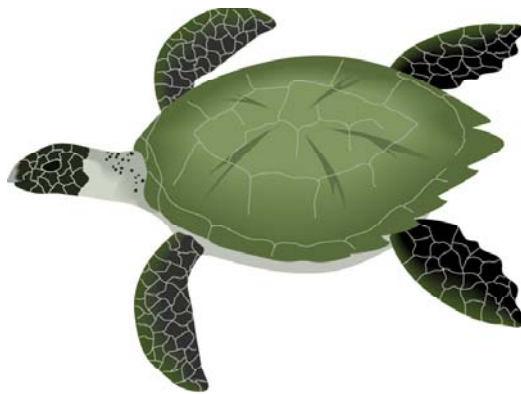




**United States Air Force  
15th Air Base Wing  
Environmental Restoration Program**

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***Final*  
WORK PLAN  
FOR REMOVAL SITE EVALUATION  
AT PIER DUMP SITE (LF24)  
Bellows Air Force Station  
Oahu, Hawaii**



**APPENDIX E**

**Project-Specific Investigation-Derived Waste  
Management Plan**

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# Appendix E

## Project-Specific Investigation-Derived Waste Management Plan

### E.1 Introduction

This appendix presents the Project-Specific Investigation-Derived Waste Management Plan (IDWMP) for the *Work Plan for Removal Site Evaluation at Pier Dump Site, Bellows AFS, Oahu, Hawaii*.

This Project-Specific IDWMP provides process information and limited site- or activity-specific practices for the Removal Site Evaluation (RSE) at the Pier Dump Site. This plan also addresses specific best management practices for IDW and the anticipated IDW volumes. The IDWMP will be amended, as necessary, if unaddressed conditions arise (such as when a new waste type is anticipated or waste volumes change such that a different best management practice applies).

The IDW management process for this project incorporates the U.S. Air Force's (USAF's) waste segregation, minimization, and management preferences as set forth in the *Waste Management Plan Guidelines for 15th Air Base Wing Contractors* (U.S. Department of the Air Force, March 1998) and guidance contained in *Management of Investigation-Derived Waste During Site Inspections* (EPA, May 1991). Waste management options in order of preference are reuse, recycling, treatment, and disposal. Onsite options are preferred over offsite/on-Base options, and on-Base options are preferred over off-Base options. However, because of the small quantities of IDW anticipated during the RSE, an exception to the reuse and recycling options is incorporated into this project-specific IDWMP: for IDW soil and water, reuse and recycling options do not exist. Anticipated materials to be removed from the landfill for recycling on-island may include, but are not limited to, broken glass, scrap metal, scrap lumber, and other solid waste.

This IDWMP is comprised of the following sections:

- Section E.2 – Onsite Material Handling and Staging Plan
- Section E.3 – IDW Soil Management
- Section E.4 – IDW Water Management
- Section E.5 – Personal Protective and Disposable Sampling Equipment Management

## E.2 Onsite Material Handling and Staging Plan

During trenching activities, the excavated soil that does not contain waste materials (broken glass, scrap metal, asphalt, wood, concrete, or other debris) will be placed on plastic sheeting next to the excavation. This material will be returned to the trench, to the approximate level it was derived, following trenching activities.

Excavated soil that contains waste materials will be segregated from clean soil. This material will require temporary onsite storage prior to final disposition. Appropriate procedures and temporary structures will be necessary to ensure that the materials do not cause additional contamination at the site and are not adversely affected during the storage period. This temporary onsite storage will be secured with a temporary fence and will be able to be locked to prevent unauthorized access.

Waste material consisting of debris smaller than approximately 4 to 6 inches in diameter will be segregated. Soil and other non-recyclable materials removed from the dump will be disposed of at a CERCLA-permitted solid waste disposal facility on the U.S mainland. This material will be tested for hazard classification, packed in shipping containers, transported, shipped, and disposed of at a permitted facility.

Larger waste material (greater than approximately 4 to 6 inches in diameter) consisting of metal, glass, wood, and other material that can be recycled shall be segregated, cleaned as necessary, and recycled at on-island facilities. The metal objects which could be excavated may include the following:

- An engine block
- Various vehicle parts (axles, brake drums, etc.)
- Truck fenders
- Truck bumpers
- A 6' x 6' x6' steel burn box
- Cast iron and galvanized metal pipes
- Copper wire
- Steel barbed-wire
- Sheet metal of various sizes
- Wire strapping

These materials will be handled and containerized as appropriate, as deemed feasible by the waste disposal/recycling contractor.

## E.3 IDW Soil

IDW generated during the RSE fieldwork will be temporarily stored in the fenced IDW storage area used during the OU1 EE/CA project, located in the vicinity of Bellows IRP Site SD22 in State of Hawaii Department of Transportation (HDOT)-approved, 55-gallon

steel drums or covered roll-off boxes. The temporary storage area consists of an approximately 40-foot-by-30-foot gated enclosure on an asphalt surface. All drums will be stored on wooden pallets. The enclosure will include an evaporation basin for evaporating non-hazardous IDW water, if necessary.

Approximately one roll-off container of IDW soil is expected to be generated during hollow-stem auger (HSA) drilling at the Pier Dump. IDW soil generated during HSA drilling will be contained in the HDOT-approved roll-off box at the time it is generated. The roll-off container will be staged at the temporary IDW storage area until the laboratory analytical results have been evaluated and an appropriate management option can be selected. Based upon previous analytical results obtained during the Pier Dump SI, it is expected that IDW soil will not be hazardous and will contain low to non-detectable analyte concentrations which are below action levels for chemicals of concern. In this case, the IDW soil will be returned to the Pier Dump Site and spread on the ground surface in the vicinity of the boreholes in accordance with EPA guidance.

## **E.4 IDW Water**

Approximately eight 55-gallon drums of IDW water are expected to be generated at the Pier Dump during monitoring well development, purging and sampling, and decontamination of equipment (backhoe, drilling rigs, hand tools, etc.).

IDW water derived from developing and purging monitoring wells, along with decontamination water, will be contained in HDOT-approved steel drums at the time it is generated. Drums will be staged at the temporary IDW storage area until the laboratory analytical results have been evaluated and an appropriate management option can be selected. Based upon previous analytical results obtained during the Pier Dump SI, it is expected that IDW water will be below action levels for the chemicals of concern. In this case, the IDW water will be reinfiltrated at the Pier Dump Site. If analytical results indicate concentrations above action levels, the water will be evaporated in the evaporation basin that will be constructed in the temporary IDW storage area.

## **E.5 Personal Protective and Disposable Sampling Equipment**

IDW consisting of used PPE and spent disposable sampling equipment will be generated during the RSE field investigation. This equipment is expected to consist of gloves (nitrile or otherwise), chemical-resistant coveralls (Tyvek® or otherwise), plastic bailers, and downhole tubing. Some or all of these materials will be generated in small quantities throughout the RSE field investigation.

Unstained PPE and equipment will be disposed of as municipal solid waste at the time of generation. This is expected to be the primary management process for PPE and disposable

sampling equipment. If equipment is stained by contact with other IDW or sampled media, it will be decontaminated, then disposed of as municipal solid waste.

## E.6 References

U.S. Department of the Air Force. March 1998. *Waste Management Plan Guidelines for 15th Air Base Wing Contractors*.

U.S. Environmental Protection Agency (EPA). Office of Emergency and Remedial Response. May 1991. *Management of Investigation-Derived Wastes During Site Inspections*.