Resolution

No. 24-91

ADOPTING MAUI WILDFIRES FIRE DEBRIS REMOVAL ALTERNATIVE PROGRAM STANDARDS

WHEREAS, section 6(A) of ordinance 5562 authorizes the Council to establish the requirements of an alternative debris removal program by resolution; and

WHEREAS, pursuant to section 6(A) of ordinance 5562, the Council now wishes to establish the requirements of an alternative debris removal program that will provide standards for owners clearing properties damaged by the Lahaina wildfires of August 2023;

NOW, THEREFORE, BE IT RESOLVED by the Council of the County of Maui:

1. That the Council adopts the requirements attached as Exhibit "A" as the alternative debris removal program requirements pursuant to section 6(A) of ordinance 5562; and

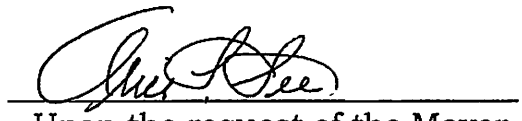
2. That copies of the resolution be provided to the Mayor, the Managing Director, Director of Public Works and the Director of Environmental Management.

APPROVED AS TO FORM
AND LEGALITY:

/s/ Michael J. Hopper

MICHAEL J. HOPPER
Deputy Corporation Counsel
County of Maui
LF2024-0561
2024-04-24 Reso Maui Wildfires Fire Debris Removal
Alt Program Stands

INTRODUCED BY:



Upon the request of the Mayor.

EXHIBIT "A"

Maui Wildfires
Fire Debris Removal
Alternative Program Standards

1. Definitions.
    a. "Department" means the department of public works.
    b. "Director" means the director of public works.
    c. "Property owner" means the owner of a qualifying property.
    d. "Qualifying property" means any property that has not obtained an approved right-of-entry permit under the government program and contains structural debris from one or more qualifying structures as defined by Ordinance 5562.
2. Immediate site containment.
    a. The owner of a qualifying property must install BMPS to prevent erosions and the release of dust from the structural debris no later than 30 days after the application deadline.
    b. The owner must ensure BMPS are in good working order and must repair or replace BMPS as necessary until debris removal is complete.
3. Application.
    a. The owner of a qualifying property must submit an application through the county's automated permitting system (MAPPS) no later June 15, 2024. The Department will commence summary abatement proceedings if the owner fails to submit an application or obtain an approved right-of-entry permit by the deadline set herein.
    b. The application must contain the following information:
        i. Property owner name, mailing address, phone number, and email address.
        ii. Property address and tax map key number.
        iii. Description of the fire debris to be removed, including but not limited, the number and type of structures, and types and quantities of waste.
    c. The Department will accept an application upon determining that the application is complete, and the property identified in the application is a qualifying property. The application will be rejected if the property identified in the application is not a qualifying property.
    d. Upon acceptance of the application, the owner must submit a work plan prepared in accordance with these standards. The work plan must be submitted no later than 30 days after the date the application is accepted by the Department.
4. Work Plan.
    a. The Department will accept the work plan upon determining that the plan contains all required contents. The requirements herein may be modified when the director determines the modification is necessary to enable the expeditious removal of fire debris.
    b. The contents required in the work plan are:
        i. Name and signature of owner.
        ii. List of contractors and consultants with each firm's name, license number, phone number and email.
        iii. Description of the property including photos, sketches, or discussions of the following:

1. Location of the ash footprint and fire debris.
2. Location of building foundations, walls, or other features.
3. Location of water and wastewater lines.
4. Location of water and septic systems.
5. Location of electrical and other utility lines.
6. Location of on-site hazards or features, such as swimming pools, gulches and drainageways, easements, walls, or embankments.
7. Location and operation of equipment and material staging areas.
8. Identify which of the above items will be demolished or retained.

iv. Health and Safety Plan for debris removal and transport activities.
v. Traffic control plan for debris removal and transport activities.
vi. Utility capping and disconnection.
vii. Asbestos evaluation and abatement report.
viii. Building foundation structural report, when applicable.
ix. Hazardous material assessment, and removal and disposal plan.
x. Archaeological report, when applicable.
xi. Erosion and sediment control plan.
xii. Dust control plan.
xiii. Debris disposal and recycling plan.
xiv. Hazard tree assessment and acknowledgement, when applicable.
xv. Battery energy storage systems and electric vehicle debris plan, when applicable.
xvi. Soil scarping and sampling plan.

5. Debris removal.
    a. Acceptance of the work plan is authorization to commence removal of fire debris.
    b. Debris removal must be completed no later than 30 days after the acceptance of the work plan.
    c. Upon completion of removal of all fire debris, the property owner must submit a final report in accordance with these standards no later than 30 days after soil sampling results are obtained.
6. Health and Safety Plan.
    a. The contractor is responsible for ensuring the safety of its workers and the surrounding properties.
    b. The work plan must describe the health and safety measures the contractor will implement to protect its workers and mitigate impacts resulting from debris removal activities.
7. Traffic Control Plan.
    a. The contractor is responsible for implementing traffic control measures for its activities that occur along and within the roadways.
    b. The work plan must identify the traffic condition anticipated in the work area and describe the traffic control measure that will be used when work in actively occurring.
8. Utility capping and disconnection.
    a. The work plan must identify the points of connection between the onsite water and sewer lines to the County water and sewer laterals.

b. The property owner must cap all exposed wastewater piping connected to the county prior to debris removal.
c. The property owner must disconnect their water supply piping from their water meter box prior to debris removal.

9. Asbestos evaluation and abatement report.
    a. Prior to submitting the work plan, the property owner must have an asbestos inspector, certified by the State of Hawaii, evaluate their property for asbestos-containing materials (ACM). A report of the inspector's findings must be included in the work plan.
    b. Abatement of any ACM must be performed by a contractor licensed and certified by the State of Hawaii to perform asbestos activities.
    c. Abatement of any ACM must include measures to mitigate the release of asbestos dust. A description of the mitigation measures must be included in the work plan.
    d. The work plan must include the name and license of the asbestos contractor, a description of the procedures for handling and removing ACM, and the disposal facility.
    e. The contractor must provide all disposal receipts and documentation in the final report.
10. Building foundations.
    a. All building foundations must be completely removed unless the director authorizes the foundation to remain.
    b. A property owner seeking to retain their foundation must include in the work plan a report stamped by a structural engineer licensed in the State of Hawaii that certifies the foundation has been analyzed, tested, and found to be acceptable for reuse in rebuilding the structure to meet the current County of Maui Building Code.
    c. The report must include all testing results and the structural engineer's analysis for determining that the foundation is acceptable for reuse.
    d. If any portion of a foundation that is being retained must be demolished, then the structural engineering must oversee the demolition activities and prepare an inspection report certifying that the demolition work in conformance with the structural engineer's recommendations. The inspection report must be included in the final report.
11. Hazardous materials.
    a. The property owner must have an environmental consultant conduct fire debris sampling as directed by the Director of Environmental Management to identify any hazardous materials. A report of the consultant's findings must be included in the work plan.
    b. When hazardous materials are identified, the property owner must have an environmental consultant prepare a plan for the removal and disposal of hazardous materials that complies with the requirements of the State of Hawaii Department of Health Hazard Evaluation & Emergency Response Office. The plan must be included in the work plan.
    c. The contractor must provide all disposal receipts and documentation in the final report.
12. Archaeological and Cultural Resources.
    a. All work plan must be reviewed for compliance with chapter 6E, Hawaii Revised Statutes. The property owner must hire an archeologist licensed in the State of Hawaii to perform investigations and prepare reports as required by the State Historic Preservation Division.

13. Erosion and sediment control.
    a. The contractor must implement temporary best management practices (BMPS) for erosion and sediment control to prevent fire debris removal activities and fire debris stockpiles from causing ash, soil, or other materials from leaving the property and entering the street, drainage systems, neighboring properties, drainageways, or the ocean.
    b. Upon completion of fire debris removal, the property owner must install permanent BMPS to stabilize all areas where the ground is disturbed from fire debris removal activities.
    c. Temporary BMPS management practices include but are not limited to wetting, covering, sediment barriers, berms, dikes, silt fences, straw wattles, filter socks, and sandbags, or other methods deemed acceptable by the Director.
    d. Permanent BMPS include grassing, gravel, matting, hydro mulch, soil tackifier, or other methods deemed acceptable by the Director.
    e. The contractor's plan for erosion and sediment control must be provided in the work plan. BMPS must meet or exceed the requirements of the Storm Water Pollution Prevention Plan attached hereto as Appendix A
14. Dust Control
    a. The contractor must implement measures to control the release of dust from fire debris or disturbed ground during removal and transport activities.
    b. Fire debris must be watered or treated with a dust palliative before removal begins and throughout removal activities in a manner that minimizes the release of dust from the property and does not generate runoff.
    c. During transport on any public roads the fire debris must be wrapped and fully encapsulated in polyethylene sheeting 10-mil or greater in thickness.
    d. Fire debris intended for recycling must be free of ash prior to transport off site or must be wetted and covered with a tarp during transport.
    e. Any fire debris disturbed by removal activities or any stockpiled fire debris that will remain onsite overnight must be protected by wetting, covering, other methods that prevent dust emissions while removal is not actively occurring.
    f. Use of dry methods to remove fire debris and ash that generates dust is prohibited, including but not limited to, the use of blowers and rotary brushes or brooms.
    g. The contractor must perform air monitoring while debris removal activities are occurring and immediately stop work when air quality exceeds acceptable levels as determined by the director.
    h. The contractor's plan for dust control must be provided in the work plan.
15. Debris disposal and recycling.
    a. The contractor must dispose of or recycle all fire debris at facilities permitted by the State of Hawaii to receive and process such waste. The work plan must identify:
        i. Types of debris and estimated quantities tonnages.
        ii. The recycling and disposal facilities that will receive applicant's debris.
    b. The property owner must obtain authorization from the Director of Environmental Management to dispose of structural debris at a county landfill.

c. The contractor must provide all disposal and recycling receipts and documentation in the final report.

