

**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**  
**Office of Conservation and Coastal Lands**  
**Honolulu, Hawai'i**  
*August 24, 2012*

**BOARD OF LAND AND  
NATURAL RESOURCES  
STATE OF HAWAII  
HONOLULU, HAWAII**

**REGARDING:** Conservation District Use Application (CDUA) KA-3625 for the Kekaha Landfill (KLF) Phase II Expansion

**APPLICANT:** County of Kaua'i, Department of Public Works

**AGENT:** Julie Zimmerman, AECOM

**LOCATION:** Kaunuaui'i Highway, Waimea, Kekaha, Island of Kaua'i

**TMK:** (4) 1-2-002:009 & (4) 1-2-002:001

**AREA OF PARCEL:** 98 acres

**AREA OF USE:** 64 acres

**SUBZONE:** Limited

**DESCRIPTION OF AREA AND CURRENT USE:**

The Kekaha Land Fill (KLF) is a permitted Municipal Solid Waste (MSW) landfill for the disposal of non-hazardous solid wastes. The facility is situated on 98 acres of land and is located approximately 1700-feet from the shoreline. The KLF is located approximately 1.3 miles northwest of the town of Kekaha on the south western side of the Island of Kaua'i (**exhibit 1**). The KLF is situated on the Mana Plain, which is the relatively flat coastal plain located on the southwestern coast of Kaua'i, historically used for agricultural purposes although portions are still used for agricultural practices today. The coastal (Mana) plain consists primarily of older alluvium and contemporary sedimentary rocks of marine, littoral and terrestrial origin. The KLF is bounded by the Kaunuaui'i Highway to the northeast, an unpaved access road and agricultural lands to the southeast, a state agricultural park to the northwest, federal lands to the west and southwest and a drag strip to the south.

The KLF is cut into two distinct refuse fill areas called Phase I and Phase II (**exhibit 2**), with Phase I beginning operations in 1953 and completing operations in 1993. Phase II began operations shortly after that in October, 1993 and was designed to last until 2003, under current conditions. However, due to the unprecedented material created from the devastating Hurricane Iniki in 1992, the KLF reached capacity in 1998 and was expanded vertically to accommodate the

increased refuse. A second vertical expansion was approved in 2005 allowing the KLF to reach a height of 85 feet above sea level (asl).

The County of Kaua'i has an island-wide system of solid waste collection and disposal which incorporates two primary components; the KLF and the four (4) county wide transfer stations, along with a variety of recycling centers. The Phase II of the KLF containment system consists of a landfill liner, leachate collection system and an evaporation lagoon. The base liner is comprised of a geosynthetic clay layer overlain by a geomembrane layer. A suite of perforated pipes surrounding the KLF direct leachate into the collection areas and then into the lagoon for treatment. Currently, daily operations require spreading the waste in 2-foot high layers up to a slope of 5:1 and to a height of 10-feet, all while maintaining a working face of 100-feet by 75-feet. The layers are compacted to prevent loss of waste and then covered with a geosynthetic tarp to mitigate the effects of odors, vectors, leachate and windblown trash. When the design grade is reached a soil cover consisting of fine-grained silty clay is emplaced as a permanent cover.

### ***Resource and Environment***

An extensive faunal survey of the KLF property in 1982 did not record the presence of any endangered floral or faunal species. More recently, a survey of the property prior to the construction of Phase II found only exotic, introduced and invasive (flora) species and no uncommon or rare plants were observed. Since these surveys were completed the site has been further disturbed by the approved earthmoving activities required for appropriate KLF operations. Habitat quality of the KLF facility for native fauna is marginal to poor at best, and no rare or protected species are believed to use the site with any frequency. As is typical for most shoreline vicinity projects there is a potential for protected seabirds, such as the Newell's shearwater and the Hawaiian petrel to fly over the project area although no impacts to habitat are expected. No woody vegetation tall enough to support native species, such as the Hawaiian Hoary Bat, was found on site and no plants listed as threatened or endangered were observed at the project site.

There were no native fauna observed at the project site, only the common Myna (*Acridotherus tristis*) and the Northern Cardinal (*Cardinalis cardinalis*) were reported. A survey of the avifaunal and feral mammal species concluded that none are listed on the federal or State of Hawai'i endangered species list.

### ***Culture, Architecture and Archeology***

The Island of Kaua'i, and more specifically the Mana Plain and West coast, has been surveyed extensively by archeologists over the past 60 years. Before the cultivation of sugarcane in this region, the Mana Plain was a non-tidal wetland bounded by the cliff and sand dunes with typical historical uses such as fishponds and cultivated taro ponds, along with temporary habitation areas located along the sandy shoreline. These conditions persisted until the time of the first western contact which altered the land use in this area to commercial agriculture and other practices.

An archeological survey (AIS) of the entire 63 acre Phase II parcel was conducted by Cultural Survey Hawaii, Inc. in May, 1993 along with the Department of Land and Natural Resources involvement. The AIS included extensive subsurface investigations which revealed that the area includes former natural dune landforms. These dune landforms, nearby foothills and wetland

areas have been heavily disturbed by the planting of sugar cane and animal husbandry activities, including grazing. Similarly, the beach areas, nearby the project site, have been heavily impacted due to the preponderance of massive shoreline erosion control/stabilization projects. While the area was historically a sandy area, filled with dune structures, the dunes were in large part obliterated by mechanical means to create level graded land plantation agriculture and pasturage of plantation animals.

A historic canal cutting the parcel in two sections from north to south and a linear mound oriented perpendicular to the canal were constructed by mechanically mounding sand deposits from the surrounding area. These features are the remains of an attempt to farm certain portions of the land. Neither feature is considered to be an historical site, nor were any cultural resources discovered during the survey. Based on the results of the inventory survey and subsurface testing, no further archeological studies for Phase II are recommended.

