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November 25, 1997

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Mr. Gary Gill, Director
Office of Environmental Quality Control
235 S. Beretania Street
State Office Tower, Suite 702
Honolulu, Hawaii 96813

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To	Jane D.	From	Tracy		
Co./Dept.	BO H	Co.	DPW		
Phone #		Phone #	241-6880		
Fax #	538-7819	Fax #	241-6604		

Dear Mr. Gill:

**SUBJECT: NEGATIVE DECLARATION FOR
PUHI METALS RECYCLING CENTER
TMK: 3-3-02:1, LIHUE, KAUAI, HAWAII**

The County of Kauai, Department of Public Works has reviewed the comments received during the 30-day public comment period which began on September 23, 1997. The agency has determined that this project will not have significant environmental effects and has issued a negative declaration. Please publish this notice in the December 8, 1997 edition of *The Environmental Notice*.

We have enclosed a complete OEQC Bulletin Publication Form, four copies of the final EA, and a diskette that contains the electronic version of the project description. If you should have any questions, please contact me.

Sincerely,

Cesar C. Portugal
County Engineer

Enclosures: OEQC Bulletin Publication Form
Final EA (4 copies)
Diskette (contains project description)

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Recycling Center

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**FINAL
ENVIRONMENTAL ASSESSMENT**

**Proposed Puhi Metals Recycling Center
Kauai, Hawaii**

Prepared for:

**County of Kauai
Department of Public Works
4444 Rice Street, Suite 275
Lihue, Hawaii 96766**

Prepared by:

**Belt Collins Hawaii Ltd.
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813**

November 1997

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ACRONYMS

AAQS	ambient air quality standards
BMP	Best Management Practices
CMP	corrugated metal pipe
CO	carbon monoxide
dBa	decibels using "A" weighting network
DBEDT	Department of Business, Economic Development, and Tourism
DLNR	Department of Land and Natural Resources
DOH	Department of Health
DOT	Department of Transportation
DPW	Department of Public Works
EA	Environmental Assessment
HAPs	hazardous air pollutants
HAR	Hawaii Administrative Rules
HRS	Hawaii Revised Statutes
KFD	Kauai Fire Department
msl	mean sea level
NPDES	National Pollutant Discharge Elimination System
PCB	polychlorinated biphenyl
SMA	special management area
TMK	Tax Map Key
UIC	Underground Injection Control
TMDL	Total Maximum Daily Load
WQLW	Water Quality-Limited Waters

CHAPTER 1 INTRODUCTION

1.1 PURPOSE AND NEED

The County of Kauai, Department of Public Works (DPW), is proposing to develop a centralized facility for disposition of discarded motor vehicles and other large scrap metal items for the island of Kauai. The proposed facility, Puhi Metals Recycling Center, would provide temporary storage of waste metal products and processing for shipment to off-island recyclers. The need for such a facility is created by regulatory requirements and the fact that the metals recycling facility that previously provided a similar service, which was managed by Masterworks at a site in the Ahukini area, was closed in January 1996.

State of Hawaii, Department of Health (DOH), Title 11, Chapter 58.1 (11-58.1), Hawaii Administrative Rules (HAR), promulgated on January 3, 1994 prohibit the following:

- Disposal of automobiles in landfills (effective January 13, 1994); and
- Disposal of tires, white goods and related scrap metals (effective June 30, 1994).

These rules require facilities that accept automobiles, white goods, scrap metals, and used tires be permitted by the DOH (effective January 13, 1994).

Since the only DOH-permitted facility on Kauai for disposition of automobiles and scrap metal was closed in January of 1996, no other facility has been established to provide proper disposition of these materials. These discards have been held in temporary storage areas in Wailua and Hanalei, for discarded vehicles, and atop Kekaha Landfill (Phase I area) for tires, white goods, and related scrap metals. The urgency for the Puhi Metals Recycling Center has been compounded by the residual shortage of staff resources resulting from the solid waste crisis following Hurricane Iniki in 1992, and the more recent State and County decisions regarding privatization of traditional County services.¹

¹ Until the County of Kauai finalized interpretations of the State's positions concerning privatization of traditional County-staffed services, contract negotiations could not be finalized with private firms. In June of 1997, the County's interpretation of the State decision was finalized and the contract with the private firms, including the preparer of the Environmental Assessment (EA), could be approved.

1.2 HAWAII REVISED STATUTES (HRS), CHAPTER 343 REQUIREMENTS

This Environmental Assessment (EA) has been prepared in compliance with Chapter 343, Hawaii Revised Statutes (HRS) as amended, and in accordance with the implementing rules contained in 11-200, HAR, as revised (August 1996). The Chapter 343 process is required because the proposed action involves County funds. This "agency action" is being proposed by the County of Kauai, DPW, who will also serve as the approving agency.

1.3 ORGANIZATION OF DOCUMENT

Chapter 1 provides the purpose of, and need for, the proposed action, and Chapter 343, HRS, requirements. Chapter 2 provides an overview of the existing environment. Chapter 3 presents the proposed action and alternatives. Potential environmental impacts and recommended mitigation measures are presented in Chapter 4. Land use plans, policies, and controls associated with the proposed project are described in Chapter 5. The significance determination is presented in Chapter 6, followed by consulted party comments and applicant responses in Chapter 7, and references in Chapters 8.

CHAPTER 2 OVERVIEW OF EXISTING ENVIRONMENT

2.1 SITE LOCATION

The proposed project site is located in the community of Puhi, approximately 2.5 miles southwest of downtown Lihue. It is approximately 0.8 miles southeast of the Kaunualii Highway and Puhi Road intersection, just south of Puhi Industrial Park, and southwest of a planned residential community. The 10-acre site is located in Tax Map Key (TMK): 3-3-02:1. Figure 2-1 illustrates the location of the proposed site.

2.2 LAND OWNERSHIP AND USE

The proposed 10 acres of land (TMK 3-3-02: portion of 1) is owned by the Grove Farm Company, Inc. Since 1973, the site has been leased to Lihue Plantation Company, Ltd., for cultivation of sugarcane. Grove Farm Company, Inc., believes the land has been used for sugarcane cultivation since the early 1800s. The site is in an Agricultural state land use district and is zoned Agriculture by the county. Information on adjacent properties and zoning districts is contained in Section 5.2.

2.3 PHYSICAL ENVIRONMENT

2.3.1 Soils

Soil in the vicinity of the site is classified as Puhi silty clay loam, well-drained soils developed in material derived from basic igneous rock. The soils on the site exist on slopes of 3 to 8 percent on which surface water runoff is "slow," and the erosion hazard is "slight." These soils are generally used for sugarcane, pineapple, orchards, pasture, truck crops, and home sites.²

2.3.2 Groundwater

The aquifer system beneath the property is classified as the Lihue Sector, Hanamaulu system.³ This system is characterized by two aquifers: an unconfined aquifer in sedimentary rock (also known as "caprock"), underlain by a confined aquifer in horizontally extensive lava flows.

² U.S. Department of Agriculture Soil Conservation Service (August 1972) *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii.*

³ Mink and Lau (1983) *Aquifer Identification and Classification for Hawaii: Groundwater Protection Strategy for Hawaii.* Water Resources Research Center, University of Hawaii.

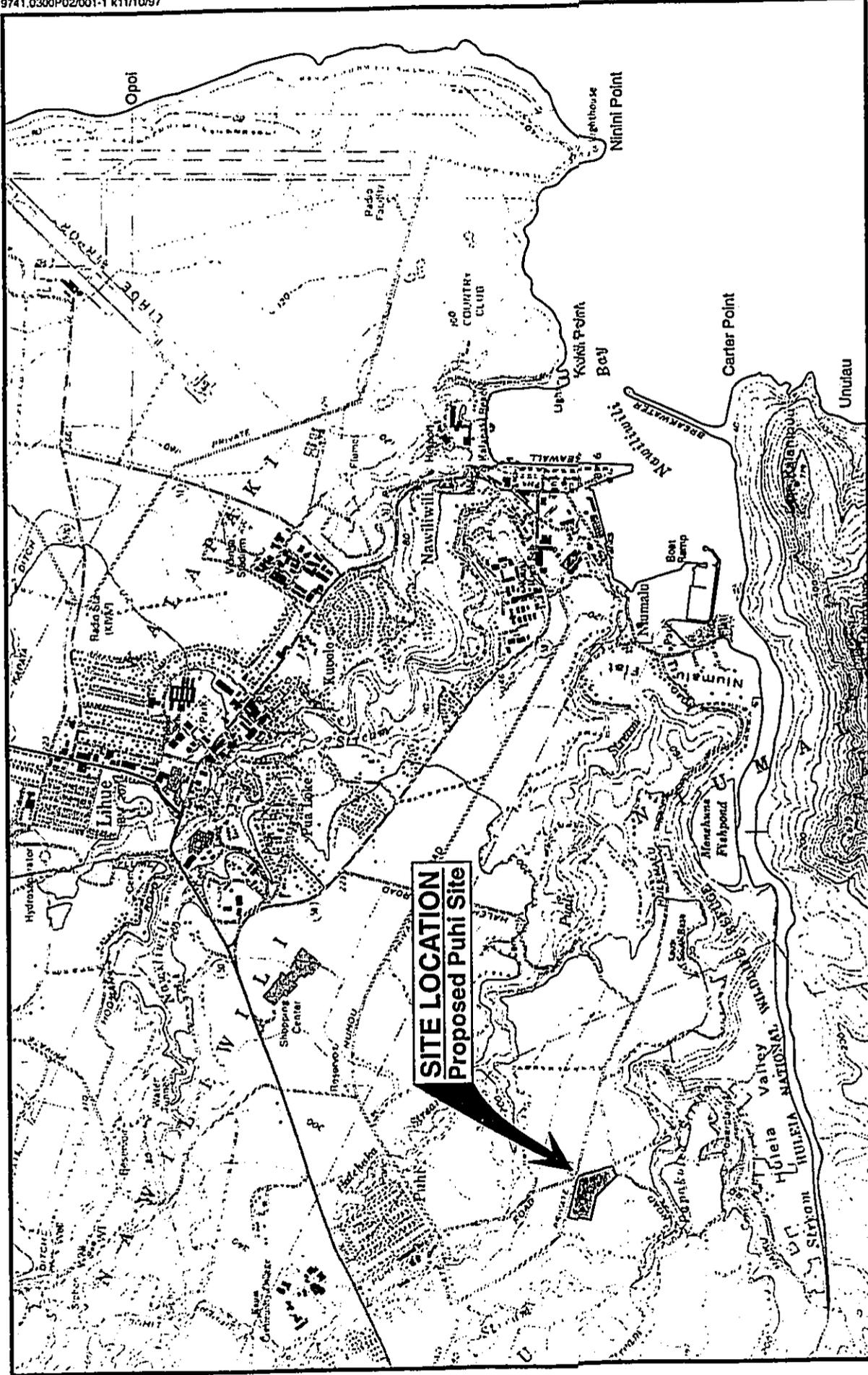
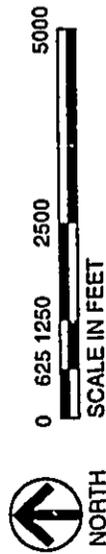


Figure 2-1
SITE LOCATION

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Final Environmental Assessment
Belt Collins Hawaii • November 1997



Both the upper and confined basalt aquifers are nonpotable (250 to 1,000 milligrams per liter of chlorides [Mink and Lau, 1992]).

At the site, depth to the water table is not known. Typically, groundwater level in the vicinity of the ocean can be assumed to be at or near sea level; hence, depth to groundwater at the site may be as much as 270 feet below ground level. The direction of groundwater flow is also not known, but is believed to flow from northwest to southeast, in a downhill direction towards the ocean — a characteristic pattern in the Hawaiian Islands.

The *Ground Water Index and Summary*⁴ and associated Underground Injection Control (UIC) maps indicate that there are no wells on the subject site and that the nearest drinking (potable) water well is located approximately one and one-quarter mile northwest, and most likely upgradient, from the site. These data also indicate that the site is above the UIC line established in 11-23, HAR.

2.3.3 Surface Water and Drainage

The only surface water runoff system on and near the site is a network of agricultural irrigation ditches for sugarcane cultivation. Stormwater runoff from the roads in Puhi Industrial Park, upgradient of the site, is directed into a ditch (defined as a drain easement on the TMK) on the northern property boundary (see Figure 2-2). From this drain easement area, water is directed by a ditch down gradient toward the east (along the Cane Haul Road), then south (along Puhi Road). At the intersection of Puhi Road and Hulemalu Road, a ditch directs water to the west for approximately 150 feet where it feeds into a corrugated metal pipe (CMP) that is located under Hulemalu Road. Water released from the CMP flows toward Papakolea Stream. Figure 2-2 illustrates the location of the ditch-directed surface water flow.

The site slopes from northwest (approximately 275 feet above mean sea level [msl]) to southeast (approximately 257 feet above msl). The most likely flow of uncontrolled surface water runoff from the proposed site is to Puhi or Papakolea Streams. From these streams, water flows into the Huleia Stream, located in the Huleia National Wildlife Refuge, and flows through Nawiliwili Bay to the Pacific Ocean. Nawiliwili Bay is a polluted water body and listed as a Water Quality Limited Water (WQLW) body by the State Clean Water Branch under the federal Clean Water Act.

⁴ State of Hawaii, Department of Land and Natural Resources (DLNR) (1993) *Ground Water Index and Summary*.

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

Both the upper and confined basalt aquifers are nonpotable (250 to 1,000 milligrams per liter of chlorides [Mink and Lau, 1992]).

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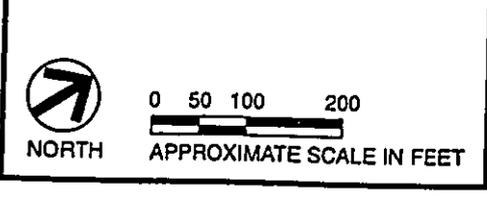
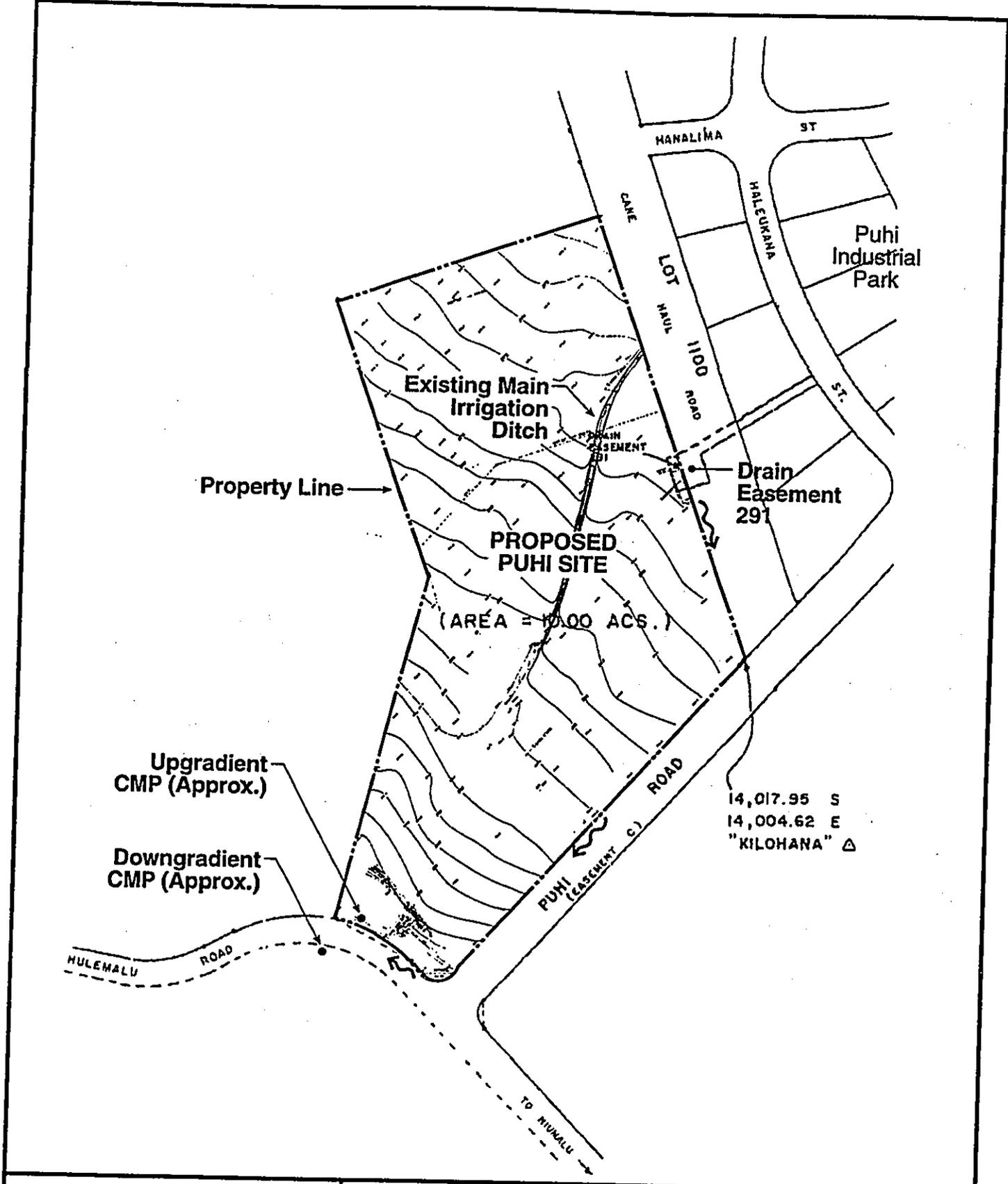
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⁴ State of Hawaii, Department of Land and Natural Resources (DLNR) (1993) *Ground Water Index and Summary*.



