Office of Spill Prevention and Response:

It Has Met Many of Its Oversight and Response Duties, but Interaction With Local Government, the Media, and Volunteers Needs Improvement

August 2008 Report 2008-102

CALIFORNIA STATE AUDITOR

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August 28, 2008 2008-102

The Governor of California
President pro Tempore of the Senate
Speaker of the Assembly
State Capitol
Sacramento, California 95814

Dear Governor and Legislative Leaders:

As requested by the Joint Legislative Audit Committee, the Bureau of State Audits presents its audit report concerning planning, oversight, and administrative activities of the Department of Fish and Game's (Fish and Game) Office of Spill Prevention and Response (spill office), and the coordinated response of the spill office, the Governor's Office of Emergency Services (Emergency Services), and private entities to the November 7, 2007, Cosco Busan oil spill in the San Francisco Bay.

This report concludes that the spill office has met many of its key responsibilities related to the oversight of contingency planning and oil spill response organizations, although it needs to update the state contingency plan as required by law and improve its efforts to involve local governments in the contingency planning process. Additionally, we found that the spill office, Emergency Services, and private entities fulfilled their fundamental responsibilities under contingency plans in response to the Cosco Busan oil spill. However, response efforts pointed out weaknesses in the spill office's coordination with local governments, its communications with the public, and its immediate response procedures. These failings caused intense media scrutiny and may have reduced the efficiency of the overall response effort. We also found that the reserves of the Oil Spill Prevention and Administration Fund (fund) totaled $17.6 million as of June 30, 2007, but are projected to drop by half over the next two years, and that Fish and Game needs to better assure that only allowed oil spill prevention activities are charged to the fund.

Respectfully submitted,

Elaine M. Howle

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State Auditor

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Summary

Results in Brief

In November 2007 the Cosco Busan, an outbound container ship, hit a support on the San Francisco–Oakland Bay Bridge, releasing about 53,600 gallons of oil into the bay. This event, known as the Cosco Busan oil spill, focused public attention on California's Office of Spill Prevention and Response (spill office), a division of the Department of Fish and Game (Fish and Game). The spill office, created in 1991, is run by an administrator appointed by the governor, who is responsible for preventing, preparing for, and responding to oil spills in California waters.

The spill office, along with the contingency plans it oversees, fits into a national framework for preventing and responding to oil spills, with entities at every level of government handling some aspect of the planning effort. As part of this effort, each marine vessel entering California waters must have a vessel contingency plan (vessel plan) on file with the spill office, designating private entities that will respond if oil spills from that vessel. When an oil spill occurs, the response is overseen by a three-part unified command consisting of representatives from the spill office; the party responsible for the spill and its designated representatives; and the federal government, represented by the U.S. Coast Guard (Coast Guard), which retains ultimate authority over the response.

The spill office has met many of its key responsibilities related to the oversight of contingency planning and oil spill response organizations (response organizations) and to participation in the response to the Cosco Busan oil spill. For example, the spill office has successfully completed significant responsibilities to review and approve vessel plans—including the one for the Cosco Busan—and has conducted reviews of response organizations, including carrying out follow-up activities when it identifies deficiencies.

However, the California Oil Spill Contingency Plan (state plan), which the spill office maintains, is outdated, is missing elements required by state law, and does not contain references to regional and area contingency planning documents that contain these missing elements. In addition, although the spill office has carried out its oversight of local government contingency plans (local plans), only six of the 22 local governments participating have revised their plans since 2004, and seven of the 16 remaining local plans have not been revised since 1995 or before. Further, the spill office has reported that few local governments have attended oil spill response drills. The lack of up-to-date local plans and the low level of local government involvement in joint planning efforts indicate that the spill office could do more to integrate local

Audit Highlights . . .

Our review of the Department of Fish and Game's Office of Spill Prevention and Response (spill office) found that:

- *The spill office has met many of its oversight responsibilities; however, the California Oil Spill Contingency Plan is outdated and missing required elements.*
- *Only six of 22 local government contingency plans were revised after 2003 and local participation in joint planning efforts has been low.*
- *The spill office, the Governor's Office of Emergency Services, and private entities responding to the November 2007 Cosco Busan oil spill met their fundamental responsibilities.*
- *The spill office's shortage of trained liaison officers and experienced public information officers led to communication problems during the Cosco Busan oil spill.*
- *The spill office's lack of urgency in calculating the spill volume from the Cosco Busan may have delayed the mobilization of additional resources.*
- *Reserves for the Oil Spill Prevention and Administration Fund (fund) totaled $17.6 million as of June 30, 2007, but are projected to drop by half over the next two years.*
- *Payroll testing indicates the need to better assure that only oil spill prevention activities are charged to the fund.*

governments into federal and state oil spill response efforts and to help local governments understand their role in the response to an incident.

The spill office, the Governor's Office of Emergency Services (Emergency Services), and private entities responding to the Cosco Busan oil spill met their fundamental responsibilities set forth in contingency plans. Within an hour and a half of the spill, among other actions, the spill office formed a unified command with the Coast Guard to oversee the response, activated spill office staff as a field response team, and initiated an investigation into the cause and volume of the spill. It also activated the Oiled Wildlife Care Network (wildlife network), which through March 2008 collected more than 2,900 live and dead oiled birds and released 421 rehabilitated birds back into the wild. Emergency Services, which is responsible for initial notifications of oil spills, did not immediately notify all affected counties, consistent with its procedures at that time, but did so when the scale of the spill became clear and later changed its procedures to more effectively notify counties in the future. Finally, within six hours of the oil spill, response organizations had 13 vessels and a truck on scene with a collective capacity of removing 2.4 million gallons of oil per day, a storage capacity of 148,000 gallons, and 15,800 feet of containment boom.

However, some response efforts to the Cosco Busan oil spill revealed weaknesses in the spill office's coordination with local governments, communication with the public, immediate response procedures, and the ability of the wildlife network to provide sufficient trained personnel to perform wildlife rescue activities. These failings caused intense media scrutiny and may have reduced the efficiency of the overall response effort, according to response participants. For example, the spill office had a shortage of trained liaison and public information officers experienced in oil spill response. The shortage led to problems in communicating specific and timely information concerning response efforts and volunteer participation to local governments and the public. To address the lack of a public information officer, Fish and Game indicates it recently hired an individual to fill that role.

In addition, the spill office's lack of urgency in calculating the spill volume may have delayed the deployment of additional response resources and the notification of local governments. Initial reports put the spill at no more than 420 gallons, and although the spill office calculated a much higher and more accurate volume of oil spilled, its staff did not report that calculation until more than seven hours after the spill occurred. Finally, the lack of trained, immediately available personnel from the wildlife network to rescue oiled wildlife may have hindered the unified command's

ability to help wildlife affected by the spill. The wildlife network cited difficulties maintaining a pool of personnel with training in hazardous waste operations and emergency response as the cause for the staff shortage.

Our audit also revealed that expenditures in the Oil Spill Prevention and Administration Fund (fund), which pays for most of the spill office's activities, were significantly below revenues in fiscal years 2003–04 and 2004–05, leading to a buildup of reserves. This buildup coincided with a one-cent increase in the fee charged per barrel of crude oil and petroleum products received in California, which occurred in 2003. On June 30, 2007, the fund balance amounted to $17.6 million, or six months of budgeted expenditures for the next year. A more reasonable reserve for a fund with a fairly stable level of expenditures would be about one and a half months, according to the spill office's deputy administrator (deputy administrator). During the last few years, the spill office has not annually determined the reasonableness of the fee charged or the fund reserve balance, as the law requires. However, the spill office believes that the reserve balance will drop by half over the next two years based on projected expenditures.

Further, the spill office is facing two employee-related issues. First, our testing of payroll charges revealed the need to better ensure that only allowed oil spill prevention activities are charged to the fund. For example, we noted that staff filling the 23.5 spill prevention warden positions perform some activities unrelated to oil spill prevention as part of their normal duties yet are paid almost entirely from the fund. Fish and Game has acknowledged that this practice occurs but has not taken steps to match the wardens' funding to the activities they perform. Second, a restructuring by Fish and Game that placed about 19 percent of spill office staff under the direct control of other Fish and Game units has caused friction between the spill office and the rest of the department, although managers of three of the areas affected—enforcement, legal, and information technology—cited few negative effects. Nevertheless, the few problems we identified, plus serious reservations expressed by both the past administrator of the spill office and the current deputy administrator, indicate the need for a better understanding related to the management of these employees.

Recommendations

To ensure that the State's activities in response to an oil spill are complete and well integrated with other efforts, the spill office should regularly update the state plan and include references to sections of the regional plan and area contingency plans that cover required elements.

To better integrate local plans with the response activities in other types of contingency plans and to keep local plans up to date, the spill office should work with local governments to improve their participation.

To strengthen its role as a liaison between local governments and the unified command, the spill office should ensure that it has a sufficient number of trained liaison officers.

To ensure that it performs and reports spill volume calculations quickly, the spill office should establish procedures to ensure that staff promptly report their results.

To carry out recovery activities effectively, the spill office should ensure that the wildlife network identifies and trains a sufficient number of staff.

To maintain an appropriate reserve balance for the fund, the spill office should annually assess the reasonableness of the reserve balance and the fee.

To ensure proper use of the fund, the spill office and Fish and Game should make certain that staff time charged to the fund is only for oil spill prevention activities. Further, the spill office and Fish and Game should discuss their respective authorities and better define their respective roles in managing spill prevention staff consistent with the spill office's responsibilities and Fish and Game's needs.

Agency Comments

Fish and Game generally agreed with our recommendations and indicated it is taking steps to implement them.

Introduction

Background

Preparing for and responding to oil spills in U.S. waters is guided by various plans and systems. Specific plans for responding to oil spills have existed since the late 1960s. In response to a massive spill from the oil tanker Torrey Canyon off the coast of England in 1967, the first national contingency plan was developed and published in 1968. This plan provided the first comprehensive system of accident reporting, spill containment, and spill cleanup and established a response headquarters as well as national and regional response teams.

The federal Oil Pollution Act of 1990 was adopted in response to the Exxon Valdez oil spill, which released 11 million gallons off the coast of Alaska in March 1989. That legislation amended the national contingency plan to require owners/operators of tank vessels and facilities to develop oil spill response plans and for the area committees designated by the president to develop area contingency plans (area plans).

California also responded to the Alaska incident and a 300,000 gallon oil spill off Huntington Beach with legislation enacted in 1990. The Lempert-Seastrand-Keene Oil Spill Prevention and Response Act (act) emphasizes prevention of marine oil spills through improved safety measures and stronger inspection and enforcement efforts. Additionally, the act promotes enhanced response efforts through improved control and cleanup technology, improved response management, and coordination with federal agencies. The act also led to the creation of the Office of Spill Prevention and Response (spill office) in 1991 as part of the Department of Fish and Game (Fish and Game).

The spill office asserts that its mission is to "provide the best achievable protection of California's natural resources by preventing, preparing for, and responding to spills of oil and other deleterious materials, and through restoring and enhancing affected resources." When an oil spill occurs within California waters, the spill office is the lead state agency in the response and coordinates with federal responders. The administrator of the spill office (administrator), appointed by the governor, manages the State's oil spill prevention and response activities. The administrator is required by law to ensure that he or she has the personnel necessary to adequately respond to an oil spill in marine waters and has authority to hire and fire employees as necessary to fulfill the spill office's responsibilities.

Types of Oil Spill Contingency Plans

National plan provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances.

International joint plans provide international coordination between the United States and other countries to ensure appropriate and effective cooperative preparedness, reporting, and response measures during emergencies.

Federal response plan facilitates the delivery of all types of federal response assistance to help states deal with the consequences of significant disasters.

Regional plans include information on useful facilities and resources available for oil spill responses in various U.S. regions. The Federal Region 9 Regional Contingency Plan was developed by the response team for the region covering Arizona, California, and Nevada.

Federal agency internal plans are used during preparedness planning or in actual responses, and are used when agencies are called upon to provide assistance in their respective areas of expertise.

Federal vessel and facility response plans describe actions facilities or vessels must take to respond to a worst-case discharge of oil or hazardous waste.

Area plans provide specific details for how individuals and agencies should act to prevent the threat of oil discharges and remove oil discharges when they occur. Area committees, which include the Office of Spill Prevention and Response, develop these plans for each of the six federally designated areas in California.

State plan serves as a framework for oil spill response in California and identifies federal, state, and local agencies designated to protect the public and natural resources from the effects of an oil spill.

Local plans identify local oil spill response resources available from local governments with jurisdiction over or directly adjacent to marine waters.

State vessel and facility contingency plans identify specific equipment and strategies marine vessels and facilities must use in the event of an oil spill.

Sources: 2008 Code of Federal Regulations, Title 40, Chapter 1, Part 300.210; Federal Response Plan, 1999; 2008 Title 33, Section 1321, United States Code; Federal Region IX Regional Contingency Plan, 2005; California Oil Spill Contingency Plan, 2001; California Government Code, sections 8670.29 and 8670.35; and California Code of Regulations, Title 14, Section 852.62.2.

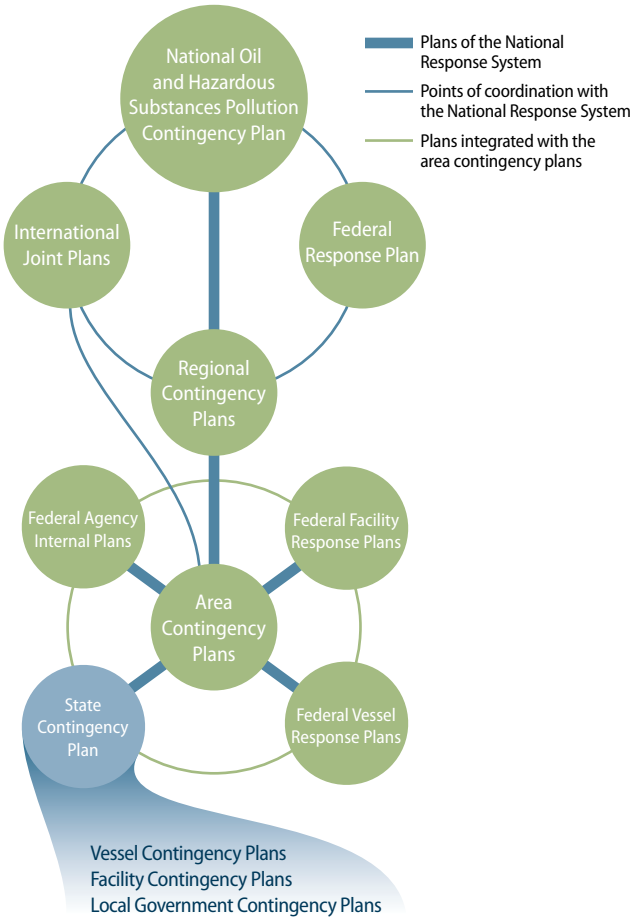
The main source of funding for the spill office's operations is the Oil Spill Prevention and Administration Fund (fund). Chapter 3 discusses this fund's expenditures, which mostly are related to readiness, prevention, and administrative support activities, and its revenues, which mostly come from a 5 cent-per-barrel fee on crude oil and petroleum products received in California. However, the fund cannot be used to pay for response activities related to actual spills. Rather, the State's Oil Spill Response Trust Fund (trust fund) is used for spill response costs the State incurs. The trust fund is financed by a fee of 25 cents per barrel of petroleum product received in or exported from California, with its fund balance capped by state law at around $55 million. Costs paid by the trust fund are later reimbursed by the responsible party,[1] if one can be identified. We did not examine the trust fund as it was not within the scope of this report.

The federal government's mechanism for responding to oil discharges and chemical releases into the nation's navigable waters or the environment is the National Response System. This system functions through a network of interagency and intergovernmental relationships, formally established and described in the National Oil and Hazardous Substances Pollution Contingency Plan (national plan). The national plan, along with regional contingency plans (regional plans) and area plans, make up the three levels of contingency plans under the National Response System. Coordinated or integrated with these plans are several other types of plans. The text box describes all the various plans, and Figure 1 depicts the relationships among them.

The California Oil Spill Contingency Plan (state plan) is integrated into the National Response System through area plans. State law established the state plan and designated the spill office as the responsible oversight authority. The state plan is intended for use in conjunction with the area plans. California law requires the administrator to coordinate with federal agencies to the greatest degree possible and to represent the State in any

[1] The responsible party is the owner or transporter of oil or the owner, operator, or lessee of a tanker, barge, nontank vessel, or marine facility.

Figure 1
Relationships Among Oil Spill Contingency Plans



Source: Adapted from 2008 Code of Federal Regulations, Title 40, Chapter 1, Part 300.210, and the California Oil Spill Contingency Plan, 2001.

response efforts coordinated with the federal government. The U.S. Coast Guard (Coast Guard) is primarily responsible for the oversight of the area plans. Through a memorandum of agreement with the spill office, the two agencies cooperate and coordinate their oil spill prevention and response efforts in California.

Although the State is encouraged to participate in the process of developing and maintaining the regional and area plans and provides state-specific expertise to them, the federal government, not the State, oversees these plans. The spill office has a representative on the regional response team that developed the regional plan covering California and coordinates response preparedness activities. The spill office also takes an active role in developing, updating, and maintaining the area plans. In addition, it takes the lead in developing and maintaining the wildlife

response plan, an appendix of the regional plan that describes how agencies will care for wildlife affected by an oil spill. The wildlife response plan does not include response guidelines specific to the San Francisco Bay Area.

