

**NANAKULI B LANDFILL (HRS 343 EISPN)**

**District:** Waianae

**TMK:** (1) 8-7-009: 001 and (1) 8-7-009:007

**Applicant:** Leeward Land LLC  
P.O. Box 2862  
Waianae, HI 96792  
Contact: Stephen Joseph (808-668-1911)

**Approving Agency:** City and County of Honolulu  
Department of Planning and Permitting  
650 S. King Street  
Honolulu, HI 96813

**Consultant:** URS Corporation  
615 Piikoi Street, Suite 9  
Honolulu, HI 96813  
Contact: Shabnam Barati (808-593-1116 or 408-297-9585)

**Status:** Environmental Impact Statement Preparation Notice (EISPN), pending 30-day public comment and request to become a consulted party in the preparation of the upcoming draft environmental impact statement (DEIS). Public comments on the EISPN and/or requests to become a consulted party in the preparation of the upcoming DEIS must be timely delivered to the Applicant with a copy to the Approving Agency and the Consultant at the above noted addresses, and OEQC.

**Public Comment Deadline:** \_\_\_\_\_

**Agencies/Groups to be Potentially Consulted:** U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Department of Transportation, State Historic Preservation Division, and individuals and groups.

**Permits Required:** Special Use Permit (SUP), Notice of General Permit Coverage for National Pollution Discharge Elimination System (NPDES) Permit, Solid Waste Management Permit (SWP), and Building Permit.

**PROJECT CHARACTERISTICS**

Leeward Land LLC (the Applicant) proposes to construct and operate a municipal solid waste composting and landfill facility on an approximately 172-acre site near Nanakuli, in Oahu. The two land parcels that make up the project site are owned by the Applicant

and are located on Lualualei Naval Road, across from the Nanakuli Construction and Demolition Waste Landfill and the former Hawaiian Cement facility. The proposed facility will consist of: a scalehouse, a municipal solid waste (MSW) receiving and processing building, a paved composting area, and a series of Subtitle D (40 CFR 258) lined landfill cells. All incoming vehicles will be weighed at the scalehouse and then directed either to the processing building or directly to the landfill area. Approximately one-third of the MSW, consisting of loads with a high percentage of organic material, will be offloaded in a covered building with a biofilter to control odors and placed in a grinder to reduce the waste into uniform particle sizes. After grinding, the waste will then be placed in the composting area and covered with the GORE™ Cover System, which will consist of windrows of ground MSW covered by large tarps, where it will be composted aerobically by pumping air through it. The grinding and composting steps will reduce the volume and weight of the MSW by up to half of its original volume and weight. The composted or stabilized MSW will then be disposed of in the lined landfill cells and covered with daily landfill cover. The project will include leachate collection facilities, storm water drainage facilities, and a landfill gas collection system.

Approximately two-thirds of the incoming waste, including mixed loads with relatively little organic material suitable for composting, will be directed to the landfill disposal area. As with all incoming waste, the material going directly into the landfill is subject to regulations and programs to prevent the disposal of hazardous or other unacceptable wastes. The following materials will not be accepted pursuant to Hawaii Administrative Rules governing solid waste landfills:

- Designated hazardous wastes, PCB wastes, radioactive materials or toxic materials such as insecticides or other poisons
- Untreated medical wastes
- Bulk or non-containerized liquids
- Scrap vehicles
- Tires
- White goods (large appliances)

Procedures to be detailed in the facility's operating plan, and monitored and enforced by the Hawaii Department of Health, will specify the means of preventing the disposal of unacceptable wastes.

The landfill is projected to handle approximately 1,500 tons per day of MSW and the landfill life is expected to be between 15 to 18 years. The proposed project has been designed per State and Federal regulations, and aims at maximizing the use of available airspace at the site and minimizing adverse impacts on the environment.

This EIS is being undertaken to address HRS Chapter 343 requirements and support the SUP. Pursuant to Chapter 343, Hawaii Revised Statutes, an EIS must be prepared for siting a new landfill in Hawaii.

## **AFFECTED ENVIRONMENT**

The site is currently undeveloped and consists of open land mostly covered by low growing shrubs and trees, with some unpaved roads and paths. Two above-ground water storage tanks are located on the site. While the site is zoned for agricultural uses, it has very poor crop productivity potential. Moreover, the project site is not classified as part of the Agricultural Lands of Importance to the State of Hawaii (ALISH) system, compiled by the State Department of Agriculture. Waste disposal and processing is a permitted use in the General Agricultural District with an approved SUP. The project site is not located in a Special Management Area, a Shoreline Setback Area, or a Conservation District.

