

Cosco Busan Incident



Oil Spill Response Operations

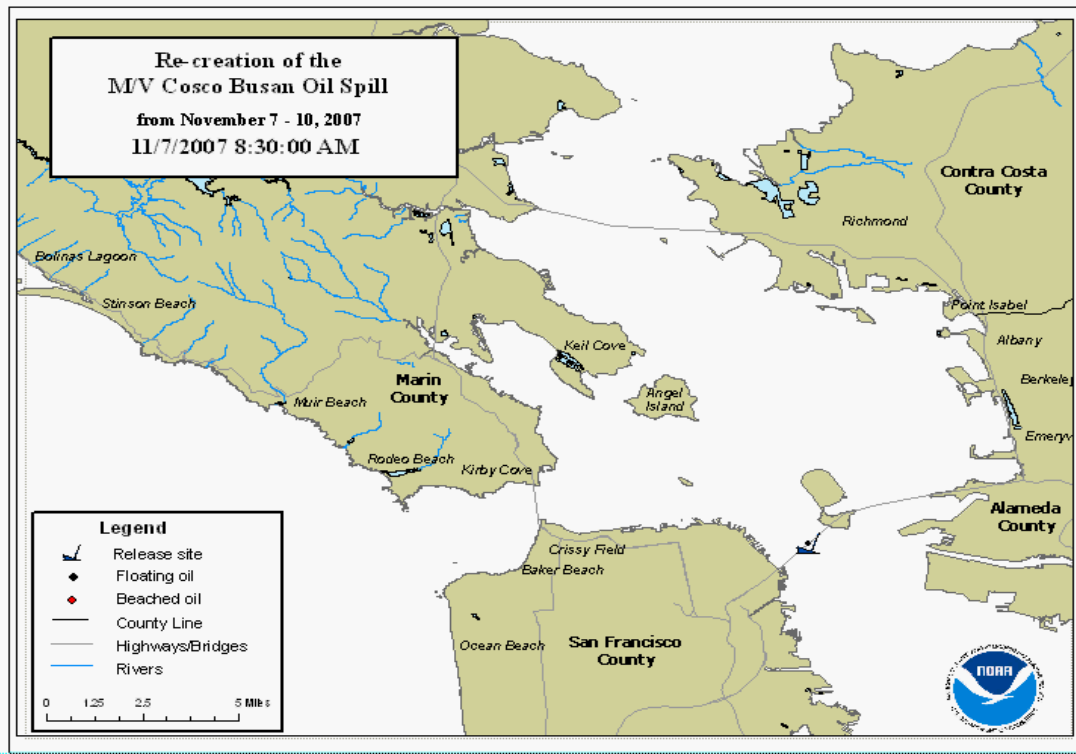
San Francisco Bay and Coast

Incident History

- November 7, 2007: the container ship M/V Cosco Busan strikes the San Francisco Bay Bridge tearing a 100 ft. long gash in its hull over the fuel tanks.
- 58,000 gals of bunker fuel discharges into the Bay in approximately 10 seconds.
- The USCG and DFG are notified of an incident and respond immediately, on-scene in 50 minutes.
- At its farthest extent, the spill impacts beaches and wildlife as far north as Richmond San-Rafael Bridge and Point Reyes, and as far south as Oyster Point and Half Moon Bay.