Each vessel or facility that enters or operates on California's marine waters must submit to the spill office a contingency plan identifying specific information about that vessel or facility and providing key contacts in the event the vessel or facility is involved in an oil spill.[2] California law makes the spill office responsible for the review and approval of vessel contingency plans (vessel plans) and facility contingency plans (facility plans). Although tank vessels and facilities must also submit plans under federal law, state vessel and facility plans include additional requirements specific to California.

A vessel plan must identify the private entities that will perform the roles of oil spill response organization (response organization), qualified individual,[3] and spill management team. The spill office rates response organizations on how well they perform in drills the spill office conducts. Only response organizations that the spill office has rated may be listed in vessel plans. As of May 2008 there were nine rated response organizations. Two of those response organizations—Marine Spill Response Corporation and National Response Corporation—provide coverage in most areas of the State's coastline, according to spill office records.

Local governments are invited to participate in activities of the regional response team and to participate in area planning. However, the regional and area plans are not required to list local resources available for oil spill response. Instead, state law and the state plan encourage local governments to create contingency plans that identify their respective available resources.

Governmental and Private Entities That Respond to Oil Spills

Marine oil spills are typically multijurisdictional events that require a coordinated response by federal, state, and private entities. When a marine oil spill occurs, an emergency management system known as the Incident Command System (command system) is activated, with primary responsibility for directing the response typically falling to a three-person unified command consisting

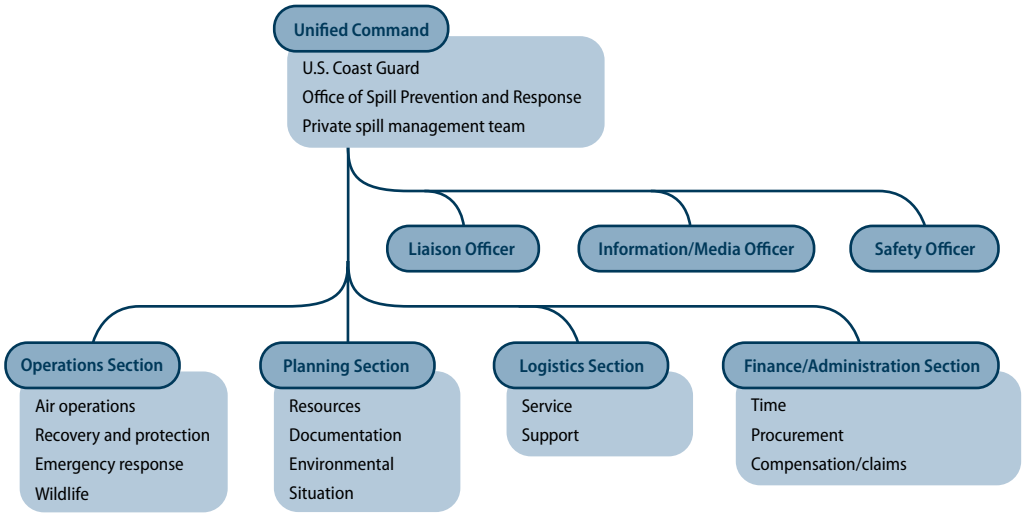
[2] Generally, all tank vessels, all vessels carrying oil as secondary cargo, and all nontank vessels greater than 300 tons are required to have an approved vessel plan on file with the spill office before coming into California waters.

[3] A qualified individual represents the vessel owner during the early stages of the response until a representative from the spill management team arrives.

of representatives from the spill office, the Coast Guard, and the responsible party. These representatives work together to develop objectives and strategies for responding to the spill, mobilizing resources, and directing response activities. However, the Coast Guard representative retains ultimate authority over the response.

Under the direction of the unified command, the command system relies on four distinct functions critical to conducting large-scale responses: operations, planning, logistics, and finance/administration. Responders from all participating entities can fill supporting roles within this command structure. At the direction of the unified command, this structure can expand and contract depending on the needs of the response. The command system establishes a clear chain of command, with authority passing directly from the unified command to the other four functions of the system. Further, each subordinate unit within the command structure reports directly to the unit above it. Figure 2 is a diagram of the basic command system structure for an oil spill response.

Figure 2
Structure of the Incident Command System for Oil Spill Responses in California



Source: U.S. Coast Guard Incident Management Handbook.
Note: For clarity, some subordinate units are not presented.

The Coast Guard is the only federal agency required to respond to all oil spills occurring in U.S. coastal waters. The Coast Guard's captain of the port serves the role of federal on-scene coordinator and maintains ultimate authority in the unified command. One of the Coast Guard's primary duties is to ensure that the responsible party conducts an effective response to the oil spill.

Several state agencies typically respond to marine oil spills. The Governor's Office of Emergency Services (Emergency Services) carries out initial notification of state agencies and local governments affected by an oil spill. In California the spill office is the lead state agency involved in response efforts. A representative from the spill office serves as part of the unified command and is the state on-scene coordinator. The responsibilities of the spill office include determining the cause of the spill and the amount of oil spilled, coordinating volunteers, acting as a liaison with local governments, and overseeing the care and rehabilitation of wildlife that come into contact with oil from a spill. The spill office accomplishes this last responsibility by collaborating with the Oiled Wildlife Care Network (wildlife network), which is administered by the University of California, Davis, and supported by the Oil Spill Response Trust Fund. The wildlife network maintains facilities and trained staff responsible for the proper rescue, cleaning, rehabilitation, and release of oiled wildlife, and coordinates volunteers who have been trained in advance to assist with that effort.

Private entities are also involved in responding to oil spills. Under state law, the operator of a vessel must respond immediately following the discovery that the vessel is the source of an oil spill. The operator's duties include performing initial notification of government and private entities as required by the vessel's contingency plan and making every reasonable effort to stop the oil spill. If found at fault, the owner/operator of the vessel will ultimately be liable to pay the costs for responding to the spill and restoring the environment.

The owner of a vessel may develop in-house capabilities or contract with a private entity to ensure that the roles of qualified individual and spill management team are filled during a spill response. Because some vessel owners undertake those roles themselves, the number of private entities responding will vary from one oil spill to another. On arriving at the command post, the spill management team assumes the role of incident commander on behalf of the vessel owner and maintains primary responsibility for implementing efforts to clean up the oil spill. As of May 2008, 19 spill management teams were listed in active vessel plans, according to the spill office's readiness database.

In addition to the entities noted above, the various contingency plans identify at least 11 types of local government functions and 32 other federal, state, and local agencies that may provide resources and advice to the unified command on request. However, the number of additional responders is not limited to those identified in contingency plans. According to the regional plan, the federal on-scene coordinator may request other entities to provide

response support and assets as necessary. Further, some entities and individuals may respond to oil spills of their own accord, without receiving direction from the unified command.

Recent California Oil Spills

California has experienced some notable marine oil spills over the past 40 years, including two, in 1971 and 1984, that each released more than 1 million gallons into or near San Francisco Bay waters. In recent years, although many small marine oil spills statewide have been reported to the spill office, only two have been larger than 10,000 gallons. Table 1 shows the number of California oil spills reported to the spill office each year since 2002, as well as how many of them involved more than 10,000 gallons.

Table 1
California Marine Oil Spills Between 2002 and 2007

YEAR	NUMBER OF MARINE OIL SPILLS REPORTED	SPILLS OF MORE THAN 10,000 GALLONS
2002	1,015	0
2003	926	1
2004	829	0
2005	852	0
2006	925	0
2007	1,067	1

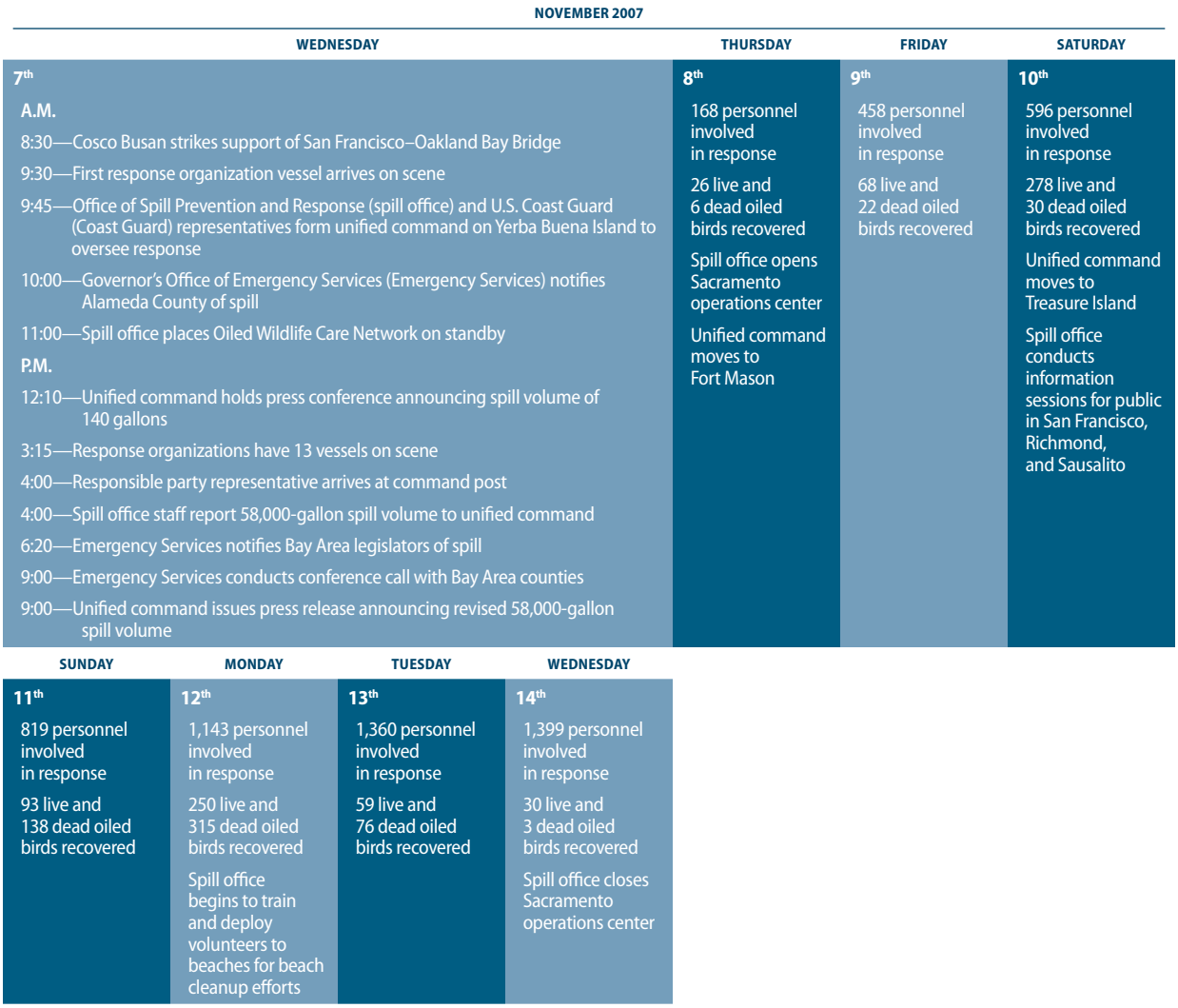
Sources: The number of spills for 2002 to 2006 are from the Governor's Office of Emergency Services' reports to the Office of Spill Prevention and Response (spill office); those for 2007 are from the spill office's readiness database. Data on spills greater than 10,000 gallons are from the Pacific States/British Columbia Oil Spill Task Force.

The Cosco Busan oil spill of 2007 was the largest marine oil spill in California in the last six years and also the largest spill in the San Francisco Bay since the Cape Mohican discharged approximately 96,000 gallons in October 1996. As indicated in the timeline in Figure 3 on the following page, at 8:30 a.m. on November 7, the Cosco Busan, an outbound container ship, struck a support on the San Francisco–Oakland Bay Bridge in heavy fog, breaching two fuel tanks and releasing about 53,600 gallons of oil into the bay. Response organizations under contract with the responsible party began arriving on the scene to skim oil and boom environmentally sensitive sites within an hour, and representatives from the spill office and the Coast Guard established a unified command to oversee the response shortly thereafter. By the eighth day of the spill response, almost 1,400 personnel from

the responsible party, the spill office, the Coast Guard, and local governments had been deployed, and 1,394 live and dead birds had been collected.

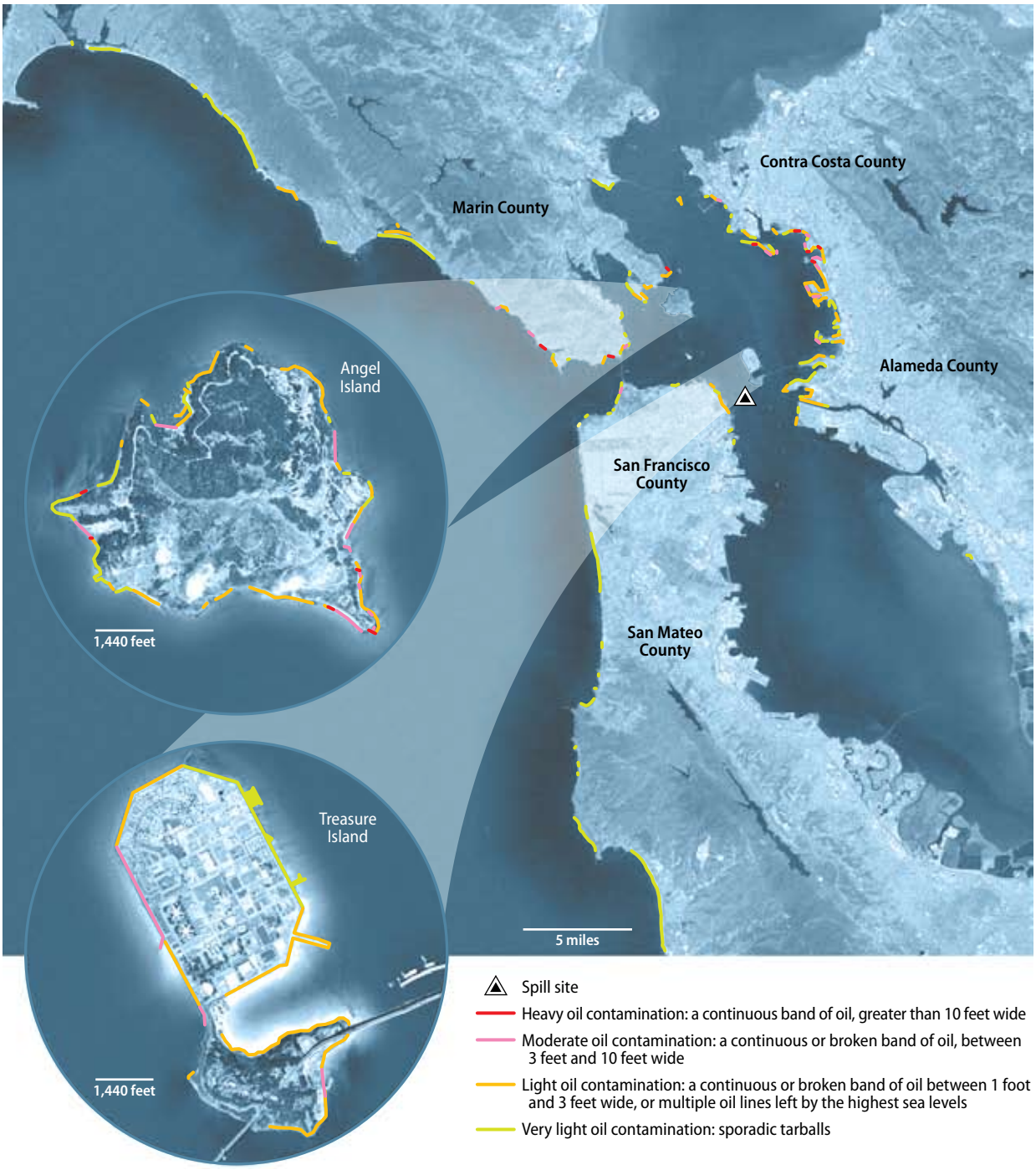
According to the Coast Guard's incident status summaries, during the first two weeks of the response, about 36 percent of the spilled oil, or 19,500 gallons, was recovered and another 4,600 gallons evaporated or dispersed. As of June 23, 2008, the spill office reported that cleanup activities were not yet complete for 21 of the 226 shoreline segments it identified for this incident. See Figure 4 for a map of the coastal areas affected by the spill.

Figure 3
Timeline for Cosco Busan Oil Spill Response, November 7 Through 14, 2007



Sources: Incident logs, incident summary status reports, and other documents provided by the Coast Guard and the spill office, and the January 2008 Incident Specific Preparedness Review report for the Cosco Busan response.

Figure 4
Map of Coastline Affected by the Cosco Busan Incident as of January 5, 2008



Sources: Office of Spill Prevention and Response; photographs: http://maps.yahoo.com.

Note: This map reflects maximum shoreline oiling based on Shoreline Cleanup Assessment Team (SCAT) observations and does not represent all observations or data sources. For example, the SCAT made its observations after volunteers had cleaned Ocean Beach and thus this map does not note oil contamination there.