### *Hawaiian Native Uses and Rights*

Access to the 98 acre KLF facility is controlled by a perimeter fence and gated entrance to ensure the safety of customers and facility staff. A Cultural Impact Assessment completed for this site included a request for information relating to cultural practices in the vicinity of the KLF facility. The cultural impact assessment did not yield any results or comments regarding cultural practices within the project vicinity that would be impacted in any way; therefore no impacts to cultural practices are anticipated.

### **PROPOSED USE:**

The purpose of the proposed action is to laterally expand the Phase II section of the KLF thereby prolonging the life of the KLF as it is the only permitted landfill on the Island of Kaua'i. The County is proposing to expand the limits of the Phase II fill areas to include three (3) additional cells. Cell 1 will expand Phase II into the existing leachate lagoon and adjacent acreage. Cell 2 would expand Phase II into the valley area between the existing closed Phase I and Phase II areas. Cell 3 will expand Phase II directly over the closed Phase I (**exhibit 3**); the maximum height of these areas would be no greater than 85 feet asl (**exhibits 4-6**). The proposed expansion, at full build, would increase the original Phase II fill area by 32.7 acres and would provide additional capacity for approximately 1,550,000 yd<sup>3</sup> of solid waste at the KLF. At the current filling rate this could accommodate 6-12 additional years of waste disposal operations.

A base liner system will be installed at the top of the existing Phase I cover system which will allow for the proposed vertical expansion to 85 feet asl; currently the Phase I height is approximately 50 feet asl. A passive gas system, currently in place for Phase I, would be re-routed during construction of the base liner system for the lateral expansion into Cells 2 and 3. The expansion into Cell 1 would require the redevelopment of a new leachate management system. The existing leachate lagoon would be demolished and relocated adjacent to the main office building (**exhibits 4**). Since the valley area between Phase I and Phase II currently contains storm water management and gas monitoring systems the expansion into Cells 2 and 3 include plans for a new storm water management system, the relocation of an existing gas monitoring probe and three (3) groundwater monitoring wells.

**SUMMARY OF COMMENTS:**

The Office of Conservation and Coastal Lands (OCCL) referred the application to the following state agencies for review and comment: DLNR - Engineering Division, Historic Preservation Division (SHPD), Land Division (Kaua'i Office), Division of Conservation and Resources Enforcement (DOCARE), the Division of Aquatic resources (DAR), The Hawaii Department of Health (DOH), the Office of Hawaiian Affairs (OHA), the Office of Environmental Quality Control (OEQC) and the Commission of Water Resources Management (CWRM); similarly the application was referred to the following county agency: County of Kaua'i Department of Planning, the Kaua'i Department of Public Works and to the following community groups: Waimea Public Library and the Kekaha Neighborhood Center.

Comments received from the following agencies have been summarized by staff as follows:

**Hawaii State Department of Health (DOH)**

No comments.

**DLNR - Kaua'i District Land Office (KDLO)**

No comments. *See SMA permitting and public hearing information*

**Commission of Water Resource Management (CWRM)**

We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for more information.

This project does not include use of water resources. The nearest wells are 2/3 to 1 mile laterally along the shoreline, which is 0.8 miles from the site; they are deep saltwater wells and would not be expected to be impacted hydrologically. The underlying soils are unconsolidated calcareous sediments probably discharging groundwater towards the shoreline. Monitor wells surround the site, which has as clay lining with a leachate collection and management system. These are regulated by the Department of Health.

***Applicant Response:***

*The Final Environmental Assessment (FEA)/ Finding of No Significant Impact (FONSI) for the Kekaha Landfill Phase II lateral expansion, which included the proposed Cell 2 expansion, was issued in November 2007. During this process, the Department of Public Works coordinated with the Department of Water to incorporate this project into the county's Water Use and Development Plan.*

**Division of Forestry and Wildlife (DOFAW)**

We recommend that any and all outdoor lighting needed at any time during the lifetime of the project [utilize] fully shielded lights that achieve best possible protection against causing attraction of endangered and threatened seabirds such as Newell's shearwater and the Hawaiian petrel.

*Applicant Response:*

*Existing outdoor lighting at the KLF is limited to street lighting and outdoor lights placed above the maintenance shop, employee kitchen, employee restroom, and supervisor's doors. With normal operating hours between 0700 hrs and 1700 hrs the lighting is generally used in the early morning and early evening, during the winter months when daylight hours are reduced. Outdoor lighting is controlled by timers that turn off lights after normal operating hours and after workers have left the facility. The proposed plan does not include the addition of any new lights beyond what is existing at the KLF. Because the placement of outdoor lighting is restricted to key locations outside the administrative buildings and is only used seasonally and short term, the potential for attracting seabirds with lighting is minimal.*

Engineering Division – DLNR

We confirm that the project site, according to the Flood Insurance Rate Map (FIRM) is located in Zone X. The Flood Insurance Rate Program does not have any regulations for developments within Zone X.

*Applicant Response:*

*Comment noted.*

Office of Hawaiian Affairs (OHA)

*[4 pages of comments have been bulleted for ease of review]*

1) The current draft Environmental Assessment (DEA) does not include adequate consideration of a suitable number of alternatives; only the preferred/proposed action and the required no-action alternative.

*Applicant Response:*

*The County is responsible for ensuring that there is adequate landfill capacity to accommodate continued municipal solid waste disposal. There is no viable alternative to expansion into Cells 1 and 2 given the short timeline for the existing Phase II facility to reach capacity. A new landfill cannot be reasonably sited in less than 6 years and in response to the public opposition to the KLF expansion the county has stated that if the new landfill can be sited, permitted and built within the life of Cells 1 and 2, then Cell 3 will not necessarily proceed.*

2) At least one alternative should include the use of only one or two cells, a more limited lifespan for the landfill, and a commitment on the County's part to find a suitable replacement site within a reasonable timeline.