16. Hazard Tree Removal
    a. The property owner must identify in the work plan if any hazard trees are present on site.
    b. Hazard trees must be removed by a certified arborist and to the satisfaction of the Director of Public Works.
17. Battery energy storage systems and electric vehicle debris
    a. The handling and disposal methods for any batteries from electric vehicles or battery energy systems (i.e. Powerwalls) identified in the fire debris must be described in the work plan.
    b. The contractor must provide all disposal and recycling receipts and documentation in the final report.
18. Soil Scraping and Sampling
    a. All soil beneath any structural debris and ash must be removed from the surface to a depth of 3 to 6 inches once all fire debris is removed from the property. Removed soil must be transported and disposed in accordance with this ordinance.
    b. After soil scraping the property owner must have an environmental consultant perform soil sampling in accordance with the United States Army Corps of Engineers' Soil Sampling and Analyses Plan ("SAP") attached hereto as Appendix B.
    c. The work plan must identify the environmental consultant that will perform the soil sampling and any proposed modification to the SAP.
    d. If soil sampling results exceed the criteria of the State of Hawaii Department of Health, then additional soil scraping may be performed by the property owner until the criteria are met.
    e. A property owner may decline to perform the additional soil scraping, provided the property owner acknowledges and accepts the condition of their soil and holds harmless the County against any damages that may result from such conditions persisting on the property.
    f. The results of the soil sampling must be included in the final report.
19. Final Report
    a. The Department will accept the final report upon determining that the final report contains all required contents. Acceptance of the final report by the Department will serve as confirmation that structural debris removal under the alternative program is complete.
    b. The final report must include the following:
        i. A certification signed by the property owner and its contractors stating that all structural debris has been removed and disposed of and indemnifying the County against any claims with respect to the removal of structural debris.
        ii. Asbestos disposal documentation, when applicable.
        iii. Building foundation inspection report, when applicable.
        iv. Hazardous waste disposal documentation, when applicable.
        v. Archeological reports, when applicable.

vi. Debris disposal and recycling documentation that identifies the property address or TMK where the debris was generated.
vii. Battery energy storage systems and electric vehicle debris disposal documentation, when applicable.
viii. Hazard tree removal documentation, when applicable.
ix. Soil sampling reports including a signed statement from the consultant confirming the test results of the soil sampling, including the acknowledgement of soil condition must also be attached to the final report, when applicable.

APPENDIX A

STORM WATER POLLUTION PREVENTION PLAN

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Lahaina Residential Debris Removal
Lahaina Town, Maui, Hawaii

Document Number: PC-007-00

Prepared for: ECC Constructors LLC

Prepared by: Haley & Aldrich
January 2024

Table of Contents

SWPPP Attachments:

7.0 Preface

The following documents are referenced throughout this document:

1) *Hawaii Administrative Rules (HAR), Chapter 11-55: Clean Water Branch | HAR 11-55 (hawaii.gov)*
2) *County of Maui Construction Activities Best Management Practices Manual (December 2023): https://www.mauicounty.gov/DocumentCenter/View/144803/COM-Construction-BMP-Manual*

The Section numbers in this SWPPP correspond to the sections describing SWPPP requirements contained in HAR Chapter 11-55, Appendix C, NPDES General Permit Authorizing Discharges of Storm Water Associated with Construction Activity, unless stated otherwise. For each section, the HAR requirement is provided, followed by the site-specific SWPPP information in italics. Although the project is exempt from NPDES permitting under the Governor's Emergency Proclamation related to the Lahaina Wildfires, this SWPPP follows the format and intent of the SWPPP requirements under HAR Chapter 11-55, Appendix C.

7.2.1 Storm Water Team

The contractor shall assemble and oversee a "storm water team," which is responsible for the development of the SWPPP, any later modifications to it, and for compliance with the requirements in the Notice of General Permit Coverage (NGPC) or Individual NPDES permit.

The SWPPP must identify the personnel (by name or position) that are part of the storm water team, as well as their individual responsibilities. Each member of the storm water team must have ready access to an electronic or paper copy of applicable portions of the permit, the most updated copy of this SWPPP, and other relevant documents or information that must be kept with this SWPPP.

1) Name: *Marc Mizrahi, CHMM*
Company: *ECC Constructors LLC*
Position: *Sr. Program Manager*
Contact Number: *973-202-8776*
Responsibilities: *Debris and Recycling Manager*

2) Name: *Kai Watson*
Company: *ECC Constructors LLC*
Position: *Environmental Manager*
Contact Number: *808-386-6119*
Responsibilities: *Responsible for overall project and field compliance with HAR Chapter 11-55 and permit conditions, and for updating the SWPPP as needed.*

3) Name: *Louis Perez*
Company: *ECC Constructors LLC*
Position: *Project Manager*
Contact Number: *901-258-0708*
Responsibilities: *Spill response, inspections, and documentation.*

4) Name: *Luke Matzke*
Company: *ECC Constructors LLC*
Position: *Operations Manager*
Contact Number: *303-817-6970*
Responsibilities: *Construction Operations.*

7.2.2 Nature of Construction Activities

What is the function of the construction activity (Please check all applicable activity(ies))?

☐ Residential ☐ Commercial ☒ Industrial ☐ Road Construction ☐ Linear Utility

☒ Other (please specify): *The function is to remove recyclable materials, including metals and concrete, and ash and debris from burned properties in Lahaina.*

What is being constructed? *The project consists of debris removal from approximately 1375 residential parcels that were damaged during August 2023 Lahaina wildfires (Attachment A, Figure 1). This SWPPP details Best Management Practices (BMPs) that will be employed to protect stormwater during removal of debris.*

Describe the scope of work and major construction activities covered in the SWPPP, including base yards and staging areas.
This programmatic SWPPP applies to the removal of burn debris from residential parcels (TMKs) damaged in the August 2023 Lahaina wildfire. The scope of work entails the following:

- *Placement of straw wattles around the individual TMK being remediated. Straw wattle placement is discussed below.*
- *Removal of recyclable material/scrap metal from the TMK.*
- *Removal of concrete and asphalt for recycling.*
- *Removal of ash and debris that cannot be recycled.*
- *Placement of ash and debris in a visqueen-lined truck. After the truck is loaded, the liner will be wrapped over the top of the debris to secure the load during transport to the West Maui Temporary Disposal Site (TDS).*

- *Removal of 3" to 6" of topsoil from each TMK and transport in visqueen lined truck to West Maui TDS. This includes removal of straw wattles.*
- *No hazardous materials or chemicals anticipated to be encountered on the TMKs; however, if hazardous materials are encountered in the burn debris, the contractor will manage them per applicable disposal requirements.*
- *Following completion of debris and soil removal, another iteration of straw wattles will be placed around the site. Once analytical results from post debris removal soil sampling are received, and results are within the limits determined by the Department of Health and USACE, the site will be backfilled with crushed rock as a soil stabilization measure*

7.2.3 Emergency Related Projects

This is an emergency project. This project is related to emergency clean-up following the Lahaina Wildfire Emergency that occurred on August 8, 2023.

7.2.4 Identification of Prime Contractor and Other Site Contractors

The following is the information for the prime contractor, ECC, and their proposed subcontractors for the project. Subcontractors shall be added to the list and will complete the subcontractor certification in Attachment B prior to beginning work at the Lahaina TMKs:

General Contractor Company Name: ***ECC Constructors LLC***	
General Contractor Contact Person Name: *Marc Mizrahi, CHMM*	
General Contractor Mailing Address: *1240 Bayshore Hwy, suite 301*	
General Contractor Mailing City: *Burlingame*	Mailing State and Zip Code: *California 94010*
General Contractor Telephone Number: *973-202-8776*	
General Contractor Email Address: *mmizrahi@ecc.net*	

Sub-Contractor #1 Company Name: **Alpha Inc.**	
Sub-Contractor Contact Person Name: *Greg Sado*	
Sub-Contractor Mailing Address: *PO Box 330449*	
Sub-Contractor Mailing City: *Kahului*	Mailing State and Zip Code: *Hawaii 96733*
Sub-Contractor Telephone Number: *808-446-5067*	
Sub-Contractor Email Address: *Greg@alphahawaii.com*	

Sub-Contractor #2 Company Name: ***TKH Construction Inc.***	
Sub-Contractor Contact Person Name: *Milton Thibodeaux*	
Sub-Contractor Mailing Address: *320 Hukilike St Ste 4E*	
Sub-Contractor Mailing City: *Kahului*	Mailing State and Zip Code: *HI 96732*
Sub-Contractor Telephone Number: *(808) 893-2550*	
Sub-Contractor Email Address: *tkhbubba@gmail.com*	

Sub-Contractor #3 Company Name: ***Truth Excavation (TRU-X)***	
Sub-Contractor Contact Person Name: *Kimo Clark*	
Sub-Contractor Mailing Address: *164 Wahikuli Rd*	
Sub-Contractor Mailing City: *Lahaina*	Mailing State and Zip Code: *HI 96761*
Sub-Contractor Telephone Number: *(808) 298-3351*	
Sub-Contractor Email Address: *truthexcavation@gmail.com*	

Sub-Contractor #4 Company Name: ***PB Sullivan Construction Inc.***	
Sub-Contractor Contact Person Name: *Pete Sullivan*	
Sub-Contractor Mailing Address: *2662 Wai Wai Pl Ste 201*	
Sub-Contractor Mailing City: *Kihei*	Mailing State and Zip Code: *HI 96753*
Sub-Contractor Telephone Number: *(808) 875-2833*	
Sub-Contractor Email Address: *pete@pbsullivanconst.com*	

Sub-Contractor #5 Company Name: ***CMAC Excavation LLC***	
Sub-Contractor Contact Person Name: *Cody MacDonald*	
Sub-Contractor Mailing Address: *1043 Makawao Ave., Suite 104*	
Sub-Contractor Mailing City: *Makawao*	Mailing State and Zip Code: *HI 96768*
Sub-Contractor Telephone Number: *(808) 269-7811*	
Sub-Contractor Email Address: *cody@cmacexcavation.com*	

Sub-Contractor #6 Company Name: ***D&D Towing***	
Sub-Contractor Contact Person Name: *Alison Meyer*	
Sub-Contractor Mailing Address: *193 Nopu St*	
Sub-Contractor Mailing City: *Puunene*	Mailing State and Zip Code: *HI 96784*
Sub-Contractor Telephone Number: *(808) 871-1185*	
Sub-Contractor Email Address: *alison.ddtow@hawaii.rr.com*	

Sub-Contractor #7 Company Name: ***MauiScapes***	
Sub-Contractor Contact Person Name: *Torsten Erickson*	
Sub-Contractor Mailing Address: *72 W Kuiaha Rd*	
Sub-Contractor Mailing City: *Haiku*	Mailing State and Zip Code: *HI 96708*
Sub-Contractor Telephone Number: *(808) 573-5454*	
Sub-Contractor Email Address: *mauiscapes@gmail.com*	

7.2.5 Sequence and Estimated Dates of Construction Activities

Table 1 – Sequence and Estimated Dates of Construction Activities

Date when the SWPPP, including erosion control measures will be implemented:	*Debris removal will begin January 13, 2024. Erosion controls will be placed prior to the start of work at each TMK.*
Date when the general contractor will begin construction:	*Debris removal will begin January 13, 2024.*
Cessation, temporarily or permanently, of construction activities on the site:	*Construction at each site will progress until debris and ash are removed as described above in 7.2.1. No cessation is anticipated on each site until debris removal is finished.*
Final or temporary stabilization of areas of exposed soil if necessary:	*December 31, 2024 is the anticipated date debris removal operations will be completed for all designated parcels.*
Date when the general contractor will end site disturbance:	*December 31, 2024, or whenever debris removal is accomplished.*
Date when erosion control measures will be removed:	*Erosion control measures (perimeter BMPs) will remain in place at each site until soil testing indicates no further action is necessary at the site.*