Incident History

Release Trajectory





Nov. 11, 2007

Response Operations

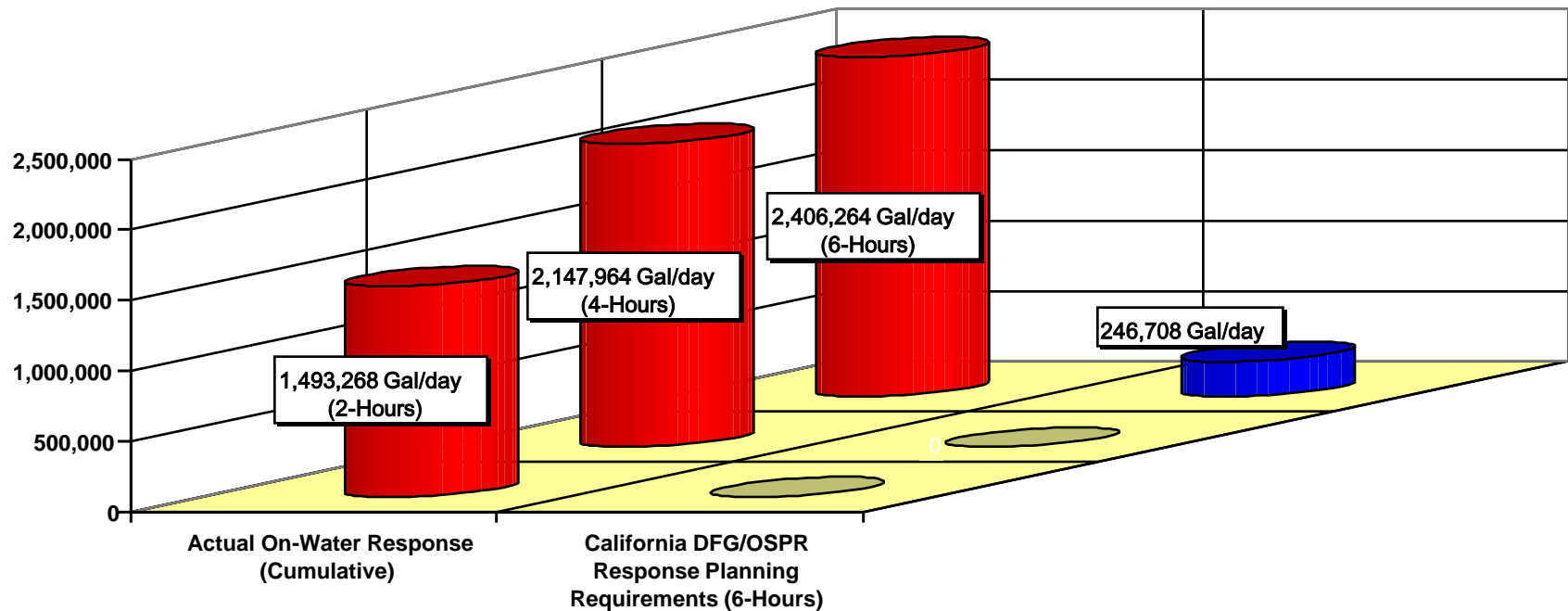
COSCO BUSAN Overflight Footage



Response Operations

Response Standards

Initial On-Water Recovery Capacity by Primary Responders





**Incident Command
Briefing**



SKIMMING OPERATIONS



HELICOPTER DIRECTS ON-WATER SKIMMING OPERATIONS



FISHING VESSEL DRAGGING SNARE BOOM TO PICK UP PRODUCT



Response Operations

Oil Recovery Operations Overflight Footage





ON-WATER BOOM DEPLOYMENT

BOOM DEPLOYED ON CRISSY FIELD



Response Operations

Booming Operations at Crissy Field Overflight Footage



BOOM DECON IN ALAMEDA



Response Operations

**Boom Deployment for East Bay Wetlands Protection
Overflight Footage**



Phases Of Shoreline Clean-Up

Phase 1 - Heavy Oil Removal

Phase 2 - Cleanup of Oil to the Lowest Practical Level

- SCAT inspects and directs clean-up until no oil observed/ no further treatment

Phase 3 - Maintenance & Monitoring

- Operations conducts maintenance removal activities.
- Teams monitor segments on predetermined schedule for re-oiling events.
- Operations conducts cleanup as needed.
- Determine if segment meets cleanup endpoints

Phase 4 - Final Inspection & Sign-Off

- Inspection of each previously oiled segment by multi-agency & land owner/ manager teams.