The site lies at the base of the eastern flanks of the Waianae Mountains, one of the two dominant volcanic ranges forming the island of Oahu. Topographic coverage is provided by the USGS Schofield Barracks, 7.5-minute quadrangles, 1:24,000 series, dated 1983. The elevation of the subject property varies from 40 feet above mean sea level to 280 feet above mean sea level, with generally moderate slopes toward the east of the site. Surface water runoff flows southwest. The nearest surface water bodies are the Ulehawa Stream, located approximately 0.5-mile to the west of the site, and the Pacific Ocean approximately 0.5-mile to the southwest of the site. The property has a flood insurance rate map (FIRM) classification of D, which is classified as “undetermined.” This zone is usually around rivers or streams, such as is the case with the project site. The site is not within a designated groundwater recharge area.

Immediately adjacent to the project site to the north and east is the undeveloped Pu’uheleakala Ridge. Residences and undeveloped land are located to the south and southwest of the site. The site is bordered to the west by Lualualei Naval Road, which comprises the eastern border of the active Nanakuli Demolition Waste Landfill and the Hawaiian Cement facility.

## **POTENTIAL IMPACTS AND MITIGATION MEASURES**

The EIS will contain analyses of potential environmental, public service, socio-economic and cultural impacts and associated mitigation measures to ensure that potential adverse impacts of the proposed project are avoided or minimized. Both short-term (construction impacts) and long-term impacts will be evaluated, as relevant. The scope of the analysis to be contained in the EIS is further described below.

### **ENVIRONMENTAL IMPACTS**

Geology: The Soil Conservation Service classifies the soil underlying the site as Lualualei-Fill Land-Ewa association and Rock Land-Stony steep land association. Intensive land use development on rocky soil type is usually difficult and costly because of construction restraints and requirements. Foundations for buildings and structures require additional construction effort to achieve a stable base for development. However, low precipitation at the site reduces the potential for soil saturation, which would lead to

soil and foundation movement. These building constraints will be addressed in the EIS. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts related to geologic conditions.

Surface Water and Hydrology: There are currently no drainage issues on the site, and the proposed development will not likely cause a significant change in off-site drainage patterns or water quality. Development of the site could potentially alter the drainage patterns from their natural course as excavation and stockpiling of fill would change the topography of the site. The project will be designed so that storm water from the site and run-on draining across the property from the surrounding upgradient areas will be collected and routed to a sedimentation pond(s). When sediment has settled out of the water, the runoff will then be directed back to the existing off-site drainage collection system in Lualualei Navel Road. The resulting run-off from the site will not likely impact any surrounding properties. The average rainfall at this location is approximately 14 inches per year, and this low precipitation rate reduces the potential for site run-off to flood adjacent areas. The EIS will evaluate the effects of the project related to on- and off-site drainage patterns, flooding, and surface water quality. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts related to surface water and hydrology.

Groundwater: Leachate, a by-product of the decomposition of MSW within a Subtitle D (40 CFR 258) designed and operated landfill, can potentially migrate into adjacent lands and groundwater, if a landfill is not properly designed and constructed. Rainwater and dust control water will result in leachate when this water exceeds the absorptive and/or retentive ability of the landfill refuse. Leachate, as it passes through landfill waste, collects a variety of organic and inorganic contaminants.

The project will be designed with a leachate collection system that will be placed above a composite liner and below the operations layer on which the compacted waste is placed. The potential for leachate migration into adjacent lands and non-potable groundwater from the landfill will be controlled by the liner and collection system, by the surface drainage system, and by the use of industry Standard Operating Procedures and Best Management Practices. Additionally, a groundwater monitoring program will also be implemented with the project to ensure that leachate does not migrate into the groundwater. If leachate is generated at the landfill, it will be collected, pumped, and disposed of at appropriate treatment and disposal facilities in accordance with regulatory requirements.

The EIS will fully evaluate the effects of the project related to groundwater quality. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts related to groundwater quality.

Air Quality: The nature of a landfill is to break down and decompose waste material, and the by-products of this process can potentially be odor and wind-borne dust, if not operated with appropriate control measures. The application of Best Management Practices, and adherence to State regulations for the storage, handling and processing of solid waste will reduce these impacts to a minimum.

As the landfill airspace is consumed with compacted MSW, a gas collection system will be installed and methane gas will be collected and flared off, daily cover will be provided over refuse, and dust control measures will be implemented on site as part of the project design. The adjacent areas are predominantly open space, and therefore may not be sensitive to the small residual amount of odor and dust that would be generated. However, the residential area is within a quarter mile of the property boundary, and downwind from the site. Odors from the landfill could potentially be noticeable to residents in this area in times of low wind. The EIS will fully evaluate the effects of the project related to odors and dust during both construction and operation of the landfill. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts related to odors and dust.