*Applicant Response:*

*Please see FEA for an explanation of the steps necessary to site a new landfill and the expected duration of these steps. Actions have already been taken by the County to site a new landfill on Kaua'i. An island wide siting study was completed in 2001, while a new siting study is currently being processed. It is the intent of the County to keep the public well informed as the siting study progresses.*

3) No evidence of possible new site locations were addressed in the DEA, similarly the County was aware of the need for a new landfill, once in 1998 after Hurricane Iniki and again in 2005 and those needs were never addressed.

*Applicant Response:*

*Please see responses to comment 1 and 2*

4) In the DEA the applicant provided *Alternatives Considered But Not Carried Forward*, OHA believes that these alternatives, which may have potentially addressed the previous noted concerns and comments, were dismissed after determining that they “were not feasible and were eliminated from the further discussion”. All of these decisions should not have been made before the drafting of the DEA.

*Applicant Response:*

*An EA needs only to carry feasible alternatives through the environmental analysis. There is no viable alternative to expansion into Cells 1 and 2 given the short timeline for the existing Phase II facility to reach capacity.*

5) Nowhere in the DEA is it explained why 5-6 years is required for the County to site, design and construct a new landfill facility. The DEA needs to explain why the proposed action allows for 12 years of continued life of the landfill, next to a community that has suffered its ill effects of stench, regular littering and probable seepage from the original unlined landfill.

*Applicant Response:*

*The County believes that a new landfill cannot be reasonably be sited in less than 6 years and if there are significant regulatory, technical, or community issues to overcome, siting a new facility could take longer. Although the County does not expect that 12 years will be required to site a new landfill, if Cell 3 is developed for any amount of waste, filling would continue until the Cell has reached capacity, expected to occur in 2021.*

*The FEA has addressed the concerns regarding littering, water resources, dust and odor control.*

County of Kaua'i – Department of Water

Water service is limited to the existing water meter servicing the Kekaha Landfill. In accordance with the “Three Party Service Agreement” executed in 1994 between the County of Kaua'i Dept. of Public Works, PMRF and the County of Kaua'i Dept. of Water, water use from the existing landfill water meter is limited to 31,000 gallons per month.

*Applicant Response:*

*Comment noted. Water service limitations have been added to Section 3.12 of the FEA. There will be no changes in operations at the landfill facility and there will be no changes in the amount of water currently used. Therefore there will not be a request for additional water or a larger size meter.*

**ANALYSIS:**

Following review and acceptance for processing, the Applicant's Agent was notified, by letter dated *April 27, 2012* that:

1. The lateral expansion of the Kekaha Sanitary Landfill is an identified land use pursuant to Hawaii Administrative Rules (HAR) §13-5-22, **P-6 PUBLIC PURPOSE USES (D-1)** *Not for profit land uses undertaken in support of a public service by an agency of the county, state, or federal government, or by an independent non-governmental entity, except that an independent non-governmental regulated public utility may be considered to be engaged in a public purpose use. Examples of public purpose uses may include but are not limited to public roads..., water systems and other utilities... and other public purpose uses, intended to benefit the public in accordance with public policy and the purpose of the conservation district.* As always the final decision to approve or deny is at the discretion of the Board of Land and Natural Resources (BLNR);
2. In conformance with Chapter 343, Hawaii Revised Statutes (HRS), as amended, and Chapter 11-200, HAR, the Final Environmental Impact Statement has been reviewed and accepted by the County of Kauai Department of Public Works on **November 7, 2007** and notice was published in the **November 23, 2007** issue of the Office of Environmental Quality Control (OEQC) *Environmental Notice*; and
3. Pursuant to HAR §13-5-40 Hearings, a public hearing may be required as determined by the Chairperson for projects with a large scope or public interest.

On *June 26, 2012* a Public Hearing for the Special Management Area Use Application [SMA (U)-2012-4] was held in the County of Kaua'i in order to obtain the full record from information received from a variety of stakeholders. According to a letter from the County of Kaua'i – Planning Commission, dated *July 12, 2012* a Special Management Area (SMA) Use Permit was approved for the proposed project, subject to 4 conditions.

**§13-5-30 CRITERIA:**

The following discussion evaluates the merits of the proposed land use by applying the criteria established in HAR §13-5-30.

- 1) *The proposed use is consistent with the purpose of the Conservation District.*

The objective of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare.

Staff is of the opinion that the proposed action will not negatively impact the natural resources of the area. The applicant found no historic and cultural resources, significant flora or faunal habitat and impacts to potential water resources on the subject parcel was minimal to non-existent. The proposed Kekaha Phase II Lateral Expansion project will be constructed within the original footprint with no expansion outside the original parcel. The

KLF expansion will allow for landfill activities to safely continue while a new landfill site is determined for the Island of Kaua'i. All monitoring wells and gauges will be relocated to provide the best management of the site.

The proposed landfill expansion would comply with current State of Hawaii regulations governing the design, construction, operation, and maintenance of municipal solid waste landfills. Based on the evaluation of impacts and mitigation measures presented in the final Environmental Assessment (EA), the proposed action would not have a significant adverse impact on the environment and a Finding of No Significant Impact (FONSI) has been determined.

- 2) *The proposed land use is consistent with the objectives of the Subzone of the land on which the use will occur.*

The objective of the limited subzone is to limit uses where natural conditions suggest constraints on human activities. The proposed use "Public Purpose" is an identified land use in the limited subzone for projects that fulfill a mandated governmental function, or service for public benefit.

