident/emergency information to CCSF Departments and for the ongoing sharing of information between departments.
    - b. **Recommendation:** Ensure that each department has an internal communications system and protocols for distributing incident/emergency information.
  2. Marine casualties present a unique situation requiring specific and/or immediate actions from individuals not normally included in an “all-hazards” notification list.
    - a. **Recommendation:** DEM should identify unique situations which require specific and/or immediate actions and develop appropriate notification protocols which include those best suited to respond.
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**Observation 1.2: (Area for Improvement)** Initially, not all members of the Board of Supervisors were provided with regular information updates regarding the oil spill. Only those Supervisors whose districts border the San Francisco Bay were notified.

### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Pre.Ald 1.1.1*; Identify all Federal, State, regional, tribal and local stakeholders for inclusion in the information sharing framework.
2. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Pre.Ald 1.1.2*; Identify non-law enforcement governmental entities and officials for inclusion in the information sharing framework.
3. San Francisco Charter, Section 3.100, Item 13

**Analysis:** All District Supervisors and executive leadership should be notified and kept apprised of significant events affecting CCSF. Oil spills primarily impact those districts along the water’s edge. However ensuing response efforts had an effect on all districts within CCSF. The Board of Supervisors and executive leadership should be included in the information sharing network.

### Lessons Learned and Associated Recommendation(s):

1. All District Supervisors and executive leadership should be notified and kept apprised of significant events affecting CCSF.
  - a. **Recommendation:** Create a policy/protocol within the CCSF emergency system to keep all members of the Board of Supervisors and executive leadership appropriately informed during emergency events.



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### **Activity 2: Vertically Flow Information**

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**Observation 2.1: (Area for Improvement)** Minimal information exchange regarding situation status occurred between CCSF and Federal / State response agencies (USCG, Department of Fish and Game) during the first two days following the oil spill. Unified Command was established on 7 November and more fully developed on 8 November, but information sharing between Unified Command and local governments did not improve for several days. Requests were made by CCSF representatives for information which were not met by Unified Command staff. Beginning on Friday, 9 November (three days after the spill), drift information, buoy data, and maps were sporadically distributed from the Operations Section of the Unified Command. Distribution of the daily Incident Action Plan (IAP) was highly restricted and did not improve until week two of the event. Electronic distribution of the IAP occurred even later.

#### **Reference(s):**

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Pre.Aid 3.1*; Share intelligence and/or information between Federal, State, local, and tribal levels by using clearly defined mechanisms/processes.

**Analysis:** The CCSF was challenged by a lack of information from credible sources during the first two days following the oil spill. Limited information from Unified Command negatively impacted DEM's ability to develop and communicate situational awareness to CCSF departments. Some CCSF departments misinterpreted the absence of information as a failure of DEM to share information, when actually it had not been received. CCSF personnel should actively engage in the ACP committee and work to improve local government integration into Unified Command during oil spills. Improved integration will promote increased communications and information sharing.

#### **Lessons Learned and Associated Recommendation(s):**

1. The integration of local government into Unified Command during oil spill response needs to be improved.
  - a. **Recommendation:** Actively engage in the ACP committee and work to improve local government integration into Unified Command during oil spills.
  - b. **Recommendation:** Improve communications between CCSF and State / Federal agencies by establishing stronger relationships, developing communications protocols, and exercising multi-jurisdictional plans on a regular basis.
  - c. **Recommendation:** Communicate when information is not currently available.



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### Activity 3: Horizontally Flow Information

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**Observation 3.1: (Strength and Area for Improvement)** The USCG confirmed that approximately 58,000 gallons of bunker fuel had been released into the San Francisco Bay as a result of the M/V *Cosco Busan* allision with the Bay Bridge on a conference call convened by Coastal OES at 2100 on 7 November. DEM notified relevant CCSF departments' leadership of the confirmation via email and scheduled a conference call at 0830 on 8 November. This was the first of a series of conference calls conducted by DEM during the response with executive/policy level individuals from various CCSF departments. Following each call, emails were sent to conference call participants summarizing the discussions that took place as well as providing dates and times for future meetings and conference calls.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Pre.Aid 5.1.1*; Share intelligence and/or information across disciplines in a timely and effective manner.

**Analysis:** Conference calls were helpful and effective coordination tools. Call frequency and agency representation on the calls was sufficient during the response. However, subject matter experts were occasionally needed on these calls as well. Their absence led to delays in immediate response capability. Also, conference call participants were often unfamiliar with the capabilities of other departments. A two-tiered system should be used in order to distribute incident information to department heads as well as to operational level staff. Often, the information provided on the calls and follow-on email summaries did not reach the operational level staff.

The structure of conference calls could also be improved by using a pre-formatted, standardized agenda that is familiar to conference call participants. Incident Command System (ICS) planning meetings, which utilize a standard agenda, would provide a good template to standardize and guide future CCSF conference calls. Protocols should be developed for conference calls and made available to and agreed upon by involved parties. This will help to lessen the tendency of participants to stray from the agenda.

#### Lessons Learned and Associated Recommendation(s):

1. Conference calls are effective coordination tools, but can be improved upon.
  - a. **Recommendation:** Create a protocol to include subject matter experts and/or operational level staff on conference calls.
  - b. **Recommendation:** Develop a standard agenda and protocol for notification and conduct of conference calls.



**Observation 3.2: (Strength)** Planning for volunteer management began on Friday, 9 November at a meeting convened by DEM at the EOC with a number of CCSF department representatives, Board of Supervisors aides, and representatives from the San Francisco Volunteer Center and 311. Meeting attendees prepared response strategies and developed written operations plans for the coordination of volunteer activities. CCSF department representatives were also asked to compile a list of their department's Hazardous Waste Operations and Emergency Response (HAZWOPER) trained staff members and to put them on standby. In addition, a volunteer outreach section was established and made responsible for communicating volunteer activities by insuring 311 received regular updates and preparing press releases.

Operational level meetings continued daily through 11 November at the EOC as information and opportunities for volunteers evolved. Each meeting lasted four to six hours. Beginning on 11 November, information developed was sent to the Board of Supervisors, Disaster Council members, and department Disaster Preparedness Coordinators.

### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Pre.Aid 5.1.1*; Share intelligence and/or information across disciplines in a timely and effective manner.

**Analysis:** The operational level workgroup meetings were effective communication tools for gathering information and pre-planning. CCSF began preparing for the management of volunteers prior to receiving notification of their approved use for shoreline cleanup. This enabled CCSF to implement its volunteer management plan immediately upon receiving this notification. CCSF departments continued to work together to address issues as they occurred, including the cleanup of the Bay, beach cleanup, the volunteer effort, and protection of the waterfront.

### Lessons Learned and Associated Recommendation(s):

1. CCSF departments effectively worked together to develop response strategies.
  - a. **Recommendation:** Capture response strategies as the basis of a CCSF Volunteer Management Plan.
  - b. **Recommendation:** Integrate CCSF department HAZWOPER trained staff into PeopleSoft database.



## CAPABILITY: WMD/HAZARDOUS MATERIALS RESPONSE AND DECONTAMINATION

**Capability Summary:** Weapons of Mass Destruction (WMD)/Hazardous Materials Response and Decontamination is the capability to assess and manage the consequences of a hazardous materials release, either accidental or as part of a terrorist attack. This capability supports Emergency Support Function (ESF) #10: Oil and Hazardous Materials Response.



SF DEM

A Unified Command structure was established on the morning of 8 November 2007 in accordance with the *San Francisco 2005 Area Contingency Plan (ACP)* and the *Federal Region 9, Regional Contingency Plan (RCP)*. The U.S. Coast Guard (USCG), California Department of Fish and Game (DFG), and The O'Brien's Group (contractor to Cosco Busan) were responsible for the management, planning, and

coordination of the oil spill response. Local representatives from cities and counties bordering the San Francisco Bay were deemed “agency representatives” within the command structure rather than members of Unified Command, which proved divisive. CCSF was not provided the opportunity to be involved in prioritization decisions made by Unified Command resulting in the concern that local issues were not being considered. The following section describes CCSF’s contributions to Unified Command and also describes how decisions made by Unified Command impacted CCSF’s response.