Litter: Daily covering of refuse at the proposed landfill will minimize the generation of off-site litter. Litter control measures, such as operating face and perimeter fencing, will be implemented as part of the project to control litter that may drift off-site. The EIS will fully evaluate the effects of the project related to the generation of litter from landfill operation. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts related to litter.

Noise: Construction and operation of the proposed landfill will generate noise from the operation of vehicles, trucks, bulldozers, and various types of equipment. Noise control measures will be implemented as part of the project to minimize noise off site. The EIS will fully evaluate the effects of the project related to noise generation from both construction and operation of the landfill. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts related to noise.

Flora and Fauna Resources: The site is composed of well-drained clay soils that support extensive buffelgrass grassland with scattered koa haole shrubs and kiawe trees. Most of the site shows evidence of previous disturbances, including recent wildfires. Floral and fauna surveys of the site will be conducted as part of the EIS to document the plant community types, sensitive habitats (if any), and plant and wildlife species present on the site. The presence or potential presence of threatened or endangered flora and fauna will also be assessed, as part of these surveys. The EIS will fully evaluate the effects of the project on flora and fauna resources from both construction and operation of the landfill. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts on these resources.

## PUBLIC SERVICE IMPACTS

Traffic: The route from the area of waste collection to the proposed landfill site will be the same as is currently used for other waste collection trucks in route to the existing Nanakuli Construction and Demolition Waste Landfill, but the trucks would continue on Lualualei Naval Road to the project site. Traffic is currently light on this road, which is the main access route to the Lualualei Naval Reservation. Due to the likely minor additional numbers of vehicles that would be associated with the project and the traffic conditions on the access route, there is not expected to be any adverse impact from

project traffic. However, a comprehensive traffic study will be prepared as part of the EIS to evaluate project traffic. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts on the surrounding road system.

Water Supply and Wastewater: Both potable water and irrigation water for controlling dust will be needed on site. The volume of water required by the project will be determined in an investigation of project water needs in the EIS. Water may be available from an on-site well. The adequacy of existing water supply and facilities to serve the project will also be evaluated. Wastewater will be disposed of through an on-site septic system to be constructed as part of the project design. If leachate is generated at the landfill, it will be collected, pumped, and disposed of at an appropriate treatment and disposal facility in accordance with regulatory requirements. The EIS will fully evaluate the effects of the project on water supply and wastewater services and facilities. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts on these services.

Other Public Services: As the project will not result in new population growth there will be little or no increased demand for police and fire services, schools, and recreational resources. The EIS will fully evaluate the effects of the project on these public services. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts on these services.

## SOCIO-ECONOMIC IMPACTS

Socio-Economic: The EIS will fully evaluate the effects of the project on the demographic and economic resources of the community. These effects, if any, would likely be related to land use conflicts with adjacent uses associated with odor, noise, and litter generated by the proposed landfill. As noted previously, odor, noise, and litter control measures will be implemented with the proposed project in order to control these nuisance effects. The EIS will also determine the need for any additional mitigation measures to reduce any adverse impacts on socio-economic resources.

Historic and Archeological Resources: An archaeological inventory survey of the project site will be conducted as part of the EIS to document all historic properties on the site. A complete ground survey and limited subsurface testing will be completed. Any resources and/or deposits identified will be evaluated for their significance. Prehistoric and historic land uses of the site and related settlement patterns will also be determined based on review of historic maps, written records, and Land Commission Award documents. The EIS will fully evaluate the effects of the project on historic and archeological resources. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts on these resources.

Scenic Resources: The site is bounded to the east by the western slope of the Waianae Mountain Range, and to the west by open land, the existing Nanakuli Construction and Demolition Landfill, and the former cement plant. To the south is a residential area, and to the north is the Lualualei Naval Reservation. The landfill operation will be visible from Lualualei Naval Road and the landfill will be apparent to those traveling on the

road. The site will also be visible from some residences to the south of the site. The EIS will fully evaluate the effects of the project on scenic resources. Visual simulations of the project will be prepared to support the analysis. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts on scenic resources.

#### CULTURAL IMPACTS

A Cultural Impact Assessment will be performed for the EIS to analyze the impact of the project on cultural resources, practices and beliefs that may be associated with the project area. Individuals and organizations with knowledge of the area potentially affected by the proposed project will be consulted as part of the assessment. The EIS will fully evaluate the effects of the project on cultural resources, practices, and beliefs. Appropriate mitigation measures will be proposed if necessary to reduce any adverse impacts.

#### ALTERNATIVES CONSIDERED

A range of alternatives to the proposed action will be developed and analyzed in the EIS. The alternatives may include, but would not be limited to, the no action alternative, delayed action alternative, and alternative landfill location(s). An analysis of the comparative merits of the alternatives and the proposed action will be provided.