It must also be noted that project site has been in use as a landfill since the mid 1950's and therefore has non-conforming status as it was constructed prior to the creation of the Conservation District in October 1964. While the project may not entirely fall within the ideals of the current Conservation District rules and regulations, the public health and sanitation standards related to the disposal of solid waste and the management of such facilities, outlined in the project proposal and the Final Environmental Assessment (FEA), is consistent with the Kaua'i General Plan (KGP). The KGP states that:

*Using long range integrated resources planning, the County shall manage an island wide system of solid waste collection, recycling, and disposal that is environmentally sound and cost effective; increases diversion of waste from the island's landfill; and provides for the timely and orderly expansion of solid waste facilities*

The proposed Phase II lateral expansion is consistent with Section 7.8 of the KGP because it provides an environmentally sound and cost effective way to provide a timely and orderly expansion of solid waste facilities on Kaua'i.

- 3) *The proposed land use complies with the provisions and guidelines contained in Chapter 205A, HRS entitled "Coastal Zone Management", where applicable.*

On May 4, 2012 the County of Kaua'i Planning Department accepted Special Management Area application for the proposed KLF expansion. On June 26, 2012 a hearing was held to receive additional information regarding the SMA application; no comments were received during the hearing. On July 12, 2012 the County of Kaua'i Planning Department approved SMA Use Permit SMA(U)-2012-4 for the KLF expansion, subject to 4 conditions. The project area is not located within a flood plain, a tsunami inundation zone, and erosion prone area, or on a geologically hazardous land and is not at

increased risk of damage from coastal hazards. The proposed KLF expansion would not result in significant adverse impacts to recreational, historical, or scenic or open space resources.

- 4) *The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.*

Environmental impacts resulting from the KLF expansion would be minimal as the KLF facility is already in use as a municipal solid waste (MSW) landfill, and the expansion would not expand the Phase II fill area beyond the existing 98-acre KLF facility footprint.

### **Air Quality**

The region of influence (ROI) for the KLF facility is the downwind areas which vary yearly, and can be influenced by local climate. Typical predominant downwind areas would include places to the west or southwest; Kona winds would alter that to the north. Three main focuses have been identified as potential impacts to air quality from the KLF facility, 1) Landfill Gas, 2) Odor Control and 3) Fugitive Dust.

The development of *Landfill Gas Control* includes the construction of a passive gas extraction system to control LFG impacts.

*Management of Odorous Wastes* includes a primary separation of wastes known to produce odors (e.g., sewage sludge, dead animals). Once separated the wastes are placed in a special active disposal area. The waste is immediately buried and covered. A daily cover soil is also part of mitigation efforts, and presents the most effective means of controlling odors. At the KLF facility a 6" layer of soil is placed over the refuse, with tarps employed as only a temporary measure.

*Fugitive Dust* is controlled by an on-site water truck that is used during periods of dry weather, or as needed. Volume of water and frequency are increased during more dry, windy periods.

### **Water Resources**

The potential impacts to water resources can be separated into two different water sources, 1) surface water and 2) groundwater. The ROI for water resources is the area immediately on the subject property, or downgradient of the KLF facility and groundwater aquifers.

#### *Surface Water*

Runoff from the top of the closed Phase I flows radially off the landfill and is collected by a series of inlet pipe storm drains located around the perimeter of the KLF. The slope drain discharge into an infiltration ditch the surrounds the Phase I area. Phase II includes the active landfill area and the associated facility buildings. Storm water "channels" lined with plastic to prevent erosion of the ground cover, move the flow to the leachate areas, infiltration ditches or evaporation ponds. Other storm water, collected from the KLF (e.g. paved parking areas) passes through oil/water separators prior to discharge to the septic system or for onsite wastewater treatment.

### *Groundwater*

Underlying the Mana Coastal Plain are two (2) different aquifers including the basaltic aquifer which yields higher volumes of water from wells and shafts and the coastal plain sedimentary (caprock) aquifer which is much less permeable thus slowing the seaward flux of groundwater from the basaltic aquifer. Groundwater quality below the KLF facility is considered to be brackish and, therefore, not suitable for potable sources or for irrigation. The nearest potable water supply is nearly 3400 feet northwest of the KLF. Further, a study completed in 1994 indicated that tidal changes do not significantly affect groundwater flow directions within the shallow caprock aquifer.

*Groundwater monitoring* has been conducted at the KLF facility Phase II site and a semi-annual basis since monitoring began in 1994. The field and monitoring reports are submitted to the Department of Health. Additionally three groundwater monitoring wells were installed hydraulically downgradient of Phase I for the post-closure monitoring program implemented prior to the closure of Phase I. As a result of the evaluations, it is concluded that landfill leachate from Phase I will not impact the groundwater beneath the KLF and therefore no corrective measures are required for the project site.

- 5) *The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

The proposed Phase II lateral expansion would expand the footprint of the Phase II fill area but will not expand the KLF beyond the existing footprint which has already been set aside for landfill purposes by **Executive Order(s) 1558 and 2872**. Mitigation efforts for visual impacts would include a landscaping and re-vegetation program to include “screen planting” along the frontage roads and the site perimeter. The final geometry of the proposed Phase II lateral expansion with a maximum elevation of 85 feet asl was verified for slope stability at final buildout. The final buildout condition represents the site’s final shape (**exhibit 6**) after waste placement has ceased and the final cover has been installed. A stability analysis reviewed two different failure scenarios based on the geometry of the facility, foundation soils and geology, and waste mass. Based on the soil and waste mass properties, the proposed landfill expansion is expected to remain stable.

- 6) *The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable.*

While the maximum height of the KLF will be no greater than 85 feet asl, the line-of-sight to Cells 2 and 3 from the northeast would be obscured by the existing Phase II landfill at full build. Cells 1, 2 and 3 will be partially visible from the Kekaha-bound direction of the Kaumuali’i Highway. The KLF is not presently visible from the shoreline. The maximum height of the KLF will not change as a result of this lateral expansion and no visual impacts are anticipated from the direction of the shoreline.