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### **Activity 1: Direct WMD/Hazardous Materials Response and Decontamination Tactical Operations**

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**Observation 1.1: (Strength and Area for Improvement)** The command post for the M/V *Cosco Busan* Oil Spill was established on the morning of 8 November at Fort Mason by the USCG. The command structure utilized Unified Command, which included the USCG, DFG, and the O’Brien’s Group. The San Francisco Department of Emergency Management (DEM) sent a representative to the command post upon activation and continued to have a representative present throughout the response. In addition to DEM, other CCSF departments sent representatives to the command post at various times throughout the response. Those departments are as follows:

- Board of Supervisors
- Department of Building Inspection
- Animal Care and Control
- Recreation and Parks Department
- Port of San Francisco
- Department of Public Health

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- San Francisco Fire Department
- San Francisco Police Department

Local government representatives were deemed “agency representatives” and were asked to interface with the command structure through the Liaison Officer. Initially, CCSF representatives had difficulty procuring information from the Liaison Officer, who at times was not present or accessible. Maps, briefings, incident action plans (IAPs), situation status reports (SitStats), etc. were not provided to agency representatives during the early days of the response. The situation improved somewhat following a meeting between the CCSF leadership and the USCG Commander at Unified Command (11/9/07). Subsequent to that meeting, updates, meeting summaries, and status reports were made available on a sporadic basis to CCSF representatives at the command post.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Res.B2b 3.4*; Implement a hazardous materials response (e.g., implement plans, programs, agreements, and requirements)
2. San Francisco 2005 Area Contingency Plan
3. Federal Region 9; Regional Contingency Plan, October 2005, Section 1002 Response Policies and Authorities, pg 5.

**Analysis:** The command structure implemented during the response was in accordance with the ACP and the RCP. The RCP states “During responses to marine oil spills, local agencies are not usually involved specifically as part of a Unified Command, but provide agency representatives who interface with the command structure through the Liaison Officer or the state representative.” DEM moved quickly to establish a presence at the command post; however the position of “agency representative” within the command structure was not given involvement in any policy or prioritization decisions made by Unified Command. In addition, lack of information hampered CCSF’s ability to understand the response efforts in relation to the City and County of San Francisco.

#### Lessons Learned and Associated Recommendation(s):

1. The integration of local government into Unified Command during oil spill response needs to be improved.
  - a. **Recommendation:** Work to improve the role of local government in the Area Contingency Plan.

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**Observation 1.2: (Strength)** DEM provided the command post at Fort Mason with equipment (cell phones, computers, printers, etc.) to improve the information technology capability at the facility. DEM also arranged for the use of the San Mateo Communications Van which provided communications support for several days during the early part of the response.

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In addition, the Department of Building Inspection (DBI) RV was utilized at Fort Mason as a mobile command post for Bay Area agency representatives.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Res.B2b 3.2.7*; Coordinate technical, administrative support, personnel, facilities, communications and information.

**Analysis:** The Fort Mason facility designated as the command post could not sufficiently support operations. There was little network capability and no place for Bay Area agency representatives to set up and operate. The DBI RV and San Mateo Communications Van were critical resources used throughout the response by a number of San Francisco and other Bay Area agency representatives. The equipment provided by CCSF to the command post was primarily used in the Joint Information Center and served to significantly improve communications. CCSF readily provided resources and served to supplement command and control capabilities.

#### Lessons Learned and Associated Recommendation(s):

1. CCSF has the capability to coordinate and provide resources to supplement command and control activities.
  - a. **Recommendation:** None.

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**Observation 1.3: (Strength)** The command post at Fort Mason had to be relocated due to a previously scheduled event at the facility over the weekend of 10-11 November. DEM was asked by Unified Command to identify and arrange for a new command post location. Working with the Treasure Island Development Authority, Department of Public Works (DPW), and Department of Telecommunications and Information Services (DTIS), DEM arranged for a large facility on Treasure Island to be used as the new command post. The transition from Fort Mason to Treasure Island was completed on 10 November at 0600.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Res.B2b 3.2.7*; Coordinate technical, administrative support, personnel, facilities, communications and information.

**Analysis:** CCSF fully supported command operations by establishing the facility necessary to conduct incident command. DPW worked overnight (9/9/07) to renovate the abandoned building designated as the new command post location on Treasure Island. In addition, DTIS brought all necessary information technology (internet, fax machines, copiers, etc.) to the building throughout the night in preparation for the arrival of command staff the following morning.

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### Lessons Learned and Associated Recommendation(s):

1. Facilities that can be utilized for command posts should be pre-identified.
  - a. **Recommendation:** Pre-identify and list existing facilities within CCSF that can be used as command posts.

**Observation 1.4: (Area for Improvement)** The initial incident priorities and objectives made by Unified Command did not engage local resources or address local concerns. The resources offered by CCSF, including trained incident management personnel to assist in the



SF Port

Unified Command and HazMat-trained staff to assist with shoreline cleanup, were not accepted. In addition, San Francisco Port officials requested the involvement of local/private fishing vessels for cleanup immediately upon confirmation of the extent of the spill. Unified Command authorized the use of fishing vessels late Friday evening (11/9/07), but due to a previous commitment, the fishermen were not able to respond until Sunday (11/11/07). Animal Care and Control (ACC) self deployed to Unified Command, identified themselves to the State Department of Fish and Game (DFG), and offered their resources/assistance in the rescue of oiled birds. Although DFG was very gracious to ACC, Unified Command did not include them in their communication network and did not accept offers of assistance. The San Francisco Fire Department offered qualified personnel, the fireboat and other resources to support the efforts.

### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Res.B2b 3.2.5.1*; Assess hazardous material situation and assist Incident Command (IC) and planning section in developing incident action plan (IAP).
2. U.S. Coast Guard Sector San Francisco 2005 Area Contingency Plan
3. Federal Region 9; Regional Contingency Plan, October 2005

**Analysis:** CCSF assets and priorities were not initially utilized/recognized by Unified Command and therefore were not included in the early Incident Action Plans (IAPs). Unified Command did not provide an explanation as to why offered resources were not being utilized. This caused frustration, as City leadership was advocating for use of local resources. The use of local resources would have added cohesiveness to the event management and strengthened the overall response capability.

### Lessons Learned and Associated Recommendation(s):

1. The integration of local government into Unified Command during oil spill response needs to be improved.
  - a. **Recommendation:** CCSF should take the appropriate steps to share information and plans and to exercise on a regular basis with Federal and State partners.



## CAPABILITY: EMERGENCY OPERATIONS CENTER MANAGEMENT

**Capability Summary:** Emergency Operations Center (EOC) management is the capability to provide multi-agency coordination (MAC) for incident management by activating and operating an EOC for a pre-planned or no-notice event. EOC management includes: EOC activation, notification, staffing, and deactivation; management, direction, control, and coordination of response and recovery activities; coordination of efforts among neighboring governments at each level and among local, regional, State, and Federal EOCs; coordination of public information and warning; and maintenance of the information and communication necessary for coordinating response and recovery activities.

The San Francisco EOC was partially activated from Tuesday, 13 November until Saturday, 17 November 2007. Upon activation of the EOC, a number of personnel and resources were dedicated to the management of event information. This provided relief to the San Francisco Department of Emergency Management (DEM) staff involved in response to the oil spill and enhanced the structure of volunteer operations. The activation of the EOC provided benefits to many San Francisco departments involved with the oil spill, including the ability to coordinate and communicate all response-related activities through a single point and receive timely information updates.



SF Port

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### Activity 1: Activate EOC

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**Observation 1.1: (Strength)** The San Francisco EOC partially activated at 0700 on Tuesday, 13 November to provide structure and additional resources to the continuing volunteer management efforts. The EOC's primary missions were:

- Structure local communication efforts with CCSF departments, the Board of Supervisors, and others,
- Continue to support volunteer management and deployment for the cleanup of San Francisco area beaches, and
- Provide support to the CCSF Agency Representative at the Unified Command Post.

### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.B1c 4*, Activate the EOC.

**Analysis:** After the need for an EOC activation was determined, the EOC was staffed and commenced operations in a timely manner. The activation of the EOC proved beneficial to the coordination and communications of San Francisco departments that were involved in oil spill response efforts. Prior to EOC activation, operations and information-gathering among San Francisco departments were at times redundant. For example, the San Francisco Port, the



Recreation and Parks Department (RPD) and the Public Utilities Commission (PUC) each separately determined a need to post ‘no fishing’ signs on contaminated beaches. Because there was no central communication point, departments acted independently of each another in their efforts to designate what message would be stated on signs, the languages it should be written in, and how the signs would be produced and posted.

After the EOC was activated, incident-related coordination and communication was facilitated through a single point and Incident Actions Plans (IAPs) were developed. This clarified the roles of each department and enabled more efficient and effective response efforts among relevant San Francisco departments. Information flow and inter-departmental coordination would have improved earlier in the response period if the EOC had been activated when the magnitude of the incident’s response requirements and duration were initially realized.

### **Lessons Learned and Associated Recommendation(s):**

1. Information flow and inter-departmental coordination would have improved earlier in the response period if the EOC had been activated when the magnitude of the incident’s response requirements and duration were initially realized.
  - a. **Recommendation:** Upon notification of an incident, consider the magnitude and likelihood of extended operations when determining need for an EOC activation; activate to the appropriate level in a timely manner.

