DEBRIS REMOVAL OPERATIONS PLAN

FOR THE

ROUND FIRE INCIDENT
MONO COUNTY, CALIFORNIA

Version 1
April 2, 2015

Prepared By:
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Debris Removal Operations Team
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Sacramento, California 95814

For:
Mono County
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Bridgeport, CA 93517
CERTIFICATION

This Debris Removal Operations Plan (Operations Plan) was developed under the supervision of Mr. Todd Thalhamer, a registered civil engineer in the State of California, whose seal is affixed below. The findings, information, and professional opinions are presented in accordance with generally accepted engineering methods and waste management strategies and are limited to the Round Fire Incident area within Mono County. Any questions or comments concerning this report should be referred to Mr. Todd Thalhamer at 916.341.6356 or his e-mail at todd.thalhamer@calrecycle.ca.gov.

This Operations Plan is only valid for the Round Fire Incident and the use of this plan for any other site is neither valid nor warranted.
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACM</td>
<td>asbestos containing material</td>
</tr>
<tr>
<td>AHERA</td>
<td>Asbestos Hazard Emergency Response Act</td>
</tr>
<tr>
<td>CAC</td>
<td>Certified Asbestos Consultant</td>
</tr>
<tr>
<td>CalEPA</td>
<td>California Environmental Protection Agency</td>
</tr>
<tr>
<td>CalOES</td>
<td>California Office of Emergency Services</td>
</tr>
<tr>
<td>CalRecycle</td>
<td>Department of Resources Recycling and Recovery</td>
</tr>
<tr>
<td>CARB</td>
<td>California Air Resources Board</td>
</tr>
<tr>
<td>CCR</td>
<td>California Code of Regulations</td>
</tr>
<tr>
<td>CEQA</td>
<td>California Environmental Protection Agency</td>
</tr>
<tr>
<td>CIH</td>
<td>certified industrial hygienist</td>
</tr>
<tr>
<td>CSST</td>
<td>Certified Site Surveillance Technician</td>
</tr>
<tr>
<td>DFW</td>
<td>Department of Fish and Wildlife</td>
</tr>
<tr>
<td>DROC</td>
<td>Debris Removal Operations Center</td>
</tr>
<tr>
<td>DTSC</td>
<td>Department of Toxic Substances</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>GBUAPCD</td>
<td>Great Basin Unified Air Pollution Control District</td>
</tr>
<tr>
<td>GLA</td>
<td>Geo-Logic Associates</td>
</tr>
<tr>
<td>HHW</td>
<td>household hazardous waste</td>
</tr>
<tr>
<td>HWY</td>
<td>Highway</td>
</tr>
<tr>
<td>ICS</td>
<td>Incident Command System</td>
</tr>
<tr>
<td>LADPW</td>
<td>Los Angeles Department of Power and Water</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>NESHAP</td>
<td>National Emissions Standards for Hazardous Air Pollutants</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety and Health</td>
</tr>
<tr>
<td>Operations Plan</td>
<td>Debris Removal Operations Plan</td>
</tr>
<tr>
<td>Operations Team</td>
<td>Debris Removal Operations Team</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PPE</td>
<td>personal protective equipment</td>
</tr>
<tr>
<td>Proclamation</td>
<td>Proclamation of a State Emergency dated February 26, 2015</td>
</tr>
<tr>
<td>PSEC</td>
<td>Pacific States Environmental Contractor, Inc.</td>
</tr>
<tr>
<td>ROE</td>
<td>Right-of-Entry Permit</td>
</tr>
<tr>
<td>sqft</td>
<td>square feet</td>
</tr>
<tr>
<td>Sukut</td>
<td>Sukut Construction, Inc.</td>
</tr>
<tr>
<td>USA</td>
<td>Underground Service Alert</td>
</tr>
<tr>
<td>USFS</td>
<td>United States Forest Service</td>
</tr>
</tbody>
</table>
1 INTRODUCTION

On February 26, 2015, the Governor of California, Edmund G. Brown Jr., issued A Proclamation of a State Emergency (Proclamation), which declared a state of emergency in Mono County as a result of a fire. A copy of the Proclamation is provided as Appendix A. The Proclamation ordered all agencies of the state government to utilize and employ state personnel, equipment, and facilities for the performance of any and all activities related to this state of emergency consistent with the direction of the Office of Emergency and the State Emergency Plan.

The Proclamation suspended to the extent they apply to the following activities: (a) removal, storage, transportation, and disposal of hazardous and non-hazardous solid waste and debris resulting from the fire that has burned in Mono County and that are subject to the jurisdiction of agencies within the California Environmental Protection Agency (CalEPA) and the California Natural Resources Agency; and (b) necessary restoration and rehabilitation of timberland, streams, rivers, and other waterways. Such statutes, rules, regulations, and requirements are hereby suspended only to the extent necessary for expediting the removal and cleanup of debris from the fire and for implementing any restoration plan by Mono County.

The Proclamation also suspended compliance with applicable provisions of the Government Code and the Public Contract Code for state contracts, including but not limited to travel, advertising and competitive bidding requirements, to assist with procuring materials, goods, and services necessary to quickly remove dangerous debris and repair damaged resources.

Lastly, the Proclamation stated that State agencies shall work with local officials to design and implement a comprehensive structural debris removal plan.

In response to the Proclamation, California Office of Emergency Services (CalOES) and CalEPA selected the Department of Resources Recycling and Recovery (CalRecycle) to manage the debris removal operations for Mono County. CalRecycle is working with Mono County under a Memorandum of Understanding (MOU) to clear the debris, provide state certification of cleanup for the individual sites, and track and provide costs to the County for cost recovery on a per lot basis. As part of the work, CalRecycle has prepared this Debris Removal Operations Plan (Operations Plan) for Mono County which identifies the procedures and best management practices for undertaking the removal of debris from the residential structures to protect response personnel, the surrounding community, public health, and the environment. Information related to this project was obtained CalOES, other CalEPA regulatory partners, and local government agencies. This document is “living document” and will be updated as appropriate throughout the debris removal operations as conditions or contact information changes.