RESPONSE PERSONNEL ON OUTER COAST BEACH





EXTRAORDINARY MEASURES FOR REMOTE AREAS

29 NOV 07

HOTWASH FOR ROCKS IN EAST BAY





**DETAIL CLEANING OF
RODEO BEACH SANDS**



CLEAN-UP OPERATIONS

SIFTING SAND TO REMOVE TAR BALLS



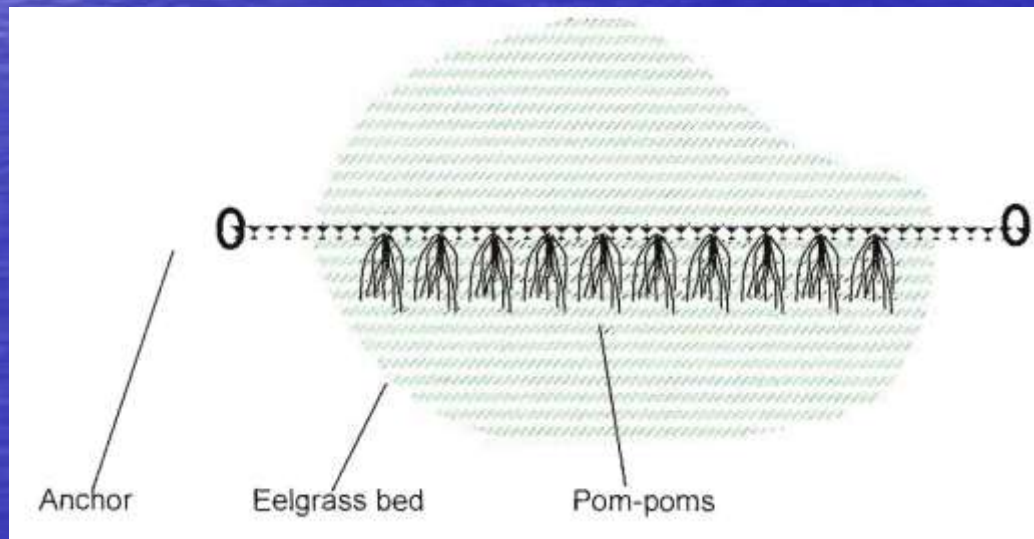
POM-POM BOOM TO REDUCE RE-OILING



Submerged Oil Screening Survey

- **Rapid assessment for the presence/absence of oil**
- **The survey sites were areas near herring spawning grounds and areas likely to contain submerged oil.**
- **Two types of screening methods were used:**
 - **Passive-anchored pom-poms in 6 eel grass beds known to be used by herring**
 - **Boat-based pom-poms towed in 3 sites in the East Bay that had moderate to heavy shoreline oiling.**
- **No oil observed on pom-poms in either the passive-anchor method or the boat-based method.**

Submerged Oil Screening Survey



Response Operations

Oiled Wildlife Rehabilitation



READY FOR RE-HAB



Response Community

Unified Command

- California Department of Fish and Game Office of Spill Prevention and Response (OSPR)
- U.S. Coast Guard
- Ship-owner's representatives including incident management professionals, oil spill response professionals, and contracted scientists.