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### **Activity 2: Gather and Provide Information**

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**Observation 2.1: (Area for Improvement)** No official notification was sent from the EOC to relevant department representatives stating that the EOC had been activated.

### **Reference(s):**

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.B1c 5.1*, Make proper connections with other agencies involved in incident

**Analysis:** When the EOC was initially activated, no official statement was sent out to notify relevant departments. As a result, several departments were unaware of the EOC activation and corresponding details. This caused confusion among departments and perpetuated coordination issues for longer than necessary.

### **Lessons Learned and Associated Recommendation(s):**

1. Official notification of EOC activation should be sent from the EOC to relevant departments, elected officials, and other involved non-governmental organizations..
  - a. **Recommendation:** Review and update existing protocol for notification of EOC activation as needed.

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- b. **Recommendation:** Upon EOC activation, ensure that notification protocol is followed.
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**Observation 2.2: (Strength)** Incident information from Unified Command was received by the Plans Section at the San Francisco EOC. This information was then distributed by the Plans Section, Situation Status Unit in a Situation Status Report (SitStat) twice daily. There was no list of pre-designated personnel to receive SitStats. A list was developed upon activation of the EOC and included all supervisors, department heads, and disaster coordinators.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.B1c 5.1*, Make proper connections with other agencies involved in incident; *Res.B1c 5.2.2*, Coordinate with local, county, regional, State, and Federal EOCs to collect/share data on incident situation.

**Analysis:** Although information received from Unified Command was often limited or not current, the EOC Plans Section was diligent in its efforts to gather and disseminate incident information in a timely manner. The distribution of SitStats twice daily to relevant departments kept those involved in the oil spill response knowledgeable of incident information as it became available. However, it would have been beneficial to the Situation Status Unit to have had a pre-designated list of personnel to be included in SitStats distribution.

#### Lessons Learned and Associated Recommendation(s):

1. The frequent distribution of SitStats from the EOC Plans Section kept the departments involved in the oil spill response knowledgeable of incident information as it became available.
    - a. **Recommendation:** Establish protocol of consistently communicating incident information to relevant departments as a standard operating procedure (SOP) for use in EOC communications.
  2. A list of personnel pre-designated to receive SitStats would benefit response.
    - a. **Recommendation:** Develop a list of personnel (individuals and/or departments) pre-designated to receive all Situation Status Reports generated from the EOC.
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**Observation 2.3: (Strength)** A Volunteer Outreach Coordinator was designated on 10 November, prior to the activation of the EOC, to interface with and provide information to volunteer organizations. Once activated, the position of Volunteer Outreach Coordinator was integrated into the EOC structure in the Operations Section, Volunteer Unit. This integration further enhanced coordination efforts through the provision of additional resources. Information updates continued to be delivered to volunteer organizations as they became available. These organizations posted oil spill volunteer information received from the Volunteer Outreach

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Coordinator on their websites, and communicated any relevant information to the EOC. Oil spill information was communicated among the following volunteer organizations:

- 211
- Baykeeper
- Golden Gate Audubon Society
- Kill the Spill
- Neighborhood Emergency Response Team (NERT)
- Oiled Wildlife Care Network
- SF Connect
- Save the Bay
- Surfrider
- The Volunteer Center
- Zuna Surf

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.B1c 5.2.3*, Coordinate with non-government agencies and/or private sector to collect/share data on incident situation.

**Analysis:** The designation of a Volunteer Outreach Coordinator provided a consistent means of gathering information from and distributing information to the volunteer organizations involved in oil spill cleanup efforts. This proved extremely beneficial to volunteer operations, as this information distribution kept the public aware of training opportunities and the logistics of volunteer cleanup events. Information submitted to the EOC from volunteer organizations proved beneficial to EOC operations as well.

#### Lessons Learned and Associated Recommendation(s):

1. During an event where volunteers are utilized, volunteer groups should receive consistent direct communications from the EOC.
  - a. **Recommendation:** Establish a protocol for communicating information to volunteer groups as an SOP for use in volunteer communication plans.

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### **Activity 3: Direct Emergency Operation Center's Tactical Operations**

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**Observation 3.1: (Strength and Area for Improvement)** A unique EOC structure was developed based on functions needed for the oil spill response. An EOC Manager and a Public Information Officer (PIO) were designated, as well as the following sections and corresponding branches/units:

- **Finance**
- **Plans**
  - Situation Status Unit
  - Documentation Unit

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- **Operations**

- City Division (Volunteer Unit: Beach Operations/Reconnaissance, Coordination, Outreach)
- Treasure Island (Unified Command) Division (Agency Representative: Support)

### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.B1c 3.1.1*, Ensure that all appropriate functional areas are staffed.

**Analysis:** Upon activation, the EOC drafted an organizational chart that outlined the positions to be activated, and identified who would be staffing each. EOC positions were staffed by individuals with appropriate training. The EOC staff worked very well together and accomplished all tasks assigned throughout the activation. Many were involved in the operations meetings that took place prior to the activation of the EOC on 9-11 November.

The EOC structure used during the oil spill response was modified to address the unique requirements of the event. However, the standard all-hazards EOC structure would have been well suited for this incident. If a more formal activation had occurred, additional support would have been available. The partial activation did not include A, B, or C staff to exchange shifts. Core EOC staff were therefore assigned to work 12 hour shifts for each day the EOC was open. Relief personnel had also not been assigned, which created difficulty in providing breaks for assigned staff.

### Lessons Learned and Associated Recommendation(s):

1. The EOC structure can be scalable to meet the needs of a situation and still result in a successful outcome.
  - a. **Recommendation:** None.
2. The amount of time the EOC is likely to remain active should be considered when determining the level and staffing requirements of an activation. This will ensure that EOC staff receives sufficient shift relief.
  - a. **Recommendation:** Thoroughly assess the amount of time the event may require the EOC to remain active. If it is determined that it may be activated for several days, consider either fully activating the EOC with staff working in shifts, or if partially activating, ensure that each staff member has backup relief as necessary.
3. The proposed ESF/ICS hybrid structure in the revised Emergency Response Plan would have been well suited to manage this event.
  - a. **Recommendation:** None.
4. In the event of an EOC activation, there should be a sufficient amount of qualified members in pre-identified Incident Management Teams, particularly on holidays and weekends, to ensure adequate staffing depth to exchange shifts.
  - a. **Recommendation:** Train additional staff to ensure adequate EOC staff coverage.

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- b. **Recommendation:** Utilize future EOC activations as an opportunity for additional staff to shadow operations.
- c. **Recommendation:** Develop interdisciplinary Incident Management Teams and have an on call roster for weekends and holidays.



## CAPABILITY: VOLUNTEER MANAGEMENT AND DONATIONS

**Capability Summary:** Volunteer and Donations Management is the capability to effectively coordinate the registration and management of unaffiliated volunteers and unsolicited donations in support of domestic incident management. Unsolicited donations were not a component of the M/V *Cosco Busan* Oil Spill response efforts.

Immediately after the oil spill took place, concerned San Francisco citizens expressed a desire to assist with oil spill cleanup efforts. However, because the *San Francisco 2005 Area Contingency Plan (ACP)* details that volunteers are not to be used in a HazMat situation, Unified Command resisted use of volunteers for oil spill cleanup due to potential violations of regulations. In an attempt to address concerned citizens, the Department of Fish and Game (DFG) held a public informational meeting on Saturday, 10 November 2007, explaining that only sufficiently credentialed and trained individuals were permitted to handle hazardous materials per the Oil Spill Response Plan. The San Francisco Department of Emergency Management (DEM) organized a meeting with City and County of San Francisco (CCSF) staff from various departments to develop an alternate method of assisting with the incident. The Department of Public Works (DPW) took the lead in organizing and coordinating a beach cleanup for Heron's Head Point Park on 11 November. Although the beach was as yet unaffected by the oil spill, a number of oiled birds were recovered by Animal Care and Control (ACC) staff. Pre-cleaning also facilitated any future cleanup efforts should oil be found there.



Regardless of directions given by Unified Command to volunteers not to handle oil, San Francisco beaches remained open and many citizens continued to go to oiled beaches with gloves and plastic sacks to pick up tarballs. As it became evident that volunteers were going to clean oiled beaches regardless of receipt of permission, several San Francisco departments met at the Emergency Operations Center and took a lead role in developing a volunteer plan to coordinate these volunteer efforts.