Although the Cosco Busan oil spill was not especially large compared with other major spills, it occurred in a geographic area, the San Francisco Bay, that encompasses many sensitive environmental sites and is subject to tides that can rapidly spread pollutants and make their containment difficult. The event received extensive media coverage and attention from elected officials. Several investigations regarding the Cosco Busan incident have been undertaken. Two incident-specific preparedness review reports (incident review reports) were issued, in January and May 2008,[4] to provide an assessment of oil spill preparedness planning requirements and the actual response to the Cosco Busan incident. Although they conclude that certain actions went well, the incident review reports criticize the response in a number of areas, including initial notifications, quantifying the spill volume, use of volunteers, and interaction with the media. We reviewed the incident review reports to identify issues directly related to our scope. Also, the National Transportation Safety Board is currently investigating the cause of the oil spill. Finally, civil and criminal investigations are under way related to the oil spill.

Scope and Methodology

The Joint Legislative Audit Committee (audit committee) asked the Bureau of State Audits (bureau) to review the State's response to the November 2007 oil spill in San Francisco Bay by the ship Cosco Busan. Specifically, the audit committee requested that the bureau determine which state, local, federal, and private entities are responsible for responding to oil spills in the San Francisco Bay Area and identify which entities responded to or should have responded to the Cosco Busan oil spill. We were also asked to identify the role of private contractors in the response and determine, to the extent possible, whether the contractors acted in accordance with the applicable contingency plans.

The audit committee also asked the bureau to review and assess the reasonableness of the various contingency plans that applied to the Cosco Busan oil spill to determine whether they establish a clear chain of command. Further, we were requested to determine whether the spill office directed the response and whether it carried out its responsibilities during the Cosco Busan oil spill in accordance with the contingency plans.

[4] The incident-specific preparedness review is an assessment the Coast Guard may convene after the initial response to an oil spill. The Cosco Busan review was conducted by representatives of federal, state and local governments; environmental organizations; the shipping industry; and a major stakeholder in spill preparedness and response.

The audit committee requested that the bureau evaluate the efforts by the spill office and Emergency Services to communicate and coordinate with local governments and the public and to determine whether they followed all established protocols. Moreover, we were asked to assess the adequacy of the protocols and efforts, including how and when local governments were notified and used in the response. We were also asked to determine whether the appropriate agencies received accurate and timely information from the other entities involved, including vessel operators, contractors, and the Coast Guard.

The audit committee also asked us to review some general aspects of the spill office's operations. It requested that we identify the spill office's oversight of contingency plans and of response organizations during the past five years to evaluate whether the spill office's oversight activities were sufficient to identify and mitigate issues or problems, and to determine how the spill office ensures that response organizations take corrective action when needed. In addition, the audit committee asked us to examine and trend the sources and uses of the spill office's Oil Spill Prevention and Administration Fund (fund) since 2001, determining the reasons for any significant fluctuations and whether any surpluses exist. We were also asked to determine how the spill office uses its funds and whether such uses are in accordance with laws and regulations.

Finally, the audit committee asked us to examine policies regarding transferring spill office employees within Fish and Game and to determine the effect these policies have on the spill office's ability to respond to oil spills. In particular, we were asked to determine if and how many employees were transferred to other areas within Fish and Game and if such movement was allowable. We were asked to identify the employees transferred and to determine whether the activities the employees conduct are charged to the proper funds.

When addressing the audit committee's requests, we limited our review to the first two weeks of the spill response. More than 88 percent of the spilled oil that was recovered or evaporated during the spill response through March 2008 was accounted for during the first two weeks. To identify federal, state, local, and private entities responsible for responding to oil spills in the San Francisco Bay Area, we reviewed laws, regulations, and contingency plans. We also interviewed staff working within those entities to identify their specific responsibilities related to oil spill contingency plans. To identify the entities that actually responded to the Cosco Busan oil spill, the roles they played, and the tasks they carried out, we interviewed staff and reviewed incident logs. We then compared the actual responders and their roles to those

identified in laws, regulations, and contingency plans. As part of this comparison, we determined whether private contractors acted in accordance with applicable contingency plans.

Regarding the various contingency plans used for the Cosco Busan oil spill, we reviewed the regional plan, the San Francisco area plan, the state plan, and the vessel plan that covered the Cosco Busan to determine whether a clear chain of command exists for oil spills. We also reviewed the Coast Guard's Incident Management Handbook, which outlines the structure of the incident command system used to manage oil spill responses.

To determine whether the spill office directed the response and whether it carried out its responsibilities during the Cosco Busan oil spill in accordance with contingency plans, we interviewed spill office staff and examined daily incident action plans and communication logs to determine who directed the Cosco Busan response. We also identified spill office duties under the various contingency plans and then reviewed the spill office's actual activities in the Cosco Busan response to determine if it met the plan's guidelines. In addition, we reviewed its determination of the volume of oil spilled, a spill office responsibility under state law. To evaluate the communication and coordination efforts by the spill office and Emergency Services with local governments and the public, we interviewed staff and reviewed procedures, communication logs, briefing minutes, and press releases. We also interviewed unified command and local government officials and reviewed relevant communications to determine whether the unified command accurately and promptly informed and coordinated with local governments when responding to the Cosco Busan oil spill.

To determine the spill office's oversight responsibilities for contingency plans and response organizations, we reviewed federal and state laws and regulations and the various federal and state contingency plans. To identify the oversight by the spill office during the past five years and related follow-up and corrective actions, we examined the spill office's actions to update and approve the state and local plans. We also examined the spill office's reviews of 15 vessel plans—including the Cosco Busan's vessel plan—to see if they met key legal and regulatory requirements. In addition, we determined whether the spill office ensured that the sampled vessels had completed required drills. Additionally, we reviewed the spill office's evaluation of applications from five of the nine rated response organizations to ensure that they contained key elements and requirements. We also determined whether the response organizations had undergone rating reviews and whether

the spill office notified response organizations of deficiencies noted during those reviews and ensured corrective action through follow-up reviews.

To examine issues related to the fund, we interviewed key staff, compared laws and regulations concerning duties and administration of the fund to spill office practices, and reviewed financial reports from Fish and Game and the State Controller's Office. We also reviewed the fund balance in light of prior and future budgeted revenues and expenditures. A Department of Finance audit of the spill office issued in January 2005 raised concerns that the State's General Fund was borrowing money from the fund and that Fish and Game was charging the fund higher rates than it charges other funds for distributed administration costs. To follow up on these issues, we reviewed the fund's financial statements as well as documents provided by both Fish and Game and the spill office and found that all monies borrowed from the fund have been repaid. We also calculated the indirect rate currently charged to the fund for administrative costs and found that it is the same rate as the one Fish and Game charges to similar funds.

The U.S. Government Accountability Office, whose standards we follow, requires us to assess the reliability of computer-processed data. Because we used reports generated from the California State Accounting and Reporting System, we relied on our testing of revenues and expenditures performed each year during our annual financial audit of the State. In addition, we verified that the revenues and expenditures reported for Fish and Game reconciled with similar records at the State Controller's Office. This testing indicated that the data were sufficiently reliable for the purposes of this audit. Also, we noted inaccuracies and weaknesses in the spill office's readiness database, which prevented us from calculating certain information related to vessel plans to be used for background purposes. Although these limitations did not significantly limit the work conducted by our audit, they could affect the operations of the department. We will issue a separate management letter to Fish and Game discussing those weaknesses.

To examine employee transfers, we reviewed laws regarding the authority and responsibility of Fish and Game and the spill office, interviewed staff, and reviewed Fish and Game's proposals and the spill office's responses to changes in the reporting structure for employees paid by the fund. We also identified those employees and reviewed a sample of time sheets for employees from both restructured and nonrestructured units. In addition, we reviewed the daily activity reports for a sample of spill prevention wardens to better understand their activities and how they charge their time.

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Chapter 1

THE OFFICE OF SPILL PREVENTION AND RESPONSE HAS FULFILLED MOST OF ITS OVERSIGHT RESPONSIBILITIES, BUT COORDINATION WITH LOCAL GOVERNMENTS COULD IMPROVE

Chapter Summary

As the State's lead agency in responding to oil spills, the Office of Spill Prevention and Response (spill office) has met most of its oversight responsibilities for contingency planning but could improve several aspects of its oversight role. For example, the spill office has not kept the California Oil Spill Contingency Plan (state plan) up to date. It developed the state plan as a framework for the State's response to oil spills, but the plan is outdated and is missing elements required by law. The state plan also lacks references to other plans or documents that would better integrate it into the overall planning system.

The spill office has satisfied most of its oversight responsibilities regarding local government contingency plans (local plans), but it needs to encourage the ongoing participation of local governments. Most local governments have not kept their plans up to date, and most local governments in the San Francisco Bay Area have not regularly participated in other oil spill response planning activities. The outdated state plan and local plans and weak participation by local governments in oil spill response planning activities may have led to problems with integrating state and local government activities into the Cosco Busan response.

The spill office is fulfilling most of its other oversight responsibilities related to oil spill contingency planning for the State, including reviewing vessel contingency plans (vessel plans) and oil spill response organizations (response organizations). The spill office reviews and approves vessel plans as required and ensures that they contain key elements before the vessels enter California waters. However, we found that the spill office has never received vessel plan reviews that owners/operators (owners) should submit after oil spills and does not always document that vessel plans meet all drill requirements. Finally, the spill office is appropriately conducting reviews of response organizations, including carrying out follow-up activities when it identifies deficiencies.

The State Plan Has Not Been Updated Since 2001 and Is Missing Required Elements

The state plan serves as a framework for oil spill response in California, identifying federal, state, and local agencies designated to protect the public and natural resources from the effects of an oil spill. It was last updated in November 2001. The state plan's introduction indicates that its purpose is to protect California's resources from oil spills by facilitating and guiding the State's preparedness, response, and remediation efforts. Under state law the spill office must work with the State Interagency Oil Spill Committee (interagency committee) to develop the marine section of the state plan and to revise it every three years. The interagency committee is chaired by a spill office employee and comprises representatives from other state agencies that also carry out natural resource protection and emergency response work, such as the State Lands Commission and the California Coastal Commission.

The spill office should have updated the state plan in 2004 and 2007.

Based on the state law mandating revision of the state plan every three years, the spill office should have updated the state plan in November 2004 and again in November 2007. However, according to the chief of its Marine Safety Branch, the spill office has not revised the state plan because the conceptual framework for oil spill response in the State is still mostly correct and because the interagency committee does not meet regularly. The deputy administrator of the spill office (deputy administrator) said that updating the state plan is not a priority at this time and that the spill office is instead focusing on its partnerships with other agencies through, for example, participation in area contingency plans (area plans).

Because it has not revised the state plan since 2001, the spill office has decreased the plan's usefulness. For example, the state plan includes an appendix listing telephone numbers for notifying federal and state agencies, members of the interagency committee and the Oil Spill Technical Advisory Committee, and emergency response contractors capable of carrying out an oil spill cleanup. Because staff and phone numbers can change, these lists need to be updated regularly to ensure that the plan remains useful.

In addition to containing potentially outdated contact information, the state plan is missing elements required by state law and lacks references to where this missing information is located in other oil spill contingency plans and documents. For example, the state plan is missing a required coastal protection element that establishes state standards for coastline protection, including criteria that designate emergency response vessels capable of carrying out oil cleanup operations. The state plan is also missing an element

that requires the spill office to distribute regional maps depicting environmentally and ecologically sensitive areas and designates the steps to be taken to protect those areas when an oil spill occurs.

According to the manager of the environmental program in the spill office's Scientific Branch, area plans and other documents cover these missing elements. However, the state plan lacks references to the location where these missing elements are satisfied, instead making general statements that area and vessel plans and other agencies are an important part of the spill response system. When the state plan is not up to date and integrated with other oil spill contingency plans or agency documents, the spill office has less assurance that response activities are complete and mesh with those of other entities.

According to spill office staff, area plans and other documents cover missing state plan elements, but the state plan lacks references to where they are located.

The Spill Office Has Overseen Local Oil Spill Response Planning, but Few Local Governments Still Participate in Planning Activities

The spill office has carried out its duties to review and approve local plans and provided grants to counties to update them and to participate in other oil spill response planning activities. However, our review found that most local plans are outdated. Our review also found that participation by local governments in oil spill response planning activities has been minimal. Local governments' interest in oil spill planning increased after the Cosco Busan incident.

Under state law, any local government with jurisdiction over marine waters or directly adjacent to marine waters may apply for a grant to complete, update, or revise an oil spill contingency plan. The grant program is intended to promote coordinated response and cleanup efforts among local, state, and federal officials. The spill office has the duty to review grant applications, award grants, and review and approve local plans. It is also required to review the preparedness of local governments to determine whether the grant program should be continued. If the spill office determines that local government preparedness needs improvement, it can request additional funds for the grant program from the Legislature.

Regulation established the grant program in 1993, allowing the spill office to make grants of up to $50,000 each to eligible local governments for the preparation of local plans. After local plans were approved, the spill office said, it offered subsequent grants of $5,000 to $25,000 per year to each local government to encourage updating of contingency plans and participation in drills and training. Twenty-two local governments submitted contingency plans to the spill office and, according to the spill office, between 1993 and 1998 the plans were approved, with 21 counties and one city

with marine waters participating.[5] Currently, however, only six local plans have been revised since 2004, and seven have not been revised since 1995 or before, as shown in Table 2.

Table 2
Current Status of Local Government Contingency Plans

LOCAL GOVERNMENT	YEAR PLAN INITIALLY APPROVED OR LAST UPDATED	YEARS SINCE LAST UPDATE (APPROXIMATE)
Alameda County	1995	13
Contra Costa County	2005	3
Del Norte County	1998	10
Humboldt County	1997	11
Los Angeles City	1998	10
Los Angeles County	2004	4
Marin County	2001	7
Mendocino County	1994	14
Monterey County	2005	3
Napa County	1993	15
Orange County	1994	14
San Diego County	2004	4
San Francisco City and County	2007	1
San Joaquin County	2003	5
San Luis Obispo County	1994	14
San Mateo County	1994	14
Santa Barbara County	1994	14
Santa Clara County*	-	-
Santa Cruz County	2005	3
Solano County*	-	-
Sonoma County	2003	5
Ventura County	2001	7

Source: Information according to Office of Spill Prevention and Response's (spill office) local plan files as of July 2008.

* Although the spill office indicates receiving the local plan, it was unable to locate the document.

As shown in the text box, awards for the grant program generally declined between fiscal years 2000–01 and 2007–08. After the Cosco Busan incident, however, grants for contingency planning by local governments increased sharply.

[5] Sacramento and Yolo Counties are the only counties with marine waters that did not participate.

Because many local governments located adjacent to marine waters have not updated their plans, they may not be familiar with the activities that occur during an oil spill response. For example, local plans we reviewed include references to an obsolete system by which local governments coordinated and integrated with the unified command during an oil spill response. The outdated local plans say that after a spill, local government representatives will form a multiagency cooperation group (cooperation group) to facilitate briefings and share issues during a response. These local plans further stipulate that the cooperation group will select a local government representative to advise the state on-scene coordinator within the unified command. However, this method of integration was not followed in the Cosco Busan oil spill and has not been standard practice since 2005. According to the spill office's statewide area contingency plan coordinator, federal standards have moved away from the cooperation group model of local government involvement. Instead, he indicated that the Coast Guard's Incident Management Handbook states that each local government representative will individually interact with the unified command through the unified command's liaison officer.

Grant Funds Awarded to Local Governments for Oil Spill Planning Activities by Fiscal Year

2000–01	$270,000
2001–02	230,000
2002–03	100,000
2003–04	158,000
2004–05	40,000
2005–06	60,000
2006–07	20,000
2007–08	65,000
2008–09	175,000*

Source: Office of Spill Prevention and Response, Financial and Administrative branch.

* Awards as of August 2008.

In addition, some of the local plans for governments in the San Francisco Bay and Delta Area contain outdated volunteer sections and/or obsolete lists of available equipment that can be used to respond to an oil spill. Our review of five San Francisco Bay and Delta Area local government plans revealed that two plans contained volunteer sections—in which local governments describe methods of managing volunteers during a spill—that have not been updated for 11 or more years. Moreover, two of the plans had equipment lists that had not been updated since 1993.

Further, according to the spill office, local governments have attended few oil spill response drills over the last several years, reducing the ability of local government personnel and resources to effectively participate in oil spill response efforts. The spill office's Drills and Exercises Unit indicated that it invites local governments to most drills in which the spill office participates, but local governments have rarely attended. The spill office has no formal procedures for inviting local governments to participate in these drills. Further, it did not begin tracking participation until April 2008 and thus was unable to provide us with specifics on actual participation levels. Two local government representatives we spoke with from Contra Costa and Marin counties said they had attended some drills over the last several years but that counties must

prepare for a large variety of emergency responses and must allocate limited preparation resources carefully. Because of the emphasis on terrorism after the 2001 terrorist attacks, these counties stated they have given oil spill response activities a lower priority.

Local government participation in joint planning efforts has been low.

Finally, counties rarely attended meetings of the San Francisco Bay and Delta Area Committee (area committee), increasing their attendance only after the Cosco Busan oil spill. Specifically, according to the Coast Guard's attendance summary for the 12 meetings held between October 2005 and September 2007, only five out of 12 Bay and Delta Area counties attended some of these meetings: Sonoma County Emergency Services attended four meetings; the city of Oakland,[6] Marin County Emergency Services, and the San Francisco Health Department each attended three meetings; and Contra Costa Emergency Services attended only one meeting. The other Bay and Delta Area counties did not attend any meetings during the period. However, according to the spill office's lieutenant who co-chairs the area committee, representatives from six counties and many local cities attended the January 2008 meeting, the first following the Cosco Busan incident, and five counties attended the next meeting in May 2008.