CalRecycle will utilize the Solid Waste Cleanup Program within their Engineering Support Branch to implement and oversee debris removal operations. CalRecycle will work with environmental contractors and consultants to begin the evaluation and removal process from homes subsequent to obtaining Right-of-Entry Permits from the individual property owners. CalRecycle’s authorized consultant and contractors are: Geo-Logic Associates (GLA); Pacific States Environmental Contractor, Inc. (PSEC), California Contractor License #723241; and Sukut Construction, Inc. (Sukut), California Contractor License #554278.
2 PROJECT OVERVIEW

2.1 Site Description

Mono County is nestled in California’s Eastern Sierra, east of Yosemite National Park and home to Mammoth and June Mountain ski resorts along state highway 395, north of the town of Bishop as shown in Figure 1. The areas impacted by the Round Fire Incident include Swall Meadows and Paradise Valley as shown in Figures 2 and 3. Thirty-eight homes were destroyed by the wildfire as shown in Figures 3 and 4. A list of the addresses impacted are provided in Appendix B.

2.2 Ownership

Mono County will identify and work with each property owner to obtain legal authority to enter the property by obtaining an executed Right-of-Entry Permit (ROE). A copy of the ROE form is provided in Appendix C. CalRecycle will not perform work until provided with a copy of the executed ROE. The list of addresses that provide signed ROE is identified in Appendix B.

Figure 1. Site Location Map

Source: https://www.google.com/maps/d/embed?mid=zp8nK_5H0MFQ.kzTmU5XK-qJQ
Figure 2. Round Fire Incident Location Map

Source: 2015 California Fire Map (https://www.google.com/maps/d/embed?mid=zp8nK_5H0MFO.kzTmU5XK-qJQ)
Figure 3. CalFire Damage Report Map

Federal: 3425.5 acres
State: 3112.0 acres
Total: 6537.5 acres
Figure 4. County Damage Detailed Map
2.3 Site Characterization

Ash and debris from residential structures burned by fires can contain concentrated amounts of heavy metals, such as antimony, arsenic, cadmium, copper, lead, and zinc as discussed in the “Assessment of Burn Debris - 2007 Wildfires San Bernardino and San Diego Counties, California” (http://www.calepa.ca.gov/Disaster/Fire/).

The residual materials such as stucco, roofing, floor tile, linoleum, fireplaces, furnaces, vinyl tiles and mastic, sheetrock and joint compound, asbestos cement pipe, exterior home siding, thermal system insulation and other building materials commonly used in homes built before 1984 may also contain other chemicals of concern such as asbestos.

An estimate of 10,000 tons of waste and debris total is expected to be removed from the 40 homes. This value assumes that 40 structures were destroyed of similar size and composition as those from the Angora Fire in Lake Tahoe and Boles Fire in Weed (approximately 250 tons per home).

2.4 Estimated Removal Costs

The overall cost of the Mono County debris removal project is estimated to range from $1.5 million to $2.5 million dollars. Removal costs may range from $20,000 for the smaller homes to as much as $60,000 for large homes with substantial concrete features, retaining walls, and foundations. This value assumes an average of $20,000 to $30,000 for debris removal and $3,000 for environmental sampling and reports per home site based on previous similar experiences. Removing trees considered a hazard from public areas and private lots may cost an additional $200,000. Actual costs may vary based on site-specific conditions in the field.

Project costs that can be directly attributed to each home site will be tracked on a per home site basis. Other costs that cannot be directly attributed to a home site but is necessary such as dust control (watering), street sweeping, and project management will be shared by each home site. Any costs for community health and safety or monitoring, activities associated with removal of structures, trees, debris or other features on public property will be estimated and approved by the Incident Commander and Operations Lead and will not be borne by private homeowners.
3 PROJECT ROLES AND RESPONSIBILITIES

The debris removal operation will utilize the structure of the Incident Command System (ICS) management system. ICS is the model management tool used in disaster response scenarios for the command, control and coordination of all agencies and/or private companies working on an incident.

CalRecycle will dedicate a Debris Removal Operations Team (Operations Team) to and provide the necessary contractors, resources and management including an Operations Lead, Planning Lead, Logistics Lead, Financial Lead, and supporting Division Supervisors. The Operations Lead and Supervisors will have a phone or radio available at all times while on-site. Tables 1 through 3 provides overall organizational structure. Contact information is provided in Appendix D.

Table 1. ICS Organizational Structure

<table>
<thead>
<tr>
<th>Team Titles</th>
<th>Name</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident Commander</td>
<td>Jim Leddy</td>
<td>Overall management, compliance, and County approval.</td>
</tr>
<tr>
<td>Operations Lead</td>
<td>Todd Thalhamer</td>
<td>Directs operations including establishing priorities, objectives, and worker health and safety.</td>
</tr>
<tr>
<td>Planning Lead</td>
<td>Stephanie Young</td>
<td>Collects, evaluates, and disseminates the tactical information and prepares incident action plans.</td>
</tr>
<tr>
<td>Financial Lead</td>
<td>Alan Zamboanga</td>
<td>Manages all financial, administrative, and cost analysis.</td>
</tr>
<tr>
<td>Logistics Lead</td>
<td>Robert Healy</td>
<td>Provides facilities, services, and materials for the response.</td>
</tr>
</tbody>
</table>

Table 2. Regulatory Agency Contacts

<table>
<thead>
<tr>
<th>Agency</th>
<th>Name</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>CalEPA - Department of Toxic and Substances Control</td>
<td>Nancy McGee</td>
<td>On-site review, clean up goal and confirmation sample review and support of issues related to hazardous substances.</td>
</tr>
<tr>
<td>CalEPA Office of the Secretary</td>
<td>Paul Penn</td>
<td>Agency representative responsible for coordinating the overall emergency response at the agency level.</td>
</tr>
<tr>
<td>Governor’s Office of Emergency Services</td>
<td>Melinda Stehr</td>
<td>Agency representative, technical support for debris removal, oversight of field activities, and agency communication.</td>
</tr>
<tr>
<td>Regional Water Quality Control Board, Region 6 Lahontan</td>
<td>Patrice Copeland</td>
<td>Agency representative for providing document review and permit support with regards to water quality.</td>
</tr>
<tr>
<td>Great Basin Unified Air Pollution Control District</td>
<td>Jan Sudomier</td>
<td>Agency representative for providing document review and permit support with regards to air quality.</td>
</tr>
<tr>
<td>Company</td>
<td>Name</td>
<td>Responsibilities</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Mono County Environmental Health</strong></td>
<td>Louis Molina</td>
<td>Agency representative for providing Community Health and Safety Plan, location of septic systems, provide landfill permit support, hazardous waste support, and overall public health coordination.</td>
</tr>
<tr>
<td><strong>Inyo County Environmental Health</strong></td>
<td>Marvin Moskowitz</td>
<td>Agency representative for providing permit support and waste disposal locations for Inyo County.</td>
</tr>
</tbody>
</table>