Date when the Notice of Cessation form will be submitted	*N/A – NOI is not required per Governor's Emergency Declaration*

7.2.6.1 Property Boundary Maps

a. Legal boundaries of the project. *See Attachment A, Figure 1, for the residential TMK parcels that will have debris removed under this project.*

b. Locations where earth-disturbing activities will occur, noting any sequencing of construction activities. *An initial prioritization plan has been developed and the contractor is anticipated to work from the outside of Lahaina into the center of town, prioritizing TMKs that are near properties that did not burn (where residents are able to occupy their homes). See prioritization plan in Attachment A, Figure 2 (this plan likely to be adjusted as work progresses, access agreements are reached, and priorities shift for a variety of reasons).*

c. Approximate slopes before and after major grading activities and drainage patterns with flow arrows. Note areas of steep slopes: *No major grading will occur and drainage patterns will not change. The grades on each lot will be generally maintained. Contractor shall remain aware of stormwater flow off the site during debris removal activities and protect downgradient areas with perimeter controls.*

d. Locations where sediment, soil, or other construction materials will be stockpiled *7.2.6.1c. Sediment, soil, and burn debris may be temporarily stockpiled on each site while being loaded into trucks for transportation to West Maui TDS. The work does not involve construction and there will be no stockpiling of construction materials.*

e. Locations of any contaminated soil or contaminated soil stockpiles *7.2.6.1d. Hazardous and potentially dangerous materials have been removed from TMKs prior to the start of debris removal covered by this SWPPP. Soil underlying the debris may be contaminated by chemical residuals from burning a variety of materials. The upper 6 inches of soil will be removed from each site and the underlying soil tested to determine if additional soil removal is needed according to Department of Health cleanup criteria.*

f. Locations of any crossings of state waters *7.2.6.1e. There are no waters of the state crossings associated with the project.*

g. Designated points on the site where vehicles will exit onto paved roads *7.2.6.1f. Trucks used to haul debris to the TDS will not access the TMKs but will be parked at the edge of the property on the roadway. Heavy equipment (excavator, loader, etc.) working on each site will convey material for disposal to trucks as they remain on roadways outside the TMK's*

burn zone. Trucks will not be allowed to track through or into the ash/debris zone. If necessary to control tracking, the contractor will install road base to allow debris free access. If debris falls onto truck surfaces during loading, the contractor will sweep debris off the trucks before they leave the site. If debris falls onto the roadway during loading, the contractor will clean up the material manually by sweeping as each truck departs, as well as employing street sweepers to sweep the streets near the active working areas.

h. Location(s) of structures or other impervious areas after construction is completed *7.2.6.1g.*
This project is not constructing impervious areas.

i. Locations of construction support activity areas covered by this permit *7.2.6.1h. Equipment will be stored at TMKs where debris removal is taking place, or at the contractor's storage yard. Vehicle refueling will be conducted at the individual TMKs. Filling of equipment will be actively monitored by the equipment and fuel truck operator and overfills will be prevented. Spill kits will be available on fueling trucks and at TMKs. Maintenance of equipment, if needed, will occur outside of the wildfire impacted area of Lahaina. Trucks used to transport the debris will be stored empty overnight at the former Foodland site at 878 Front Street, Lahaina.*

7.2.6.2 to 7.2.6.8 State Waters and BMP Maps

a. Locations of all state waters, including wetlands that exist within or in the immediate vicinity of the site and indicate which waterbodies are listed as impaired *7.2.6.2.*
Lahaina Town is located on the Pacific Ocean, on the western side of the island of Maui, Hawaii, and has a coastline of approximately 2 miles. The Pacific Ocean is the receiving water for stormwater from the project area. Thie project will take place in the Kahoma and Kauaula watersheds. The following monitoring locations on the Pacific Ocean within the project footprint are listed as impaired: Wahikuli Wayside Park is listed for turbidity, chlorophyl a and nitrate/nitrite; Pu'unoa Beach is listed for turbidity; Mala Wharf-West Maui Coast is listed for turbidity and chlorophyl a; Lahaina Beach is listed for nitrate/nitrite, ammonia, and turbidity; and West-Maui-Paumana is listed for turbidity and chlorophyl a.

b. The boundary lines of any natural buffers provided are consistent with *Section 5.1.2.1.1, 7.2.6.3.*
In general, natural buffers are not present on the residential TMKs where debris removal will occur.

c. Topography of the site, existing vegetative cover (e.g., forest, pasture, pavement, structures), and drainage pattern(s) of storm water onto, over, and from the site property before and after major grading activities *7.2.6.4.*

In general, the area of Lahaina Town decreases in elevation moving from the east side of town to the west side at the ocean. Drainage patterns are generally west toward the ocean, although localized flow patterns may occur to drainage channels, streams, or canals. The project consists of debris removal from burned properties in a high-density urban setting and trees and landscaping vegetative cover at the sites has largely been destroyed. The only grading to be conducted is removal of the upper 6 inches of soil following debris removal.

d. Storm water discharge locations.
See Attachment A, Figure 3 for a map of the storm drainage system in Lahaina Town and the location of outfalls.

e. Locations of all potential pollutant-generating activities identified in *Section 7.2.7, 7.2.6.6.*
Debris and ash at the site are sources of potential pollutants. The Contractor will use the described controls to keep potentially contaminated ash contained and will use appropriate BMPs to protect stormwater that may discharge from the site.

On-site sanitary facilities (septic systems or cesspools) at the properties could be a source of contamination and the Contractor will cover and protect these systems so they aren't destroyed or damaged. If the Contractor identifies open wastewater system connections, such connections will be covered and protected so that ash is not discharged to the County's sanitary system.

f. Locations of storm water control measures *7.2.6.7.*
The Contractor will install pre-removal BMPs (straw wattles) around each TMK prior to beginning debris removal activities. After debris and soil removal are completed, the contractor will place post-removal wattles around the clean sites until the site is cleared for placement of a gravel layer to be used for site stabilization.

If the Contractor encounters storm drainage inlets on the property being cleared, they will protect the inlet with an appropriate BMP to prevent debris from entering the drainage system.

The Contractor may encounter County- or State-installed BMPs on the roadways adjacent to the TMKs designated for debris removal, and shall take precautions to not damage or remove those BMPs that are designed to prevent ash and debris from entering the storm drainage system and surface waters. BMPs will include curb inlet and drain inlet protection and block perimeter controls. Installed perimeter controls may include filter socks or ERTEC Hard Surface Guard (Hard Surface Guard, Perimeter Sediment Control on Concrete or Asphalt - ERTEC Environmental Systems (ertecsystems.com)). Hard Surface Guard is drivable but if it will be damaged by Contractor's activities, Contractor will cut the vertical

section on each side of the ingress/egress so as to not tear out the entire section installed along a block.

g. Location where chemicals will be used and stored *7.2.6.8.*:
The Contractor does not plan to use or store chemicals on site. Batteries and fluids have been removed prior to debris being brought to the site; however, if chemicals are encountered during debris processing, the contractor will remove containers holding hazardous substances to the Prison Street staging area until they can be disposed of properly.

7.2.7 Construction Site Pollutants

The SWPPP must include the following: (a) A list and description of all the pollutant-generating activities on the site; and (b) For each pollutant-generating activity, an inventory of pollutants or pollutant constituents (e.g., sediment, fertilizers and/or pesticides, paints, solvents, fuels) associated with that activity, which could be exposed to rainfall and could be discharged from the construction site. The contractor shall consider where potential spills and leaks could occur that contribute pollutants to storm water discharges.
A list of potential pollutant-generating activities and the potential pollutant constituents are provided in Table 2, along with the proposed controls, in Section 7.2.10.

7.2.8 Sources of Non-Storm Water

The SWPPP must also identify all sources of non-storm water and information, including, but not limited to, the design, installation, and maintenance of the control measures to prevent its discharge.
The Contractor will apply water for dust control, using water trucks daily to pre-wet properties before and during debris removal. Dust control water will be implemented at the minimum rate necessary to control dust and prevent runoff. The Contractor will sweep streets as necessary to remove dust and ash that may accumulate near work areas and that could be discharged via the drainage system.

7.2.9 Buffer Documentation

If required to comply with *Section 5.1.2.1.* because a state water is located within 50 feet of the project's earth disturbances, describe which compliance alternative has been selected for the site, and comply with any additional requirements to provide documentation in *Section 5.1.2.1.* Delineate, and clearly mark off, with flags, tape, or other similar marking device all natural buffer areas.

BMPs have been and are being placed by the County of Maui and State DOT along sensitive receptors and receiving waters including the Pacific Ocean, streams, and canals, as well as storm drain inlets in roadways. For TMKs where debris removal will occur within 50 feet of a sensitive receptor such as the Pacific Ocean, streams, or canals, as determined by the Contractor in the field, the Contractor shall evaluate whether installed BMPs are in place to serve as one layer of the double BMPs needed where natural buffers are not present. Contractor shall install an additional layer of perimeter BMPs or shall install double BMPs where other BMPs are not present.

7.2.10 Storm Water Control Measures

Please refer to County of Maui, Construction Activities Best Management Practices (BMP) Manual and Attachment A for guidance on the BMPs cited below.
https://www.mauicounty.gov/DocumentCenter/View/144803/COM-Construction-BMP-Manual

The pollutant sources in Table 2 below may not occur at each TMK site. BMPs specified in Table 2 below do not need to be implemented at TMK sites where constructing activities are not generating the associated pollutants. For example, if a site does not have any stockpiles, stockpile BMPs are not necessary.