Because many local governments have not updated their contingency plans or actively participated in drills or area committee meetings, local oil spill response resources are probably not integrated as well into oil spill contingency planning as they could be. Further, local governments' lack of involvement may have led to unfamiliarity with their roles during the Cosco Busan incident. Moreover, outdated local plans, coupled with an outdated and incomplete state plan, may contribute to problems integrating local government resources with federal and state oil spill response efforts. The spill office indicated that participation by local governments in these activities is important and stated that it is considering several actions to encourage it, including regulation changes. Given that two local governments cited resource limitations, the spill office may also want to consider whether additional funds are needed to improve local government preparedness.

The Spill Office Is Fulfilling Most of Its Review and Approval Responsibilities for Vessel Plans

The spill office has an established system for reviewing vessel plans and has ensured that the vessel plans are approved before any vessel enters California waters. Also, the spill office verifies that vessel plans contain key elements that ensure their compliance with state law.

[6] The city of Oakland represents Alameda County in local and area oil spill contingency planning.

However, in a few instances, owners may not have submitted to the spill office the required reviews of their vessel plans after oil spills, and the spill office has never requested such reviews. Also, the spill office has not always ensured that it receives and maintains documentation showing that owners have met drill requirements.

State law requires owners of certain vessels that plan to travel within California marine waters to have an approved vessel plan on file with the spill office prior to entering California waters. The plan may be specific to one vessel or may apply to a fleet of vessels. For example, the Cosco Busan was one of 41 vessels covered by the same plan. A vessel plan must identify oil spill response strategies and equipment for use when an oil spill occurs. For example, state regulation requires a vessel plan to identify the spill management team that will manage all aspects of response, containment, and cleanup in the event the vessel causes an oil spill. We reviewed 15 vessel plans approved by the spill office between May 1998 and June 2006, including the vessel plan for the owner of the Cosco Busan. We selected one vessel from each plan, including the Cosco Busan, to determine whether the vessel had an approved vessel plan on file with the spill office before entering California waters. Eight of the 15 vessels we selected had entered California waters, and all eight had approved vessel plans on file with the spill office before they did so. Also, each vessel plan we reviewed identified a spill management team and other essential spill response resources.

Of the 15 vessels we selected, eight had entered California waters and all eight had an approved plan on file with the spill office.

However, the spill office does not require owners to submit reviews of their vessel plans after oil spills (postspill reviews) when applicable. State regulations require each vessel plan to provide for a postspill review that includes methods for reviewing both the effectiveness of the plan and the need for plan amendments. This review is to be used for proposing changes to the vessel plan, and it must be forwarded to the spill office within 90 days after the response to and cleanup of an oil spill is completed. This requirement has applied to tank vessels since 1993, vessels carrying oil as a secondary cargo since 1998, and to nontank vessels since 2000. Despite the apparent usefulness of the postspill review, the deputy administrator said that the spill office has never received one. Before 2007 the spill office did not maintain a database or lists of vessels involved in spills, and the deputy administrator does not recall a vessel spill that met this requirement. Thus, it is impossible to determine if any vessel has ever needed to submit a postspill review.

The deputy administrator believes the postspill review requirement is worthwhile but in reality is difficult to enforce without using significant investigative resources. He said the spill office needs to consider whether it is reasonable to ask vessel owners to admit problems when the admissions may influence penalties. In addition,

he said California's strict liability for oil spills serves as a motivation for vessel owners to improve their prevention and readiness efforts. If the spill office believes the postspill reviews are not worthwhile, it should eliminate them; otherwise, it should work to make sure it receives them.

The spill office also does not always document that annual tabletop exercises have been conducted for each vessel plan.[7] For the vessel plans we tested, the spill office could not produce all exercise evaluations or credit letters for tabletop exercises in the most recent three-year drill cycle, 2006 through 2008. During the three-year cycle, state regulations generally require that a tabletop exercise be conducted annually for each vessel plan, and that once every three years one of the exercises be conducted in California. State regulations also require the vessel owner to provide documentation to the spill office that the exercise was conducted. The spill office then should issue credit letters to the owner.

For the 15 vessel plans we reviewed, five spill management teams had conducted the tabletop exercises. We found that the spill office did not have documentation showing that two spill management teams conducted the required tabletop exercises every year: one exercise in 2006 and two in 2007. After we inquired about these discrepancies, the spill office contacted the spill management teams, which provided documentation confirming they had conducted the exercises. When the spill office does not obtain and retain documentation showing that exercises have been conducted for vessel plans, it cannot ensure that it maintains adequate control over vessel preparedness.

The Spill Office Is Fulfilling Significant Review and Approval Requirements for Response Organizations

The spill office is meeting significant review and approval responsibilities regarding response organizations, including conducting drills as required and carrying out follow-up activities when it identifies deficiencies during the drills. The spill office is also issuing rating letters to response organizations following its rating drills and issuing reports of drill findings to the response organizations following subsequent unannounced drills. State law requires a vessel plan to identify a response organization under contract to provide the personnel and equipment necessary to respond to all vessel plan requirements when an oil spill occurs.

[7] A tabletop exercise tests an oil spill contingency plan and the spill management response efforts without the deployment of response equipment. It usually involves a simulated spill response. Generally, contracted spill management teams conduct these exercises; however, vessel plan holders can also conduct them.

Any response organization identified in a vessel plan must be rated by the spill office. That rating reflects the response organization's capability to deliver and deploy the resources necessary to protect a specific stretch of coastline within a specified response time. Response organizations may also apply to be rated on their responses to sites that have additional requirements because they are environmentally sensitive.

State regulations require the response organization seeking to obtain a rating to submit an application and supporting documentation to the spill office. The spill office evaluates the application and may also inspect or verify the response organization's records and equipment. The response organization also must successfully complete an unannounced drill to verify the information listed in the application. After the drill the spill office issues a rating letter to the response organization stating the specific services and conditions it has met based on its drill performance. Ratings are assigned for three years. Response organizations are also subject to announced and unannounced drills by the spill office subsequent to receiving ratings. State law requires the spill office to issue a written report evaluating a response organization's performance within 30 days of every unannounced drill called by the spill office. The spill office may modify, suspend, or revoke a response organization's rating if the drill demonstrates that the organization does not comply with the conditions of the rating. The response organization has 60 days after it is notified of a proposed rating change to either correct deficiencies or have its rating modified, suspended, or revoked.

The spill office is conducting drills of response organizations as required and carrying out follow-up activities when it identifies deficiencies during drills.

We reviewed five of the nine rated response organizations operating in California and noted that the spill office conducted drills to verify the rating and equipment information submitted for each of them, as required, as well as to determine whether they met drill requirements for sensitive sites. The spill office also demonstrated that it had conducted follow-up activities for the deficiencies noted during drills. For example, in an unannounced drill conducted in April 2008, the response organization failed to meet its on-water oil recovery requirements. In this example the response organization was to meet a drill objective of two hours to deploy on-water recovery equipment to recover 1,200 barrels of oil, but during the drill it did not meet that objective within two hours. As a result, the spill office notified the response organization that it would modify the response organization's rating for on-water recovery. Subsequently, 18 days after the drill, the response organization informed the spill office it had addressed the deficiencies by providing additional training for staff and by maintaining personnel near the tested area. The spill office redrilled the response organization just under one month later and verified that the organization met the two-hour objective.

Recommendations

To ensure that the State's activities in response to an oil spill are complete and well integrated with other efforts, the spill office should regularly update the state plan and include references to sections of the regional plan and area plans that cover required elements.

To better integrate local plans with the response activities in other types of contingency plans, and to keep local plans up to date, the spill office should work with local governments to improve participation and should consider whether additional grant funding is needed.

With regard to postspill reviews, the spill office should determine whether the postspill reviews are an effective means for identifying areas for plan improvement and then take steps to either ensure the reviews are submitted or eliminate them from its regulations.

To ensure vessel preparedness for oil spills, the spill office should obtain and retain documentation related to completion of required tabletop exercises.

Chapter 2

STATE AND PRIVATE ENTITIES MET THEIR FUNDAMENTAL DUTIES IN THE COSCO BUSAN RESPONSE, BUT COMMUNICATION BREAKDOWNS CAUSED PROBLEMS

Chapter Summary

The Office of Spill Prevention and Response (spill office), the Governor's Office of Emergency Services (Emergency Services), and private contractors responding to the Cosco Busan oil spill incident performed the fundamental duties set forth in the oil spill contingency plans. However, changes are needed in several areas to improve responses to future oil spills. As noted in the Introduction, when a marine oil spill occurs, an emergency management system known as the Incident Command System (command system) is activated. Primary responsibility for directing the response typically falls to a three-person unified command consisting of representatives from the spill office, the responsible party,[8] and the U.S. Coast Guard (Coast Guard), which retains ultimate authority over the response. Although the incident-specific preparedness review[9] (incident review report) for the oil spill identified problems in the Coast Guard response, our report focuses on the efforts of the State as required under oil spill contingency plans. We found that weaknesses in the spill office's handling of its liaison role during the initial days of the response, including a shortage of communications equipment and trained liaison officers, led to communication problems with local governments. Also, the absence of a state information officer with oil spill experience during the early days of the response appears to have hindered the dissemination of information about the role of volunteers in the spill cleanup.

Moreover, the spill office's lack of urgency in reporting its measurement of the spill quantity, as well as the understated spill amounts reported by others, may have delayed the mobilization of additional response resources on the first day of the spill and contributed to the delayed notification of local governments. Finally, insufficient staffing hindered wildlife rescue efforts by the Oiled Wildlife Care Network (wildlife network), although the spill office carried out its fundamental duties related to treating oiled wildlife.

[8] The responsible party is the owner or transporter of oil or the owner, operator, or lessee of a tanker, barge, nontank vessel, or marine facility.

[9] The incident-specific preparedness review is an assessment the Coast Guard may convene after the initial response to an oil spill. The Cosco Busan review was conducted by representatives of federal, state, and local governments; environmental organizations; the shipping industry; and a major stakeholder in spill preparedness and response.

State and Private Entities Responding to the Cosco Busan Oil Spill Met Their Fundamental Responsibilities

Within an hour and a half of the spill, spill office personnel formed a unified command with the Coast Guard to oversee the response and activated a field response team.

As the lead state agency for responding to oil spills, the spill office fulfilled its fundamental duties during the response to the Cosco Busan incident, which occurred at 8:30 a.m. on November 7, 2007. Within an hour and a half of the spill, spill office personnel formed a unified command with the Coast Guard to oversee the response and activated spill office staff who were in the area to serve as a field response team to provide support. Specifically, one spill office lieutenant and two wardens were in the San Francisco Bay Area for a prescheduled meeting on Yerba Buena Island, where the initial command post was established about an hour after the incident. By 9:45 a.m. the lieutenant joined with the unified command to assume the position of the state on-scene coordinator (state coordinator). Another employee, who was traveling to Oakland, reported arriving on Yerba Buena Island at approximately 9:35 a.m. to calculate the volume of oil spilled. Two spill office biologists arrived by 2:30 p.m.

In addition to calculating the volume of oil spilled and initiating an investigation into the cause of the spill on the first day, the field response team assisted the state coordinator in ensuring that response organizations were on the scene, the wildlife network was activated, and various stakeholders, including the National Marine Sanctuaries, were notified. To provide support to the unified command, the spill office opened its operations center in Sacramento at 8 a.m. on the day after the spill and kept it open from approximately 7 a.m. to 6:30 p.m. each day through the eighth day following the spill. By the third day of the response, at least 33 spill office employees were assisting in the response at the command post, with additional staff supporting the effort from the operations center. Spill office personnel participating in the response included environmental scientists, biologists, enforcement personnel, and spill prevention specialists. They filled various supporting roles within the response, including assisting with logistics, finance, planning, and operations.

The spill office also managed the spill's wildlife response efforts, overseeing an operation that through March 2008 collected more than 2,900 live and dead oiled birds, and rehabilitated and released 421 birds back into the wild. In addition, the spill office coordinated the training of spontaneous volunteers,[10] who assisted with wildlife response or beach cleanup activities. The spill office continues to collaborate with other state and federal agencies to investigate the cause of the spill and to collect the appropriate damages from

[10] Spontaneous volunteers are individuals from the public who are not previously registered that come forward following an oil spill to participate in response efforts. They may or may not have any training or experience relevant to oil spills.

the responsible party. The spill office has also continued to fulfill its duties to ensure that affected areas of the coastline are safe for public use. To manage cleanup operations, the unified command organized the shoreline affected by the spill into 226 segments. As of June 23, 2008, the spill office reported that cleanup efforts are complete for 91 percent of those shoreline segments.

Emergency Services did not immediately notify all counties in the Bay Area, but took steps to do so when the scale of the spill became clear.

Emergency Services, responsible for notifying government agencies and departments that may be required to respond to an oil spill, immediately notified the county where the Cosco Busan oil spill was reported to have taken place, as required by law. It did not immediately notify all other counties in the Bay Area, but took steps to do so when the scale of the spill became clear and later changed its procedures to more effectively notify counties in the future. Reports that Emergency Services received about an hour after the incident indicated that the spill occurred in waters off Alameda County and was limited to 420 gallons.[11] Soon after, Emergency Services notified the Oakland Fire Department, Alameda's administrative agency responsible for performing countywide notifications, that a spill had occurred but, following its then-current procedures, did not notify any other counties of the spill. However, when the spill office's deputy administrator notified it about eight hours later that the estimated spill volume was much higher than originally reported—more than 77,000 gallons[12]—Emergency Services took steps to inform other local San Francisco Bay Area governments of the spill, even though this was not required as part of Emergency Services' warning center protocols at the time. Emergency Services conducted a conference call with other Bay Area counties at 9 p.m., approximately 12 hours after the incident. Counties briefed included Alameda, Contra Costa, Marin, San Francisco, San Mateo, Solano, and Sonoma.

Following the spill, Emergency Services revised its notification policies to ensure that all potentially affected local governments are notified of future spills. In addition to notifying the county where a spill occurs, Emergency Services' new procedures include notifying the adjoining counties to the north and south for ocean spills, notifying the county downstream for stream spills, and contacting all counties that surround a bay for spills in a bay area. These notifications will be required for all spills greater than, or potentially greater than, one barrel (42 gallons) released into water.

[11] Discrepancies occurred in the estimated volume of spilled oil reported to various entities on the morning of the spill. Initial estimates ranged from approximately 140 gallons to 420 gallons.

[12] The final spill volume was later lowered to 53,600 gallons.

The three private contractors required to respond to the Cosco Busan oil spill generally acted in accordance with applicable contingency plans. As discussed in the Introduction, private contractors can serve in three roles in response to a marine oil spill incident. According to state regulations and the vessel contingency plan (vessel plan) for Cosco Busan, in the event of a worst-case spill, the two designated oil spill response organizations (response organizations) under contract with the owner of the Cosco Busan were to have sufficient skimming, booming, and storage resources available to contain and clean up a spill of up to 302,000 gallons within six hours following notification of a discharge.[13] According to the spill office's response chronology log, both response organizations were notified of the oil spill by 9:20 a.m. on the day the incident occurred, with the spill office's records showing the first response vessel arriving at 9:30 a.m. Despite the initial report of a relatively minor oil spill and the heavy fog that hampered viewing the extent of the spill, the response organizations had, within six hours of the oil spill, assembled 13 vessels, including seven skimmers, and a truck on scene with a collective capacity of removing 2.4 million gallons of oil per day, a storage capacity of 148,000 gallons, and 15,800 feet of containment boom.

Despite the initial report of a relatively minor oil spill and heavy fog, the response organizations had 13 vessels on scene within six hours of the spill.

A single contractor—O'Brien Oil Pollution Services (The O'Brien's Group)—served a dual role of qualified individual and spill management team for this incident. Based on the Coast Guard's chronology log and the unified command's incident status summary forms, we found that The O'Brien's Group performed its primary responsibilities. It reported significant updates in the volume of oil spilled; maintained communication with federal, state, and response organizations; and rapidly blended with the federal and state coordinators to form a unified command. Although The O'Brien's Group did not physically join the unified command until 4 p.m., it established contact with the Coast Guard and Marine Spill Response Corporation within an hour of receiving notification of the spill.

In addition, under the Cosco Busan vessel plan, The O'Brien's Group is required to "notify IMMEDIATELY of the discovery of oil or threatened discharge of oil" the contracted response organizations listed on the vessel plan—Marine Spill Response Corporation and National Response Corporation. The time it took for The O'Brien's Group to notify the response organizations after it was told of the spill at 9:15 a.m. differ somewhat between the incident review report, Marine Spill Response Corporation's response chronology, and the U.S. National Transportation Safety Board's Environmental Response Group Chairman's Factual Report. These times range

[13] According to the vessel plan, this amount represents the total volume of the largest fuel tank of all the nontank vessels in the vessel plan that covered the Cosco Busan. However, the volume of the largest fuel tank on the Cosco Busan was 247,000 gallons.

between 36 and 52 minutes for The O'Brien's Group's notification of Marine Spill Response Corporation, and between 55 and 86 minutes for its notification of National Response Corporation. Regardless of the timing of The O'Brien's Group's notifications, Marine Spill Response Corporation received notification from the relief pilot on the Cosco Busan at 9:17 a.m. Further, National Response Corporation reported learning of the spill at 9:05 a.m. as a result of an Internet monitoring system it uses. Thus, in this instance, redundant, proactive notification efforts worked to ensure that the response organizations received immediate notice of the oil spill.