Response Community

Federal and State Responders

Federal Agencies

**NOAA Emergency Response
Div.**

NOAA NMFS

NOAA CBNMS

NOAA GFNMS

US EPA Region 9

Nat'l Park Service GGNRA

Nat'l Park Service Point

Reyes NS

**Nat'l Park Service, SF Maritime
(Aquatic Park)**

United States Park Police

State Agencies

State Parks & Recreation

Coastal Commission

Regional Water Board

Cal Volunteers

CALTRANS

SF Bay Conservation &

Development Commission

Office of Emergency Services

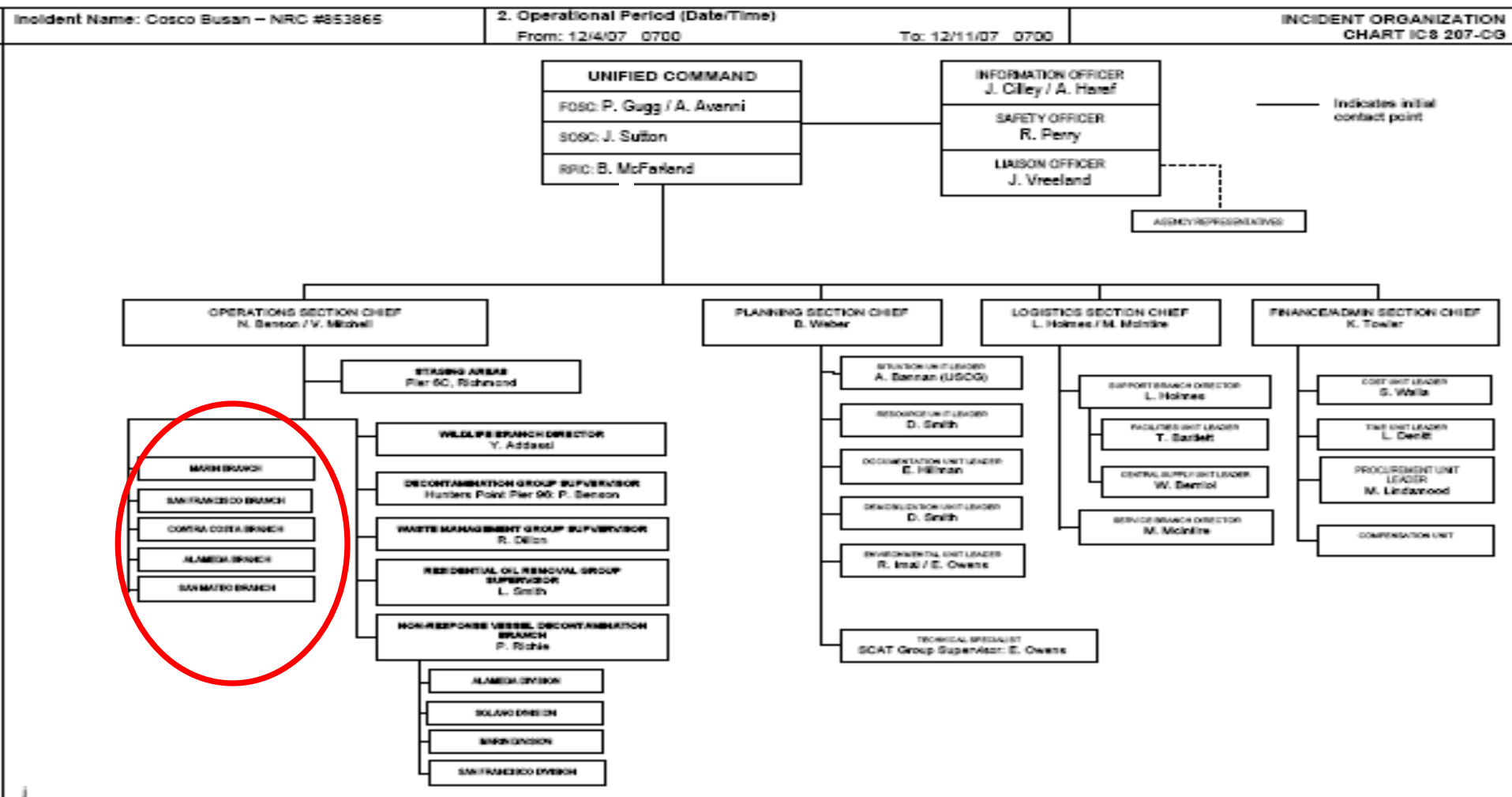
Response Community

Local Responders

**City of Albany
City of Berkeley
City Of Emeryville
City of Oakland Fire
City of Oakland OES
City of Richmond
SF Dept of Environment
SF Fire Department
SF Police Dept.
SF OES
SF Parks & Recreation
SF County Env. Health
SF Water Control
Alameda Co Public Works
Alameda County Env. Health
Alameda County OES**