Table 2 – Pollutant Generating Source and BMPs

Pollutant Source	***BMP Requirements*** ***Refer to Attachment C for further details***
Construction debris, general litter	EC-0 Employee/Subcontractor Training EC-1 Scheduling WE-1 Wind Erosion Control WM-3 Stockpile Management WM-4 Spill Prevention and Control WM-5 Solid Waste Management
Materials associated with the operation and maintenance of equipment, such as oil, fuel, and hydraulic fluid	EC-0 Employee/Subcontractor Training NS-8 Vehicle and Equipment Cleaning NS-9 Vehicle and Equipment Fueling NS-10 Vehicle and Equipment Maintenance WM-4 Spill Prevention and Control

Pollutant Source	***BMP Requirements*** ***Refer to Attachment C for further details***
Soil erosion from the disturbed areas	EC-0 Employee/Subcontractor Training SE-5 Fiber Rolls SE-10 Storm Drain Inlet Protection
Chemicals	WM-4 Spill Prevention and Control
Hazardous waste (e.g., Batteries, Solvents,, etc.)	EC-0 Employee/Subcontractor Training WM-5 Solid Waste Management WM-6 Hazardous Waste Management
Metals	EC-0 Employee/Subcontractor Training SE-5 Fiber Rolls WM-5 Solid Waste Management
Dust	EC-0 Employee/Subcontractor Training WE-1 Wind Erosion Control
Sediment Track-Out	EC-0 Employee/Subcontractor Training TC-1 Stabilized Construction Entrance/Exit TC-2 Stabilized Construction Roadway SE-12 Location of Potential Sources of Sediment WE-1 Wind Erosion Control
Sanitary/Septic Waste	EC-0 Employee/Subcontractor Training WM-4 Spill Prevention and Control WM-9 Sanitary/Septic Waste Management

7.2.10.2 – Stabilization Practices

The contractor shall initiate soil stabilization measures immediately whenever earth-disturbing activities have permanently or temporarily ceased on any portion of the site, as indicated on design plans. In limited circumstances, stabilization may not be required immediately (or, in even more limited circumstances, permanently) if the intended function of a specific area of the site necessitates that it remains disturbed. The **14-calendar day** timeframe begins counting as soon as the contractor knows that construction work on a portion of the site will betemporarily ceased.

The sites will contain bare soil upon completion of removal of debris and the upper 6 inches of soil. The sites will remain open until soil sampling results indicate that soil contamination is below levels set by DOH and USACE. Once the site is cleared for final stabilization, a layer of crushed rock backfill will be placed as a soil stabilizing measure. Perimeter straw wattles will remain in place after soil stabilization measures are installed.

7.2.10.3 – Post Construction Measures

Post-construction, each TMK will have debris and recyclable materials removed and the TMK will be covered with crushed rock for stabilization.

7.2.11.1 – Spill Prevention and Response Procedures

Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks.

Louis Perez, Project Manager, will be responsible for detection, response, and corrective actions for any spills or leaks. Mr. Perez or his designate will conduct daily inspections of equipment to look for fuel or oil leaks, and to check that hydraulic hoses are in good condition. Should spills or leaks occur from contractor equipment, the equipment will be immediately shut down and the spill contained with absorbent materials maintained in a readily identifiable spill kit kept on site. Site personnel will respond quickly with absorbent or booms to clean up the site. Spent absorbent materials will be promptly removed and disposed of properly. The Contractor will also monitor for leaks beneath trucks stored on pavement at Foodland and will park trucks over impermeable geotextile if leaks are occurring. Spill Prevention and Response procedures are detailed in WM-4 Spill Prevention and Control.

Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or more than a reportable quantity consistent with section 5.3.4. and established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available.

The Contractor will maintain a list of spill notification requirements with this SWPPP:

- *Small spills of oil (less than 25 gallons) will be cleaned up immediately using absorbent materials or other acceptable practices.*
- *Spills must be immediately reported per DOH and/or Federal requirements if one or more of the following conditions apply:*
  - *If the release is more than 25 gallons of petroleum product.*
  - *If the release is 25 gallons or less of petroleum product but is not contained or remedied within 72 hours.*
  - *If the release is equal to or exceeds the reportable quantity criteria for one or more chemicals listed within the DOH HEER Office Technical Guidance Manual (TGM): https://health.hawaii.gov/heer/tgm/*

- *If the release enters a storm drain or water body.*

- *If spill is 25 gallons or less of petroleum and not contained within 72 hours, submit written notifications to DOH HEER no later than 30 days following discovery of release, with an explanation as to why the spill was not cleaned within 72 hours.*
- *If spilled material is of a reportable quantity, verbally notify HSERC/HEER (808-586-4249), LEPC (808-586-4424), and NRC (800-424-8802) and obtain a Case Number. Submit written notifications to HSERC/HEER and NRC no later than 30 days following discovery of release.*
- *If spilled material enters a storm drain or water body, verbally notify DOH CWB (808.586.4309; cleanwaterbranch@doh.hawaii.gov during non-business hours), HSERC/HEER (808-586-4249), LEPC (808-586-4424), and NRC (800-424-8802) and a obtain Case Number. Submit written notifications to DOH CWB, HSERC/HEER, LEPC, and NRC no later than 30 days following discovery of release.*

The Contractor shall also provide to DOH Clean Water Branch, within 7 calendar days of knowledge of the release, a description of the release, the circumstances leading to the release, and the date of the release. Please refer to Attachment D1 for a sample Construction Discharge Report Form.

7.2.11.2 – Waste Management Procedures

Procedures for how the contractor will manage and dispose of all wastes generated at the site. *Scrap metal and concrete removed from the TMKs is being recycled. Debris generated within the Project Area is being disposed of at the West Maui TDS, a temporary disposal site for all non-recyclable debris being removed from Lahaina. For site litter, a covered trash bin will be maintained near TMKs as they are being remediated and shall be emptied, as necessary.*

It is anticipated that portable toilets will be utilized in areas where work is being conducted. The contractor shall position sanitary facilities away from vehicle routes and secure the facilities to the ground to prevent them from being knocked over. Alternatively, mobile portable toilets are acceptable.

7.2.12 – Procedures for Inspection, Maintenance, and Corrective Action

Personnel responsible for conducting inspections: *Louis Perez, Project Manager, Marc Mizrahi, Program Manager or Kai Watson, Environmental Manager, Luke Matzke, Operations Manager, or a delegate.*

Describe the inspection schedules and procedures you have developed for the site.
Construction BMPs shall be inspected weekly, and within 24 hours of any rainfall event of 0.25 inches or greater in a 24-hour period. *Contractor has developed and will utilize an online inspection form, to be completed in the field on a tablet or phone, with photos and electronic signature of the inspector (see printed template in Attachment D2). Inspection reports shall be maintained for 1 year following completion of the project.*

Maintenance requirements for specific BMPs are included in Attachment C.
The Contractor shall initiate work to fix the problem immediately after discovering the problem and complete such work by the close of the next workday, if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. In this section, "immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following workday. When installation of a new pollution prevention control or a significant repair is needed, the Contractor shall install the new or modified control and make it operational, or complete the repair, by no later than 7 calendar days from the time of discovery. If it is infeasible to complete the installation or repair within 7 calendar days, the Contractor shall document why it is infeasible to complete the installation or repair within the 7-calendar day timeframe and document the schedule for installing the storm water control(s) and making it operational as soon as practicable after the 7-calendar day timeframe. Where these actions result in changes to any of the pollution prevention controls or procedures documented in the SWPPP, the SWPPP will be modified accordingly.
If ***corrective actions*** *are needed, they will be documented in a Corrective Action Report (sample provided in Attachment D3.*

7.2.13 – Staff Training

Prior to the commencement of pollutant-generating activities, the contractor shall ensure that the following personnel understand the requirements of this permit and their specific responsibilities with respect to those requirements: (a) personnel who are responsible for the installation, maintenance, and/or repair of storm water controls (including pollution prevention measures); (b) personnel who are responsible for conducting inspections; and (c) personnel who are responsible for corrective actions and spill response.
Training will be conducted by Kai Watson, Environmental Manager or other qualified Hawaii SWPPP subject matter expert, who shall ensure that site personnel with the above responsibilities are trained in the requirements of the SWPPP and shall sign the training log contained in Attachment E.

7.2.17 Certification of the CWB SWPPP

The certifying person and duly authorized representative shall meet the requirements of Hawaii Administrative Rules 11-55, Appendix A, Section 15.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Marc Mizrahi Date: Jan 10, 2024

Person Name: *Marc Mizrahi, CHMM*

Person Position Title: *Sr. Program Manager*

Person Company or Agency: *ECC Constructors LLC*

Phone Number: *(973) 202-8776* Fax No.:

Person Email: *mmizrahi@ecc.net*

SWPPP Attachments

Attachment A – Figures

Attachment B – Subcontractor Certifications/Agreements

Complete for each Subcontractor and have them certify. Blank page follows. Keep completed pages in this section of the SWPPP.

SUBCONTRACTOR CERTIFICATION

Project Title: Lahaina Residential Debris Removal
Operator(s): ECC Constructors LLC

As a subcontractor, you are required to comply with the Storm Water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

I certify that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above-named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: Debris removal subcontractor

_____

Signature: _____

Title: _____

Date: _____

SUBCONTRACTOR CERTIFICATION

Project Title: Lahaina Residential Debris Removal
Operator(s): ECC Constructors LLC

As a subcontractor, you are required to comply with the Storm Water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above-named project:

Company: Alpha, Inc.
Address: PO Box 330449, Kahului, HI 96733
Telephone Number: 808-446-5067
Type of construction service to be provided: Debris removal subcontractor

Signature: _____
Title: _____
Date: _____

SUBCONTRACTOR CERTIFICATION

Project Title: Lahaina Residential Debris Removal
Operator(s): ECC Constructors LLC

As a subcontractor, you are required to comply with the Storm Water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above-named project:

Company: TKH Construction Inc.
Address: 320 Hukilike St Ste 4E, Kahului, HI 96732
Telephone Number: 808-893-2550
Type of construction service to be provided: Debris removal subcontractor

Signature: _____
Title: _____
Date: _____

SUBCONTRACTOR CERTIFICATION

Project Title: Lahaina Residential Debris Removal
Operator(s): ECC Constructors LLC

As a subcontractor, you are required to comply with the Storm Water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above-named project:

Company: Truth Excavation (TRU-X)
Address: 164 Wahikuli Rd, Lahaina, HI 96761
Telephone Number: 808-298-3351
Type of construction service to be provided: Debris removal subcontractor

Signature: _____
Title: _____
Date: _____

SUBCONTRACTOR CERTIFICATION

Project Title: Lahaina Residential Debris Removal
Operator(s): ECC Constructors LLC

As a subcontractor, you are required to comply with the Storm Water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above-named project:

Company: PB Sullivan Construction Inc.
Address: 2662 Wai Wai Pl Ste 201, Kihei, HI 96753
Telephone Number: 808-875-2833
Type of construction service to be provided: Debris removal subcontractor

Signature: _____
Title: _____
Date: _____

SUBCONTRACTOR CERTIFICATION

Project Title: Lahaina Residential Debris Removal
Operator(s): ECC Constructors LLC

As a subcontractor, you are required to comply with the Storm Water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above-named project:

Company: *CMAC Excavation LLC*
Address: *1043 Makawao Ave., Suite 104, Makawao, HI 96768*
Telephone Number: *808-269-7811*
Type of construction service to be provided: *Debris removal subcontractor*

Signature: _____
Title: _____
Date: _____

SUBCONTRACTOR CERTIFICATION

Project Title: Lahaina Residential Debris Removal
Operator(s): ECC Constructors LLC