Table 3. CalRecycle Contractor and Subcontractor Team

<table>
<thead>
<tr>
<th>Company</th>
<th>Name</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Prime: Geo-Logic Associates</em></td>
<td>John Hower, P.G.</td>
<td>Manage site documentation, initial soil sampling, asbestos surveying and removal, air sampling, confirmation sampling, tree surveys, and provide final reports.</td>
</tr>
<tr>
<td>Sub: Eastern Sierra Tree Service (Arborist)</td>
<td>Bill Ossofsky</td>
<td>Hazard tree identification and documentation.</td>
</tr>
<tr>
<td>Sub: Network Environmental Services (NES)</td>
<td>David Durst, Certified Industrial Hygienist</td>
<td>Manage asbestos surveying, removal, and air monitoring.</td>
</tr>
<tr>
<td>Sub: RESTEC</td>
<td></td>
<td>Removal of asbestos wastes.</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Prime: Pacific States</em></td>
<td>Kris Gretsinger</td>
<td>Manage the removal of debris and final erosion control.</td>
</tr>
<tr>
<td>Sub: Trucking</td>
<td></td>
<td>Trucking wastes and recyclables.</td>
</tr>
<tr>
<td>Sub: Disposal</td>
<td></td>
<td>Disposal of soil, ash, and other debris.</td>
</tr>
<tr>
<td>Sub: Metal Recycling</td>
<td></td>
<td>Metal recycling and vehicle towing.</td>
</tr>
<tr>
<td>Sub: Concrete Recycling</td>
<td></td>
<td>Concrete recycling.</td>
</tr>
<tr>
<td>Sub: Water Truck</td>
<td></td>
<td>Provide water to each site and keep exposed ash wet prior to mobilizing to each site.</td>
</tr>
<tr>
<td>Sub: Street Sweeping</td>
<td></td>
<td>Sweep community streets utilized by operations.</td>
</tr>
<tr>
<td><em>Prime: SUKUT</em></td>
<td>Todd Gunnell</td>
<td>Assist Pacific States on the removal of debris, and hazard tree removal.</td>
</tr>
<tr>
<td>Sub: Hazard Tree Removal</td>
<td></td>
<td>Hazard tree removal.</td>
</tr>
<tr>
<td>Sub: Weiland and Associates (Hydroseeding)</td>
<td>Bob Weiland</td>
<td>Final hydroseeding as erosion control.</td>
</tr>
</tbody>
</table>
4 DEBRIS REMOVAL OPERATIONS CENTER

A Debris Removal Operations Center (DROC) will be established for managing day-to-day activities, answering questions from the public, and storing field supplies. The DROC will be equipped with office supplies, printers, internet access, and portable sanitary facilities.

The DROC will be located at 159 Willow Road near the volunteer fire department in Swall Meadows, California as shown in Figure 5.

Figure 5. Debris Removal Operation Center (DROC) Location
5 DEBRIS REMOVAL

5.1 Overview of Operations

The operation will follow a systematic approach to removing debris off the property:

- **Initial Site Reconnaissance**
  - Install address and project signs.
  - Obtain, analyze, and evaluate background soil samples to establish cleanup goals for the project.
  - Identify water and electrical sources.
  - Identify equipment and material staging area.
  - Identify disposal and recycling options.

- **Individual Site Assessments**
  - Check for underground utilities by alerting Underground Service Alert (USA) for public right of way.
  - Check for underground utilities by using an independent private utility locator service for private right-of-ways, if necessary.
  - Identify and mark property lot lines.
  - Identify septic tank and leach field locations on each property.
  - Identify water wells on properties not serviced by the local water agency.
  - Measure and record foundation and other hardscape footprints.
  - Measure and record ash footprints.
  - Identify other property-specific hazards (i.e. swimming pools, large vehicles, hazard trees).
  - Conduct radiation sweep.
  - Identify, sample, analyze, and remove asbestos containing materials.

- **Debris Removal**
  - Complete Notifications.
  - Remove vehicles for recycling or disposal.
  - Collect, consolidate, and remove metals for recycling.
  - Collect, consolidate, and remove concrete for recycling.
  - Collect, consolidate, and remove ash, debris and soil for disposal.
  - Collect, consolidate, and remove hazardous trees for recycling or disposal.
  - Finish grading/smoothing ground surface.

- **Confirmation Sampling**
  - Sample and analyze soil.
  - Compare soil results to cleanup goals.
  - If results exceed cleanup goals, another layer of soil will be removed for disposal and the site re-sampled.
  - If results are less than cleanup goals, site will be prepared for final erosion control and certification.

- **Implement Erosion Control**
  - Implement storm water best management practices to control sediment runoff and promote vegetation from each remediated property.
Additional information on this operation is provided in this Section.

5.2 Schedule

Estimated schedule is provided in Appendix E.

5.3 Hours of Operation

All work will be performed between the hours of 7:00 A.M. to 8:00 P.M., Monday through Saturday, in accordance with local noise ordinances. If necessary, work may also be performed on Sunday from 9:00 AM to 5:00 PM.

5.4 Initial Site Reconnaissance

Signs

ADDRESS SIGNS

Each home that volunteers to be part of the debris removal program by submittal of an ROE will be identified with reflective aluminum address signs as shown in Figure 6. Each sign will be 6 inches in width and 24 inches in height with rounded edges. The background shall be a reflective green and all the text shall be a reflective white. Each sign will be mounted on a 6 foot pre-drill, u-channel steel post. The numbering for the address shall be at minimum of 4 inches in height.

Figure 6. Address Sign

PROJECT SIGN AND LABELS

A reflective sign showing the progress of the debris removal will also be displayed at every home that submitted an ROE in a location identified by the Operations Lead. The location of the signs will be consistent throughout the project. Each sign will be 12 inches in width and 18 inches in height. The sign shall be made of metal with rounded edges. The background shall be a white reflective coating and all the text shall be black. A sample sign is shown as Figure 7.

During the project, each phase of debris removal will be signed off and identified with a sticker, as shown in Figure 7.
Background Soil Assessment

Soils in the vicinity but not in the impacted area will be collected and sampled to establish the naturally occurring metal concentrations around the impacted area. All samples shall be analyzed for California Code of Regulations (CCR) Title 22 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc) by Environmental Protection Agency (EPA) Method 6010 and mercury by EPA Method 7471A by a California-certified laboratory. Results from these samples will be used to establish cleanup goals as described in Section 5.7.
Permits

Table 4 lists the permits anticipated for the project.