**Contra Costa County Health /HazMat
Contra Costa County Sheriff
Marin County Fire
Marin County OES
Marin County Sheriff
San Mateo Co Health Dept
San Mateo Co OES
San Mateo Co Sheriff's Office
San Mateo Police Department
Sonoma Co OES
Berkeley Marina
Emeryville Cove Marina
Emeryville Marina
East Bay Regional Parks
Port of Oakland
Port of Richmond
Port of San Francisco**

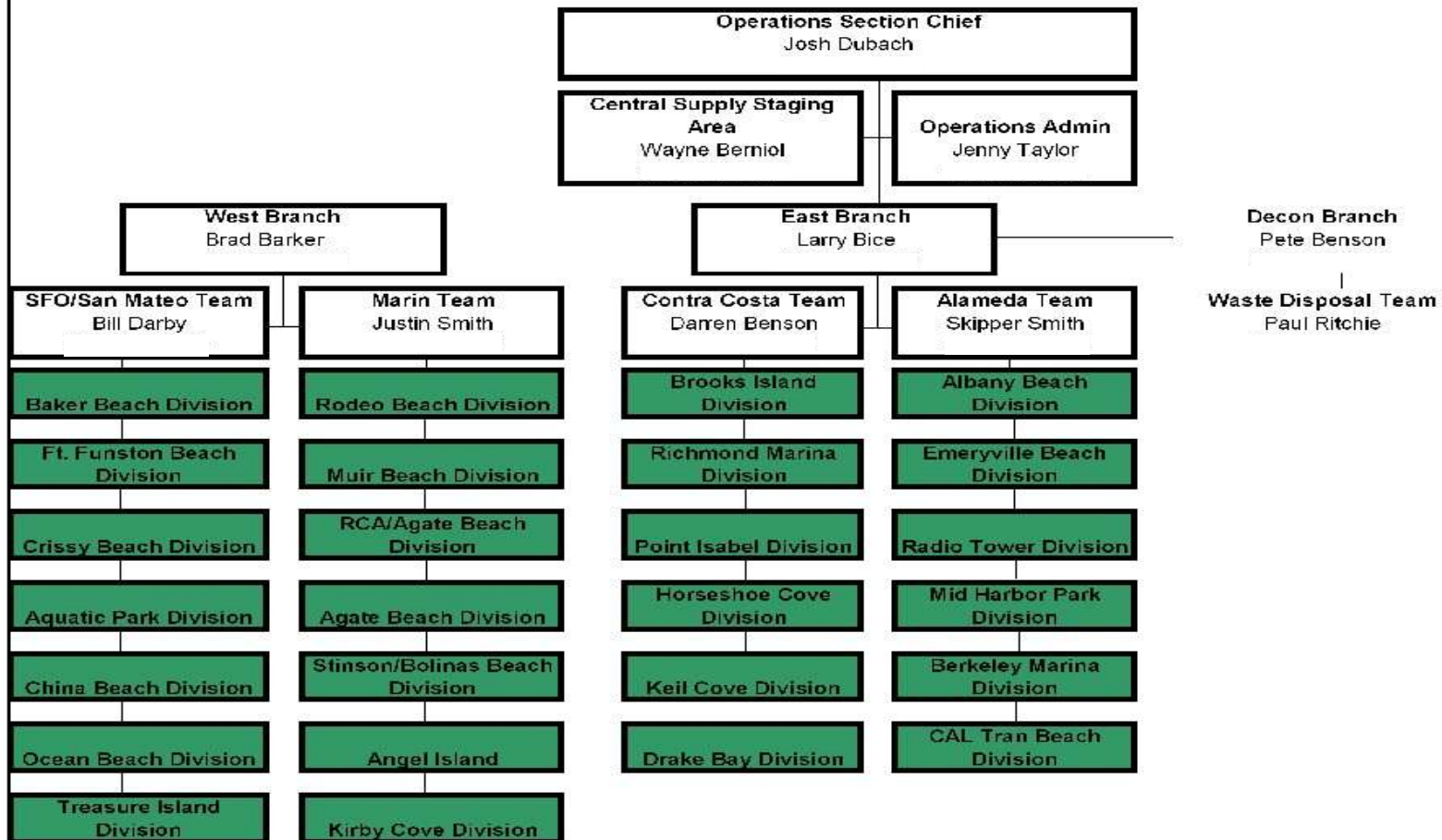
Response Community



Response Community

COSCO BUSAN OPS ORGANIZATION CHART

Monday, December 17, 2007



Response Community

**SF Bay & Delta Area Committee
and the Area Contingency Plan**

Area Contingency Plan (ACP)

- Sensitive Site Summaries
- Site Response Strategies
- Site Diagrams and Descriptions
- Economic, Cultural, and Archeological Concerns Outlined

