



**Cal OES**  
GOVERNOR'S OFFICE  
OF EMERGENCY SERVICES



**DEBRIS REMOVAL OPERATIONS PLAN  
WITH PROJECT SPECIFICATIONS**

for the

**TRINITY COUNTY FIRE COMPLEX  
TRINITY, CALIFORNIA**

**VERSION 2.0**

September 24, 2015

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## SUMMARY

During a local or state declaration of a State of Emergency, rapid response action is necessary to protect response personnel and the public from potential exposure to uncontrolled hazardous materials and substances. Previous disasters have demonstrated exposures to response personnel, and have shown that residents returning to their communities have encountered hazardous materials contained within the dust and debris. Without the proper identification, handling, and removal of hazardous materials and debris (including asbestos), the public will continue to be at the risk of exposure. Conducting coordinated emergency removal actions will reduce threats posed by the uncontrolled hazardous substances that may be encountered from a natural or man-made disaster.

CalRecycle staff has prepared this **Debris Removal Operations Plan with Project Specifications (Operations Plan)** for County of Trinity in response to Executive Order B-33-15 issued by the Office of the Governor of California on August 27, 2015. The purpose of this Operations Plan is to identify the approach for removing debris, waste, and hazardous materials required under a local or state Proclamation of a State of Emergency. The Operations Plan is based on California Environmental Protection Agency's "*Guidance for Conducting Emergency Debris, Waste and Hazardous Material Removal Actions Pursuant to a State or Local Emergency Proclamation*" dated October 7, 2011, and identifies best management practices for undertaking the removal of debris and hazardous materials (including asbestos) from residential and commercial structures after the Trinity County Fire Complex. These best management practices and standardized methods will provide a consistent approach for conducting emergency removal and cleanup actions to protect response personnel, the surrounding community, public health, and the environment. This document does not discuss debris from industrial sites.

The Operations Plan will be implemented by all CalRecycle contractors under its span of control and direction. This plan is considered a "working document" that will be revised throughout the project progression and will be updated to include other supporting documents such as a site-specific health and safety plan, community health and safety plan, confirmation sampling plan and/or additional monitoring and sampling plans as appropriate and available.

This version includes updates to the project participants and responsibilities table, information regarding the Governor's Executive Order, confirmation sampling procedures, and cleanup goals. All information provided in this plan is based on knowledge of field conditions at the time of the revision and personal experience and knowledge of previous coordinated debris removal projects, environmental removal projects, structure fires, and waste management practices in the United States and abroad.

At the request of a homeowner or contractor, a separate but similar project specification can be prepared if a homeowner chooses to clean up their properties independently and not participate in the state organized and sponsored cleanup.

The findings, information, and professional opinions are presented in accordance with generally accepted professional engineering methods and waste management strategies and are limited to the Trinity Complex Incident area. 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](mailto:todd.thalhamer@calrecycle.ca.gov).

Mr. Thalhamer is a registered Professional Engineer in the State of California and his license number is C055197. His prior fire disaster experience includes daily observations and inspections, direct management of emergency resources and personnel, evaluation of suppression tactics, assessment of environmental impacts, design of environmental remediation efforts, and evaluation of potential impacts from waste fires.

Mr. Thalhamer has prepared this report and his seal as a Registered Civil Engineer in the State of California is affixed below. This Operations Plan is only valid for the Trinity Complex Fire Incident and the use of this plan for any other site is neither valid nor warranted.



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- Appendix A. Office of the Governor, Executive Order B-33-15
- Appendix B. Right-Of-Entry Permit for Debris Removal on Private Property
- Appendix C. Trinity Complex Incident Structural Debris Removal Forms
- Appendix D. Hydroseeding Specifications
- Appendix E. Acronyms and Abbreviations

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# 1 INTRODUCTION

The potential for widespread toxic exposures and threats to public health and the environment exists in the aftermath of major disasters. The health effects of hazardous substances releases following earthquakes, floods, and wildfires are well-documented. Exposure to hazardous substances may lead to acute and chronic health effects, and may potentially cause long-term public health and environmental impacts. Uncontrolled hazardous materials and debris pose significant threats to public health through inhalation of dust particles and contamination of drinking water supplies. It is critical to address hazardous substance and remove debris as quickly as possible to abate these impacts. State and local governments may need to enter private property to clear ash and debris or demolish and remove private structures deemed unsafe to eliminate immediate threats to life, public health, and safety.

On August 27, 2015, the Governor of California, Edmund G. Brown Jr., issued Executive Order B-33-15, which declared a state of emergency in Trinity County as a result of a wildfire (Appendix A). The Executive Order stated that all State agencies with responsibility, regulatory authority or expertise related to recovery efforts in connection with the Trinity Complex Fire shall cooperate fully and act expeditiously in coordination with the California Environmental Protection Agency (CalEPA), to facilitate the removal of ash and debris from fire and assist in the environmental restoration of the County of Trinity.

The Executive Order suspended statutes, rules, regulations and requirements 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 wildfires that have burned and continue to burn in Trinity County and that are subject to the jurisdiction of agencies within the CalEPA and the California Natural Resources Agency; and (b) necessary restoration and rehabilitation of timberland, streams, rivers, and other waterways. Both Secretaries shall use sound discretion in applying the Executive Order to ensure that the suspension serves the purpose of accelerating cleanup and recovery, while at the same time protecting public health and the environment.

The Executive Order allowed state agencies to enter into contracts to arrange for the procurement of materials, goods, and services necessary to quickly remove dangerous debris, repair damaged resources, and restore and protect the impacted watershed. Because strict compliance with the provisions of the Government Code and the Public Contract Code applicable to state contracts would prevent, hinder, or delay these efforts, applicable provisions of those statutes, including but not limited to travel, advertising and competitive bidding requirements, were suspended to the extent necessary to address the effects of the fires.

Lastly, the Executive Order stated that State agencies shall work with local officials to design and implement a comprehensive structural debris removal plan that will treat the removal of structural debris as a single organized project.

The Department of Resources Recycling and Recovery (CalRecycle) was tasked to design and implement the structural debris removal plan for the Trinity Complex Fire Incidents in Trinity County, California which is represented by this Operations Plan. Information related to this project was obtained from the Office of the Governor Emergency Services (OES), the County of Trinity, and CalRecycle Incident Management Team. The Operations Plan will be reviewed by federal, state and local agencies and comments will be incorporated when appropriate. This document is "working document" and will be updated as comments are received and consultations are conducted with federal, state, county, and city agencies.

CalRecycle will utilize its staff along with other state agencies, County employees, contract staff, fire service personnel, and private contractors to implement and oversee the project. CalRecycle will work with environmental contractors and consultants under emergency contracts to begin the removal debris process on private property after Right-of-Entry Permits for debris removal have signed by the individual property owners.

CalRecycle has authorized three remediation contractors (CONTRACTORS) to perform the structural debris removal for the County of Trinity. Under the governor's declared emergency from the 2015 fire siege, CalRecycle has selected Pacific States Environmental, Inc., Sukut Construction Inc., and A. J. Diani Construction Co., Inc. All contractors are licensed general California Contractors (License # 723241, # 554278, and #178450) with the following classifications, A-General Engineering, C21-Building Moving, Demolition, HAZ-Hazardous Substances Removal, ASB-Asbestos (bid only-Pacific States Environmental).

## 1.1 Purpose

The purpose of this Operations Plan is to provide the approach for managing the removal of debris, waste and hazardous material as a result of the Trinity Complex Fire Incidents in Trinity County. This plan was based on

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CalEPA's "Guidance for Conducting Emergency Debris, Waste and Hazardous Material Removal Actions Pursuant to a State or Local Emergency Proclamation" dated October 7, 2011, and identifies best management practices (BMP) for undertaking the removal of debris and hazardous materials (including asbestos) from residential and commercial structures after the Trinity Complex Fire Incidents. These BMPs and standardized methods will provide a consistent approach to conducting removal and cleanup actions to protect response personnel, the surrounding community, public health, and the environment. This document does not discuss the removal of debris from industrial sites.

## **1.2 Objective**

The objective of this Operations Plan is to meet the above requirements and detail the processes and procedures for the debris removal operations. This plan will be provided to the CONTRACTORS as guidance for the state-sponsored debris removal to mitigate known hazards and conditions to limit the impacts to the public, the surrounding environment, and the County of Trinity.

## **2 PROJECT OVERVIEW**

### **2.1 Site Description**

Trinity County is nestled in northern of California, east of Humboldt County and home to Trinity Mountains. The areas where structures were lost were from 3 fire complexes: the Fork Complex (Post Mountain), the Mad River Complex, and the South Complex as shown in Figure 1 and 2. Approximately 60 homes and structures were destroyed by the wildfire as shown in Figures 3, 3a, and 3b. A list of the impacted addresses will be provided in Appendix F (TBA).

### **2.2 Ownership**

Trinity 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 B. Contractors will not perform work until provided with a copy of the executed ROE. The list of addresses that have signed the ROE will be included Appendix B (TBA).