**Table 4. Summary of Permit Requirements**

<table>
<thead>
<tr>
<th>Permit</th>
<th>Responsibility</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Authorization Right-of-Entry</td>
<td>Mono County</td>
<td>Executed forms are required by owners before work can begin on their property.</td>
</tr>
<tr>
<td>California Environmental Quality Act (CEQA)</td>
<td>Not Applicable</td>
<td>Projects undertaken, carried out, or approved by a public agency to maintain, repair, restore, demolish or replace property or facilities damaged or destroyed as a result of a disaster are exempt from CEQA. Public Resources Code, §§ 21080(b)(3), 21172; see also, 14 CCR 15269(a).</td>
</tr>
<tr>
<td>Section 1602 Streambed Alteration, Department of Fish and Wildlife (DFW)</td>
<td>CalRecycle/DFW</td>
<td>Except for removal of burned trees, the project does not include work in the streambed.</td>
</tr>
<tr>
<td>Encroachment Permit</td>
<td>CalRecycle</td>
<td>Use of temporary trailers or storage units or removal of trees on County right-of-ways will require submittal of an application.</td>
</tr>
<tr>
<td>Demolition Permit</td>
<td>Mono County</td>
<td>Mono County to issue a blanket permit to demolish all structures destroyed by the fire under this program.</td>
</tr>
<tr>
<td>Asbestos Notification</td>
<td>CalRecycle</td>
<td>CalRecycle will make the appropriate notification, if necessary.</td>
</tr>
<tr>
<td>Water Permit</td>
<td>CalRecycle</td>
<td>CalRecycle will obtain the necessary water permit to be used for dust suppression</td>
</tr>
<tr>
<td>Tree Removal Permit</td>
<td>Not Applicable</td>
<td>Tree removal is not regulated on individual single family properties in Mono County. However, removal of trees along County right-of-way will require an encroachment permit.</td>
</tr>
<tr>
<td>Equipment Storage and Staging Areas</td>
<td>CalRecycle</td>
<td>Approvals are required from USFS and LADPW to use their land for these purposes. Copies of permit documents are included in Appendix P.</td>
</tr>
</tbody>
</table>
**Water Source**

The Water District will provide CalRecycle the use of one fire hydrant to access water for the project. The water hydrant will be equipped with a meter to monitor usage. The location of the hydrant is circled in red in Figure 8 below.

![Figure 8: Location of Water Source](image)

**5.5 Site Assessment**

Each property will be assessed and information documented prior to debris removal as described below.

**Property Survey**

Property surveys will include: property-specific lot line surveys, measurement of property-specific foundation and other hardscape footprints, measurement of property-specific ash footprints, identifying property-specific hazards, and identifying and evaluating hazardous trees. Lot-line surveying will be conducted to identify the limits of each property under the program.

For each lot, the dimensions of the remaining hardscape features (building foundations, drive ways, retaining walls, patios, swimming pools, etc.) will be measured using a survey wheel, and
the information will be recorded on a property-specific field data form. Similarly, the perimeter of each property’s debris footprint will be measured with a survey wheel and documented on a field data form. Oversized debris (i.e., burned cars, large appliances, water heaters, etc.), potentially hazardous materials (i.e., propane tanks, chemical containers, ammunition cases, etc.), and potentially hazardous conditions (unstable walls, exposed electrical lines, wells, cisterns, etc.) will be noted and mapped. A minimum of two photographs will be taken of each property. A dry-erase board will be marked with the property address and the date and then placed in front of the property to be photographed to document the initial, pre-removal site condition. Additional photographs will be taken for properties where two photographs cannot adequately document the extent of fire damage to a property.

Trees will be evaluated on each site by a certified arborist to determine if the tree is a danger to public health and safety. The arborist will mark each tree deemed a hazard with an “X” using marking paint or ribbon. Trees that the arborist thinks may survive will be marked with an “O” for the homeowner to decide whether to keep or remove. Trees not deemed a hazard will not be marked.

Radiological Monitoring

While unlikely to be an issue, a radiological survey will be performed around the impacted structures using Ludlum 2241 or equivalent. The action level for this project is set at two times background. Should a level of 2x background be detected, the surveyor will isolate the area and notify the Operations Lead and/or Incident Commander. The elevated reading(s) will be traced until the source can be determined to be due natural sources such as brick or geological formations. Should the reading not be from natural sources the Operations Lead will determine the location and rate and develop an action plan to secure the source as long as the reading does exceed 1mR/hr at one foot.

Asbestos Survey

The Department of Toxic Substances Control (DTSC) conducted a preliminary hazardous waste assessment for asbestos containing material (ACM) for 39 homes in the impacted area on February 24 through 26, 2015. Results of their survey is provided in Appendix F.

Mono County requested an asbestos consultation from the Great Basin Unified Air Pollution Control District (GBUAPCD) since Mono County resides in one of the 16 out of 35 air districts that has delegated authority regarding whether or not the structural ash and debris from a wild land fire or other large-scale disaster should be treated as ACM under the National Emissions Standards for Hazardous Air Pollutants (NESHAP). Per their discussion, GBUAPCD is not mandating this requirement and cited the NESHAP exemption for single family homes or if the structure has been totally destroyed by a natural disaster. To be protective of public health and the surrounding community, the Operations Team has elected to perform a site assessment and evaluate each site for structural ACM before removal.

A visual assessment of each home in the program will be performed using a modified Asbestos Hazard Emergency Response Act (AHERA) sampling approach on each lot for suspect ACM. Sampling of potential ACM will be conducted by a Certified Asbestos Consultant (CAC) or Certified Site Surveillance Technician (CSSTs) working under the direction of a CAC. The CAC or CSST will collect bulk samples for asbestos in representative lots and have them analyzed by Polarized Light Microscopy or Transmission Light Microscopy by the National Institute for
Occupational Safety and Health (NIOSH) Method EPA/600/R-93/116. Full NESHAP asbestos surveys may be performed on partially burned structures as directed by the Operations Lead.

5.6 Waste Removal

Notifications

The following notices will be made prior to start of the project, at a minimum:

- Underground Services Alert (USA) will be notified at least 48 hours prior to any excavation.
- GBUAPCD Asbestos NESHAP Program will be notified of any demolition of a partially destroyed structure within one working day. Notification form is provided as Appendix G.
- The local fire department (Wheeler Crest) will be notified prior to commencement of work.
- Local utility providers (i.e. water, sewer, power) will be notified prior to removal of any damaged structure to ensure the utilities are secure and off.
- Conduct underground utility survey by a private contractor on private property if necessary.

Hazard Marking

After wildfires structural debris can blend in with potentially hazardous substances. In an attempt to visually communicate the hazards in the field the guide shown below will be used to indicate if a hazard is or is not visual present. Each Division Supervisor will determine if any member has color perception issues.

