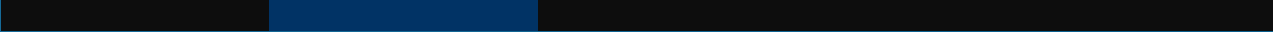


Disaster Debris Removal Operations

Presentation for the California Conference of Directors of Environmental Health



Agenda

1. Introduction
2. Operations Overview
3. Implementation Models
4. Pre-Incident Models
5. Technical Assistance



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Introduction

- Debris removal is a standard component of disaster recovery, and generally accounts for 40% of the overall cost
- Debris removal includes removing incident-generated debris that threatens public health and safety, economic recovery, or rebuilding of public facilities



Operations Overview

Phase 1: HHW
Removal

Site
Assessment

Asbestos
Assessment
and
Abatement

Debris
Removal

Soil Analysis

Hazard Tree
Removal

Erosion
Control

Phase 1: HHW Removal



Phase 1 Household Hazardous Waste Removal

- Executed pursuant to local health officer's order; no enrollment required and opt-out not allowed
- Mandatory removal of household hazardous wastes (HHW) and identifiable bulk asbestos
- May be led by DTSC, under a Cal OES Mission Task. If direct federal assistance is warranted, can be performed by the USEPA
- Includes all impacted parcels regardless of residential or commercial zoning or use.



Phase 2: Consolidated Debris Removal Program



ROE Enrollment Required

Site Assessment

1. Site Assessment Team prepares site assessment report and site map, documents debris on-site, and checks for site hazards.
2. Resource Advisors (biologists, archaeologists, tribal monitors) assess site and flag resources for protection.



Phase 2: Consolidated Debris Removal Program



Asbestos Assessment and Abatement

1. Certified Asbestos Consultants assesses debris and collects samples of any suspect asbestos-containing material.
2. Suspect asbestos-containing material is sent to a laboratory for testing.
3. If the laboratory confirms the material contains asbestos, a Licensed Asbestos Removal Contractor removes the material under the supervision of the Certified Asbestos Consultant.



Phase 2: Consolidated Debris Removal Program



Debris Removal

1. Debris Removal Crew and Crew Monitor (third party) conduct 360 pre-work walk (property owner can join too).
2. Crew removes metal and concrete and transports to recycling centers.
3. Crew removes ash and debris and transports to an approved landfill in accordance with DOT regulations.
4. Crew scrapes 3-6" of soil from the building footprint to ensure heavy metal and leached toxins are removed.



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Phase 2: Consolidated Debris Removal Program



Soil Analysis

1. Environmental team samples remaining soil in the building footprint.
2. Samples are sent to a certified laboratory and analyzed for heavy metals (such as lead and arsenic).
3. Sample results are compared against health screening levels and background levels which are obtained outside the building footprint.
4. If results are high, the site will be “re-scraped” and an additional 3-6” of soil is removed from the identified sample area



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Phase 2: Consolidated Debris Removal Program

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Hazard Tree Removal

1. Trees along public roads and infrastructure are assessed by a Certified Arborist or Professional Forester to determine if they are dead or anticipated to die within 5 years.
2. Eligible trees are marked for removal.
3. Licensed Timber Operators fell, process, and remove the eligible trees.



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Phase 2: Consolidated Debris Removal Program

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Erosion Control

1. Crew sprays hydromulch on building footprint area and installs wattles or compost socks to limit erosion.
2. Final Inspection conducted to confirm all work is completed correctly and in accordance with debris removal program (FSO).
3. Property owner is notified that work is complete and provided a final report.



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Implementation Models

The background image is a blue-tinted photograph of a coastal road. In the foreground, several cars are visible on the left side of the road. A large bus is driving on the right side of the road. A speed limit sign with the number '30' is visible on the right side of the road. The road curves along a hillside that meets the ocean in the distance. Utility poles and power lines are visible along the road.