### **2.3 Vicinity and Site Maps**

Figure 1. General Site Location Map



Figure 2. Trinity County Complex Incident Location Map

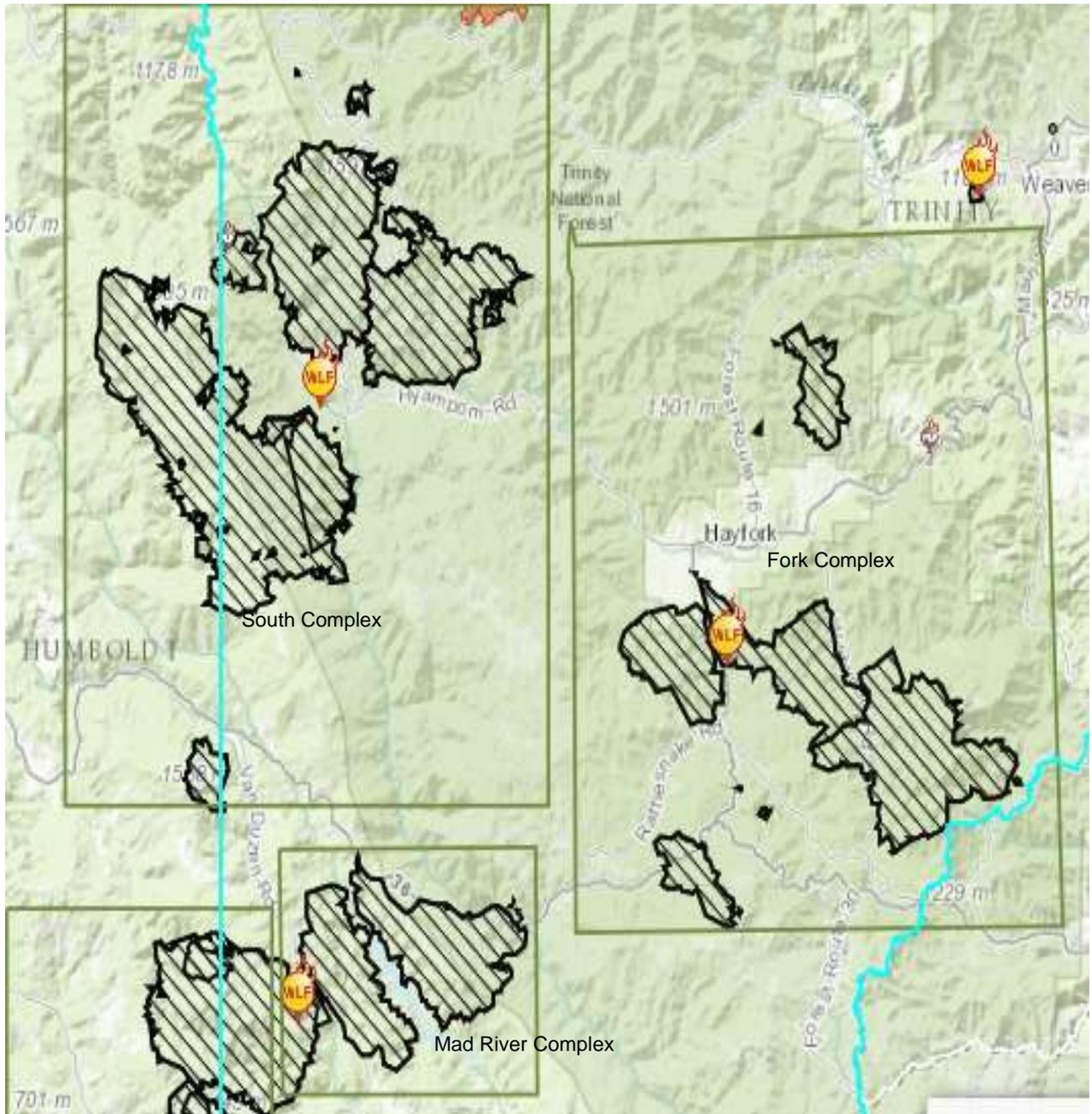


Figure 3. Structure Damage Map, Fork Complex (Post Mountain Area)

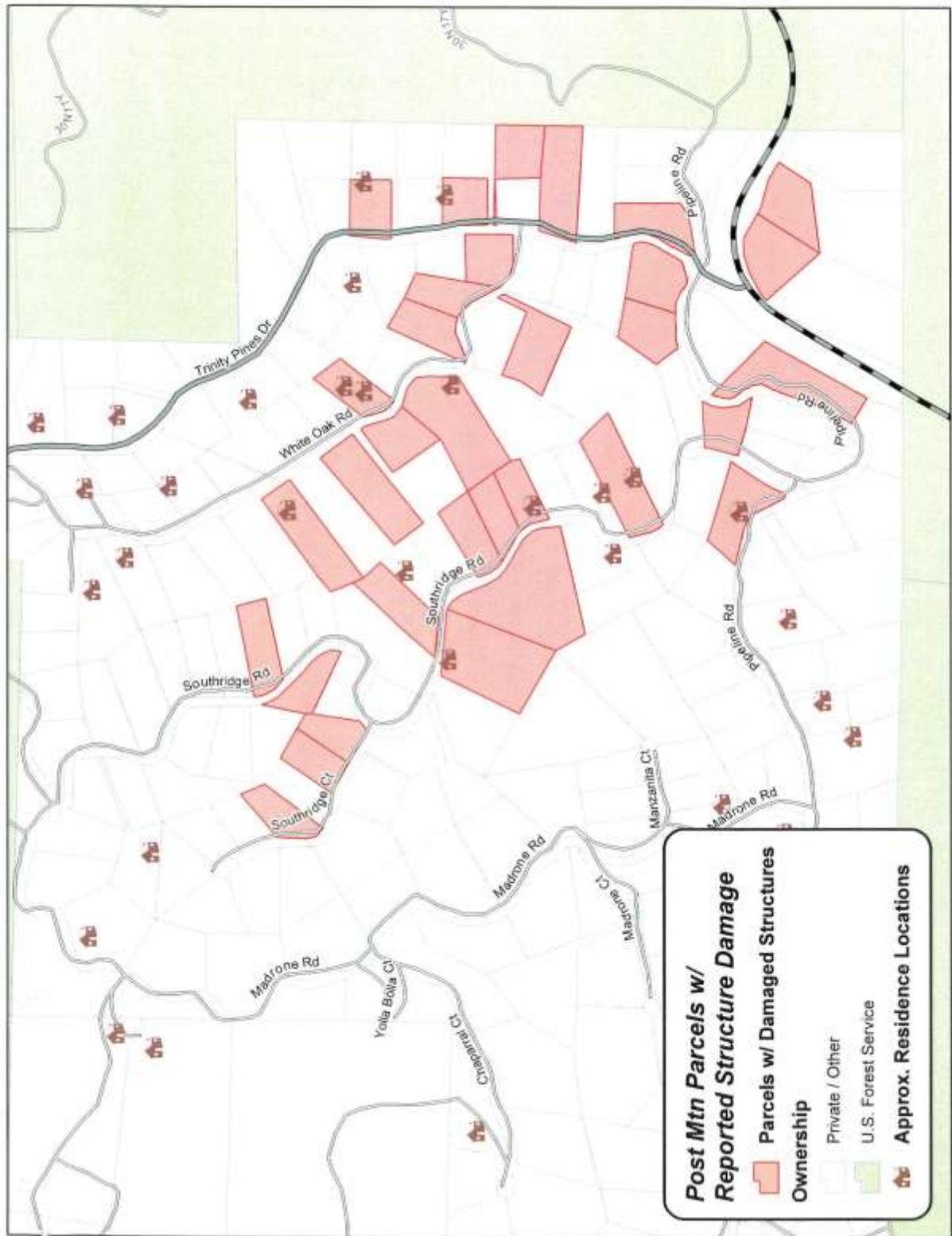


Figure 3a. Structure Damage Map, Mad River Complex



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## 2.4 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 8,500 tons of waste and debris will be generated from the 40 parcels and 1,000 tons from the other debris sites. This value assumes the 40 parcels destroyed are similar size and composition as those from the Angora Fire in Lake Tahoe and Boles Fire in Weed (approximately 250 tons per residential structure/parcel or 60 ton per parcel w/o a residential structure). This value assumes that 150 structures were destroyed of similar size and composition as those from the Angora Fire in Lake Tahoe shown in Table 2.

Table1. Estimated Amount of Debris per Home Site<sup>1</sup>

MATERIAL	Average Tonnage
Soil and Debris	60 to 120
Ash and Debris	20 to 60
Concrete Debris (Recycle)	20 to 40
Brick	0 to 5
Metal Debris (Recycle)	5 to 10
Other (Trees, drainage, etc.)	0 to 50

<sup>1</sup> Estimated based on tonnages removed from Tahoe 2007

## 2.5 Estimated Removal Costs

Should all 40+ parcels require CalOES/CalRecycle debris removal services, the project is estimated to cost from \$2.4 million to \$4.5 million dollars. Removal costs may range from \$40,000 for the smaller debris sites to as much as \$47,000 for large homes with substantial concrete features, retaining walls, foundations, and other structures such as barns and shops. This estimate assumes an average of \$25,000 to \$60,000 for structural debris removal, \$2,500 to \$5,000 for asbestos sampling and abatement, \$3,000 to \$6,000 for erosion control, \$4,000 for environmental sampling and report, and \$3,000 for incident management. These costs are based on previous debris incidents. An additional \$200,000 may be necessary to remove hazard trees from public right-a-way, roadway easements and/or private lots. Actual costs may vary dramatically depending on site access, environmental and road conditions, availability of water, law enforcement concerns, and distance to an acceptable disposal facility.

Project costs that can be directly attributed to each parcel will be tracked and divided on a per property basis. Other costs that cannot be directly attributed to a property but is necessary such as dust control (watering), street sweeping, and project management will be shared by each property. Any costs for community health and safety or monitoring, activities associated with removal of structures, trees, debris or other features from public property will be estimated and approved by the Incident Commander and Operations Chief. The cost for public works and services will not be charged to 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.

Trinity County and CalOES will enter into a unified command and oversee the debris removal. CalRecycle will dedicate their Incident Management Team to the incident and provide contacts to its environmental contractors under state procurement. CalRecycle resources and management will include an Operations Chief, Planning Chief, and supporting Division Supervisors. The Operations Chief 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 2. ICS Organizational Structure

Team Titles	Name	Responsibilities
Unified Command Incident Commanders	Trinity County - TBA CalOES – TBA	Overall management, compliance, and County approval.
Operations Chief	Andy Marino	Directs operations including establishing priorities, objectives, and worker health and safety.
Planning Chief	Tabetha Willmon	Collects, evaluates, and disseminates the tactical information and prepares incident action plans.
Financial Chief	Contractor	Manages all financial, administrative, and cost analysis.
Logistics Chief	Contractor	Provides facilities, services, and materials for the response.

Table 3. Regulatory Agency Contacts

Agency	Name	Responsibilities
CalEPA - Department of Toxic and Substances Control	Adam Palmer	On-site review, clean up goal and confirmation sample review and support of issues related to hazardous substances.
CalEPA Office of the Secretary	James Bohon	Agency representative responsible for coordinating the overall emergency response at the agency level.
Governor's Office of Emergency Services	TBA	Agency representative, technical support for debris removal, oversight of field activities, and agency communication.
Regional Water Quality Control Board, Region 5, Central Valley - Redding	TBA	Agency representative for providing document review and permit support with regards to water quality.
Trinity County Air Management District	TBA	Agency representative for providing document review and permit support with regards to air quality.
Trinity County Environmental Health	Kristy Anderson	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.

Table 4. Contractor and Subcontractor Team

Company	Name	Responsibilities
Construction		
<b>Prime:</b> A. J. Diani Construction Co., Inc	Greg Frick	Manage the removal of debris and final erosion control.
Sub: Site Documentation /Confirmation Sampling	Arcadis	Manage site documentation, initial soil sampling, confirmation sampling, and provide final reports.
Sub: Trucking	Le Vey Transportation Pacific Petroleum, Inc.	Trucking wastes and recyclables.
Sub: Disposal	Anderson Landfill	Disposal of soil, ash, and other debris.
Sub: Metal Recycling	Northstate Recycling	Metal recycling and vehicle towing.
Sub: Concrete Recycling	Anderson Landfill	Concrete recycling.