LEGEND

- 4-Foot Wide Drainage Ditch for Off-Site Stormwater Runoff (from Puhi Industrial Park)
- CMP (Corrugated Metal Pipe)

Figure 2-2
PROPOSED PUHI SITE

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2.3.4 Flood Potential

According to the Flood Insurance Rate Maps (FEMA Panel 150002 0201 C, Kauai County, Hawaii, revised March 4, 1987), the site is located in Zone X, areas outside the 500-year flood plain. It is at least 1,800 feet inland of a Special Flood Hazard Area Inundated by 100-Year Flood.

2.3.5 Climate and Air Quality

Climate. The climate of the Hawaiian Islands is generally mild due to its latitudinal position and the moderating effects of the Pacific Ocean. The Puhi area is located in the windward coastal lowlands that is characterized by extremely equable temperature conditions from day to day and from season to season, a persistent trade-wind flow of air from the northeasterly quadrant, and a marked variation in rainfall from the wet to the dry seasons.⁵ For the most part, climatological conditions characterized at the neighboring Lihue Airport, approximately 3 miles to the north-northeast of the proposed project site, have been used to describe the proposed project site conditions. An exception is made for rainfall as agricultural field measurements taken approximately 0.5 miles southwest of the site are available. Conditions at Lihue Airport should adequately characterize temperature and wind conditions at the proposed project site because of their proximity to one another, and because no major topographical features are present to significantly modify the local climatological conditions under the predominant trade wind conditions.

Characteristic of the Hawaiian climate, little variation in temperature occurs throughout the year. At the Lihue Airport, monthly normal temperatures range from 71 to 79 degrees Fahrenheit in the summer months (May through October). In the winter months (November through April), temperatures range from 71 to 75 degrees Fahrenheit. Wind conditions are characteristic of northeast trade winds that prevail over the Hawaiian Islands. Figure 2-3 illustrates the average wind directions and wind speeds measured at nearby Lihue Airport.

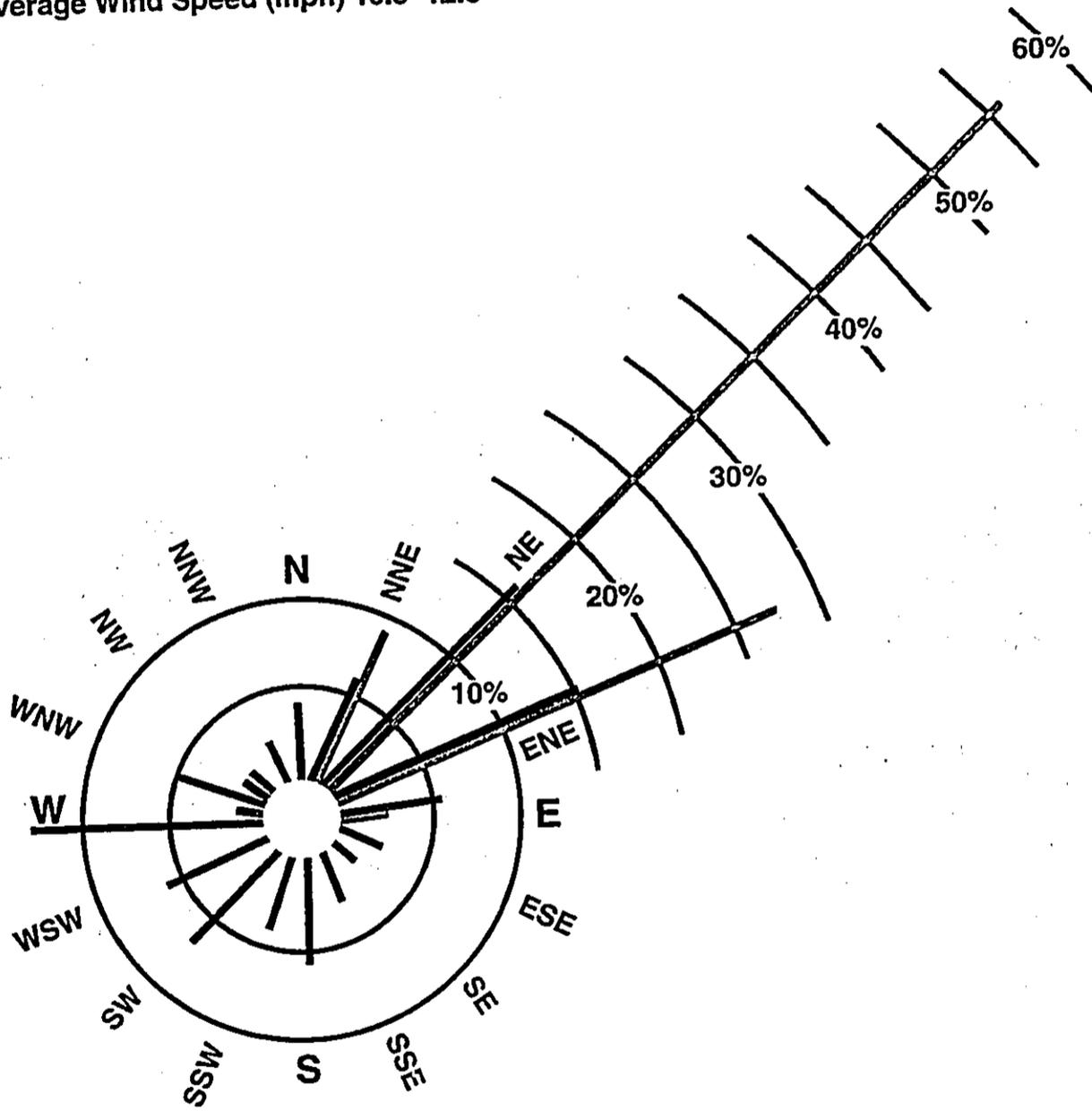
The proposed project site location receives approximately 63 inches of precipitation per year, based on measurements recorded from Field Station 18-a.⁶ Most rainfall occurs during the winter months from October through April. December and January are the wettest months,

⁵ Western SUN (1980) *Hawaii Solar and Weather Information*.

⁶ State of Hawaii, DLNR (June 1982) *Median Rainfall, State of Hawaii, Circular C88*.

— January
— July

LIHUE
Calm .7% .1%
Average Wind Speed (mph) 10.5 12.8



Source: University of Hawaii, Department of Geography (1983)
Atlas of Hawaii, Second Edition.

Figure 2-3
WIND ROSE

Proposed Puhi Metals Recycling Center
Final Environmental Assessment
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receiving 6.8 inches and 7.6 inches of rainfall, respectively. June is the driest month with approximately 2.3 inches of rainfall.

Air Quality. Air quality is determined by comparing ambient air concentrations of specific pollutants to national and state ambient air quality standards (AAQS). In Hawaii, concentrations of these pollutants are less than the national AAQS (are in "attainment") and are generally less than the state AAQS. Exceptions to the state AAQS are due to localized exceedances of the carbon monoxide (CO) standard resulting from vehicular traffic on heavily traveled roadways. In the Puhi area and off of the Kaumualii Highway corridor, the air quality is generally better than the state average air quality because of the lack of industrial/manufacturing and vehicular emission sources in this predominantly agricultural district.

2.3.6 Visual Aesthetics

The site is located in a relatively flat, moderately developed portion of Kauai, just south of the Puhi Industrial Park, and southwest of proposed residential housing. The site is in an area transitioning from agriculture to other uses. Public views would occur from both Puhi Road and Hulemalu Road where views of the mountainous Haupu Forest Reserve (south and southwest of Puhi) and the Lihue-Koloa Forest Reserve (west of Puhi) are readily seen. Presently there are no visual barriers between Puhi Road and the proposed project site, which currently contains 3-foot high sugarcane.

2.3.7 Noise

The noise environment at the site is primarily affected by vehicles on Puhi Road bordering on the east, and the agricultural/light industrial operations to the north and west. Flight tracks associated with Lihue Airport three miles away do not pass above the site.

2.3.8 Traffic

Traffic along Puhi and Hulemalu Roads is light due to the lack of development in the area. These roads are believed to primarily serve Puhi Industrial Park users traveling to and from Nawiliwili Bay. A joint State and County area roadway improvement project, scheduled to have been completed at the end of August 1997, is expected to divert traffic during peak-hour

periods from Kaumualii Highway onto Hulemalu and Puhi Roads.⁷ This project included improvements on Puhi Road, Hulemalu Road, and Halehaka Road. Paving, road alignment and lane widening was performed; however, no additional lanes were created. Inquiries made to both the State and County engineers indicated that this road improvement project was needed to provide alternative routes of travel. No estimates were available as to the amount of traffic diverted from Kaumualii Highway to Puhi and Hulemalu Roads due to this project.

2.4 BIOLOGICAL ENVIRONMENT

2.4.1 Threatened and Endangered Species

The proposed project site has been used for agricultural purposes, specifically sugarcane cultivation, since the 1800s. For this reason, no threatened or endangered species are believed to inhabit the property. No community of native, endemic or indigenous plants has been identified on the site.

Approximately 0.5 miles south-southeast and down gradient of the proposed site is the Huleia National Wildlife Refuge. This Refuge supports four federally-listed endangered species of water bird: Hawaiian black-necked stilt (*Himantopus mexicanus knudseni*), common moorhen (*Gallinula chloropus sandvicensis*), Hawaiian coot (*Fulica alai*), and the Hawaiian duck (*Anas wyvilliana*).

2.4.2 Sensitive Habitats

The proposed 10-acre project site does not serve as a habitat to any endangered or threatened species. The nearest sensitive habitat is the Huleia National Wildlife Refuge located approximately 0.5 miles to the south-southeast of the site. This refuge consists of Huleia Stream which feeds into the Menehune Fishpond and Nawiliwili Bay before meeting the Pacific Ocean.

2.5 HISTORICAL AND ARCHAEOLOGICAL RESOURCES

The Department of Land and Natural Resources (DLNR), Historic Preservation Division, was contacted to identify whether or not the site could contain cultural or historic features that are potentially significant with regard to the National Historic Preservation Act of 1966, as

⁷ Telephone conversation between Mario Antonio, County of Kauai, and Lesley Matsumoto of Belt Collins Hawaii (August 12, 1997).

amended, and Chapter 6E, HRS. Based on DLNR records, no known potentially significant sites have been identified or are thought to be present on the property.⁸ The closest known cultural features, which have been recently surveyed, are within the Huleia National Wildlife Refuge, approximately 0.5 miles from the site.⁹

2.6 SOCIOECONOMIC ENVIRONMENT

2.6.1 Area Demographics

Based on U.S. Bureau of the Census estimates, the 1996 population of Kauai was 56,435.¹⁰ The State of Hawaii, Department of Business Economic Development and Tourism (DBEDT) estimates that the 1996 civilian labor force was 29,000, of which 25,750 were employed and 3,250, or 11.2 percent, were unemployed.¹¹ The unemployment rate on Kauai was almost twice as high as the State's unemployment rate of 6 percent.

2.6.2 Economic Condition

The economy of Kauai has been suffering since Hurricane Iniki destroyed many homes and businesses in the fall of 1992. Non-agricultural related jobs accounted for 89 percent of the jobs in the county in 1996, with trade and service jobs accounting for 57 percent. The visitor industry, as with the State of Hawaii, is a primary source of income for Kauai, and retail and services sector taxes bring in about 46 percent of revenues.

2.6.3 Recycled Materials Markets

Vehicles and white goods primarily yield ferrous metals, with copper and aluminum in much lower quantities, for recycling. The global market for ferrous, copper and aluminum metals is strong. However, Hawaii's remote location from these markets provides the local suppliers of recycled materials a decreased opportunity for profit due in part to high transportation costs.

⁸ Telephone conversation between Nancy McMahon, Historic Preservation Division of DLNR, and Lesley Matsumoto of Belt Collins Hawaii (July 21, 1997).

⁹ Telephone conversation between Nancy McMahon, Historic Preservation Division of DLNR, and Jane Dewell of Belt Collins Hawaii (November 7, 1997).

¹⁰ State of Hawaii, Department of Business, Economic Development and Tourism (DBEDT) (July 1, 1996) PPL-63 (CO-96-4) *Estimates of the Population of Counties (Ranked by 1996 Population Size in State)*.

¹¹ State of Hawaii, DBEDT (1996) *Table 5, Selected Economic Activities, Kauai County*. Compiled by Economic Planning Information System, READ.

CHAPTER TWO

Hawaii's recycled materials recovery markets continue to grow slowly due to the islands' isolation, high shipping costs, unreliable supply of recyclable materials, and limited access to businesses that can process them. Hawaii has no metal smelters to turn the scrap metals into raw materials to be reused, the last step in the recycling process. The most advanced step in the recycling process present in Hawaii is a metal shredding facility. This facility is located in Honolulu and breaks down vehicles and white goods into ferrous metal to be shipped to metal smelters on the Mainland.

Perhaps just as important as the market for scrap metals is the sale of used vehicle parts. At one vehicle and white goods processing facility on Oahu, sales of used parts provide approximately half their income, with the remainder from sales of vehicles and white goods for ferrous metal recycling.¹²

2.6.4 Collection and Storage of White Goods and Tires

Since the closure of Masterworks, the previous metal recycling operation run by a private company on Kauai, a backlog of metal waste products has accumulated in various locations on Kauai. These wastes accrue at an average of about 106 vehicles, 25 tons of white goods and scrap metal, and 4,166 tires per month. The present storage backlog consists of approximately 180 vehicles at the County's baseyard in Hanalei and 750 vehicles at the Wailua temporary storage area. These vehicles will be transferred to the old Masterworks site in the Ahukini area for pre-processing, and subsequent export off-island.¹³

¹² Telephone conversation between Derek Durbin, Abe's Auto Recycling and Jane Dewell of Belt Collins Hawaii (August 11, 1997).

¹³ Telephone conversation between Troy Tanigawa, County of Kauai, DPW, and Lesley Matsumoto of Belt Collins Hawaii (November 6, 1997).

CHAPTER 3

PROPOSED ACTION AND ALTERNATIVES

Chapter 3 presents the proposed action and some of the alternatives that were considered before developing the proposed action. Section 3.1 describes the proposed action. Section 3.2 presents the alternatives considered.

3.1 PROPOSED ACTION

The proposed action is the development of a 10-acre site for processing and temporary storage of automobiles, tires, white goods, and scrap metals. A conceptual layout is shown in Figure 3-1. Site development is proposed in two phases. Phase I would involve preparing the site for the temporary storage of pre-processed vehicles.¹⁴ Phase II would involve preparing the site for processing vehicles and for temporary storage of processed materials, tires, white goods, and scrap metals. (The actual timing of Phase II will be dependent upon obtaining an acceptable proposal in response to the DPW's request for proposal process for a private company to operate the facility.) The two-step development plan is being proposed to accommodate the increasing number of vehicles being abandoned throughout the island until a private operator can be identified. Present stockpiles of vehicles at Wailua and Hanalei locations will be transported to the former Masterworks site, drained of fluids, batteries removed, and then transported to Nawiliwili Harbor where they will be shipped to Honolulu for further processing. These activities are anticipated to occur within an 8-month period and are not part of the proposed action.