As a subcontractor, you are required to comply with the Storm Water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above-named project:

Company: D&D Towing
Address: 193 Nopu St, Puunene, HI 96784
Telephone Number: 808-871-1185
Type of construction service to be provided: Debris removal subcontractor

Signature: _____
Title: _____
Date: _____

SUBCONTRACTOR CERTIFICATION

Project Title: Lahaina Residential Debris Removal
Operator(s): ECC Constructors LLC

As a subcontractor, you are required to comply with the Storm Water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above-named project:

Company: MauiScapes
Address: 72 W Kuiaha Rd, Haiku, HI 96708
Telephone Number: 808-573-5454
Type of construction service to be provided: Debris removal subcontractor

Signature: _____
Title: _____
Date: _____

Attachment C – BMP Details

Attachment D1 – Sample Construction Discharge Report Form

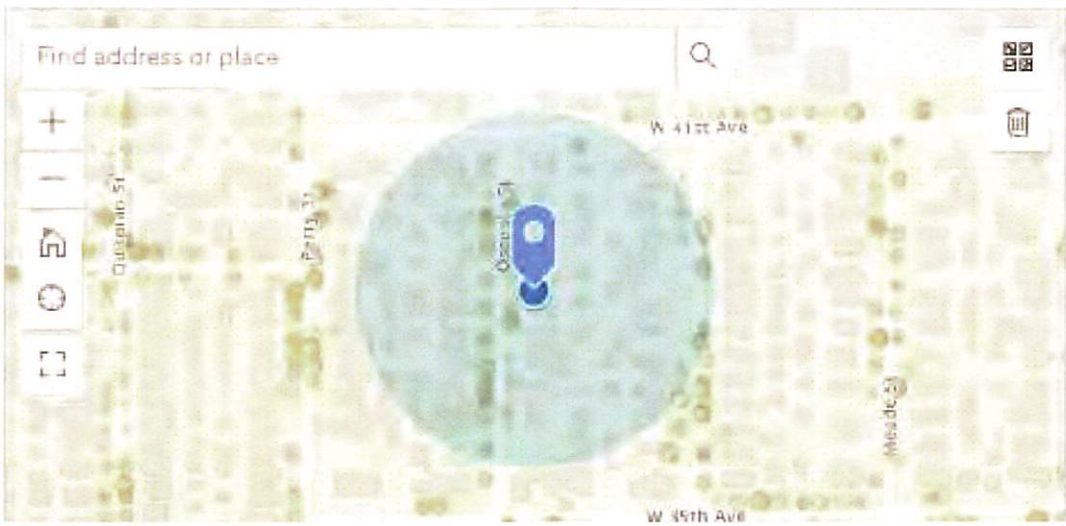
2023 Maui Fires Construction Discharge Report

This report is required when a non-stormwater or polluted stormwater discharge may have or may have potentially entered a storm drain or Receiving State Waters, if a discharge (e.g., spill) has occurred, if a polluted discharge is observed leaving the project limits, or if there is evidence of an unreported polluted discharge leaving project limits prior to inspection (such as: silty trail, eroded areas beyond site limits).

Inspector/Engineer*

Location Where Discharge Originated

Please allow access to Location Services on your device



Location Description or Address*

Date

1/3/2024

12:06 PM

Project No.

DOH File No.

Project

2023 Maui Fires Lahaina Debris Removal Operations

Weather Conditions*

Inches of Rain in Past 24 Hours*

Location of Work Activities*

Description of Work Activities*

General Information

Date of Incident

1/3/2024

Incident Identified or Reported By*

Time of Incident

12:06 PM

Duration of Incident*

In Hours

Source/Cause of Incident*

Describe the Incident*

Is the suspected reason for the discharge that a storm water control is clearly not operating as intended or is in need of maintenance?*

- [ ] BMP needs maintenance
- [ ] BMP not operating as intended
- [ ] BMP is not a factor

Specific Discharge Information

Nature of the Discharge*

- [ ] Sediment
- [ ] Concrete
- [ ] Oil/Grease
- [ ] Hazardous Material (describe below)

☐ Other

Hazardous Material Discharge Amount and Description

Characteristic of Immediate Area Where Discharge Occurred*

☑ Receiving Water(s)

☐ Storm Drain

☐ Soil

☐ Asphalt/Concrete Surface

☐ Other

Receiving Water(s) Name(s)

Description of Path of Discharge

Where did the polluted discharge ultimately go?

- [ ] Entered a drainage system
- [ ] Directly entered State waters (discharged directly to stream or other water body)
- [ ] Other

Inlets, Outfalls, and Receiving Water Information

List All Inlets and Outfalls

List all inlets and corresponding receiving water outfall locations from each drainage system. If discharge went directly to receiving waters, list the point where discharge entered receiving waters. At each point check the characteristics of the water upstream (if applicable), at discharge or outfall location, and downstream of discharge or outfall location (if applicable) and describe (turbidity, color, odor, floating, settled, or suspended solids, foam, oil sheen, and other obvious indicators of storm water pollutants).
If the discharge did not enter a drainage system or receiving water (e.g., stream, ocean), skip this section.

Actions Taken

Describe Immediate Measures Taken

Include Photos at End of Survey

Describe Additional Follow-Up Measures Taken

Include Photos at End of Survey

Other Notes and Comments

Upload Photos*

1 Drop image here or select image (number of files allowed: 1 - 99)

Inspector Signature*

Please sign above the line

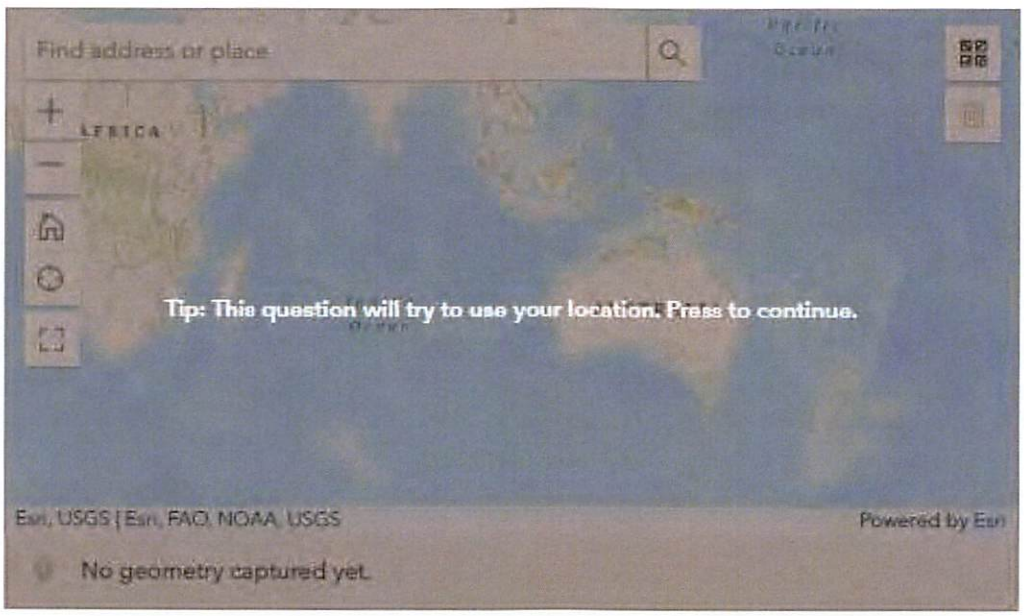
Attachment D2 – Sample BMP Inspection Report Form

2023 Maui Fires Stormwater BMP Inspection

User*

GPS Location*

Please enable Location Access on your device.



Site / Address*

Inspection Type

- ○ Weekly
- ◉ Rain Event

Inches of Rainfall in Last 24 Hours*

Weather Conditions

Site Specific Best Management Practices (BMPs) Plan

	Yes	No	N/A - Add notes or correction date below
Is a copy of the Site Specific BMPs plan available at the site? *			
Is the Site Specific BMPs plan certified, signed, and dated?*			
Is the Site Specific BMPs plan current and up-to-date?*			
Are accompanying erosion and sediment control (ESC) drawings available at the site? *			
Are the ESC drawings up-to-date? *			
Are all NPDES permits available at the site?*			
Are inspection records available at the site?*			

Are all NPDES permits available at the site?*	
Are inspection records available at the site?*	

BMPs Plan Notes

Site Conditions

	Yes	No	N/A - add notes below
Is there evidence of polluted discharges from the site to a State water (e.g. storm drain, ditch, stream, ocean)?*			
Is repair, maintenance, or installation of sediment control BMPs needed at the site?*			
Is repair, maintenance, or installation of erosion control BMPs needed at the site?*			
Are construction materials/debris/trash/soil stored or disposed of properly at the site?*			
Is there vehicle tracking from the site to receiving streets?*			
Do locations exist where additional or revised BMPs are needed?*			

Do locations exist where BMPs may no longer be necessary and may be removed?*	○	○	○
Does your site evaluation indicate a need to update or revise the current Site Specific BMPs plan and/or accompanying erosion and sediment control drawings?*	○	○	○

Site Conditions Notes

Site Photos*

1 Drop image here or select image (minimum number of files required: 1)

BMPs Inspection

Description of Area

-Please select-

Inspection Photos*

Drop image here or select image

BMPs Condition*

BMPs Inspection

Description of Area

-Please select-

Inspection Photos*

Drop image here or select image

BMPs Condition*

Good (Installed Per Specifications) | Adequate | Needs Maintenance

Notes

Corrective Actions

- [ ] Repair, modify, or replace any storm water control used at the site
- [ ] Clean up and properly dispose of spills, releases, or other deposits
- [ ] Remedy a permit violation
- [ ] Other

Corrective Action Notes

Signature*

Please sign above the line

Inspection Date & Time

12/20/2023 08:30 PM

Submit

Attachment D3 – Corrective Action Reports

Section 10.1 "Corrective Actions" Defined

Corrective actions are actions taken in compliance with this section to:

a. Repair, modify, or replace any storm water control used at the site
b. Clean up and properly dispose of spills, releases, or other deposits
c. Remedy a permit violation

Section 10.2.1. Triggering Events

The following are triggers that require corrective action be taken (this triggering condition is to be documented within 24 hours of discovering the occurrence):

- ☐ *A required storm water control was never installed, was installed incorrectly, or not in accordance with the requirements in HAR Chapter 11-55, Sections 5 and/or 6.*
- ☐ *The Contractor/Officer-in-Charge becomes aware that the storm water controls installed and being maintained are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in HAR Chapter 11-55, Section 6.1. The Contractor shall notify the Officer-in-Charge immediately. The Officer-in-Charge will notify the Department of Health by the end of the next work day.*

  *Date/time Officer-in-Charge notified by Contractor*_____

  *Date/time DOH notified by Officer-in-Charge*_____

- ☐ *One of the prohibited discharges below is occurring or has occurred:*
  - ☐ *Wastewater from washout of concrete*
  - ☐ *Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials*
  - ☐ *Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance*
  - ☐ *Soaps, solvents, or detergents used in vehicle and equipment washing*
  - ☐ *Toxic or hazardous substances from a spill or other release*

Section 10.2. Requirements for Taking Corrective Actions

The Contractor shall complete corrective actions in accordance with the deadlines specified below. In all circumstances, the Contractor shall immediately take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational, including cleaning up any contaminated surfaces so that the material will not discharge in subsequent storm events. Immediately means the same day the condition is discovered unless it is too late in the day on which initiation of corrective action must begin on the following workday.