Levels of Assistance

Public Assistance Reimbursement

- Standard process to reimburse local governments for emergency work, including debris removal
- May be funded by Cal OES (CA Disaster Assistance Act) and/or FEMA (Stafford Act)
- Local government performs the work and is reimbursed if costs are eligible
- Private Property Debris Removal (PPDR) requires special authorization
- Cal OES Public Assistance staff provide project support and liaise with FEMA

Debris Technical Assistance

- Cal OES Debris Operations staff and CalEPA staff can provide technical assistance to local governments performing debris removal
- Technical Assistance is designed to share best practices, ensure work is eligible, and assist in navigating regulatory requirements

Direct State Assistance

- In major incidents, Cal OES will mission task other state agencies to perform debris removal on behalf of local government. This is also referred to as the State Consolidated Debris Removal Program
- Local government still has important responsibilities in a Direct State Assistance mission









County vs. State Responsibilities – Locally-led program

Task	Locally-Led Program	State-Led Program
Issuing Emergency Proclamation, Public Health Emergency, and Urgency Ordinance	County	County
Communicating with Survivors	County	County and State
Distributing Receiving and Reviewing ROE's	County	County
Procurement – DDHTR and A&M Contractor	County (can use MSA)	State
Incident Command and Day to Day Decision Making	County	State
Contract Management, Resolving Contract Disputes, Claim Resolution	County	State
Accepting Soil Sampling Results	County	State
Insurance Recovery	County	County
Funding	State/County (Cost Share)	State/County (Cost Share)
Technical Assistance	State	N/A

Debris Removal

Program Implementation

	Phase 1	Phase 2
Locally Managed	 Local Government	 Local Government
Direct State Assistance	 DTSC Department of Toxic Substances Control	 CalRecycle
Direct Federal Assistance	 EPA United States Environmental Protection Agency	 US Army Corps of Engineers®



State-Led vs County-Led



Determined by a variety of factors including but not limited to:

- Size of event
- Complexity of incident
- Ability of the county to manage the program
- There are pros and cons to both state and locally led program

Pre-Incident Planning:

What can you do NOW to prepare?