Sub: Environmental Services	NES	Manage asbestos surveying, removal, and air monitoring.
Sub: Asbestos Remediation	TBD	Removal of asbestos wastes.
Sub: Water Truck	Le Vey Transportation	Provide water to each site and keep exposed ash wet prior to mobilizing to each site.
Sub: Street Sweeping	TBD	Sweep community streets utilized by operations.
Sub: Arborist	TBD	Hazard tree identification and documentation.
Sub: Debris Removal	TBD	Assist in the removal of debris, and hazard tree removal.
Sub: Hazard Tree Removal	TBD	Hazard tree removal.
Sub: Hydroseeding	TBD	Final hydroseeding as erosion control.

### 3.1 Known Hazards

The type of number of known hazards will depend on each sites' specific conditions such as how much of the structure is remaining, the age of the structure, the building materials used, and status of trees. If only ash and debris are present, the home site is expected to contain elevated levels of heavy metals and possibly asbestos.

The Department of Toxic Substances Control (DTSC) conducted a preliminary hazardous waste assessment for asbestos containing materials (ACM) in the impacted area on September 21, 2015 to September 26, 2015. DTSC has found possible ACM in the impacted area. As such, **all responders should be aware that ACM is present and that asbestos is a human carcinogen with no known risk-free levels of exposure.**

Fall hazards are also present on sites with chimneys, partially remaining structures, and burned trees. Physical hazards (i.e., slips, trips, and falls) are also present from exposed foundations, glass, metals and debris. Additional hazards may be present if hazardous material or medical wastes are discovered during the removal. Utilities, such as electrical, gas, cable, telephone, and sewer, are also present and must be identified during debris removal. The weather may also pose potential hazards from fog, rain and high winds.

### 3.2 Asbestos Hazards

Recent residential debris cleanup activities by CalRecycle and DTSC have identified inconsistent interpretation of the policies and regulations for conducting emergency debris removal actions throughout state. The main issue is whether or not the structural ash and debris from a wildland fire or other large-scale disaster should be treated as asbestos containing material under the National Emissions Standards for Hazardous Air Pollutants (NESHAP) due to the assumption that the ash and debris may contain asbestos. DTSC currently classifies asbestos-containing material as hazardous waste if the waste contains more than one percent (>1%) friable asbestos. Some California Air Quality Management Districts (AQMD) have determined all the ash and commingled debris from a structural fire event should be managed as a California hazardous asbestos containing waste in accordance with the federal asbestos NESHAP and local air quality regulations. However, other air districts have not mandated this requirement and have cited the NESHAP exemption for single family homes or if the structure has been totally destroyed by a natural disaster. The varying requirements have resulted in inconsistent cleanup and waste disposal practices for local governments and homeowners throughout the state during disasters.

However, one of the lessons learned from the past incidents includes requesting an asbestos consultation from the local AQMD to assist with the varying interpretations of the ACM regulations and requirements. **Since Trinity County is not one of the 19 (out of 35) air districts (See Figure 5) that is considered a "non-delegated" air district, CalEPA and CalRecycle requested a consultation on how to handle the asbestos contain waste in the fire disaster zone from the California Air Resources Board.**

Figure 4. Non-Delegated Air Districts under the California Air Resources Board



On September 24, 2014, CalEPA and CalRecycle received guidance and comments on the handling of asbestos contain materials based from the Boles Fire. These comments are based a review of the California Environmental Protection Agency’s “Guidance for Conducting Emergency Debris, Waste and Hazardous Material Removal Actions Pursuant to a State or Local Emergency Proclamation” dated October 7, 2011.

Per the CalEPA guidance document and CARB comments\* the asbestos assessment and abatement can divided into two classifications. *Note: This information only applies to the Asbestos NESHAP requirements for this incident in the Non-Delegated Districts. Other regulations, including those affecting disposal sites, health and safety requirements, and Cal-OSHA still apply.*

1. **Totally Destroyed Structures:** If the burn ash or building material on the ground is from structures completely destroyed by natural forces (as opposed to structures demolished in whole or in part by human activity), this material is not subject to the Asbestos NESHAP as it relates to the demolition and renovation, transport and disposal requirements. For such destroyed structures, you may immediately begin removal and proper disposal of the resulting debris. Other regulations, including those affecting disposal sites, health and safety requirements, and Cal-OSHA still apply.
2. **Partially Destroyed Structures:** The demolition and disposal of "partially damaged" or "standing-but-unsafe-to-enter" structures are subject to Asbestos NESHAP requirements. Prior to demolition and removal, the resulting debris will need to be inspected by a Certified Asbestos Consultant (CAC) to determine if the debris it is considered regulated asbestos containing material, and if so, the asbestos containing wastes must be handled and disposed of accordingly. Notification of the demolition of those structures is required,

and can be done on a structure-by-structure basis or can be done on a contractor-by-contractor basis (with the contractor appending a listing of the addresses being removed by that contractor). Because the event is a declared state of emergency, the 10-working-day waiting requirement is not applicable; please have the contractors indicate on the notification that the project is in the fire area. Work can begin immediately upon characterization of the waste by the CAC. Notification can be fax, emailed, or snail-mailed to ARB, and must be received within no later than the first working day after work begins. All regulated asbestos containing material should be handled in accordance with the Asbestos NESHAP and should be disposed of at a landfill authorized to accept asbestos containing waste.

To add an additional layer of environmental protection from possible asbestos exposure to the work force and the surrounding community, CalRecycle will use information based on age of construction, ash sampling by either US EPA or DTSC, visual issues such as granite siding or vermiculite insulation to perform additional site assessments for structural ACM before debris removal.

## 4 Debris Removal Operations Management

### 4.1 Debris Removal Operations Center

CONTRACTORS will be responsible for establishing and maintaining a debris removal operations center (DROC) for the project for managing day-to-day activities and storing field supplies. The CONTRACTORS will supply the necessary office supplies, fax machines, copiers, drinking water, electrolyte fluids, electricity, and other services to maintain the DROC.

The DROC is located at 6000 Highway 3, Hayfork, CA 96041, California as shown in Figure 5.

**Figure 5. Debris Removal Operation Center Location, 6000 Highway 3, Hayfork, CA**



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## 5 Health and Safety

CONTRACTORS shall, at all times, operate equipment and perform labor in a safe manner to ensure the safety of its employees and the public. CONTRACTORS must pay particular attention to operations around local roads and take the necessary precautions. CONTRACTORS must note the number of power lines crossing the site, dead trees, chimneys, and all underground utilities.

CONTRACTORS shall employ a third party certified industrial hygienist to develop a *Site Specific Health and Safety Plan* for the Trinity Complex debris removal project. The industrial hygienist consultant will also serve as the Safety Officer for entire project and provide field oversight to ensure compliance with the health and safety plan. The industrial hygienist will also prepare an air monitoring plan and a final report summarizing the air monitoring data.

CONTRACTORS will designate eating areas and supply hand and eye washing stations and mobile sanitary facilities for each project site.

### 5.1 Worker Safety

Given that ash may contain elevated levels of heavy metals and/or asbestos, an exclusion zone will be set up around each home site during removal. All personnel entering and leaving this area will be required to wear level “C” protective attire or level “D” with N95 masks and coverall depending on the work zone and hazard level. **All workers should be aware that asbestos is a human carcinogen with no known risk-free levels of exposure.**

### 5.2 Industrial and Community Air Monitoring

Monitoring of the air in the community and work sites for asbestos, heavy metals, and dust will be monitored by a certified industrial hygienist for the duration of the project until such time the industrial hygienist determines that air monitoring may cease. CONTRACTOR shall employ a third party certified industrial hygienist to perform this work.

The methods for the air monitoring are as follows:

- Fugitive Dust – United States Environmental Protection Agency (USEPA) approved equivalent methods for particulate matter 2.5 microns or greater in diameter (PM-2.5) and/or particulate matter 10 microns or greater in diameter (PM-10) monitoring;
- Heavy Metals - National Institute for Occupational Safety and Health (NIOSH) Method 7300, Metal Scan; and
- Asbestos - NIOSH Method 7402, High Volume.

### 5.3 Community Health and Safety

A *Community Health and Safety Plan* will be prepared as an additional planning document for the Trinity Complex debris removal project. All site activities will be conducted consistent with this community plan and with consideration to the surrounding community and all citizens affected by the Trinity Complex Fire Incident. The County of Trinity will provide additional support and communication to the affected community.

### 5.4 Permits

Table 5 lists the permits anticipated for the project.

Table 5. Summary of Permit Requirements

Permit and Agency	Responsibility	Contact/Comments
Site Authorization Right-of-Entry	County of Trinity	Executed forms are required by owners before work can begin on their property.
California Environmental Quality Act (CEQA)	Not Applicable	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).

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Section 1602 Streambed Alteration, Department of Fish and Wildlife (DFW)	CalRecycle/DFW	Except for removal of burned trees, the project does not include work in the streambed. CalRecycle will consult with the DFW as to the applicability of a 1602.
Grading	Not Applicable	Soil import will be kept to a maximum of 50 cubic yards per home.
Demolition Permit	CONTRACTORS	County of Trinity issued a blanket permit to demolish all structures destroyed by the fire.
Traffic Control	CONTRACTORS	CONTRACTORS will supply necessary signage as appropriate. Additional control devices may be necessary based on site conditions
Asbestos Notification	CONTRACTORS	CONTRACTORS will make the appropriate notification
Water Permit	CONTRACTORS	CONTRACTORS shall obtain the necessary water permit to be used for dust suppression
Tree Removal Permit	CONTRACTORS	Not applicable. Trees will be recycled on site and not sold.
Hazardous Waste	CONTRACTORS	CONTRACTORS shall use the appropriate hauler and disposal facility

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## 6 DEBRIS REMOVAL

### 6.1 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, springs, other water sources and water storage tanks 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. Erosion control will only be placed on the structural debris areas and not on the entire parcel.

## 6.2 Scope of Work

Major items of work anticipated in this project include, but are not limited to:

- Establishing a DROC, necessary site facilities and adequate safety and sanitation facilities;
- Coordination of all contractor resources;
- Installation of all necessary project signs including site specific signs indicating removal progress;
- Removal and disposal of debris, solid waste, and demolition debris to appropriate facilities;
- Segregation of recyclable debris and delivery to recycling facilities;
- Removal of trees that pose a safety hazard;
- Site contouring and erosion control;
- Establishing and ensuring traffic control plans; and
- Cost tracking.

Additionally, consultants will be hired to provide services including but not limited to the following:

- Prepare a site specific health and safety plan;
- Prepare a community safety plan;
- Prepare a native soils and asbestos background report;
- Perform field documentation for each home site;
- Perform an asbestos survey by a certified asbestos consultant of each home site;
- Perform air monitoring;
- Perform an assessment of hazardous trees;
- Perform confirmation sampling for each home site; and
- Prepare a final report for the project and for each home site.