Weaknesses in the Spill Office's Procedures for Engaging Local Governments and Training Liaison Officers Led to Communication Breakdowns

State law requires the spill office to keep local governments apprised throughout a spill response. However, initial limitations on communications equipment and the lack of trained staff to act as liaison officers hindered the spill office's efforts to keep local governments informed and updated. The counties we spoke with confirmed these problems and expressed dissatisfaction with the spill office's role as a liaison between local governments and the unified command.

Initial Limitations on Communications Equipment and a Lack of Trained Liaison Officers Hindered the Spill Office's Liaison Efforts With Local Governments

The spill office indicated that a shortage of communications equipment limited the liaison officer's effectiveness at the command post during the critical second and third days of the response. The initial command post was set up at Yerba Buena Island because several federal and state staff were meeting there at the time of the spill. The response outgrew this site, however, and was moved to Fort Mason on the day after the spill. According to spill office liaison staff, because of equipment limitations at the Fort Mason command center, the liaison officer did not have access to a copy machine, a fax machine, or an Internet connection. In addition, the command post lacked a dedicated phone line for the liaison officer and space to house local government representatives. Liaison staff stated that these equipment limitations were sufficiently severe that it could not provide local government representatives with copies of the daily incident action plan—which describes the response objectives for managing an incident and assignments for the operational period—even by the third day of the response.

Space and technological needs did not begin to be met until the fourth day of the response, when the command post moved to Treasure Island.

Liaison staff believe this caused local government representatives to feel anger and distrust and to question the competence of the unified command.

Concerns with the suitability of the Fort Mason command post were noted in the incident review report, which states, "The Fort Mason location was not set up to support the telecommunications and computer requirements that exist in a modern command post. In addition, the physical space was not large enough." The incident review report also notes that the area contingency plan (area plan) does not specify a command post location and that the Treasure Island facility, where the command post was moved on day four of the spill response, required a great deal of initial preparation to make it suitable for a command post. Spill office liaison staff stated that not until the command post moved to Treasure Island did space and technological needs begin to be met.

To address these communications issues for future spills, the spill office is working with the San Francisco Bay and Delta Area Committee to identify potential command posts in the Bay Area and to establish criteria identifying command post space and equipment needs. The spill office possesses a communications trailer in Sacramento that could have been deployed to help alleviate the lack of communications equipment in the first few days of the spill response. However, according to the deputy administrator of the spill office (deputy administrator), spill office management did not realize the extent of the communications equipment problems during the first two days of the response and therefore sent the communications trailer to have the heater repaired on the day after the spill instead of sending it immediately to the command post. As a result, it was not used until the fourth day of the response.

Additionally, staff in the spill office's operations center in Sacramento did not follow a procedure that might have assisted the liaison officer at the command post in keeping local governments informed of response priorities and activities. A checklist maintained by liaison staff instructs the operations center staff to create a daily fact sheet—updated with information from briefings, press releases, and the operations center chief and command post liaison—to send to certain state agencies as well as potentially affected local governments and legislators. However, according to liaison staff, this procedure was not followed during the Cosco Busan oil spill because a trained liaison officer was unavailable and the staff member filling in on the day after the spill had never acted as a liaison officer before and was not aware of the checklist.

The spill office believes it did not have a sufficient number of trained liaison officers ready to participate in the Cosco Busan response.

The spill office believes it did not have a sufficient number of staff trained as liaison officers ready to participate in the spill response. The spill office sent only one liaison officer to the command post

for the first several days following the spill and did not have a trained liaison officer available to provide support from the Sacramento operations center. According to the deputy administrator, the situation was exacerbated by the absence of the spill office's most qualified liaison officer, who was unavailable when the spill occurred. The spill office's training liaison officer stated that a lesson learned from the Cosco Busan incident was the need for additional trained liaison officers. He added that before this incident, the spill office had started to develop a needs analysis to determine the number of employees needed in each area of the command system, including the liaison role. After the incident the spill office determined that it needs 15 trained liaison officers, although it was unable to show us the basis for this staffing level. The deputy administrator stated that the spill office recently hired a vendor to perform liaison-specific training for approximately 30 spill office staff.

Before the Cosco Busan oil spill, the spill office had identified employees who would assume the role of liaison officer, but it had not developed qualification standards or position-specific training to ensure that liaison staff were capable of successfully filling that role. According to the training liaison officer, although the spill office had identified the command system areas in which each employee could serve in the event of a spill, including the liaison with local governments, it did not differentiate between employees who possessed only basic command system training and those who possessed the specialized training, experience, and skills to perform the required tasks in each command system area. After the spill, according to the deputy administrator, the spill office formally identified qualified employees within each command system area but relied on each employee's supervisor to make these determinations based on his or her knowledge of the employee's skills and experience, rather than on developing specific standards to determine whether the employee is, in fact, qualified. As of April 2008 it identified only two staff qualified to fill the role of liaison officer.

Finally, drills can be a valuable training tool to prepare employees to serve as liaison officers in a spill response. However, the spill office's records show that only four employees participated as liaison officers in the eight drills held between January 2006 and August 2007, suggesting that the spill office has not sufficiently utilized drills to prepare staff to fill the liaison officer role. In fact, the liaison officer sent to the command post for the first week of the Cosco Busan incident was not the liaison officer in any of the eight drills and was not one of the two liaison officers the spill office identified as "qualified" in April 2008. According to the deputy administrator, the spill office has tended to repeatedly assign the most qualified individuals to roles in the command system to maximize performance at each drill. He noted that this practice has limited the spill office's development of a deep pool of employees

The first liaison officer sent to the Cosco Busan incident had not served as a liaison in recent drills and was not one of the two "qualified" liaison officers the spill office identified in April 2008.

experienced in the liaison officer role. A more effective method would be to rotate individuals into the role during drills to increase the pool of trained liaison officers.

The deputy administrator indicated that the spill office will address these concerns by adopting qualification standards for roles within each command system area, including the liaison function. This process is ongoing, but currently no date for completion is estimated. He also said that the spill office will develop a new operations center manual by the end of the year and will include drill participation in the qualification standards.

Local Governments Were Not Satisfied With the Information Initially Provided by the Spill Office's Liaison

The counties we spoke with expressed dissatisfaction with the spill office's role as a liaison between local governments and the unified command.

Local government representatives expressed dissatisfaction with the information the spill office liaison officer initially provided them during the Cosco Busan oil spill. According to representatives of Alameda, Contra Costa, Marin, and San Francisco counties who communicated with the unified command through the liaison officer, their counties had difficulty obtaining updated information concerning the spill response. In particular, it was hard to learn where the oil was spreading and what the status of beaches was, including which ones were expected to be oiled next or were scheduled for cleanup. These local government representatives also asserted that they rarely had access to the state coordinator or the other two members of the unified command to convey their concerns. Further, two local government representatives said they did not believe the unified command took their priorities seriously.

Liaison staff agreed that there were difficulties for several days in providing timely and specific information to local governments during the Cosco Busan oil spill. Moreover, they agreed that in the early days of the spill, the liaison officer at the command post had difficulty addressing the information requests of all interested groups and was unprepared for the level of interest and the number of queries from local governments, citizens, and legislators. According to the spill office employee functioning as the state coordinator for the first four days of the spill, the unified command appointed a federal employee to replace the spill office's assigned liaison officer on the third day of the response, less than 24 hours after he had assumed the role, because of dissatisfaction with his performance, although he continued to support the federal replacement until the seventh day of the response. Also, according to liaison staff, on day five of the spill, the liaison officer began to post detailed oil spill response information to a Web site available to local government representatives. They believe that this

Web site, along with twice-daily multiagency conference calls, was an effective way of providing information to local governments and reduced some of the pressures on liaison staff at the command post.

Local government representatives from Alameda, Contra Costa, Marin, and San Francisco counties also expressed concern that the unified command chose not to use locally available resources, including some limited booming equipment, trained hazardous materials teams, and overflight capabilities to monitor the coastline. Several representatives noted that they acted to protect their waterways and clean beaches after unsuccessfully attempting to contact the unified command. For example, according to the local Emergency Services representative from Alameda County, on the first day of the spill, the Oakland Fire Department reported having containment boom and personnel available to prevent oil from entering the Lake Merritt Channel. Repeated attempts to contact the unified command for direction were not successful. Subsequently, the representative said that the Oakland Fire Department boomed the channel entrance on the third night following the spill without direction from the unified command. Similarly, Contra Costa County reported using its hazardous materials team to clean up the county shoreline, recovering 4,000 pounds of oiled materials, after the unified command did not respond to its request to have its resources be included in the response.

Several local governments indicated they took action to protect waterways and clean beaches after unsuccessfully attempting to contact the unified command.

These situations indicate that the liaison officer's difficulty communicating with local government may have contributed to heightened local concerns and, for the counties we spoke with, led to frustration and to the perception that the response was not as effective as it could have been. Further, the flaws in local government integration with the unified command discussed in Chapter 1, including outdated local government contingency plans and the lack of local government participation in area planning and drills, may have caused the unified command to be unfamiliar with local government resources and for local governments to be unfamiliar with their role.

The Delay in Measuring the Extent of the Spill May Have Affected the Response

The failure of the responsible party, the Coast Guard, and the spill office to accurately and quickly calculate the volume of oil spilled from the Cosco Busan resulted in the unified command not knowing the full extent of the spill until more than seven hours after it had occurred. Although the spill office is required by law to perform a calculation of the spill volume, its practice is to rely on the Coast Guard and the responsible party to perform initial measurements.

Neither the Coast Guard nor the responsible party initially reported accurate spill amounts to the unified command, and the spill office's protocols proved inadequate to ensure the timely calculation and reporting of the correct volume.

In this case neither the Coast Guard nor the responsible party initially reported accurate spill amounts to the unified command. The spill office's protocols then proved inadequate to ensure the timely calculation and reporting of the correct volume. This delay may have contributed to a delayed mobilization of additional response personnel and resources and to the delayed notification of local governments.

The Spill Office Does Not View Its Spill Volume Calculations as Critical to Oil Spill Responses

According to the chief of the spill office's Marine Safety Branch (marine safety chief), the primary responsibility for the initial quantification of the amount of oil spilled generally falls to the responsible party and the Coast Guard's pollution investigation team (investigation team). State regulations require the responsible party to perform such a measurement, although the marine safety chief noted that the responsible party's quantification commonly understates the volume of oil spilled. He said that the spill office performs calculations of the amount of oil spilled as part of its effort to determine the damage to natural resources and that the spill office's initial quantification of spilled oil is rarely critical to the mobilization of resource personnel.

The marine safety chief further noted that the state coordinator determines when the spill office should undertake its calculation of the spill volume and that, due to the potential complexity of the measurement, no requirements exist to perform the calculation using a particular method or within a certain time frame. However, he said that generally the employee performing the calculation waits to provide the results in person, allowing the state coordinator to ensure the accuracy of the final numbers and methodology. In addition, the marine safety chief stated that the spill office does not include spill quantification in drills, because these drills focus on managing response resources and coordinating with other agencies.

The spill office's actions to quantify the spill volume during the Cosco Busan incident appear to be in accord with these practices. In his testimony to the National Transportation Safety Board, a spill office employee who is an oil spill prevention specialist (specialist), indicated that he arrived at the command post at approximately 9:35 a.m. to perform a spill calculation. However, the spill office did not have a boat available to take him out to the Cosco Busan so he requested that the Coast Guard transport him. He further testified that because all Coast Guard boats were in use, he and a field response team warden waited until about 12:05 p.m.—two and a half hours later—for the Coast Guard to transport them. According to the incident review report, however,

the Coast Guard asserted that its records show the specialist's transportation request was not made until 11:20 a.m. and that it took steps to provide transportation as soon as possible.

Upon arriving on the Cosco Busan, the specialist began estimating the spill volume and reached his final estimate of 58,000 gallons between 1:15 p.m. and 1:45 p.m. The specialist stated that the warden immediately called the Coast Guard to request a boat back to the command post but that they were not picked up until approximately 3 p.m. Therefore, the specialist did not inform the unified command of his spill volume calculation until roughly 4 p.m. Even though he had access to a cellular phone, the specialist stated he did not call the state coordinator to inform him of the transportation delays to and from the Cosco Busan or of his estimate of the oil spilled.

In his testimony the specialist attributed his lack of urgency to knowing that Coast Guard personnel were on the vessel and his assumption that they already would have successfully determined the extent of the spill. Further, the specialist believed that his calculation would only modestly affect the oil spill response, which he believed was based on a worst-case scenario. In fact, both the responsible party and the Coast Guard initially failed to accurately calculate the volume of the spill.

On the morning of the spill, the chief engineer on the Cosco Busan reported to the Coast Guard that approximately 140 gallons had been spilled.[14] In addition, the Coast Guard's investigation team, which boarded the Cosco Busan to calculate the quantity of oil spilled, was unable to calculate a spill volume because of damage within the Cosco Busan's fuel tanks; oil transfers subsequent to the spill; language issues with the ship's chief engineer; and, according to the incident review report, the insufficient training and experience of investigation team personnel. Further, the heavy fog on the morning of the spill made it difficult for the investigation team to visually estimate the extent of the spill.

Nonetheless, according to the incident review report, at 12:10 p.m. the Coast Guard held a media conference to announce an estimated spill volume of 140 gallons. The specialist told us he did not discuss his calculation with the Coast Guard and that he was not informed throughout the morning that the spill volume reported by the Coast Guard was so low. Given that the specialist's calculation was much higher than the other calculations, reporting it sooner may have affected the response to the Cosco Busan incident.

Reporting the specialist's calculation of spill volume sooner may have affected the response to the Cosco Busan incident.

[14] Discrepancies occurred in the estimated volume of spilled oil reported to various entities on the morning of the spill. Initial estimates ranged from approximately 140 gallons to 420 gallons.

The spill office asserts it now has the capacity to perform calculations more rapidly. It obtained a boat in June 2008 and stationed it in the San Francisco Bay to assist with any spill response. Further, according to the deputy administrator, the spill office has discussed with its staff the importance of communicating to their superiors any problems encountered while fulfilling their duties and of being more aggressive about finding solutions to those problems. However, it has not formalized the discussions in the form of interoffice memorandums or policies.

The Delay in Learning the Extent of the Spill May Have Delayed the Mobilization of Additional Resources as Well as Notifications to Local Governments

One of the response organizations indicates additional resources may have been activated more quickly if the extent of the spill had been known earlier.

One of the response organizations indicates additional resources might have been activated more quickly if the extent of the spill had been known earlier on the day of the spill. As previously discussed, within six hours of being notified of a 420-gallon spill, the response organizations had on scene 13 vessels, including seven skimmers, and a truck, with the capability to recover 2.4 million gallons of oil per day, storage capacity of 148,000 gallons, and 15,800 feet of containment boom. According to the vice president of regulatory affairs (vice president) of Marine Spill Response Corporation, his company initially activated only two small skimmers and four boom boats in response to the reported spill volume of 420 gallons.

Over the course of the day, as reports indicated that the spill was probably larger than first reported, Marine Spill Response Corporation gradually ramped up the amount of equipment and the number of personnel involved in the response. According to the vice president, his company was not aware of the true extent of the spill until later in the afternoon, after the specialist reported his calculation to the unified command. When the unified command and Marine Spill Response Corporation discovered the extent of the spill, the vice president says his company activated more personnel and contractors and all its remaining equipment in the San Francisco Bay Area that was suitable for the response. However, the vice president noted that because it was already getting dark, most of the additional resources did not go into effect until the following day.

Had the unified command known the true extent of the spill earlier in the day, the vice president asserted, many of his company's resources could have been activated more quickly. He also noted that it is a rule of thumb in the industry that response organizations should overrespond to a spill. However, he said that Marine Spill Response Corporation must be wary of overresponding on its own

initiative in the early part of a spill in case the responsible party or its insurance company chooses to contest the necessity of a particular response level.

The delay in determining the spill quantity may also have affected the mobilization of additional spill office staff and resources. The deputy administrator noted that the inaccurate spill volume initially reported resulted in the spill office not sending notification e-mails to the affected legislators until approximately 5 p.m. on the day of the spill. Also, the spill office indicated that the understated spill volume contributed to the late assignment of key state staff. The spill office's public information officer (information officer) and its liaison officer did not arrive at the command post until around noon on the day after the spill. Until receiving the updated spill quantity late on the day of the spill, the assistant deputy director (communications director) of Fish and Game's Office of Communications, Education, and Outreach (communications office) believed the public relations activity for what was reported as a small spill could be handled in Sacramento. Finally, after learning about the significant increase in the estimated spill volume, the deputy administrator says he notified and activated additional spill office personnel and resources, and he opened the spill office's operations center on the day after the spill.

The initially small reported spill volume contributed to Emergency Services' delayed notification of affected counties.

The initially small reported spill volume also contributed to Emergency Services' delayed notification of affected counties. As described earlier in the report, consistent with Emergency Services' procedures at the time of the spill, only Alameda County, which was where the spill was reported to have taken place, was notified immediately after the spill occurred. After being informed of the revised spill size, Emergency Services informed other Bay Area counties, but these notifications did not occur until approximately 12 hours after the spill occurred.

Finally, the failure of the responsible party, the Coast Guard, and the spill office to accurately and quickly calculate the volume of oil spilled contributed to the Coast Guard's initially informing the public of an understated spill volume. The release of the significantly larger estimate of the spill volume later that night may have negatively affected the unified command's credibility among the public and the press.