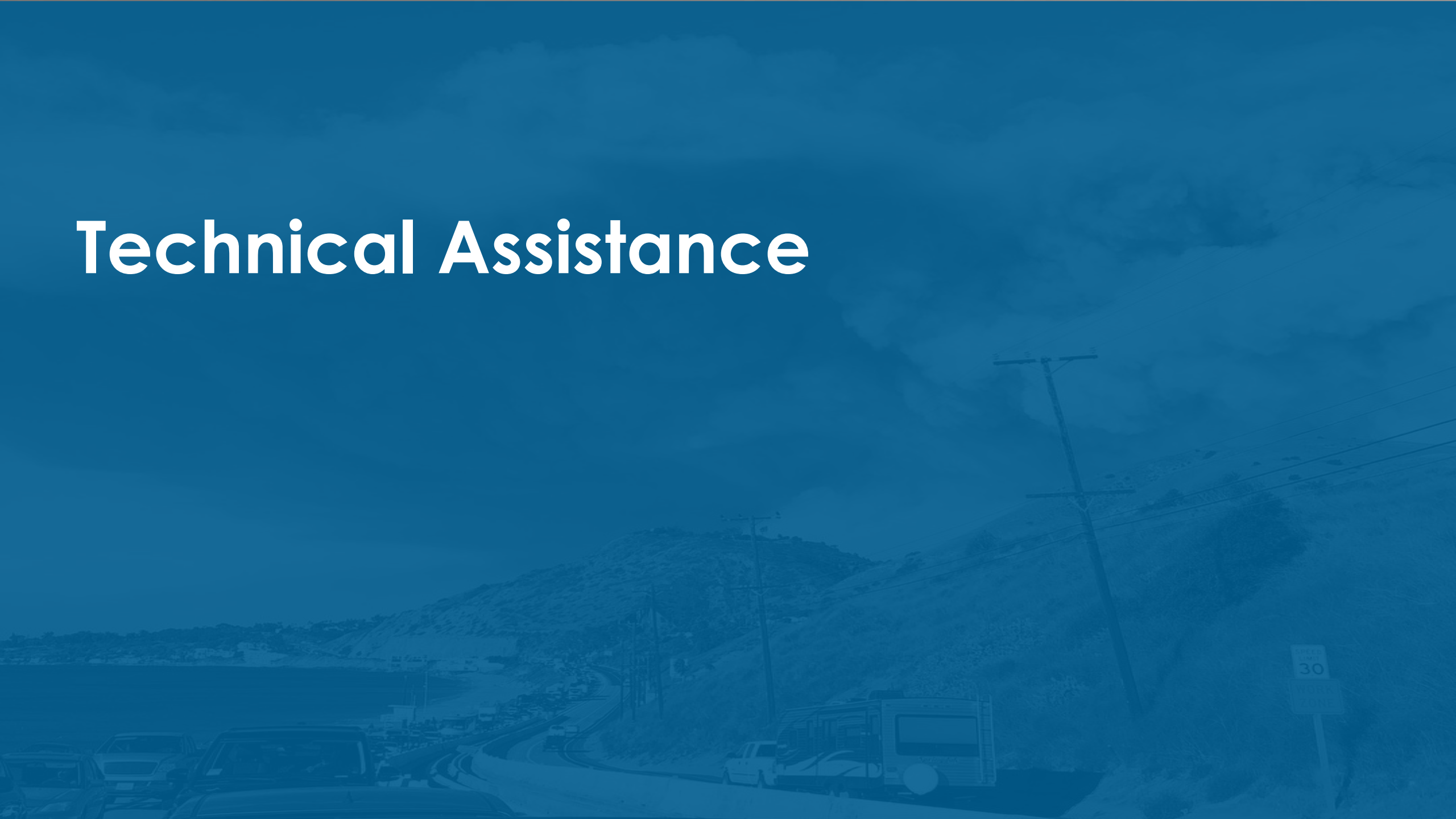
Pre-Planning

- Disaster Debris Management Plan
- Pre-identified county personnel for the Recovery Team
- Training for all disaster services workers (ICS 300, G205, Cal OES Debris Management Training)
- Pre-identified landfills, debris management sites, laydown yards, etc.
- Prepositioned debris removal contracts
- State Technical Advisors during blue skies can assist with:
 - Review of existing debris management assumptions and procedures
 - Training
 - Feedback on debris contracting strategy
 - Disaster Debris Management Plan review
 - Information on changing environmental and debris removal regulations

State Master Service Agreement for Debris Assessment and Monitoring

- ✓ Leveraged procurement agreement with eight firms and available to all local government entities
- ✓ Designed for private property debris removal and roadside hazard tree removal operations
- ✓ Services include:
 - ✓ Site eligibility and environmental assessments
 - ✓ Hazard tree assessment
 - ✓ Debris monitoring
 - ✓ Asbestos, soil contamination, air quality testing
 - ✓ Civil engineering and structural evaluation
 - ✓ Incident management
 - ✓ Provide documentation

Technical Assistance



Debris Removal

Technical Assistance

- Cal OES Debris Ops team can provide technical assistance in support of a declared event and can also request technical assistance from subject matter experts at CalRecycle to support a locally-led debris operation.
- State technical assistance may be able to assist with operational needs such as:
 - Processes for HHW sweeps (Phase 1) and debris removal operations (Phase 2)
 - Contracting with disaster services firms
 - Coordinating State agency resources
 - Permitting and activities surrounding environmental preservation
 - Determining landfill needs
 - Other activities the local agency must undertake



CalRecycle Technical Assistance – Pre-Incident

- Debris Operations Subject Matter Expertise
 - Contract Management Best Practices
 - Operational Best Practices
 - Needs Assessment/Identification
 - Engineering Expertise
 - Environmental Considerations
 - Engagement/Educational Materials
 - Historical data

CalRecycle Technical Assistance: During Incident

- Difference between debris incident management team roles and responsibilities versus typical EOC staff
 - Planning, Technology/Apps, Contract Managers, Operations
- Environmental and operational considerations within all facets of debris – parcel to end use facility for all waste streams
- Implementation of engineering process to mitigate environmental hazards
 - Recycled material, soil sampling, resolving access issues to properties, erosion control, retaining wall resolution, damage claim investigation/resolution
- Contractual closeout best practices

Cal OES Technical Assistance: Pre-Incident

- Regionalized Debris Teams
- Provide resources in expanding or developing Disaster Debris management plan
 - All hazard
- Facilitate connections with specialized OES teams
- Provide dedicated point of contact for debris issues
- Primary communication for an emerging incident



Cal OES Technical Assistance: During Incident

- When requested by the county – Cal OES Debris Operations Team able to field deploy for both locally-led and state-led program
 - Share best practices
 - Ensure work is eligible
 - Assist in navigating regulatory requirements
 - Able to utilize relationship developed both within Cal OES and additional state agencies
- Cal OES can mission task other state agencies during a declared event to perform necessary work or provide technical assistance as needed.