Following any of the above triggering events, the Contractor shall install a new or modified control and make it operational, or complete the repair, by no later than 7 calendar days from the time of discovery. If it is infeasible to complete the installation or repair within 7 calendar days, the Contractor shall document and submit to the Officer-in-Charge, for his agreement, why

it is infeasible to complete the installation or repair within the 7 calendar day timeframe and document a schedule for installing the storm water control(s) and making it operational as soon as practicable after the 7-day timeframe.

Date installation/repair completed, or date/time prohibited discharge ceased

Reason it is infeasible to complete installation or repair within 7 calendar days and proposed schedule (if applicable) _____

_____

_____

_____

10.4.1. Initial Report (24 Hours)

Within 24 hours of discovering the occurrence of one of the triggering conditions in HAR Chapter 11-55, Section 10.2.1. at the site, the Contractor must complete the following:

- *The nature of the condition identified* _____
- *The date and time of the condition identified and how it was identified* _____

10.4.2. Final Report (7 Days)

Within 7 calendar days of discovering the occurrence of one of the triggering conditions in HAR Chapter 11-55, Section 10.2.1. at the site, the Contractor must complete a report of the following:

- *Any follow-up actions taken to review the design, installation, and maintenance of storm water controls, including the dates such actions occurred* _____

  _____

- *A summary of storm water control modifications taken or to be taken, including a schedule of activities necessary to implement changes, and the date the modifications are completed or expected to be completed* _____

  _____

- *Notice of whether SWPPP modifications are required as a result of the condition identified or corrective action* _____

  _____

  _____

Section 10.2.2. SWPPP Modification Due to Corrective Actions

Where corrective actions result in changes to any of the storm water controls or procedures documented in the SWPPP, modify the SWPPP accordingly within 7 calendar days of completing corrective action work.

☐ *Date SWPPP modified should be indicated in the Amendment Log (Attachment F)* _____

Section 10.3 Corrective Actions Required by the Department of Health (DOH)

The Contractor shall comply with any corrective actions required by the department as a result of permit violations found during an inspection by DOH or EPA.

Was the Corrective Action triggered by a DOH/EPA inspection?

- ☐ *Yes* ☐ *No*
- ☐ *Date of DOH/EPA Inspection*_____

Section 10.4.3. Certification

The certifying person and duly authorized representative shall meet the requirements of Hawaii Administrative Rules 11-55, Appendix A, Section 15.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

*Signature:*_____ *Date:*_____

*Person Name:*_____

*Person Position Title:*_____

*Person Company or Agency:*_____

Phone Number: _____ *Fax No.:*_____

Person Email: _____

Attachment E – Training Log

TRAINING LOG

Project Name: Lahaina Residential Debris Removal
Project Location: Throughout Lahaina Town

Course Description:

_____

_____

Date:_____

Course Length (hours):_____

Stormwater Training Topic: (check as appropriate)

- ❑ Erosion Control BMPs
- ❑ Sediment Control BMPs
- ❑ Non-Stormwater BMPs
- ❑ Emergency Procedures
- ❑ Good Housekeeping BMPs

Specific Training Objective:_____

_____

Attendee Roster:

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Attachment F – SWPPP Amendment Log

AMENDMENT LOG

Each Amendment will be signed by the authorized representative authorizing the changes in Section 7.2.17 within 7 calendar days following the occurrence of any of the conditions listed in Section 7.4.1.

Project Name: ***West Maui Temporary Disposal Facility***
SWPPP Contact: _____

Amendment No.	*Description of the Amendment*	*Date of Amendment*	*Amendment Prepared by [Name(s) and Title]*

Lahaina Residential DR SWPPP_PC-007-01

Final Audit Report 2024-01-11

Created:	2024-01-11
By:	Kane McNeill (kmcneill@ecc.net)
Status:	Signed
Transaction ID:	CBJCHBCAABAAD6wGXR0zg77oi5b2yvB3lzaTP7GYz5Ke

"Lahaina Residential DR SWPPP_PC-007-01" History

Document created by Kane McNeill (kmcneill@ecc.net)
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Document e-signed by Marc Mizrahi (mmizrahi@ecc.net)
Signature Date: 2024-01-11 - 3:26:24 AM GMT - Time Source: server

Agreement completed.
2024-01-11 - 3:26:24 AM GMT

APPENDIX B

USACE SOIL SAMPLING AND ANALYSIS PLAN

FOR LAHAINA

SOIL SAMPLING & ANALYSIS PLAN

PRIVATE PROPERTY DEBRIS REMOVAL
WILDFIRE RESPONSE DEBRIS REMOVAL
SUPPORT

LAHAINA, MAUI COUNTY

ADVANCE CONTRACTING INITIATIVE (ACI)

January 9, 2024

Prepared for
United States Army Corps of Engineers
Region 8 - Pacific Ocean Division (POD)
Rock Island District

Contract No. W912EK-22-D-0011
Task Order No. W9128A-24-F-0011

Prepared by:

ECC Constructors LLC
1240 Bayshore Hwy Suite 317
Burlingame, CA 94010
Tel: 650.347.1555
Fax: 650.347.8789
Corporate@ecc.net

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LIST OF ACRONYMS AND ABBREVIATIONS

ACM	asbestos-containing materials
CalEPA	California Environmental Protection Agency
DU	decision unit
EAL	Environmental Action Levels
HDOH-HEER	Hawaii Department of Health, Hazard Evaluation and Emergency Response
mg/kg	milligrams per kilogram
MIS	Multi Increment Sampling
QA	quality assurance
QC	quality control
RSD	relative standard deviation
SAP	Sampling and Analysis Plan
SOP	standard operating procedures
TGM	Technical Guidance Manual
TMK	Tax Map Key
USACE	US Army Corps of Engineers
USEPA	US Environmental Protection Agency
XRF	X-ray fluorescence

1.0 INTRODUCTION

The U.S. Army Corps of Army Engineers (USACE) is conducting the structural debris and hazard tree removal projects for residential, public, and commercial structures and hazard trees damaged or destroyed by the 2023 Maui Fires. The 2023 Maui Fires are primarily composed of burn areas in the town of Lahaina and the upcountry area within and surrounding the town of Kula. As a part of ECC's contract with the USACE, ECC is scoped to perform soil sampling in association with debris removal activities at residential properties.

The primary hazards associated with residential structures destroyed from wildfires are asbestos-containing materials (ACM) and elevated metals, and other potential chemicals of concern at residential structures. Metals are used as a surrogate to evaluate the possible presence or absence of ACM in soil, since they would in theory be comingled with residual debris. This Soil Sampling and Analysis Plan (SAP) describes the soil metal sampling activities to confirm the removal of the primary hazards, including:

- Confirmation soil sampling
- Rescrape soil sampling
- Supplemental background sampling
- Additional soil sampling, as needed
- X-ray fluorescence (XRF) evaluation

This plan presents pertinent information associated with the soil sampling activities, including project background, objectives for each sampling activity, field activities, establishing cleanup goals, confirmation sampling evaluation, quality assurance and quality control (QA/QC), and references. The field standard operating procedures (SOP) to be used during the assessment are included as Appendix A. Where the SOPs are not sufficient, protocols listed in the Hawaii Department of Health, Hazard Evaluation and Emergency Response (HDOH-HEER) Office, Technical Guidance Manual (TGM) (HDOH-HEER, 2023) will be followed.

The scope of this SAP is specific to the residential properties in Lahaina affected by the fires. This SAP does not include activities associated with public or commercial structures, air sampling, asbestos sampling, hazard tree removal, environmental protection plan, or any biological, archaeological, or cultural monitoring activities.

2.0 BACKGROUND

The USACE has contracted ECC under Contract No. W912EK-22-D-0004 to provide support coordinating fire debris removal from structures destroyed by the 2023 Maui Fires at the towns of Lahaina, Kula, and Olinda. This SAP was prepared in accordance with all provisions included in Contract No. W912EK-22-D-0004 and exhibits. The debris removal project consists of removing and properly disposing of all debris and hazard trees generated from structures within the 2023 Maui Fires; however, this SAP is specific to debris removal only from Lahaina properties affected by the fires.

Ash and debris from residential, public, or commercial structures burned by fires can contain elevated concentrations of metals including antimony, arsenic, cadmium, copper, lead, mercury, and zinc, as discussed, as examples, in the "Guidance for Conducting Emergency Debris, Waste, and Hazardous Material Removal Actions Pursuant to a State or Local Emergency Proclamation" (California Environmental Protection Agency [CalEPA], 2011) and Assessment of Burned Debris - 2015 Wildfires Lake and Calaveras County, California (CalEPA, 2015). HDOH-HEER collected ash samples from 100 impacted properties in Lahaina on November 7 and 8, 2023, to evaluate potential air emissions from the burned structures. Screening-level analyses by laboratory analyses indicated concentrations of arsenic, lead, antimony, copper, and cobalt above the HDOH-HEER Environmental Action Levels (EAL), confirming elevated levels of metals within the ash footprints. No other chemicals of concern were identified above the EALs.

Within the fire debris, residual materials such as stucco, roofing, floor tile, linoleum, fireplaces, furnaces, vinyl tiles and mastic, sheetrock, and joint compound, canec, cement pipe, exterior home siding, thermal system insulation, and other building materials commonly used in homes built before 1984 may also contain asbestos. There is not an approved sampling method for ACM in soil; therefore, asbestos is not included in the soil sampling evaluation. The evaluation of metals is used as a surrogate to evaluate the possible presence or absence of ACM in soil, since they would in theory be comingled with residual debris.

Contaminants may also be released during unforeseen or uncontrolled situations, such as a truck containing debris being involved in a traffic accident or rollover. During these situations, soil samples are collected to help ensure no residual elevated metals or ACM remain at the spill location.

3.0 OBJECTIVES

The objective of soil sampling is to provide estimates of metals concentrations in soils within various areas of interest, primarily consisting of remnant soil concentrations following debris removal activities. Elevated metals concentrations provide an indicator that potential ash and ACM may remain at a property.