Response Community

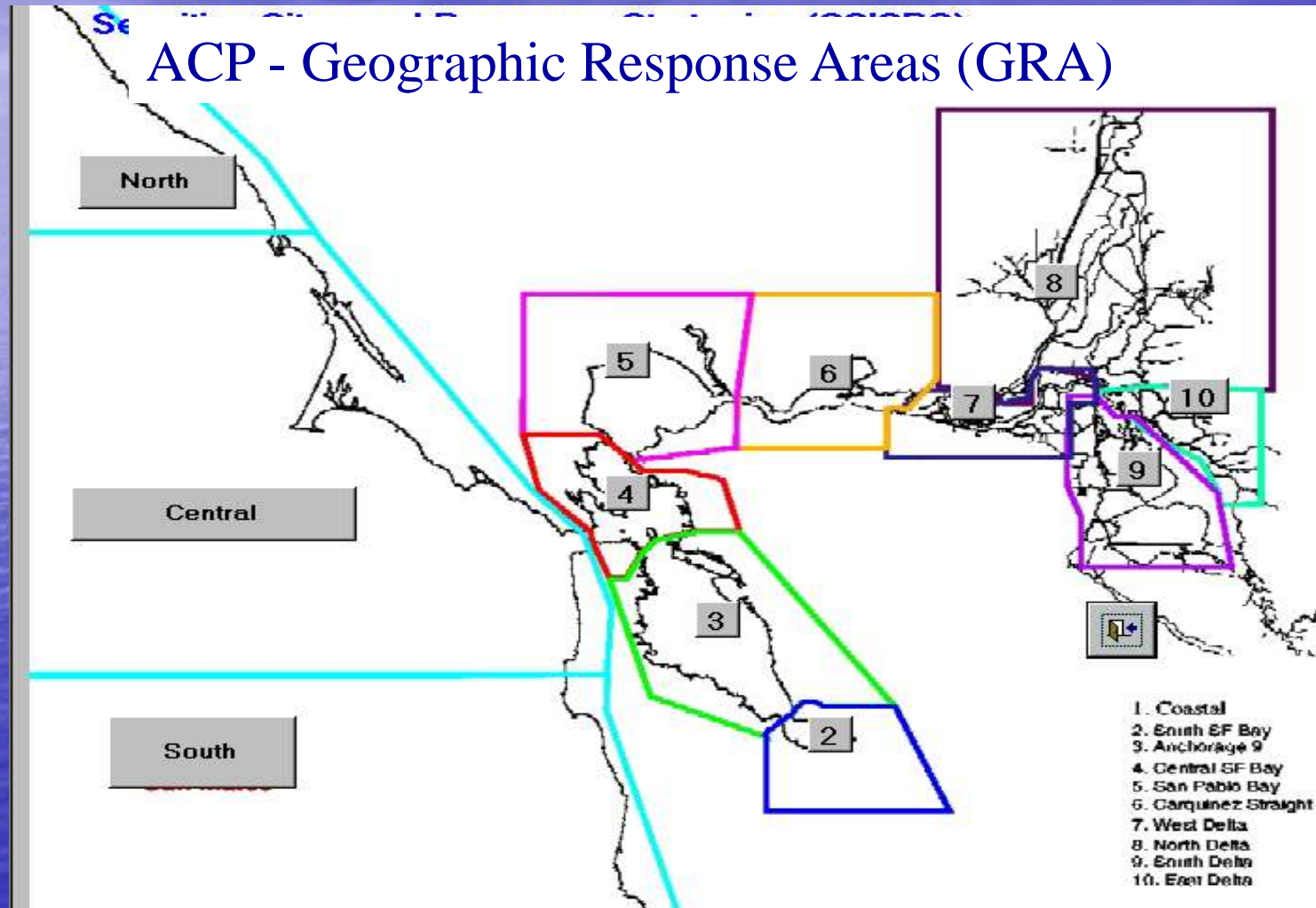
Area Contingency Plan

- Broad-based and continuous participation by local and regional governments is a key element of the Area Contingency Plan (ACP).
- On-going participation in the ACP process and drills and exercises will be very important for continuing improvement and preparedness for future response efforts.