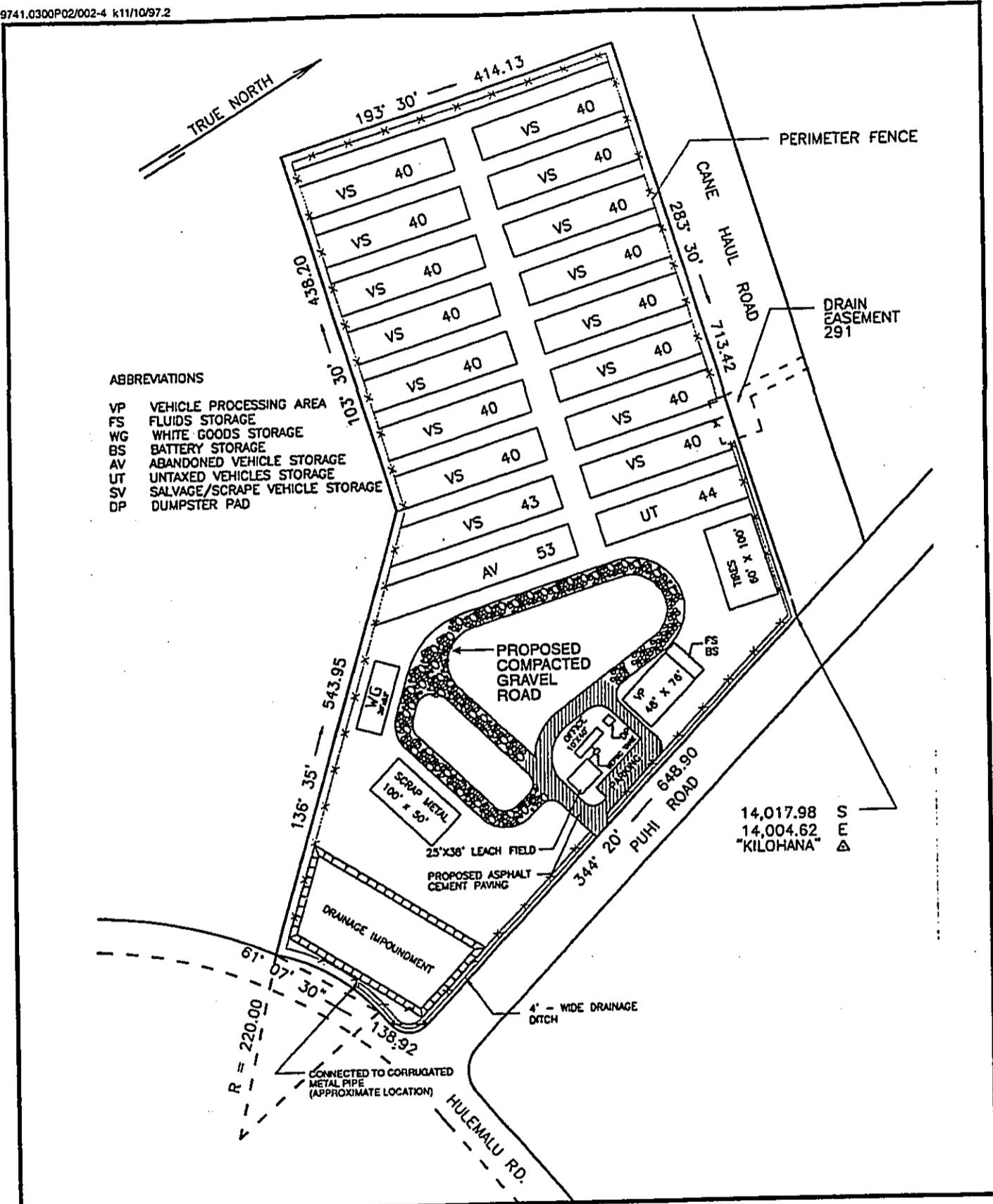
Section 3.1.1 describes the activities associated with Phase I (Storage of Pre-processed Vehicles) and Phase II (Vehicle and White Goods Processing).

3.1.1 Phase I (Storage of Pre-processed Vehicles)

3.1.1.1 Site Development

Site development activities will include installation of a fence around the vehicle storage area for security purposes, perimeter landscaping, and grading of access ways and storage area. Landscaping will be planned to minimize visual access to the site; hence, plantings along a planned 4-foot high berm will be selected to reduce views of site operations from Puhi and Cane Haul Roads. Best Management Practices (BMPs; further described in Section 4.2.2), will be developed and implemented to create grades to control and maintain site run-off within the property boundaries. These plans will be consistent with the conditions of the construction

¹⁴ Pre-processed vehicles are derelict vehicles that do not contain fluids or batteries.



ABBREVIATIONS

- VP VEHICLE PROCESSING AREA
- FS FLUIDS STORAGE
- WG WHITE GOODS STORAGE
- BS BATTERY STORAGE
- AV ABANDONED VEHICLE STORAGE
- UT UNTAXED VEHICLES STORAGE
- SV SALVAGE/SCRAPE VEHICLE STORAGE
- DP DUMPSTER PAD



0 40 80 160
 APPROXIMATE SCALE IN FEET

Figure 3-1
CONCEPTUAL LAYOUT OF
METALS RECYCLING CENTER
 Proposed Puhi Metals Recycling Center
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National Pollutant Discharge Elimination System (NPDES) permit that the DPW will obtain. Approximately 5.6 acres of the 10-acre site will be graded and compacted for storage of pre-processed vehicles. This area will be sufficient to store approximately 600 vehicles, without stacking.

To accommodate site activities during Phase I, a self-contained mobile trailer with toilet facilities may serve as a temporary office for onsite DPW personnel. If electricity and/or telephone connections are desired, DPW will make these arrangements with the appropriate authorities. Electrical and telephone tie-ins have been identified and are shown in Figure 3-2. Water for landscaped areas will be provided by water trucks.

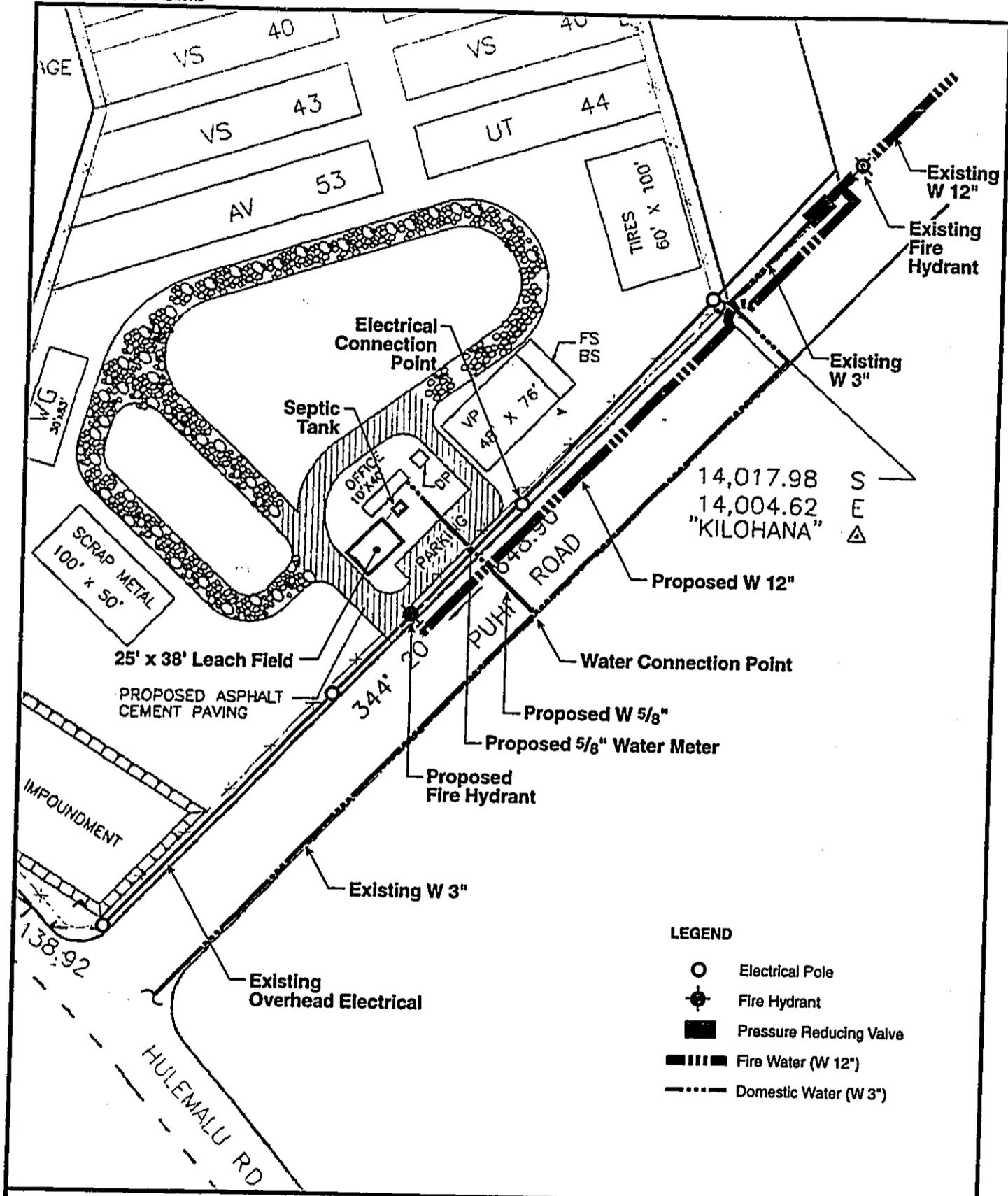
3.1.1.2 Phase I Operational Activities

Phase I operational activities will include the transfer of approximately one to two vehicles a day to the site. This will include abandoned vehicles found throughout the island and transferred by the County. County personnel will first drain automotive fluids and remove batteries at a County Maintenance Yard, and then transfer the vehicle for storage at the proposed Puhi facility. In addition, vehicles may be delivered to the site by the public who would be responsible for draining automotive fluids and removing the battery prior to storage at the Puhi site. No derelict vehicles will be accepted onsite unless their fluids and batteries are removed. To ensure that vehicles meet these criteria, county personnel will use a checklist when inspecting vehicles delivered to the site. The checklist could include the following items:

- Battery removed
- Oil removed
- Coolant removed
- Air conditioning system emptied
- Steering lubricant removed
- Windshield washer fluid removed
- Trunk empty
- Glove compartment empty
- Passenger area empty
- Signature of accepting personnel

Because vehicles will be brought to and stored at the proposed Puhi facility only after automotive fluids are drained and batteries removed, no fluid or hazardous wastes will be stored at the site. Therefore, there would be no potential for impacts related to waste management and contamination on the property during Phase I.

Once the vehicles are accepted onsite, heavy equipment (e.g., front end loader or grappler) will be used to move them if necessary. This heavy equipment will be stored and maintained offsite, either at the County Maintenance Yard or at a contractors yard. By identifying the



LEGEND

- Electrical Pole
- ⊕ Fire Hydrant
- Pressure Reducing Valve
- ▬▬▬ Fire Water (W 12")
- ⋯ Domestic Water (W 3")



NORTH

0 25 50 100

APPROXIMATE SCALE IN FEET

**Figure 3-2
CONCEPTUAL UTILITIES
CONNECTIONS**

Proposed Puhi Metals Recycling Center
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availability of a repository for discarded vehicles, the number of abandoned vehicles that the County has to bear the responsibility for is expected to be reduced.

Hours of operation are planned from 8:00 a.m. to 3:00 p.m., Monday through Friday, with the exception of County holidays, when the site will be closed.

3.1.2 Phase II (Vehicle and White Goods Processing)

3.1.2.1 Site Development

Phase II development will include site grading, construction of processing facilities and offices, development of supporting infrastructure (e.g., drainage, domestic wastewater, potable water, electricity, telephone). To reduce the potential of contamination to downstream water bodies during construction, BMPs will be incorporated into the NPDES permit for construction activities (to be obtained by the County prior to commencement of construction; BMPs are further discussed in Section 4.2.2).

The specific site design will be contingent upon the entrepreneur's design; a conceptual plan is provided in Figure 3-1. This plan shows the following: vehicle processing area; used vehicle fluid temporary storage areas (for gasoline, oil, antifreeze, wiper fluid, Freon, and other mixed vehicle fluids); temporary battery storage area; temporary storage areas for abandoned, untaxed and derelict (for salvage or scrap); and temporary storage areas for tires, white goods, and scrap metals. Additional storage areas for items such as automobile glass may be defined later, when the entrepreneur is identified.

Connections to utilities and conceptual septic tank and leach field for domestic wastewater are illustrated in Figure 3-2. Descriptions are provided herein.

Potable water for domestic purposes will be supplied to the site by tapping into the existing 3-inch water line along the west side of Puhi Road. The service line tap, with a 5/8-inch meter, will provide domestic water to the office trailer that will house the facility's restroom. This line will also serve the site's landscaping irrigation system. The vehicle processing area will have only dry clean-up facilities and will not be served by water or sewer. For this reason, self-contained eye wash kits should be provided within the vehicle processing area.

The fire protection water line will be an extension of the existing 12-inch line along Puhi Road and will by-pass the pressure reducing valve and 3-inch distribution line. The 12-inch fire water line would terminate at the proposed facility driveway, and be capped for future

extension. If necessary, this line could also serve a fire sprinkler system within the vehicle processing building.

County Department of Water Supply Standards require a fire flow of 3,000 gallons per minute for three hours; this flow is equivalent to 0.54 million gallons. Since there is 2.54 million gallons of storage in the system, storage is adequate. Additionally, estimated static line pressures of 100 to 125 pounds per square inch¹⁵ at a fire hydrant located along the 12-inch water line extension are expected to be adequate for fire protection. A single fire hydrant located along Puhi Road and adjacent to the facility property line is considered adequate by the Kauai Fire Department (KFD) for the proposed facility.

Wastewater generated from the restroom will discharge to an on-site septic tank system. The septic tank will discharge to a leach field, which will serve as an open landscape area.

Electricity for the facility will be supplied by Kauai Electric. There are overhead poles along Puhi Road that can supply the necessary service. No stand-by power will be provided.

3.1.2.2 Phase II Operational Activities

Phase II operational activities will include the actual processing of vehicles. Approximately 1,200 to 1,400 vehicles per year are expected to be processed. Vehicles declared "derelict" will be moved to the vehicle processing area where fluids will be drained from the vehicle, and then moved either to the vehicle storage area for salvage or transfer to trailers for hauling off-site.

Vehicle processing will be conducted in a covered area that is lined with an impermeable surface. Fluids will be stored in above ground storage tanks and in accordance with the requirements identified by the KFD. Such requirements include the storage of not more than 18,000 gallons of flammable or combustible liquids onsite, and a separation of at least 3 feet between each tank. The operator is expected to engage in agreements with contractors to have the materials (e.g., batteries) or fluids (e.g., oil) removed for off-site disposition or treatment.

¹⁵ The system storage reservoirs are located at 510 feet above mean sea level (msl). The proposed facility is located at an average elevation of 265 feet above msl. Given the elevation difference, with allowance for transmission line losses, there would be an estimated static line pressure of 100 to 125 pounds per square inch at a fire hydrant located alongside Puhi Road and the proposed facility.

Types of equipment to be used at the facility for processing vehicles and white goods may include the following:

- vehicle flattener or crusher,
- metal shears,
- metal baler,
- tire shredder,
- electro magnet,
- mobile or fixed crane,
- front-end loader,
- fork lift,
- water truck,
- above-ground storage tanks,
- storage bins, and
- shipping containers.

Spill response and general housekeeping at the facility will rely on materials that absorb oils and other vehicle related liquids and not on wash down with water. A spill kit will be available in the processing area to address any leaks and spills from vehicles or white goods that are undergoing processing. Absorbent booms and filter systems will be employed where needed at the facility to ensure that fluids and potential contaminants from vehicles and white goods do not migrate from the processing area or from the site. After vehicles and white goods have been drained of fluids, they will be moved to the storage area until sufficient supply accumulates for transfer off-island. It is anticipated that vehicles will be transferred offsite approximately once a year.¹⁶

Materials other than vehicles will be temporarily stored until sufficient amounts are available for transfer to off-site markets. These materials are expected to include tires, white goods, and related scrap metals.

Hours of operation are expected to be from 8:00 a.m. to 4:00 p.m., Monday through Saturday.

To clarify Phase II activities and the associated implementing party (i.e., DPW or entrepreneur), Table 3-1 was developed.

3.1.2.2.1 *Handling and Disposition of Marketable Materials*

After all saleable parts are removed, the vehicle may be crushed or stored intact until transferred off-island to a metals shredding facility (either in Honolulu or the Mainland) to be smelted for reuse.

¹⁶ Personal communication between Troy Tanigawa, County of Kauai, DPW, and Jane Dewell of Belt Collins Hawaii (November 20, 1997).