Weaknesses in Overall Public Relations Efforts Hampered Communications With the Media and the Public

The lead public information officer (lead information officer) during the response to the Cosco Busan incident was a Coast Guard staff member. Thus, the spill office was not ultimately responsible for

media relations, although it was expected to support the public information efforts. However, the absence of a state information officer with oil spill experience during the early days of the response appears to have hindered the dissemination of information about the role of volunteers in the spill cleanup.

The Spill Office Was Not Ultimately Responsible for Media Relations During the Cosco Busan Incident

During an oil spill response, the unified command names a lead information officer who is responsible for developing and releasing information to the news media for the incident and for managing the Joint Information Center (information center). Before any information can be released publicly, however, all three members of the unified command must grant their approval. This ensures that a single, unified message is disseminated and serves to reduce confusion.

The unified command assigned a member of the Coast Guard staff as the lead information officer for the response to the Cosco Busan incident, giving the Coast Guard primary responsibility for media relations. The incident review report identified various weaknesses in the Coast Guard's approach to media relations during the spill and offered several recommendations for improvement. Specifically, the Coast Guard was faulted for releasing preliminary estimates of the amount of oil spilled before formal quantification procedures were completed, utilizing spokespersons with limited media relations training, and not having senior response personnel available for direct interaction with the media.

A Lack of Information Officers With Oil Spill Experience Impaired the Spill Office's Ability to Assist With Media Relations

During a spill response, federal, state, and responsible party representatives typically assist the lead information officer and perform supporting roles within the information center. Historically, one of the spill office's two information officers has been assigned to represent the State within the information center. However, when the Cosco Busan oil spill occurred, an information officer experienced in oil spill response was not available to staff the information center.

When the Cosco Busan oil spill occurred, an information officer experienced in oil spill response was not available.

In November 2006 the spill office's two information officer positions were transferred to Fish and Game's communications office. According to the communications director, the transfer was undertaken primarily to achieve greater department-wide efficiencies given limited financial and personnel resources, but

the two positions were to continue to be dedicated to spill office activities. However, according to the communications director, these employees' duties relating to direct media contact were directed to her effective April 2007. One of the transferred information officers left her position in August 2007, and the position had not been filled at the time of the Cosco Busan incident. The remaining transferred employee had experience conducting media relations activities during oil spill responses, but the communications director assigned him to staff the operations center in Sacramento on the second day of the Cosco Busan incident, rather than the information center at the command post. The inability of the communications office to field an information officer experienced in spill response a year after the restructuring occurred indicates that, at least in the short term, the transfer of positions may have negatively affected the spill office's ability to respond to the public regarding information about oil spills.

Given the available staff, Fish and Game dispatched an information officer with limited oil spill background to join the command post information center.

Given her available staff, the communications director dispatched another information officer from Fish and Game's communications office with limited oil spill background to join the information center on the second day of the response and requested that the spill office's then assistant chief of enforcement assist that employee in dealing with the media. According to the communications director, after spending one day at the information center, the information officer told her that the assignment was more than he could handle, so the communications director went to the information center on the third day to assess the situation. She stated that on the following day she reported to the information center and on the fifth day of the response was assigned by the California Resources Agency[15] to be the State's lead representative in the information center for the duration of the incident. The Cosco Busan incident was also her first experience responding to an oil spill, although she had previously had one experience in an information center and was information center certified. The communications director requested the experienced information officer, who had been working at the spill office's operations center in Sacramento, to assist her at the information center beginning on the sixth day of the response.

The communications director noted that since the Cosco Busan oil spill, Fish and Game has filled the position of dedicated oil spill information officer. She says the new information officer is experienced in unified command and information center operations and has experience on several spill incidents.

[15] The California Resources Agency oversees the Department of Fish and Game.

A Lack of Information Regarding the Cleanup Process and the Role of Volunteers Frustrated the Public

The absence of a state information officer with oil spill experience during the early days of the response appears to have hindered the dissemination of volunteer-specific information.

The absence of a state information officer with oil spill experience during the early days of the response appears to have hindered the dissemination of information about the role of volunteers in the spill cleanup. The public was not initially informed of the spill office's policy that untrained volunteers are not used for shoreline cleanup efforts. According to the acting administrator of the spill office (acting administrator), the public's frustration over seeing oiled shoreline go without cleaning in the early days of the response led to a perception that volunteers were needed to conduct shoreline cleanup efforts. In response to that frustration, the unified command approved the use of volunteers with little training for shoreline cleanup efforts on the fifth day of the response.

The October 1996 Cape Mohican spill of 96,000 gallons of oil in South San Francisco Bay highlighted the importance of planning for the management of volunteers in response efforts, and a grant from the Cape Mohican Trust facilitated the development of a volunteer section for the area plan. To provide a prompt media relations response during the early stages of a spill, the volunteer section uses a generic initial press release that simply requires the insertion of information such as the spill's size, location, and dedicated telephone number for volunteer inquiries. The press release explains that a group of previously trained individuals will be activated for the response. Members of the public interested in volunteering are advised to call a volunteer hotline to provide basic information regarding their skills and training so they may be contacted if additional volunteers are required. The press release also clearly indicates that only trained wildlife specialists should attempt to rescue oiled wildlife and that a minimum of 24 hours to 40 hours of training in hazardous waste operations and emergency response (hazardous waste training) is required for volunteers working in close proximity to a spill. Further, the press release cautions the public to stay away from areas affected by a spill, because their presence can endanger wildlife, interfere with response efforts, and compromise their own safety. Finally, the press release provides a separate telephone number for the public to report any oiled animals they observe.

Normally, the spill office's volunteer coordinator would request a spill office information officer to submit the generic press release to the information center for public dissemination. However, when the volunteer coordinator reported to the wildlife rehabilitation facility on the third day of the response, she was unaware of who was representing the State at the information center, so she forwarded her request to the unified command's wildlife branch director (wildlife director), a spill office representative who was her

supervisor for the response. The wildlife director says she cannot recall whether she forwarded this request to the communications director at the information center. The communications director also told us she cannot recall whether she received the generic press release. From our review of press releases distributed by the information center throughout the response, although some volunteer information was released, it appears that the spill office's generic press release was not disseminated. Consequently, the spill office's volunteer policy was not made available to the public.

According to the wildlife director, the Cosco Busan oil spill spurred an unusually large amount of public interest, and the volunteer hotline was inundated with telephone calls in the first few days of the response, effectively overwhelming the system. Thus, the spill office's operations center log shows that on the third day of the response, the volunteer coordinator recorded a new outgoing voicemail indicating that additional volunteers were no longer needed. Because the volunteer hotline was incapacitated, the wildlife director noted, members of the public began calling the oiled wildlife hotline, which further hindered the effectiveness of response efforts.

The wildlife director believes that these communication roadblocks fueled public frustration. Additionally, the acting administrator, who served as the state coordinator from day four through day 12 of the response, believes that the information center did not effectively communicate that response organizations typically do not commence shoreline cleanup efforts until the majority of on-water oil recovery efforts have been completed due to the possibility of new contamination occurring. According to the acting administrator, the absence of this information, coupled with the public's frustration when they did not witness response personnel conducting shoreline cleanup efforts early in the response, resulted in a perception that volunteers were needed for shoreline cleanup.

The spill office's acting administrator believes that the information center did not effectively communicate that shoreline cleanup efforts do not occur until the majority of on-water recovery efforts have been completed, due to the possibility of new contamination.

The spill office attempted to address growing public frustration by conducting three public workshops on the fourth day of the response. However, this attempt backfired. According to the wildlife director, the intent of the workshops was to educate the public about response cleanup and wildlife recovery efforts. However, she said the press release announcing these workshops may not have been clear, and the public arrived expecting to receive training for shoreline cleanup. That misunderstanding appears to have further contributed to the public's frustration, which at that point was receiving widespread attention.

According to the acting administrator, the unified command responded by approving the use of volunteers for shoreline cleanup efforts on the fifth day of the response. To rapidly deploy volunteers,

the acting administrator stated the unified command lowered the training required for individuals having direct contact with hazardous materials waste from the standard 24 hours to 40 hours, to only four hours. He indicated this was the first spill for which spontaneous volunteers were used for shoreline cleanup efforts.

Although the San Francisco Bay and Delta Area Committee does not encourage the regular use of spontaneous volunteers for shoreline cleanup efforts, it is developing a new policy for the area plan that would allow such volunteers to be used at the unified command's request. The spill office has asked the California Occupational Safety and Health Administration (Cal/OSHA) whether the required number of training hours can be reduced. Finally, the spill office has drafted an informational brochure and a Web site to educate the public about oil spill response efforts and to provide incident-specific information for major spills.

The Spill Office Has Not Ensured That a Sufficient Number of Trained Responders Are Available for Wildlife Rescue Operations

Insufficient staffing may have hindered wildlife rescue efforts carried out by the spill office and the wildlife network after the Cosco Busan oil spill. Although the spill office generally oversees wildlife rescue efforts after a spill, it relies on the wildlife network to manage and staff the recovery and transportation teams (recovery teams) and rehabilitation facilities responsible for locating, capturing, and rehabilitating oiled wildlife as part of the response effort. A collective of 25 statewide wildlife care organizations, the wildlife network is administered by the Wildlife Health Center at the School of Veterinary Medicine at the University of California, Davis, and is responsible for maintaining trained personnel and wildlife rehabilitation facilities to respond to oil spills. By statute the spill office's administrator oversees the activities of the wildlife network.

The number of wildlife network personnel participating in the recovery of oiled wildlife did not meet the guidelines laid out in the wildlife response plan.

The number of wildlife network personnel participating in recovery and transportation did not meet the general guidelines laid out in the California wildlife response plan (wildlife plan), which may have affected the unified command's ability to help affected wildlife. The wildlife plan, an appendix to the regional contingency plan, recommends the activation of two recovery supervisors and 10 to 24 recovery and transportation staff within the first 24 hours after a spill that may involve hundreds or thousands of oiled marine birds or mammals. However, these guidelines are not requirements. The number of deployed personnel depends on the circumstances of each spill. The spill office employee who assumed the position of wildlife branch director on the second night of the Cosco Busan response noted that, although she believes the response did not require the number of staff suggested by the wildlife plan during

the first 24 hours of the spill, after assuming the position of wildlife branch director she requested that as many trained personnel as possible be deployed to assist with recovery and transportation.

However, the number of wildlife network staff mobilized for recovery and transportation remained lower than recommended by the wildlife plan for the first three days of the spill. According to the unified command's incident action plans, on days two and three, only four personnel and one supervisor from the wildlife network were on recovery teams. The incident action plans indicate that recovery staff increased to 12 on the fourth day of the response, 20 on the fifth day, and 40 on the sixth and seventh days of the spill.[16] Staffing increased only after the unified command loosened the requirements for hazardous waste training for volunteers participating in the response, which allowed the wildlife network to supplement its staff with individuals who had received abbreviated four-hour hazardous waste training, including staff from local organizations with animal-handling experience and a limited number of spontaneous volunteers with similar experience. According to the director of the wildlife network (network director), without these additional staff assisting the recovery teams, it would have been difficult to perform sweeps of all of the affected coastal areas with the necessary frequency. He stated that by the fourth or fifth day of the spill, sufficient personnel were available to cover the most critical areas of the coastline.

The network director stated that in response to the Cosco Busan oil spill, the wildlife network mobilized all staff that had the necessary skills and training and that were able to assist. He stated that the wildlife network has typically relied on its network of organizations to provide trained staff to serve on recovery teams. At the time of the Cosco Busan oil spill, the wildlife network had access to only 21 personnel with the necessary recovery skills and hazardous waste training. According to the wildlife network, of those 21 only eight were assigned to recovery teams, while the remainder worked in the wildlife rehabilitation facility. The network director noted that the wildlife network has had difficulty maintaining trained personnel capable of serving on recovery teams because of the requirement that they have 24 hours of hazardous waste training, supplemented by a yearly eight-hour refresher course.

The wildlife network has had difficulty maintaining trained personnel for recovery teams due to the requirement that they have 24 hours of hazardous waste training.

[16] According to the director of the wildlife network, some local wildlife organizations performed recovery activities independently of the unified command but reported their findings to the wildlife network. In addition, a large number of volunteers worked to support the recovery teams by transporting birds collected by the teams from the beaches to the wildlife rehabilitation facility and by providing some assistance to the recovery and transportation supervisor.

The spill office has asked Cal/OSHA to clarify whether reduced requirements for hazardous waste training are acceptable for volunteers assisting on recovery teams. The wildlife network indicated it is taking steps to increase its trained staff in the event of a future spill. It recently hired a new recovery and transportation coordinator who will assist in the development of a plan to centrally train and prepare potential responders instead of relying on the initiative of its 25 member organizations to provide the necessary training. The wildlife network hopes to implement a new training plan by the end of 2008. Further, it is in the process of identifying additional trained responders within organizations around the State not currently affiliated with the wildlife network who could be called on in the event of a spill, and it recently hired a new volunteer coordinator who will assist with that effort.

Recommendations

To avoid logistical problems in responding to oil spills, the spill office should collaborate with area committees in California to identify potential command centers that are sized appropriately and possess all necessary communications equipment.

To strengthen its role as a liaison between local governments and the unified command, the spill office should continue with its plans to develop qualification standards for liaison officers and to train more staff for that role. The spill office should also ensure that staff assigned as liaison officers participate in drills to gain experience. In addition, the spill office should ensure that staff in its operations center provide all necessary support, including communications equipment, to liaison officers in the field.

To ensure that it performs and reports spill volume calculations quickly and accurately, the spill office should collaborate with the Coast Guard to establish spill calculation protocols, including transportation needs and the sharing of each entity's calculations. The spill office should also establish procedures to ensure that staff promptly report spill calculations to the state coordinator. Further, the spill office should include spill calculations as part of its drills.

To ensure that a state employee knowledgeable in oil spills is available to assist in public relations during a spill response, public relations staff in the communications office should participate in spill drills. The spill office should also develop protocols to ensure that key information, such as the role of volunteers, is disseminated to the public early in a spill response.

The spill office should ensure that the wildlife network identifies and trains a sufficient number of staff to carry out recovery activities outlined in contingency plans in the event of a large spill.

To the extent that hazardous waste training requirements are a barrier to maintaining sufficient numbers of trained staff, the spill office should continue to clarify with Cal/OSHA whether reduced requirements for hazardous waste training are acceptable for volunteers assisting on recovery teams, and should consider working with the wildlife network to ensure that this training is widely available to potential volunteers before a spill.

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Chapter 3

THE OIL SPILL PREVENTION AND ADMINISTRATION FUND HAS A HIGH RESERVE BALANCE AND HAS PAID FOR INAPPROPRIATE PERSONNEL CHARGES

Chapter Summary

The amount of reserves in the Oil Spill Prevention and Administration Fund (fund) has increased significantly over the past several years, leading to a $17.6 million reserve by June 30, 2007. A fee increase without corresponding expenditure increases and failure of the Office of Spill Prevention and Response (spill office) to assess the level of the reserve contributed to the high balance. However, the spill office estimates that fund reserves may drop to $7.4 million by the end of fiscal year 2009–10.

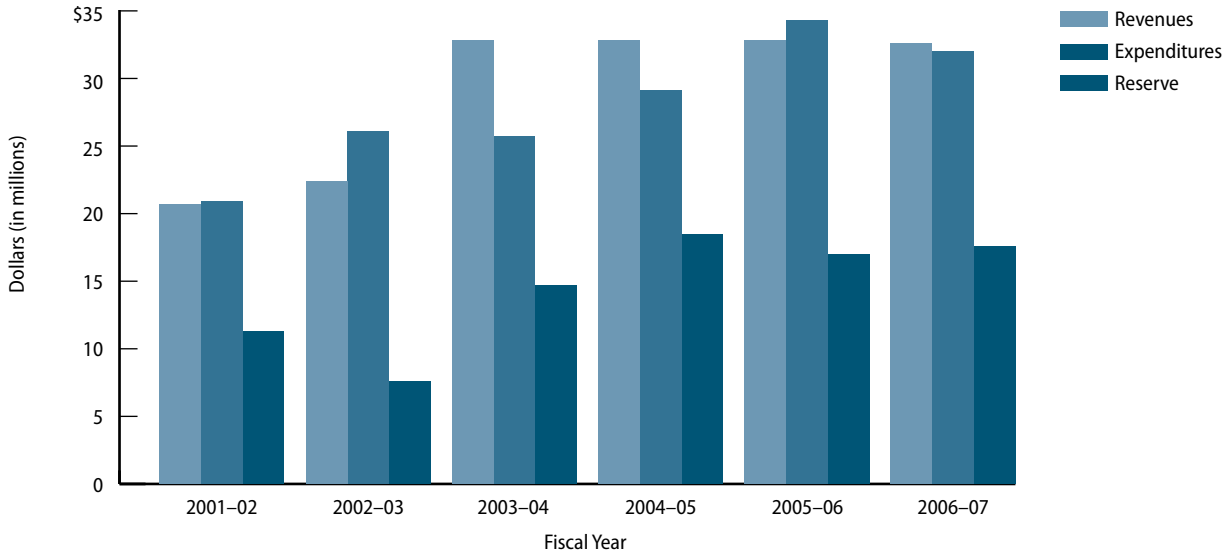
We noted several instances in which salaries of Department of Fish and Game (Fish and Game) employees were charged to the fund for purposes not related to oil spill prevention. Specifically, the fund was charged for time spent by wardens on general activities not specific to spill prevention (general activities). These staff are among those in 45.5 positions in four units whose reporting relationships have been redirected from direct spill office control (restructured) to that of other Fish and Game units since 2000. We also noted inappropriate charges for several staff in the restructured legal and communications units. In addition, the restructuring has caused friction between Fish and Game and spill office management, although it does not appear to have affected the spill office's overall ability to carry out its mission related to the three largest restructured units.

