



# Emergency Response and Management Committee Accomplishments Report for 2016

## MEMBER AGENCIES

California Environmental Protection Agency  
Air Resources Board  
Department of Pesticide Regulation  
Department of Resources Recycling & Recovery  
Department of Toxic Substances Control  
Office of Environmental Health Hazard Assessment  
State Water Resources Control Board



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## **I. INTRODUCTION**

California Environmental Protection Agency (CalEPA) Emergency Response and Management Committee (ERMaC) coordinates preparedness for responses to environmental emergencies in California under assigned statutory authorities. ERMaC is comprised of appointed representatives and alternates from each board, department and office (BDO) of CalEPA and is chaired by the Assistant Secretary for Emergency Response appointed by the Agency Secretary. ERMaC members have authority, within respective BDOs to activate and direct resources and personnel to affect timely and appropriate response to disasters and large-scale emergencies.

ERMaC's mission is to manage environmental health consequences of emergency events through effective, coordinated agency-wide preparedness, response, recovery, and mitigation activities. ERMaC is responsible for emergency planning and training and coordinates all CalEPA entities in emergency preparedness, response, and recovery actions. It serves as the forum for developing and maintaining the CalEPA collective Administrative Orders and emergency response plans.

Every year, the ERMaC prepares an Accomplishments Report that highlights the emergency management, response, and recovery activities of CalEPA and its six BDOs. First, the report highlights incident response and recovery actions for 2016 such as fires, oil spills, and hazardous chemical releases. Next, the report provides updates on the California drought and the Interagency Refinery Task Force. Finally, a list of trainings, exercises, projects, and presentations that ERMaC participated in over the year are included.

CalEPA complies with the National Incident Management System (NIMS) for emergency preparedness and operates as a state agency with specific jurisdiction under the Standardized Emergency Management System (SEMS), as coordinated by California Office of Emergency Services (CalOES).

ERMaC is also responsible for the California Hazardous Materials and Oil Emergency Support Function Annex 10 (ESF-10). The ESF-10 Annex is a planning-specific addendum to the California State Emergency Plan (SEP) that establishes CalEPA as the lead for the organization, scope, and coordination of emergency management activities of the stakeholders and partners in an environmental disaster involving a large-scale oil and/or hazardous materials incident. The ESF-10 Annex provides for a coordinated response from agencies and governmental entities with jurisdictional and regulatory authority to conduct all phases of emergency management in the response to and recovery from a release of oil or hazardous materials.

## II. INCIDENT RESPONSE & RECOVERY ACTIONS

### A. Select 2016 Incident Response and Recovery Actions

#### 1. Incident Name: Electroforming Plating Shop, Richmond (January 2016-March 2016)

Department of Toxic Substances Control Emergency Response (DTSC ER) oversaw the assessment and removal of hazardous waste from a defunct electroforming plating shop in Richmond, CA after the owner refused to conduct the removal per a DTSC Enforcement Order and was subsequently jailed. Initiation of the response action occurred in January 2016 and was completed in March 2016. The response action was completed in three months at a cost of \$309,360.37.

DTSC ER's activities included the following:

- 1) Sampling and profiling all hazardous waste remaining at the site, including all wastes generated as a result of their cleanup activities;
- 2) Packaging all liquid and solid hazardous waste in Department of Transportation (DOT) approved containers including drums, totes and roll-off bins in preparation for transport and disposal to an authorized hazardous waste disposal facility;
- 3) Cutting up and managing as hazardous waste all containers and tanks that formerly held hazardous waste and plating liquids;
- 4) Sweeping and power washing the floors at the facility that were covered in hazardous waste; and
- 5) Collecting and disposing of all flooring and cement block berms that were saturated with plating solutions to an authorized hazardous waste disposal facility.



**2. Incident Name: Oil Spill Response and Seafood Safety (January-December 2016)**

The Office of Environmental Health Hazard Assessment (OEHHA) and the California Department of Fish and Wildlife's (CDFW) Office of Spill Prevention and Response (OSPR) coordinate to assess seafood safety following an oil spill, both marine and inland. CDFW must close access to fishing, unless OEHHA determines that there is not likely to be a public health threat from consumption of aquatic life impacted by the spill. Fisheries closed for more than 48 hours require expedited testing of seafood and a risk assessment conducted by OEHHA before the fishery can be re-opened.

In 2016, OEHHA was notified of nine oil spills or potential oil spills. OEHHA worked with CDFW to compile and evaluate information on the spills. No action was required for five spills reported to OEHHA. No action may have been due to the spilled product being contained, or if the spill took place in areas where fishing or aquaculture does not take place. For the remaining four spills, OEHHA found that there was not likely to be a public health threat. Thus, CDFW did not close fisheries in those cases. OEHHA also participated with OSPR in two oil spill drills. A recommendation for fisheries closure was issued in one of the scenarios.

**3. Incident Name: Aliso Canyon Leak, Los Angeles County (February 2016)**

In October 2015, a natural gas leak was discovered at a well within the Aliso Canyon Underground Storage Field in Los Angeles County. The Southern California Gas Company (SoCalGas), which owns and maintains the natural gas storage facility and is responsible for its wells, had been attempting since that time to stop the leak and gained initial control of the leak in February 2016. OEHHA provided assistance to other state and local agencies in evaluating potential health impacts of emissions from the gas leak in the Porter Ranch neighborhood. OEHHA reviewed air quality measurements, evaluated public health concerns from the gas leak, and assisted other state and local agencies in determining whether additional actions were needed to protect public health.