The existing KLF facility is not within a viewplane that exhibits a high degree of intactness or vividness and does not block any scenic landforms, scenic viewplanes or

shoreline views. Therefore the existing and proposed expansion does not conflict with any County policies for the protection of scenic resources.

- 7) *Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.*

Not applicable. The proposed project does not involve subdivision of Conservation District land.

- 8) *The proposed land use will not be materially detrimental to the public health, safety and welfare.*

The proposed expansion of the KLF facility would have long-term positive impacts on public health and safety by ensuring the continued maintenance of basic public health and sanitation standards relating to the disposal of solid waste. Short-term impacts to health and safety relate to worker safety during construction; workers safety and health will be the responsibility of the construction contractor. Current operating procedures to ensure safe operation of the KLF, including procedures to mitigate safety and health concerns related to heavy equipment operation, vector control (animals), explosive gas and landfill fires, would continue under the proposed expansion.

No other foreseeable actions have been identified in the vicinity of the KLF that would cause a cumulative impact to safety and health; cumulative impacts are not expected. Staff believes that the proposed project will not be detrimental to the public health, safety and welfare.

#### **DISCUSSION:**

The proposed KLF expansion will include the creation of three (3) new disposal "cells" to allow for the continued operation of an existing Municipal Solid Waste (MSW) disposal facility while a new landfill for the County of Kaua'i can be sited, permitted and constructed. The expansion is necessary to provide the County adequate time to site a new landfill location, while still providing the necessary public use.

The Office of Hawaiian Affairs (OHA) expressed valid concerns on the proposed KLF expansion, during the environmental review process, including the necessity of the project and long-term environmental impacts. The consultant provided responses to these concerns in the Final Environmental Assessment (FEA) and after a thorough review staff believes these concerns have been satisfactorily addressed and that the project is an acceptable conditional use of Conservation District lands.

Additional concerns regarding the infiltration of arsenic into groundwater resources, with comments coming from community groups and local residents, were presented during the review process. Although arsenic has been detected in the down-gradient wells it has also been detected at similar concentrations in the up-gradient well (located between the highway and the KLF). The significance of this is that any contaminant present in the up-gradient well could not have come from the landfill since geologic and subsurface investigations have revealed that the groundwater

beneath the site always flows makai. It is possible that arsenic could be a remnant from historical agricultural use or another unknown source up gradient from the KLF. The KLF facility expansion will include additional monitoring devices to minimize or eliminate the flux of any deleterious elements into the groundwater system; it has been shown that the groundwater beneath the KLF drains seaward and therefore does not affect any potable supply wells in the vicinity.

The County has expressed a sincere desire to minimize the need for a MSW facility by committing to increased waste diversion. Over the past decade the County has made consistent improvements in the area of waste diversion such as: the introduction of mixed paper and plastic recycling, new Kauai Recycling centers, green waste collection centers, the distribution of backyard home composting bins to residents, acceptance of appliances, tires and propane tanks for recycling at multiple transfer stations, enforcement of the corrugated cardboard ban, waste diversion assistance to the business sector and the introduction of the Bottle Deposit Law which created 7 redemption centers on the island of Kaua'i. The County has also recently hired (contracted) a consultant to update the County of Kaua'i Integrated Solid Waste Management Plan; while still in progress the plan outlines further improvements to the County's waste diversion efforts.

While a number of land and resource intensive uses currently exist in the Conservation District such as quarries, landfills, golf courses, college campuses, highways and harbors, we are not obliged to permit these uses prospectively, either as new uses or expansions. The primary objective of the Conservation District is to provide for the sustainable and judicious use of conservation lands and resources. Projects must be developed at an appropriate scale and intensity that protects and conserves the natural and cultural resources of the State. Be that as it may, we are required by law to allow for the continuation of nonconforming uses. *Neither this chapter or any rules adopted hereunder shall prohibit the continuance of the lawful use of any building, premises, or land for any trade, industrial, residential, or other purpose for which for which the building, premises, or land was used on October 1, 1964, or at the time any rule adopted under the authority of this part takes effect. All such existing uses shall be nonconforming uses* (Chapter 183C-5, Nonconforming uses).

That being said, the Board of Land and Natural Resources (BLNR) is not required to allow for the expansion of nonconforming uses, although it may do so if the proposed expansion is an identified use under Title 13-5, Hawaii Administrative Rules, and if impacts can be reasonably mitigated. In this case, since public landfills are an identified use under "Public Purpose" uses, the BLNR may approve the expansion.

Hopefully, staff has provided a thorough analysis of the situation. Mainly, that the expansion is still contained within the original area of the Executive Order, that this is most likely the most rational location for the disposal of waste until a new site can be developed (hopefully outside the Conservation District), that the County has done a good job of containing and mitigating the external effects of the landfill so far, that there does not appear to be any detrimental impacts to natural and cultural resources in the area, and finally, that the prospective expansion will strive to mitigate any future environmental effects. The landfill will be closed one day, and the area will be naturalized to the greatest extent possible. We have witnessed this process in other locations such as in Kailua.

Staff believes that construction activities will comply with applicable federal, State and County regulations and standards, and employ best management practices to minimize construction related impacts. Noise and air quality potential impacts will be mitigated through compliance with the Department of Health regulations and through the mitigation policies outlined the Final Environmental Assessment (FEA). Since the project site is within an area where development (e.g., construction of the Landfill in 1953) has previously altered the land and the current land use is a Municipal Solid Waste (MSW) facility, staff believes that no historic, archeological, natural or environmental resources will be affected by this proposal and this project will likely benefit public health and safety.

