CalEPA
California Environmental Protection Agency

Emergency Response Management Committee (ERMaC)

2021 Accomplishments Report

CalEPA
California Environmental Protection Agency

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

Gavin Newsom
Governor

Jared Blumenfeld
Secretary

Cover: CalRecycle's Hazard Tree Removal Program in Butte County, California.

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Preface

On behalf of all California Environmental Protection Agency's (CalEPA) Emergency Response Management Committee (ERMaC) members and participants, I am pleased to submit the Committee's Annual Accomplishments Report for 2021.

This 13th annual report highlights selected emergency planning, preparedness, response, and recovery activities of CalEPA and the six CalEPA Boards, Departments, and Offices (BDOs) from this year. This report highlights and describes selected emergency incidents, such as hazardous chemical releases, fires, and oil spills. It also summarizes major training events, exercises, and projects in which ERMaC members participated over the year. It offers a great cross-sectional view of the important role environmental protection staff play in preparing for and responding to large-scale emergencies and disasters.

We are seeing the impacts of climate change unfold in real time, with an increase in the intensity and frequency of wildfires, the widespread severity of drought, and changes in weather patterns bringing historic heat waves and storms across the state. Successful emergency management is critical now more than ever. Throughout 2021, the ERMaC team continued to build on its already admirable collaborations with many supporting agencies to mitigate another unprecedented year of environmental incidents and disasters, much of it still done remotely due to lingering COVID-19 impacts. The incidents and events presented here exemplify the high degree of cooperation and interaction we have achieved in the response and recovery actions undertaken by each BDO and by CalEPA collectively.

I am proud of what the ERMaC team has accomplished this year and look forward to the continued collaboration and growth within CalEPA's emergency management program!

Jason Boetzer

ERMaC Chair,
Assistant Secretary for Local Programs and Emergency Response

**Document compiled and edited by Krystle Taylor, State Water Board*

Introduction

Mission Statement:

The Emergency Response Management Committee (ERMaC) manages and reduces environmental health consequences of emergency events through effective, coordinated, agency-wide preparedness, response, recovery, and mitigation efforts.

The California Environmental Protection Agency's (CalEPA) ERMaC coordinates preparedness for responses to environmental emergencies in California under assigned statutory authorities. ERMaC is composed of appointed representatives and alternates from each CalEPA Board, Department and Office (BDO), and is chaired by the Assistant Secretary for Local Program Coordination and Emergency Response appointed by the Secretary. ERMaC members can activate and direct resources and personnel to affect timely and appropriate response to disasters and large-scale emergencies.

ERMaC is responsible for emergency planning and training, and coordinating 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.

ERMaC is also responsible for maintaining and executing 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). The SEP establishes CalEPA as the State's lead agency for the organizational scope and coordination of statewide emergency management in an environmental disaster involving a large-scale oil or hazardous materials release. The ESF-10 Annex provides for a coordinated response from agencies and governmental entities with jurisdiction to perform all phases of emergency management in the response to and recovery from an oil or hazardous materials release.

CalEPA responses conform to the National Incident Management System (NIMS) for emergency response. CalEPA operates as a state agency with specific jurisdiction under the California Standardized Emergency Management System (SEMS), coordinated by the Governor's Office of Emergency Services (Cal OES).

Incident Response & Recovery Actions

Throughout 2021, ERMaC coordinated with supporting agencies to mitigate impacts from environmental incidents and disasters. The incidents presented below highlight the response and recovery actions undertaken by CalEPA and its BDOs, as well as the collective efforts of ERMaC and its member agencies.

Fire Response & Recovery Actions

2021 saw another year of catastrophic wildfires. Over 2.5 million acres were burned across the state, with 3,629 structures damaged or destroyed, and three lives lost. There were 8,619 incidents total in 2021. CalEPA and its BDOs provided support to both our partner agencies, and to the impacted communities during active fire response and post-fire recovery operations. Some of the actions taken by CalEPA and its BDOs are highlighted below.

CalEPA

In August 2021, due to multiple fires statewide, Cal OES activated the State Operations Center (SOC) and a mission task was issued to CalEPA to provide an agency representative at the SOC virtually. This agency activation included participation in the daily Operations and Transition Briefings, the CalOES led Debris Task Force meetings, and the Watershed/Debris Flow Task Force meetings. CalEPA maintained the CalEPA Virtual Emergency Operation Center, hosted frequent coordination meetings with the BDOs and State and Federal partners, and updated the CalEPA Secretary and Undersecretary on the status of emergency activities within CalEPA and its BDOs.

During Phase I Household Hazardous Waste Removal and Phase II Debris Removal activities, CalEPA coordinated and supported DTSC and US EPA during Phase I, and CalOES and CalRecycle during Phase II. CalEPA also worked on regulatory and compliance activities for responding and supporting agencies by assisting with permits, waivers, and variances to expedite the removal of hazardous materials and debris under an emergency declaration or proclamation and assessed environmental and public health needs to support operations in both response and recovery.

Through coordination efforts with the California Air Resources Board, and the State Water Resources Control Board, CalEPA worked to protect public health and the environment by gathering information on air quality and water quality concerns. CalEPA reported out on the deployment of essential air monitoring equipment and incident specific air quality information to protect public health from smoke and ash, and on

water quality monitoring, protection of waters of the state, and the issuance of unsafe water alerts such as boil water notices, do not drink notices, and do not use notices.

California Department of Toxic Substances Control (DTSC)

DTSC continued to conduct household hazardous waste (Phase 1) Debris Removal activities for many counties impacted by the 2020 wildfires. DTSC continued to conduct Phase 1 operations in Los Angeles, Tulare, Fresno, Santa Clara, Monterey, Santa Cruz, Napa, Solano, Sonoma, Butte, Trinity, and Siskiyou Counties. In addition to the Phase 1 Assessments/Removals, DTSC is conducting "milk run" operations in support of Cal Recycle for the Phase 2 Debris Removal Operations.

Photo 3: DTSC-led Hazmat crews conducting Phase 1 Assessments/Removals of debris in Plumas County. Photographer unknown.