Table 3-1
Summary of Phase II Site Activities and Implementing Party

Activity	County DPW	Entrepreneur
Design of and Grading of Site	X	
Design and Construction of Processing Facilities	X (with input from entrepreneur)	
Installation of Utilities	X	
Installation of Potable Water	X	
Installation of Fire Protection	X	
Installation of Wastewater System	X	
Installation of Surface Water Drainage	X (with input from entrepreneur; must meet state NPDES requirements)	
Installation of Electricity	X	
Design of Facility Layout		X (with concurrence from DPW)
Development of Vehicle Processing Protocol		X (with concurrence from DPW)
Identification of Equipment		X
Development of Spill Response Protocol		X

3.1.2.2.2 Handling and Disposition of Non-Marketable Materials

Non-marketable items that require payment for disposal include tires, lead-acid batteries, plastics and upholstery.

Tires will be removed from cars and either cut up or stacked whole. Storage capacity would be limited by conditions set forth in the DOH Solid Waste Management Unit permit. DOH Solid Waste Management Rules do not allow disposal facilities such as landfills to accept whole tires, so other methods of disposition will be required of the operator.

Lead-acid batteries must be removed and stacked on pallets or in bins. Batteries should be stored intact and not drained. In case batteries are cracked or leaking, the acid should be

contained for disposal as hazardous waste. The acid may be neutralized onsite if the facility has approval to treat hazardous waste from the DOH Solid and Hazardous Waste Branch. Batteries will be removed from the site monthly for recycling.

White goods may contain capacitors, which would be removed and disposed during processing. Capacitors may contain polychlorinated biphenyl (PCB) oil. Regulatory requirements regarding disposal of PCB contaminated materials are contained within Toxic Substances Control Act. Materials with concentrations below 50 ppm are not considered PCB-contaminated and may be disposed on Kauai at Kekaha Landfill. Materials with concentrations of 50 ppm and above must be shipped as a hazardous substance (40 Code of Federal Regulations Part 761) for disposal at permitted facilities on the mainland U.S. PCB-contaminated materials will be segregated according to concentration, collected in drums, and stored for disposal at the appropriate permitted facility. Capacitors that have a "No PCBs" label can be drained of oil and sent for scrap metal recycling.

3.1.2.2.3 *Handling of Used Fluids from Vehicles and White Goods*

Vehicles. Oil and lubricants will be drained from vehicles into above ground tanks for eventual recycling. Oil and lubricants will not be mixed with other wastes since this will increase the cost of disposal. A DOH-permitted waste oil transporter will collect the material for off-site recycling or disposal. Based on the anticipated number of vehicles to be processed, no more than 650 gallons of waste oil are anticipated to be retained in on-site tanks.

Gasoline may be considered a hazardous waste for the characteristic of ignitability. If the gasoline in a derelict vehicle is good (is contaminant free), it will be transferred via a vacuum system to tanks approved for gasoline storage. This can then be used at the facility to fuel vehicles. If the gasoline is bad (i.e., old or contains water), it should be stored separately for waste disposal. Based on the anticipated volume of vehicles processed, no more than 1,000 gallons of gasoline and contaminated gasoline, in total, is expected to be stored in on-site tanks. As required by the KFD, flammable or combustible fluids will be contained in Insulated Secondary Containment Tank assemblies and separated by a minimum distance of three feet.¹⁷

Wastewater from vehicles will come from the radiator and primarily contain antifreeze and water. Wiper fluid may also be included in this waste stream, depending on the waste hauler's preference. This should be collected in drums or a tank for disposal with a hauler permitted

¹⁷ Letter from Kauai Fire Department to Lesley Matsumoto of Belt Collins Hawaii (July 24, 1997).

to accept wastewater. A tank size of up to 800 gallons is expected to be sufficient to accommodate the wastewater from the proposed operation.

Freon from air conditioning systems must be removed onsite using specialized refrigerant recovery equipment. Freon can be picked up or delivered to a service station licensed to recycle Freon or shipped off-island to a Freon recovery company.

White Goods. White goods can contain significant amounts of Freon. This should be drained using equipment designed for Freon removal. The Freon can be recycled with licensed companies that reuse it in cooling systems either in Hawaii or on the Mainland.

Small amounts of lubricants, such as oil, may be contained in white goods. These will be drained and stored in a separate container, and recycled if possible.

3.2 SUMMARY OF OTHER ALTERNATIVES CONSIDERED

Other alternatives were considered to alleviate the County's accumulation of discarded and abandoned vehicles. These alternatives included:

- Use of existing off-island metals recycling facilities; and
- Use of other locations on Kauai for the proposed metals recycling facility.

Summaries of these other alternatives are presented in Section 3.2.1 and 3.2.2.

3.2.1 Use of Existing Off-Island Metals Recycling Facilities

Existing off-island metals recycling facilities are located on the Mainland and in Honolulu. However, the U.S. Coast Guard requires that vehicles be drained of fluids before being shipped, and a DOH-permitted facility is required for these activities. The cost to drain and ship each derelict vehicle is approximately \$380 per vehicle.¹⁸ In addition, towing costs from \$50 to \$120 per vehicle may be incurred, depending upon the location of the derelict vehicle. These costs would be passed on to the owner or most likely, the County, as it is expected that the cost would be perceived as unreasonable by individuals and vehicle abandonment may increase. Until other measures, such as public education and legislative actions to prevent this occurrence can be identified, ultimately, the County is expected to bear the cost of vehicle

¹⁸ Personal communication between Troy Tanigawa of County of Kauai, DPW, and Lesley Matsumoto of Belt Collins Hawaii (November 13, 1997).

disposition. Use of existing off-island metals recycling facilities is therefore not considered a cost-feasible solution for long-term disposition of vehicles.

3.2.2 Use of Other Kauai Locations for the Proposed Metals Recycling Center

The County of Kauai solicited inquiries for land requirements to major landowners on the island. Based on the responses received, four alternatives were considered. Of these four, the proposed Puhī facility site is the preferred. The three other locations considered by the County are illustrated on Figure 3-3 and described herein.

The first location, an approximately 8-acre site on land owned by AMFAC, is located behind Lihue Refuse Transfer Station. This location was not consistent with the surrounding land use, airport operations; opposition for use of this site was presented by the State Department of Transportation (DOT). Visual impacts were also a concern.

The second location is also owned by AMFAC. This parcel is approximately 10 acres and is located off the road leading to Wailua Falls. No further interest could be undertaken because the site is currently the subject of litigation between the land owner and previous tenant. If this site could be considered, visual impacts would be a concern because site operations would be readily visible from the elevated popular scenic roadway.

The third property considered is located in the Port Allen area. It is approximately 4 acres in size and owned by Alexander and Baldwin. This site is not desirable because it is less centrally located and it is too small to accommodate the anticipated requirement.

3.2.3 Former Metals Recycling Site

In addition to the four privately-owned sites investigated, as described above, the former metals recycling site in the Ahukini area that was managed by Masterworks was considered as a potential location for the new metals recycling center (see Figure 3-3). However, this site is proposed to be purchased by Hawaii DOT, from AMFAC, for future airport-related use. A metals recycling center would therefore be incompatible with future planned use. However, this site is planned to be used temporarily for pre-processing (fluids and battery removal) of vehicles presently stored at locations in Wailua and Hanalei. Pre-processed vehicles would then be transferred to Nawiliwili Harbor and then shipped to Honolulu for further processing.

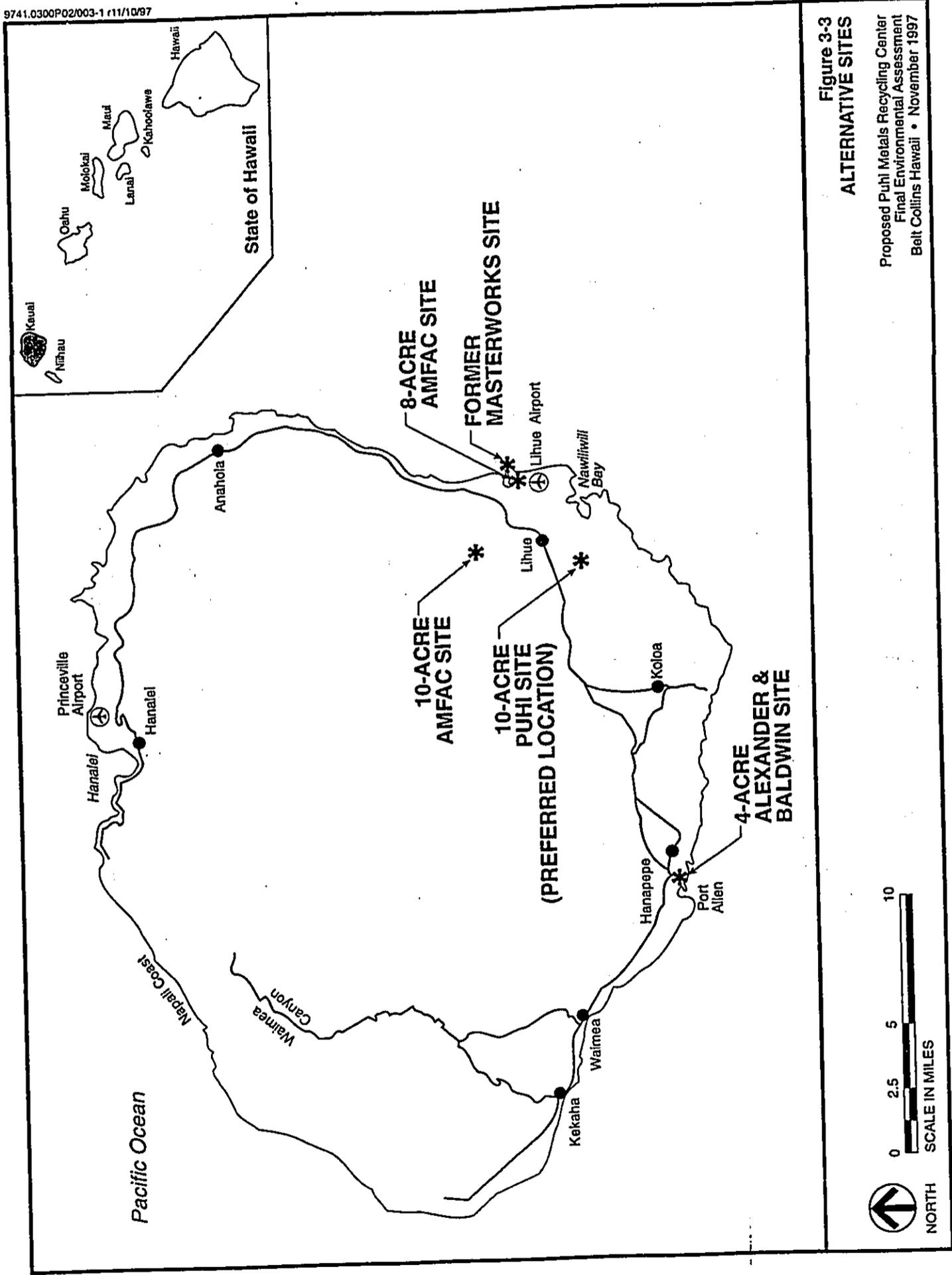
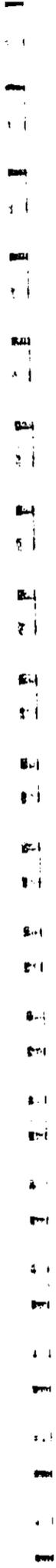


Figure 3-3
ALTERNATIVE SITES

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3.2.4 No Action

No-action would leave the County of Kauai without a means to dispose of junk (abandoned, untaxed, uninsured, and derelict) motor vehicles, motorcycles and motorscooters, which could continue to accumulate along roadways or in temporary storage areas.

CHAPTER 4 POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Chapter 4 presents a comprehensive list of environmental and socioeconomic concerns related to the proposed project, and identifies those issues that have the potential to be significant and require more detailed evaluation. This screening approach provides focus to the EA and eliminates unnecessary discussion of insignificant issues. Section 4.1 presents the list of potentially relevant issues. Sections 4.2 through 4.6 present evaluations of the issues with potentially significant impacts. Short-term effects associated with site preparation activities and cumulative effects associated with the proposed project are discussed in Sections 4.7 and 4.8, respectively.

4.1 SUMMARY OF POTENTIAL IMPACTS AND DETERMINATION OF SIGNIFICANCE

A list of environmental and socioeconomic issues with relevance to the proposed action is presented in Table 4-1. These issues were compiled using information from a site evaluation, presented in Chapter 2, and discussions with the agencies and organizations identified in Chapter 7.

Table 4-1 contains summaries of the relationship between the proposed action and the various criteria used to determine significance of effects. Each potential impact is analyzed for significance to determine whether additional evaluation is required. In cases where more detailed evaluation is required, condition(s) influencing this determination are underlined in the table. Significance criteria are consistent with principles listed in 11-200-12, HAR.

Based on the findings summarized in Table 4-1, the following issues have the potential for significant impact and are addressed in greater detail in subsequent sections of this chapter.

- Surface water runoff;
- Noise;
- Visual Aesthetics;
- Public Health and Safety; and
- Socioeconomics.

Table 4-1
Summary of Potential Issues and Determination of Potentially Significant Impacts that Require Further Discussion

Potential Area of Effect	Consideration(s) Used to Determine Potential for Significant Impact	Relationship of Proposed Action to Consideration(s) Used to Determine Potential for Significant Impact	Further Discussion Required?
Soils and Stability	<p>Implementation of sound grading plan, soil stabilizers, and proper design for the development of the impervious containment area and structures.</p> <p>Soil stabilizers and proper compaction in uncovered area to provide for good housekeeping when rainfall occurs.</p>	<ul style="list-style-type: none"> • Proposed project is on moderate slope with stable soils and low loading. • Engineering studies to design a grading plan and impervious containment areas and structures will be conducted. • Soil stabilizers will be used, as necessary, to provide a an appropriate working surface for uses specified on all areas of the site. 	No.

Potential Area of Effect	Consideration(s) Used to Determine Potential for Significant Impact	Relationship of Proposed Action to Consideration(s) Used to Determine Potential for Significant Impact	Further Discussion Required?
Groundwater	Potential for a release of pollutants to underlying groundwater.	<ul style="list-style-type: none"> Estimated depth to groundwater is approximately 270 feet. With the incorporation of an impermeable containment area underlying the vehicle processing area, no impacts to groundwater are expected. No significant sources of potential long-term, low-level, release will be on the site. In the unlikely event that minor releases to soils were to occur, the likelihood of groundwater contamination is low given that the depth to groundwater. 	No.
Stormwater Runoff	<p>Feasibility of a stormwater management system to contain or treat stormwater onsite.</p> <p>Presence of operating procedures that will prevent contaminated runoff from entering Nawiliwili Bay, which is identified in the State's WQLW List as a Moderate Category II water body, or the Huleia National Wildlife Refuge located downstream from the site.</p>	<ul style="list-style-type: none"> <u>An on-site containment area, coupled with BMPs, will be designed to accommodate stormwater and minimize the potential for pollutant (either chemical or physical) to the down gradient receiving waters, including Nawiliwili Bay.</u> 	Yes.

Potential Area of Effect	Consideration(s) Used to Determine Potential for Significant Impact	Relationship of Proposed Action to Consideration(s) Used to Determine Potential for Significant Impact	Further Discussion Required?
Air Quality			
Emissions of Hazardous Air Pollutants (HAPs) as defined by the Clean Air Act	<p>Presence of handling and management system to minimize air emissions of HAPs. HAPs from the proposed operation are expected to include: benzene, ethylene glycol, and lead.</p> <p>Presence of federal or state regulations for record keeping or permitting.</p>	<ul style="list-style-type: none"> On-site handling, storage, and pump systems will minimize airborne releases. DOH-permitted contractors that follow proper handling procedures to minimize emissions will be used to collect and treat used fluids containing HAPs. Insufficient quantities of HAPs will be stored onsite to require a permit from the DOH, Clean Air Branch. 	No.
Fugitive dust emissions from construction activities	Compliance with 11-60.1-33 HAR for fugitive dust.	<ul style="list-style-type: none"> Water spray will be used to control fugitive dust during construction and as necessary on unpaved roads. 	No.
Emissions of other "regulated" pollutants (as defined in 11-60.1, HAR)	Presence of stationary source types and quantities that would require an operating permit from the DOH, Clean Air Branch, in accordance with the federal Clean Air Act	<ul style="list-style-type: none"> Stationary source types (e.g., tanks) are not expected to be in quantities that will trigger a permit by the quantities of emissions or the type of the emission (per New Source Performance Standards). 	No.