**4. Incident Name: Pacific Ocean Harmful Algal Bloom Event (April 2016)**

In 2015, an unprecedented algal bloom of *Pseudo-nitzschia* in the Pacific Ocean led to high levels of domoic acid in several seafood species. Beginning in November 2015, and continuing into 2016, OEHHA, in consultation with California Department of Public Health (CDPH), made recommendations to CDFW and the Fish and Game Commission regarding closing, delaying the opening of, or re-opening the commercial and recreational Dungeness and rock crab fisheries, based on the results of domoic acid testing in those species. Fishery openings and re-openings were recommended for discrete coastal areas when repeated sampling showed that domoic acid levels in crabs did not exceed the federal action level. In April 2016, the agencies also recommended the closure of the recreational razor clam fishery in

coastal areas of Humboldt and Del Norte counties, which remained closed throughout 2016. OEHHA, in cooperation with the ongoing monitoring efforts of CDPH, continued to review the domoic acid levels in these species.

**5. Incident Name: Monterey Explosives Warehouse, Hollister (April 2016)**

In April 2016, the United States Environmental Protection Agency (US EPA) and DTSC located 15 tons of explosive materials on a property in a warehouse and in the residence of a business that previously produced lethal munitions for law enforcement and the military in Hollister, CA. The owner allowed the permits to expire, and due to a lack of money, was unable to move the explosives to another location. US EPA and DTSC considered the explosives abandoned and Monterey County Sheriff's Office determined the safest way to mitigate the hazard was through controlled detonations. Air Resource Board's Office of Emergency Response (ARB OER) performed internal agency notification and provided information and procedural guidance to the Air Pollution Control Officer (APCO) of Monterey Bay Unified Air Pollution Control District (MBUAPCD). In addition, US EPA and DTSC oversaw the disposal operation and public health messaging.

**B. Fire Response and Recovery 2016**

**1. Incident Name: Fruitland Magnesium Fire Incident, Maywood (June 2016)**

The Fruitland Magnesium Fire in Maywood, CA involved a metals recycling facility that caught fire. Multiple BDOs from CalEPA played a role in this response. ARB OER offered support to South Coast Air Quality Management District (SCAQMD). ARB OER also coordinated with US EPA Region IX. SCAQMD used OEHHA acute Reference Exposure Levels (RELs) to compare with concentrations of metals detected in the air at various locations near the fire.



DTSC ER undertook the removal of hazardous waste from the site. The hazardous waste included scrap metals, nickel cadmium batteries, Polychlorinated Biphenyl (PCB) and non-PCB ballasts, metal powders, metal sludge, and various containers of unknown liquids. The unknown liquids had to be field-characterized before they could be transported to a permitted disposal facility. The removal operation took two weeks to complete. DTSC's contractor costs, including transportation and disposal of the various hazardous waste were approximately



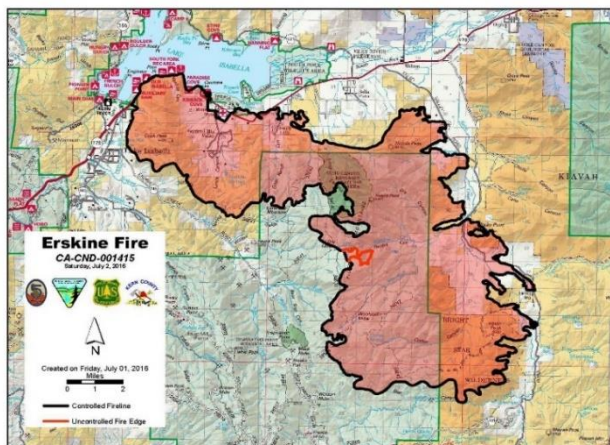
\$50,000. In addition, the Department of Resources Recycling and Recovery (CalRecycle) assisted US EPA with fire response and site remediation. CalRecycle and its contractor provided transportation and disposal of the non-hazardous solid waste from the site in support of US EPA.

## 2. Incident Name: Erskine Fire, Kern County (July 2016)

In July of 2016, DTSC worked with Kern County Environmental Health and Cal Recycle to assess and remove household hazardous waste (HHW) from



approximately 334 addresses impacted by the Erskine fire in Kern County. DTSC costs for the response action were \$400,000. In addition, CalRecycle was tasked by CalOES to manage debris removal from the fire. CalRecycle removed debris from 302 sites in 12 weeks. CalRecycle debris removal costs were approximately \$20.5 million.



The State Water Resources Control Board (SWRCB) also participated in the emergency response for the Erskine fire by contacting area public water systems to obtain status information. SWRCB Division of Drinking Water (DDW) contacted area public water systems, obtained status information, and provided updates to CalOES State Operations Center (SOC) through the CalEPA Emergency Operations Center (EOC). SWRCB DDW provided assistance and coordination with public water systems, emergency management entities, and other EOCs and issued "Unsafe Water Alerts" (aka "Boil Water Notices") where warranted.

### 3. Incident Name: Clayton Fire, Lake County (August 2016-October 2016)

In August of 2016, the Clayton fire in the Lower Lake area of Lake County burned approximately 4000 acres and in the process destroyed 299 structures including 189 single-family homes, eight commercial structures, and 102 other structures such as sheds and smaller outbuildings. DTSC ER, in coordination with Cal Recycle and Lake County Environmental Management, conducted assessments and removal actions of hazardous materials and HHW from the affected residential structures. DTSC's contractor, NRC Environmental, deployed a team consisting of hazardous waste/asbestos removal personnel and a Certified Asbestos Consultant to facilitate the removal



actions. Waste identified for removal and disposal included: automotive/marine batteries, pesticides and herbicides, fertilizers, pool and cleaning chemicals, fuels, used oil, solvents, compressed gas cylinders, and other typical HHW. In addition, properties were assessed for suspect asbestos containing materials. DTSC contractor costs, including transportation and disposal of hazardous waste, were approximately \$200,000.

CalRecycle was tasked by CalOES to manage a coordinated debris removal project from the fire. CalRecycle removed debris from 157 sites in eight weeks. CalRecycle debris removal costs were approximately \$12.5 million. SWRCB also responded to the incident. SWRCB DDW contacted area public water systems, obtained status information, and provided updates to CalOES SOC through the CalEPA EOC. SWRCB DDW provided assistance and coordination with public water systems, emergency management entities, and other EOCs. Unsafe Water Alerts (Boil Water Notices) were issued where warranted.