On the evening of Sunday, 11 November, San Francisco's volunteer management plan, which included assistance from the Environmental Protection Agency (EPA), DFG, and Golden Gate National Recreational Area for providing training, was approved by Unified Command. The plan included providing modified Hazardous Waste Operations and Emergency Response (HAZWOPER) training to volunteers, followed by the supervised cleaning of Ocean Beach. Beach cleanup supervisors consisted of fully credentialed HAZWOPER City employees primarily from the San Francisco Public Utilities Commission (PUC). The first training session took place on Veteran's Day (11/12/07) where 177 people were trained and credentialed as Disaster Service Workers (DSWs). Overall, three training sessions were conducted and in excess of 1,500 volunteers were registered as DSWs. Ocean Beach cleanup efforts continued for several days under the supervision of PUC with assistance from DPW, Department of Parking and Traffic, Municipal Railway, and through coordination with the San Francisco Emergency Operations Center (EOC).



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### **Activity 1: Develop and Maintain Plans, Procedures, Programs and Systems**

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**Observation 1.1: (Strength)** Due to the insistence of volunteers that they be allowed to clean oiled beaches, San Francisco developed a volunteer management plan that would enable San Francisco volunteers to assist with oiled shoreline cleaning. Plan development began during a San Francisco department meeting held on Friday, 9 November at the San Francisco Department of Emergency Management (DEM), and continued for several days.

According to the ACP, “the determination to use volunteers at an incident is the responsibility of the Unified Command.” The San Francisco volunteer management plan was initially declined by Unified Command, but was later approved on the evening of Sunday, 11 November. The plan detailed that volunteers would be given four-hour HAZWOPER training by the U.S. Environmental Protection Agency (EPA) and credentialed as Disaster Service Workers (DSWs) prior to being permitted to clean oiled beaches. Immediately following the plan’s approval that evening, the first training session was organized to take place the next morning at the Irish Cultural Center. On-call San Francisco employees were contacted to provide support.

#### **Reference(s):**

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Res.Ble 1.1*, Develop NIMS-compatible plans, policies, and protocols for coordinating the management of unaffiliated volunteers
2. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Res.Ble 1.4.2*, Develop plans to coordinate with local/state/tribal/federal government, nongovernmental organizations, and private entities to effectively use unaffiliated volunteers, unsolicited donated goods and undesignated cash donations.
3. San Francisco 2005 Area Contingency Plan, section 9000, p. 9000-24.

**Analysis:** CCSF departments effectively demonstrated an ability to interact with Federal and State partners in the resolution of contentious issues and the execution of plans for volunteer use during an oil spill. All departments involved in the development of the oil spill volunteer plan collaborated efficiently and effectively. They successfully produced a plan that was compliant with the requirements of Unified Command and that met the demands of the public.

There is currently no volunteer management element for oil-spill cleanup in the ACP or in the San Francisco Oil Spill Plan. As a result, it was necessary to develop a volunteer management plan in the midst of an evolving event, which presented an unnecessary distraction and delayed the utilization of volunteers. In the future, it would be beneficial to San Francisco to have a pre-determined volunteer plan detailing standard operating procedures (SOPs) based on the oil spill volunteer management plan developed during this incident. The plan should designate a lead agency for the management of volunteers and include procedures for just-in-time training. It



would also be advantageous to pre-identify a list of large venues that may be contacted on short notice to be used for volunteer activities. Any identified SOPs should be reflected in the CCSF Emergency Response Plan (ERP).

Further, it would be beneficial to update hazard-specific plans to include just-in-time volunteer and DSW training materials and protocols where appropriate.

### Lessons Learned and Associated Recommendation(s):

1. CCSF departments effectively demonstrated an ability to interact with Federal and State partners in the resolution of contentious issues and the execution of plans for volunteer use during an oil spill.
  - a. **Recommendation:** None.
2. Because developing a plan in the midst of an evolving event presents an unnecessary distraction and may delay operations, a volunteer management plan should be pre-established.
  - a. **Recommendation:** Develop a volunteer management plan that identifies:
    - A lead agency to head volunteer management coordination
    - Volunteer management SOPs
    - Just-in-time credentialing procedures and protocols that are suited to any scenario
    - Pre-identified venues that may be utilized on short notice for volunteer activities such as training, including 24-hour contact information for each.
3. Hazard-specific plans should be updated to include just-in-time volunteer and DSW training materials and protocols where applicable and appropriate.
  - a. **Recommendation:** Update hazard-specific plans to include just-in-time volunteer and DSW training materials and protocols as necessary.
4. The CCSF ERP should include volunteer management procedures developed from lessons learned during this event.
  - a. **Recommendation:** The current ERP should be reviewed and updated as necessary based on lessons learned from this event.

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## Activity 2: Organize Volunteers and Assign Them to Disaster Relief Efforts

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**Observation 2.1: (Strength)** The San Francisco Department of Human Resources (DHR) conducted all volunteer registration for each day of volunteer training. On-call DHR staff were notified the night prior to the first volunteer training (the evening of Sunday, 11 November). Staff was quick to respond, and many came to assist with registration at the Monday, 12 November volunteer training. Throughout three separate



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volunteer training sessions, over 1,500 volunteers were processed by DHR. Volunteers were credentialed with photo identification cards and registered as San Francisco DSWs, and were input into DHR's PeopleSoft system. To credential volunteers, DHR successfully utilized processes already in place designated for the registration of DSWs.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.B1e 5.2.2*, Conduct pre-deployment/pre-assignment briefing for volunteers.

**Analysis:** DHR did an excellent job of fulfilling its responsibility of credentialing and registering volunteers prior to volunteer cleanup efforts. DHR successfully utilized registration processes already in place for the credentialing of volunteers. It would be beneficial in the future to train a higher volume of staff in these procedures in the event that an incident requires an increased amount of DSW registrants.

#### Lessons Learned and Associated Recommendation(s):

1. DHR was able to efficiently conduct volunteer registration as many of its employees were familiar with DSW registration processes.
  - a. **Recommendation:** Consider training additional staff to ensure that a higher number of DHR employees are familiar with the DSW registration processes at any given time.
2. Over 1,500 volunteers were successfully registered as DSW's.
  - a. **Recommendation:** Follow up with credentialed volunteers who assisted with oil spill cleanup and extend further opportunities to contribute to the community.

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### Activity 3: Coordinate Management for Unaffiliated Volunteer Management

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**Observation 3.1: (Strength)** San Francisco DSW credentialed volunteers participated in the cleanup of three different beaches: Heron's Head Park, Crissy Field, and Ocean Beach.



On 10 November, DFG provided an informational session to volunteers. DEM facilitated the event and created a volunteer database of those in attendance. That afternoon DEM coordinated a meeting at the EOC where the Heron's Head Park volunteer opportunity was developed. Volunteers in the database and volunteer organizations were contacted by phone and/or email and advised of the opportunity. A press release was also crafted and released for the 11 November, Heron's Head Park cleanup event. The event was coordinated by DPW and food was provided by SF

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Connect. Over 100 volunteers participated in the cleanup of Heron's Head Park, a beach unaffected by the oil spill. Approximately eight tons of debris were collected by volunteers.

San Francisco PUC took a lead role in working with volunteers at the Crissy Field and Ocean Beach cleanup events. PUC's appropriately trained workforce led groups of volunteers during the cleanup efforts. Food for volunteers was initially provided by SF Connect and later coordinated through the EOC.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Res.B1e 3.4.1*, Coordinate voluntary support/activities with community/tribal leadership and liaise with local agencies.

**Analysis:** The volunteer operations at Heron's Head Park, Crissy Field, and Ocean Beach went well. The events were well-coordinated and all departments involved exhibited a willingness to assist and collaborate with one another. PUC staff were well-trained and successfully managed volunteers at the multi-day Ocean Beach cleanup. PUC also coordinated well with the EOC to acquire any needed resources.

#### Lessons Learned and Associated Recommendation(s):

1. The volunteer operations at Heron's Head Park, Crissy Field, and Ocean Beach were well-coordinated and well-managed.
  - a. **Recommendation:** None.

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**Observation 3.2: (Strength and Area for Improvement)** A fully functional Incident Command Post (ICP) was established at Ocean Beach to coordinate cleanup operations. An Incident Command System (ICS) organizational chart was developed to provide structure and coordinate volunteer management staff. Efforts could have been further organized if Incident Action Plans (IAPs) had been implemented.

PUC brought computers to the ICP to more efficiently organize operational information. PUC also developed logistics request forms to track resources. The ICP took two to four hours each day to set up and take down.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Res.B1e 4.1.3*, Establish a volunteer and donations coordination center (VDCC).