Potential Area of Effect	Consideration(s) Used to Determine Potential for Significant Impact	Relationship of Proposed Action to Consideration(s) Used to Determine Potential for Significant Impact	Further Discussion Required?
Noise	Noise levels must be compatible with the neighboring land uses.	<ul style="list-style-type: none"> If compacting of materials occurs onsite, the equipment related noise may be incompatible with future residential neighbors to the north-northeast of the proposed site. Walls, perimeter berms, and timing of equipment use will be incorporated into site plans and activities to attenuate noise levels. 	Yes.
Visual Aesthetics	Presence of junk vehicles and operational activities that are detrimental to the existing views from public access areas such as Puhi and Hulemalu Roads.	<ul style="list-style-type: none"> Set-backs and 4-foot high berms with vegetation will be incorporated into the site layout to screen the operations from Cane Haul, Puhi and Hulemalu Roads. Because vegetation berms will take time to fill in, short-term visual impacts may occur. 	Yes.
Traffic	Degradation of existing LOS at the primary intersections planned for use along Kaumualii Highway. These intersections include Puhi Road and Kaumualii Highway, and Nawiliwili Road and Kaumualii Highway.	<ul style="list-style-type: none"> Approximately 20 vehicle or truck trips per day are anticipated. These low numbers of additional trips are not expected to significantly impact the existing traffic conditions. 	No.

Potential Area of Effect	Consideration(s) Used to Determine Potential for Significant Impact	Relationship of Proposed Action to Consideration(s) Used to Determine Potential for Significant Impact	Further Discussion Required?
Flora and Fauna			
Huleia National Wildlife Refuge	Adverse effects on sensitive habitat which has endangered species.	<ul style="list-style-type: none"> The site comprises an insignificant portion of the watershed. Surface water controls will be implemented to minimize/eliminate contaminated runoff. 	No.
Vectors	Presence of procedures to control vectors.	<ul style="list-style-type: none"> Procedures to control vectors will be made part of the operations plan and is part of the Solid Waste Management Permit application. 	No.
Historic and Archaeological Resources	Effects on cultural resources listed or eligible to be listed on the National Register of Historic Places.	<ul style="list-style-type: none"> No cultural or archaeological features have been identified on the site. The nearest cultural features are approximately 0.5 miles away in the Huleia National Wildlife Refuge. 	No.
Public Health and Safety	Presence of equipment, infrastructure, and operating procedures that conform to KFD requirements.	<ul style="list-style-type: none"> <u>Equipment, infrastructure, and operating procedures will be designed to conform with KFD and DOH requirements, but because of the nature of this facility more evaluation is appropriate.</u> 	Yes.

Potential Area of Effect	Consideration(s) Used to Determine Potential for Significant Impact	Relationship of Proposed Action to Consideration(s) Used to Determine Potential for Significant Impact	Further Discussion Required?
<p>Socioeconomic effects of facility development to community and Kauai</p>	<p>Cost of disposal of derelict vehicles with the metals recycling center versus the cost of disposal without the center.</p> <p>Effect of not collecting abandoned vehicles on the safety and appearance of Kauai's roads, including effect on visitor industry.</p>	<ul style="list-style-type: none"> • <u>Without recycling, disposal of derelict vehicles at a landfill is now illegal under state law, and would be of greater fiscal and environmental impact, since the County would have to remove all fluids from the vehicles and then dispose without reclaiming recyclable materials. A new landfill would be required earlier than would otherwise be necessary, at the taxpayer's expense.</u> • <u>Proposed operation would create jobs.</u> • <u>Proposed operation is expected to provide a profitable business opportunity rather than a tax burden.</u> • <u>Proposed operation could decrease value of nearby residential property.</u> 	<p>Yes.</p>

4.2 STORMWATER RUNOFF

4.2.1 Existing Conditions

The proposed site is located at an apex of a ridge line; therefore, runoff flowing onto the site is believed to be limited to certain drainage areas of Puhi Industrial Park to the north. Based on climatological records from a nearby agricultural field monitoring station, the site receives 55 to 65 inches of rain per year.

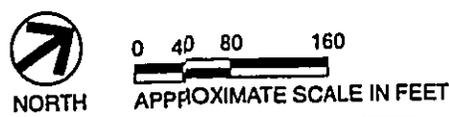
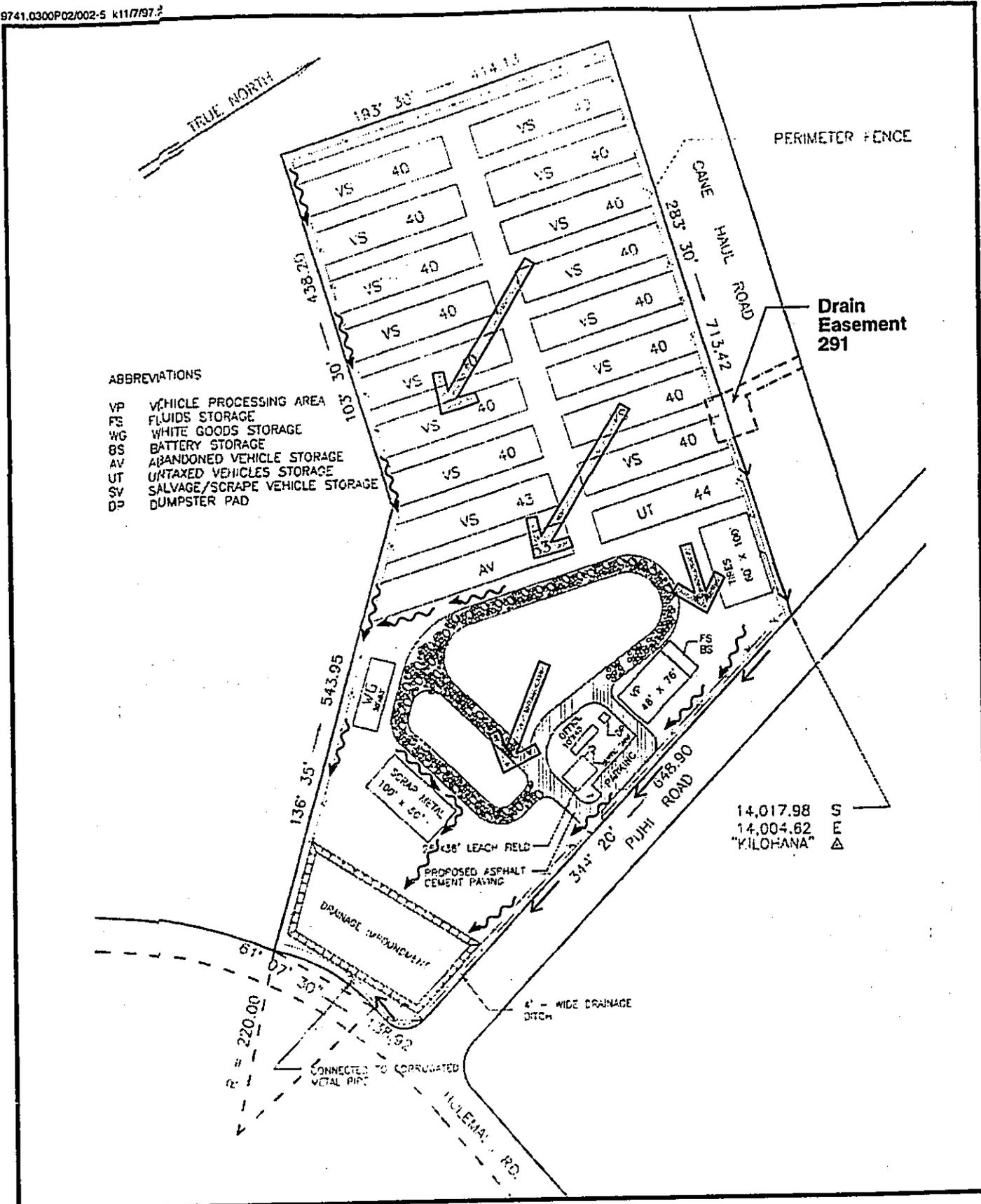
As discussed in Chapter 2, a network of agricultural irrigation ditches for sugarcane cultivation is present at the site. Stormwater runoff from the roads in Puhi Industrial Park, upgradient of the site, is directed into a ditch (defined as a drain easement on the TMK) on the northern property boundary. From this drain easement area, water is directed by a ditch down gradient toward the east (along the Cane Haul Road), then south (along Puhi Road). At the intersection of Puhi Road and Hulemalu Road, a ditch directs water to the west for approximately 150 feet where it flows into a CMP that is located under Hulemalu Road. Water released from the CMP flows toward Papakolea Stream. Figure 4-1 illustrates the location of the ditch-directed surface water flow.

The most likely flow of surface water runoff from the proposed site is to Puhi or Papakolea Streams. From these streams, water flows into the Huleia Stream, located in the Huleia National Wildlife Refuge, and flows through Nawiliwili Bay to the Pacific Ocean.

Nawiliwili Bay is listed on the State's Water Quality-Limited Waters (WQLW) List. This list is required under the federal Clean Water Act to be prepared every two years by the DOH, Clean Water Branch, and identifies the most polluted waters in the state. Nawiliwili Bay is classified as Moderate Category II, which is described by DOH as follows:

Moderate Category II waters, comprising the majority of impaired waters, are characterized by less-severe algal and/or turbidity pollution, and suffer from lesser amounts of litter, stream bank erosion, channel modification and stream bank clearing. They may appear dirty, but they are not choked with algae, weeds, or debris. The extent of stream bank erosion, trash accumulation, and channel modification is much less compared to the severe or moderate category I classifications. People still fish and swim in these waters.¹⁹

¹⁹ State of Hawaii, DOH, Environmental Planning Office (March 1997) *Hawaii's Water Quality-Limited Waters: The 1997 Assessment (Draft)*.



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CHAPTER FOUR

Listed water bodies are targeted for additional water pollution controls. Federal regulations require that Total Maximum Daily Loads (TMDLs) be developed for all water bodies on the WQLW List. TMDLs will be developed for water bodies from the most impaired to the least. TMDLs for a subset of the most severely impaired water bodies are planned by the year 2000; TMDLs for the Nawiliwili Bay will be prepared as time and resources permit. While a TMDL will not be available during the preparation of this EA, the fact that Nawiliwili Bay is a moderately impaired water body means that sufficient measures must be undertaken to minimize impacts into these waters.

4.2.2 Potential Impacts and Mitigation

Development of the Puhi facility will occur in phases as identified in Section 3.1: Phase I will include initial storage of vehicles drained of fluids and with batteries removed; Phase II will include construction and final operations of the Puhi Metal Recycling Center. Potential surface runoff impacts under Phase I would be associated with establishing the vehicle storage area, which would be considered part of the initial site construction. Contaminants are not anticipated to be introduced to the site during this phase since only vehicles that have been checked by County personnel as being empty of contaminants of concern would be allowed onsite (see Section 3.1.1.2). Therefore, runoff controls for Phase I would be incorporated into the BMPs defined in the NPDES permit for construction (to be developed by the County prior to initiation of construction). Possible BMPs under this NPDES permit are listed in the following section.

The proposed development requires that the existing irrigation ditches present on the site be eliminated. Because these ditches are used strictly for irrigation no effect on the existing surface drainage is anticipated. With site development, a net reduction in permeability across the site will occur, resulting in increased stormwater runoff. Based on a recent study that assessed quality of first flush stormwater runoff from various industries, including junk yards and scrap and recycling facilities, stormwater from the site could entrain metals such as lead, copper and zinc; oil and grease; and gasoline, and other constituents in automotive fluids.²⁰ Due to implementation of BMPs (see suggested BMPs in next section), which will be included in the NPDES permits for construction and operations, release of contaminants from the site will be unlikely and probably less than that from a parking lot of similar size. The drainage plan and stormwater handling and disposal approach will be developed with these considerations in mind.

²⁰ Line, D.E. et.al. (May/June 1997) *Water Quality of First Flush Runoff from 20 Industrial Sites*. As it appeared in *Water Environment Research*, Volume 69, Number 3, pp. 305-310.

The conceptual site layout described in Chapter 3 was based on the County's anticipated demand for derelict vehicle disposition, operations at a similar type of facility, and input from the DOH Solid Waste Management Office. (The actual site layout will depend on the entrepreneur's design and DPW concurrence; however, the same regulatory constraints will apply to the final design so that protection of the environment is not jeopardized.) Based on this input, the following have been assumed:

- After draining all fluids and removing batteries in the lined processing area, cars are stored in a typical parking lot layout over compacted dirt;
- Main travel lanes are graveled to prevent muddy conditions resulting from rainfall;
- Approximately 5.6 acres will be dedicated for vehicle storage;
- An additional 0.3 acres will be impermeable surfaces including processing area, office buildings, parking lot, and on-site roads.

Given the large area, 5.6 acres for vehicle storage alone, stormwater runoff will be significant. Using the 50-year rainfall intensity, the maximum expected rate of runoff flow is about 11,400 gallons per minute (25.40 cubic feet per second).²¹

Mitigation. During construction and Phase I of the project, the following measures may be incorporated into the NPDES for construction activities to minimize sources of contaminants, surface runoff, and potential for down gradient water quality impacts:

- Construct and maintain silt fence for temporary erosion control during and following construction until vegetation returns and soils are stabilized.
- Use gravel or other ground treatment on access ways to stabilize soil during construction.
- Check and repair all runoff and erosion control measures as necessary, with daily checking during rainy periods.
- Establish permanent soil stabilization with perennial vegetation as soon as practical after final grading.
- Design erosion control measures according to the size of disturbed or drainage areas to detain runoff and trap sediment (further discussed below).

²¹ For on-site disposition, the Kauai County DPW *Storm Drainage Standards* (February 1972) requires that the drainage system be designed for the 50-year, 1-hour storm. For the Puhi area, this rainfall intensity is 4 inches.

- Inspect vehicles upon arrival to ensure that fluids and battery have been removed. A standard operating procedure with record-keeping will be developed to ensure that the process is consistent and thorough.

For Phase II operations of the site, a combination of onsite and offsite disposal options for stormwater runoff were evaluated in Appendix A and are summarized herein. On-site disposal of stormwater runoff through drywells or infiltration galleries is not practical. The cost for underground disposal facilities would range from \$210,000 for infiltration galleries to \$970,000 drywells. These costs exclude installation of oil-water separators for runoff treatment.

A surface impoundment, with implementation of BMPs, is the recommended means of stormwater handling and disposal. Using a 4-foot depth, the impoundment basin would require about 0.5 acres of the site. Runoff would be directed by sheet flow and drainage swales to the basin, located at the low end of the parcel. Figure 4-1 shows the location of the surface impoundment area. This impoundment would contain the one-hour discharge of a 50-year storm, which is the portion of the stormwater in which most pollutants would be entrained. For storm events exceeding this volume, a drainage outlet (baffled and inverted to prevent outflow of the first discharge of any floating or settled solid pollutants, respectively) could be installed in the basin to the adjacent drainage-way. This system would retain first-flush pollutants in the basin for removal with periodic maintenance activities.

The potential for overflow of the proposed surface impoundment would be 2 percent in any year for a 50-year 1-hour storm event. The potential volume of overflow would depend on the storm event. Potential impacts due to storm event overflow of the surface impoundment could include release of contaminants captured by the impoundment. A recent study of 'first flush' runoff from industrial sites found contaminants such as copper, zinc and lead, and conventional water quality parameters such as oil and grease and chemical oxygen demand (COD) were high from junk yards and scrap and recycler facilities. Analytical results cited in the study were taken from runoff collected at the facilities upgradient of runoff treatment and control measures. Therefore, these data represent conditions without control measures. Variability in concentrations between similar sites indicated that vegetative covering and other housekeeping measures could reduce contaminant concentrations dramatically.²² With the

²² Line, D.E. et.al. (May/June 1997) *Water Quality of First Flush Runoff from 20 Industrial Sites*. As it appeared in *Water Environment Research*, Volume 69, Number 3, pp. 305-310.

proposed site operations and BMPs at the Puhi facility, any impacts would be less than expected from the nearby Hulemalu Road or a parking area of equal size (5.6 acres).

BMPs to control release on contaminants to surface and groundwater would include the following types of measures.