#### **4. Incident Name: Auto Dismantler Fire, Richmond (December 2016)**

ARB OER responded to a report of a fire at the Deal Auto Wrecking Yard. They worked with CalOES and Contra Costa County to develop and put in place a shelter-in-place advisory. The Richmond Fire Department and the Chevron Fire Department were also responders to the fire. ARB OER worked with Cal OES, ARB public information staff, US EPA Region IX and Bay Area Air Quality Management District (BAAQMD) to coordinate response to the incident ARB OER also verified that Chevron's community monitoring stations provided information on the community impacts of the incident.

#### **5. Incident Name: Sand and Soberanes Fires (July-October 2016)**

SWRCB participated in the emergency response for the Sand and Soberanes Fires. SWRCB DDW contacted area public water systems, obtained status information, and provided updates to CalOES SOC through the CalEPA EOC. SWRCB DDW provided assistance and coordination with public water systems, emergency management entities and partners. Unsafe Water Alerts (Boil Water Notices) were issued where warranted.

#### **6. Overview of ARB's Office of Emergency Response Support and Monitoring for 2016 Fire Response Operations (April-December 2016)**

<b>Date</b>	<b>Incident</b>	<b>Air District<sup>1</sup></b>	<b>Description</b>
<b>4/13/16</b>	Monterey Explosives Warehouse	MBUAPCD	Provided information and procedural guidance to MBUAPCD and the Air Pollution Control Officer regarding a proposed explosives detonation event at an abandoned low-grade munitions plant in Hollister, CA.
<b>6/14/16</b>	Fruitland Magnesium Fire	SCAQMD	Contacted SCAQMD and US EPA for coordination and to offer assistance.
<b>6/23/16</b>	Ventura County Oil Pipeline Spill	VCAPCD	Provided guidance to VCAPCD on Incident Command System (ICS) coordination.
<b>8/5/16</b>	Ventura County Oil Tank Fire	VCAPCD	Offered monitoring support via Santa Barbara E-Bam cache and provided guidance on ICS coordination.
<b>8/15/16</b>	Lodi Gas Leak	SJVAPCD	Offered monitoring support to district.
<b>9/20/16</b>	San Pablo Bay Oil Spill	BAAQMD	Notified air district of spill and provided modeling support to Solano County Environmental Health.
<b>10/7/16</b>	Yuba County Odor Complaints	FRAQMD	Assisted district in identifying source of unknown odors.
<b>11/3/16</b>	Ventura County Gas Well Leak	VCAPCD	Offered monitoring support to district.
<b>12/16/16</b>	Richmond Auto Dismantler Fire	BAAQMD	Coordinated with US EPA Region IX and BAAQMD. Provided monitoring guidance.

<sup>1</sup> MBUAPCD: Monterey Bay Unified Air Quality Management District; SCAQMD: South Coast Air Quality Management District; VCAPCD: Ventura County Air Pollution Control District; SJVAPCD: San Joaquin Valley Air Pollution Control District; BAAQMD: Bay Area Air Quality Management District; and FRAQMD: Feather River Air Quality Management District.

## **C. Oil Spills**

### **1. Incident Name: Ventura Oil Spill, Ventura (June 2016)**

ARB OER provided support to Ventura County Air Pollution Control District (VCAPCD) following an oil spill in Ventura, CA. They discussed options for deployment and created a plan to put them in contact with the Incident Commander and environmental unit. VCAPCD coordinated monitoring with the other environmental responders, US EPA, and the responsible party's contractor, and issued air advisories to citizens in the oil spill vicinity. As a precautionary measure, they also gathered air samples using summa canisters.

### **2. Incident Name: Oil Spill, San Pablo Bay (September 2016)**

In September 2016, ARB responded to a report by the California State Warning Center (CSWC) of a pungent odor in Contra Costa County that resulted in a shelter-in-place advisory. Subsequent overflights of the area by the United States Coast Guard (USCG) identified two oil sheens on San Pablo Bay believed to be from a tanker at the Phillips 66, Rodeo refinery. This was identified to be the likely odor source. USCG and CDFW OSPR established a unified command and Joint Information Center with the refinery. Joint press releases were made by both OSPR and the USCG. The BAAQMD responded and tested the air around the tanks with infrared sensors. They found one tank that had been filling with crude oil, which had possibly been leaking fumes. The refinery fence line monitors showed no significant levels of pollutants. ARB OER coordinated modeling support for Solano County upon their request to estimate the source of the odor complaints. OEHHA was notified by CDFW OSPR of the two oil sheens and conferred with OSPR to assess the nature and extent of the spill. Based on information received from on-scene responders, OEHHA determined there was not likely to be a public health risk associated with consuming fish or shellfish as a result of the spill and thus did not recommend a fisheries closure.

### **III. DRINKING WATER**

#### **A. Drought Update**

California has been in a drought for over five years as of 2016. The Governor issued executive orders to address the crisis. The Executive Order required SWRCB to impose water restrictions to achieve a statewide 25% reduction in potable urban water usage. The SWRCB developed emergency regulations in May 2016 that replaced the prior percentage reduction-based water conservation standards with a localized supply reliability “stress test” approach. The majority of urban water suppliers reported sufficient supplies to meet demand under three additional dry years and were not subject to state conservation mandates. The amended regulation allowed certain suppliers the opportunity to submit or resubmit their water supply reliability assessments by March 15, 2017 and it did not require mandatory conservation unless water suppliers determined that they had a shortfall.

Prohibitions against homeowners associations (HOAs) penalizing homeowners for certain outdoor conservation practices during a declared drought remained and similar requirements were extended to cities and counties. The extension maintained urban water supplier monthly reporting and basic water conservation measures. As directed by Governor Edmund G. Brown Jr. in Executive Order B-37-16, the Board separately took action to make reporting and wasteful water practices permanent. Effects of the long-term drought included: lowering water tables, drinking water wells not producing enough or not at all, regional land subsidence, lowering of water levels in surface water sources (lakes and dammed areas), threats to water dependent industries (fish and wildlife, recreation, tourism, agriculture) and increasing competition among various needs on an increasingly scarce resource.