<table>
<thead>
<tr>
<th>Debris or Potential Hazard</th>
<th>Spray Paint Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHW, Battery, Tank, Cylinder</td>
<td>Bright Orange</td>
</tr>
<tr>
<td>Possible ACM</td>
<td>Bright Pink</td>
</tr>
<tr>
<td>Material Safe for Normal Disposal</td>
<td>Bright Green</td>
</tr>
</tbody>
</table>

Asbestos Containing Material Removal

At a minimum, the debris removal team will implement the following best management practices for removing ACM:

- The CAC or CSST will consult with a licensed asbestos removal contractor to identify the location and area of ACM to be removed.
- A registered Asbestos Removal Contractor will oversee and remove the ACM identified on-site by the CAC.
• All on-site personnel working to remove ACM must have received the necessary health and safety training for conducting asbestos removal activities pursuant to Occupational Health and Safety Administration (OSHA) 1910.100, and CCR Title 8, Section 5192, and will be required to wear Level C personal protective equipment (PPE) when working in the exclusion zone.

• All gross ACM that can be safely and easily removed from the site will be adequately wetted prior to being bagged to meet the NESHAP leak-tight requirement for removal. (At a minimum the plastic bags must be of at least 6-mil thickness, and the contents must remain wet.)

• If bulk loading of ACM is utilized, the bin or container used for transport (e.g. end-dump trailer or roll-off box) shall be double-lined with 10-mil ply in such a way that once loaded both layers can be sealed up independently.

• All ACM must be sufficiently wetted 48 to 72 hours in advance of initiating removal of the material. The water shall be applied in a manner so not to generate significant runoff. Engineering controls for storm water discharges must be in place prior to dust control operations.

• ACM removed from the property must be manifested and transported for disposal by the asbestos removal contractor. An EPA ID number of CA150219026 has been assigned to this waste.

Household Hazardous Waste Identification and Removal

DTSC completed a survey of the homes and removed visible hazardous waste. However, it is possible that additional household hazardous waste still exists under the debris. If the removal team identifies hazardous waste or discovers a questionable item, it will be marked as hazardous with bright orange spray paint to be checked by a qualified individual. If the qualified individual does not deem it a hazard (e.g., propane tank without a valve), then the item will be marked with bright green spray paint with the words “O.K.” or two stripes to be removed as debris or recycled. If the item is deemed hazardous, the waste will be segregated by the removal team to a temporary on-site storage. As necessary the County will collect and transport the hazardous waste to an appropriate facility at no charge.

Appliance and Vehicle Recycling

Materials that must be removed from appliances and vehicles prior to crushing, baling or shredding for recycling include, but are not limited to:

• Chlorofluorocarbons, hydrofluorocarbons, and hydrochlorofluorocarbons used as refrigerants.
• Polychlorinated biphenyls known to be contained within motor capacitors and fluorescent light ballasts.
• Used oils as defined in Article 13 of Chapter 6.5 of the Health and Safety Code (includes lubricating fluids, compressor oils, and transmission oils).
• Sodium azide canisters in unspent automobile air bags.
• Antifreeze in coolant systems.
Mercury that may be found in thermometers, thermostats, barometers, electrical switches, and batteries.

Records detailing the removal and disposal operations involving all such materials will be recorded and manifested.

Vehicles and appliances that were completely consumed by the fire will probably not contain any of the above items. The vehicles and appliances will be treated as metal debris and removed accordingly.

**Storm Water Protection**

Best management practices will be employed to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Potential sources of sediment from cleanup activities include vehicle tracking, exposed soil and slopes, export operations, landscaping operations, and ash-filled topsoil stripping and stockpiling. Authorized non-storm water discharges anticipated for the project include water used to control dust, potable water, and uncontaminated excavation dewatering. Best management practice guidelines include, but are not limited to, the following:

- **Waters to Control Dust:** Dust control will be implemented when there is visible dust generated from the site using fire-grade nozzles, small diameter (3/4" to 1") fire or garden hose, or with a water truck depending on the area being serviced. Water to be used for dust suppression shall be non-chlorinated. All efforts will be made not to over apply the water spray to avoid any surface run off. In the event there is surface run off it will be controlled with the use of perimeter silt fence. Any discharges from the property will be observed and operations ceased if levels of sediment in the discharge pose a negative impact on the drainage system or receiving waters.

- **Good Site Management Housekeeping:** Good site management measures include cover or berming loose consolidated materials that are not actively being removed; storing any chemicals in watertight containers; control of off-site tracking of loose soils; preventing disposal of rinse or wash waters into the storm drain system; ensuine the containment of sanitation facilities; and cleaning or replacing sanitation facilities by inspecting them regularly for leaks; inspecting and keeping equipment in good working order to prevent leaks.

- **Vehicle Washing or Decontamination:** Wash vehicles in a manner as to prevent unauthorized non-storm water discharges from reaching storm drain systems.

- **Street Cleaning:** Clean streets to collect tracked out sediment and operate street sweeping vehicles to prevent unauthorized non-storm water discharges from reaching storm drain systems. A street sweeper capable of collecting particulates 10 microns (PM-10) will be used.

- **Sediment Controls:** Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. Best management practices include the use of silt fencing, fiber rolls, and street sweeping to prevent sediment migration. All materials shall be certified weed free in an effort to control the spread of noxious weeds. Sufficient quantities of temporary sediment control
materials will be maintained on site throughout the duration of the project to allow implementation of temporary sediment controls in the event of predicted rain.

- **Run-on and Run-off Controls**: Run-on and run-off will be managed within the immediate vicinity of the home site being worked on.

**Debris and Ash Removal**

Debris removal will be conducted on each site following in the following order:

1. Segregate and remove all metals.
2. Remove ash and commingled debris from the site.
3. Drop chimneys down to ground level and remove chimneys and foundation. The Operations Lead has determined that all chimneys pose a health and safety risk to the debris removal team. All chimneys will be taken down with proper dust control. If feasible, the chimney and concrete foundation or slab will be recycled. The slab or foundation may have to be washed down to ensure the concrete is not contaminated.
4. Remove additional ash and commingled debris as needed.
5. Remove concrete from the site for disposal or recycling if concrete is not contaminated.
6. Remove 2 to 6 inches of residual soil from debris site for disposal or reuse.
7. See Table 5 for a description and destination for each material type.