Response Community

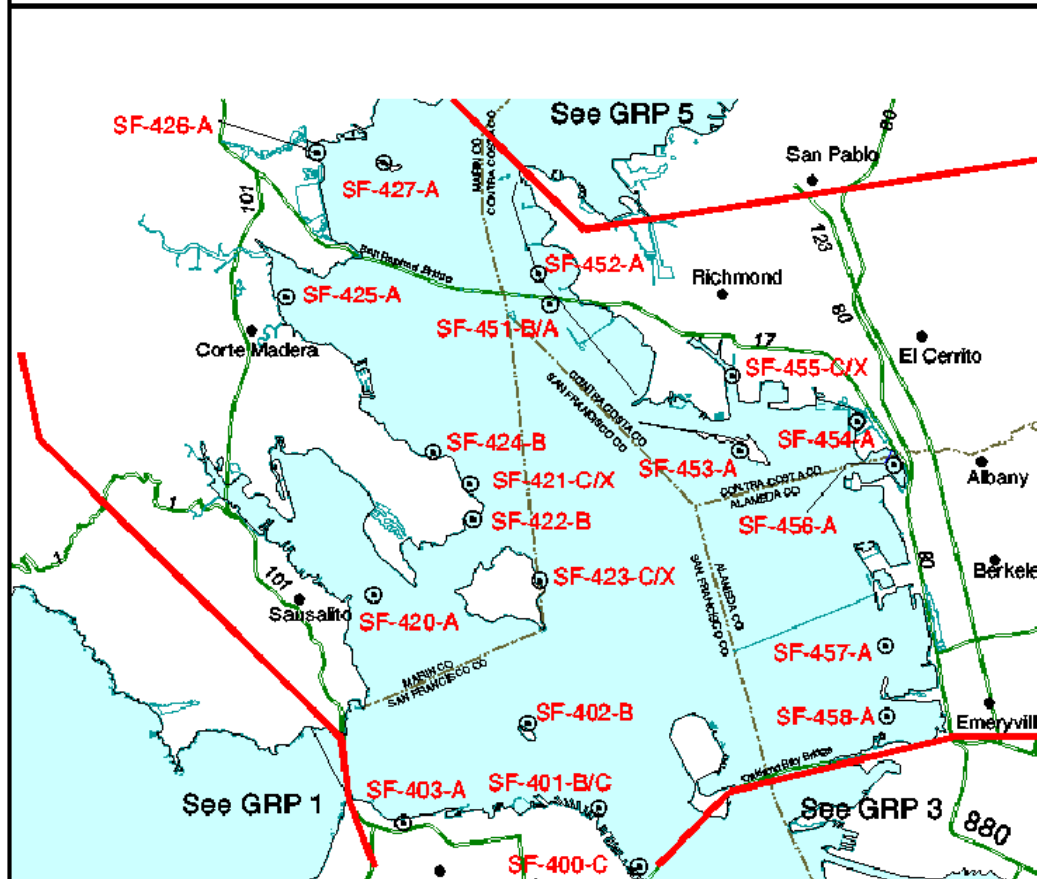
Area Contingency Plan

ACP - Geographic Response Areas (GRA)

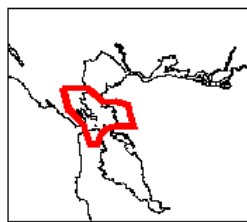




SF Geographic Response Area 4
Central SF Bay
Environmentally Sensitive Sites



0 5 10 Miles



Note: Marker symbols (⊙) are only site reference and do not indicate full extent of sites.

**DETAIL FOR
SENSITIVE SITES
IN GRA #4**

Response Community

Resource Statistics

- 40 agencies involved
- 1,400 trained response professionals
- Response vessels:
 - 13 skimming vessels / 20 fishing boats
- 28,500 feet of boom deployed
- 250,000 field contractor staff hours

Response Community

Volunteer Response

- Community response was substantial and its scope unprecedented.
- The partners involved recognize that there are opportunities to more fully incorporate the community into the response process for this incident and for future incidents.

Response Community

Volunteer Response

Volunteers for Beach Cleanup

Volunteer Plan was Activated Nov. 12th

- Training Sessions: 17
- People Trained: 2275
- Volunteers Deployed: 1007

Response Community

Oiled Wildlife Care Network

- **OWCN is an established and integral partner in oil spill response. OWCN facilities can readily call upon ~1,500 pre-trained volunteers to assist with wildlife recovery and rehabilitation.**
- **Statistics:**
 - 400 Volunteers utilized in this spill**
 - 1,100 live oiled birds recovered**
 - 410 birds washed and released**
- **Trustee agencies will recover all costs from the responsible party (Cosco-Busan) for wildlife recovery and care.**



VOLUNTEERS AT OWCN FACILITY IN CORDELIA