The Mountain View Fire began in January of 2021 in Mono County, which is unusual for this time of the year. DTSC was Mission Tasked by the Office of Emergency Services to conduct Phase 1 operations on the 140+ properties impacted by the Mountain View Fire in Mono County. DTSC began field operations on January 11, 2021, and completed the Phase 1 Assessment/Removals on January 16, 2021.

In August and September of 2021, DTSC conducted Phase 1 Operations, assessment and removal of household hazardous waste and bulk asbestos, from the Lava Fire, Beckwourth Fire, Dixie Fire, Tamarack Fire, Monument Fire, River Fire, Cache Fire, Antelope Fire, River Complex Fire, Fawn Fire, McFarland fire, Hopkins fire, French Fire, and Windy Fire. In October, November, and December, DTSC continued Phase 1 Operations for these fires, and conducted, assessment and removal of household hazardous waste and bulk asbestos, from the Caldor Fire and Washington Fire, as well. By removing HHW, DTSC paved the way for the Phase II non-hazardous debris and hazard tree removal operations to begin.

California Department of Resources, Recycling, and Recovery (CalRecycle)

In the fall of 2021, CalRecycle was called upon by CalOES to help with disaster recovery efforts for the Dixie Fire, the Caldor Fire, and other fires across the state. CalRecycle worked quickly to develop project cost estimates to develop, solicit and award the needed service and consultant contracts for structural debris and hazard tree removal operations and issued notices to proceed with operations on October 15, 2021. The operational area is divided into two zones, each with a dedicated Incident Management Team: North Zone Operation covers Siskiyou, Shasta, Trinity, Tehama, Lassen, and Plumas Counties. Central Zone Operation covers Alpine, El Dorado, Placer, Nevada, and Lake Counties. Damages resulting from the Monument and River Fires are also addressed in these operational zones, respectively. Preliminary damage estimates indicated that nearly 2,000 private property parcels would require structural debris removal, and more than 44,000 fire-damaged hazard trees would require felling and removal. At the time of this report, 2,024 parcels are enrolled into the state program, and 24,603 hazard trees have been assessed as eligible for removal. The target for gross debris removal to be complete is early February 2022.

CalRecycle Crews in Greenville, CA after the Dixie Fire.

CalRecycle also continued to conduct work in 2021 for the mission task by Cal OES to conduct private property structural debris and hazard tree removal of 5,991 parcels across 26 counties following the devastating and unprecedented 2020 Statewide Wildland Fire Siege which ravaged the state from August through October 2020. The 2020 Statewide Disaster Debris Removal Operation has been the most geographically diverse and logistically complex operation to date. Spanning 26 of the state's 58 counties, this operation required the management and oversight of four Incident Management Teams, four service contracts, and four field assessment and management consulting firms. The initial damage estimates indicated that nearly 6,000 private property parcels and 700,000 trees had been damaged by the fire siege that raged from August through October of 2020. Operations effectively began November 2, 2020, with an initial end of mission target identified as May 1, 2021. However, operational delays resulting from inclement weather and the addition of "special

inclusion parcels (public/commercial properties) and atypical parcels (requiring specialized equipment) approved by the Federal Emergency Management Agency for public assistance reimbursement pushed the target end of mission twice. The first extension was statewide to August 1, 2021, and the second extension was based on branch-specific needs.

Awarded Contracts				
North Branch	Tetra Tech	$72.6 million	P31, JV	$581 million
Inland Branch	Tidal Basin	$58.2 million	GTO, JV	$355 million
Bay Branch	WSP Solutions	$52.5 million	Anvil Builders	$26.3 million
South Branch	Arcadis	$52.4 million	Forgen DRC JV	$235.4 million

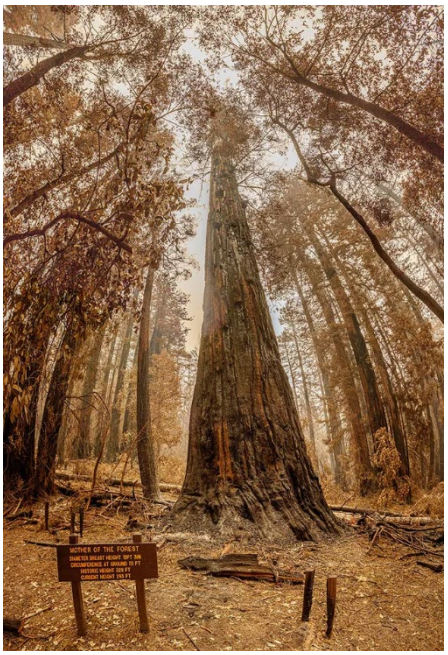
Table 1: Contracts awarded by CalRecycle to conduct work for 2020 private property structural debris and hazard tree removal.

2020 Wildfires Consolidated Debris Removal Results				
	North Branch	**Bay Branch**	**Inland Branch**	**Southern Branch**
Wood Product	90,231 tons	35,744 tons*	35,744 tons*	14,092 tons**
Concrete	56,113 tons	76,091 tons	76,092 tons	32,702 tons
Metal	11,158 tons	14,605 tons	14,604 tons	4,475 tons
Ash & Incidental Soil	259,878 tons	315,599 tons	315,599 tons	40,450 tons
Contaminated Soil	58,472 tons	85,924 tons	85,924 tons	16,833 tons

Table 2: Debris removal results for all four branches for the 2020 wildfires.
*100% delivered to biomass.
**0.25% wood chips to community, 1.0% compost, 96.04% sawmill/lumber/pellet manufacturing, 2.71% landfill

North Branch Operations were the most complex operational branch of the statewide operation, covering nine primarily rural counties (Del Norte, Butte, Lassen, Nevada, Plumas, Shasta, Siskiyou, Trinity, Yuba) with an operational reach from the Port of Sacramento into the State of Oregon. The project completion target was extended to December 31, 2021, and although structural debris removal is now complete, hazard tree felling continues in Butte and Trinity County. Weather impacts have required an additional project extension to March 31, 2022.