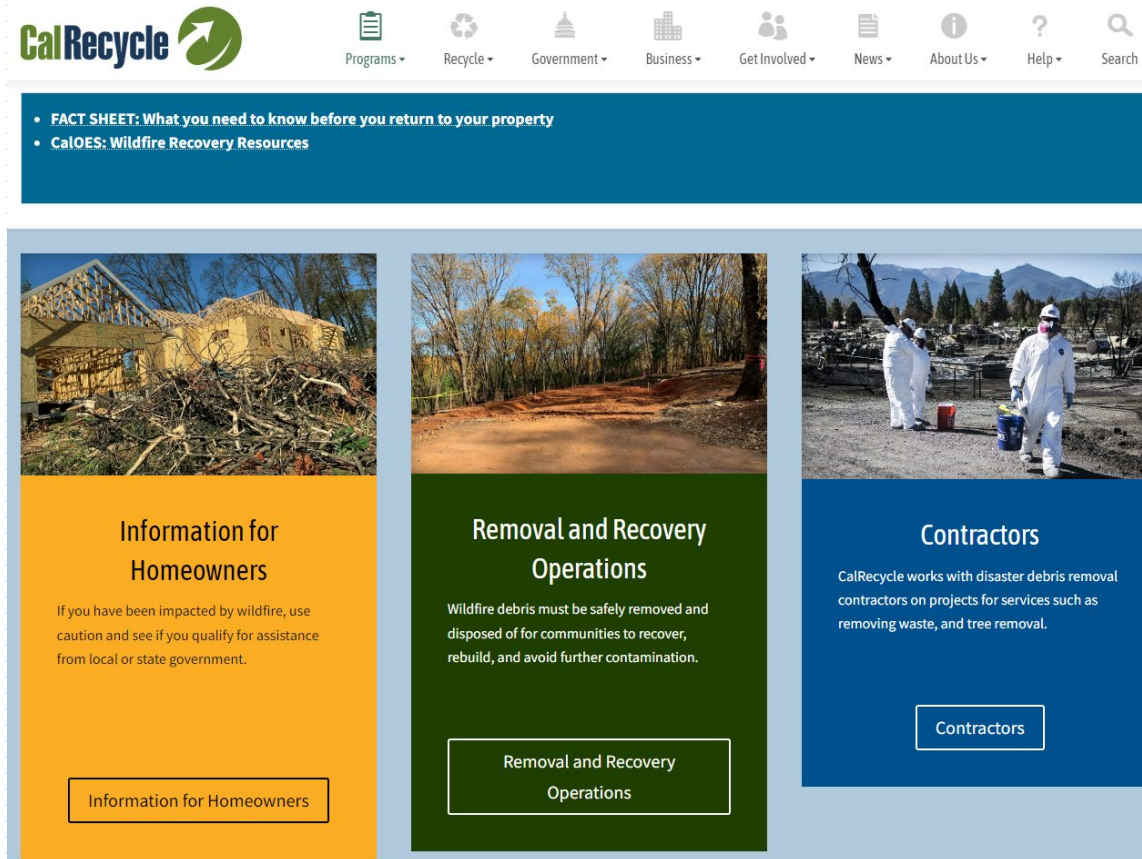
Templates and Examples available:

- Local Proclamation
- Urgency Ordinance
- Local Health Emergency Proclamation
- PPDR Request Letter
- Right of Entry (ROE) form
- Health & Safety Plan & Environmental Protection Plan (EPP)
- Assessment surveys (site, asbestos, arch, bio, tree, interim site walk (debris & tree), final site walk (debris & tree))
- Contract Language templates & examples
- Insurance Collection

CalRecycle – DDRO Home Page

CalRecycle – Disaster Debris Recovery Operations Home Page

<https://calrecycle.ca.gov/disaster>



The screenshot shows the CalRecycle website's DDRO Home Page. At the top left is the CalRecycle logo. To its right is a navigation menu with icons and labels: Programs, Recycle, Government, Business, Get Involved, News, About Us, Help, and Search. Below the navigation is a blue banner with two bullet points: "FACT SHEET: What you need to know before you return to your property" and "CalOES: Wildfire Recovery Resources". The main content area features three columns. The first column, titled "Information for Homeowners", has a background image of a destroyed house and a yellow background. The second column, titled "Removal and Recovery Operations", has a background image of a dirt road and a green background. The third column, titled "Contractors", has a background image of workers in white suits and a blue background. Each column contains a brief description and a button to access more information.

- **FACT SHEET: What you need to know before you return to your property**
- **CalOES: Wildfire Recovery Resources**

Information for Homeowners

If you have been impacted by wildfire, use caution and see if you qualify for assistance from local or state government.

Information for Homeowners

Removal and Recovery Operations

Wildfire debris must be safely removed and disposed of for communities to recover, rebuild, and avoid further contamination.

Removal and Recovery Operations

Contractors

CalRecycle works with disaster debris removal contractors on projects for services such as removing waste, and tree removal.

Contractors



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