## 6.3 Work Plan

The specific tasks for the project include the following tasks which are further described in Section 6

- Inspect all structures at each site and evaluate hazards.
- Coordinate with local agencies and resources to determine what materials and tasks are required.
- Provide and install the site project signs, and address signs if needed.
- Prepare for emergency erosion control to prevent the issues with runoff associated with significant rain events.
- Perform the necessary site documentation and an asbestos survey.
- Remove the ash and debris, metals, concrete and wood waste from the site. Recycle all recyclable materials, transport and dispose of all materials properly.
- Segregate hazardous wastes discovered during removal. Remove hazardous wastes except for household hazardous wastes. Household hazardous waste will be segregated and stored on-site by CalRecycle for pickup by the County of Trinity.
- After all the appropriate debris is removed from the site, remove 3 to 6 inches of soil from the impacted area.
- Confirm through sampling that residual contamination has been removed.
- Assess trees in the projects area, and identify and remove all trees that require removal for the protection of public health and safety and the environment.
- After all debris is removed complete the erosion control measures.

- Confirm final approval of each site and obtain County approval of site readiness for building permit issuance.

## 6.4 Schedule

Prior to beginning work, CONTRACTORS shall submit a proposed schedule of operation. All work shall be performed between the hours of 7:00 A.M. to 6:00 P.M., Monday through Saturday, unless authorized by the Operations Chief and the County. A daily briefing will commence at the staging area at 7:00 AM every day of operation.

Scheduling and coordination of construction activity shall be the sole responsibility of CONTRACTORS within the following limitations:

- CalRecycle and the County of Trinity will determine which zone the CONTRACTORS will begin work.
- CONTRACTORS shall employ the sequence of removal activity designed by the Operations Chief and described within this document.
- CONTRACTORS will verify appropriate rights to enter have been obtained and all necessary testing and documentation have been completed prior to implementing any phase of removal activity.

## 6.5 Debris Types and Disposal Facilities

CONTRACTORS will work with CalRecycle and local agencies to identify disposal facilities capable of handling the waste generated from the debris removal activities. Table 4 provides disposal information to assist the CONTRACTOR in the removal of the debris from the Trinity Complex Fire Incident. CONTRACTOR is responsible for verifying that all disposal and recycling sites utilized in the completion of this project have all required permits and licenses.

Table 6. Disposal Matrix for Materials

Material	Disposal Contact or Facility
Ash and Debris	CONTRACTORS will be responsible for identifying the appropriate facility.
Soil and Debris	CONTRACTORS will be responsible for identifying the appropriate facility.
Demolition Debris (Damaged Homes)	CONTRACTORS will be responsible for identifying the appropriate facility.
Asbestos	CONTRACTORS will be responsible for identifying the appropriate facility. This material will be disposed of at the Anderson Landfill as possible "Asbestos Containing Waste."
Trees and Vegetation	CONTRACTORS will be responsible for identifying the appropriate facility.
Metal Debris	CONTRACTORS will be responsible for identifying the appropriate facility.
Metal Discards (Appliances)	Freon Extraction is REQUIRED for intact refrigerators. Check with identified metal recyclers to determine if they are in compliance with the Metallic Discard Act. Note: Furnaces shall be checked for asbestos before disposal.
Vehicles and Trailers	Vehicles and/or trailers that <u>did not sustain</u> 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 CONTRACTORS to ensure worker safety and as needed to complete the debris removal.
Concrete	CONTRACTORS will be responsible for identifying the appropriate facility.
Tires	CONTRACTORS will be responsible for identifying the appropriate disposal or recycling facility.

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Other Hazardous Waste	CONTRACTOR will be responsible for identifying the appropriate facility.
Household Hazardous Waste (HHW)	<b>Unlikely.</b> DTSC has performed a HHW assessment and sweep of the impacted area and removed identified HHW. If additional HHW is discovered, the HHW will be segregated by the CalRecycle and/or the CONTRACTORS to a temporary on-site storage. As necessary the DTSC will collect, transport, and dispose the HHW.
Human Remains	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.
Dead Animals	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.
UXO (Unexploded Ordinance)	<b>Unlikely.</b> With the high temperatures occurring during the wildfire incident, the likelihood of discovering any UXO is remote. If UXO is discovered the CONTRACTORS shall notify CalRecycle so proper disposal can occur by the Trinity County Sheriff Department.
Radioactive Debris	<b>Unlikely.</b> 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 CalRecycle and its CONTRACTORS.
Medical Waste	<b>Unlikely.</b> If medical wastes are discovered, they will be properly bagged and transported to the appropriate facility by CalRecycle and its CONTRACTORS. Small quantities of sharps (e.g., needles and illegal drug items) will be removed and disposed of by CalRecycle and its CONTRACTORS consistent with local and state programs.

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## 7 Special Provisions

### 7.1 Appliance and Vehicle Recycling

CONTRACTORS or its subcontractor shall provide for removal and disposal of material that may require special handling, such as various automobile or appliance components.

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

- Chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), and hydrochloroflourocarbons (HCFCs) used as refrigerants.
- Polychlorinated biphenyls (PCBs) 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.

The CONTRACTORS shall maintain accurate records detailing the removal and disposal operations involving all such materials, and shall provide the Operations Chief with all manifests and/or documentation pertaining to the work. 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.

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## 7.2 Household Hazardous Waste (HHW) Handling

To identify HHW or other hazards in the field the following color code and action has been established. If a questionable item is discovered that cannot be immediately identified for removal from the waste stream then the hazardous item will be marked with bright orange spray paint to indicate a possible hazard. Once the item has been checked by a qualified individual and deemed not 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.

### 7.2.1 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 6. Color Marking Designation for Debris or Potential Hazard

Debris or Potential Hazard	Spray Paint Color
HHW, Battery, Tank, Cylinder	Bright Orange
Possible ACM	Bright Pink
Sewer and/or Septic Connections	Bright Purple
Material Safe for Normal Disposal	Bright Green

## 7.3 Project Signs

### 7.3.1 Address Signs

Approximately 40-50 reflective aluminum address signs will also be required. The sign dimension should be 6 inches in width and 24 inches in height. The edges shall be round and free of sharp edges. The background shall be a reflective green and all the text shall be a reflective white. The CONTRACTOR will reestablish all address. Each sign shall 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.

Address sign example.



### 7.4

### 7.5

### 7.6 Background Assessments

The CONTRACTORS shall be responsible for assessing background soil conditions of the impacted area. The CONTRACTORS will sample soils to establish the naturally occurring metal concentrations around the impacted area. All samples shall be analyzed for Title 22 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc) by 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 8.6.

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## 8 Sequence of Debris Removal Operation

The following summarizes the tasks in order that the CONTRACTORS, or an approved subcontractor, will undertake during structural debris removal activities. Prior to any activities being conducted on an individual home site, a properly executed ROE will be obtained by the County. Included in the ROE, each homeowner will be able to identify specific requests for the removal of materials and potential location of items that might be recovered. **(Note: No work by CalRecycle's Contractors or its subcontractor(s), including inspection of structures and/or evaluation of hazards, will occur on private property until the property owner signs the Right-of Entry, unless authorized by the Operations Chief).**

### 8.1 Site Assessment

To prepare each property for cleanup, an approved third party environmental consultant will perform a site documentation on all the impacted lots. Site documentation will include photographic records as described in 4.6.3.1 and foundation verification as described in 4.6.3.2 and additional data as determined necessary by the Operations Chief.

#### 8.1.1 Site Photo Logs

The Consultant will take a minimum of four photographs from all sides of the impacted structure. Additional photos should also be collected of other structures and vehicle if not shown in the original photos. The Consultant will collect a minimum of two other photos showing the location of the confirmation samples.

#### 8.1.2 Radiological Monitoring

While unlikely to be an issue, a third party consultant shall perform a radiological survey around the impacted structures. The survey equipment should be designed for general radiological surveying such as a Ludlum 2241 or equivalent. CalRecycle will provide the calibrated radiological equipment to the consultant for the duration of the project.

The action level for this project is set at two times background. Should a level of 2x background be detected, the surveyor will isolate (i.e., cordon off) the area and notify the Operations Chief and/or County of Trinity. 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 Chief will determine the location and rate and develop an action plan to secure the source as long as the reading does exceeds 1mR/hr at one foot.

#### 8.1.3 Foundation Verification

The Consultant will contact the County of Trinity Building Department and coordinate a foundation investigation. The purpose of the investigation is to determine the previous square footage of the home. The Consultant will be responsible for providing the measurements of the foundation, piers, sheds, or other structures to the County. The Consultant will measure and record the dimensions of the burned structure footprint at each property, measure and record the dimensions of the ash area footprint at each property, and monitor the ash at each property for radioactivity with field monitoring equipment provided by CalRecycle.

### 8.2 Asbestos Survey

To add an additional layer of environmental protection from possible asbestos exposure to the work force and the surrounding community, CalRecycle will use information based on age of construction, ash sampling by either US EPA or DTSC, visual issues such as tranite siding or vermiculite insulation to perform addition site assessments for structural asbestos containing materials (ACM) before debris removal.

If additional asbestos survey is deemed wanted by the operations prior to ash removal a California Division of Occupational Safety and Health a Certified Asbestos Consultant (CAC) will assess and sample residential and other affected areas of the site. Any ACM that is not found on the ground due to natural forces may be subject to the NESHAP requirement. Once the removal of easily identifiable gross asbestos has been completed, debris may be properly removed from the site.

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### 8.3 Hazardous Materials Best Management Practices

The following BMPs should be used when undertaking removal actions pursuant to a declared State of Emergency. These BMPs should be undertaken to address the removal of hazardous materials, household hazardous waste (HHW), debris, asbestos containing materials (ACM's), and air monitoring and sampling from the disaster or incident site. Use of BMPs will also ensure the proper management and removal of hazardous materials, debris, burn ash, and other asbestos containing materials in a manner that ensures protection of public health and the environment, as well as, ensuring the health and safety of on-site personnel.

If the burn ash or building material on the ground is from structures completely destroyed by natural forces (as opposed to structures demolished in whole or in part by human activity), this material is not subject to the Asbestos NESHAP requirements as it relates to the demolition and renovation, transport and disposal requirements. If the building material and debris is not completely destroyed and requires further demolition, the debris will be subject to the Asbestos NESHAP requirements.