### **IV. REFINERY SAFETY TASK FORCE**

A fire at the Chevron refinery in Richmond in August 2012 raised public concern about refinery safety and emergency response in California. Following a directive from the Governor’s February 2014 report on “Improving Public and Worker Safety at Oil Refineries,” CalEPA formed the Interagency Refinery Task Force (IRTF). The IRTF membership includes ten state agencies, US EPA, and local agencies from areas of the state that contain refineries. The agencies work collaboratively to achieve the highest possible level of safety for refinery workers and local communities, and to prepare for and effectively respond to emergencies if they occur.

In 2016, the IRTF worked on updating two pieces of regulation: “The California Accidental Release Prevention (CalARP) Program” (via CalOES) and “The Process Safety Management (PSM) regulations” via the Department of Industrial Relations (DIR). The PSM regulation is being updated by DIR and is focused on minimizing risks to employees, whereas the CalARP regulation is designed to protect the safety and health of the community. The CalARP regulations are being updated two committees. The IRTF’s Safety & Prevention Workgroup along with CalOES are updating the safety

and prevention portion of the CalARP regulation, while the Emergency Preparedness & Response Workgroup along with CalOES are updating the Area Plan portion of the CalARP regulations.

Under these two new regulations, refineries would be expected to adhere to the following actions:

- 1) Use a systematic approach known as the Hierarchy of Hazard Controls to eliminate or minimize hazards in refinery processes whenever possible;
- 2) Perform periodic refinery safety culture assessments to evaluate whether management is appropriately emphasizing safety over production pressures;
- 3) Perform damage mechanism reviews on equipment to systematically identify problems such as corrosion before leaks occur;
- 4) Account for human factors and organizational changes, including employee fatigue and experience, and operational reorganization;
- 5) Use structured methods to ensure adequate and independent safeguards are in place to prevent incidents;
- 6) If a major incident occurs or is narrowly avoided, conduct thorough investigations to identify underlying root causes and develop interim and permanent corrective actions;
- 7) Implement corrective actions for all aspects of the process safety program according to clear and enforceable timelines, with consequences for delays;
- 8) Involve employees and employee representatives in all elements of the process safety program, including all activities required above;
- 9) Give operating employees clear authority to shut down a process due to safety concerns, and give all employees the ability to anonymously report process safety concerns and refuse work due to process safety concerns; and
- 10) Make more information available to the public, including annual safety metrics for each refinery.

Several refinery safety forums were conducted in refinery communities (including those held in conjunction with the Contra Costa County Community Awareness Emergency Response (CAER) organization, Chemical Safety Days in Bakersfield and the Bay Area, and the Los Angeles County Fire Health Hazardous Materials (HazMat) Division).



## V. TRAINING, EXERCISES & PROJECTS

ERMaC representatives and their agency colleagues presented a number of emergency preparedness and response training sessions and participated in emergency exercises in 2016. These included the following:

### A. Training

- January 13, 2016. *Flood Fight Methods*, **Training**, Joseph Crisologo (Participant). Location: Department of Water Resources (DWR) at the Lifeguard Station in Imperial Beach, CA.  
The Flood Fight Methods Course offered by DWR was designed to assist government and public agencies, groups and volunteers in learning corrective temporary methods for combating flood-related problems. The morning portion was a classroom presentation and the afternoon portion included hands-on learning through construction of various flood control methods in the field.
- February 10, 2016. *Southern California Water Security Symposium*, **Training**, Joseph Crisologo (Participant). Location: City of San Diego Public Utilities Employee Training & Development Center in La Mesa, CA.  
This was the first annual Southern California Water Security Symposium that examined the vulnerabilities and ways to increase security resiliency of water systems.
- March 3, 2016. *Responding to El Niño*, **Webinar Training**, Joseph Crisologo (Participant).  
This training, as requested by management, briefed SWRCB DDW staff about El Niño 2016; presented examples of past effects from El Niño; identified awareness and preparedness measures; and, in the face of an El Niño related incident, understand how the SWRCB DDW responds (process and procedures). The response processes and procedures presented are similar to any SWRCB DDW response to any other type of incident.
- March 17, 2016. *Terrorism Targeting of Public Utility Sites*, **Training**, Joseph Crisologo (Participant). Location: Orange County Intelligence Assessment Center at Irvine Ranch Water District, Sand Canyon Headquarters, Irvine, CA.  
This class was designed to prepare utility stakeholders with the basic skills and awareness necessary to identify types of public utility sites targeted by terrorists, the methods and tools likely used by terrorists to conduct such attacks and known suspected groups conducting attacks against public utility sites.
- March 23-24, 2016. *Association of State Drinking Water Administrators (ASDWA) Security and Resiliency Workshop*, **Workshop**, Joseph Crisologo (Participant). Location: Hilton Hotel in Alexandria, VA.  
Provided input and perspectives from California over water security, preparedness, and emergency response.

