Contents

TABLES

FIGURES

3.18 HAZARDOUS MATERIALS

This section discusses the potential for the presence of contaminated soils or groundwater and other hazardous materials resulting from previous and existing uses in areas where new construction for the Honoapiʻilani Highway Improvements Project (the Project) may disturb such materials. It also summarizes the measures that would be implemented to avoid adverse effects from exposure of such materials to construction workers and the surrounding community.

Following publication of the Draft Environmental Impact Statement (EIS), the public was afforded an opportunity to review and comment on the effects of the Project with respect to hazardous materials. Based on those comments, or other information gathered after the publication of the Draft EIS, no revision to the analysis contained within this section was warranted and no further analysis is required as part of this Final EIS.

3.18.1 Regulatory Context

The following federal, State, and local policies and regulations may be applicable to hazardous materials that are discussed in this ~~Draft~~ Final Environmental Impact Statement:

- Federal regulations:
  - Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 et seq.)
  - Superfund Amendments and Reauthorization Act (26 U.S.C. 9507 et seq.)
  - Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.)
  - Toxic Substances Control Act (15 U.S.C. 1601 et seq.)
  - Occupational Safety and Health Act (29 U.S.C. 651 et seq.)
  - Clean Air Act (42 U.S.C. 7401 et seq.)
  - Clean Water Act (33 U.S.C. 1251 et seq.)
  - National Environmental Policy Act (42 U.S.C. 4321 et seq.)
  - Supplemental Hazardous Waste Guidance (FHWA)[1]
  - Hazardous Wastes in Highway Rights-of-Way (FHWA)[2]
- State of Hawaiʻi regulations:
  - Hawaiʻi State Toxics Control Program
  - Guide to the Implementation and Practice of the Hawaiʻi Environmental Policy Act
  - Hawaiʻi Administrative Rules Chapter 11-200.1
  - State of Hawaiʻi Occupational Safety and Health Administrative Rules
  - Hawaiʻi Hazard Evaluation and Emergency Response Office Technical Guidance Manual
  - Hawaiʻi Hazard Evaluation and Emergency Response Office Screening for Environmental Hazards at Sites with Contaminated Soil and Groundwater Guidance

[1] SupplementalHazardousWasteGuidance.pdf.

[2] HazardousWastes_Highway_ROW.pdf.

3.18.2 Methodology

3.18.2.1 Database Review

The hazardous materials survey consisted of the following tasks:

- Reviewed available historical aerial photographs and United States Geological Survey (USGS) topographic maps to provide an understanding of past occupants, businesses, or land uses that may have affected the soil or groundwater within the project area. Environmental Data Resources, Inc. (EDR) provided historical mapping files, which are included electronically in Appendix 3.18, Hazardous Materials: Additional Documentation.
- Reviewed available government environmental records of properties with prior violations within the project area, such as reporting requirements, illegal dumping, or releases of contaminants that may affect soils or groundwater. EDR provided database records and Appendix 3.18 includes search results.
- Reviewed the Hawai‘i Hazard Evaluation and Emergency Response Office online database of cleanup sites (although no in-person regulatory file reviews at the office were performed as part of this assessment).
- Reviewed geologic and groundwater conditions in the project area, which were identified through a review of USGS geologic mapping and ecology well logs.

3.18.2.2 Site Reconnaissance

The Hawai’i Department of Transportation (HDOT) conducted a reconnaissance-level survey along the project corridor on June 21 and 22, 2023. Observations were conducted in areas that were easily accessible from public properties and public access corridors. Site reconnaissance focused on identifying current land uses within the project area that are likely to generate, use, treat, store, or dispose of hazardous materials. Database listings of concern and database listings that were not clearly located by EDR were also located.

In addition, on December 4, 2023, the U.S. Environmental Protection Agency (USEPA) provided a briefing for the FHWA and HDOT regarding the temporary use of Ukumehame Firing Range to store and process contaminated materials collected as part of the Lāhainā wildfire clean-up effort.

3.18.3 Affected Environment

3.18.3.1 Physical Setting

According to the USGS 7.5-minute Mā‘alaea map (2017), the Project is at an elevation that ranges west–east from approximately 0 to 120 feet above mean sea level. The local topography generally slopes down to the southwest. While there are smaller intermittent ~~interment~~ streams, the nearest and largest surface water bodies are the Pacific Ocean, Olowalu Stream, and Ukumehame Stream, which are located southwest of and within the project area, respectively.