At a minimum, the CONTRACTORS shall follow the following BMPs for undertaking debris removal activities:

- A California DOSH Certified Asbestos Consultant (CAC) will be utilized to assess the area or each residential or commercial property for easily identifiable and removable pieces of ACM if identified by the triage matrix. After assessing the property or area, the CAC will consult with a licensed asbestos removal contractor to identify the location and area of ACM to be removed from partially destroyed structures.
- A Cal/OSHA registered Asbestos Removal Contractor will be responsible for overseeing the safe removal of ACM identified on-site by the CAC for partially destroyed structures.
- All on-site personnel working to remove gross ACM must have received the necessary health and safety training for conducting asbestos removal activities pursuant to OSHA 1910.100, and CCR Title 8, Section 5192, and will be required to wear Level C PPE when working in the exclusion zone.
- All on-site cleanup personnel must be 40-hour HAZWOPER trained Under 29 CFR 1910.120, and CCR Title 8, Section 5192.
- As necessary the incident will use a CAC to identify all gross ACM that can be easily removed from the ground or structure prior to debris removal activities.
- The incident may request an asbestos consultation from the state or local AQMD for any structure that is not completely destroyed or for any structure with vermiculite insulation, for large "facility" components or material that will be broken up upon movement, or for other asbestos issues as identified by the CAC. Note: Current field definition of destroyed means the structure does not have a roof or any load bearing walls.
- During asbestos screening process, it is recommended that bulk samples be collected from 10 to 20 percent of the representative structures that have not been destroyed to determine the presence of ACM above NESHAP regulations, and to ensure residual building.
- All gross ACM that can be safely and easily removed from the site will be adequately wetted prior to being bagged or burrito wrapped to meet the NESHAP leak-tight requirement for removal. The easily identifiable gross ACM can be double-bagged and appropriately labeled as ACM. (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 poly in such a way that once loaded both layers can be sealed up independently.
- Conduct on-site and off-site air monitoring and sampling for asbestos and heavy metals during all ACM and debris removal operations to demonstrate the effectiveness of engineering controls to protect cleanup personnel and the surrounding community.
- Use engineering controls to maintain dust and fibers during removal activities. A water fog must be used during debris handling, bulking/bagging, and waste loading operations. It is recommended that cleanup contractors will use fire grade firefighting nozzles 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

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flow rate, preferably 20 to 60 gallons per minute, and constructed of hard coated aluminum with brass and stainless steel internal components. **Plastic nozzles should be avoided if possible to do the lack of proper fog pattern.** While the costs of metal firefighting nozzles are significantly more than plastic nozzles, metal nozzles are only able to generate a sufficient fog to control dust.

- 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. Engineering controls for storm water discharges must be in place prior to dust control operations.
- All waste material that is not loaded out at the end of each workday should be stockpiled, sufficiently wetted, and/or covered to prevent the offsite migration of contaminants.
- All non-hazardous waste haulers who observe loading operations outside of the vehicle cab, and/or covering (e.g. tarping) the trailer or container must wear N95 masks and coveralls.
- All approved landfill operators that may come in contact with the waste during off-loading operations should follow their facilities protocols for wearing PPE and respiratory protection.
- All ACM and debris removed from the property, site or area must be manifested and transported for disposal to a permitted treatment, storage, and disposal facility in good standing with local, state, and federal agencies.
- Cal/OSHA may require procedures for the receiving landfill facility to establish an appropriate site safety plan for the protection of the facility employees to potential ACM in the waste stream.

## 8.4 Debris removal

Debris removal will be conducted on each site following a specific, prescribed process and order as follows:

- Identify and remove gross asbestos material;
- Segregate and remove all metals;
- Remove ash and commingled debris from the site. This material will be treated as a hazardous asbestos containing waste. Dust emissions during all phases of the removal will be controlled via a water spray from a fire fighting grade nozzle;
- Drop chimneys down to ground level and remove chimneys and foundation. Remove all chimneys and foundations. CalRecycle's engineer has determined that all chimneys pose a health and safety risk to the 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;
- Remove additional ash and commingled debris as needed; and
- Remove 2 to 6 inches of soil from debris site.

## 8.5 Confirmation Sampling

The CONTRACTORS will be responsible for collecting at least two confirmation soil samples from each property unless the structure is a shed or other impacted area. Should the impacted area be greater than 2,000 sq. ft. then one additional sample per 1,000 sq. ft. of contamination (e.g., 3 per 3,000 sq. ft., 4 per 4,000 sq. ft., etc.) will be collected. The samples will be submitted to a California-certified laboratory and analyzed for Title 22 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc) by EPA Method 6010 and mercury by EPA Method 7471A.

The CONTRACTORS consultant ARCADIS has established the cleanup goals for the project and has prepared the report. ARCADIS will evaluate the analytical results by comparing the soil sampling results to the pre-determined background concentrations and cleanup goals, assist in determining whether additional excavation is necessary at each property based on the confirmation soil sampling results, and coordinate with CalRecycle and Contractor, if

appropriate, to conduct additional removal activities. ARCADIS will collect additional confirmation soil samples at the direction of the Operations Chief.

## 8.6 Cleanup Goals

The cleanup goals for this project are based on screening levels established by USEPA, DTSC Office of Human Health and Ecological Risk Human Health Risk Assessment, and Office of Environmental Health Hazard Assessment for residential uses, and local background concentrations of metals in soils. The cleanup goals were developed by first determining the local background concentration for metals in soil using USEPA Pro UCL 5.0 software as twice the 95th percentile threshold. The background values were then compared to the screening levels established by the various agencies identified above. For each individual metal, if the background concentration is below the screening level, then the cleanup goal is the screening level. If the background concentration exceeds the screening level, then the cleanup goal is valued at two times the background concentration.

Confirmation sampling results will be compared to the project established cleanup goals to assess the effectiveness of the ash and debris removal. A *Trinity Incident Structural Debris Removal, Unified Command Approval Form* (Appendix D) will be provided for each parcel whose confirmation sampling results are below the cleanup goals. If any of the confirmation sampling results exceeds the cleanup goals, then the parcel will be further excavated at the direction of the Operations Chief. The parcel will be sampled again after the excavation is complete. Table 5 provides the cleanup goals for this project.

Table 7. Cleanup Goals for Metals in Soil (concentrations in milligrams per kilogram (mg/kg))

<b>Metals</b>	<b>2 X the ProUCL 5.0 Calculated Background Concentration (distribution based on 95<sup>th</sup> percentile)<sup>1</sup> (mg/kg)</b>	<b>Screening Level for Residential Use<sup>2</sup> (mg/kg)</b>	<b>Cleanup Goal<sup>3</sup> (mg/kg)</b>
Beryllium	PENDING		
Vanadium			
Chromium (III)			
Cobalt			
Nickel			
Copper			
Zinc			
Arsenic			
Selenium			
Molybdenum			
Silver			
Cadmium			
Antimony			
Barium			

<b>Metals</b>	<b>2 X the ProUCL 5.0 Calculated Background Concentration (distribution based on 95<sup>th</sup> percentile)<sup>1</sup> (mg/kg)</b>	<b>Screening Level for Residential Use<sup>2</sup> (mg/kg)</b>	<b>Cleanup Goal<sup>3</sup> (mg/kg)</b>
Mercury			
Thallium			
Lead			

Notes:

<sup>1</sup>ProUCL 5.0: Statistical software used to calculate background threshold values (USEPA. 2013)

<sup>2</sup> Source of Screening Levels:

- (a) USEPA Regional Screening Levels, RSL Tables May 2014.
- (b) DTSC Office of Human and Ecological Risk Human Health Risk Assessment Note 3. July 14, 2014.
- (c) Revised California Human Health Screening Levels for Lead. September 2009.

<sup>3</sup> Cleanup goal selected using the higher value of either the background concentration (2 times the 95% UCL) or the Screening Level.

ND = not detected above laboratory reporting limits (non-elevated)

ND\* = cleanup goal listed for Thallium is non-detect with a laboratory reporting limit equal to 1.0 mg/kg.

## 8.7 Hazard Tree Identification and Removal

A certified arborist will perform an assessment of all trees in the impacted area and identify those trees which pose a hazard and must be removed. The objectives of the tree assessment and inventory will include:

- Identification of all trees damaged by the incident,
- Assessment of the damage and survivability to each tree,
- Assessment of each tree against established indicators of hazardous tree criterion, and
- Determination which trees should be removed during recovery efforts conducted by CalRecycle.

## 8.8 Tree Removal

Following identification and marking of hazardous trees and only after removal activities are complete and confirmation sampling has been taken, the CONTRACTOR, or an approved subcontractor, will remove trees employing all engineering controls to mitigate dust generation and ensure site safety protocols. All wastes generated from the removal of trees will be hauled to an appropriate waste or recycling facility.

## 8.9 Debris and Tree Removal in Public Areas

The public areas adjacent to home sites are under the jurisdiction of the County of Trinity. The County may request debris and tree removal within these areas be included in the project. The County has retained a professional arborist to evaluate the area and identify the scope of tree removal on County property. If approved, the CONTRACTOR will conduct debris removal consistent with the process for private home sites, with the exclusion of erosion control. All erosion control on County property, including design, monitoring, and maintenance, will be conducted by the County of Trinity.

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## 8.10 Erosion Control

One of the most prevalent water pollution threats from burn sites is the discharge of ash and other burn related debris into storm drains or natural receiving waters. Sites where debris and ash have been removed are often graded and have soils prepared similar to those of construction projects. Debris removal and site clearing activities increase the exposure of soils to wind, rain, and concentrated flows that cause erosion and adversely impact storm water quality with high levels of total suspended solids and many other pollutants, which subsequently impacts surface waters.

The main objective of erosion control is 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. BMPs 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. Effort should be made to preserve existing vegetation, if practicable. Once the removal has been completed, operation and maintenance of storm water control measures must be maintained by the property owner or the local government.

Erosion control is critical for the success of this project. Erosion Control shall be installed after each lot has met the site specific cleanup goals. Prior to the removal of the structure, some erosion control will be necessary to prevent the migration of contaminants off site. Work may consist of installing silt fences, fiber rolls, erosion control blankets and other erosion control BMPs necessary for improving site stability.

After all debris is removed, the CONTRACTORS will complete the erosion control measures. The erosion control devices shall be installed using the erosion control guidelines established by this Operations Plan and as directed by the Operations Chief, the County of Trinity Public Works Department, or other appropriate agency.

## 8.11 Erosion Control Methods

The methods for erosion control were based on the slope of each lot, proximity and contribution to the City's municipal stormwater system, and the proximity of the stream environment zone. Each residential parcel will receive one of the following BMP treatments:

- 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 E.
- 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.

Additional erosion control methods may be developed after consultation with local agencies.

## 8.12 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 Chief, the County of Trinity Public Works Department, or other appropriate agency.

The following materials have been identified for the project:

- Hydroseed;
- Fiber bundles;
- Erosion Control Blankets;
- Silt Fence;
- TBA cubic yards of class II road base or equivalent; and
- TBA cubic yards of rock and/or cobble for erosion control

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

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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 E.