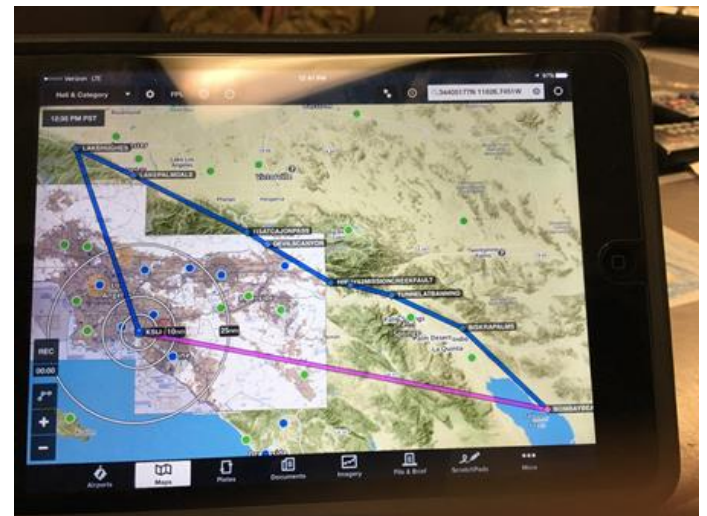
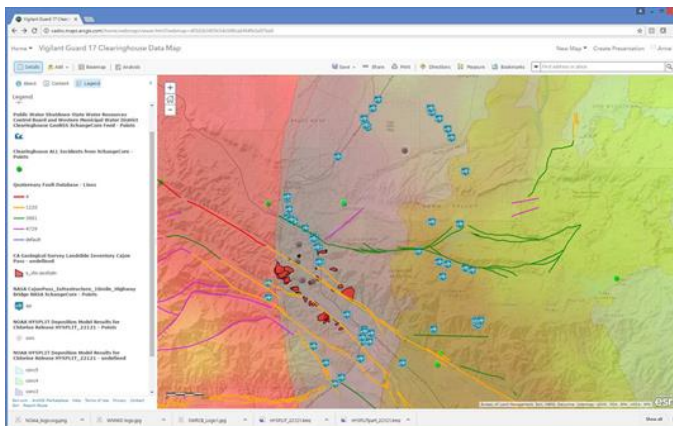
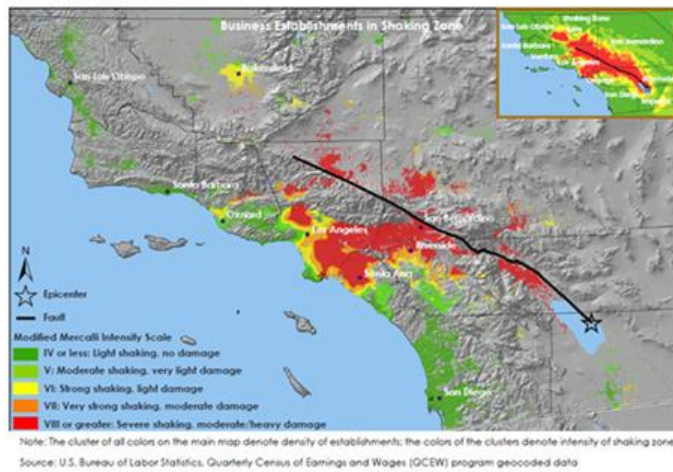
- June 6-7, 2016. *Fire Season Preparedness Workshop*, **Workshop**, Charles Pearson, ARB, to Amador, Calaveras, El Dorado, Tuolumne, Butte, Yolo, Solano, Nevada, Sierra and Colusa Air Districts.  
Location: Jackson and Yuba City, CA.  
ARB provided training on emergency response air monitoring and multi-agency coordination for effective response.
- 2016. *California Department of Pesticide Regulation (CDPR) Continuity of Operations Government Plan (COOP) and ERMaC Awareness*, **Presentations**, James Shattuck, CDPR, to all CDPR Headquarters and Regional Office Staff.

## **B. Exercises**

- June 7-10, 2016. *Cascadia Rising Companion Exercise*, **Exercise**, ERMaC representatives from CalEPA, ARB, CalRecycle, CDPR, DTSC, OEHHA, and SWRCB, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.
- June 15, 2016. *Underground Transport Restoration (UTR) Project for Bay Area Rapid Transit (BART)*, **Exercise**, Karen Riveles, OEHHA, Kevin Chao, CDPH, at the Lawrence Livermore National Lab, Livermore, CA.
  - After Action Planning Meeting Paul Penn, CalEPA; Michael Pixton, DTSC; Karen Riveles, OEHHA; Alan Zamboanga, CalRecycle; James Shattuck, CDPR; Marcy Barnett, CDPH; Kevin Chao, CDPH; and Gwendolyn Hammer, CDPH, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.
- September 9-12, 2016. *Urban Shield/Yellow Command Exercise*, **Exercise**, Joseph Crisologo, SWRCB, at the Alameda County Sheriff's Office in Oakland, CA.
- October 20, 2016. *Great California Shake Out*, **Exercise**, CalEPA and its BDOs (ARB, CalRecycle, CDPR, DTSC, OEHHA, and SWRCB) and other facilities throughout the state of CA, participated in this statewide exercise at CalEPA Headquarters, Sacramento, CA.
- October-November 2016. *Ingestion Pathway Exercise (IPX) Diablo Canyon Power Plant Exercise*, Multiple **Exercises**, Joseph Crisologo, SWRCB, Larry Morgan, SWRCB, at the Diablo Canyon Power Plant, San Luis Obispo, CA.

- November 14, 2016 *Vigilant Guard Exercise 17*, **Exercise**, ERMaC representatives from CalEPA, ARB, CalRecycle, CDPR, DTSC, OEHHA, and SWRCB, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.

Map1: Employers in Shaking Intensity Zones for a hypothetical magnitude 7.8 Earthquake on the southern San Andreas Fault