Based on the local topography and proximity of surface water bodies, local groundwater flow is presumed to be to the southwest. This interpretation is an estimate based only on surface observations because local subsurface geologic and built features can affect groundwater flow. A

review of water well records filed with the Ecology Well Log Database System indicates that depth to groundwater in the project area ranges from approximately 2 to 4 feet below ground surface.

3.18.3.2 Observations

HDOT's reconnaissance in June 2023 consisted of systematically traversing the Build Alternatives and viewing adjacent properties from roadways and public access areas. Appendix 3.18, Hazardous Materials: Additional Documentation, includes photographs that document reconnaissance observations.

Land use adjacent to the Build Alternatives is mostly undeveloped land or former/current agricultural land. The Olowalu Recycling and Refuse Convenience Center is near the Lāhainā Bypass connection at the northern end of the project area. Ukumehame Firing Range is near the southern project terminus and south of Pōhaku ‘Aeko Street. Residential homes and businesses are along Honoapi‘ilani Highway near Olowalu Village, and more recent residential development extends farther mauka of Honoapi‘ilani Highway at Luawai, Ehehene, and Pōhaku ‘Aeko Streets. TABLE 3.18-1 summarizes potential sources of hazardous substances identified during site reconnaissance.

TABLE 3.18-1. **Potential Sources of Hazardous Substances**

POTENTIAL SOURCES OF HAZARDOUS SUBSTANCES	PRESENT?
Aboveground storage tanks	No
Fluorescent or mercury vapor light bulbs	No
Hazardous waste generation	No
Heating oil tanks	No
Oil-water separators, dry wells, or floor/storm drains	No
Other hazardous substance containers	No
Solid waste	No
Stains or odors	No
Stressed vegetation	No
Belowground storage tanks, fill and vent pipes, fuel dispensers	No
Water wells or monitoring wells	No
Potential polychlorinated biphenyl (PCB)-containing equipment	Yes
Septic systems	Yes
Suspect asbestos-containing materials	Yes
Suspect lead-based paint	Yes
Treated timbers	Yes

FIGURE 3.18-1 and FIGURE 3.18-2 show the following specific locations with a potential presence of contaminated materials for Olowalu and Ukumehame, respectively:

- The Olowalu Recycling and Refuse Convenience Center is near the northern terminus of the Build Alternatives. The site includes a half dozen trailer-sized containers used to store and transfer residential recycling and refuse. An approximately 15-foot by 15-foot building formerly used as a tipping station for the Olowalu landfill farther mauka of the recycling center is located within the alignments. The former tipping station may contain asbestos and lead-based paint. This site is located approximately one-quarter mile from the Olowalu Landfill.
- The Olowalu Landfill located farther mauka of the recycling center had been capped and closed since the early 1990s. On October 27, 2023, the Board of Land and Natural Resource granted Maui County a land disposition to use the Olowalu Landfill to dispose of the Lāhainā wildfire ash and smaller particles. The debris would be wrapped in liners to prevent the migration of any waste materials and the landfill would again be capped and closed. A small sand and gravel mine is also mauka of the former landfill. Transporting the debris to the landfill was completed in January 2025, and all wildfire debris is now in the process of being relocated to the permanent disposal site in Central Maui, which is expected to be complete by November 2025.[3]
- Ukumehame Firing Range is near the southern terminus and mauka of the Build Alternatives. Lead-contaminated soil and water can result from typical activities at firing ranges, and this was found in baseline soil samples by the USEPA prior to using the firing range for Lāhainā wildfire clean-up efforts. The USEPA is temporarily using a portion of the firing range as a staging and processing area for hazardous materials including electric vehicle batteries and contaminated sludge. All contaminants identified through sampling are stored in metal 55-gallon drums and shipped off-site for treatment and disposal.
- Pole-mounted transformers are present along the entirety of Honoapi‘ilani Highway and along Olowalu Village Road adjacent to Build Alternative 1 in the area of Olowalu Village. Whether or not these transformers contain regulated levels of PCBs is undetermined. Treated timber supports the aboveground power lines.
- Several containers that are commonly used to store hazardous substances are at a ~~residence~~ property ~~at 820~~ makai of Honoapi‘ilani Highway, near Olowalu town center. The storage containers are near Build Alternative 1.
- Site conditions at the storage yard at 814 Olowalu Village Road are not visible from public viewing areas.
- Septic systems are commonly used at residences in the area.