Bay Branch Operations removed structural debris and hazard trees from nearly 4,000 private properties across Monterey, San Mateo, Santa Cruz, Santa Clara, and Stanislaus Counties, as well as numerous special inclusion/atypical parcels, such as Supervirens Fund & Peninsula Open Space Trust, a protected six square miles of old-growth redwoods which are considered the heart of Big Basin Redwoods State Park. This Special Inclusion added 26 parcels and approximately 4,500 hazard trees to the inventory of work. It would require the state to mitigate any disturbance to the Marbled Murrelet and endangered species, which typically migrate and nest within Big Basin State Park. State environmental specialists worked closely with contracted crews and consultants to enforce noise restrictions and buffer requirements for active nesting. This limited operating hours within the park from 1.5 hours after sunrise to 1 hour before sunset and required an additional project time extension, which was extended to October 1, 2021. Operations were effectively completed on September 24, 2021.



Damage at Big Basin Redwoods State Park.

The Inland Branch Operations conducted and managed disaster debris removal operations for Lake, Mendocino, Napa, Solano, Sonoma, and Yolo Counties. With less than 800 private property parcels enrolled in the state program, this branch was not without its challenges. High mercury levels were identified in at least 13 parcels, requiring close coordination with the Department of Toxic Substance Control (DTSC). At least one parcel required DTSC/USEPA remediation expertise. Although these parcels were addressed expeditiously, the process was deliberative and contributed to extending the project completion target to October 1, 2021. Operations effectively completed September 24, 2021. Assessment and Monitoring were conducted by Tidal Basin Government Consulting LLC (Contract Amount $58.2M); structural debris and hazard tree felling, and removal were conducted by Goodfellow-Teichert-Odin, JV ($355.3M).

South Branch Operations, which covered Fresno, Los Angeles, Madera, Mono, and Tulare Counties, was riddled by weather impacts in higher elevations and an unanticipated increase of late parcel enrollments into the state program. Parcels located in Tulare County were at the highest elevations. Due to rain and snowfall cover, they were subject to access limitations, which resulted in more than 35 non-workdays due to weather. Branch work inventory requiring project completion extension occurred in late

March when more than 80 additional private property parcels in Tulare County were added to the branch work inventory, and again in mid-June 2021 with the special inclusion of Balch Park, a 160-acre county park with an initial estimate of an additional 1500 hazard trees in need of assessment. South Branch was approved for a project completion extension to November 16, 2021 – which was met.

The 2018 Camp Fire recovery effort entered a new phase on November 30, 2021, when the removal of hundreds of thousands of fire-damaged trees began in the Town of Paradise and areas of unincorporated Butte County. At the time of contract solicitation, it was estimated that from 600,000 to 1,200,000 trees were destroyed or damaged by the Camp Fire, with an estimated 300,000 posing a threat to the public at large on roadway networks and near public structures. To accomplish this work, CalRecycle contracted with two licensed timber operators and two field management consultants to conduct and help manage the mass tree removal operation. Following assessment, the estimated number of hazard trees was reduced to 70,000. Operations effectively concluded on October 30, 2021, clearing over 8,521 parcels of nearly 100,000 fire-damaged hazard trees.

CalRecycle contractors removing hazard trees in the Camp Fire burn scar. Photographer unknown.

Continued local recovery efforts include the replantation of a large woody contribution zone. As part of the federal consultation FEMA EHP conducted for this program, National Marine Fisheries instituted a requirement that any tree removed from the “Large Woody Contribution Zone” be replanted at an 8:1 ratio. This environmental requirement has resulted in the need to replant 1,600 trees. The local government works closely with Cal OES and volunteer agencies to develop a replanting plan during ideal planting conditions.

CalRecycle also continued to conduct work for the mission task by the California Cal OES to fell and remove trees damaged by the 2018 Camp Fire which threated the public at large. At the time of the contract solicitation, it was estimated over 600,000 and up to 1,200,000 trees had been destroyed or damaged by the Camp Fire, with an estimated 300,000 posing a threat to the public at large on roadway networks and near public structures. Following assessment, the estimated number of hazard trees was reduced to 90,000.

On Friday, July 9, 2021, the contractor crews in the Town of Paradise felled the final tree of the operation within the town. Although plenty of work remains (tree felling in the County, collecting wood, final sign off of completed parcels, invoicing and closeout procedures) the felling of the final hazard tree in the Town of Paradise marks a significant milepost for the overall project. Hazard tree removal preparation began in earnest upon the completion of the Camp Fire structural debris removal operation in Fall of 2019. After enduring multiple contract solicitations and protests, CalRecycle brought on the assessment and monitoring consultant (Arcadis) and a finance and administration consultant (Tetra Tech) in August 2020, stood up operations, planning, and finance systems, and began felling in November 2020. It's been an operation full of challenges, near constant problem solving, and endless creative, but documented, solutions to wholly unique challenges – including a pandemic. The State Hazard Tree Removal Program felled and removed approximately 38,000 hazard trees from the Town of Paradise, and the target end of mission for this operation is September 1, 2021.

Awarded Contracts		
Tree Removal	CTL	$243 million
	SOPB, JV	$207 million
Field Management	Arcadis	$47.7 million
Administrative Management	Tetra Tech	$8.3 million

Table 3: Contracts awarded by CalRecycle to conduct hazard tree removal in the Camp Fire burned area.

California Air Resources Board (CARB)

Throughout 2021, CARB deployed portable air monitors to support communities impacted by wildfire. These monitors measured smoke from the fires, and many remained in place for the duration of the fire season to track potential new ignitions. CARB deployed air monitors for the Central California River Fire, Northern California River Fire, Salt Fire, Dixie Fire, Beckwourth Complex Fire, Lava Fire, Antelope Fire, Tennant Fire, Henry Fire, Monument Fire, McCash Fire, Alisal Fire, and the KNP Complex Fire. Their efforts supported numerous communities impacted by the fires by estimating smoke impacts to communities downwind from these fires.

Additionally, CARB provided guidance and information to the air quality team responsible for responding to effects from a large wildfire in Nuevo León, Mexico. The CARB team provided information on use of monitoring data and approaches for using low-cost sensors to create air monitoring networks for estimating levels of smoke in communities. CARB also shared and provided messaging materials and infographics in Spanish explaining particle pollution, methods to reduce exposure, and additional measures communities can take to protect their health.

Photo 2: Infographic in Spanish CARB staff provided to the Mexican air quality team.