Additionally,

- All removal equipment should have glass enclosures and weigh less than 80,000 pounds. The goal is to use equipment that minimizes the impact to the local roadway while completing the removal. For example, excavators should be smaller than or equal to a 330 Caterpillar or equivalent and front end loaders should be small than or equal to a 950 Caterpillar or equivalent.

- A water fog will be used during debris handling and waste loading operations utilizing a fire grade firefighting nozzle with shut off valves for dust control. The fire nozzle shall have sufficient water pressure to generate a high mist fog stream. The fire nozzle should have an adjustable flow rate, preferably 20 to 60 gallons per minute, and constructed of hard coated aluminum with brass and stainless steel internal components.

- All burn ash and debris must be sufficiently wetted 48 to 72 hours in advance of initiating removal of the material. The water shall be applied in a manner so not to generate significant runoff.

- All waste material that is not loaded out at the end of each workday should be consolidated, sufficiently wetted, and/or covered to prevent the offsite migration of contaminants.
• All loads shall be covered with a tarp; this includes metal debris. Ash and debris loads with be place in a plastic liner and seal before covering with a tarp. Concrete loads are exempt from a tarp provided the loads are wetted prior to leaving. If concrete loads generate dust, then the loads must be wetted and covered

• Of note, many of the properties sit directly on Bishop Tuff, which is a cemented volcanic ash layer that forms the highly resistant, near-vertical canyon walls to the east of Lower Rock Creek Road. As a result, many of the homes are not underlain by much soil, as such, the ash may be scraped off the Bishop Tuff and hand tools to sweep the minor ash. Excavators should avoid breaking into the Bishop Tuff to reduce soil/ash volume disposed.

Tree Removal

The trees identified by the arborist as a hazard will be fallen, cut into rounds, and consolidated on site for use by the homeowner or taken to a designated area provided by the County. Special requests per the owners’ ROEs will be considered.
Overview of Waste Types and Destination Facilities

Table 5 provides waste types and destination information for this operation.

Table 5. Waste Destination Summary

<table>
<thead>
<tr>
<th>Material</th>
<th>Disposal Contact or Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ash and Debris</td>
<td>Considered designated waste to be disposed of at Lancaster Landfill.</td>
</tr>
<tr>
<td>ACM</td>
<td>Non-friable asbestos can be disposed of at Bishop-Sunland Landfill. Friable asbestos will be disposed of at an appropriate facility by the asbestos removal contractor under EPA ID CA150219026.</td>
</tr>
<tr>
<td>Residual Soil</td>
<td>Considered non-hazardous and may be used as cover soil Benton Crossing Landfill or Bishop-Sunland Landfill (Appendix H) depending on classification of soil.</td>
</tr>
<tr>
<td>Trees</td>
<td>Trees determined by an arborist as a hazard will be cut down, cut into firewood length rounds, and kept on the property for the owner's use or a designated area provided by the County.</td>
</tr>
<tr>
<td>Metal Debris</td>
<td>Metal will be recycled at Brown’s Salvage Yard.</td>
</tr>
<tr>
<td>Metal Discards (Appliances)</td>
<td>Freon Extraction is REQUIRED for refrigerators. DTSC has removed refrigerant. Remaining metal will be recycled at Brown’s Salvage.</td>
</tr>
<tr>
<td>Vehicles and Trailers</td>
<td>Vehicles and/or trailers that did not sustain damage or vehicles and/or trailers that sustained minor damage will be left on the property. These vehicles and/or trailer may be moved by the debris removal team to ensure worker safety and as needed to complete the debris removal.</td>
</tr>
<tr>
<td>Concrete</td>
<td>Concrete will be recycled at Granite Construction Company located at Five Bridges Road in Bishop, California.</td>
</tr>
<tr>
<td>Tires</td>
<td>Tires will be disposed of at Benton Crossing Landfill.</td>
</tr>
<tr>
<td>Household Hazardous Waste (HHW)</td>
<td>Mono County will collect and transport HHW to the County facility at no charge.</td>
</tr>
<tr>
<td>Human Remains</td>
<td>CalRecycle will coordinate with the County to locate any human remains. If human remains are located the work will stop and CalRecycle will contact the County. Due care of the remains will be taken.</td>
</tr>
<tr>
<td>Material</td>
<td>Disposal Contact or Facility</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Dead Animals</td>
<td>If dead animals are discovered, they will be disposed of in accordance with local restrictions with the ash and debris, unless directed by the homeowner.</td>
</tr>
<tr>
<td>UXO (Unexploded Ordinance)</td>
<td>If UXO is discovered, CalRecycle will notify the County to arrange for proper disposal.</td>
</tr>
<tr>
<td>Radioactive Debris</td>
<td>All impacted lots will be screened for radiation before removal. If radioactive debris is encountered, the material will be removed and properly disposed of by the Operations Team.</td>
</tr>
<tr>
<td>Medical Waste</td>
<td>If medical wastes are discovered, they will be properly bagged and transported to the appropriate facility by the Operations Team.</td>
</tr>
</tbody>
</table>
Information on Destination Facilities

**BENTON CROSSING LANDFILL**

Benton Crossing Landfill is approximately 22 miles north from Swall Meadows and is located on Benton Crossing Road ("Green Church Road") approximately 5 miles east of highway (HWY) 395. The site address is 899 Pit Road, Crowley Lake, California. Figure 9 shows the location of the site.

The operations of the site are performed by Mono County staff, including gatehouse operations, household hazardous waste processing, used oil processing, appliance processing and recycling, as well as the burial of Construction and Demolition Waste and Municipal Solid Waste. Permit and waste acceptance information is provided in Appendix H.

Benton Crossing Landfill may accept residual soils from the project. Gate fees will vary depending on soil classification and contents as follows: (1) large aggregate (contains 12-inch plus chunks of rock and/or aggregate) at $33 per ton; medium rocks or aggregate between 6 to 12 inches at $11 per ton (contains less than 10 percent large aggregate); and soil at $5 per load.

The hours of operation from October 1 to April 30 is Monday through Friday 8:00 am - 4:00 pm and Saturday 8:00 am - 12:00 pm. On County holidays, hours are 8:00 am - 12:00 pm.

![Figure 9. Benton Crossing Landfill Location](image-url)
**BISHOP-SUNLAND LANDFILL**

Bishop-Sunland Landfill is located approximately 20 miles from Swall Meadows at the south end of the City of Bishop off Sunland Reservation Road as shown in Figure 10. The address is 110 Sunland Reservation Road, Bishop, California.

This facility is operated by Inyo County Integrated Waste Management. Hours of operation are from 7:30 AM to 3:30 PM, seven days a week. Permit and waste acceptance information is provided in Appendix I.