3.1 ESTABLISHING CLEANUP GOALS

Since metals occur both naturally and within debris, understanding background metals concentrations is crucial to ensure only debris and soil attributable to the fires are removed.

Background data for metals in soil statewide in Hawaii were established in the Hawaiian Islands Soil Metal Background Evaluation Report (HDOH-HEER, 2012). The background study consisted of samples collected throughout the state at 67 surface samples from 47 locations, including 27 samples on Maui (HDOH-HEER 2017).

The EALs are established as the baseline for evaluating if soil concentrations have been impacted by residual debris or may cause impacts to human health or the environment. Since decisions are made on a property-by-property basis, typically background evaluations for debris programs are at a much smaller scale than the results presented in the HDOH-HEER background study. Small scale variabilities within naturally occurring geologies, or anthropogenic sources such as the application of pesticides or legacy fill, may not be captured by the limited background sampling near Lahaina.

As a result, supplemental background sampling may be conducted if trends identified in confirmation sampling indicate possible non-debris related sources of elevated metals. Supplemental sampling may be conducted in public areas without fire debris where USACE has secured rights-of-access, or within individual property boundaries outside of the debris footprints. Results of the supplemental background data, along with EALs, will be used to determine cleanup goals on each property.

The established metal background concentrations and EALs being used for cleanup goals are provided in **Table 1**.

Table 1
Lahaina Confirmatory Sampling Cleanup Goals

Metal	DOH Background[1] (mg/kg)	EAL (mg/kg)[2]	Cleanup Goal (mg/kg)
Antimony	2.4	6.3	6.3
Arsenic	24	41[3]	41[3]
Barium	690	1,000	1,000
Beryllium	3.0	31	31
Cadmium	2.3	14	14
Chromium	1,100	1,100	1,100
Cobalt	80	80	80
Copper	250	630	630

Metal	DOH Background[1] (mg/kg)	EAL (mg/kg)[2]	Cleanup Goal (mg/kg)
Lead	73	200	200
Molybdenum	4	78	78
Nickel	410	410	410
Selenium	7.1	78	78
Silver	1.5	78	78
Thallium	0.25	0.78	0.78
Vanadium	770	770	770
Zinc	350	1,000	1,000

Notes:
[1]Hawaii Department of Health (HDOH) Background Levels (HDOH-HEER, 2012)
[2]Hawaii Technical Guidance Manual (TGM) Environmental Action Levels (EALs), Table A-1/A-2 (HDOH-HEER, 2017)
[3]The EAL of 24 mg/kg for arsenic was modified per the HDOH to incorporate the bioavailability of arsenic for human receptors. The modified EAL of 41 mg/kg has been identified as the cleanup goal for arsenic (HDOH-HEER, 2023)
mg/kg – milligrams per kilogram

3.2 CONFIRMATION SAMPLING

Debris removal activities consist of removing all burned and damaged debris, including lead-based paint, stucco, roofing, floor tile, linoleum, fireplaces, furnaces, vinyl tiles and mastic, sheetrock and joint compound, canec, asbestos cement pipe, exterior home siding, thermal system insulation, concrete, white goods, vehicles, vegetation, construction debris, electronic waste, household hazardous chemicals, and the top 6-inch layer of soil beneath the debris. The purpose of removing the soil layer is to help ensure that all potential contamination from the exposed ash has been removed.

Following debris removal activities and site inspections to confirm proper debris removal protocols were implemented, confirmation samples will be collected from the footprints of the debris removal. Confirmation sampling will document that any elevated levels of metals, and ACM by proxy, have been removed from each debris footprint. Confirmation soil samples will determine if any contamination associated with the debris or ash has been removed to cleanup goals considered protective of human health or to background levels. If initial confirmation results do not meet the cleanup goals, an additional 6 inches of soil will be removed as a "rescrape," and then confirmation sampling is repeated. No additional rescrapes or confirmation samples will be collected beyond the 12 inches of soil removed, as concentrations at that depth likely do not represent debris or ash.

3.3 ADDITIONAL SAMPLING, AS NEEDED

Soil sampling may be required in the event of an unforeseen incident or emergency response. The specifics of these sampling objectives will be determined on a case-by-case basis but will follow the protocols listed in this sampling plan. Sample analytes will be determined based on the nature of the event, and sample results will be compared to cleanup goals or supplemental background results, as appropriate.

3.4 SOIL SAMPLING METHODOLOGY

Soil samples will be collected through Multi Increment Sampling (MIS) protocols, as presented in the HDOH TGM. MIS soil samples are collected from individual properties to determine remnant metals concentrations following debris removal activities. MIS involves collecting one small soil mass (called an "increment") from 75 locations evenly distributed across each decision unit (DU), and then pooling them to form an MIS field sample. 75 increments will be collected for each MIS soil sample. The 75 increment sample locations will be determined by the field sampling team using professional judgment with increment locations in a regularly spaced array of locations distributed over the entire DU area, as equally spaced in all directions as possible, see **Figure 1**.

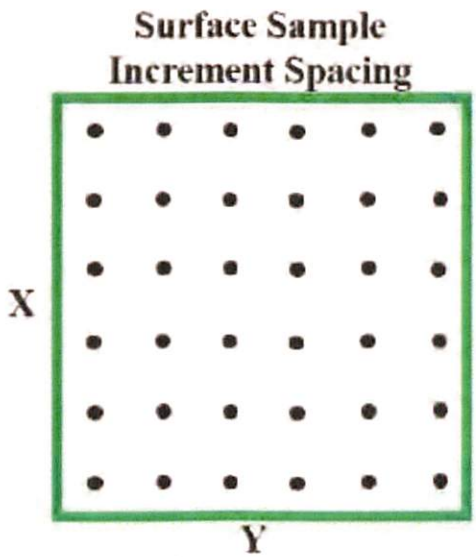

Figure 1- Surface Soil Increment Location Spacing.
Surface soil increment location spacing to cover the entire DU (HDOH-HEER, 2023). Example of location of increment in a point lattice pattern; not to scale, less than 75 increments are shown. This is intended to provide an example of how the field team must use professional judgement to evenly distribute the increment locations in a regularly spaced array over the DU. ● represents a soil increment location.

Additional project-specific field sampling protocol information is presented in Section 4.0.

MIS was selected to achieve a comprehensive and thorough evaluation of chemical concentrations in a specific volume of soil or within a DU and is consistent with HDOH guidelines. Field QC, in the form of three independent field samples (i.e., field triplicates), will be collected to assess the ability of an MIS sample to reliably estimate concentrations within the DU and quantify inherent soil and contaminant heterogeneity. Field triplicates will be collected at a rate of 1 per 10 samples. A field triplicate is made of three replicates, T1, T2, and T3.

Field triplicate increments are also collected from an evenly distributed array of location across the DU. Locate the first replicate (T1) increment sample locations. The location of the increment locations for the second replicate (T2) and the third replicate (T3) will be based upon the first replicate locations (T1). The increment locations for replicates T1, T2, and T3 will form an

equidistant triangle, and these equidistant triangle replicate increment locations will be evenly distributed in an array over the DU, see **Figure 2**.

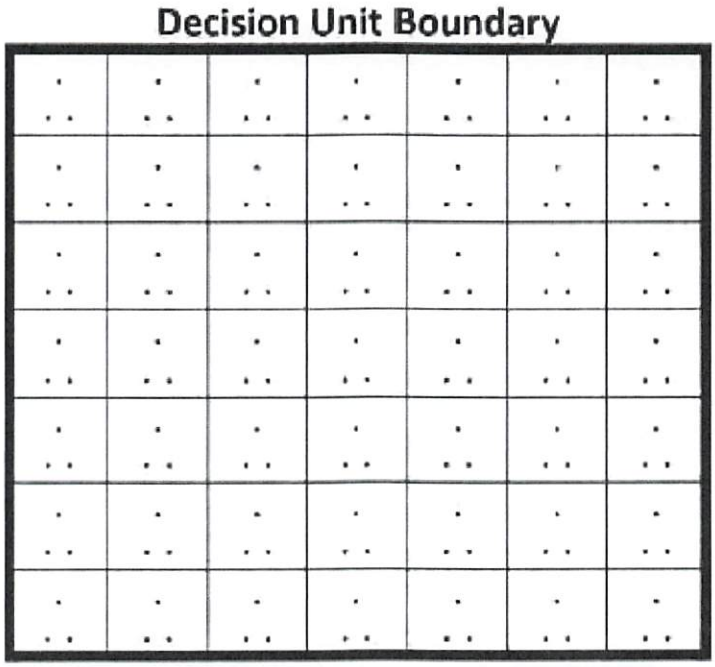

Figure 2- Triplicate Increment Location Spacing.
Triplicates, T1, T2, and T3 increment locations for collection of triplicates from a DU. Triplicate increment location spacing to cover the entire DU (HDOH-HEER, 2023). Example of location of triplicate increment locations in a point lattice pattern; not to scale, less than 75 increments are shown. This is intended to provide an example of how the field team must use professional judgement to evenly distribute the triplicate increment locations in a regularly spaced array over the DU. ● represents a soil increment location.

All soil samples collected according to the MIS methodology described above will be evaluated by XRF technology, according to the field sampling protocols described in Section 4.3. Staff with specialized training will use the Viken Detection Pb200i Lead Paint Analyzer handheld XRF analyzers, or equivalent, in compliance with manufacturer guidelines, calibration, and safety protocols. The XRF units will be calibrated for the target metals of interest, with the exception of beryllium. XRF units cannot measure beryllium concentrations (beryllium atomic weight is too low to register).

Onsite field staff will collect a total of five XRF readings. Two XRF readings will be collected from one face of the bag, and three XRF readings from the other face. The soil sample will be field sieved prior to placement into the sample bag and XRF reading collection. XRF detection limits and measured values will be downloaded electronically from the instrument at the end of each day, and saved as an Excel (xlsx/csv) file.

3.5 SOIL SAMPLE LABORATORY PROCESSING AND ANALYSIS

Once received at the laboratory, the sample will be processed in accordance with Section 4, Appendix K of the HDOH TGM. Soil will be sieved to less than 2-millimeter particle size prior to analysis, and a minimum of 10 grams will be analyzed to help reduce fundamental error in the

analyses. Prior to sieving, each sample requires drying. Air drying will be the primary method used. However, drying of samples under low temperatures in an oven will be used as an alternative drying method, when samples are particularly moist (i.e., when air drying is likely to take more than 24 hours). QC to assess adequacy of sample processing, subsampling, and analysis will be conducted on three subsamples (laboratory triplicate) taken from one of the field triplicates. The field and laboratory subsampling triplicates form an MIS "nested triplicate" set from which the amount of variability due to field heterogeneity and laboratory procedures will be calculated as a statistic called the relative standard deviation (RSD). An RSD will be calculated for both the field triplicates and laboratory triplicates to measure how much field heterogeneity versus laboratory measurement variability contribute to overall data variability.