## C. Presentations

- March 2, 2016. *Northern California Catastrophic Flood Response Plan*, **Presentation**, Lynne Olson, CalOES, Stephen Lai, CalOES, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.
- June 2016. *Wildfire Mission Requests and Local Cost Reimbursement*, **Presentations**, ARB Staff to multiple local jurisdictions, California.
- June 1, 2016. *Arc GIS Program*, **Presentation**, Caroline Thomas-Jacobs, CalOES, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.
- June 1, 2016. *California's Southwest Environmental Response Management Application Marine and Inland Planning and Response*, **Presentation**, Judd Muskat, CDFW OSPR, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.
- June 1, 2016. *Arc GIS API*, **Presentation**, Randy Nattis, US EPA, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.
- June 1, 2016. *Xchange Core*, **Presentation**, Anne Rosinski, Department of Conservation, California Earthquake Clearing House, Jim Morentz, Xchange Core, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.
- August 3, 2016. *Bay Area Catastrophic Earthquake Plan*, **Presentation**, Jeff Newman, CalOES, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.
- September 7, 2016. *Smoke and Ash: How's My Health?*, **Presentation**, Karen Riveles, OEHHA, at The Continuing Challenge HazMat Emergency Response Workshop, Red Lion Hotel in Woodlake Sacramento, CA.
- September 7, 2016. *Drinking Water, the Emergency Water Quality Sampling Kit (EWQSK), and HazMat Involvement*, **Presentation**, Joseph Crisologo, SWRCB, at The Continuing Challenge HazMat Emergency Response Workshop, Red Lion Hotel in Woodlake Sacramento, CA.
- September 8, 2016. *Incompatible Chemicals and What To Do With Them*, **Presentation**, Michael Pixton, DTSC, at The Continuing Challenge HazMat Emergency Response Workshop, Red Lion Hotel in Woodlake Sacramento, CA.
- September 8, 2016. *Refinery Chemicals and Emergency Air Monitoring in California*, **Presentation**, Karen Riveles, OEHHA, Greg Vlasek, ARB, at The Continuing Challenge HazMat Emergency Response Workshop, Red Lion Hotel in Woodlake Sacramento, CA.



- September 8, 2016. *How Can DTSC Help During an Emergency?*, **Presentation**, Michael Pixton, DTSC, at The Continuing Challenge HazMat Emergency Response Workshop, Red Lion Hotel in Woodlake Sacramento, CA.
- September 22, 2016. *Wildfire Risk Communication Methods in California*, **Presentation**, Greg Vlasek, ARB, at the US EPA Wildfire Risk Communication Workshop in Research Triangle Park, North Carolina.
- October 11, 2016. *Special Operations of the Marijuana Enforcement Team's Activities*, **Presentation**, Lt. John Nores, CDFW, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.
- November 2, 2016. *Threat and Hazard Identification and Risk Assessment/State Preparedness Report*, **Presentation**, Nate Ortiz, CalOES, Clifford Viernes, CalOES, at the ERMaC meeting at CalEPA Headquarters, Sacramento, CA.
- November 15, 2016. *California Wildfire Smoke Management Resources and Tools*, **Session**, Moderated by Gregory Vlasek, ARB, at the 2<sup>nd</sup> International Smoke Symposium at the Hilton Long Beach in Long Beach, CA.
- November 15, 2016. *California Wildfire Air Monitoring Response Coordination- An Overview*, **Presentation**, Charles Pearson, ARB, at the 2<sup>nd</sup> International Smoke Symposium at the Hilton Long Beach in Long Beach, CA.
- November 15, 2016. *Laboratory and Field Evaluation of Real-time and Near Real-time Particulate Matter (PM) 2.5 Smoke Monitors- Study Plan*, **Presentation**, Ahmed Mehadi, ARB, at the 2<sup>nd</sup> International Smoke Symposium at the Hilton Long Beach in Long Beach, CA.
- November 15, 2016. *Modeling and Technical Communications Systems*, **Presentation**, Jason Branz, ARB, at the 2<sup>nd</sup> International Smoke Symposium at the Hilton Long Beach in Long Beach, CA.

#### **D. Projects**

- **Essential Elements of Information**

The Essential Elements of Information (EEl)s are a defined collection of essential information that will be used by CalEPA and its BDOs in managing a large scale disaster in the state that requires the activation of the CalEPA EOC. The information elements are prioritized in order of importance so that any disaster support staff will understand what to work on and what is of highest priority. These EEl)s will provide the basis for what disaster information is collected and managed in order to give ERMaC the best situational awareness to support executive policy decisions. ERMaC identified a small working group made up of staff from its BDOs, support agencies and local government to identify a draft set

of EEIs. The draft set was reviewed, modified and prioritized by the ERMaC members before being finalized at the December 2016 ERMaC meeting.

- **CalEPA Regulated Site Portal**

CalEPA has implemented a website in response to the need of internal and external stakeholders to have a more holistic view of the information regarding regulated activities occurring at any given location across the state. The website is capable of collecting and housing environmental data from many diverse sources across its BDOs and is expandable to other environmental agencies. The CalEPA Regulated Site Portal provides a modern, intuitive interface allowing users to search for items of environmental interest using both geospatial (map-driven) and tabular (criteria-driven) approaches. Query results can be viewed online, printed as a report, or exported for use in further analytical activities.

- **CalEPA Emergency Operations Center Improvements**

Process and physical improvements to the CalEPA EOC were made over the course of 2016.

- Updated internet system
- New conference call equipment
- Updated direction and information signage
- Consolidated and inventoried equipment and supplies
- Created a new 'Grab Box' for each ICS position and
- Updated the EOC Activation Guidelines and the EOC Checklist

## **E. Plans**

- **ERMaC Training Program Development**

ERMaC Training Workgroup formed to create new trainings for ERMaC members, their immediate supervisors, and their executive offices.

- **Wildfire Smoke Guide**

Representatives from CalEPA, ARB, and OEHHA worked to review and provide updates to US EPA on the 2016 version of the guide.

- **Pre-Qualified Contracts & Master Service Agreements**

Agreements were made for post emergency recovery with CalRecycle and Department of General Services

- **Bay Area Catastrophic Earthquake Plan**  
CalRecycle provided comments and participated in the development and socialization of the plan.
- **State Hazard Mitigation Plan**  
CalEPA and its BDOs provided comments and participated in workshops for the plan development.
- **California Disaster Recovery Framework**  
CalEPA and its BDOs provided input for this CalOES plan and participated in various workshops and on the core planning team.