**RECOMMENDATION:**

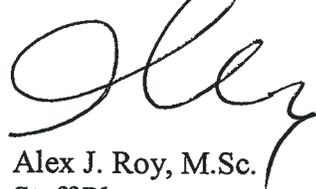
Based on the preceding analysis, Staff recommends that the Board of Land and Natural Resources APPROVE this application for the expansion of the Kekaha Land Fill Phase II located in Kekaha, Waimea, County of Kaua'i, of TMK(s): (4) 1-2-002:009 and 001, subject to the following conditions:

1. The permittee shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, State and county governments, and the applicable parts of HAR §13-5-42;
2. The permittee, its successors and assigns, shall indemnify and hold the State of Hawai'i harmless from and against any loss, liability, claim or demand for property damage, personal injury or death arising out of any act or omission of the permittee, its successors, assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;
3. The permittee shall comply with all applicable Department of Health administrative rules. Particular attention should be paid to HAR §11-60.1-33, "Fugitive Dust" and to Chapter 11-46, "Community Noise Control," and Chapter 11-54 "National Pollutant Discharge Elimination System";
4. Before proceeding with any work authorized by the Department of the board, the permittee shall submit three (3) copies of the construction plans and specifications to the chairperson or an authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Two (2) of the copies will be returned to the permittee. Plan approval by the chairperson does not constitute approval required from other agencies;
5. Unless otherwise authorized, any work or construction to be done on the land shall be initiated within one (1) year of the approval of such use, in accordance with construction plans that have been approved by the Department; further, all work and construction of the infrastructure must be completed within six (6) years of the approval. The permittee shall notify the department in writing when construction activity is initiated and when it is completed;

6. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the permittee shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard;
7. All representations relative to mitigation set forth in the accepted environmental assessment or impact statement for the proposed use are incorporated as conditions of the permit;
8. The permittee understands and agrees that this permit does not convey any vested rights or exclusive privilege;
9. In issuing this permit, the Department and Board have relied on the information and data that the permittee has provided in connection with this permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Department may, in addition, institute appropriate legal proceedings;
10. Where any interference, nuisance or harm may be caused, or hazard established by use, the permittee shall be required to take measures to minimize or eliminate the interference, nuisance, harm or hazard;
11. Obstruction of public roads, trails, lateral shoreline access, and pathways shall be avoided and minimized. If obstruction is unavoidable, the permittee shall provide alternative roads, trails, lateral shoreline access, or pathways acceptable to the department;
12. The permittee acknowledges that the approved work shall not hamper, impede, or otherwise limit the exercise of traditional, customary, or religious practices of native Hawaiians in the immediate area, to the extent the practices are provided for by the Constitution of the State of Hawaii, and by Hawaii statutory and case law;
13. In the event that unrecorded historic remains (i.e., artifacts, or human skeletal remains) are inadvertently uncovered during construction or operations, all work shall cease in the vicinity and the permittee shall immediately contact the State Historic Preservation Division;
14. Use of the area shall conform with the program of the appropriate soil and water conservation district or plan approved by and on file with the department, where applicable;
15. The permittee shall obtain a county building or grading permit or both for the use prior to final construction plan approval by the department;
16. Artificial light from exterior lighting fixtures, including but not limited to floodlights, uplights, or spotlights used for decorative purposes, shall be prohibited if the light directly illuminates or is directed to project across property boundaries towards the shoreline and ocean waters, except as may be permitted pursuant to section 205A-71, HRS. All exterior lighting shall be shielded to protect the night sky;

17. The permittee acknowledges that the approved work shall not hamper, impede, or otherwise limit the exercise of traditional, customary, or religious practices of native Hawaiians in the immediate area, to the extent the practices are provided for by the Constitution of the State of Hawaii, and by Hawaii statutory and case law;
18. Other terms and conditions as prescribed by the chairperson; and
19. Failure to comply with any of these conditions may render this Conservation District Use Permit (CDUP) null and void.