[3] https://www.mauirecovers.org/debris-containment (Date Accessed: July 2025)

FIGURE 3.18-1. **Observed Areas of Potential Contaminated Materials - Olowalu**

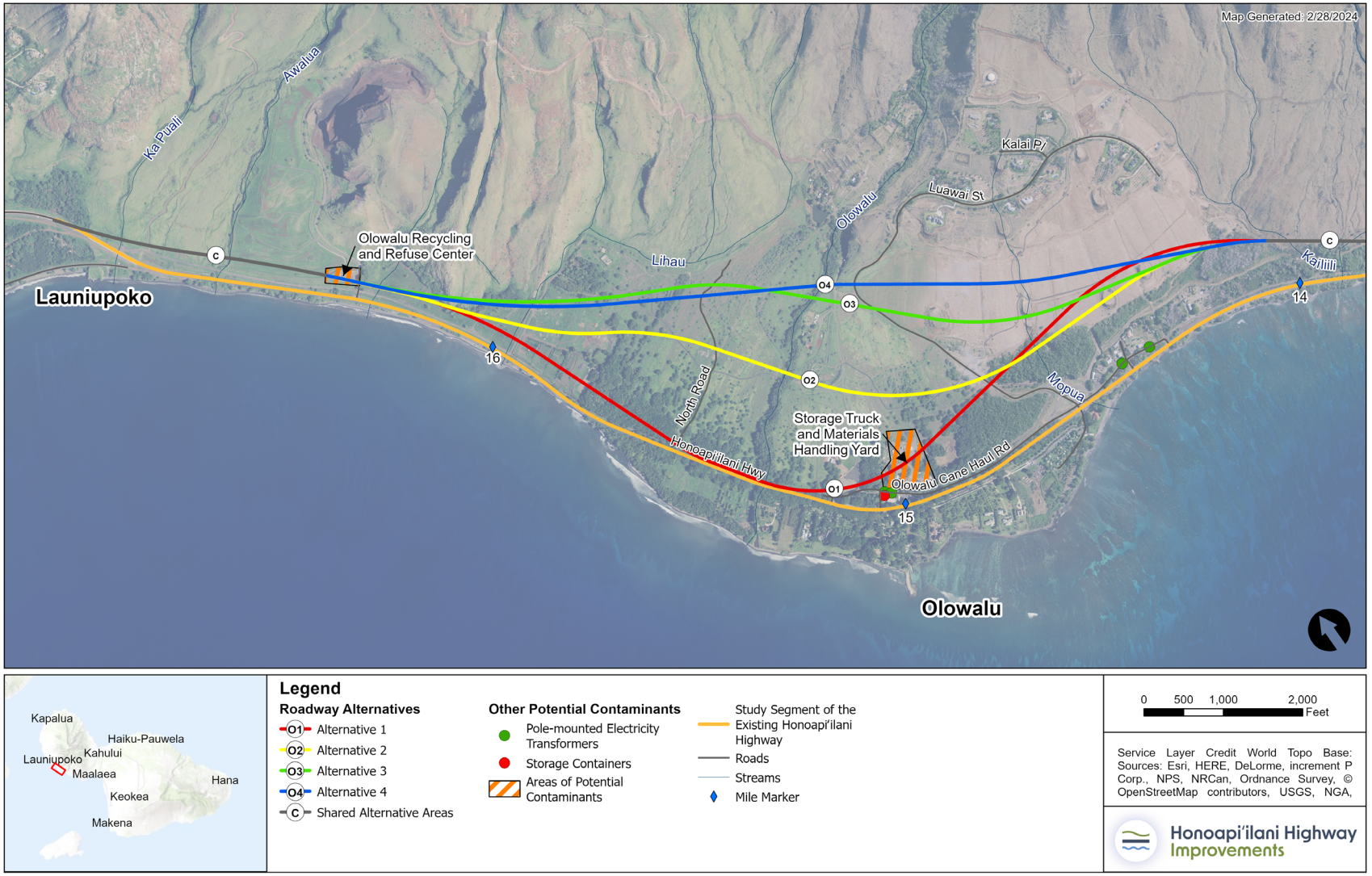
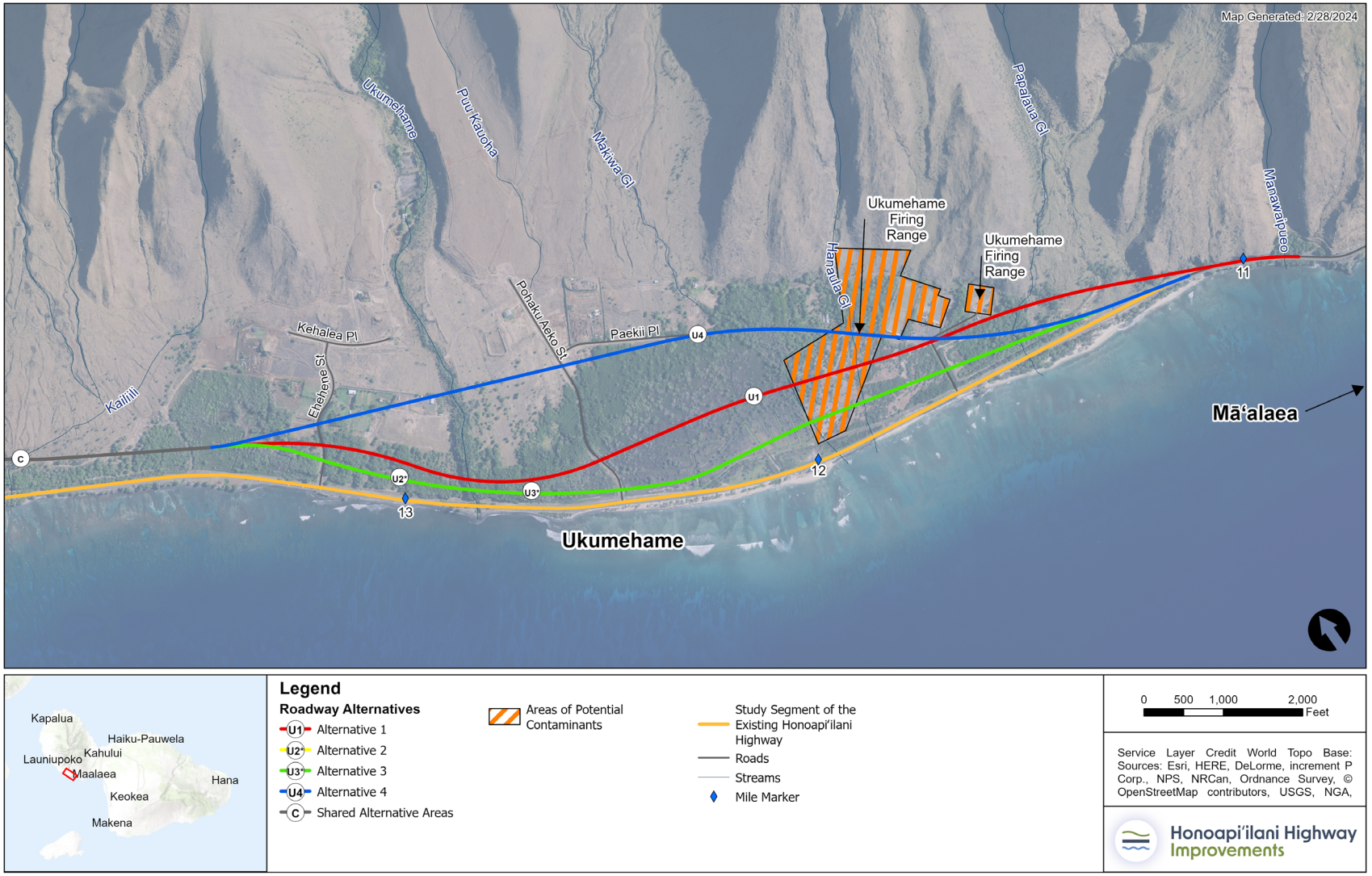