- Inspect vehicles on arrival to determine their processing requirements.
- Drain fluids from vehicles in lined processing area and transfer to waste storage containers.
- Cover operational areas where vehicles are drained of fluids, and where the fluids are stored for reclamation or until disposal.
- Specify a routine maintenance program, including general housekeeping and spill clean-up protocol, in the Operation Plan to include frequent dry clean up of potentially contaminating materials exposed to rainfall and runoff, and implement it upon commencement of operations.
- Provide a paved entrance road to mitigate tracking mud and dirt onto the public road during inclement weather.
- Provide a stabilized surface, such as gravel, or cement or polymer treated soil, along the access aisles in the vehicle storage area and other less frequently traveled accesses. (It is realized that the paving is expensive and may be unwarranted in areas that are accessed once a day or less, such as envisioned for the white goods area.) Routinely grade access ways to assure drainage and compact to minimize erosion potential.
- Perform periodic maintenance on the impoundment basin and drainage swales, berms and other features. The impoundment basin would have to be mowed and maintained during dry times, and treated for breeding mosquitoes during times when water is present.
- Vegetate non-travelway areas to mitigate dust and erosion.

Implementation of the surface impoundment and BMPs will minimize the presence of sediment and other pollutants that may be entrained in stormwater runoff to down gradient water bodies. Specific design requirements for managing stormwater discharge from the site will be determined during permit discussions with the DOH. If stormwater is discharged off-

site, the metals recycling center will require a Stormwater Discharge Permit for Industrial Facilities (Standard Industrial Code [SIC] 5015), in accordance with 40 Code of Federal Regulations 122.26(b)(14) and 11-55, HAR. As part of this process, BMPs to minimize pollutants exposed to stormwater, and management of stormwater from the site will be required. Therefore, no significant impacts to the WQLW-listed Nawiliwili Bay are expected.

4.3 NOISE

4.3.1 Existing Conditions

Noise in the vicinity of the site is primarily related to agricultural operations. Populations in the area include agricultural workers and workers in the Puhi Industrial Park. An approved residential development located to the north-northeast of the site will introduce a residential population approximately 150 feet from the nearest boundary of the site.

4.3.2 Potential Impacts and Mitigation

The proposed operations will use heavy equipment to move vehicles around the site. Noises from these operations will occur only during the facility's operating hours and are not expected to be any greater than those from the agricultural and other heavy equipment used on nearby agriculture land and Puhi Industrial Park. It is not yet known whether or not additional heavy equipment such as bailers and crushing machines will be used by the operator.

All noise-producing equipment will be subject to the requirements of 11-46, HAR. These rules define the maximum permissible sound levels to prevent, control, and abate noise pollution from stationary noise sources and equipment related to agricultural, construction, and industrial activities. Maximum permissible sound levels are defined for specific zoning districts defined in the rules. For the proposed Puhi facility, the zoning district for the site and most of the adjacent properties is Class C (areas equivalent to lands zoned agriculture, country, industrial, or similar type), which has a corresponding maximum permissible sound level of 70 decibels measured using the "A" weighting network (dBA). For these areas, the noise levels cannot exceed 70 dBA at the property line at any time for more than 10 percent of the time within any 20-minute period without a permit from DOH, nor can they exceed 80 dBA for impulsive type noises. For the proposed residential area to the north-northeast of the site, the zoning district would be Class B (all areas equivalent to lands zoned for multi-family dwellings, apartment, business, commercial, hotel, resort, or similar type). For this area, the maximum permissible sound levels at the property line would be 60 dBA during the daytime

hours of 7:00 a.m. to 10:00 p.m. and 50 dBA during the nighttime hours of 10:00 p.m. to 7:00 a.m. In Class B areas, the maximum permissible noise levels cannot be exceeded for more than 10 percent of the time within any 20-minute period without a permit, nor can they exceed 70 dBA for impulsive-type noises.

Temporary construction related noises such as earth-moving equipment typically generate noise in the 70 to 90 dBA range measured at a distance of 50 feet from the sources. With increasing distance these levels will attenuate at approximately 3 to 6 dBA for each doubling of distance. More attenuation is possible if trees or berms are present; these obstacles can provide 5 dBA to more than 23 dBA of attenuation with each doubling of distance between the source of noise and the point of measurement. Assuming that no obstacles are present, the estimated level of noise would be between 58 to 84 dBA approximately 200 feet away. These levels are greater than the maximum permissible level of 60 dBA (daytime). For this reasons, it is likely that a permit from DOH will be required for construction activities.

Operational noises will include the intermittent use of various trucks, and possibly cranes and metal crushing equipment. A variety of equipment exists to crush or flatten vehicles. One type, the E-Z Crusher, manufactured by R.M. Johnson Company, Inc., has a noise level of 96.5 dBA at 1 meter (3.28 feet). This level is attributable to the diesel engine that runs the equipment, and according to a manufacturing representative, is louder than the actual crushing activity.²³ Noise reduces by 6 dBA for each doubling of distance away from the source; so, at 105 feet from this machine, the noise level would be 66.5 dBA. Enclosures, berms, and vegetation would further reduce noise, and at 150 feet (the distance from the corner of the Puhi site to the residential development to the north), noise levels of 60 dBA may be achieved. Alternatively, if the crushing equipment was located 420 feet from the nearest property line, the noise level could be attenuated to 54.5 dBA, and would comply with 11-46, HAR, requirements for residential neighborhoods.

Adding two equal noise sources results in an increase of 3 dBA. So if other heavy equipment with noise levels equal to that of the metal crushing equipment (assume 66.5 dBA at 105 feet) is used onsite at the same time, noise levels at 105 feet could reach 69.5 dBA (two pieces of equipment) or 72.5 dBA (three pieces of equipment).

The types and uses of various equipment will need to be determined by the operator and evaluated so that the necessary permits and mitigation will be provided to attenuate these noises at levels that comply with 11-46, HAR. This will ensure that public health and welfare

²³ Telephone conversation with Dave VanVleet, R.M. Johnson Co., Inc. and Jane Dewell of Belt Collins Hawaii (November 6, 1997).

are protected, and to prevent significant degradation of the noise environment. Mitigation measures, if necessary, will be identified during the noise permitting process. These measures could include timing in use of equipment (i.e., no more than one or two sources at a time), berms, vegetation or noise-insulated enclosures as necessary to manage noise impacts. As mentioned in the following section addressing visual impacts, 4-foot berms with vegetation are being planned by the county to address visual impacts, and these will also serve to reduce noise impacts off the property.

4.4 VISUAL AESTHETICS

4.4.1 Existing Conditions

The site is located in a relatively flat, moderately developed portion of Kauai, just south of the Puhi Industrial Park, and southwest of proposed residential housing. The site is in an area undergoing transition from agriculture to other uses. Public views would occur from both Puhi Road and Hulemalu Road where views of the mountainous Haupu Forest Reserve (south and southwest of Puhi) and the Lihue-Koloa Forest Reserve (west of Puhi) are readily seen. Presently there are no visual barriers between Puhi Road and the proposed project site, which currently contains 3-foot high sugarcane.

4.4.2 Potential Impact and Mitigation

The presence of junk vehicles and operations for collecting and processing vehicles and white goods would be detrimental to the existing views of forest reserves, mentioned above, from public access roads and the nearby residential neighborhood.

Planned set-backs of the processing area, and 4-foot high berms topped with vegetation along the perimeter of the property adjacent to the Cane Haul and Puhi Roads, will screen the operations from view. These berms will be designed and maintained by the County. The vegetative berms will take some time to fill in, so short-term impacts may occur. In the long-term, however, the vegetation berms will create a screen that will be compatible with the surrounding forest and mountain views.

Improper disposal of abandoned vehicles has created visual impacts throughout the island that will be addressed by the proposed Puhi facility.

4.5 PUBLIC HEALTH AND SAFETY

4.5.1 Existing Conditions

Public health and safety issues include providing fire protection and essential services such as abandoned vehicle disposal. Vehicle disposal is considered a public health and safety issue because improper disposal becomes a potential hazard if left in public roadways or properties. Currently, vehicle disposal is not provided by any agency or private operator on the island. For this reason, vehicles are being improperly disposed, e.g., abandoned on the roadside. The County of Kauai has taken the responsibility of collecting abandoned vehicles and receiving derelict vehicles from the public to alleviate this public health and safety hazard.

4.5.2 Potential Impact and Mitigation

The proposed project would provide a means for vehicle disposal. Once available, the number of abandoned vehicles is expected to significantly decrease and the risk to public health and safety will likewise diminish. Hence, no adverse impacts on public health would result from this proposed action; rather public benefits should result. The proposed facility will comply with DOH regulations designed to protect the environment, along with public health and welfare. These regulations, found in 11-58.1, HAR, require plans for mitigation of potential pollution and addressing pest control.

With the development of a vehicle storage area and a vehicle processing area, provisions for fire protection will need to be identified and meet the approval of the KFD. Initial discussions with the KFD indicate that a fire hydrant located along the facility's Puhi Road boundary will be sufficient to provide fire-fighting water to the site. If sprinklers should be required by the KFD, a service line can be extended from the fire hydrant line. As discussed in Chapter 3, potable water for fire fighting seems adequate based upon the available water storage and estimated pressures. Figure 3-2 shows the location of the proposed fire hydrant and water lines.

On-site storage of flammable and combustible fluids will require specific types and sizes of tanks, in addition to their placement with respect to one another. The operator will ensure that storage tank specifications and placement comply with KFD requirements. With the proper storage and handling procedures, no adverse impacts to public safety are expected.

CHAPTER FOUR

4.6 SOCIOECONOMICS

4.6.1 Existing Conditions

The economy in Kauai is still struggling to return to pre-Iniki conditions. The tourism industry remains the primary key to regaining the socioeconomic status comparable to the early 1990s. Adverse visual impacts such as abandoned vehicles on the roadside will only hinder these efforts. The return of Kauai's relatively litter-free conditions will help this industry regain its stronghold.

4.6.2 Potential Impacts and Mitigation

Employment. The proposed Puhi facility has the potential to employ one to two people in full-time management positions, and five to ten people in full-time laborer positions. The salaries for these positions could range from \$12 to \$14 per hour for laborers and higher for managers.²⁴ This project has the potential to provide from six to twelve families on Kauai with an income of \$24,000 to \$30,000 a year or more.

Costs. The expenses of running the proposed Puhi facility would include lease rent of the property, wages to employees, utility costs, and waste disposal for the fluids and solid non-marketable items from vehicles and white goods (see Sections 3.1.2 and 3.1.3).²⁵

One source of income to help off-set the public expense of this facility would come from sales of the vehicles and white goods to metal recyclers. In Hawaii, where there is no metal smelting facility, sale would likely be to the one metal shredding facility in Honolulu that prepares vehicles and white goods by separating ferrous metal from other components (plastics, upholstery) and ships the metal to the mainland U.S. for final recycling.

An additional, and potentially significant, source of income would be generated through sales of used parts from derelict vehicles to the general public on Kauai. This income could account for as much as half of the total income to the facility.

²⁴ State of Hawaii, DBEDT (1995). *Data Book, Tables 12.27, wholesale trade wages, and 12.29, automotive mechanic wages.*

²⁵ Telephone conversation between Derek Durbin, Abe's Auto Recycling and Jane Dewell of Belt Collins Hawaii (August 11, 1997).

Adjacent Land Values. Use of lands adjacent to the proposed Puhi facility include Industrial, Agricultural, and Residential (see Section 5.2). The Puhi facility would be constructed on land that was used for sugar cane cultivation immediately adjacent to Puhi Industrial Park. A planned residential neighborhood northwest of the proposed project site has not yet been developed. The proposed Puhi facility will be developed so as to mitigate noise and visual impacts to the residential community (see Sections 4.3 and 4.4). Based on these considerations, the development of the proposed Puhi facility should have no greater impact on the planned residential community and property values than the existing Puhi Industrial Park.

4.7 SHORT-TERM IMPACTS

With the exception of views of derelict vehicles, which would also result from leaving such vehicles on the road-side, no significant short-term impacts are anticipated as a result of the proposed project. Unattractive views of derelict vehicles will be short-term while vegetation fills in on the planned 4-foot high berms to provide a visual barrier between public roads and the site. A summary of potential impacts and proposed mitigation, with identification of the regulatory and permit structures that will assure mitigation measures are implemented, is contained in Table 4-2.

**Table 4-2
 Summary of Potential Impacts, Proposed Mitigation, and Regulatory and Permit Measures to Assure Implementation**

Potential Impact	Proposed Mitigation	Implementation Measure
Stormwater Runoff	Development of a drainage impoundment and proposed construction and operational BMPs	1) Condition of County Planning Commission Permit approval 2) NPDES permit
Noise	Timing of equipment use, building structures, vegetation and berms along perimeter.	1) Condition of County Planning Commission Permit approval 2) Compliance with State DOH noise rules and, if applicable, permit conditions.
Visual Aesthetics	Construction of berms along perimeter and vegetation.	1) Condition of County Planning Commission Permit approval

Potential Impact	Proposed Mitigation	Implementation Measure
Public Health and Safety	Waste management collection and storage system in tanks and containers.	1) State DOH Solid Waste Management Unit Permit 2) KFD requirements
Socioeconomic Effects	Primarily positive employment and economic opportunities; site landscaping to reduce noise and visual impacts to neighbors	1) Condition of County Planning Commission Permit approval

4.8 SUMMARY OF CUMULATIVE IMPACTS

No adverse cumulative environmental impacts have been identified with the proposed project. Cumulative benefits from the proposed action include improvements in public safety, beautification of Kauai's environment, and reduced demand for raw materials resulting from metals recycling and reuse.

CHAPTER 5 CONSISTENCY WITH LAND USE PLANS, POLICIES, AND CONTROLS

The proposed action would be located on land owned by the Grove Farm Company, Inc. and leased by the County of Kauai. The 10-acre parcel is classified by the State of Hawaii as Agriculture, and is zoned Agriculture by the County. The relationship between the proposed action and land use plans, policies, and controls at the county, state, and federal levels are provided herein.

5.1 POLICY PLANS

General plans developed by the State of Hawaii and the County of Kauai provide the guide to physical, social, and economic development. These plans establish broad policies and objectives for development within the state and county.

5.1.1 State Plan

The purpose of the Hawaii State Plan, Chapter 226, HRS, is to guide the future long-range development of the State; identify goals, objectives, policies, and priorities for the State; provide a basis for determining priorities and allocating limited resources, such as public funds, services, human resources, land, energy, water, and other resources; improve coordination of State and county plans, policies, programs, projects, and regulatory activities; and establish a system for plan formulation and program coordination to integrate all major State and county activities. Because of the integral role solid waste disposal has on society, all of the State's objectives could be affected by the proposed project. One particular section of the State Plan is directed at materials recovery facilities and is presented below.

- Section 226-15. Objectives and policies for facility systems – solid and liquid wastes*
- (a) Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:*
 - (1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.*
 - (b) To achieve solid and liquid waste objectives, it shall be the policy of this State to:*
 - (2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.*

The proposed Puhi facility would meet the objective and policy in Section 226-15(a)(1) and (b)(2) since it would provide a means to maintain the basic public health and sanitation

standards relating to disposal of solid wastes, and promote conservation through reuse and recycling of wastes.

5.1.2 County General Plan

The 1982 Kauai General Plan Update (County of Kauai, June 1982) states the goals and objectives for Kauai's physical, social, and economic well-being. These general goals are in conformance with the theme, goals, objectives, policies, and priority directions documented in the Hawaii State Plan. Goals and objectives identified in the update and applicable to the proposed project include:

- To maintain the concept of Kauai as "The Garden Isle"; thus, insisting any growth be in consonance with the unique landscape and environmental character of the island.
- To ensure that all physical growth is consistent with the overall ecology of the island.
- To create opportunities for a greater diversity and stability of employment for residents of Kauai.
- To promote and protect the health, safety, and welfare of all residents and visitors.
- To promote the improvement and expansion of the island's economy, by recognizing and carefully utilizing land and water resources.
- To guide and control development to take full advantage of the island's form, beauty and climate and preserve the opportunity for an improved quality of life.
- To manage implementation through development of social and physical infrastructure based on growth targets, priorities and efficient utilization of facilities and services.

5.1.3 Lihue Development Plan

The Lihue Development Plan (County of Kauai, October 1975) relates the broad policies of the General Plan to the Lihue area. Lihue is the civic, commercial, and transportation center of Kauai, and is relatively urban compared to the rural nature of the island. The goals of the plan that apply to the proposed Puhi facility are as follows.

- Commercial, Business, Financial Center: Centralize the commercial activities, using existing commercial zones.

- Employment: Encourage stable economy for job opportunities, and promote more industries and manufacturing.
- Appearance of Lihue: Enforce litter laws.

The proposed development of the Puhi facility will meet the above goals by creating a facility in a Commercial zoned area, creating new opportunities of employment in the recycling sector, and creating a place for proper disposal and recycling of derelict vehicles, tires, and white goods that are banned from disposal at the municipal solid waste (MSW) landfill. The proposed Puhi facility will also alleviate unsightly vehicle dumps throughout the island.