**Analysis:** Due to the longevity and magnitude of the Ocean Beach operation, the utilization of an ICS-structured ICP was a best practice. The provision of computers by PUC further enhanced the functionality of the ICP. The use of forms was also beneficial. However many volunteer management staff were unsure of what forms to use, and therefore created their own. Volunteer management operations would have been enhanced if either forms or a protocol for the use of



previously established forms was designated. In addition, the development of a daily IAP would have helped to better organize Ocean Beach operations. The distribution of an IAP to response personnel facilitates meeting operational period objectives, provides contact information and safety warnings, and establishes management/communications structure.

The implementation of a volunteer management staff timekeeping protocol at the ICP would have aided employees and employers with record keeping. This may be achieved by adding log-in and log-out times to the sign-in sheets and/or creating a specialized timekeeping form. Also, timekeeping responsibilities may be given to group leaders to ensure accountability.

Set-up and take-down of the ICP each day ensured the safety of all critical equipment during times it was not being used. However, an unnecessary amount of time was spent at the beginning and end of each shift to do this. In the future it would be advisable to use mobile office cases or secure cargo containers to store critical equipment. Alternatively, one of the several CCSF mobile command post vehicles could have been requested for use as a semi-permanent facility. This would have provided secure storage, mobility, power and communications capabilities. Equipment utilized and needed during ICP operations should be documented and incorporated into a resource list for future events. The list should, at minimum, include equipment source and contact information for acquisition.

Finally, daily operations could have been improved by a debrief of volunteers and volunteer staff following each event to ensure that any strengths or areas for improvement are discussed on a daily basis.

### **Lessons Learned and Associated Recommendation(s):**

1. Volunteer management efforts at Ocean Beach could have been better organized if an Incident Action Plan had been implemented.
  - a. **Recommendation:** Utilize IAPs for the increased organization of response activities.
  - b. **Recommendation:** Establish forms for use in management of future volunteer operations.
2. A timekeeping protocol for volunteer management staff should have been implemented at the ICP.
  - a. **Recommendation:** Establish an employee timekeeping protocol for use at various command locations during incidents.
3. An unnecessary amount of time was spent at the beginning and end of each shift to set up and take down the ICP.
  - a. **Recommendation:** In future events when an ICP is used for several days, develop protocols for using mobile office cases or secure cargo containers to store ICP equipment overnight rather than setting up and taking down the ICP each day.
  - b. **Recommendation:** In the event that a mobile ICP is needed, develop protocols for requesting a mobile command post from a department that is equipped for use as a semi-permanent facility.

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- c. **Recommendation:** Document the equipment that was utilized and needed during ICP operations and develop a resource list as reference for future incidents.
  4. A debrief of volunteers and volunteer staff following each event should have been conducted to ensure that any strengths or areas for improvement were discussed on a daily basis.
    - a. **Recommendation:** Establish a protocol to debrief volunteers and volunteer staff following volunteer events in order to gather pertinent feedback and potentially improve daily operations.

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## CAPABILITY: EMERGENCY PUBLIC INFORMATION AND WARNING

**Capability Summary:** Develop, coordinate, and disseminate accurate alerts and emergency information to the media and the public prior to an impending emergency and activate warning systems to notify those most at-risk in the event of an emergency. By refining its ability to disseminate accurate, consistent, timely, and easy-to understand information about emergency response and recovery processes, a jurisdiction can contribute to the well-being of the community during and after an emergency.



Unified Command established a Joint Information Center (JIC) for the coordination and dissemination of information to the public and media concerning the oil spill response and recovery. The City and County of San Francisco (CCSF) had a presence in the JIC, although the role of representatives from affected jurisdictions was not made apparent. A more clearly defined mechanism for the transfer of information from Unified Command and CCSF concerning public information is needed. Internal to CCSF, press releases were

distributed containing information specific to the City. The development of signage for beach closures, etc. was accomplished through an ad hoc coordination process. CCSF would benefit from the development of a system/structure for the management and coordination of public information to include protocols for Public Information Officers (PIOs) when the EOC is not activated.

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### **Activity 1: Establish Joint Information Center**

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**Observation 1.1: (Strength and Area for Improvement)** On Thursday, 8 November 2007, an informal JIC was in place at Unified Command without specific information production and sharing protocols. A more formal JIC for the incident was established on 9 November at Fort Mason, but continued to be hampered by insufficient infrastructure and staffing.

The San Francisco Department of Emergency Management (DEM) sent a PIO to the JIC who reported there daily through Sunday, 11 November. DEM also provided multiple essential items, such as cell phones, computers and office supplies that were not available through Unified Command. Additionally, DEM arranged for the Mayor's Press Office to perform essential functions of a JIC (such as media monitoring) from an offsite location due to the lack of communications infrastructure at Fort Mason.

Additional PIO support was provided by the Mayor's Office and the Department of Public Works (DPW) to Unified Command over the weekend of 10-11 November. The Port of San Francisco PIO also reported to the JIC, but was not utilized. The role of local PIOs in the JIC

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was not well defined. Often, CCSF PIOs took on more of a liaison role serving as a conduit for information.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Task: *Res.B1f 6.2.2*, Coordinate among Joint Information Centers (JICs) at all levels of government.
2. Federal Region 9; Regional Contingency Plan, October 2005, Section 2003.03.1(a), page 74.

**Analysis:** The *Federal Region 9, Regional Contingency Plan (RCP)* states that “the JIC is normally staffed with representation from the Federal On-Scene Coordinator, state and local incident command authorities, responsible party and other agencies in Unified Command as appropriate.” The plan does not, however, clearly define the role of PIOs from local responding entities.

Although roles were not clearly defined, various tasks were taken on and completed by CCSF PIOs in order to assist with the operation of the JIC. In addition, interactions with the U.S. Coast Guard (USCG) PIO enabled access to information that may not have otherwise been made available. This further reinforced the need for a CCSF presence at the JIC.

#### Lessons Learned and Associated Recommendation(s):

1. The role of PIOs in a JIC should be better defined and understood by responding PIOs.
  - a. **Recommendation:** Better define the role of PIOs from local responding organizations within the JIC and provide training to PIOs.
  - b. **Recommendation:** Incorporate lessons learned from this event into CCSF JIC plans
  - c. **Recommendation:** Increase depth of PIOs trained to work in a JIC and develop pre-identified teams for emergency staffing.

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### Activity 2: Manage Emergency Public Information and Warnings

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**Observation 2.1: (Strength and Area for Improvement)** The Unified Command JIC served as the focal point for the coordination and dissemination of information to the public and media concerning the comprehensive oil spill response efforts. Therefore, CCSF was not a major source for the media, and press releases were primarily handled by the JIC. In some cases, CCSF released information on the response efforts specific to the City. On 8 November, for example, the San Francisco Department of Public Health (DPH) coordinated with Unified Command to release a statement regarding the risks of oil exposure to the public. Additionally, a group of PIOs from various CCSF departments collaborated on information released from the

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Mayor's Office, however there was no clear designation of a Lead PIO (agency/person) or a structure for coordinating public information internal to CCSF.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.BIf 3.1.1*, Coordinate internal information programs.
2. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.BIf 3.3.1*, Plan and coordinate warnings, instructions and information updates.
3. U.S. Department of Homeland Security (DHS) National Response Plan, December 2004; page 68.

**Analysis:** An improved system/structure for the management and coordination of public information would further improve the CCSF's capability to provide timely, accurate, and up-to-date information. This system/structure would also need a defined method to correspond and integrate with the JIC for events in which CCSF is not a lead agency.

As defined by the National Response Plan, "a Joint Information System (JIS) integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during a crisis or incident operations." The use of a CCSF JIS in an event such as this should be considered for increased coordination when releasing information.

#### Lessons Learned and Associated Recommendation(s):

1. An improved system/structure for the management and coordination of public information is needed.
  - a. **Recommendation:** Develop an improved system/structure for the management and coordination of public information during incidents affecting CCSF, to include protocols for use when the EOC is not activated.
  - b. **Recommendation:** Identify a mechanism for information transfer between CCSF and Unified Command concerning public information.

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**Observation 2.2: (Area for Improvement)** The limited number of PIOs were overwhelmed by the large number of requests for PIO support.

#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.BIf 3.1.1*, Coordinate internal information programs.

**Analysis:** Currently there are an insufficient number of trained PIOs for deployment to a standing JIC or field location (i.e. volunteer locations) within CCSF. The number of trained PIOs with responsibility to assist during emergencies should be expanded.



### Lessons Learned and Associated Recommendation(s):

1. Additional trained PIOs are needed for incident response.
  - a. **Recommendation:** Train additional personnel to serve as back-up staff to existing Public Information Officers.
  - b. **Recommendation:** Develop a list of trained PIOs.