![Figure 10. Bishop-Sunland Landfill Location](image)

**Figure 10. Bishop-Sunland Landfill Location**
LANCASTER LANDFILL

Lancaster Landfill is located approximately 220 miles south of Swall Meadows at 600 East Ave F in Lancaster, California as shown in Figure 11. This facility is owned and operated by Waste Management of California, Inc. Hours of operation for this project are from 8:30 AM to 5:00 PM, Monday through Saturday.

The Lancaster Landfill is one of the five approved lined landfill facilities that can obtain coverage under Regional Board Order No. R6V-2009-0132 to accept and dispose of solid waste from wildfires. Permit information is provided in Appendix J.

Figure 11. Lancaster Landfill Location
Granite Construction Company is located approximately 25 miles south of Swall Meadows at 5 Bridges Road in Bishop, California, shown on Figure 12. Their Five Bridges Road Facility will accept clean concrete for $10 per ton for this project only. Haul route will be HWY 395 south, left on Brockman Lane, right on Riverside Road, and left on 5 Bridges Road. The road ends at the quarry.

Hours of operation are 6:30 AM to 3:30 PM, Monday through Friday and Saturday from 6:30 AM to 3:00 PM.

Figure 12. Granite Construction Company Five Bridges Road Facility Location
**BROWN’S SALVAGE YARD**

Brown’s Salvage Yard is located approximately 25 miles south of Swall Meadows, California at 2372 Sunland Drive in Bishop, California, shown on Figure 13.

Hours of operation for this project are 8:00 AM to 4:30 PM, Monday through Saturday.

![Figure 13  Brown’s Salvage Yard Location](image)
5.7 Confirmation Sampling

Confirmation sampling will be conducted in accordance with the Confirmation Sampling Plan included in Appendix O. The Confirmation Sampling Plan presents the cleanup goals, sampling equipment, procedures, and analytical methodologies that will be implemented to demonstrate that soils remaining on properties after fire-related debris has been removed do not pose an elevated risk to human health. Confirmation sampling will be conducted after fire-related debris has been removed from a property. After the debris is removed, representative soil samples will be collected and analyzed to measure concentrations of constituents of concern. The measured concentrations will be compared to the project cleanup goals established herein to demonstrate the remaining do not contain elevated concentrations of constituents of concern. If any of the confirmation sampling results exceeds the cleanup goals, then the parcel will be further excavated at the direction of the Operations Lead. The parcel will be sampled again after the excavation is complete.

A certification will be provided for each parcel whose confirmation sampling results are below the cleanup goals. The Regional Board has been provided a copy of the cleanup goals for review and comments.

5.8 Final Erosion Control

Erosion control measures will be implemented to stabilize disturbed soil and reduce sediment transport caused by erosion from entering a storm drain system or receiving water body during debris removal after a disaster. Best management practices for storm water controls may include the use of fiber rolls, silt fences, erosion control blankets, hydroseeding, soil binders, and other devices to reduce sediments. Erosion control shall be installed after each lot has met the site specific cleanup goals. Effort should be made to preserve existing vegetation, if practicable. Once the removal has been completed, storm water control measures must be maintained by the property owner or the local government.

Erosion Control Methods

Each residential parcel will receive one of the following measures:

- **Level 1**: Mulch or Hydroseeding. Mulch shall be between 4 to 6 inches in depth and cover over 90% of the lot impacted by the structural debris. Specifications for hydroseeding are provided in Appendix K.

- **Level 2**: Mulch or Hydroseeding and Fiber Log and/or Silt Fence. Fiber Logs shall be a minimum of 8 to 12” in diameter and shall be staked and keyed in. Silt Fences shall be wire-backed in snow zones and used in areas on slopes greater than 7%.

- **Level 3**: Mulch or Hydroseeding, Fiber Log and/or Silt Fence and Erosion Control Blanket.

- **Level 4**: Site Specific Treatment – consult with local agencies or homeowner specific requests.

Additional erosion control methods may be developed after consultation with local agencies.
Erosion Control Materials and Specifications

Materials used for erosion control shall be placed in accordance with this Operations Plan or as directed by the Operations Lead, County of Mono Public Works Department, Division Supervisors, or other appropriate agency. All materials shall be certified weed free in an effort to control the spread of noxious weeds.

The following materials have been identified for the project:

- Hydroseed;
- Fiber bundles;
- Erosion Control Blankets;
- Silt Fence;
- Class II road base or equivalent; or
- Rock and/or cobble for erosion control.

Quantities and location of the materials will be determined in the field by the Operations Lead.

Hydroseeding – Hydroseeding (or hydraulic mulch seeding, hydro-mulching, hydroseeding) is a planting process that uses a slurry of seed and mulch. The slurry is transported in a tank, either truck or trailer-mounted and sprayed on prepared ground. Material specifications are provided in Appendix K.

Fiber Roll Barriers – Fiber roll barriers (also called sediment logs or straw wattles) are commercially manufactured and usually consist of milled wood or other natural fibers sewn into a circular weave fabric. Fiber rolls are good perimeter protection, designed to slow storm water runoff and trap small amounts of sediment. Fiber rolls shall be 8” to 12” in diameter.

Erosion Control Blanket – Erosion control blanket is a manufactured blanket or mat that is designed to hold soil and seed in place on slopes. It consists of organic, biodegradable materials such as wood fiber, coconut fiber, or a combination of these materials. It is commercially manufactured and delivered to the site in rolls.

Erosion control blankets shall be 100% organic biodegradable (including parent material, stitching, and netting). The minimum thickness shall be 3/8” (9mm). The netting shall be stitched to prevent separation of the net from the parent material. The netting shall be capable of withstanding moderate foot traffic without tearing or puncturing. Neither the netting, nor the installation, shall pose a safety risk to people walking on/crossing over it. Neither shall the blanket or netting pose a hazard to wildlife such as birds, reptiles and amphibians.

Appropriate products include, but may not be limited to:
- Curlex I Fibernet (American Excelsior)
- Curlex II Fibernet (American Excelsior)
- AEC Premier Straw Fibernet (American Excelsior)
- S 75 BD (North American Green)
- S 150 BN (North American Green)
- SC 150 BN (North American Green)
- C125 BN (North American Green)
- Excel S-2 All Natural (Western Excelsior)
- Excel SS-2 All Natural (Western Excelsior)
Silt Fence – Silt fence consists of a permeable filter fabric that is keyed into the ground and staked beyond the toe of a slope. The fabric pools runoff, causing entrained sediment to settle out behind the fence while water slowly filters through the fabric.