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 stormwater 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)
- Excel CS-3 All Natural (Western Excelsior)
- Excel CC-4 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 CalRecycle staff prior to installation.

Gravel Bags – Gravel bags are intended to slow stormwater flows and trap sediment on paved surfaces.

Gravel bags shall be filled with  $\frac{3}{4}$ " to  $1\frac{1}{2}$ " *washed* rock. Bags filled with sand will not be approved.

### 8.13 Installation Standards

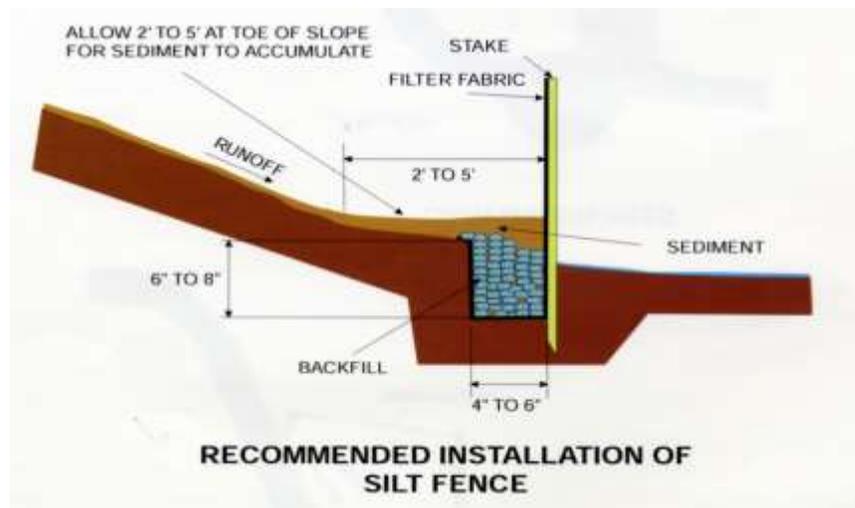
Erosion control BMPs installation shall consist of furnishing and applying erosion control materials. The work includes proper material handling, area preparation, proper application of the erosion control materials and structures, and stand maintenance for the areas shown on the Plans.

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 Chief. 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  $\frac{1}{3}$  the height of the fence. Refer to standard detail "Silt Fence" below.

Figure 6. Silt Fence Detail Drawing

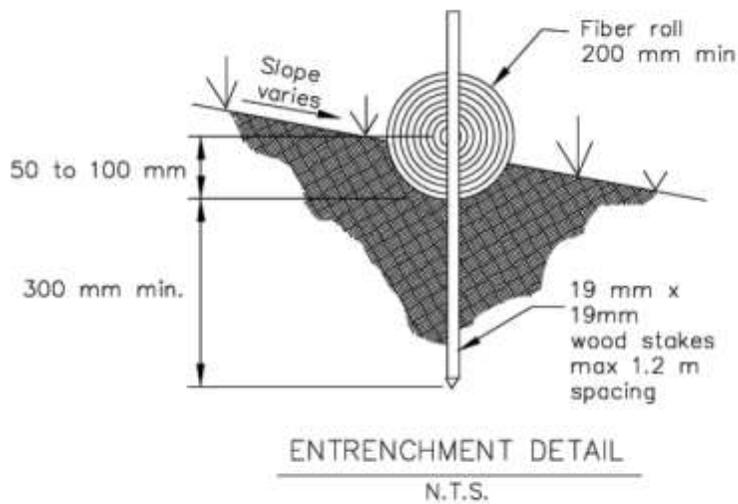
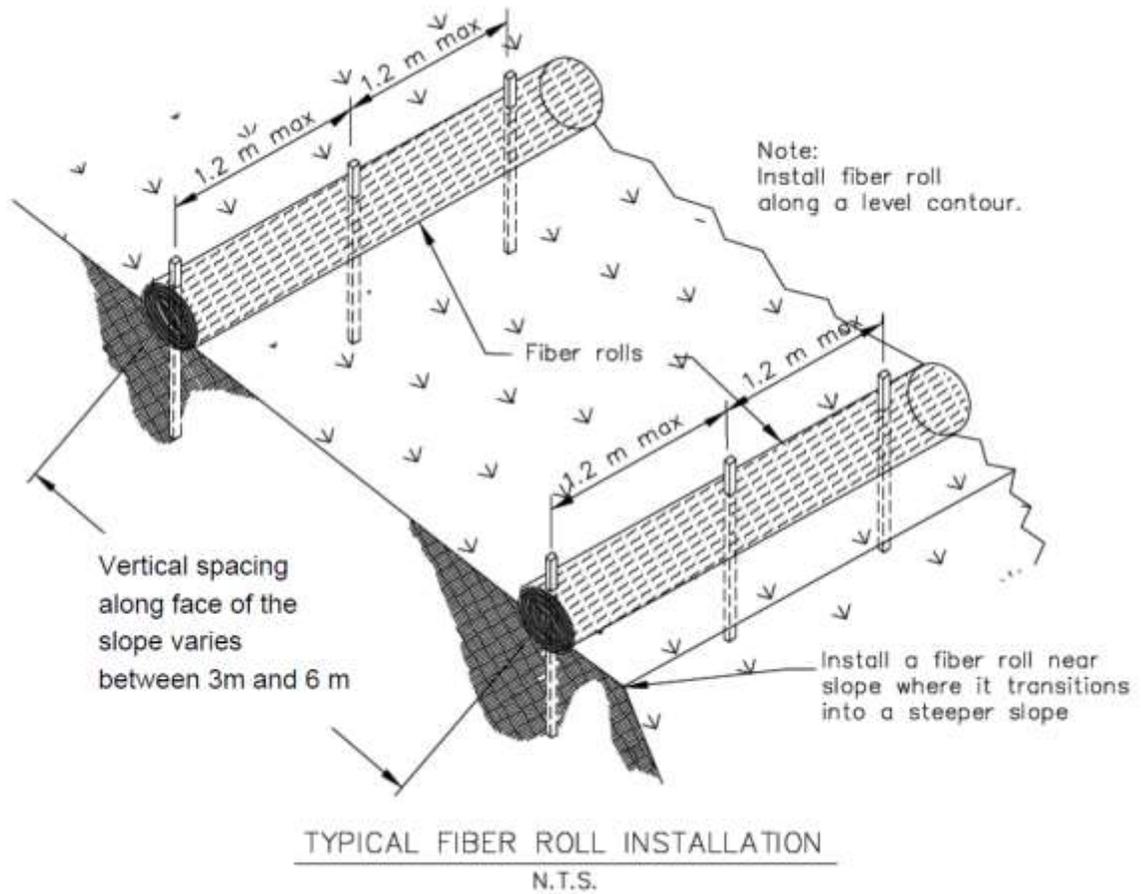


Erosion Control Blanket – Install erosion control blankets as directed by the Operations Chief. Starting at the top of the slope, anchor the blanket in a 6-inch trench, backfill, and securely tamp the backfilled soil. Unroll blanket downslope overlapping parallel and subsequent blankets a minimum of 4 inches. Secure blankets with anchors along the overlaps and place a minimum of 3 anchors per square yard. CONTRACTORS shall determine if more anchors are required and shall be responsible for installing the erosion control blanket so that it will stay in place.

Fiber Roll Barriers – Install 8 or 12-inch fiber roll barriers as directed by Operations Chief. 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)

Figure 7. Fiber Roll Detail Drawings for Steep Slopes



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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.

## 8.14 Site Approval

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

## 8.15 Final Reports

The CONTRACTORS or his third party consultant will prepare and submit a report for each property to CalRecycle summarizing the data evaluation, a final project report and develop a cost analysis formula to assist with the cost recovery of insurance and/or other funds. Final Reports are described in detail in section 3.3 of this document.

# 9 General Operation and Site Controls

## 9.1 Notices

The following notices, at a minimum, will apply to the project:

- The CONTRACTORS shall notify Underground Services Alert (USA) at least 48 hours prior to any excavation.
- The CONTRACTORS shall notify the CARB’s Asbestos NESHAP Program of any demolition of a partially destroyed structure within one working day.
- The CONTRACTORS shall notify the local fire department prior to commencement of work.
- The CONTRACTORS shall notify the local power provider prior to removal of any damaged structure to ensure the electrical power has been shut off.
- The CONTRACTORS shall contact all local utilities and acquire their shut off plans for utilities at the destroyed structures.
- The CONTRACTORS shall notify CalRecycle at least 48 hours prior to commencement of the cleanup project.
- The CONTRACTORS will use caution around all trees. Only trees identified and marked by a registered forester may be removed.
- If CONTRACTORS discovers household hazardous materials, the material will be segregated by the CalRecycle and/or the CONTRACTORS to a temporary on-site storage. As necessary the County of Trinity will collect and transport HHW to the County facility at no charge to CalRecycle and or CONTRACTORS.

## 9.2 Dust Controls

The CONTRACTORS shall provide water or dust palliative, or both, to prevent dust nuisance at each site. **Dust resulting from Contractor’s performance of the work shall be controlled at all times during this project.** The Contractor will provide fire grade firefighting nozzles with shut off valves for dust control. Each removal crew will be provided at least one fire nozzle. These types of fire nozzles in past projects have proven successful in applying the appropriate amount of water to control dust.

## 9.3 Pre-Watering

The CONTRACTORS shall pre-water each impacted lot 48 to 72 hours in advance of the removal. The water shall be applied in a manner so not to generate significant runoff. Water may be applied using side spray from a water tender, hose line, or other method approved by Operations Chief.

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## 9.4 Waste Load Controls

All loads shall have a tracking system to indicate material leaving the site.

All loads shall be wetted down before leaving the site. All loads shall be covered with a tarp; this includes metal debris. Ash and debris loads will be placed 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.

## 9.5 Traffic Control

The CONTRACTORS will provide for all traffic controls established in the site specific health and safety plan and the community health and safety plan. 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 Cal/Trans State Standard Specifications (2002 Edition), Section 7-1.08 "Public Conveyance", Section 7-1.09 "Public Safety", Section 12 "Construction Area Traffic Control Devices". A traffic control plan for the project areas will be submitted prior to work being performed, and will be reviewed and approved by the Pacific States Environmental Contractors, Inc. project construction manager (CM). Traffic plans 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**.

The CONTRACTORS 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.

## 9.6 Equipment Controls

All removal equipment supplied by the CONTRACTORS should have glass enclosures and weigh less than 80,000 lb. 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 smaller than or equal to a 950 Caterpillar or equivalent.

## 9.7 Pavement and Drainage Protections

The CONTRACTORS at all times will protect the edge of pavement and county drainage features to the extent feasibly possible.