4.0 FIELD SAMPLING PROTOCOLS

This section describes the scope of work, discusses proposed sampling activities to be conducted following debris removal.

4.1 SCOPE OF WORK

The scope of work is presented below.

- Collect confirmation samples from DUs identified within the debris footprints. The average Tax Map Key (TMK) will have four DUs per lot. Additional DUs may be selected, if appropriate based on the layout and number of distinctive ash footprints. Fewer than four DUs may be selected for TMKs with smaller impacted areas (such as a shed or a vehicle). DUs will always be within the boundary of each property.
- Ship confirmation samples to an off-site, fixed laboratory.
- Conduct XRF analysis of confirmation samples and perform correlation evaluation with laboratory results.
- Conduct cursory data review on all samples results.
- Complete confirmation sample data reporting and recommendations.
- Document all activities, including photographs, and data and field measurements on field data sheets or electronic tablet-based forms.
- Complete data validation and reporting.

4.2 SOIL SAMPLING

Soil samples consist of (1) confirmation samples, (2) supplemental background samples, (3) rescrape samples, and (4) additional as needed soil samples, discussed in Section 3.3. Confirmation sampling will be conducted at individual TMKs immediately following the completion of debris removal activities. The number of DUs may increase following review of initial confirmation sample results. Supplemental background samples may be collected following review of initial confirmation sample results. Rescrape samples will be collected if initial confirmation samples are above the cleanup goals or supplemental background concentrations, if appropriate.

Areas with minimal debris that total less than 100 square feet, whether that debris requires removal by hand or by heavy equipment, do not require sampling.

Specific MIS procedures for field sampling will be as follows:

1. Corners and edges of each DU will be marked with flags to identify the boundaries by which increments will be collected. Seventy-five increments will be collected from each DU. Increment locations will be spaced evenly throughout the DU, as determined by the field sampling teams. ECC protocol, based upon evaluation of the post-cleanup property, is to assign a specific number of DUs (standard is four DUs, adjusted based upon professional judgment), and then flag two sides of each DU to a visual reference for creation of evenly distributed increment locations for sampling. Each side is measured

using a survey wheel or other similar device. If one side of the DU is longer than the other, the grid is generally mapped out as 5 by 15, to create 75 regularly spaced MIS locations.

2. Increments will be collected from the top 3 inches of the remnant surface with a disposable scoop or other disposable sampling apparatus, or other sampling technique to be determined. Each increment will be approximately 20 grams of soil. Triplicate increments will be placed equidistant in a triangle formation at each point, see **Figure 2**.
3. Following collection of all 75 increments (a complete sample), the soil will be pre-sieved in the field, if possible. If soil is too moist to sieve, that fact will be noted on the laboratory chain-of-custody.
4. Increments from each DU will be placed into freezer-grade, 1-gallon, zip-locking bags. The target weight of each soil sample is approximately 1.5 kilograms. Each bag will be labeled and evaluated by XRF as described in Section 4.3.

Following XRF evaluation, sample bags will be packed into an insulated cooler. Confirmation soil samples and associated equipment rinsate blanks being analyzed for project metals do not require temperature preservation. Samples will be shipped to the contract laboratory for analysis of metals with established cleanup goals: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc by US Environmental Protection Agency (USEPA) Method 6020. The collected samples will be labeled, packaged, and shipped under chain-of-custody procedures, ECC Standard Operating Procedure ENV.SOP.01.03 Packaging and Shipping, and consistent with the HDOH TGM.

All samples from one TMK will be place onto on one Chain of Custody. The equipment rinsate blank will be placed on its own Chain of Custody. See Section 6.2 for additional information on rinsate blank collection.

4.3 XRF EVALUATION

All soil samples will be evaluated by XRF technology, according to the methodology described in Section 3.4. XRF provides real-time estimated concentrations for select metals which will be used for a correlation evaluation with the results produced by the laboratory.

The XRF results for the first 100 sites will be used to produce a correlation study with laboratory results to determine the appropriate use of XRF to evaluate soil concentrations during the remainder of the debris removal response. Sites from different regions of the project area will be included, to be representative of the entire Lahaina sampling program. The XRF results may also be used to direct the removal of additional soil if elevated levels are detected.

4.4 SAMPLE IDENTIFICATION

Samples will be assigned a unique sample identification number composed of the following information:

Example: LFI-123456789012-A2

- Incident Name: Lahaina Fire Incident – LFI
- TMK – a unique 12-digit number for the property assigned by the county tax assessor, divided in fours by hyphen (i.e., LFI-XXXX-XXXX-XXXX).
- Area within TMK (A, B, C, etc.). If there are separated areas, or if areas are on different elevations/levels, multiple letters are used to differentiate separated areas or levels (i.e., LFI-XXXX-XXXX-XXXX-A).
- DU/MIS sample number per structure based on the structure footprint (A1, A2, A3, B1, C1, C2, etc.) (i.e., LFI-XXXX-XXXX-XXXX-A1).

In addition to the basic sample identification above, other samples will have the following naming conventions:

- Rescrape sample names have an additional suffix (R) identifying a rescrape within the TMK, by DU (i.e., LFI-XXXX-XXXX-XXXX-A1-R).
- Triplicate sample names have an additional suffix (T1, T2, T3) identifying the triplicate DU (i.e., LFI-XXXX-XXXX-XXXX-A1-T1).
- Laboratory triplicate samples will have an additional suffix (L1, L2, L3) identifying the laboratory triplicate evaluation (i.e., LFI-XXXX-XXXX-XXXX-A1-T3/L1, LFI-XXXX-XXXX-XXXX-A1-T3-L2, LFI-XXXX-XXXX-XXXX-A1-T3-L3).
- Supplemental background and additional samples: LFI-TMK-BKG-001 where A1 is the sample location number/DU within the TMK (i.e., LFI-XXXX-XXXX-XXXX-BKG-A1).
- Sample identifications for other sampling will be determined on a case-by-case basis.

During the sampling event, the sampling team will enter information all relevant site information, including TMK, address, sampling team, analysis, location, matrix, collection time and date in an electronic platform.

5.0 SAMPLE EVALUATION

Analytical reports with confirmation sample results will be received in electronic format and reviewed for completeness against the chain-of-custody forms prepared in the field. Electronic results will be loaded into a database for sample tracking and reporting.

Soil sample results will be evaluated against the established cleanup goals. Cleanup goals screening tables comparing sample results to the cleanup goals for each individual property will be generated through algorithms within the database, to eliminate any possible data entry errors.

The initial review process consists of (1) evaluating the sampling map for completeness regarding property information and sample frequency, (2) reviewing confirmation sample results compared to the cleanup goals, and (3) providing draft recommendations to USACE for review and approval.

If all confirmation sample results are below the cleanup goals, then the debris removal at the property will be considered complete. If any of the samples exceed the cleanup goals, a rescrape of the DU(s) which exceeded the cleanup goals will be recommended. Following USACE approval, the appropriate DU(s) will be rescraped and a new confirmation sample will be collected at the area using the same methodology.

If confirmation sample results from a property have persistent elevated background metals, results will be compared to supplemental background sampling results, if appropriate.

Recommendations will be provided to USACE no more than 3 days following receipt of the electronic analytical data, to ensure each of the steps outlined above are completed and appropriate quality assurance/quality control measures have been applied, and to help ensure that all recommendations and actions are consistent with the overall objectives of the program.

Recommendations will be provided electronically at the close of each business day, appropriate with the schedule for incoming analytical data. The following information will be provided electronically to USACE.

- TMK and property address
- Number of areas/DUs sampled and square footage
- Sample identifications and dates collected
- Sample results summary
- Link to cleanup goals summary table results, maps, and laboratory results
- Recommendations
- Fields for USACE recommendations and approval dates
- Notes and comments

The recommendations will be provided in a Microsoft SharePoint format, or comparable shared electronic platform.

6.0 QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

This section describes the quality assurance/quality control (QA/QC) procedures for the assessment activities.

6.1 RESPONSIBILITY

The field team leader will be responsible for ensuring that sample quality and integrity are maintained in accordance with ECC SOPs and site sampling and handling procedures.

6.2 QUALITY ASSURANCE AND QUALITY CONTROL

Field QA/QC measures will consist of collecting equipment blank samples following decontamination procedures of any reusable sampling equipment; and maintaining photographic, logbook, and chain-of-custody documentation. Matrix spike/matrix spike duplicate samples will be analyzed by the laboratory in a minimum of 1 per 20 soil samples, or by batch, as determined by the laboratory.

If reusable sampling equipment is utilized for soil sampling (i.e., stainless steel sieve and bowl), equipment rinsate blanks will be collected at a frequency of one per day. If more than one soil sampling crew (and set of equipment) perform sample collection on a given day utilizing reusable sampling equipment, the sampling crews will alternate collection of an equipment blank at the end of the sampling day. Equipment rinsate blanks will be collected by slowly rinsing the decontaminated stainless-steel sieve and sampling bowl with laboratory-grade deionized water while simultaneously collecting the used rinse water in a laboratory-provided container. Rinsate blank samples will be delivered to the designated laboratory under chain-of-custody for analysis consistent with the soil samples collected.

6.3 DATA REVIEW AND VALIDATION

Sample data will be reviewed in accordance with Section 3.8 and Section 4, Appendix L of the HDOH TGM.

Initial data received will be reviewed under an initial cursory review for sample identifications, sample analysis, and completeness. All decisions regarding rescrape or other recommendations will be made with data receiving the cursory review only.

Stage 2A data validation will be conducted on all soil samples collected as defined in the USEPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use (USEPA, 2009). Stage 2A data validation includes a checklist review culminating with the assignment of data qualification flags for analytical data conforming to the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2017a) and the EPA National Functional Guidelines for Organic Superfund Data Review (UEPA, 2017b). Data review specifications require that various data qualifiers be assigned when a deficiency is detected. If no qualifier is assigned to a result that has been reviewed, the data user is assured that no technical deficiencies were identified during validation. The qualification flags used are defined as follows:

- J: The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
- J+: The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
- J-: The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
- U: The analyte was not detected at or above the associated value (reporting limit).
- UJ: The analyte was not detected at or above the associated value (reporting limit), which is considered approximate because of deficiencies in one or more quality control criteria.
- R: Rejection of data.

All data with J and U qualifiers are considered usable data; data with R qualifiers are considered not suitable for decision-making purposes. Historically, no data during previous fire incidents has been qualified as R, rejected, and therefore site-decisions can be made following the cursory data review.

A discussion of the QC deficiencies resulting in data qualification and the data validation reports summarizing the validation of each data package will be submitted to the USACE.

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