The Fund's Reserve Balance Has Increased Significantly but Is Expected to Drop Soon

State law imposes certain requirements on the spill office related to its revenues and reserve levels. According to state law, the spill office must set a fee sufficient to carry out the purposes of the statute and must provide for a reasonable reserve for contingencies. To ensure that the fee is appropriate, state law requires the spill office to annually project revenues and expenditures over three fiscal years, with the goal of having revenues equal planned expenditures. The spill office may allow for a surplus if it finds that revenues will be exhausted during the period or that extra money is needed to cover contingencies.

As shown in Figure 5, the fund reserve grew significantly after the spill office increased the per-barrel fee on oil deliveries by 25 percent in 2003. After dropping to $7.6 million as of June 30, 2003, the reserve nearly doubled to $14.7 million as of June 30, 2004, because of revenues outpacing expenditures. Although later increases in the reserve have not been as dramatic, the balance as of June 30, 2007, stood at $17.6 million. That level of reserves equates to about 50 percent, or six months, of budgeted expenditures for fiscal year 2007–08. Because the fund's costs are not subject to significant or unexpected fluctuations, that percentage seems high. Our assessment is in line with that of the deputy administrator of the spill office (deputy administrator). He indicated that a reasonable reserve for contingencies would be between 10 percent and 12 percent of annual expenditures, or roughly one and a half months' expenditures.

Figure 5
Oil Spill Prevention and Administration Fund
Revenues, Expenditures, and Reserve
Fiscal Years 2001–02 Through 2006–07



Source: Bureau of State Audits' analysis of accounting reports from the State Controller's Office.

The significant increase in the reserve indicates that the spill office has not monitored the appropriateness of the reserve balance and fee level, as state law requires. Further, the deputy administrator acknowledged that for at least the past two and a half years, the spill office has not made a formal annual determination of the appropriateness of the fee level and fund reserve.

Nevertheless, the spill office projects that the fund reserve will decrease significantly over the next few years, dropping to $10.6 million by the end of fiscal year 2008–09 and to $7.4 million by the end of fiscal year 2009–10. The reduction in reserves will be driven by projected increases in expenditures related to higher spending authority for both the State Lands Commission and the spill office.[17] Specifically, between fiscal years 2006–07 and 2007–08, the spending authority of the State Lands Commission increased by about $1.3 million while that of the spill office increased by about $1.7 million, mostly for drills and exercises and mapping activities. The spill office expects the new spending level to continue through its planning horizon for fiscal year 2009–10. Our review of the expenditure estimates for the fund over the last six years showed that, on average, they were very close to actual expenditures. Thus, it seems likely that the fund's reserves will drop significantly.

The spill office projects that the fund reserve will drop to $7.4 million by the end of fiscal year 2009–10.

The governor's budget, which now extends only through fiscal year 2008–09, does not predict as large a decrease in the fund's reserves. It estimates that by June 30, 2009, the reserves will stand at $15.1 million, or about $4.5 million higher than the spill office's estimate. The main difference is the estimated increase in fee revenues in the governor's budget of $3 million, or 8.1 percent, above actual fiscal year 2006–07 levels. Fish and Game's budget unit, not the spill office, submits the estimates in the governor's budget. The spill office estimate, in contrast, projects a fee revenue increase of less than 2 percent for the same period. Given that revenues were essentially flat between fiscal years 2003–04 and 2006–07, the spill office's revenue estimates appear to be more realistic. Despite the predicted decline in the fund reserve, however, the spill office should start to monitor it, as mandated in state law. If expenditures fall short of estimates or revenues start to grow significantly, the spill office will need to consider other ways to bring reserves to a more reasonable level.

Revenue Increases Followed a 2003 Fee Increase

Oil and vessel fees provide nearly all the revenues for the fund. The majority of those revenues are collected by the Board of Equalization and come from a 5 cent fee imposed on each barrel of crude oil or petroleum products received in California. Further, Fish and Game collects a $500 to $2,500 fee per nontank vessel with each application for a certificate of financial responsibility.[18]

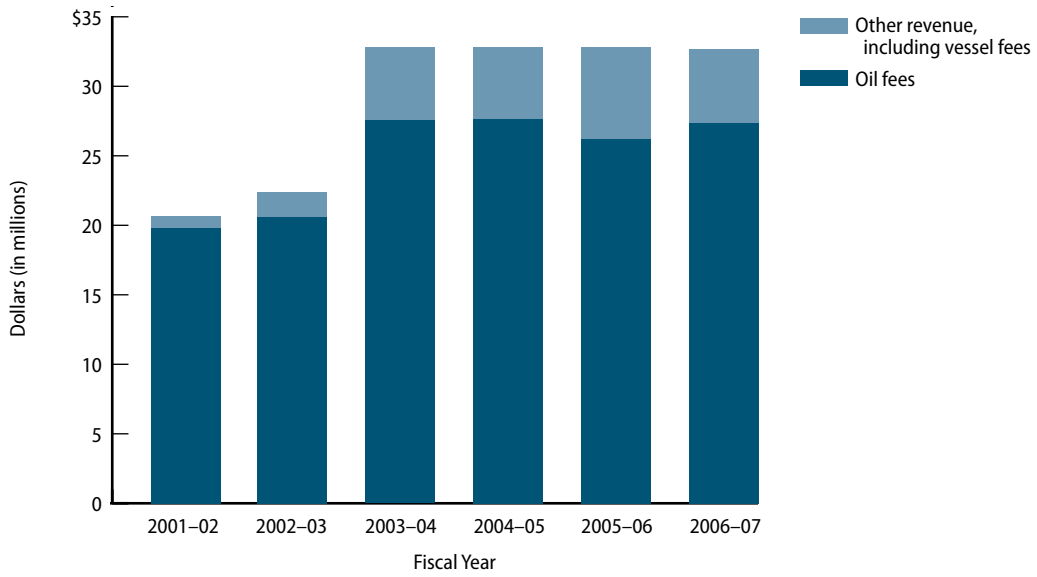
[17] The State Lands Commission also receives support from the fund and over the six-year period accounted for about 27 percent of the fund's expenditures.

[18] A nontank vessel is a vessel of 300 gross tons or greater not designed to carry oil as cargo.

Certificates of financial responsibility signify that a vessel operator has adequate financial resources to pay for cleanup and damage costs arising from an oil spill.

As Figure 6 indicates, revenues were relatively flat between fiscal years 2003–04 and 2006–07, after rising by 47 percent in fiscal year 2003–04. The revenue increase primarily resulted from a 1 cent increase in the per-barrel fee effective January 1, 2003. In the same year the fee for a certificate of financial responsibility increased from a flat $100 for all vessels to a variable amount of $500 to $2,500. The spill office indicated that currently most vessels are charged the maximum fee. Fish and Game intended for the fee increases to avert a fund deficit and ensure that the spill office could perform its mandated prevention activities.

Figure 6
Oil Spill Prevention and Administration Fund
Breakdown of Revenues
Fiscal Years 2001–02 Through 2006–07



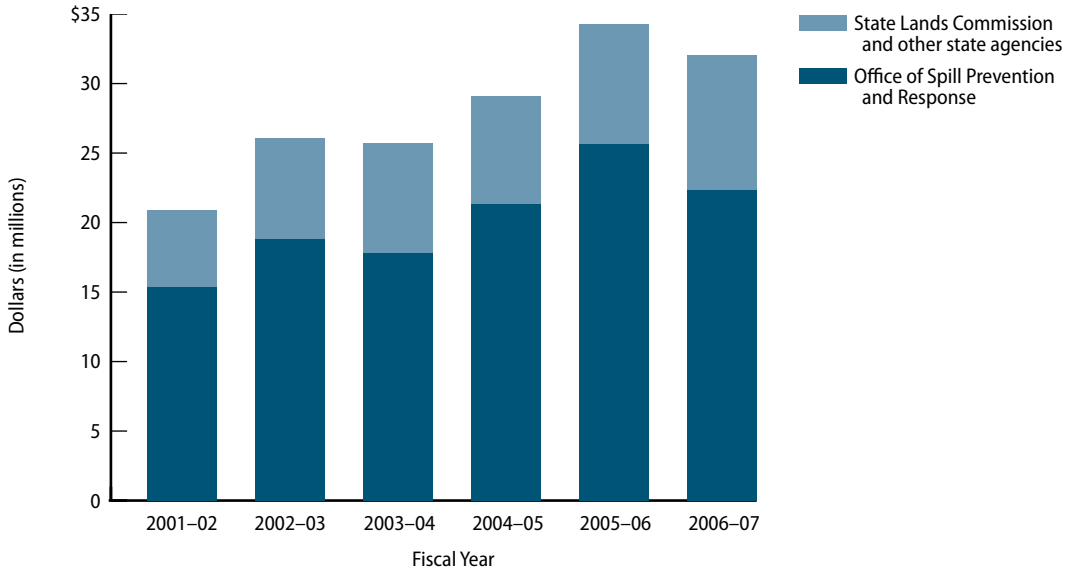
Sources: Bureau of State Audits' analysis of revenue reports provided by the State Controller's Office and accounting reports provided by the Department of Fish and Game and the Board of Equalization.

Expenditures From the Fund Have Generally Trended Upward and Are Mostly for Readiness, Prevention, and Administrative Support Activities

As shown in Figure 7, expenditures from the fund generally trended upward, because increased fees allowed for program growth. The spill office accounted for about 72 percent of the expenditures from the fund during the six-year period. Another 27 percent was spent

by the State Lands Commission to monitor the safety of marine oil transfers, transfer facilities and pipelines, and oil production facilities, with other state agencies making up the remainder. The increase in expenditures in fiscal year 2005–06 primarily resulted from a $1.8 million contract to remove oil from a deteriorating military vessel purchased by the State in 1932.[19]

Figure 7
Oil Spill Prevention and Administration Fund Expenditures by Agency
Fiscal Years 2001–02 Through 2006–07

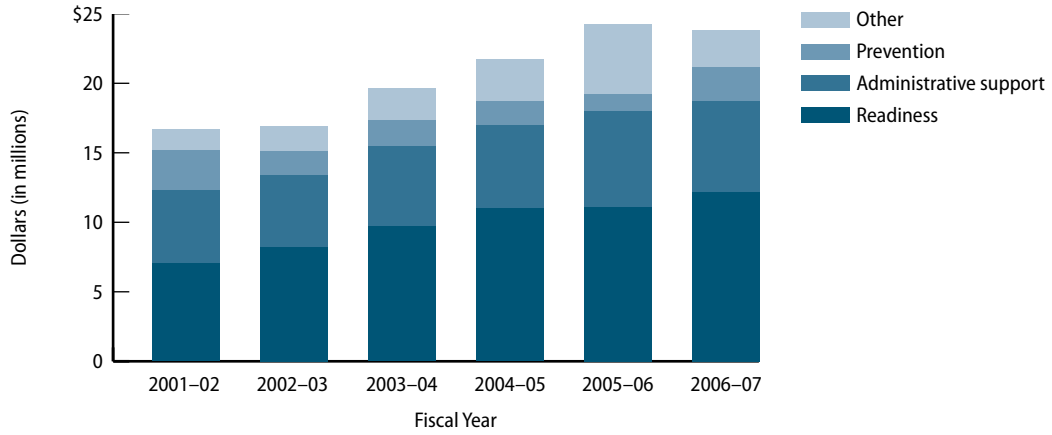


Sources: Bureau of State Audits' analysis of expenditure reports from the State Controller's Office and accounting reports provided by the Department of Fish and Game.

Figure 8 on the following page shows spill office expenditures by activity category. Readiness, prevention, and administrative support activities accounted for 87 percent of expenditures during the six-year period. Readiness activities include drills and exercises, contingency plan development and review, scientific studies, the gathering and evaluation of natural resources data, and pollution enforcement. Prevention activities include inspecting vessels and facilities, as well as monitoring fuel transfers and facility operations. Administrative support activities include providing legal, information technology, budget, cost recovery, training, executive, and other general administration support. The other 13 percent includes department costs distributed to the spill office, assistance to local governments, and restoration and remediation activities.

[19] The SS Palo Alto is located at Seacliff State Beach in Santa Cruz County.

Figure 8
Office of Spill Prevention and Response Expenditures by Program Category Fiscal Years 2001–02 Through 2006–07



Source: Bureau of State Audits' analysis of accounting reports from the Department of Fish and Game.

Note: This graph shows expeditures by year of appropriation and therefore differs from expenditures in Figure 7, which are presented on an accrual basis as of June 30 of each fiscal year.

Figure 9 shows the spill office's expenditures by cost category. Personal services, operating expenses and equipment, and distributed costs made up 98 percent of the spill office's expenditures over the six years. Distributed costs refer to indirect administration charges or overhead charges assessed by Fish and Game.

Salaries of Some Fish and Game Employees Are Improperly Charged to the Fund

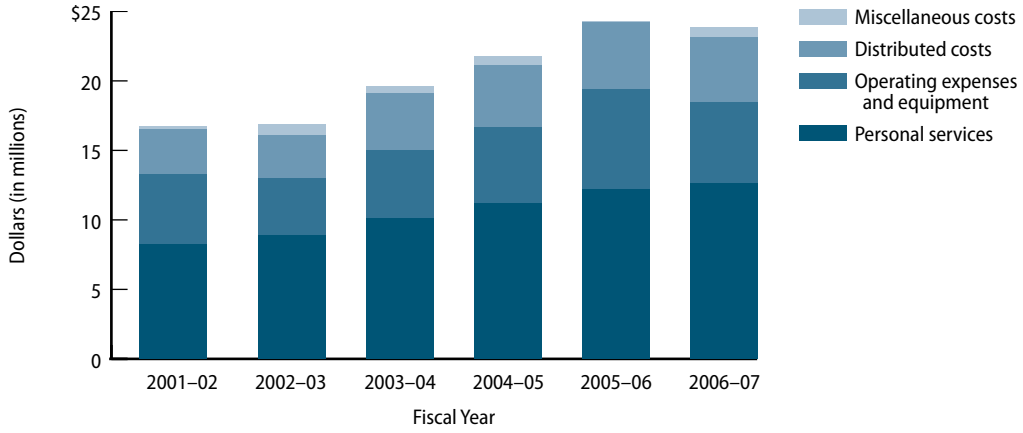
Authorized purposes of the fund include:

- Implement oil spill prevention programs.
- Research prevention and control technology.
- Study improved oil spill prevention and response.
- Finance environmental and economic studies relating to the effects of oil spills.
- Implement, install, and maintain emergency programs, equipment, and facilities to respond to oil spills.
- Respond to an imminent threat of an oil spill.

Source: California Government Code, Section 8670.40(e).

Money in the fund can be used only for statutorily defined purposes, as shown in the text box. The applicable law for the fund focuses on oil spill prevention activities. Based on our review of selected transactions and spending trends from fiscal years 2001–02 through 2006–07, we determined that expenditures charged to the fund generally appear to be consistent with the spill office's authorizing statute. However, our review of a sample of 30 employees' labor distribution reports (time sheets), as well as our interviews with spill office managers and employees, disclosed several instances in which employee salaries are being charged to the fund for time spent on general activities. These instances involved four employees.

Figure 9
Office of Spill Prevention and Response Expenditures by Cost Category Fiscal Years 2001–02 Through 2006–07



Source: Bureau of State Audits' analysis of accounting reports from the Department of Fish and Game.

Note: This graph shows expeditures by year of appropriation and therefore differs from expenditures in Figure 7, which are presented on an accrual basis as of June 30 of each fiscal year.

In addition, all personnel costs for the 23.5 spill prevention warden positions are fully charged to the fund, even though they sometimes perform general activities.

For example, an attorney with the spill office told us that Fish and Game asked him to do legal research on a project related to abandoned mines. Although this project was unrelated to oil spill prevention, the attorney stated he charged his time to the fund because he did not receive instructions as to the proper fund to charge. Based on the attorney's recollection, we estimate that he spent approximately 300 hours on the project. Fish and Game's general counsel said that although the attorney's time should have been charged differently, the fund has also benefited from other attorneys who have worked on spill prevention projects but have not charged their time to the fund.

In another instance a spill office communications employee was assigned to finish Fish and Game's supplemental ocean-fishing regulations. The employee's supervisor said she believed the employee's position was partially funded by other Fish and Game funds, which would allow him to occasionally work on general activities. However, the fund pays for this employee's position entirely. It is unclear how much time the employee charged for the assigned activity because the supervisor stated that the project should have taken less than 30 hours but the employee estimates that he spent about two months on it.

In addition, we noted two instances in which employees' time was charged to the fund but they did not turn in time sheets. In one instance we found that an attorney, whose salary and benefits were over $12,500 a month in April 2007, turned in only one time sheet in almost two years. As a result, his time was charged to his default project code, which is associated with the fund. However, when he turned in the one time sheet during the period, he coded his time to be charged to another Fish and Game fund. According to the spill office, although this attorney continued to charge his time to the fund as of July 2008, he did not perform legal work for the spill office and reported to another unit at Fish and Game. In the second instance a Fish and Game warden who transferred out of a warden position designated for spill prevention failed to turn in a time sheet for March 2005. Because Fish and Game's accounting system had not yet been changed to reflect his transfer, the employee's time for the month was charged to the fund.