5.2 LAND USE PLANS

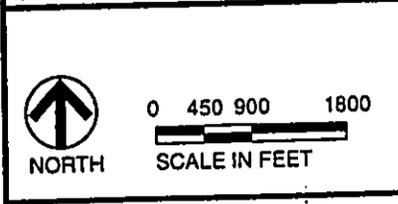
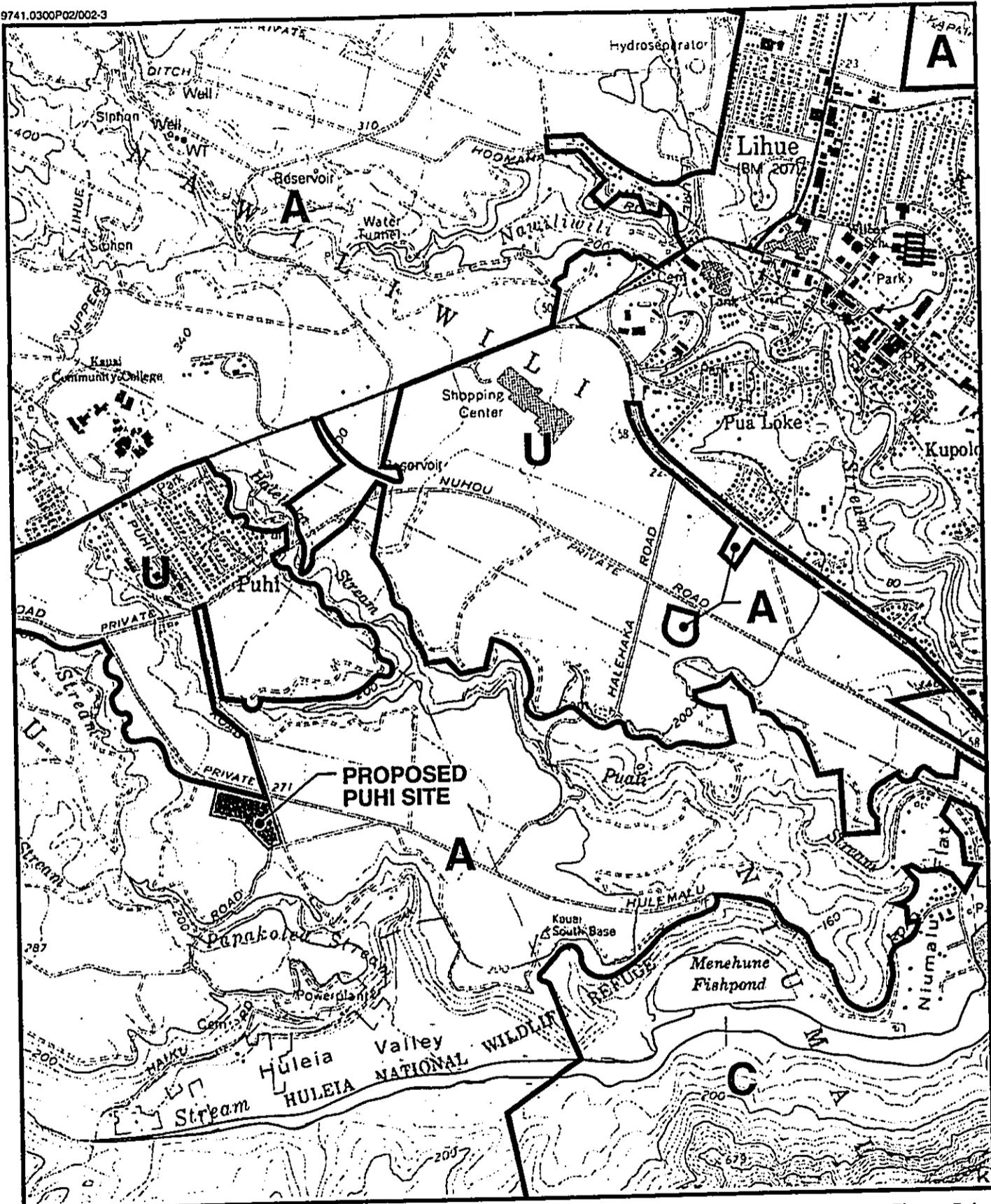
5.2.1 State Land Use Districts

The State Land Use Law, enacted in 1961, resulted in the classification of all lands in the State of Hawaii into one of four categories: Urban, Conservation, Agriculture, and Rural.

The proposed Puhi facility is located on land designated Agriculture (Figure 5-1). Use of these Agricultural lands for a metals recycling center is being requested through a Special Permit application submitted to the County Planning Department in July 1997. As required, a public hearing was held in the Fall of 1997. Comments were received and have been addressed in this EA. A determination will be recommended by the County Planning Department. Approval or denial of the permit will be made by the County Planning Commission. State Land Use Commission approval is not required because the subject site is less than 15 acres.

5.2.2 Comprehensive Zoning Ordinances

Comprehensive Zoning Ordinances were developed by the County of Kauai as an implementing tool for the General Plan long-range policy on growth and development. It regulates the use of land under the County's jurisdiction, under several land districts, and delineates the respective types of permitted uses and development that can take place in these districts. The intent of these regulations is to promote development that is compatible with the Island's scenic beauty and environment and to preclude inadequate, harmful or disruptive conditions that may prove detrimental to the social and economic well-being of the residents



- DISTRICTS**
- U Urban
 - A Agricultural
 - C Conservation

Figure 5-1
STATE LAND USE DISTRICTS
 Proposed Puhi Metals Recycling Center
 Final Environmental Assessment
 Belt Collins Hawaii • November 1997

of Kauai. Major zoning districts are Residential; Commercial, Industrial and Resort; Agriculture; Open; Constraint; and Special Treatment. The proposed project site is zoned for agriculture (Figure 5-2). Adjacent land use districts include Industrial and Residential. Private and public utility facilities proposed in the Agriculture District require a Use Permit from the County Planning Department. An application for a Use Permit has been submitted by the DPW.

5.2.3 Special Management Areas

Special management areas (SMA) are established by the counties and are defined as areas between the shoreline and no closer than 100 yards inland. Areas on the shoreline side of this boundary require SMA permits for any development. The proposed project site is more than 1,000 feet outside of the SMA.

5.3 OTHER PROGRAMS AND CONTROLS

5.3.1 Federal Clean Water Act — National Pollutant Discharge Elimination System

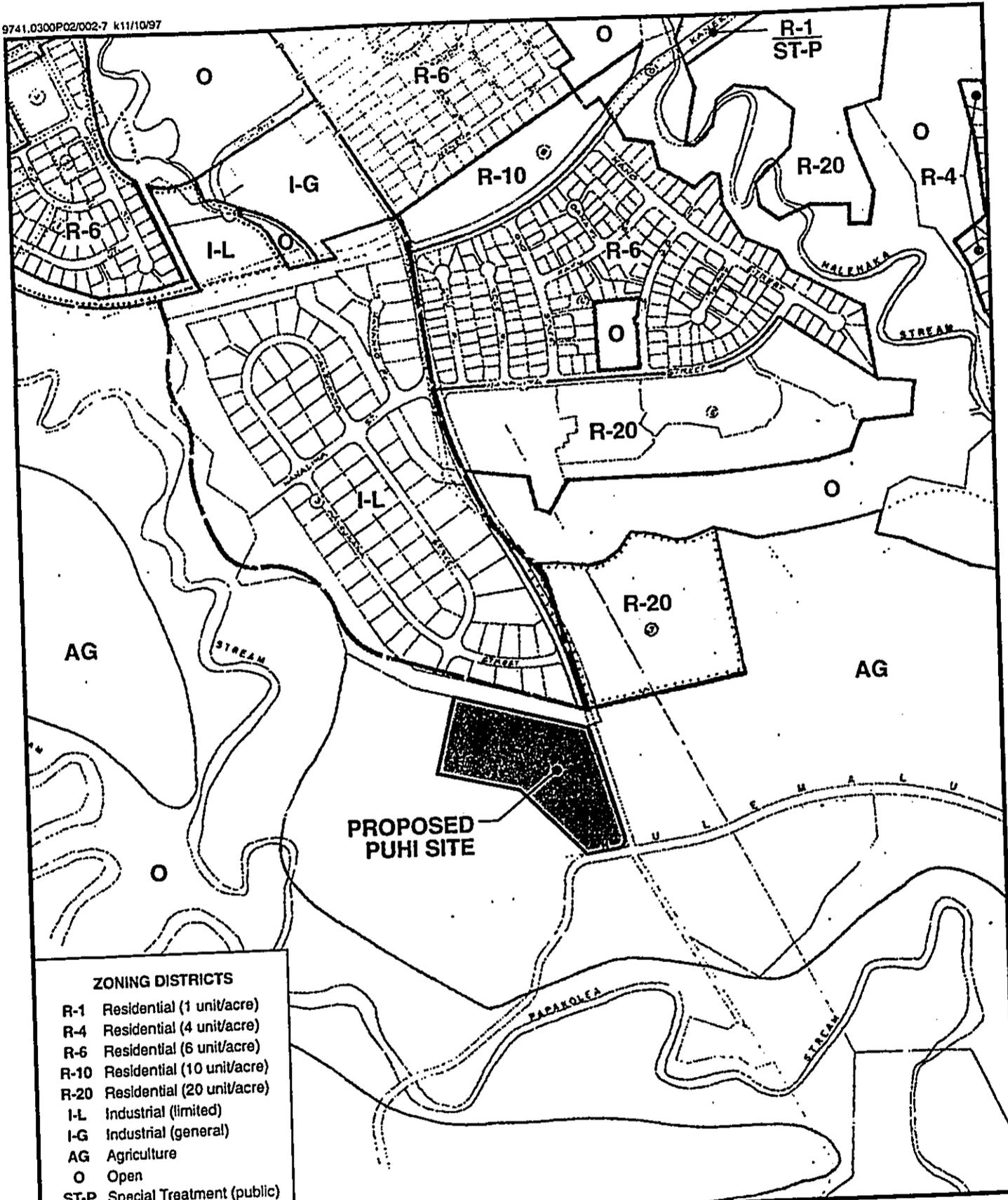
Discharge of pollutants into surface waters of the U.S. are controlled under the National Pollutant Discharge Elimination System (NPDES) program, pursuant to Section 402 of the Clean Water Act. This program is administered by the DOH Clean Water Branch and described in 11-55, HAR.

The proposed project will require a NPDES permit for construction activity, since five or more acres of the site will be graded. This permit will be obtained by the County and will reflect the Phase I development plans and BMPs. An NPDES General Permit for discharges of stormwater associated with industrial use will be obtained by the operator and in accordance with 11-55, HAR, if stormwater is discharged off-site during Phase II.

5.3.2 State Environmental Policy

The State of Hawaii's environmental review process was developed in 1974 to ensure that environmental consequences of proposed actions are considered. Chapter 343, HRS, as amended, defines this review process. Projects subject to this process include those that involve any one of approximately eight triggers identified in Chapter 343. The applicable trigger for the proposed metals recycling center is:

the use of state or county funds...



ZONING DISTRICTS

R-1	Residential (1 unit/acre)
R-4	Residential (4 unit/acre)
R-6	Residential (6 unit/acre)
R-10	Residential (10 unit/acre)
R-20	Residential (20 unit/acre)
I-L	Industrial (limited)
I-G	Industrial (general)
AG	Agriculture
O	Open
ST-P	Special Treatment (public)



0 175 350 700
 SCALE IN FEET

Figure 5-2
COUNTY LAND USE DISTRICTS

Proposed Puhi Metals Recycling Center
 Final Environmental Assessment
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CHAPTER FIVE

Preparation of this environmental assessment has been determined to be required by the proposing agency, County of Kauai DPW, which will also serve as the approving agency. This EA has been prepared and will be processed in accordance with Chapter 343 and its implementing rules provided in 11-200, HAR, as revised (August 1996). Processing requirements will include public notification through the Office of Environmental Quality Control (OEQC) *Environmental Notice*.

5.3.3 Hawaii Coastal Zone Management Program

The federal Coastal Zone Management Program is administered in Hawaii by the Office of Planning, DBEDT, and affects all projects on federal lands and/or involving federal agencies. Because the proposed action does not involve federal land nor affect federal agencies, such as the Army Corps of Engineers, a review for consistency with Hawaii's Coastal Zone Management Program is not required.

5.3.4 Kauai Integrated Solid Waste Management Plan

In accordance with the State of Hawaii Solid Waste Management Act of 1991, the County of Kauai Integrated Solid Waste Management Plan was developed. This plan outlines a set of programs and facilities to make source reduction and recycling more convenient and economical for Kauai citizens. Programs and facilities are introduced in an effort to meet the overall goals of:

- reducing the amount of waste generated (i.e., source reduction);
- recycling whenever possible;
- diverting metals, tires, white goods, and other materials that have recycling potential from the landfill; and
- using products made from recovered materials.

Creation of a metals recycling facility on Kauai will ensure that scrap metals, tires, and other materials from vehicles and white goods can be processed and kept out of the county landfill or other temporary stockpiling areas.

5.3.5 State Regulations Related to Proposed Materials Recovery Facilities (Title 11, Chapter 58.1, HAR)

State regulations governing solid waste disposal are provided in 11-58.1, HAR (Solid Waste Management Control). Subchapter 3 regulates the construction and operation of materials

recovery facilities, which includes automobile dismantling, scrap metal, and white goods processors. The regulation requires that the following be addressed:

- description of overall operation, including functional description of processing equipment and personnel operations;
- adequate drainage be provided to prevent standing water and control 'run-on' and 'run-off' from the site;
- prevention of nuisance such as litter, insects, odors, and vectors;
- prevention of fires;
- minimize nuisance to neighboring properties, including visual and noise;
- operations plan with description of process including collection and disposal of materials; and
- closure plan to ensure no adverse environmental impacts to property.

The proposed Puhi facility will require a solid waste salvage facility permit from the DOH Office of Solid Waste Management. The DOH is responsible for permitting and inspecting all such facilities and enforcing adherence to the facility permit and applicable environmental regulations.

5.3.6 State Regulations Related to Airborne Emissions (Title 11, Chapter 60.1, HAR)

Air emissions within the State of Hawaii are controlled by the DOH. The operating permit program is the mechanism for controlling emissions, in accordance with 11-60.1, HAR. Chapter 60.1 provides many criteria to determine whether or not a permit is required and what type of permit (noncovered vs. covered) is required. Two such criteria include potential emissions from stationary sources and New Source Performance Standard (NSPS) applicability. Based on the size of the storage tanks and the operating procedures described in Chapter 3, an operating permit from the DOH Clean Air Branch is not expected to be required.

The rule, 11-60.1-33, HAR will need to be followed. This will require that fugitive dust during construction and operation be controlled.

5.4 LIST OF REQUIRED PERMITS AND APPROVALS

The proposed project is expected to require the following permits:

- State DOH Solid Waste Management Unit permit;
- County Zoning Permit;
- Special Use Permit (county review);
- County Use Permit;
- County Building, Electrical, and Plumbing Permits;
- County Grubbing, Grading, Excavation, and Stockpiling Permit;
- NPDES permit for construction activities; and
- NPDES General Permit for discharges of stormwater associated with industrial use, if stormwater is discharged off-site.

Approvals from the following agencies are needed:

- U.S. Fish and Wildlife;
- State Department of Land and Natural Resources;
- State Office of Environmental Quality Control;
- State Department of Health; and
- Kauai Fire Department

CHAPTER 6

DETERMINATION

Based on the results of the foregoing analysis, it has been determined that:

- The proposed action does not involve a loss or destruction of any natural or cultural resource;
- The proposed action does not curtail the range of beneficial uses of the environment;
- The proposed action does not conflict with the State's long-term goals or guidelines as expressed in Chapter 344, HRS;
- The proposed action does not substantially (detrimentally) affect the economic or social welfare of the community or state;
- The proposed action does not substantially (detrimentally) affect public health;
- The proposed action does not involve substantial secondary effects, such as population changes or infrastructure demands;
- The proposed action does not involve a substantial degradation of environmental quality;
- The proposed action does not cumulatively have a considerable adverse effect on the environment, or involve a commitment to larger actions;
- The proposed action does not substantially affect a rare, threatened or endangered species or its habitat;
- The proposed action does not have a significant detrimental effect on air or water quality, or ambient noise levels;
- The proposed action does not affect, nor is it likely to suffer damage by being located in an environmentally sensitive areas, such as a flood plain, tsunami zone, beach, erosion-prone area, geological hazardous land, estuary, freshwater area, or coastal waters;
- The proposed action does not substantially affect scenic vistas and view plans identified in county or state plans or studies; and

- The proposed action does not require substantial consumption of energy.