State Water Resources Control Board & Regional Water Quality Control Boards (California Water Boards)

During the Tamarack Fire, the Lahontan Regional Water Board and the Emergency Management Program (EMP) coordinated closely on the potential impacts to the Leviathan Mine Superfund Site, which is overseen by the Lahontan Regional Water Board. Staff from Lahontan coordinated with the US Environmental Protection Agency (US EPA) site program manager, who in turn coordinated with the Tamarack Fire's Incident Management Team. US EPA and the Regional Water Board were able to advocate for protections and mitigation measures to be placed by the mine, which ultimately resulted in the fire skirting the mine's perimeter, with no damage to the facilities. This prevented the discharge of acid mine drainage, and other hazardous materials into the waterways. The coordination effort also served to make first responders aware of hazards at the site should they have needed to enter the area during fire suppression efforts.

EMP continues to facilitate the North Complex Watershed Working Group meetings, which has now expanded to include the Dixie Fire. The name of group has been updated to reflect the expansion and is now called the Feather River Watershed Working Group (Working Group). This group is comprised of local, state, and federal agencies, and seeks to collaborate on water quality monitoring efforts and public engagement related to water quality impacts from recent wildfire activity. The Central Valley Water Board and the Division of Drinking Water play a critical role in the Working Group by conducting water quality sampling in the burn scar and supporting drinking water system operations.

Staff from the Central Valley Water Board conducting post-fire water quality monitoring in the Dixie Fire area near Greenville, CA.

Staff from multiple Regional Water Boards worked closely with Cal OES, CalRecycle, and other partner agencies and local utilities on Hazard Tree Removal activities in both the 2020 and 2021 burned scars occurring in their regions, as well as in the 2018 Camp Fire burn scar. Staff have conducted numerous inspection and outreach activities and have aided in the development of a guidance document on proper use of water quality Best Management Practices (BMPs) in the post-fire environment. Additionally, staff from across the California Water Boards came together to streamline Environmental Protection Plan and Secretarial Suspension that was used by CalRecycle and its contractors to conduct hazard tree and debris removal activities. By doing this, the operations were able to proceed more quickly, expediting the process to make properties safe for habitation again.

Furthermore, DDW and EMP staff worked closely with water systems throughout the state that were impacted by wildfire. For all fires in 2021, staff tracked wildfire perimeters and daily reports to determine any water sector impacts and unmet needs. DDW staff coordinated with CAL FIRE and the California Geological Survey to provide locations of drinking water facilities to the Watershed Emergency Response Team could assess risk to those facilities.

In the aftermath of the Dixie Fire, DDW engineers were onsite in the Emergency Operations Centers (EOCs) assisting with response and recovery. The engineers initiated bringing in mutual aid to help the Indian Valley Community Services District –

Greenville personnel with shutting off valves and addressing leaks, as well as sampling and testing. DDW engineers also coordinated to bring in a water system operator to help deliver potable water to temporary housing for fire survivors. Furthermore, staff worked closely with Grizzly Flats Community Services District, impacted by the Caldor Fire, to develop a recovery plan. DDW staff visited the system to review eligible work under the Stafford Act for Public Assistance, which is the reimbursement mechanism FEMA is authorized to use when a federal disaster is declared by the president. During the Alisal Fire, DDW engineers worked with county emergency managers to identify where a hydrogen sulfide spill was located to determine if there were any impacts to groundwater wells. Staff worked closely with the local primacy manager to help them develop a plan to address the impacted systems.

Office of Environmental Health Hazard Assessment

In January 2021, OEHHA provided assistance to CalRecycle reviewing soil sampling data from debris removal operations resulting from the 2020 fire season. OEHHA compared sampling results to soil screening values. OEHHA calculated cancer risk and the non-cancer hazard index for metals measured at burned properties to evaluate potential health impacts. OEHHA provided general recommendations to CalRecycle on the use of soil screening values in cleanup decisions.

In April 2021, OEHHA responded to two separate inquiries from the public concerned about wildfire smoke. The first request was a concern regarding the spread of infectious agents in wildfire smoke. The second request was about the chemical hydrogen cyanide in wildfire smoke. OEHHA provided resources including webpages, fact sheets, and additional contacts to the requestors.

In May 2021, OEHHA received a request from Mailman School of Public Health, Columbia University, to participate in a workgroup on “Climate Change, Wildfire Smoke, and Public Health” research needs. OEHHA participated in the Workgroup meeting and provided input.

In May 2021, OEHHA also provided input to CARB on a communication for California Air Districts and Public Health Officers regarding CalEPA’s support and resources for wildfire smoke.

During June and July 2021, OEHHA worked with a multiagency workgroup, including CalRecycle, CalOES, and CDPH, regarding mercury concentrations at a debris cleanup site in Napa County. OEHHA reviewed the air and soil sampling data collected after debris removal operations were complete. OEHHA provided information and recommendations to the workgroup on the health effects of mercury, ways in which one could be exposed, sensitive populations, and ways to limit exposure.

In August 2021, OEHHA received a request from a California school district requesting resources on school closures for wildfire smoke events. OEHHA provided information to the requestor regarding decision making for school closures including links to fact sheets, webpage resources, and additional contacts.

Drought

CalEPA

CalEPA established a multi-agency work group comprised of CalEPA, CalOES, Department of Water Resources, and the California Water Boards. In this workgroup, CalEPA facilitated communication and collaboration across all member agencies to ensure effective and efficient drought related response.

California Water Boards

The State Water Board received CalOES Mission Task M-61888 on May 3, 2021, which requested *"technical assistance and/or an initial meeting with state agencies to conduct planning/placement of one mobile desalination plant/unit, including staff to operate. The city needs assistance to ensure that water is available for health needs within the remote coastal city"* for the City of Fort Bragg (Fort Bragg). Within days of its receipt, the State Water Board set up and facilitated a multiagency coordination call to discuss the technical and permitting aspects of an emergency mobile desalination plant, as well as alternatives for the short- and long-term. This group represents key staff from the City of Fort Bragg, California Water Boards, California Department of Fish and Wildfire – North Coast Branch, NOAA Fisheries, California Coastal Commission and Department of Water Resources. Participants have had effective coordination and communication, allowing Fort Bragg to focus on their

Desalination plant in Fort Bragg, California.

operations, coordinate with contractors and develop timelines for installation of the emergency mobile desalination unit in September 2021.