FIGURE 3.18-2. **Observed Areas of Potential Contaminated Materials - Ukumehame**



3.18.3.3 Historical Records

Aerial Photographs

TABLE 3.18-2 provides details from the project-area aerial photographs that HDOT reviewed. These photos—dated 1950, 1965, 1976, 1977, 1992, 2001, 2010, 2015, and 2017—were obtained from EDR and used to clarify past land uses. Appendix 3.18, Hazardous Materials: Additional Documentation, includes copies of the aerial photographs.

TABLE 3.18-2. **Listing and Assessment of Aerial Photographs**

YEAR	AERIAL PHOTOGRAPH ASSESSMENT
1950 to 1977	• The photograph from 1950 shows the properties in and along the project area mostly undeveloped land with some farming land north and south of the project area. • The photograph from 1965 shows the first indication of ground disturbance at the former landfill. • Land clearing and access roads to Ukumehame Firing Range are first visible in the aerial photographs from 1976 and 1977.
1992 to 2010	Photographs from 1992 to 2010 show the project area mostly unchanged, with more residential and commercial development within and around the Build Alternatives. A large vehicle and materials storage yard first appears at 814 Olowalu Village Road, located within Build Alternative 1.
2015 to 2017	Photographs from 2015 to 2017 show land use and development patterns around the Build Alternatives similar to existing site conditions.

3.18.3.4 Sanborn Fire Insurance Maps

While HDOT requested Sanborn Fire Insurance Maps from EDR, the project location is unmapped. Appendix 3.18 includes a copy of the Sanborn Report.

3.18.3.5 Historical Topographic Maps

HDOT reviewed historical topographic maps provided by EDR dated 1923, 1954, 1955, 1956, 1961, 1983, 1992, 1996, 1997, 2013, and 2017. Appendix 3.18 includes these maps.

3.18.4 Reverse Directories

HDOT reviewed reverse city directories published by EDR dated 1992, 1995, 2000, 2005, 2010, 2014, 2017, and 2020, to identify past land uses. Appendix 3.18 includes city directories for the target property as well as adjoining streets.

3.18.4.1 Environmental Records Review

Known Hazardous Waste Sites

HDOT reviewed available State records for identified hazardous waste sites using the EDR Area/Corridor Report, which provides State and tribal nation listings of known hazardous waste facilities (Appendix 3.18). TABLE 3.18-3 shows that five State-listed hazardous waste facilities are within 1 mile of the Project. Two of these locations (the Luawai Road Transformer and Ukumehame Firing Range) are on or adjacent to the existing highway and one or more of the Build Alternatives.

TABLE 3.18-3. **EDR Identified Hazardous Waste Sites**

FACILITY NAME AND LOCATION	FACILITY ID#	DISTANCE	DIRECTION	LATEST INCIDENT STATUS
Ukumehame Rifle Range (Hawai'i Army National Guard)	1750	0.050 mile	Northeast	No status reported
Luawai Road Transformer	2758	0.053 mile	South	No further action
Olowalu Company Sugar Mill	610	0.148 mile	South	No status reported
Olowalu Shaft Transformer Substation	2776	0.277 mile	Northeast	No further action
Olowalu Transfer Station (HID980497283)	2204	0.421 mile	North – Northeast	No status reported

3.18.5 Environmental Consequences

3.18.5.1 No Build Alternative

With the No Build Alternative, there would be no change to the existing highway corridor, and there would be little or no potential disturbance of prior areas of contamination with potential community exposure. Based on the continuing degradation of the existing highway corridor and the anticipated effects of sea level rise, ongoing maintenance, and emergency repairs would be regular occurrences within or immediately adjacent to the existing and previously disturbed highway right-of-way. It is assumed that adherence to a *Construction Health and Safety Plan* would avoid potential adverse effects from unexpected subsurface conditions.

3.18.5.2 Build Alternatives

The Build Alternatives have the potential to disturb locations where potentially hazardous materials and contaminated soil conditions exist. In these specific areas, adherence to a *Construction Health and Safety Plan* would avoid potential adverse effects from subsurface conditions. The discussion of Build Alternatives is separated between Olowalu and Ukumehame.

Olowalu

Common to All Build Alternatives

The Olowalu Recycling and Refuse Convenience Center is near the northern terminus of the Build Alternatives. The site is identified as a potential contaminant site because it is adjacent to the common alignment of the Build Alternatives in this area and includes the former Olowalu Landfill tipping station that would be removed as part of project construction. Potential sources of contamination resulting from the former landfill tipping station include asbestos and lead-based paint.

The current temporary action to reopen the former landfill for Lāhainā wildfire debris would be temporary and its use, closure, and capping would be regulated by the Hawai'i Department of Land and Natural Resources. The reopened areas are mauka and at a higher elevation than the Build Alternatives and would therefore not be directly disturbed by project construction. Wildfire debris collected at the temporary site is now in the process of being relocated to the permanent disposal site in Central Maui, which is expected to be complete by November 2025.