Respectfully submitted,



Alex J. Roy, M.Sc.  
Staff Planner  
Office of Conservation and Coastal Lands

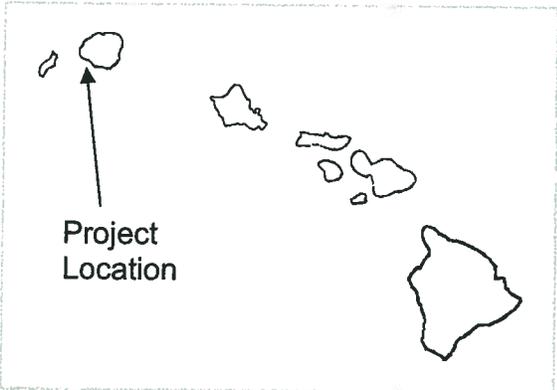
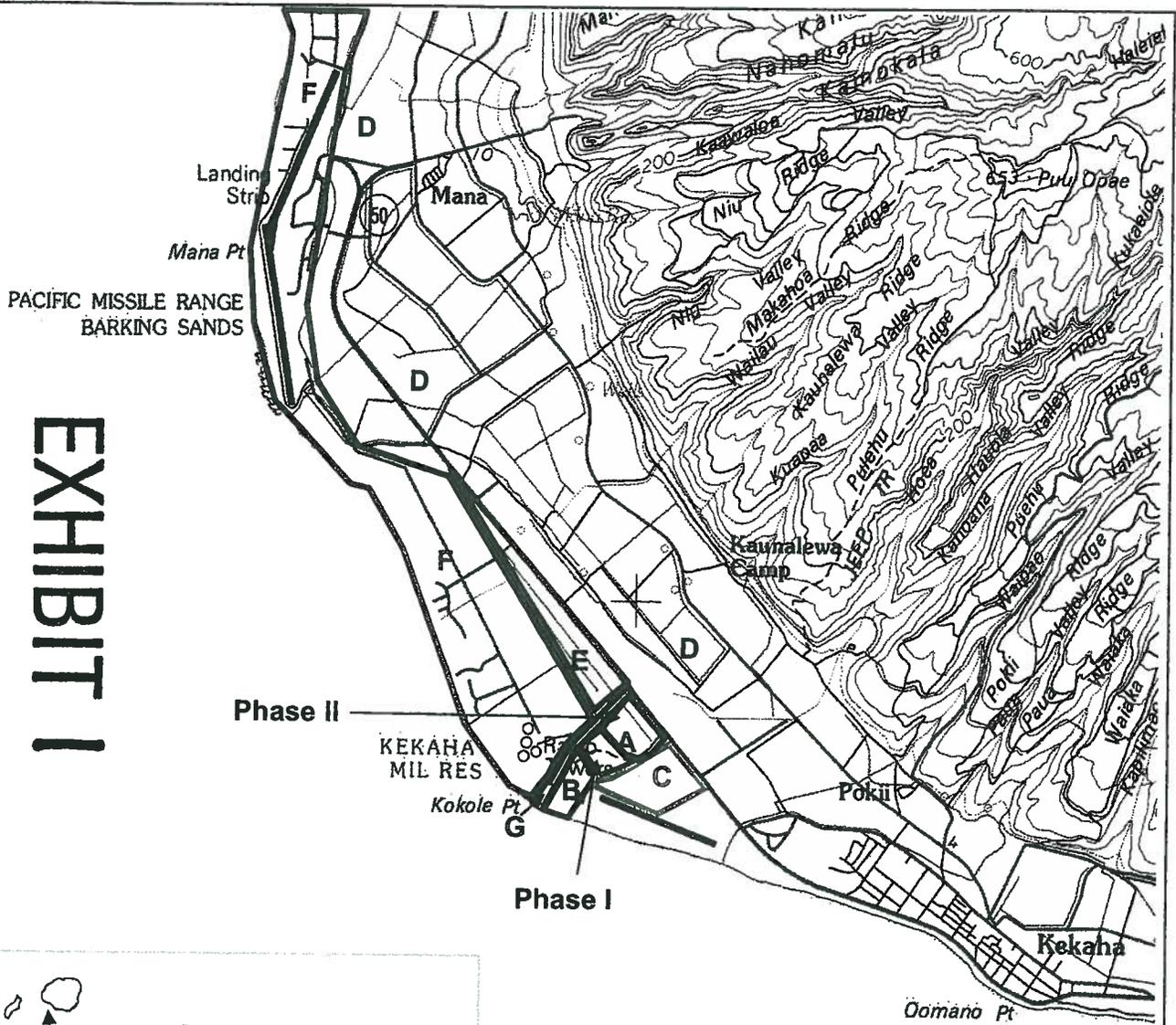
Approved for submittal:



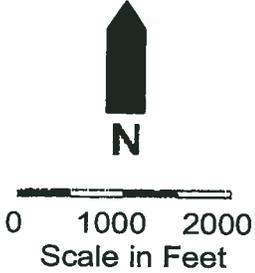
---

**William J. Aila, Jr., Chairperson**  
Board of Land and Natural Resources

# EXHIBIT I



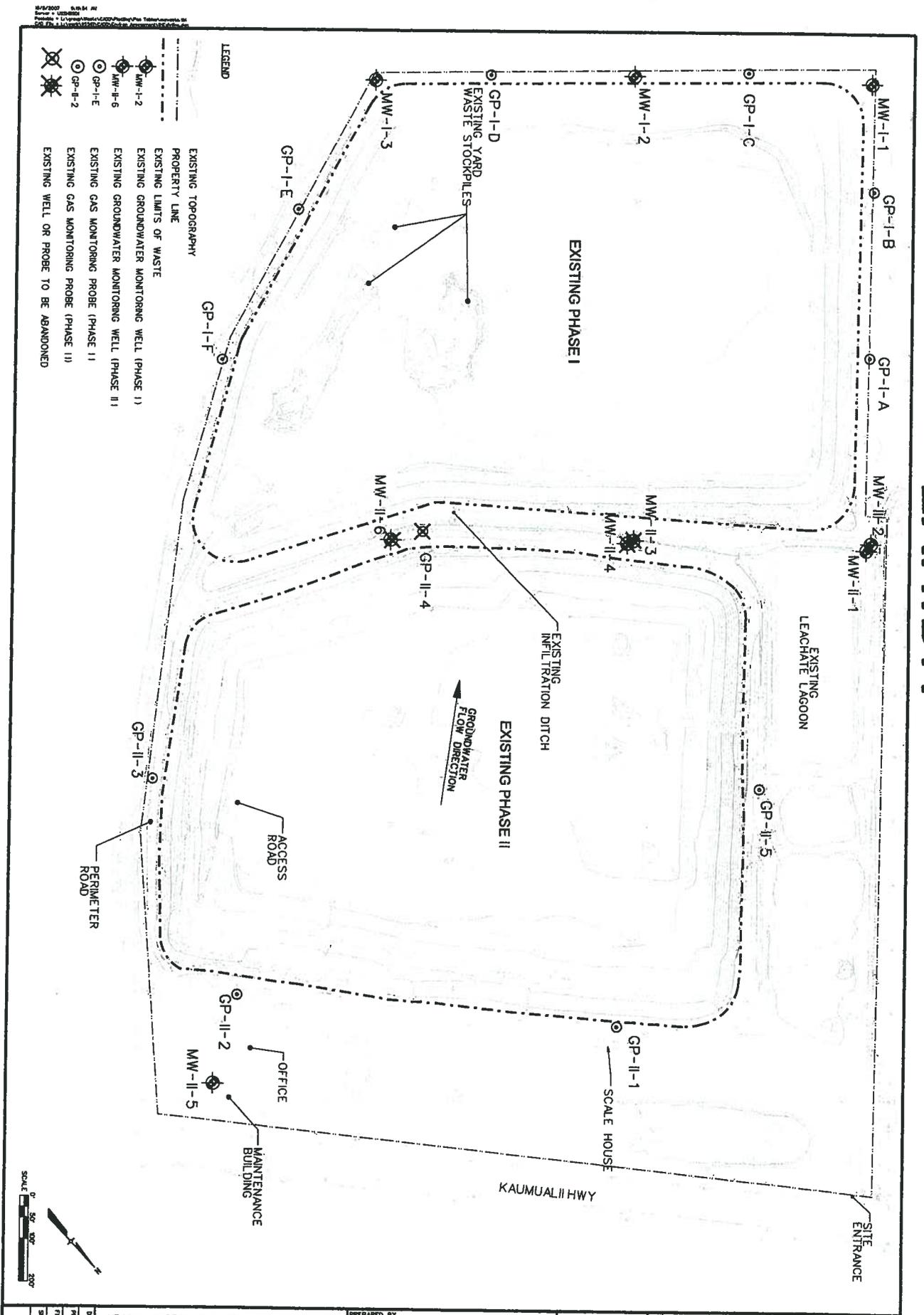
LAND OWNER	USER
A State of Hawaii (DLNR)	County of Kauai
B State of Hawaii (DLNR)	Hawaii National Guard
C State of Hawaii (DLNR)	Syngenta Seed
D State of Hawaii (DLNR)	Unknown
E State of Hawaii (DLNR)	Kekaha Agricultural Park
F U.S. of America	Department of Defense
G U.S. of America	U.S. Lighthouse Service