## APPENDIX A: ACRONYMS

APCD	Air Pollution Control District
APCO	Air Pollution Control Officer
AQMD	Air Quality Management District
ARB	Air Resources Board
ARB OER	Air Resources Board Office of Emergency Response
ASDWA	Association of State Drinking Water Administrators
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BDO	Board, Department, or Office
CA	California
CAER	Community Awareness Emergency Response
CalARP	California Accidental Release Prevention
CalEPA	California Environmental Protection Agency
CalOES	California (Governor's) Office of Emergency Services
CalRecycle	Department of Resources Recycling and Recovery
CARPA	California Air Response Planning Alliance
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CDPR	California Department of Pesticide Regulation
CEH	Center for Environmental Health
CESA	California Emergency Services Act of 2006
CSWC	California State Warning Center
DDW	Division of Drinking Water
DEODC	Division of Environmental and Occupational Disease Control
DIR	Department of Industrial Relations
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
DTSC ER	Department of Toxic Substances Control Emergency Response
DWR	Department of Water Resources
E-BAM	Environmental Beta Attenuation Monitor
EEI	Essential Elements of Information
ESF-8	Public Health and Medical Emergency Support Function Annex 8
ESF-10	Hazardous Materials and Oil Emergency Support Function Annex 10
EMB	Environmental Management Branch
EOC	Emergency Operations Center
EPT	Emergency Preparedness Team
ER	Emergency Response
ERMaC	Emergency Response Management Committee
EWQSK	Emergency Water Quality Sampling Kit
FRAQMD	Feather River Air Quality Management District
HazMat	Hazardous Materials
HHW	Household Hazardous Waste



ICS	Incident Command System
IPX	Ingestion Pathway Exercise
IRTF	Interagency Refinery Task Force
LEA	Local Enforcement Agency
MBUAPCD	Monterey Bay Unified Air Pollution Control District
NIMS	National Incident Management System
NV	Nevada
OEHHA	Office of Environmental Health Hazard Assessment
OER	Office of Emergency Response
OSC	On-Scene Coordinators
OSPR	Office of Oil Spill Prevention and Response
PCB	Polychlorinated Biphenyl
PM	Particulate Matter
PM <sub>2.5</sub>	Particulate Matter 2.5 nanometers or smaller
PSM	Process Safety Management
RAPID	Railroad Accident Prevention and Immediate Deployment
REL	Reference Exposure Level
SCAQMD	South Coast Air Quality Management District
SEMS	Standardized Emergency Management System
SEP	State Emergency Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SoCalGas	Southern California Gas Company
SOC	State Operations Center
SWRCB	State Water Resources Control Board
VCAPCD	Ventura County Air Pollution Control District
US EPA	United States Environmental Protection Agency
USCG	United States Coast Guard
UTR	Underground Transport Restoration

## **APPENDIX B: ERMaC Member and Supporting/Collaborating Agencies:**

### ***Member Agencies:***

#### **California Environmental Protection Agency (CalEPA)**

CalEPA, the Office of the Secretary coordinates and administers CalEPA's ERMaC, which requires the coordination between CalEPA's six BDOs emergency preparedness and response activities, the preparation of Agency and BDO emergency plans and coordination between other state, federal and local agencies to effectively mitigate, prepare for, and cohesively respond and rapidly recover from major disasters involving hazardous materials emergencies throughout State. The Office provides a Chairperson to ERMaC, and acts as the Lead Agency coordinator for oil and hazardous materials response and recovery actions under the ESF-10 Hazardous Materials and Oil Emergencies Annex to the SEP. The ERMaC was established to ensure that CalEPA's BDOs carry out emergency response planning, preparation, and incident response functions in a coordinated and effective manner.

#### **Air Resources Board (ARB)**

ARB OER is focused on protecting downwind communities in the event of an unanticipated airborne chemical release or other emergency that impacts air quality. ARB OER provides technical assistance to federal, state, and local response partners including the collection and analysis of air monitoring and sampling data and providing meteorological and plume modeling forecasts. ARB is also a founding member of the California Air Response Planning Alliance (CARPA), an ad hoc governmental alliance with the mission of increasing California's capacity to respond effectively to toxic airborne release events.

#### **Department of Pesticide Regulation (CDPR)**

The mission of CDPR is to protect human health and the environment by regulating pesticide sales and use, and by fostering reduced risk pest management. CDPR provides technical and investigative expertise for pesticide incidents and related events, with the assistance of County Agricultural Commissioners. CDPR provides human and ecological toxicological data related to pesticide exposure; public and occupational health and safety information; and various California pesticide sales and use data.

## **Department of Resources Recycling & Recovery (CalRecycle)**

CalRecycle is responsible for the regulation of solid waste facilities in California to include landfills, closed disposal sites, transfer stations and other solid waste processing facilities. CalRecycle's regulations are enforced by Local Enforcement Agencies (LEAs) which are generally County & City Environmental Health Programs. CalRecycle provides technical expertise to LEAs and other government agencies on the management of disaster debris including characterization, reduction/recycling processes, transportation and disposal. In some special cases (Governor's Office Direction), CalRecycle has managed debris removal operations (Angora, San Bruno) through its Solid Waste Clean-up Program contracts.

## **Department of Toxic Substances Control (DTSC)**

The mission of DTSC's Emergency Response Program is to provide statewide response to actual and potential releases of hazardous substances that pose an acute threat to public health and/or the environment, including clandestine drug labs. DTSC ER interacts with a number of other state, federal and local agencies in carrying out these emergency response activities. The Emergency Response Program responds statewide to calls requesting DTSC assistance for emergency removals from illegal/clandestine drug labs and other HazMat emergencies. Requests for assistance are handled by the DTSC's Emergency Response Duty Officers.

## **Office of Environmental Health Hazard Assessment (OEHHA)**

OEHHA provides toxicological expertise and public health recommendations during all phases of emergency management. OEHHA aids in emergency situations by providing emergency personnel with information on the health effects of chemical agents and characterizing the risk to the public and environment from chemical releases. OEHHA also identifies different exposure scenarios, their potential health effects, and exposure levels. OEHHA also provides information on re-entry, cleanup, and clearance levels after a hazardous materials incident.