## 9.8 Trackout Management

CONTRACTORS will implement procedures to prevent or cleanup carryout and trackout as specified below. The use of blower devices, or **dry rotary brushes** or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

The CONTRACTORS shall prevent carryout and trackout, or immediately remove carryout and trackout when it extends 50 feet or more from the nearest unpaved surface exit point of a site and at the minimum remove all other visible carryout and trackout at the end of each workday.

Cleanup of carryout and trackout shall be accomplished by:

- Manually sweeping and picking-up; or
- Operating a rotary brush or broom accompanied or preceded by sufficient wetting; or
- Operating a PM10-efficient street sweeper

## 9.9 Cost Controls

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CONTRACTORS and the Operations Chief shall update cost tracking of the removal on a weekly basis. The CONTRACTORS will be responsible for establishing a cost tracking spread sheet and system. For each property, the CONTRACTORS will track all direct labor, equipment, disposal, transportation, and erosion costs.

### **9.10 Potential Earthwork**

No more than 50 cubic yards of clean soil will be placed on any one site without written authorization from the County of Trinity and Operations Chief. If more than 50 cubic yards of material are necessary the CalRecycle engineer will apply for a grading permit. If fill material is necessary the soil shall be placed in thin lifts. Lifts shall not exceed 8 inches uncompacted and shall be applied within 3 percent of optimum moisture content or as directed by the Operations Chief. The lift shall be compacted with a target compaction of 90 percent of the maximum dry density as determined by ASTM D 1557.

## **10 Project Completion**

The project will be considered complete after each lot has been compared to cleanup goals and approved by the unified command of the County of Trinity and CalRecycle, erosion control placed, final observations are documented, and the invoicing and final reports are provided to the property owners.

### **10.1 Field Documentation**

The Operations Chief will document the erosion control for each lot not building this winter. Additionally the Operations Chief will document the final site conditions at the close of the project.

### **10.2 Documentation**

The environmental consultant will also be responsible for designing a final report to document each property cleaned up in CalRecycle sponsored cleanup. The report will document the removal with photo documentation, foundation square footage, impact from ash foot print (i.e., ash square footage), soil confirmation analysis, and total costs.

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# APPENDIX A

## OFFICE OF THE GOVERNOR

### EXECUTIVE ORDER

*Executive Department*  
*State of California*

#### EXECUTIVE ORDER B-33-15

**WHEREAS** on July 31, 2015, I proclaimed a State of Emergency to exist in California due to wildfires burning throughout the state, including those that were burning in Lake and Trinity counties; and

**WHEREAS** wildfires have burned thousands of acres of land, destroyed structures, including homes, damaged critical infrastructure, and forced the closure of major highways and local roads; and

**WHEREAS** the Federal Emergency Management Agency granted a Federal Fire Management Assistance Grant for the Rocky Fire burning in Lake County; and

**WHEREAS** the wildfires have created a substantial amount of ash, burnt vegetation, and debris in Lake and Trinity counties;

**WHEREAS** this debris is threatening public health and safety, and must be removed and disposed of quickly and properly to ensure that the areas can be reoccupied safely; and

**WHEREAS** under the provisions of section 8571 of the Government Code, I find that strict compliance with the various statutes and regulations specified in this order would prevent, hinder, or delay the mitigation of the effects of the wildfires.

**NOW, THEREFORE, I, EDMUND G. BROWN JR.,** Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, in particular, sections 8625 and 8571 of the California Government Code, do hereby issue this Executive Order, effective immediately.

#### IT IS HEREBY ORDERED THAT:

1. State statutes, rules, regulations and requirements are hereby 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 wildfires that have burned and continue to burn in areas that are subject to the jurisdiction of agencies within the California Environmental Protection Agency 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 fires, and for implementing any restoration plan. Individuals who desire to conduct activities under this suspension of statutes, rules, regulations, and requirements shall first request that the appropriate Agency Secretary, or his delegate, make a determination that the proposed activities are eligible to be conducted under this suspension. The Secretary for the California Environmental Protection Agency and the Secretary for the California Natural Resources Agency shall

use sound discretion in applying this Executive Order to ensure that the suspension serves the purpose of accelerating cleanup and recovery, while at the same time protecting public health and the environment. This order shall apply to, but is not necessarily limited to: solid waste facility permits; waste discharge requirements for storage and disposal; emergency timber harvesting; emergency construction activities; and waste discharge requirements and/or Water Quality Certification for discharges of fill material or pollutants. To the extent it is within their administrative authority, the boards, departments and offices within the California Environmental Protection Agency and the California Natural Resources Agency shall expedite the granting of other authorizations, waivers or permits necessary for the removal, storage, transportation, and disposal of hazardous and non-hazardous debris resulting from the fires, and for other actions necessary for the protection of public health and the environment.

2. As necessary to assist local governments and for the protection of public health and the environment, state agencies shall enter into contracts to arrange for the procurement of materials, goods, and services necessary to quickly remove dangerous debris, repair damaged resources, and restore and protect the impacted watershed. Applicable provisions of the Government Code and the Public Contract Code, including but not limited to travel, advertising, and competitive bidding requirements, are suspended to the extent necessary to address the effects of the fires.

3. The Office of Emergency Services shall provide local government assistance to Lake and Trinity counties, as appropriate, under the authority of the California Disaster Assistance Act, California Government Code section 8680 et seq. and California Code of Regulations, Title 19, section 2900 et seq.

4. Health and Safety Code sections 103525.5 and 103625, and Penal Code section 14251, requiring the imposition of fees, are hereby suspended with regard to any request for copies of certificates of birth, death, marriage, and dissolution of marriage records, by any individual who lost such records as a result of the wildfires. Such copies shall be provided without charge.

5. Vehicle Code sections 9265(a), 9867, 14901, 14902 and 15255.2, requiring the imposition of fees, are suspended with regard to any request for replacement of a driver's license, identification card, vehicle registration certificate, or certificate of title, by any individual who lost such records as a result of the wildfires. Such records shall be replaced without charge.

6. The provisions of Vehicle Code sections 4602 and 5902, requiring the timely registration or transfer of title, are suspended with regard to any registration or transfer of title by any resident of Lake and Trinity counties who are unable to comply with those requirements as a result of the wildfires. The time covered by this suspension shall not be included in calculating any late penalty pursuant to Vehicle Code section 9554.

7. The provisions of Unemployment Insurance Code section 1253 imposing a one-week waiting period for unemployment insurance applicants are suspended as to all applicants who are unemployed as a direct result of the wildfires, who apply for unemployment insurance benefits during the time period beginning August 27, 2015 and ending on the close of business on February 27, 2016, and who are otherwise eligible for unemployment insurance benefits in California.



This Executive Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

**I FURTHER DIRECT** that as soon as hereafter possible, this order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this proclamation.

**IN WITNESS WHEREOF** I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 27th day of August 2015.



*Edmund G. Brown Jr.*  
EDMUND G. BROWN JR.  
Governor of California

**ATTEST:**

*Alex Padilla*  
ALEX PADILLA  
Secretary of State

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# APPENDIX B

## Right-of-Entry Permit

Right-Of-Entry Permit  
(For Providing Debris Removal on Private Property)

County of Trinity  
61 Airport Road  
PO Box 476  
Weaverville, CA 96093

Date: \_\_\_\_\_  
Property Address: \_\_\_\_\_

I, \_\_\_\_\_ (Owner), hereby permit the County of Trinity (County), its officers, employees, agents, contractors and subcontractors (County), to enter the Owner's property located by the above-referenced address, subject to all licenses, easements, encumbrances, and claims of title affecting the Property upon the following terms and conditions:

1. Grant of Right-of-Entry. Permission is hereby granted and Owner hereby grants to the County, its officers, employees, designees and/or permittees a right of entry ("Permit") to enter upon the Property, and all related appurtenances thereto, for the purpose of inspecting, testing materials on, removing and clearing any or all wildfire-generated debris of whatever nature including but not limited to ash, vehicles, trailers, miscellaneous debris, construction debris, trees identified by an arborist as hazardous, waste or other materials from the Property, subject to the terms and conditions set forth in this Permit, and to perform all incidents necessary thereto. It is fully understood that this Permit does not create any obligation on the County to perform inspection, testing or debris clearance. Owner understands that the County will undertake no cleanup action until this Right-of-Entry Permit is signed and returned.

This is not a request for a permanent easement and/or right-of-way and their permission will automatically terminate upon completion of said work.

2. Private Insurance Coverage. Most homeowner insurance policies have coverage to pay for the costs of removal of wildfire-generated debris. Owner understands that in the event state financial assistance is received by the Owner for purposes of inspection, testing or removing debris hereunder, state law (Title 19, Division 2. California Governor's Office of Emergency Services, Chapter 6. Disaster Assistance Act) requires the Owner to reimburse the County for the cost of removing wildfire-generated debris to the extent covered in the Owner's insurance policy. Owner also understands that, when requested, Owner must provide a copy of the insurance policy, proof/statement of loss and settlement agreement from Owner's insurance company to the County. Owner (\_\_\_\_ does, \_\_\_\_ does not) have homeowner's or other similar insurance. If Owner indicates that Owner does not have such insurance, Owner certifies under penalty of perjury that there was no insurance in effect at the time of the wildfire which may provide coverage for the costs of inspection, testing or removing debris.

3. Duplication of Benefits. Owner (\_\_\_\_ has, \_\_\_\_ has not) and (\_\_\_\_ will, \_\_\_\_ will not) receive(d) any compensation for debris removal from any other source including Small Business Administration (SBA), individual and family grant program or any other public assistance program. Owner will advise County in writing within ten (10) days of receipt of any insurance settlements for debris removal. Owner further agrees to reimburse the County within thirty (30) days of receipt from such insurance proceeds, for the cost of the debris removal conducted by the County. In the event the insurance proceeds are less than the cost of debris removal incurred by the County, Owner will not be responsible for the difference. If the insurance proceeds exceed the County's cost of debris removal, Owner will keep any excess proceeds. Owner understands that all disaster related funding, including that for debris removal from private property, is subject to audit.

4. County's Obligations. In consideration of said permission granted, the County agrees to the following:

- a. No permanent structure of any type will be disturbed or damaged. Work will be performed in such a manner that it will not materially affect ingress or egress to or from property.
- b. Gates shall be closed and/or locked at all times.
- c. Any improvements on property, fences, gates, etc., that are damaged or removed temporarily will be repaired and/or replaced.