Understanding the complexities of drought and large-scale coordination that would be required, the State Water Board convened an internal Russian River Drought Work Group (Work Group) on April 29, 2021. This group represents several key divisions and offices within the California Water Boards. Each week the Work Group meets to discuss action items and data needs, ensure there is awareness on timing and scope of drought orders and curtailments, request collaboration and input across divisions, and highlight critical upcoming dates and events. The Work Group has shown the impact the California Water Boards can have when collaborating across divisions, sharing resources and gathering a diversity of perspectives on regional issues. Meetings continue weekly.

Public Safety Power Shutoff (PSPS) Events

ERMaC responded to PSPS events in 2021. Power shutoffs are an operational practice where energy companies turn off power to prevent the start and spread of wildfires. Local energy companies make the decision to turn off power by monitoring local fire danger conditions and considering weather and environmental factors. A power shutoff could mean no electricity for a long duration and wide expanse. Once high-threat conditions pass, energy companies will re-energize affected lines after inspection to ensure safety.

In response to 2021 PSPS events, CalEPA was active within the virtual SOC while coordinating with BDO ERMaC members and California Unified Program Agencies (CUPAs) to ensure there were control measures in place to mitigate off site impacts from hazardous material sites and facilities including refineries. CalEPA coordinated with CARB to develop emergency waivers for the use of portable generators during the PSPS events. The Water Boards verified critical infrastructure vulnerabilities, proactively informed Public Water Systems (PWS) in potentially affected and impacted areas and monitored the situation and reported situation status up the chain of command and to SOC as requested.

Other Selected Incidents

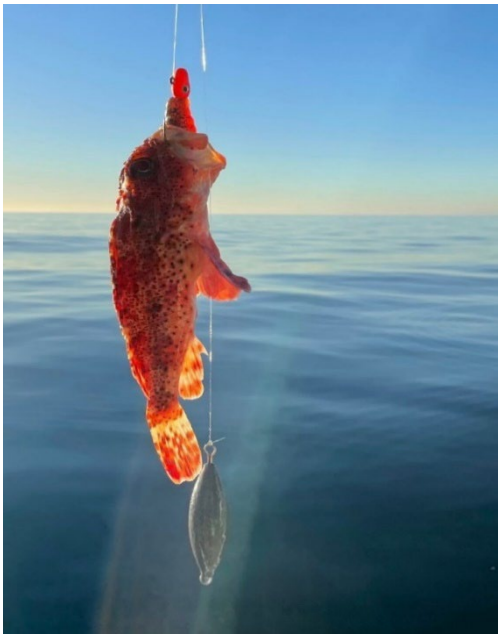
COVID 19 Mass Vaccination Air Monitoring Guidance Call

At the request of Cal OES, CARB provided guidance to California State University Los Angeles (CSU-LA) mass vaccination incident command team on options for monitoring air from idling vehicles at the CSU-LA mass evacuation site. CARB suggested an industrial hygienist review site safety plans and procedures to identify, evaluate, and develop protection for onsite workers.

Pipeline P00547 Incident (October to December 2021)

On approximately October 2, 2021, crude oil was released from Pipeline P00547 that runs from the oil platforms Elly and Ellen to the Beta Pump Station at Long Beach. The pipeline is owned by the Houston-based Amplify Energy Corp. which is the parent company of Beta Offshore. The amount of the release has since been estimated at approximately 24,696-gallons. A Unified Command comprised of representatives of the United States Coast Guard (USCG), California Department of Fish and Wildlife's Office of Spill Prevention and Response (CDFW-OSPR), Orange County, San Diego County, and the Responsible Party (RP) Amplify Energy. Immediate response efforts included protective measures emplaced at ecologically sensitive areas and active oil skimming. Later efforts included tar ball/patty removal efforts for shoreline impacts as well as sampling for public health and environmental impacts.

OEHHA joined the Unified Command as part of the Public Health Assessment Unit (PHAU) under the Planning Unit. OEHHA was requested to join the Water and Sediment Working Group, as well as working with CDFW-OSPR in the Fisheries Closure/Seafood Safety Group. Staff from the California Water Boards also joined the Unified Command as technical experts regarding impacts to water quality. A coordination team consisting of the Los Angeles Regional Water Board, Santa Ana Regional Water Board, San Diego Regional Water Board, Division of Drinking Water, and EMP was immediately formed to respond to the release. The Regional Boards assigned staff to the Planning Section of the Unified Command and EMP staff were assigned as Agency Representatives to the Unified Command.



This photo was taken by OEHHA staff while sampling after the Pipeline P00547 Incident.

On October 3, OEHHA recommended a fisheries closure to CDFW for an area surrounding the spill location. The closure area was expanded on October 5 and again on October 7, with a final closure area including approximately 45 miles of coastline and approximately 23 miles offshore (at the widest point), covering about 650 square miles. OEHHA, OSPR, and CDFW Marine Region (MR) staff developed a sampling and analysis plan to assess the degree and geographic extent of the seafood contamination. A variety of finfish and invertebrate species were collected from the closure area to inform fisheries closure decisions. No samples collected had carcinogenic polyaromatic hydrocarbon concentrations that exceeded the level of concern. Following a recommendation from OEHHA, CDFW lifted the existing fisheries closure, effective

November 30, 2021. In addition to sampling activities, OEHHA communicated with public, elected officials, and media regarding fisheries closure process.

Oil Spill Response and Seafood Safety (January to December 2021)

OEHHA and the California Department of Fish and Wildlife's (CDFW) Office of Spill Prevention and Response (OSPR) coordinate to assess seafood safety following marine and freshwater oil spills. CDFW must close impacted fisheries, unless OEHHA determines that there is not likely to be a public health threat from consumption of shellfish and fish 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 2021, OEHHA was notified of 19 oil spills or potential oil spills, as listed in Table 4. OEHHA worked with CDFW to compile and evaluate information on the spills. As previously mentioned, OEHHA recommended a fisheries closure in one instance. For nine spills, OEHHA found that there was not likely to be a public health threat. Thus, CDFW did not close fisheries in those cases. No action was required for the remaining nine spills reported to OEHHA. A "no action" response may occur in cases where the spilled product was sufficiently contained, or the spill took place in areas where fishing or aquaculture does not take place.