**Figure 3-1  
Land Ownership & Use**

County of Kauai  
Kekaha Landfill Phase II Lateral Expansion

# EXHIBIT 2



<p>KEKAHA LANDFILL PHASE II LATERAL EXPANSION          KEKAHA SANITARY LANDFILL          KAUAI, HAWAII</p>		<p>PREPARED BY  <b>EarthTech</b>          A Tyco International Ltd. Company</p>		<table border="1"> <tr><td>DRN</td><td>DRB</td></tr> <tr><td>DES</td><td>DRB/NEW</td></tr> <tr><td>CHK</td><td>K.B./REB</td></tr> <tr><td>APP</td><td>K.B./REB</td></tr> </table>		DRN	DRB	DES	DRB/NEW	CHK	K.B./REB	APP	K.B./REB												
DRN	DRB																								
DES	DRB/NEW																								
CHK	K.B./REB																								
APP	K.B./REB																								
<p>EXISTING SITE CONDITIONS</p>		<p>DATE: OCTOBER 2007          PROJECT NO: 060401          DRAWING NO: 060401-02          SHEET NO:</p>		<table border="1"> <thead> <tr> <th>NO</th> <th>REVISIONS</th> <th>DRN</th> <th>CHK</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		NO	REVISIONS	DRN	CHK	DATE															
NO	REVISIONS	DRN	CHK	DATE																					

Figure 2-1





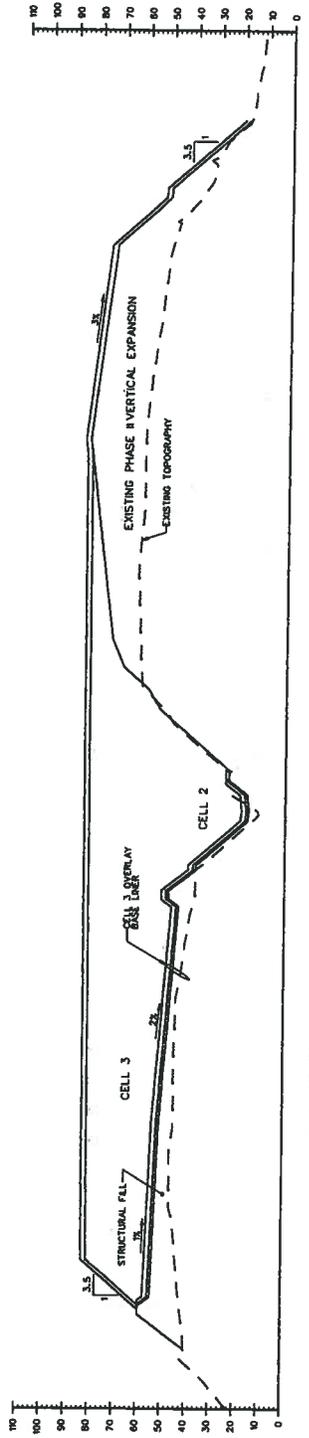
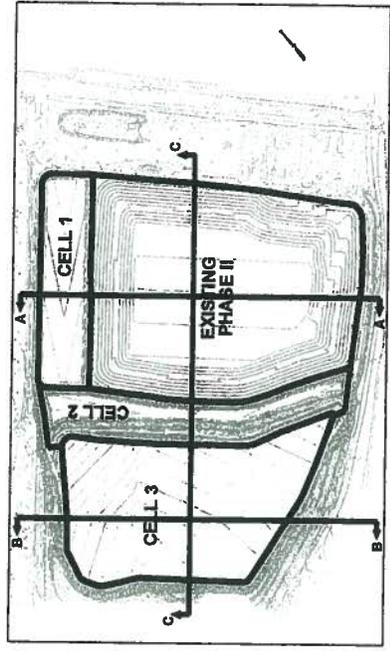


NO	REVISIONS	DATE

PREPARED BY  
 EarthTech  
 A You International Ltd. Company

CROSS SECTION C-C  
 KEKAHA LANDFILL PHASE II LATERAL EXPANSION  
 KALAN, HAWAII  
 DATE: OCTOBER 2007  
 PROJECT NO: 04001  
 SHEET: 10 OF 10  
 FILE: \\001\Projects\Section.dwg  
 SHEET NO:

Figure 2-5



HORIZ. 1" = 50'  
 VERT. 1" = 20'  
 SCALE

# EXHIBIT 6

10/2007 - 10/2007  
 10/2007 - 10/2007  
 10/2007 - 10/2007  
 10/2007 - 10/2007