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### Activity 3: Issue Public Information, Alerts/Warnings, and Notifications

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#### Observation 3.1: (Area for Improvement)

Signage for beach closures and no fishing/swimming were posted in order to communicate important safety information to the public. The signs were translated into multiple languages, produced in high volume, and posted along harbors and beaches. A number of CCSF departments participated in the production of signage to promote public safety and reduce the risk of exposure to oil; however there was some duplication of efforts due to a lack of formal coordination.



#### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.BIf 5.2.5*, Provide emergency information to the public that is verified, accurate, and as up-to-date as possible.
2. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.BIf 5.2.1*, Disseminate prompt, accurate information to the public in languages appropriate to the cultural and ethnic needs of the populations in the area and formats/media that take into account special needs/disabilities.
3. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.BIf 5.2.2*, Disseminate critical health and safety information designed to alert the public to clinical symptoms and reduce the risk of exposure to ongoing potential hazards.

**Analysis:** Signage efforts could have been better coordinated to reduce redundancy and increase message uniformity. There was a disconnect between departments regarding which agency(ies) are responsible for posting signs and have the resources to do so. For example, the Public Utilities Commission (PUC) has the capability to create signage and multiple translations, but was not utilized in the initial creation of signage. In the absence of formal coordination, the timeliness for posting signs was compromised. In some cases the process took two days before signs were posted; in others the signs were posted immediately. An earlier activation of the EOC would have helped to provide structure and facilitate coordination efforts among agencies.



### Lessons Learned and Associated Recommendation(s):

1. A pre-established protocol for the creation and posting of uniform signage would have reduced redundancy.
  - a. **Recommendation:** Develop protocols for the posting of uniform signage.
  - b. **Recommendation:** Develop generic beach closure signs in multiple languages and have them available for any hazards that result in the need to close beaches.

**Observation 3.2: (Strength and Area for Improvement)** During the initial stages of the oil spill response, public information regarding volunteer opportunities was confusing and at times contradictory. San Francisco residents were anxious to assist in oiled beach cleanup, but did not receive good information on the type of volunteer opportunities that were being provided



SF DEM

to them through Unified Command. At a meeting held by the Department of Fish and Game (DFG) on Saturday, 10 November, it was explained to volunteers that opportunities would not involve the cleanup of oil, and would instead involve providing support by either cleaning the materials used by oil spill workers or by ‘pre-cleaning’ unaffected beaches. This contradicted many volunteer’s pre-conceived expectations of their involvement in the response and caused a great amount of confusion and frustration. In addition, public health advisories stated that oil was not to be handled, but a misleading headline released on 10 November for the Heron’s Head Park cleanup stated that volunteers would be assisting in an oil spill-affected wetland area. This caused some volunteers to believe they would be assisting in the physical cleanup of oil.

Once San Francisco established command over volunteer management in the City, the format of volunteer opportunities as well as the information distributed regarding them improved. Frequent press releases detailed dates and times that volunteer trainings and cleanup opportunities would take place. Beginning on Saturday, 10 November, a Volunteer Outreach Coordinator was designated to communicate directly with volunteer organizations involved with cleanup efforts. Information regarding all volunteer events was directly distributed to these organizations and was in turn posted on their websites for the public to view. Information was also posted on the City’s 311 website. The position of Volunteer Coordinator was integrated into the structure of the EOC once activated on Tuesday, 13 November.

### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.B1f 5.2.5*, Provide emergency information to the public that is verified, accurate, and as up-to-date as possible.
2. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.B1f 5.7*, Disseminate guidance for the public regarding appropriate donation methods and volunteer activities.

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**Analysis:** Prior to San Francisco taking a lead in volunteer cleanup coordination, public information did not thoroughly specify what type of volunteer opportunities would be available. Many citizens did not understand that they would not be cleaning oiled beaches, and did not understand the reasons why they could not do so. This was also complicated by non-governmental groups organizing ad hoc beach cleanups on their own. Volunteers became extremely frustrated and confused with the situation. Much of the frustration throughout this event stemmed from a lack of understanding that could have been addressed with a robust public education campaign.

San Francisco addressed the public's need for action by providing volunteer opportunities. CCSF successfully coordinated volunteer efforts while observing the restrictions imposed by Unified Command. Upon activating the EOC, the Volunteer Outreach Coordinator position was integrated into the EOC structure which continued to improve public relations surrounding volunteer events. This Coordinator provided the public all necessary information concerning volunteer opportunities through press releases and from the websites of several volunteer organizations.



#### **Lessons Learned and Associated Recommendation(s):**

1. Public frustration and confusion with volunteer opportunities could have been mitigated by implementing a robust public education campaign.
  - a. **Recommendation:** When it is clear that the public perception is contradictory to information that is being released, a clarifying message should be constructed by an authoritative body to remedy the situation.
2. The early establishment of a Volunteer Outreach Coordinator greatly improved public relations surrounding volunteer events.
  - a. **Recommendation:** Capture the methodology used by the Volunteer Outreach Coordinator to improve public outreach and integrate into public information plans.

**Observation 3.3: (Strength)** 311 Customer Service Center (311) was utilized throughout the incident to provide public information and instruction for the oil spill. DEM provided updated information to 311 via phone calls and emails prior to the EOC activation. 311 representatives were also present at the initial planning meetings held at the EOC. Situation reports were sent to 311 twice daily from the Plans Section of the EOC once activated. Volunteer opportunities were posted and updated on a frequent basis. In addition, various volunteer groups provided a link to 311 on their websites, significantly improving coordination.



### Reference(s):

1. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.B1f 5.2.5*, Provide emergency information to the public that is verified, accurate, and as up-to-date as possible.
2. U.S. Department of Homeland Security (DHS), Target Capabilities List (TCL). Critical Tasks: *Res.B1f 5.7*, Disseminate guidance for the public regarding appropriate donation methods and volunteer activities.

**Analysis:** 311 was a valuable asset used during the response for the dissemination of information to the public. The addition of a protocol within the CCSF Emergency Response Plan for providing 311 with updates/status reports on a consistent basis with or without EOC activation should be developed. Additionally, 311 helped to decrease the frustration of volunteer groups who were seeking information on volunteer opportunities. The inclusion of a link to 311 on volunteer websites is a best practice to be built upon.

A lesson learned during the oil spill response was that a 311 liaison in the City EOC would further increase continuity between departments. Also, information was frequently being changed or updated on the website. A time stamp next to each piece of information would have made the most recent information more easily identifiable.

CCSF and 311 staff would benefit significantly from exercises/drills on the use of 311 during emergencies affecting CCSF. This will enable 311 staff to become more familiar with their roles during an event. It will also provide an opportunity for CCSF Departments to better understand the capabilities of 311.

### Lessons Learned and Associated Recommendation(s):

1. 311 is a valuable asset for the dissemination of public information.
  - a. **Recommendation:** Develop a protocol for providing 311 with updates/status reports on a consistent basis with or without EOC activation.
  - b. **Recommendation:** Include revision dates and times with posted information on 311.org.
2. A 311 liaison in the EOC will increase information sharing.
  - a. **Recommendation:** Include a 311 liaison in the EOC to further increase communication flow between departments during future activations.
3. CCSF and 311 staff will benefit from exercises/drills on the use of 311 during emergencies affecting CCSF.
  - a. **Recommendation:** Exercise the use of 311 for conveying public information during emergencies affecting CCSF.

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## SECTION 3: CONCLUSION

The M/V *Cosco Busan* Oil Spill provided the City and County of San Francisco (CCSF) a valuable opportunity to evaluate current plans, policies, and procedures pertaining to an evolving long-term recovery event. Multiple CCSF departments were able to both demonstrate their capabilities in a variety of response functions and assess areas for needed improvement. Overall, CCSF departments performed appropriately and exhibited an ability to effectively work together in the development, coordination, and execution of various response strategies. Capabilities and improvement areas were identified in the following areas:

**Intelligence/Information Sharing and Dissemination.** The CCSF successfully demonstrated the ability to share information by establishing conference calls and organizing meetings. Appropriate department representatives participated in the development of necessary response activities. Although effective, certain incident communication procedures could be expanded in order to ensure a more comprehensive understanding of incident information and necessary actions at all levels.



U.S. Coast Guard

**WMD/Hazardous Materials Response and Decontamination.** CCSF departments were proactive in offering and providing support to Unified Command operations. Staff and resources were utilized by Unified Command in multiple areas of the response. However, due to the limited integration of local government at the command post, several offered resources went unacknowledged and unused, initial information distribution was sparse, and several local concerns were not addressed.

**Emergency Operations Center Management.** The partial activation of the CCSF EOC was well organized and continued to support and enhance volunteer management operations by adding resources and a more structured environment. Because activation of the EOC provided a central point of information collection and distribution, it would have been favorable to CCSF oil spill response operations to activate the EOC earlier.