OEHHA Oil Spill Notifications for Seafood Safety Assessments

OES REPORT #	DATE	LOCATION	ACTION	CLOSURE
21-0190	1/13/2021	Salinas	Yes	No
21-0379	1/25/2021	Humboldt Bay	No	No
21-0762	2/9/2021	Richmond	Yes	No
21-0847	2/15/2021	Humboldt Bay	No	No
21-1217	3/5/2021	Dillon Beach	Yes	No
21-1794	4/5/2021	Oakdale	No	No
21-2180	4/20/2021	San Diego Bay	Yes	No
21-2604	5/15/2021	San Francisco	No	No
21-3450	6/28/2021	Discovery Bay	Yes	No
21-3480	6/30/2021	Estero Bay	No	No
21-3791	7/15/2021	Deer Creek	No	No
21-4142	8/3/2021	Point Reyes National Seashore	Yes	No

21-4149	8/3/2021	Lake Isabella	No	No
21-4153	8/3/2021	Millerton Lake	No	No
21-5057	9/17/2021	Bodega Bay	Yes	No
21-5446	10/2/2021	Huntington Beach	Yes	Yes
21-7193	12/15/2021	Seal Beach	No	No
21-7337	12/22/2021	Seal Beach	No	No
21-7383	12/24/2021	Fremont	Yes	No

Table 4: this table provides information on seafood safety closures in 2021.

Water and Sediment Workgroup

As part of the Water and Sediment Working Group, OEHHA performed appropriate background research on bioaccumulation in regional species, chemicals in crude oil, and state and federal cleanup values. OEHHA reviewed surface water and sediment data collected from beaches in Orange and San Diego Counties and compared measured concentrations in water and sediment to short-term cleanup screening levels. OEHHA communicated results and recommendations back to Unified Command. Staff participated in workgroups, meetings, and other briefings, and assigned seven technical specialists/subject matter experts to this response and recovery. In total, OEHHA deployed three technical specialists to the field to assist with seafood sampling over three events. This involved technical specialists/subject matter experts in fisheries closure/seafood safety and water and sediment-related activities.

Additional California Water Boards OES Spill Responses

Water Board personnel responded to multiple Cal OES Spill Reports during 2021, including several larger scale events that had multiple agencies involved. Some of these include a 400-gallon diesel spill to Discovery Bay in Contra Costa County; a 17-million-gallon sewage spill to the Pacific that caused beach closures in LA County; a 2,300-gallon Diesel spill in Tehama County; and a 140-gallon Gasoline release that resulted in the shutdown of a Surface Water Treatment Plant on Lake Arrowhead. California Water Boards staff provided technical assistance and, where applicable, continued regulatory oversight.

This photo shows the tanker spill into deer creek in Tehama County and was taken by California Water Boards staff.

OEHHA Surface Level Cleanup Values for Airports: January 2021

Oak Ridge National Laboratory reached out to OEHHA to discuss questions and updates regarding the 2012 OEHHA report titled, “Development of Preliminary Indoor Clearance Levels for Chemical Warfare Agents for Emergency Preparedness.” OEHHA provided information on the risk assessments conducted by OEHHA on the project and provided some additional resources and literature to the requestor.

Invasive Species Emergency Response

The State Water Board worked with the Santa Ana Regional Water Board, as well as various other State and Local authorities, to address the discovery and eradication of the invasive aquatic species *Caulerpa prolifera*. Funding for the eradication project is being secured through both State Water Board resources and potential Federal funding. The issuance of a local emergency proclamation by the City of Newport Beach allowed access to additional funding streams as well. The California Water Boards continue to work with these partners on efforts to address the current infestation, as well as longer term issues with monitoring the success of the eradication efforts and surveys to ensure no other areas have been affected.

Swift eradication of invasive aquatic species such as *Caulerpa prolifera* is critical in maintaining the health of the ecosystem. The invasive algae can grow quickly and rapidly out-compete native species, including native eelgrass, and may be inedible to native marine herbivorous fish and invertebrates. The species has invaded seagrass and soft-bottom habitats in the Suez Canal, the Canary Islands, and Portugal, dramatically displacing native algae, plants, and animals.[1]

Kern County Environmental Health Illicit Drug Lab Cleanup

In May 2021, OEHHA received a request from the Kern County Environmental Health Department for cleanup recommendations on an illicit drug lab. The property was contaminated with a variety of chemicals, hazardous waste, and illicit drugs. DTSC removed the hazardous waste from the site, however, the County was concerned about residual contamination at the property. OEHHA had not developed cleanup values previously for the illicit substance involved. OEHHA staff conducted a literature search and a toxicological assessment of the compound including its physical and chemical properties, potential routes of exposure, toxicological endpoints, and cleanup values of related substances. OEHHA provided recommendations to Kern County Environmental Health as well as additional contacts to provide further information and assistance.

[1] Invasive Algae – Caulerpa prolifera

Carson Odor Response

Between October and December 2021, OEHHA staff worked with a multi-agency workgroup that included Los Angeles County Public Health, Los Angeles County Fire and Hazmat, Los Angeles County Public Works, South Coast Air Quality Management District, CDPH, and US EPA. OEHHA provided recommendations for a Threshold Action Plan and Return to Home Recommendations. OEHHA also conducted a literature search and an epidemiological review on the toxicity of hydrogen sulfide and provided a review of the results to the workgroup. Finally, OEHHA staff reviewed air monitoring data provided by South Coast Air Quality Management District and discussed cleanup strategies.

Projects, Presentations, & Exercises

Presentations and Trainings given by ERMaC Members

- September 30, 2021. Workshop. Charles Pearson (CARB). USS Bonhomme Richard Fire Post Incident Review Public Workshop.
- January 4, 2021. Presentation. Riveles, K. (OEHHA) Virtual Seminar. "Environmental Health Issues Related to Wildfire Events."
- March 2, 2021. Presentation. Riveles, K. "Applications of CalEnviroScreen for Emergency Preparedness, Response, and Recovery." In Zeise, Faust, Wieland, Riveles (2021) "Environmental Justice and Cumulative Impacts in CA Communities." Virtual California Unified Program (CUPA) Annual Conference.
- June 25, 2021. Presentation. Riveles, K. "Wildfire Smoke in California: Health Effects and how Science Can Inform Policy." Society of Epidemiological Research (SER) Virtual Conference.