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5. Indemnification – Hold Harmless. County shall not be liable for, and Owner shall indemnify and hold harmless the County, the State of California, California Governor’s Office of Emergency Services (CalOES), California Environmental Protection Agency (CalEPA) California Department of Resources Recycling and Recovery (CalRecycle) and any of their officers, agencies, agents, contractors, subcontractors, employees and volunteers, against any and all claims, deductibles, self-insured retentions, demands, liability, judgments, awards, fines, mechanics’ liens or other liens, labor disputes, losses, damages, expenses, personal injury, charges or costs of any kind or character, including attorneys’ fees and court costs (hereinafter, collectively referred to as “Claims”), which arise out of or are in any way connected to actions arising out of this Permit, and hereby release, discharge, waive any claims any action, in law or equity, arising therefrom. Owner shall make Owner’s best efforts to mark any sewer lines, utilities (electricity, gas, cable, etc.), septic tanks and water lines located on the Property.

6. No County Assumption of Liability for Remediation. In consideration of the assistance County is providing to Owner under this Permit at no cost to Owner and subject to the Section 4 of this Permit, County assumes no liability or responsibility, and Owner shall not seek to recover from County, the County, CalOES, CalEPA, CalRecycle, or any of their officers, agencies, agents, contractors, subcontractors, employees and volunteers, the costs of any remediation of damages to the Property incurred due to actions taken pursuant to this Permit.

7. County’s Agents. Any person, firm, or corporation authorized to work upon the Property by the County shall be deemed to be County’s agent, including but not limited to the State of California, CalOES, CalEPA, and CalRecycle and shall be subject to all applicable terms hereof.

8. Authority. Owner represents and warrants that it has full power and authority to execute and fully perform its obligations under this Permit pursuant to its governing instruments, without the need for any further action, and any the person(s) executing this Permit on behalf of the Owner are the duly designated agents of Owner and are authorized to do so, and that fee title to the Property vests solely in Owners.

9. Entire Agreement. This Permit constitutes the entire agreement between the parties with respect to the subject matter hereof, and all prior or contemporaneous agreements, understandings and representations, oral or written, are superseded.

10. Modification. The provisions of this Permit may not be modified, except by a written instrument signed by both parties.

11. Partial Invalidity. If any provision of this Permit is determined by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Permit shall not be affected thereby. Each provision shall be valid and enforceable to the fullest extent permitted by law.

12. Successors and Assigns. This Permit shall bind and benefit the parties and their successors and assigns, except as may otherwise be provided herein.

13. Notices. Any notice required hereunder shall be provided as follows:

For the County:

Name: \_\_\_\_\_  
Department: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_

For the Owner:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_

IN WITNESS WHEREOF, Owner and County have executed this Permit effective as of \_\_\_\_\_, 2015.

By: \_\_\_\_\_  
\_\_\_\_\_

Owner

\_\_\_\_\_  
Telephone No.

RECOMMENDED FOR APPROVAL:

Accepted by the County of Trinity

By: \_\_\_\_\_

By: \_\_\_\_\_

\_\_\_\_\_  
Right of Way Agent

Please supply the following insurance information:

Insurance Company: \_\_\_\_\_

Policy Number: \_\_\_\_\_

Agent Name: \_\_\_\_\_

Agent Phone Number: \_\_\_\_\_

Please check all that apply on the Property:

Large Item Description	Quantity	Keep	Remove	Comments
Vehicles				
Boats				
Trailers/RVs				
Trees <sup>1</sup>				
Other:				

1. Trees identified by a Certified Arborist as dead or dying are considered hazardous. Any hazardous trees that are a threat to county right-of-ways or residential structures that would require a permit to rebuild will be cut down and removed through this Permit. These trees constitute a hazard to the public health, safety, and welfare. Tree stumps will not be removed.

Underground Tanks	Location	Construction Date (If Known)	Comments
Septic <sup>1</sup>			
Fuel/Oil			
Water			
Other:			

1. Septic tanks will be pumped of all waste as part of the debris removal project.

Underground Structures	Location	Construction Date (If Known)	Comments
Basement			
Root Cellar			
Other:			

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**Special Instructions** (i.e. directions to contractors to access the Property or notable items Owner wishes to try to recover):

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**APPENDIX D**  
**STRUCTURAL DEBRIS REMOVAL FORMS**

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TRINITY INCIDENT STRUCTURAL DEBRIS REMOVAL

CONFIRMATION SAMPLING

UNIFIED COMMAND APPROVAL FORM

SITE ADDRESS: \_\_\_\_\_

Sample Identification: \_\_\_\_\_

Number of Samples: \_\_\_\_\_

Date Sample Collected: \_\_\_\_\_ Laboratory: \_\_\_\_\_

**Cleanup Goals:** See Metals Cleanup Goals for the Trinity Complex Fire Site in Trinity County, California. The metal goals are based on 2x the calculated soil background, US EPA Regional Screening Levels, and/or the California Environmental Protection Agency (CalEPA), California Human Health Screening Levels (CHHSLs; 2009).

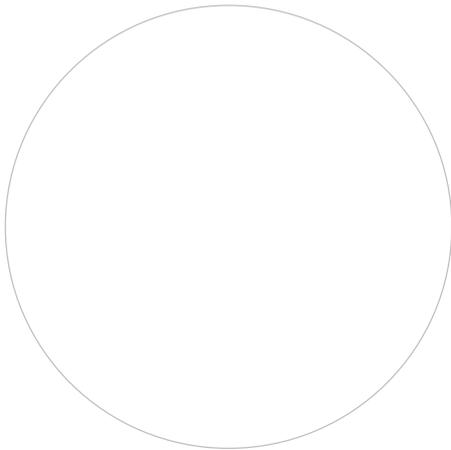
Date Approved: \_\_\_\_\_

**Observations:**

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Todd Thalhamer, P.E., CalRecycle

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Andy Marino, Operations Chief

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Tabetha Willmon, Planning Chief

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TRINITY INCIDENT STRUCTURAL DEBRIS REMOVAL

Underground Storage Tank (UST)

CONFIRMATION SAMPLING

UNIFIED COMMAND APPROVAL FORM

SITE ADDRESS: \_\_\_\_\_

Sample Identification: \_\_\_\_\_

Number of Samples: \_\_\_\_\_

Date Sample Collected: \_\_\_\_\_

Laboratory: \_\_\_\_\_

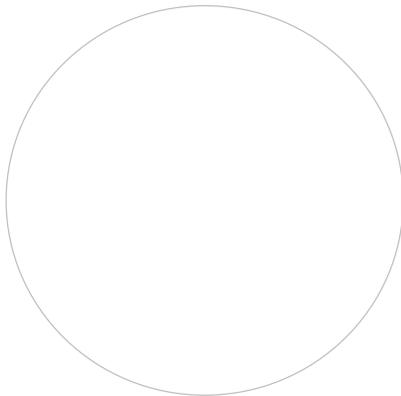
**Cleanup Requirements:** The cleanup goal for UST's discovered at the Boles Structural Debris Removal Program will be based on County of Trinity's Ordinance Code for Underground Storage Tanks. The cleanup requirements for USTs will be less than 100 mg/kg for Diesel C10-C24 and non-detect for BTEX per LUFT guidelines.

Size of the Tank: \_\_\_\_\_ Water Present (Y/N): \_\_\_\_ Number of Samples \_\_\_\_

Date Approved: \_\_\_\_\_

**Observations:**

\_\_\_\_\_  
\_\_\_\_\_



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Todd Thalhamer, P.E., CalRecycle

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Andy Marino, Operations Chief

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Tabetha Willmon, Planning Chief

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TRINITY INCIDENT STRUCTURAL DEBRIS REMOVAL

Erosion Control Work Sheet

Date: \_\_\_\_\_

SITE ADDRESS: \_\_\_\_\_

Level of Erosion Control per Erosion Control Work Group: Level \_\_\_\_ (1, 2, 3, 4)

**Observations:**

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N  
T  
S

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Andy Marino

CalRecycle, Operations Chief

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TRINITY INCIDENT STRUCTURAL DEBRIS REMOVAL

ENGINEER'S OBSERVATIONS

Road Damage Survey for the Trinity Fire Complex Incident Area

Date: Pending

Observations:

The following road survey was performed by the CalRecycle Operations Chief who is also a licensed civil engineer in the State of California. The initial road survey conducted on xxx, indicated x areas that should be repaired and/or replaced due to impacts from the Incident directly or indirectly from the x shipments of debris, concrete, and metal. These observations are only recommendations to County of Trinity.

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Andy Marino

CalRecycle, Operations Chief



# APPENDIX E

## Hydroseeding Specification

Hydrostraw with Guar @ 3,500 lbs/acre  
Organic fertilizer 5-3-2 @ 400 lbs/acre

### Seed Mix:

- Regreen Sterile Wheatgrass @ 22 lbs/acre
- CA Brome @ 10 lbs/acre (higher elevation)
- Blue Wildrye @ 8 lbs/acre (higher elevation)
- Squirrel Tail @ 5 lbs/acre
- Blue Bunch Fescue @ 4 lbs/acre
- Sandberg Bluegrass @ 4 lbs/acre
- Spanish Clover @ 2 lbs/acre



533 Hawthorne Place, Livermore, CA 94550 (925) 373-4417

NAME: Freedlun Hydroseeding  
MIX: Weed Seed Mix  
NOTES: 55 lbs/acre

<u>PURITY</u>	<u>SPECIES</u>	<u>GERM</u>	<u>HARD</u>	<u>TOTAL</u>
18.00	Bromus carinatus, Moklumne	95		95
14.32	Elymus glaucus, Stan 5,000	94		94
7.20	Festuca idahoensis	93		93
7.16	Poa secunda	90		90
8.68	Tetraploid Perennial Ryegrass	68		68
3.63	Trifolium repens, Inoc	98		98
39.48	Elymus X triticum	95		95

ROP: 0.10    INERT: 1.35    WEED: 0.08    No Noxious Weed in CA  
NET WT: 55.00 Lbs    SELL BY: 5/15    TESTED: 2/14    ORIGIN: CA™

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Appendix F

Acronyms and Abbreviations

ASTM	American Society for Testing and Materials
BMP	Best Management Practices
CalEPA	California Environmental Protection Agency
CalOES	California Office of Emergency Services
CalRecycle	Department of Resources Recycling and Recovery
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CHHSL	California Human Health Screening Levels
DROC	Debris Removal Operations Center
EPA	Environmental Protection Agency
HFCs	Hydrofluorocarbons
HCFCs	Hydrochlorofluorocarbons
HHW	Household Hazardous Waste
ICS	Incident Command System
NES	Network Environmental Systems, Incorporated
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NIOSH	National Institute for Occupational Safety and Health
PCBs	Polychlorinated Biphenyls
PE	Professional Engineer
PM	Particulate Matter
PRC	Public Resources Code
REHS	Registered Environmental Health Specialist
USA	United States of America
USEPA	United States Environmental Protection Agency
USTs	Underground Storage Tanks
UXO	Unexploded Ordinance

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**APPENDIX F**  
**LIST OF IMPACTED ADDRESSES**