**Volunteer Management and Donations.** CCSF departments and the Board of Supervisors demonstrated the ability to interact with Federal and State partners in the resolution of contentious issues and the execution of plans for volunteer use in the midst of a disaster. The oil spill volunteer management plan that resulted has been identified as a best practice. Certain processes utilized should be captured as pre-established volunteer management procedures.

**Emergency Public Information and Warning.** Although the CCSF was not a primary source for media and press releases regarding the oil spill, city PIOs had a presence in the Unified Command JIC and released information on the response efforts specific to San Francisco. More formalized information exchange protocols would enhance development of common messages. Crisis communications are not currently coordinated on a citywide basis. An improved system/structure for the management and coordination of public information is needed within the CCSF.

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This AAR is intended to be used as a tool by the CCSF and applicable departments to increase the CCSF's overall capability to respond to all types of hazards. This document provides lessons learned, best practices and recommendations for future planning, training, and exercise development. The recommendations sections of this report collectively represent an improvement plan for CCSF. It will serve as a method by which issues and concerns brought out by the response are turned into measurable steps that result in improved response capabilities. As the CCSF works toward addressing these improvement actions, it is important that any relevant plans, policies and procedures are updated accordingly and that any training needs are addressed.



## APPENDIX A: IMPROVEMENT PLAN

This Improvement Plan (IP) has been developed specifically for the City and County of San Francisco as a result of M/V *Cosco Busan* Oil Spill response from 7-25 November 2007. These recommendations draw on the After Action Report (AAR).

Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
<b>INTELLIGENCE/INFORMATION SHARING AND DISSEMINATION</b>				
<b>Observation 1.1</b>				
<b>Lesson Learned 1:</b> Incident information should come from an official source through a clearly defined mechanism/process.	<b>Recommendation a:</b> Develop a standard operating procedure for distributing incident/emergency information to CCSF Departments and for the ongoing sharing of information between departments.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Ensure that each department has an internal communications system and protocols for distributing incident/emergency information.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		

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Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
<b>Lesson Learned 2:</b> Marine casualties present a unique situation requiring specific and/or immediate actions from individuals not normally included in an “all-hazards” notification list.	<b>Recommendation a:</b> DEM should identify unique situations which require specific and/or immediate actions and develop appropriate notification protocols which include those best suited to respond.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 1.2</b>				
<b>Lesson Learned 1:</b> All District Supervisors and executive leadership should be notified and kept apprised of significant events affecting CCSF.	<b>Recommendation a:</b> Create a policy/protocol within the CCSF emergency system to keep all members of the Board of Supervisors and executive leadership appropriately informed during emergency events.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 2.1</b>				
<b>Lesson Learned 1:</b> The integration of local government into Unified Command during oil spill response needs to be improved.	<b>Recommendation a:</b> Actively engage in the ACP committee and work to improve local government integration into Unified Command during oil spills.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Improve communications between CCSF and State / Federal agencies by establishing stronger relationships, developing communications	<b>Corrective Action 1:</b>		

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Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
	protocols, and exercising multi-jurisdictional plans on a regular basis.	<b>Corrective Action 2:</b>		
	<b>Recommendation c:</b> Communicate when information is not currently available.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 3.1</b>				
<b>Lesson Learned 1:</b> Conference calls are effective coordination tools, but can be improved upon.	<b>Recommendation a:</b> Create a protocol to include subject matter experts and/or operational level staff on conference calls.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Develop a standard agenda and protocol for notification and conduct of conference calls.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 3.2</b>				
<b>Lesson Learned 1:</b> CCSF Departments effectively worked together to develop response strategies.	<b>Recommendation a:</b> Capture response strategies as the basis of a CCSF Volunteer Management Plan.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Integrate CCSF department HAZWOPER trained staff into PeopleSoft database.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		

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Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
<b>WMD/HAZARDOUS MATERIALS RESPONSE AND DECONTAMINATION</b>				
<b>Observation 1.1</b>				
<b>Lesson Learned 1:</b> The integration of local government into Unified Command during oil spill response needs to be improved.	<b>Recommendation a:</b> Work to improve the role of local government in the Area Contingency Plan.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 1.2</b>				
<b>Lesson Learned 1:</b> CCSF has the capability to coordinate and provide resources to supplement command and control activities.	<b>Recommendation a:</b> None.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 1.3</b>				
<b>Lesson Learned 1:</b> Facilities that can be utilized for command posts should be pre-identified.	<b>Recommendation a:</b> Pre-identify and list existing facilities within CCSF that can be used as command posts.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 1.4</b>				
<b>Lesson Learned 1:</b> The integration of local government into Unified Command during oil spill response needs to be improved.	<b>Recommendation a:</b> CCSF should take the appropriate steps to share information and plans and on a regular basis with Federal and State partners.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		

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Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
<b>EMERGENCY OPERATIONS CENTER MANAGEMENT</b>				
<b>Observation 1.1</b>				
<b>Lesson Learned 1:</b> Information flow and inter-departmental coordination would have improved earlier in the response period if the EOC had been activated when the magnitude of the incident's response requirements and duration were initially realized.	<b>Recommendation a:</b> Upon notification of an incident, consider the magnitude and likelihood of extended operations when determining need for a formal EOC activation; activate to the appropriate level in a timely manner.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 2.1</b>				
<b>Lesson Learned 1:</b> Official notification of EOC activation should be sent from the EOC to relevant departments, elected officials, and other involved non-governmental organizations.	<b>Recommendation a:</b> Review and update existing protocol for notification of EOC activation as needed.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Upon EOC activation, ensure that notification protocol is followed.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 2.2</b>				
<b>Lesson Learned 1:</b> The frequent distribution of SitStats from the EOC Plans Section kept the departments involved in the oil spill response	<b>Recommendation a:</b> Establish protocol of consistently communicating incident information to relevant departments as a standard operating procedure (SOP) for use in EOC communications.	<b>Corrective Action 1:</b>		

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Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
knowledgeable of incident information as it became available.		<b>Corrective Action 2:</b>		
<b>Lesson Learned 2:</b> A list of personnel pre-designated to receive SitStats should be developed.	<b>Recommendation a:</b> Develop a list of personnel (individuals and/or departments) pre-designated to receive all Situation Status Reports generated from the EOC.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 2.3</b>				
<b>Lesson Learned 1:</b> During an event where volunteers are utilized, volunteer groups should receive consistent direct communications from the EOC.	<b>Recommendation a:</b> Establish a protocol for communicating information to volunteer groups as an SOP for use in volunteer communication plans.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 3.1</b>				
<b>Lesson Learned 1:</b> The EOC structure can be scalable to meet the needs of a situation and still result in a successful outcome.	<b>Recommendation a:</b> None.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Lesson Learned 2:</b> The amount of time the EOC is likely to remain active should be considered when determining the level and staffing	<b>Recommendation a:</b> Thoroughly assess the amount of time the event may require the EOC to remain active. If it is determined that it may be activated for several days, consider either fully activating	<b>Corrective Action 1:</b>		

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Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
requirements of an activation. This will ensure that EOC staff receives sufficient shift relief.	the EOC with staff working in shifts, or if partially activating, ensure that each staff member has backup relief as necessary.	<b>Corrective Action 2:</b>		
<b>Lesson Learned 3:</b> The proposed ESF/ICS hybrid structure in the revised ERP would have been well suited to manage this event.	<b>Recommendation a:</b> None.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Lesson Learned 4:</b> In the event of an EOC activation, there should be a sufficient amount of qualified members in pre-identified Incident Management Teams, particularly on holidays and weekends, to ensure adequate staffing depth to exchange shifts.	<b>Recommendation a:</b> Train additional staff to ensure adequate EOC staff coverage.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Utilize future EOC activations as an opportunity for additional staff to shadow operations.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation c:</b> Develop interdisciplinary Incident Management Teams and have an on call roster for weekends and holidays.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		

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Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
<b>VOLUNTEER MANAGEMENT AND DONATIONS</b>				
<b>Observation 1.1</b>				
<b>Lesson Learned 1:</b> CCSF departments effectively demonstrated an ability to interact with Federal and State partners in the resolution of contentious issues and the execution of plans for volunteer use during an oil spill.	<b>Recommendation a:</b> None.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Lesson Learned 2:</b> Because developing a plan in the midst of an evolving event presents an unnecessary distraction and may delay operations, a volunteer management plan should be pre-established.	<b>Recommendation a:</b> Develop a volunteer management plan that identifies: <ul style="list-style-type: none"> <li>• A lead agency to head volunteer management coordination</li> <li>• Volunteer management SOPs</li> <li>• Just-in-time credentialing procedures and protocols that are suited to any scenario</li> <li>• Pre-identified venues that may be utilized on short notice for volunteer activities such as training, including 24-hour contact information for each.</li> </ul>	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Lesson Learned 3:</b> Hazard-specific plans should be updated to include just-in-time volunteer and DSW training materials and protocols where applicable and appropriate.	<b>Recommendation a:</b> Update hazard-specific plans to include just-in-time volunteer and DSW training materials and protocols as necessary.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		