Reviews of External Plans

- OEHHA reviewed and provided comments to CDPH for their report titled, "Wildfire Smoke Considerations for California's Public Health Officials" August 2021.

Symposiums (Conferences, Seminars, External Meetings)

- OEHHA assisted US EPA in all phases of planning and execution of a two-day workshop titled, "Children's Health and Wildfire Smoke Workshop for Public Health Officials". May 5-6, 2021.
- Mark Bare & Krystle Taylor. State Water Board, Emergency Management Program. Attended Region 3 Local Emergency Planning Committee meeting in Red Bluff on July 1, 2021. for outreach purposes to local agencies.

Other Projects and Reports

- **California Water Boards:** Across the California Water Boards, staff are conducting work to support the Governor's Wildfire and Forest Resilience Action Plan (Action Plan). A larger working group, with smaller more focused sub workgroups, was created to address water quality issues and priorities, and regulatory coverage for the activities being conducted under the Action Plan. This work is ongoing and will continue into the coming years.

- **US Navy Ship Fire – After Action Project**
    - **CARB:** Staff continue the USS Bonhomme Richard Fire Post Incident Review. This post incident review seeks to assess the effectiveness of

San Diego County's air monitoring response to the July 2020 fire aboard the Navy's USS Bonhomme Richard. The review is being conducted to evaluate the district's response to the event to provide observations and learning opportunities that agencies can use to better prepare for future incidents. The final report will summarize agencies' response, identify strengths / weaknesses, and provide recommendations to improve incident air monitoring response program, as well as include an analysis of the air monitoring data collected during the response.

- **OEHHA:** Staff provided input to CARB on the US Navy Ship Fire air monitoring data review, which included comparison to OEHHA noncancer Reference Exposure Levels (RELs) and guidance on PM10 and metals. In addition, OEHHA assisted CARB in identifying potential resources and research groups that may assist them in conducting epidemiological studies related to the incident.

- **Federal Interagency Science for Disaster Reduction GeoHealth (SDR GEO) Data Integration Workgroup:** Staff from CARB participate in the Federal Interagency SDR GEO Data Integration Workgroup. The purpose of the SDR GEO group is to attempt to integrate data across agencies and organizations in response to a wildfire scenario and create a manuscript detailing any successes or failures that arose during this process. This subgroup is tasked with building a use case for a wildfire test scenario (chosen to be in Sonoma County, CA) to integrate geo (GIS, remote sensing, modeling), sensor, measurement, and health data that would be needed to respond to a wildfire emergency and address exposure and health questions both in the short and longer term, with the ultimate goal of understanding barriers and needs to facilitate data integration and efforts across federal agencies around wildfire disaster response and health research.

- **OEHHA Wildfire Smoke Projects**
  - October 2021: OEHHA was a contributor to a new fact sheet entitled, "Protecting Kids from Wildfire Smoke: Actions for California Schools" with Stanford University.
  - November 2021: OEHHA worked with the US EPA Wildfire Smoke Guide Committee to develop Spanish translations for the Workgroup's wildfire smoke fact sheets and to create new fact sheets including one on Indoor Air Filtration.
  - November-December 2021: OEHHA worked with CalEPA to update and reorganize the Fire Response and Recovery webpage including adding new resources and consolidating existing resources.

- **OEHHA Emergency Response Team Projects**
  - OEHHA participated in a variety of emergency response and preparedness workgroups and committees in 2021 including: OEHHA: Area Committee Meetings, Continuing Challenge HAZMAT Workshop

Steering Committee, Wildfire Smoke Guide Committee, and the California Smoke Communications Workgroup.

- The OEHHA ER Team reviewed a variety of guidance documents in 2021 including the California Emergency Support Function –10 for Hazmat and Oil Spills Annex, the California State Emergency Plan, the California State Hazard Mitigation Plan, and the Radiological Emergency Response Resource Guide.
- In addition, OEHHA staff updated the OEHHA Emergency Plan, created an OEHHA Quick Start Guide to Emergency Response, and an OEHHA Emergency Response Activation Flow Chart.

Appendix A: Abbreviation Guide

Abbreviation	Definition
AB	Assembly Bill
BDO(s)	Board(s), Department(s), and Office(s)
BMP(s)	Best Management Practice(s)
California Water Boards	State Water Resources Control Board and Nine Regional Water Quality Control Boards
CAISO	California Independent System Operator
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Governor's Office of Emergency Services
CalRecycle	Department of Resources, Recycling & Recovery
CARB	California Air Resources Board
CACs	County Agriculture Commissioners
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CESA	California Emergency Services Act of 2006
CISA	Cybersecurity & Infrastructure Security Agency
CNRA	California Natural Resources Agency
CUPA	Certified Unified Program Agency
DDW	Division of Drinking Water at the State Water Resources Control Board
DOC	Department Operations Center
DPR	Department of Pesticide Regulation
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
ECP	Environmental Compliance Plan
EDRO	Emergency Debris Removal Office at the Department of Resources, Recycling, and Recovery
ELAP	Environmental Laboratory Accreditation Program at the State Water Resources Control Board
EMP	Emergency Management Program at the State Water Resources Control Board
EOC	Emergency Operations Center
EPP	Environmental Protection Plan
ERMaC	Emergency Response Management Committee
ESF-10	California Hazardous Materials and Oil Emergency Support Function Annex
GIS	Geographic Information Systems
HABs	Harmful Algal Blooms
HazMat	Hazardous Materials
IAMS	Incident Air Monitoring Section