Anchors – Anchors are devices that secure erosion control materials such as fiber roll barriers, erosion control blankets, and silt fence in place.

For erosion control blankets, anchors shall be completely biodegradable, environmentally safe, and shall have no potential for soil and/or water contamination. Steel wire pins or staples will not be approved. Petroleum based plastics or composites containing petroleum based plastics will not be approved. Materials deemed to present a hazard from splintering or spearing will not be approved. Wood stakes or stakes manufactured from wood byproducts may be approved.

Appropriate products include, but may not be limited to:

- E-Staple (American Excelsior)
- CF Bio Staple (CFM Corp)
- Green Stake (Green Stake)
- Bio-Stake (North American Green)
- Enviro-Stake (ODC Inc)

For silt fence, anchor posts shall be at least 36” long. Steel posts should weigh no less than one pound per linear foot.

For fiber roll barriers, stakes shall be wooden and at least 18” long.

Netting – Netting is a manufactured product intended to secure wood chips or pine needle mulch to the soil surface. Netting shall be 100% organic biodegradable and may consist of paper, jute, or cotton netting. Netting material shall be approved by Operations Lead staff prior to installation.

Gravel Bags – Gravel bags are intended to slow storm water flows and trap sediment on paved surfaces. Gravel bags shall be filled with ¾” to 1½” washed rock. Bags filled with sand will not be approved.

Installation Standards

Erosion control measures include proper material handling, area preparation, proper application of the erosion control materials and structures, and maintenance for the areas.

Area Management – Construction/demolition materials shall be stored to the maximum extent possible on paved surfaces. When this is not possible, construction/demolition materials shall be stored on areas where a future structure or other hard impervious surface will be constructed, such as a future building foundation or driveway.

Construction/demolition vehicles shall remain on paved surfaces to the maximum extent possible. When this is not possible, construction/demolition vehicles shall be used in areas
where rebuild of impervious surfaces will occur, such as building foundation or driveway locations.

**Silt Fence** – Install silt fences as directed by the Operations Lead. Six inches of the fence shall be buried in a trench along the base of the fence. The posts shall be spaced a maximum of 10 feet apart and driven 18” into the soil or to refusal. Sediment shall be removed from the up-slope side of the fence when it reaches 1/3 the height of the fence. Refer to Figure 14 for a standard detail “Silt Fence” below.

![Diagram of Silt Fence Detail](image)

**Figure 14. Silt Fence Detail Drawing**

**Erosion Control Blanket** – Erosion control blankets will be installed as directed by the Operations Lead. Starting at the top of the slope, anchor the blanket in a 6-inch trench, backfill, and securely tamp the backfilled soil. Unroll blanket downslope overlapping parallel and subsequent blankets a minimum of 4 inches. Secure blankets with anchors along the overlaps and place a minimum of 3 anchors per square yard.

**Fiber Roll Barriers** – Install 8 or 12-inch fiber roll barriers as directed by Operations Lead. Place the fiber roll barrier in a 2 to 4-inch trench perpendicular to the flow path of storm water. Drive stakes in perpendicular to the ground. If required on steep slopes drive stakes on either side of the roll and bind together with bailing wire. Weighted rolls may be used as appropriate, especially on driveways. Refer to detail “Fiber Roll” below. Typical installation spacing for the fiber rolls will be as follows:

- 10 feet apart for slopes steeper than 2:1 (horizontal:vertical)
- 15 feet apart for slopes from 2:1 to 4:1 (horizontal:vertical)
- 20 feet apart for slopes from 4:1 to 10:1 (horizontal:vertical)
- 50 feet apart for slopes flatter than 10:1 (horizontal:vertical)
Gravel Bags – Gravel bags or weighted fiber rolls shall be placed on the downslope edge of impervious surfaces, such as driveways. Place gravel bags in double row in a “U” shape.

**Figure 15. Fiber Roll Detail Drawings for Steep Slopes**
5.9 Site Approval

Following placement of erosion control, CalRecycle and the County of Mono will approve each site as complete and ready for a building permit to be issued.

5.10 Final Reports

CalRecycle will provide a report for each property to the County of Mono that includes a copy of the initial property debris perimeter and foundation surveys, pre-removal site photographs, final site condition photographs, certified laboratory data for the confirmation samples, and tabulated laboratory data comparing the confirmation sample results to the established cleanup goals. The report will describe the work conducted, the results of site surveys and confirmation sample results, and provide an opinion regarding the adequacy of the debris removal and cleanup work. Reports will be certified by a State of California Certified Engineering Geologist.
6 HEALTH AND SAFETY

The Operations Team including consultants and contractors will, at all times, operate equipment and perform labor in a safe manner to ensure the safety of its employees and the public. The team will pay particular attention to operations around local roads and take the necessary precautions. Prior to start of debris removal, the contractors should note the number of power lines crossing the site, dead trees, chimneys, and all underground utilities.

Appropriate eating areas will be designated and hand and eye washing and mobile sanitary facilities will be provided for each project site.

CalRecycle’s health and safety plan is included in Appendix L.

6.1 Industrial and Community Air Monitoring

The air in the community and work sites will be monitored for asbestos, heavy metals, and dust by a certified industrial hygienist (CIH) for the duration of the project until such time the CIH determines that air monitoring may cease. The Air Monitoring Plan is included in Appendix M.

6.2 Community Health and Safety

A Community Health and Safety Plan has been prepared by the County of Mono. All site activities will be conducted consistent with this community plan and with consideration to the surrounding community and all citizens affected by the Round Fire Incident. The County of Mono will provide additional support and communication to the affected community. A copy of the Community Health and Safety Plan is included in Appendix N.

6.3 Traffic Control

Traffic controls and warnings standard to the construction industry and as required by the State of California motor vehicle code will be implemented on an as needed basis. Vehicles utilized for debris removal will be of legal weight according to the CalTrans State Standard Specifications (2002 Edition), Section 7-1.08 “Public Conveyance”, Section 7-1.09 “Public Safety”, Section 12 ”Construction Area Traffic Control Devices”.

Traffic signs will be placed at both entrances to the community off of HWY 395 at Lower Rock Creek Road alerting oncoming traffic of construction vehicle access points. Traffic control will be updated as needed to adjust for changing conditions on site and in the community. Updated traffic plans will be reviewed by the appropriate County representatives and communicated to all project personnel through the Daily Incident Action Plan.

All construction equipment working within the residential zones shall maintain a speed of 15 mph or less.

CalRecycle will also establish additional traffic controls as needed to control site vehicle traffic during specific site activities such as equipment movement, press events or visits by dignitaries.