## **State Water Resources Control Board (SWRCB)**

The mission of SWRCB is to preserve and enhance the quality of California's water resources and ensure their proper allocation and efficient use for the benefit of present and future generations. The State Water Board works in coordination with the nine Regional Water Quality Control Boards to preserve, protect, enhance, and restore water quality. The SWRCB Division of Drinking Water works with California public water systems to ensure their provision of safe, clean, and wholesome drinking water, reliably and adequately and in compliance with the Safe Drinking Water Act and associated laws and regulations.

## ***ERMaC Supporting and Collaborating Agencies:***

### **California Office of Emergency Services (CalOES)**

CalOES promotes collaboration between CalEPA and other State agencies by offering insight to statewide emergency response and emergency management perspectives in relation to planning, operations, training, reporting, and financial assistance.

### **California Department of Food & Agriculture (CDFA)**

CDFA emergency preparedness and response functions address health-related incidents potentially effecting the state's food supply and commercial agricultural interests, including incidents effecting dairy, livestock, poultry, feed, and crop production. Agricultural emergencies involve disposal of livestock carcasses and food during natural disasters, livestock specific disasters, and other incidents involving disease or contamination. CDFA monitors these incidents, provides updated information to the involved agencies, and coordinates activities as necessary.

### **California Department of Fish & Wildlife (CDFW) Office of Oil Spill Prevention & Response (OSPR)**

Protecting fisheries and wildlife habitats, CDFW wardens act as incident commanders and investigators on numerous oil spills and hazardous material incidents throughout California.

### **California Department of Public Health (CDPH)**

Representatives of the CDPH Division of Environmental and Occupational Disease Control (DEODC) Emergency Preparedness Team (EPT) and the CDPH Center for Environmental Health (CEH) Environmental Management Branch (EMB) serve as liaisons between CalEPA and CDPH by providing insight into public health perspectives relative to oil and/or hazardous materials incidents.

### **US EPA Region IX**

US EPA Region IX's Emergency Response Program – with federal on-scene coordinators (OSCs) based in San Francisco, Signal Hill, and Carson City, NV – responds to environmental disasters, hazardous materials releases, time-critical removals, and inland oil spills that threaten human health or the environment. OSCs bring considerable federal authority and resources, as authorized under their governing statutes, to assist state and local agencies in emergency response, removal, and recovery incidents.

## **APPENDIX C: ERMaC HISTORY & AUTHORITIES**

### ***History***

In its relatively brief history CalEPA has risen to the challenge of major environmental emergency events. The beginnings of its interdisciplinary approach to emergency response can be traced back to the year of the Agency's formation in 1991. That year, the Cantara Loop five miles north of Dunsmuir was the site of a tragic train derailment and toxic chemical spill into the upper Sacramento River. The public outcry for improved response from emergency responders to such incidents gave rise to the Railroad Accident Prevention and Immediate Deployment (RAPID) program. ERMaC owes its origin to RAPID. Though the RAPID program was eventually disbanded, ERMaC has evolved in its place as the interdisciplinary forum of choice for coordinating CalEPA's emergency response and recovery efforts.

In 1998, Gerald G. Johnston, CalEPA's then-Deputy Secretary for Law Enforcement and Counsel, called for Agency BDOs to designate representatives to the CalEPA Emergency Response Multi-Agency Coordinating Group. His memorandum provided the initial mission statement and objectives for ERMaC. Subsequent to Governor Davis's issuance of Executive Order D-3-99, the ERMaC focused on preparation for the Y2K calendar change.

With the Westley Tire Fire disaster in 1999, Undersecretary Brian Haddix refocused the working group on traditional disaster response scenarios. This iteration of ERMaC was known as the Emergency Response Management Advisory Committee. Later, under the leadership of Assistant Secretary Don Johnson, ERMaC focused on developing administrative orders and emergency plans for the BDOs with the assistance of CalOES. After several years of effective service and realizing a role that was far more than advisory, ERMaC was renamed as the Emergency Response Management Committee (ERMaC). It adopted its first operating charter in 2004. ERMaC is currently run by Assistant Secretary Jim Bohon, and Emergency Management & Refinery Safety Program Manager Paul Penn.

### ***Statutory & Administrative Authorities***

The California Emergency Services Act of 2006 (CESA) enacted a major update and consolidation of the State's pre-existing emergency preparedness and response laws and executive orders. It required that all State agencies carry out activities assigned by the Governor and CalOES. State agencies must cooperate with one another, CalOES and other political subdivisions to prepare for, respond to, and mitigate the effects of regional and statewide emergencies, as declared by the Governor. The statutory duties of ERMaC members under CESA are aligned with their routine functional responsibilities for environmental protection.

## **APPENDIX D: Administrative Orders**

The primary tools for defining CESA responsibilities are BDO-specific Administrative Orders. Administrative Orders refer to documents approved by CalEPA and CalOES describing the roles, responsibilities, and authorities of the respective agencies during State emergencies. Administrative Orders, prepared under the authority of the Governor's Executive Order W-9-91 and subsequent law, expand upon and consolidate emergency assignments of State agencies. CalEPA and its BDOs first developed collective Administrative Orders in 2002.

Each agency and BDO also develops an Emergency Response Plan that must be consistent with the provisions of the applicable Administrative Orders and the statutory authorities of the individual agency. CalOES also reviews and approves these plans, in accordance with California Standardized Emergency Management System and the National Response Framework, to accomplish assigned emergency management tasks. Agency plans may delegate authority and assign responsibilities to divisions, bureaus, field offices, or other elements of the agency. State agencies must ensure that all personnel assigned specific responsibilities in support of this plan are adequately trained and prepared to assume those responsibilities.

CalEPA and the BDOs chartered ERMaC in 2004 as the forum for developing and maintaining the CalEPA collective Administrative Orders and Emergency Response Plans. ERMaC's mission is to effectively manage the public health and environmental consequences of emergency events through coordinated, agency-wide preparedness, response, recovery, and mitigation activities. ERMaC is responsible for emergency planning and training, and coordinates all CalEPA entities responding to and recovering from emergencies.

In 2013, all of CalEPA's BDOs updated their Administrative Orders. These orders were submitted to CalOES in 2013.