In addition, the fund may be paying for spill prevention wardens when they perform general activities. To determine whether the wardens' time was appropriately charged to the fund, we reviewed time charges for seven spill prevention wardens for one month each between November 2004 and April 2007. Of the total hours charged by these wardens, 98 percent were charged to the fund. This sample included a lieutenant warden who charged 18 hours to another Fish and Game fund and a warden who charged 13 hours of his time to the Oil Spill Response Trust Fund for responding to a spill. Other than these instances, all the spill prevention wardens in our sample charged all their time to the fund.

Spill prevention wardens are encouraged to perform some general activities, but are rarely directed to charge their time to other Fish and Game funds.

The acting administrator of the spill office (acting administrator) acknowledged that spill prevention wardens are encouraged to perform some general activities to broaden their skill set and maintain their identity as Fish and Game wardens. In fact, although the duty statement for spill prevention wardens mainly describes various activities related to the spill office, it also states wardens should "ensure the protection of fish and wildlife and enforce Fish and Game regulations." However, the acting administrator stated that the wardens are not directed to charge time to other Fish and Game funds except for the rare occasion when wardens are asked to help at the opening of hunting or fishing season or when they work overtime on a general activity. The acting administrator estimated that between 75 percent and 90 percent of a spill prevention warden's time is spent in a marine environment and on activities related to oil spill prevention, but that virtually all their time is charged to the fund.

However, the acting administrator's estimate means that between 10 percent and 25 percent of a spill prevention warden's time may be spent on general activities. The daily activity reports for four of

the seven spill prevention wardens in our sample had insufficient information to differentiate between spill prevention and general activities.[20] Although we noted several instances in which a warden responded to a report of a possible oil spill, such as a sheen in the water, we also saw several general activities, such as responding to transients camping in an ecological preserve. For the most part, however, the daily activity reports listed only the locations the wardens patrolled.

Further, the spill office's acting administrator believes that the number of non-spill prevention wardens who spend time on oil spill prevention work without charging the fund far exceeds the number of spill prevention wardens who spend time on general activities. Thus, he believes that other Fish and Game funds pay for more oil spill-related hours than the number of hours charged to the fund for non-spill prevention work. In addition, the chief of Fish and Game's law enforcement division said that other Fish and Game funds pay for the initial training of wardens.

However, these explanations do not change the fact that the law requires expenditures from the fund to be made only for oil spill prevention purposes. We recognize the importance of having wardens who are proficient in a range of skills, but it is also important that the fund be charged only for allowed activities. State officials may not spend public funds for any public purpose they choose but must utilize appropriated funds in accordance with statutorily designated purposes. The California Supreme Court has stated that regulatory fees, such as those deposited in the fund, are in the nature of trust funds raised for a particular purpose. Therefore, if money in the fund is spent for unauthorized purposes, a fee payer could bring a lawsuit to challenge the expenditure. Thus, when spill prevention wardens perform an activity other than oil spill prevention, it is important that they charge their time to the Fish and Game fund supporting that activity. In similar situations where it may be inefficient to account daily for activities performed, we have seen state agencies conduct time studies to periodically assess the appropriate allocation of personal service costs. In fact, Fish and Game conducted a high-level time study of wardens in one of its regions in 1988. In the case of Fish and Game, a study to determine an allocation rate for oil spill activities should cover all wardens in the marine environment, because non-spill prevention wardens also may be performing oil spill prevention work.

When spill prevention wardens perform an activity other than oil spill prevention, they should charge their time to the Fish and Game fund supporting that activity.

[20] Two wardens in our sample were supervisors who do not complete daily activity reports, and another warden was on workers' compensation for the month we selected.

Restructuring of Positions Appears to Have Caused Friction Between the Spill Office and Fish and Game Management

Since 2000 Fish and Game has restructured some functions of the spill office so that legal, communications, enforcement, and information technology staff report to managers in other Fish and Game units rather than managers in the spill office. In general, the change seems to have had little effect on the spill office's operations, according to managers in charge of three of those functions. Nevertheless, the limited problems we did identify, plus serious reservations by both the past administrator of the spill office (past administrator) and the current deputy administrator, suggest the need for a better understanding between Fish and Game management and the spill office on their roles and authority related to these employees.

As shown in Table 3, since 2000 Fish and Game has restructured 45.5 staff positions from the direct control of the spill office to other Fish and Game units. This represents about 19 percent of the 235 authorized staff positions paid for by the fund in fiscal year 2007–08. The restructuring consisted of having staff report directly to managers of other Fish and Game units rather than to managers in the spill office. Other reporting relationships remained the same, and the employees continued to work at spill office locations, with the exception of two communications personnel who were moved out of the spill office to space at the Office of Communications, Education, and Outreach in August 2007. All these positions continue to be paid from the fund.

Table 3
Oil Spill Prevention and Administration Fund Positions Under Direct Control of Managers in Other Department of Fish and Game Units

UNIT	POSITIONS	YEAR RESTRUCTURED
Legal/regulations	10.0	2000
Enforcement	23.5	2004
Communications	2.0	2006
Information technology	10.0	2006
Total Positions	**45.5**	

Sources: Information provided by the Office of Spill Prevention and Response and the Department of Fish and Game's legal and human resources units in April 2008.

Fish and Game undertook the restructuring, despite the objections of the past administrator, to centralize reporting and resources; improve coordination, communication, and teamwork among enforcement staff; and promote organizational efficiency. The past administrator was concerned that the transfers would diminish his authority to manage office employees and funds, and would limit the spill office's ability to fulfill its statutory responsibilities. Further, the past administrator was concerned that Fish and Game would not pay for the time spill prevention wardens spent on general activities. He proposed a memorandum of agreement between Fish and Game and the spill office to outline respective authorities and support agreements consistent with the spill office's statutory responsibilities and the needs of Fish and Game.

The current deputy administrator noted that although increased association with Fish and Game has had some positive effects, those benefits could have come through other means. Like the past administrator, the deputy administrator believes that Fish and Game management needs to respect that the administrator has many responsibilities under the law and needs to have control over employees paid for by the fund to make sure they are ready to respond to an oil spill. The deputy administrator also expressed concern that taking direct control of these employees away from the administrator may not be consistent with the administrator's legal responsibilities. However, according to its general counsel, Fish and Game maintains that the role of the administrator and the structural changes it made to reporting units are consistent with all applicable legal authorities.

To date, the restructuring appears to have had little negative effect on the spill office's activities. Managers of the three largest functional areas—enforcement, information technology, and legal—cited few drawbacks of the reorganization, with each saying that it has not generally impaired the spill office's ability to respond to oil spills. In fact, the enforcement and information technology managers believe the restructuring has improved communication between the spill office and Fish and Game and has led to some operational efficiencies.

The one area in which the restructuring may have negatively affected the ability of the spill office to respond to the public during an oil spill is the communications function. As discussed in Chapter 2, the spill office's media relations effort suffered during the Cosco Busan oil spill because of a lack of public information officers experienced in oil spill response.

Recommendations

To ensure an appropriate reserve balance for the fund, the spill office should annually assess the reasonableness of the reserve balance and the per-barrel fee on crude oil and petroleum products. Using this annual assessment, the spill office should adjust expenditures or the per-barrel fee as necessary.

To ensure that the fund is charged only for oil spill prevention activities, the spill office and Fish and Game should do the following:

- Provide guidelines to employees concerning when to charge activities to the fund and when to charge other funds for general activities.

- Take steps to ensure that spill prevention wardens' time is charged appropriately, such as performing a time study of wardens to use as a basis for allocating wardens' time between the fund and other Fish and Game funding sources. Such a time study should be updated periodically to ensure that it remains valid and accurate.

- Discontinue the current charge to the fund for the attorney we identified that does not perform spill prevention activities.

To ensure that the spill office has necessary resources available to it, and to reduce friction regarding the use of staff, the spill office and other Fish and Game units should discuss their respective authorities and better define the role of each in the management of spill prevention staff consistent with the administrator's statutory responsibilities and the other needs of Fish and Game. Such discussions could clarify the spill office's role in hiring and firing employees, spell out specific training needs, and identify how staff will be funded.

We conducted this review under the authority vested in the California State Auditor by Section 8543 et seq. of the California Government Code and according to generally accepted government auditing standards. We limited our review to those areas specified in the audit scope section of the report.

Respectfully submitted,

Elaine M. Howle

ELAINE M. HOWLE
State Auditor

Date: August 28, 2008

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(Agency response provided as text only.)

Department of Fish and Game
1416 9th Street, 12th Floor
Sacramento, California 95814

August 20, 2008

Elaine M. Howle, State Auditor
Bureau of State Audits
555 Capitol Mall, Suite 300
Sacramento, California 95814

Subject: Department of Fish and Game Response to Draft Audit

Thank you for the opportunity to review a draft copy of the audit on the role of the Department of Fish and Game's (DFG) Office of Spill Prevention and Response (OSPR) and its efforts in responding to the Cosco Busan oil spill in November 2007. We commend the cooperative approach utilized by your staff in completing their review. Their recognition of the complex issues facing OSPR, as well as identification of the improvements we've implemented, is greatly appreciated.

Since its inception, OSPR has put great emphasis on prevention of oil spills, both on land and in marine waters. Contingency plan regulations were promulgated by OSPR for all tank vessels, tank barges, marine facilities and subsequently non tank vessels, such as the Cosco Busan, that required plan holders to focus on prevention issues such as human error and mechanical failures. These efforts, along with a strong enforcement policy, have significantly reduced the number of marine oil spills in California.

Findings and Recommendation Responses

Chapter 1

The audit finds, and we agree, that it is important to have local governments engaged in OSPR's processes, both prior to and during spills.

OSPR has begun a process to update the marine oil spill component of the California state emergency response plan. By referencing the regional response plan and the area plans, the marine spill plan will address changes in readiness and response protocols called for by pending legislation.

As you know, since the Cosco Busan spill, OSPR improved these efforts in the form of increased local contingency plan grants, planned outreach workshops, liaison officer training and in the past month, execution of two new response equipment grants in Monterey and Santa Cruz counties.

In the current year, 18 grants worth $175,000 have been awarded. OSPR intends to award equipment grants to 26 marine counties and cities in California. There is $650,000 in the 2008-2009 budget identified for local equipment grants.

Elaine M. Howle, State Auditor
August 20, 2008
- 2 -

OSPR is also working with the members of the area committees (which OSPR co-chairs) to facilitate local participation in the unified command. While OSPR has no direct authority for compelling local government participation, OSPR is committed to continuing efforts to encourage such participation and to enhancing relationships with all interested local entities.

Regarding the requirement for post spill reviews, since the inception of the law requiring such reviews there appears to have been no spills that met the criteria to require post spill reviews until the Cosco Busan. Based on our conversations with the auditors, OSPR has requested a post spill review from Regal Stone, Ltd. for the Cosco Busan spill. We agree with the recommendation and are evaluating the connection between this regulatory requirement and the improvement of the contingency plan that results from this review.

OSPR's drills and exercises (D&E) unit has been receiving and recording documentation from vessel contingency plan holders, showing the plan holder has completed their necessary drills. The D&E unit has also identified which vessel contingency plan holders are deficient in their drill credits and has required these plan holders to comply. Further, OSPR has worked with the majority of qualified individuals and spill management teams at these tabletop exercises, has established a confidence in their abilities to perform at spills and will follow through as your recommendation suggests.

Chapter 2

In reference to oil spill quantification, we will continue to work with the U.S. Coast Guard to establish protocols that include the sharing of calculations and quantification results. We have directed our field response teams to report spill quantification results promptly to the state on scene coordinator and to the Office of Communications, Education and Outreach (OCEO). In addition, spill quantification protocols will be made part of drills.

According to the Incident Specific Preparedness Review Phase I report, the response organizations used the reasonable worst case scenario identified in the Cosco Busan's contingency plan as the standard for equipment deployment. Within 1½ hours of the incident, the oil spill response organizations had the on-scene recovery capability of 1.5 million gallons. The total on-water recovery capability on scene within six hours was more than 2.4 million gallons. The total on-water recovery capability on scene the first day was more than 3.1 million gallons. This capacity on scene in the first day is almost 60 times greater than the actual spill.

As is stated in your report, the U.S. Coast Guard assumed responsibility for the incident on day one. We agree with the audit that additional OSPR positions may have helped manage media and volunteer outreach, but also believe that the extent to which that help would have resolved the issues associated with media and volunteer outreach is unknown.

As noted in the audit, OSPR's assistant chief arrived at the command post during the morning hours of the second day of the spill. Because of his media training and extensive background in conducting interviews and managing media he immediately became engaged in the Joint Information Center office representing DFG. He remained the lead media representative for DFG during the duration of the Cosco Busan response. In that capacity, he conducted hundreds of local, state and national interviews with print, radio and television news agencies.

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DFG's Acting Deputy Director of OCEO arrived at the information center on the third day. And as reflected in the audit, she had assumed the role of the state's lead representative in the information center by the fifth day. She remained in that position for the entire response to the Cosco Busan spill. The audit recognizes that this was her first oil spill experience and points out that she had information center experience. That experience included the April 2007 Buena Vista Lagoon sewage spill and her service as the lead information officer for DFG's response to the wayward whale incident in May 2007 that generated local, state and national stories.

OCEO staff continues to be trained in incident command and spill response, including oil spills, consistent with the recommendation in the audit.

Regarding the identification of potential command posts, the area committees are continuing to identify sites. These sites will be incorporated in future area drills.

As the Bureau of State Audits is aware, OSPR took the first step in strengthening its role as a liaison between local governments and the unified command earlier this year by coordinating an extensive liaison officer training course for 30 of its employees. OSPR has also developed a plan to utilize "subject matter experts" for all of the critical Incident Command System duties, including the liaison officer, for the development of specific training and experience criteria before employees are assigned to spill incidents. OSPR's efforts will also ensure that staff assigned to spills has the appropriate communications equipment necessary to complete their roles.

The Oiled Wildlife Care Network (OWCN) has, in coordination with OSPR, taken the following steps to further enhance wildlife recovery staffing for large spill events:

- Initiated planning and contracting mechanisms to increase the number of organizations within the network that can provide recovery and transport staff during spills.

- Hired a dedicated volunteer coordinator and a recovery and transport coordinator (two staff members) to manage potentially large numbers of wildlife recovery staff and volunteers during spills.

- Implemented new oiled wildlife recovery and transport procedures and training to ensure available recovery staff will be utilized with maximum efficiency during spills. Training will be provided on a periodic and as-needed basis during the year at multiple locations within the state.

In addition to these efforts, OSPR has begun outreach to federal and state natural resource trustees to identify dedicated individuals who will be available for wildlife recovery duties during spills. These individuals will receive the same training provided to OWCN staff as detailed above. A volunteer press release template has been provided to OCEO and will be used in all future incidents.

Finally, we note that pending legislation includes a bill that would provide a $500,000 increase in the OWCN annual budget, which would help support and maintain activities listed above.

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Regarding health and safety training for recovery volunteers, OSPR sent a letter to the Occupational Safety and Health Administration (OSHA) requesting a determination of appropriate requirements, given the specific job duties and potential exposures of these volunteers. It is OSPR's intent to identify revised, reasonable training requirements for recovery volunteers that are OSHA-approved and will be provided in a shorter time period than current volunteer training requirements allow. OSPR and OWCN have identified the planned statewide recovery and transport training events as an efficient way to deliver the revised health and safety training.

Chapter 3

We agree that it is important to annually assess the propriety of the reserve balance and the per-barrel fee on crude oil and petroleum products.

Prior to the Cosco Busan incident, OSPR initiated various enhancements to its programs (such as the drills and exercises program in '07-'08) without incurring any annual operational deficiencies to the Oil Spill Prevention and Administration Fund (OSPAF). As a result of the Cosco Busan incident, OSPR analyzed the OSPAF condition. It was determined that while the fund could not absorb significant increases in ongoing expenses, there was enough of a reserve to implement enhancements that included either one-time and/or limited ongoing expenses for response equipment grants and the San Francisco Physical Oceanographic Real Time System.

We recognize the importance of charging time to the appropriate fund. OSPR employees know the proper codes to bill their time. However, to ensure compliance, OSPR will develop guidelines so that all employees will be aware of the proper charging procedures. In addition, OSPR will be performing a time study as recommended by the auditors to ensure that OSPR-specific game wardens charge their time to the appropriate fund. Adjustments have been made so that the time of the attorney referenced in this recommendation is properly charged.

Finally, we appreciate the recommendations regarding improving internal coordination between OSPR and other DFG units. This is important not only to the morale and performance of staff, but also to ensure that DFG operates with maximum efficiency and fiscal responsibility. I am working closely with the OSPR acting administrator to ensure that we continue to protect California's fragile wildlife and habitat.

Again, thank you for the opportunity to provide comments to the audit. Please contact Steve Edinger, OSPR acting administrator, at 916-445-9326 if you have any questions.

Sincerely,

(Signed by: Donald Koch)

Donald Koch
Director
Department of Fish and Game

cc: Members of the Legislature
Office of the Lieutenant Governor
Milton Marks Commission on California State Government Organization and Economy
Department of Finance
Attorney General
State Controller
State Treasurer
Legislative Analyst
Senate Office of Research
California Research Bureau
Capitol Press