IRTF	Interagency Refinery Task Force
LEA	Local Enforcement Agencies
NEPA	National Environmental Policy Act
NIMS	National Incident Management System
OEHHA	Office of Environmental Health Hazard Assessment
OHHABS	One Health Harmful Algal Blooms System
OIMA	Office of Information Management and Analysis at the State Water Resources Control Board
OSPR	Office of Spill Prevention and Response at the California Department of Fish and Wildlife
PPE	Personal Protective Equipment
PSPS	Public Safety Power Shutoff
RAPID	Railroad Accident Prevention and Immediate Deployment
Regional Board(s)	Regional Water Quality Control Board(s)
RELS	Reference Exposure Levels
SBCEHS	Santa Barbara County Environmental Health Services
SCAQMD	South Coast Air Quality Management District
SDAPCD	San Diego Air Pollution Control District
SEMS	Standardized Emergency Management System
SEP	State Emergency Plan
SOC	State Operations Center
State Water Board	State Water Resources Control Board
USACE	United States Army Corps of Engineers
US DOT	United States Department of Transportation
USFWS	United States Fish & Wildlife Service
US EPA	United States Environmental Protection Agency

Appendix B: ERMaC Members & Supporting Agencies

Member Agencies

California Environmental Protection Agency (CalEPA)

CalEPA's Office of the Secretary coordinates and administers ERMaC and oversees various tasks such as:

- Coordination between CalEPA's six BDOs
- Emergency preparedness and response activities
- Preparation of agency and BDO emergency plans
- Coordination between federal, state, and local agencies
- Environmental recovery from major disasters involving hazardous materials

CalEPA provides a chairperson to ERMaC, and is the lead agency coordinator for oil and hazardous materials response and recovery actions under the ESF-10 Hazardous Materials and Oil Emergency Support Function Annex to the SEP. 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.

California Air Resources Board (CARB)

CARB's Incident Air Monitoring Section (IAMS) focuses on protecting communities in the event of unanticipated airborne releases affecting air quality. IAMS mission is to provide air monitoring support to help protect the public from acute exposure to hazards and focuses its efforts on wildfire smoke monitoring. Since the passage of Assembly Bill 617, which is the Nonvehicular air pollution: criteria air pollutants and toxic air contaminants (2017-2018) bill, CARB has focused its efforts on creating more holistic community air monitoring capabilities. CARB is orienting its program to include air monitoring for other non-routine air emissions and incidents.

California 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 usage.

Department of Resources, Recycling & Recovery (CalRecycle)

CalRecycle is responsible for the regulation of solid waste facilities in California, which includes landfills, closed disposal sites, transfer stations and other solid waste processing facilities. Local Enforcement Agencies (LEA) enforce CalRecycle's regulations typically through city and county 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 certain cases, when authorized by a Governor's Executive Order and funding is provided, CalRecycle has managed disaster debris removal operations by providing staff and contractor resources.

Department of Toxic Substances Control (DTSC)

DTSC's Emergency Response Program provides statewide response to actual and potential releases of hazardous substances that pose an acute threat to public health and/or the environment. DTSC Emergency Response interacts with several federal, state and local agencies in carrying out these response activities. DTSC Emergency Response also responds to requests from local agencies seeking assistance with removing hazardous waste associated with natural or human-caused disasters such as floods, fires, and earthquakes. The Emergency Response Program responds to calls requesting DTSC's assistance for removals from illegal/clandestine drug labs and other hazardous materials (HazMat) emergencies throughout the state. The DTSC's Emergency Response Duty Officers handle requests for assistance.

Office of Environmental Health Hazard Assessment (OEHHA)

OEHHA provides toxicological expertise and public health recommendations during all phases of emergency management. OEHHA aids in emergencies by providing emergency personnel with information on the adverse health effects of chemical agents and by characterizing the risk to the public and environment from chemical releases. OEHHA 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 release. OEHHA also assesses seafood safety following marine and inland oil spills.

State Water Resources Control Board (State Water Board)

The State and Regional Water Boards (California Water Boards) in California are dedicated to a single vision: abundant clean water for human uses and environmental protection to sustain California's future. The State Water Resources Control Board develops policy and regulations for water quality protection, regulates drinking water, administers California's water rights system, provides financial assistance, and supports Regional Water Quality Control Board's efforts. The Regional Water Boards implement these policies and regulations, issue permits, evaluate compliance, and conduct enforcement.

Supporting Agencies

California Governor's Office of Emergency Services (Cal OES)

Cal OES promotes collaboration between CalEPA and other state agencies by offering insight to statewide emergency response and emergency management perspectives relating to planning, operations, training, reporting, and financial assistance.

California Department of Food and 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 diary, 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 and Wildlife (CDFW) Office of Spill Prevention and Response (OSPR)

Protecting and managing 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 Center for Healthy Communities Environmental & Occupational Emergency Preparedness Team and the CDPH Center for Environmental Health Environmental Management Branch serve as liaisons between CalEPA and CDPH by providing insight into public health perspectives relative to oil and/or hazardous materials incidents.

US Department of Transportation (US DOT)

The Regional Emergency Transportation Representative (ESF1) in Northern California for the US DOT acts as a liaison to the ERMaC regarding emergencies that impact transportation systems and infrastructure. The representative works on coordination, support, prevention, preparedness, response, recovery, and mitigation activities among transportation stakeholders.

US Environmental Protection Agency (US EPA) Region IX

US EPA Region IX's Emergency Response Program–with federal On-Scene Coordinators (OSC) 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 and/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 efforts.

Appendix C: ERMaC History & Authorities

History

In its relatively brief history, CalEPA has risen to the challenge of major environmental emergencies. The beginnings of its interdisciplinary approach to emergency response are 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 that spilled a toxic chemical into the upper Sacramento River. 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 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. After 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 Cal OES. After several years of effective service and realizing a role that was far more than advisory, ERMaC was renamed the Emergency Response Management Committee, adopting its first operating charter in 2004.

Statutory Authority

The California Emergency Services Act of 2006 (CESA) enacted a major update and consolidation of the state's emergency preparedness and response laws and executive orders. It required that all state agencies carry out activities assigned by the Governor and Cal OES. State agencies must cooperate with one another, Cal OES and other government agencies 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 align 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 Cal OES that describe 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. Cal OES 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 receive adequate training and are 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 efforts. ERMaC is responsible for emergency planning and training, and coordinates all CalEPA entities preparing for, responding to, and recovering from emergencies.

The CalEPA and BDO Administrative Orders were updated in 2014. Periodically, Cal OES requires the orders to be updated and recertified, notably when there is a significant change to the state's emergency plan, emergency policy or law.