This site and the other known hazardous waste sites identified in TABLE 3.18-3 pose limited exposure or potential to have an adverse effect for any of the Build Alternatives based on the nature of the operations and the lack of recorded contamination.

Build Alternative 1

Pole-mounted transformers are present along Olowalu Village Road adjacent to Build Alternative 1 in the area of Olowalu Village. Whether or not these transformers contain regulated levels of PCBs or if timber support includes hazardous materials such as creosote, is undetermined. Therefore, the transformers and timber support are identified as potential contaminant sources.

Containers that are commonly used to store hazardous substances are on property behind the stores at the Olowalu Center. These containers are identified as potential sources of contamination. The property is used as a storage area and service lot for the Mauna Kahālāwai Watershed Partnership and appears to be used for heavy-vehicle and materials storage. There are approximately a half-dozen containers visible from Olowalu Village Road. The property is identified as a potential contaminant site because of its historical use as a storage yard. While no known releases or spills into the environment have been documented at the property, on-site contamination could include a variety of oils, hydraulic fluids, and heavy metals. This possibility is based on past and current aerial photos that show vehicles and storage stockpiles.

Ukumehame

Common to All Build Alternatives

The only known hazardous waste site identified is Ukumehame Firing Range. In general, there is limited potential for exposure based on the nature of the operations. This includes the temporary use of portions of Ukumehame Firing Range for storage of contaminated materials collected as part of the Lāhainā wildfire clean-up effort.

While generally true for all Build Alternatives, Build Alternatives 1 and 4 traverse closer to the active shooting areas of the firing range. Any disturbance of the existing soil would require adherence to construction protocols (Section 3.18.6) and regulatory compliance with the applicable State or County agencies in order to avoid potential adverse effects of exposure to soil contaminants (inlcuding lead contamination in the soil). This may include activities such as excavation to support roadway infrastructure potentially including installation of piers for a viaduct structure.

3.18.6 Construction Effects

As evaluated in this section, while some potentially sensitive sites were observed at Ukumehame Firing Range and the property behind the Olowalu village center, there are no known contaminated sites in the project area that would be affected by any of the Build Alternatives.

Nonetheless, a *Construction Health and Safety Plan* would provide guidance if any potential contamination is encountered during construction. Construction personnel should be alert and looking for signs of potential petroleum contamination when soil is excavated. If contamination is identified, the contractor should report it to HDOT immediately. As a requirement, any potential handling of

hazardous materials or site remediation would be in accordance with applicable State and federal laws specifying the handling, treatment, and disposal of contaminated materials. With conformance to State and federal laws, no adverse effects from exposure to contaminated materials are anticipated.

3.18.7 Indirect Effects

The management of instances of contamination during construction are not expected to result in indirect effects that would create new (or change existing) potential exposures to contaminated materials.

3.18.8 Mitigation

Prior to construction activities, a *Construction Health and Safety Plan* would be developed by the design-build contractor in coordination with HDOT. Specific measures to address potential encounters with contaminants during construction would be identified as part of that plan. Compliance with these measures would eliminate the potential for the Build Alternatives to have adverse effects related to hazardous wastes or contaminated materials. Therefore, no additional mitigation would be required for the Project.

3.18.9 Build Alternatives Comparative Assessment

Olowalu

Build Alternative 1 has the greatest potential for disturbance of potential hazardous materials in Olowalu at the Storage Truck and Materials Handling Yard and Olowalu Recycling and Refuse Center. Build Alternatives 2, 3, and 4 would result in the least potential for disturbance to potential hazardous materials in Olowalu at the Olowalu Recycling and Refuse Center. Based on the potential for additional remediation requirements, this could result in cost variations but would not have an overall effect in terms of potential adverse effects. Overall, no adverse effects would be anticipated in Olowalu with the Build Alternatives.

Ukumehame

Build Alternatives 1 and 4 have the greatest potential for disturbance of potential hazardous materials in Ukumehame at Ukumehame Firing Range. Build Alternatives 2 and 3 would result in the least potential for disturbance to potential hazardous materials in Ukumehame by avoiding the Ukumehame Firing Range. Based on the potential for additional remediation requirements, this could result in cost variations but would not have an overall effect in terms of potential adverse effects. Overall, no adverse effects would be anticipated in Ukumehame with the Build Alternatives.