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Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
<b>Lesson Learned 4:</b> The CCSF ERP should include volunteer management procedures developed from lessons learned during this event.	<b>Recommendation a:</b> The current ERP should be reviewed and updated as necessary based on the lessons learned from this event.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 2.1</b>				
<b>Lesson Learned 1:</b> DHR was able to efficiently conduct volunteer registration as many of its employees were familiar with DSW registration processes.	<b>Recommendation a:</b> Consider training additional staff to ensure that a higher number of DHR employees are familiar with the DSW registration processes at any given time.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Lesson Learned 2:</b> Over 1,500 volunteers were successfully registered as DSW's.	<b>Recommendation a:</b> Follow up with credentialed volunteers who assisted with oil spill cleanup and extend further opportunities to contribute to the community.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 3.1</b>				
<b>Lesson Learned 1:</b> The volunteer operations at Heron's Head Park, Crissy Field, and Ocean Beach were well-coordinated and well-managed.	<b>Recommendation a:</b> None.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		

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Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
<b>Observation 3.2</b>				
<b>Lesson Learned 1:</b> Volunteer management efforts at Ocean Beach could have been better organized if an Incident Action Plan had been implemented.	<b>Recommendation a:</b> Utilize IAPs for the increased organization of response activities.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Establish forms for use in management of future volunteer operations.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Lesson Learned 2:</b> A timekeeping protocol for volunteer management staff should have been implemented at the ICP.	<b>Recommendation a:</b> Establish an employee timekeeping protocol for use at various command locations during incidents.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Lesson Learned 3:</b> An unnecessary amount of time was spent at the beginning and end of each shift to set up and take down the ICP.	<b>Recommendation a:</b> In future events when an ICP is used for several days, develop protocols for using mobile office cases or secure cargo containers to store ICP equipment overnight rather than setting up and taking down the ICP each day.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> In the event that a mobile ICP is needed, develop protocols for requesting a mobile command post from a department that is equipped for use as a semi-permanent facility.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		

# CCSF AFTER ACTION REPORT

## M/V *Cosco Busan* Oil Spill



Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
	<b>Recommendation c:</b> Document the equipment that was utilized and needed during ICP operations and develop a resource list as reference for future incidents.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Lesson Learned 4:</b> A debrief of volunteers and volunteer staff following each event should have been conducted to ensure that any strengths or areas for improvement were discussed on a daily basis.	<b>Recommendation a:</b> Establish a protocol to debrief volunteers and volunteer staff following volunteer events in order to gather pertinent feedback and potentially improve daily operations.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>EMERGENCY PUBLIC INFORMATION AND WARNING</b>				
<b>Observation 1.1</b>				
<b>Lesson Learned 1:</b> The role of PIOs in a JIC should be better defined and understood by responding PIOs.	<b>Recommendation a:</b> Better define the role of PIOs from local responding organizations within the JIC and provide training to PIOs.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Incorporate lessons learned from this event into CCSF JIC plans	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		

# CCSF AFTER ACTION REPORT

## M/V *Cosco Busan* Oil Spill



Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
	<b>Recommendation c:</b> Increase depth of PIOs trained to work in a JIC and develop pre-identified teams for emergency staffing.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 2.1</b>				
<b>Lesson Learned 1:</b> An improved system/structure for the management and coordination of public information is needed.	<b>Recommendation a:</b> Develop an improved system/structure for the management and coordination of public information during incidents affecting CCSF, to include protocols for use when the EOC is not activated.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Identify a mechanism for information transfer between CCSF and Unified Command concerning public information.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 2.2</b>				
<b>Lesson Learned 1:</b> Additional trained PIOs are needed for incident response.	<b>Recommendation a:</b> Train additional personnel to serve as back-up staff to existing Public Information Officers.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Develop a list of trained PIOs.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		

# CCSF AFTER ACTION REPORT

## M/V *Cosco Busan* Oil Spill



Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
<b>Observation 3.1</b>				
<b>Lesson Learned 1:</b> A pre-established protocol for the creation and posting of uniform signage would have reduced redundancy.	<b>Recommendation a:</b> Develop protocols for the posting of uniform signage.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Develop generic beach closure signs in multiple languages and have them available for any hazards that result in the need to close beaches.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 3.2</b>				
<b>Lesson Learned 1:</b> Public frustration and confusion with volunteer opportunities could have been mitigated by implementing a robust public education campaign.	<b>Recommendation a:</b> When it is clear that the public perception is contradictory to information that is being released, a clarifying message should be constructed by an authoritative body to remedy the situation.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Lesson Learned 2:</b> The early establishment of a Volunteer Outreach Coordinator position in the EOC greatly improved public relations surrounding volunteer events.	<b>Recommendation a:</b> Capture the methodology used by the Volunteer Outreach Coordinator to improve public outreach and integrate into public information plans.	<b>Corrective Action 1:</b>		
		<b>Corrective Action 2:</b>		
<b>Observation 3.3</b>				
<b>Lesson Learned 1:</b> 311 is a valuable asset for the dissemination of public	<b>Recommendation a:</b> Develop a protocol for providing 311 with updates/status reports on a consistent basis with or	<b>Corrective Action 1:</b>		

# CCSF AFTER ACTION REPORT

## M/V *Cosco Busan* Oil Spill



Lesson Learned	Recommendation	Corrective Action Description	Responsible Party/Agency	Completion Date
information.	without EOC activation.	<b>Corrective Action 2:</b>		
	<b>Recommendation b:</b> Include revision dates and times with posted information on 311.org.	<b>Corrective Action 1:</b>		
<b>Lesson Learned 2:</b> A 311 liaison in the EOC will increase information sharing.	<b>Recommendation a:</b> Include a 311 liaison in the EOC to further increase communication flow between departments during future activations.	<b>Corrective Action 2:</b>		
		<b>Corrective Action 1:</b>		
<b>Lesson Learned 3:</b> CCSF and 311 staff will benefit from exercises/drills on the use of 311 during emergencies affecting CCSF.	<b>Recommendation a:</b> Exercise the use of 311 for conveying public information during emergencies affecting CCSF.	<b>Corrective Action 2:</b>		
		<b>Corrective Action 1:</b>		



## APPENDIX B: PHOTOS

### Heron's Head Park Cleanup – November 11, 2007



# CCSF AFTER ACTION REPORT

## M/V *Cosco Busan* Oil Spill



### Volunteer Training and Ocean Beach Cleanup – November 12, 2007



# CCSF AFTER ACTION REPORT

## M/V *Cosco Busan* Oil Spill



### Ocean Beach Cleanup – November 14, 2007



# CCSF AFTER ACTION REPORT

## M/V *Cosco Busan* Oil Spill



### Ocean Beach Cleanup – November 16-17, 2007



# CCSF AFTER ACTION REPORT

## M/V *Cosco Busan* Oil Spill



### Ocean Beach Cleanup – November 17, 2007 (Continued)



### Ocean Beach Cleanup – November 22, 2007



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## APPENDIX C: ACRONYMS

Acronym	Meaning
AAR	After Action Report
ACC	Animal Care and Control
ACP	Area Contingency Plan
CCSF	City and County of San Francisco
DBI	Department of Building Inspection
DEM	Department of Emergency Management
DFG	Department of Fish and Game
DHR	Department of Human Resources
DHS	Department of Homeland Security
DPH	Department of Public Health
DPT	Department of Parking and Traffic
DPW	Department of Public Works
DSW	Disaster Service Worker
DTIS	Department of Telecommunications and Information Services
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
GSA	General Services Agency
HAZWOPER	Hazardous Waste Operations and Emergency Response
ICP	Incident Command Post
ICS	Incident Management System
JIC	Joint Information Center
JIS	Joint Information System
Muni	Municipal Railway
MV	Motor Vessel
NERT	Neighborhood Emergency Response Team
NIMS	National Incident Management System
PIO	Public Information Officer
PUC	Public Utilities Commission
RCP	Regional Contingency Plan
RPD	Recreation and Park Department
SFFD	San Francisco Fire Department
SFPD	San Francisco Police Department
SitStat	Situation Status Report
SOP	Standard Operation Procedure
TCL	Target Capabilities List
TIDA	Treasure Island Development Authority
USCG	United States Coast Guard