**VOLUNTEERS NEEDED
FOR MANY TASKS AT OWCN**



Marin County

After



10 NOV 07

Before



01 DEC 07

Angel Island

Before



After

Contra Costa County



Before

After



Moving Forward

- Active participation by cities and counties in the Area Contingency Plan is critical for improving these plans. Local communities should send a representative to every ACP meeting.
- Participate in drills and exercises; more than 300 conducted statewide every year.
- There was extensive debriefing and evaluating of the incident response identifying opportunities for improvement.

Lessons Learned

- **An after action report will be generated in accordance with federal and state requirements.**
- **Efforts are ongoing and the results are pending.**

Investigations

- ISPR started within a week of the incident
- NTSB began investigation-cause/response
- US Homeland Security Inspector General
- Governor asked for internal state investigation (executive branch)
- Bureau of State Audits did extensive OSPR
- Various county after-action reports

Natural Resource Damage Assessment (NRDA)

- **Federal & state agencies early into the spill started NRDA which continues long after spill response ends.**
- **The goal is to restore resources injured by the spill.**
- **Resources being assessed:**
 - **Birds/Mammals/Fish**
 - **Shoreline Habitats**
 - **Historic & Cultural Resources**
 - **Human Uses (e.g. Recreation)**
- **Coordination with local land management entities and public participation is an essential element of NRDA.**
- **All NRDA costs will be covered by responsible party**₅₀

Cosco Busan Response



Questions ?