Based on the significance criteria contained in Chapter 343, HRS, as amended, and Title 11, Chapter 200, HAR, as revised (August 1996), the proposed action is judged to have no significant adverse impacts on the environment.

CHAPTER 7 CONSULTED PARTY COMMENTS AND APPLICANT RESPONSES

The following governmental agencies and interested individuals provided written responses on the Draft EA. These comments on the proposed project and responses to the comments are presented in this chapter.

State of Hawaii

Office of Environmental Quality Control
Office of Hawaiian Affairs
University of Hawaii at Manoa, Environmental Center
Department of Health, Environmental Health Administration

United States

Department of Interior, Fish and Wildlife Service

Individuals

VerlieAnn Kapule Malina-Wright and John C. Wright

THE UNIVERSITY OF CHICAGO PRESS

BENJAMIN J. CAYETANO
GOVERNOR



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

236 SOUTH BERETANIA STREET
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HONOLULU, HAWAII 96813
TELEPHONE (808) 686-4186
FACSIMILE (808) 686-4186

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1997 OCT 16 A 11:43
BELT COLLINS HAWAII

GARY GILL
DIRECTOR

Lesley HARRIS

October 13, 1997

Mr. Troy Tanigawa
County of Kaua'i
Department of Public Works
4444 Rice Street, Suite 275
Lihu'e, Hawai'i 96766

Dear Mr. Tanigawa:

We submit the following comments on a draft environmental assessment for the Proposed Puhi Metals Recycling Center.

We understand that the Huleia National Wildlife Refuge is hydrologically downgradient of the proposed recycling center. The 240 acre refuge is located along the Huleia River upstream from Menehune (Alakoko) Pond. Small numbers of coot and gallinule may be found nesting, feeding and resting here.

The draft environmental assessment notes that "[t]he most likely flow of surface water runoff from the proposed site is to Puhi or Papakolea Streams. From these streams, water flows into the Huleia Stream, located in the Huleia National Wildlife Refuge, and flows through Nawiliwili Bay to the Pacific Ocean."

"While a TMDL [total maximum daily load] will not be available during the preparation of this environmental assessment, the fact that Nawiliwili Bay is a moderately impaired water body means that sufficient measures must be undertaken to minimize impacts into these waters."

The proposed stormwater runoff impoundment is expected to contain the one-hour discharge of a 50-year storm. How much water per year is estimated to over flow the impoundment and leave the site? Even with Best Management Practices, what chemicals are expected to leave the site?

Please discuss the impacts your project may have on the Huleia National Wildlife Refuge and the Menehune Fishpond. What long-term cumulative effects will heavy metals, the semivolatile

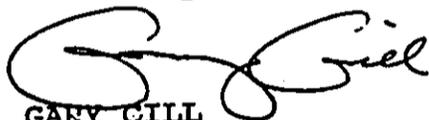
Mr. Tanigawa
October 13, 1997
Page 2

organics, polynuclear aromatic hydrocarbons, and other automotive related hazardous constituents have on the various flora and fauna contained in the National Wildlife Refuge?

Please explain your reasons for supporting the determination based on an analysis of the significance criteria in section 11-200-12 of the Hawaii Environmental Impact Statement Rules.

If you have any questions, please call Mr. Leslie Segundo, Environmental Health Specialist at 586-4185. Thank you for the opportunity to comment.

Sincerely,



GARY GILL
Director

c: Ms. Lesley Matsumoto, Belt Collins Hawai'i

MARYANNE W. KUSAKA
MAYOR

DEPT. OF PUBLIC WORKS



973 P02 NOV 25 '97 13:18

CESAR C. PORTUGAL
COUNTY ENGINEER
TELEPHONE 241-6600

RUSSELL SUGANO
ACTING DEPUTY COUNTY ENGINEER
TELEPHONE 241-6631

AN EQUAL OPPORTUNITY EMPLOYER
COUNTY OF KAUAI

DEPARTMENT OF PUBLIC WORKS
4444 RICE STREET
MO'IKEHA BUILDING, SUITE 275
LIHU'E, KAUAI, HAWAII 96766

November 25, 1997

Mr. Gary Gill, Director
State of Hawaii
Office of Environmental Quality Control
236 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Mr. Gill:

RE: RESPONSE OF COMMENTS ON ENVIRONMENTAL
ASSESSMENT, PROPOSED PUHI METALS
RECYCLING CENTER, KAUAI, HAWAII

Thank you for your comments on the Draft Environmental Assessment (EA) for the Proposed Puhi Metal Recycling Center, Kauai. Before addressing your specific comments, please note that since the Draft EA was published, the County has temporarily acquired use of the former vehicle processing facility site (operated by Masterworks) located near the airport on Ahukini Road. This site will be used to recover vehicle fluids and batteries from the 930 vehicles (most recent count) currently stored at the Wailua and Hanalei temporary storage locations. After the vehicles are pre-processed they will be shipped to Honolulu for further processing. This activity is anticipated to occur within an 8-month period and is considered a separate action from the subject EA.

Due to the acquisition of the Ahukini site, proposed Phase I activities for the Puhi project have been modified for the final EIA. During Phase I, pre-processed vehicles (vehicles that have had their fluids and batteries removed) will be stored at the Puhi site after the temporary use of the Ahukini site expires. No vehicle will be accepted at the Puhi site that has not had its fluids and battery removed. The public will be responsible for complying with the provision; abandoned vehicles will be pre-processed at the County's maintenance facility in Lihue. These provisions will eliminate stored vehicles at the Puhi site as a source of significant contamination to the environment.

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Mr. Gary Gill, Director
Office of Environmental Quality Control
November 25, 1997
Page 2

The following responses, which have been reflected in the Final EA (FEA), address your specific comments.

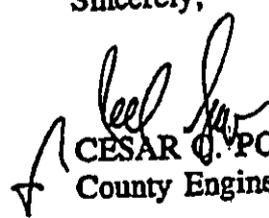
The drainage impoundment has been developed for a 50-year 1-hour storm, and there is a 2 percent chance of overflow in any one year. The volume of overflow would depend on the type of storm; for a 100-year 24-hour storm, overflow volume could be 55,000 cubic feet.

All vehicle processing and equipment maintenance will be performed over an enclosed, impermeable surface area (denoted as the vehicle processing area in Figure 3-1 of the FEA). Fluids and batteries from vehicles and white goods will be drained into tanks and containers over the impermeable surface area. If spills were to occur over this area, they will be cleaned up immediately using methods appropriate to the size and content of the spill; use of dry absorbents are planned. Vehicles stored in the unpaved storage area will have been drained of fluids and had batteries removed prior to storage, and are therefore not a source of significant contamination. Oil and grease from the operation of heavy equipment, similar to heavy equipment use on neighboring cane fields, are the most likely pollutants released from the proposed project. If oils and grease are observed in the run-off, they can be removed with specially designed absorbent materials; sediment runoff from the site will be contained in the drainage impoundment. Therefore, off-site transport of contaminants is not anticipated due to processing procedures, spill response practices and best management practices that will be employed at the site. For comparison purposes, impacts on the down-gradient Huleia National Wildlife Refuge and Nawiliwili Bay will be less than that which might result from a parking lot or roadway of similar size (5.6 acres).

Consideration of significance criteria, based upon § 11-200-12, has been included in the FEA, and Chapter 6 reflects these criteria.

Please contact Mr. Troy Tanigawa at (808) 241-6880 if you have further comments or concerns.

Sincerely,


CESAR O. PORTUGAL
County Engineer



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813-5249
PHONE (808) 594-1888
FAX (808) 594-1886

September 29, 1997

Mr. Troy Tanigawa
County of Kauai
Department of Public Works
4444 Rice Street, Suite 275
Lihue, HI 96766

Subject: Draft Environmental Assessment (DEA) for Proposed
Puhi Metals Recycling Center, Island of Kauai.

Dear Mr. Tanigawa:

Thank you for the opportunity to review the Draft Environmental Assessment (DEA) for Proposed Puhi Metals Recycling Center, Island of Kauai. The County of Kauai proposes to develop a facility for disposition of discarded motor vehicles and other large scrape metal items.

The Office of Hawaiian Affairs (OHA) has the following concerns. Based on information contained in the DEA, it appears that the proposed facility bears no significant long-term adverse impacts on the surrounding areas. No adverse impacts are also expected to the Huleia National Wildlife Refuge, which is located approximately 0.5 miles to the south of the recycling site. However, OHA expects full implementation of mitigation measures for the collection of runoff and soil losses. Given that spillage of fuel, oil, and other contaminants is bound to happen during handling and disposal of motor vehicles, it is essential that stormwater collection devices are in place and "best management practices" are implemented to reduce the likelihood of unwanted contaminants reaching nearby streams and entering Nawiliwili Bay.

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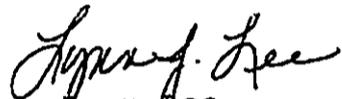
Letter to Mr. Tanigawa
Page two

Please contact Lynn Lee, Acting Officer of the Land and Natural Resources Division, or Luis A. Manrique, should you have any questions on this matter.

Sincerely yours,



Randall Ogata
Administrator



Lynn Lee
Acting Officer,
Land and Natural
Resources Division

LM:lm

cc Trustee Clayton Hee, Board Chair
Trustee Abraham Aiona, Board Vice-Chair
Trustee Rowena Akana, Land & Sovereignty Chair
Trustee Haunani Apoliona
Trustee Frenchy DeSoto
Trustee Moses Keale
Trustee Colette Machado
Trustee Hannah Springer
CAC, Island of Kauai

RECEIVED TIME OCT. 7. 3:09PM

PRINT TIME OCT. 7. 3:11PM

MARYANNE W. KUSAKA
MAYOR



CESAR C. PORTUGAL
COUNTY ENGINEER
TELEPHONE 241-6600

RUSSELL SUGANO
ACTING DEPUTY COUNTY ENGINEER
TELEPHONE 241-6631

AN EQUAL OPPORTUNITY EMPLOYER
COUNTY OF KAUAI

DEPARTMENT OF PUBLIC WORKS
4444 RICE STREET
MOIKENA BUILDING, SUITE 275
LIHL'E, KAUAI, HAWAII 96766

November 24, 1997

Mr. Randall Ogata, Administrator, and
Ms. Lynn Lee, Acting Officer, Land and Natural Resources Division
State of Hawaii
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, HI 96813-5249

Dear Mr. Ogata and Ms. Lee:

**Response of Comments on
Environmental Assessment, Proposed Puhi Metals Recycling Center, Kauai, Hawaii**

Thank you for your comments on the Draft Environmental Assessment (EA) for the Proposed Puhi Metal Recycling Center, Kauai. Before addressing your specific comments, please note that since the Draft EA was published, the County has temporarily acquired use of the former vehicle processing facility site (operated by Masterworks) located near the airport on Ahukini Road. This site will be used to recover vehicle fluids and batteries from the 930 vehicles (most recent count) currently stored at the Wailua and Hanalei temporary storage locations. After the vehicles are pre-processed they will be shipped to Honolulu for further processing. This activity is anticipated to occur within an 8-month period and is considered a separate action from the subject EA.

Due to the acquisition of the Ahukini site, proposed Phase I activities for the Puhi project have been modified for the final EA. During Phase I, pre-processed vehicles (vehicles that have had their fluids and batteries removed) will be stored at the Puhi site after the temporary use of the Ahukini site expires. No vehicle will be accepted at the Puhi site that has not had its fluids and battery removed. The public will be responsible for complying with this provision; abandoned vehicles will be pre-processed at the County's maintenance facility in Lihue. These provisions will eliminate stored vehicles at the Puhi site as a source of significant contamination to the environment.

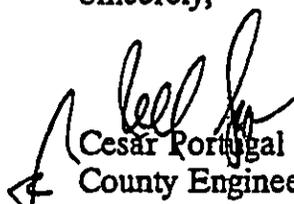
The following responses, which have been reflected in the Final EA (FEA), address your specific comments.

Mr. Randall Ogata
November 25, 1997
Page 2

All vehicle processing and equipment maintenance will be performed over an enclosed, impermeable surface area (denoted as the vehicle processing area in the Figure 3-1 of the FEA). Fluids and batteries from vehicles and white goods will be drained into tanks and containers over the impermeable surface area. If spills were to occur over this area, they will be cleaned up immediately using methods appropriate to the size and content of the spill; use of dry absorbents are planned. Vehicles stored in the unpaved storage area will have been drained of fluids and had batteries removed prior to storage, and are therefore not a source of significant contamination. Oil and grease from the operation of heavy equipment, similar to heavy equipment use on neighboring cane fields, are the most likely pollutants released from the proposed project. If oils and grease are observed in the run-off, they can be removed with specially designed absorbent materials; sediment runoff from the site will be contained in the drainage impoundment. Therefore, off-site transport of contaminants is not anticipated due to processing procedures, spill response practices, and best management practices that will be employed at the site. For comparison purposes, impacts on the down-gradient Huleia National Wildlife Refuge and Nawiliwili Bay will be less than that which might result from a parking lot or roadway of similar size (5.6 acres).

Please contact Mr. Troy Tanigawa at (808) 241-6880 if you have further comments or concerns.

Sincerely,


Cesar Portugal
County Engineer



University of Hawai'i at Mānoa

Environmental Center
A Unit of Water Resources Research Center
Crawford 317 • 2550 Campus Road • Honolulu, Hawai'i 96822
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

October 23, 1997
EA:0167

Mr. Troy Tanigawa
County of Kauai
Department of Public Works
4444 Rice Street, Room 230
Lihue, Hawaii 96766

Dear Mr. Tanigawa:

Draft Environmental Assessment
Puhī Metal Recycling Center
TMK: 3-3-02:1
Lihue, Kauai

The Department of Public Works, County of Kauai, proposes to develop a 10-acre site, located in Puhī, 2.5 miles southwest of downtown Lihue and just south of Puhī Industrial Park. The facility will be used for processing and temporary storage of automobiles, tires, white goods, and scrap metal. State regulations prohibit disposal of these materials in landfills, and no suitable disposal facility currently exists in Kauai. The Huleia National Wildlife Refuge is just 0.5 miles to the south-southeast of the site. The proposed action will be developed in two phases:

1. Phase I would involve preparing the site for temporary storage of vehicles and the transfer of approximately 500 vehicles from the existing County vehicle storage areas.
2. Phase II would include site grading, and the construction of processing facilities, offices, and supporting infrastructures (e.g., drainage, wastewater, potable water, and utilities).

Potential significant impacts of the proposed facility include (1) short-term construction impacts to water and air quality, noise, and (2) the long-term impacts involving surface water runoff, noise, public health and safety, socioeconomics, and fiscal repercussions.

We have reviewed this Draft Environmental Assessment (DEA) with the assistance of Roger Babcock, Civil Engineering; Nancy Bushnell, Biological Science; Marshall Mock, Physical Science; Kauai Community College, and Alexandra Gurary of the Environmental Center.

Mr. Troy Tanigawa
October 23, 1997
Page 2

The proposed Department of Public Works is to be commended for proposing a facility that promotes re-use and recycling to reduce solid and liquid waste and employ a conservation ethic (as stated in the Hawaii State Plan, Chapter 226), however, the present Draft Environmental Assessment is seriously flawed and does not adequately disclose or address all the potential impacts as required by Hawaii Administrative Rules (HAR Sections 11-200-10 and 11-200-12). The most serious problem with the DEA is a fundamental lack of information regarding the actions being proposed which in turn precludes an informed assessment of the potential impacts as required under HRS 343. Some specific examples of these deficiencies are indicated below:

Compatibility of Proposed Site with Neighboring Land Uses

A metals recycling center will produce significant noise, dust, and potential contaminants to waste waters. Hence, compatibility of the proposed operation with adjacent land uses is one of the most significant issues of concern. To evaluate the significance of these potential impacts to adjacent properties, it is essential to have a land use or zoning map of the affected area. The DEA does not include such a map, Therefore, it is impossible to ascertain the full impact of the proposed facility on adjacent lands.

The DEA document indicates that a proposed residential project is only 150 feet away from the facility boundary. Residential use within 150 feet of the operations of a metal recycling facility reflects wholly incompatible neighboring land uses. Phase II of the operation will include metal recycling, stripping, shredding, and compacting of metals on a daily basis, thus requiring the use of heavy machinery. Noise will be a significant problem. The use of such stripping and crushing etc. equipment will exceed the maximum permissible noise levels in a residential area. Management of this noise to a level acceptable to the adjacent residential area, is unlikely to be possible within any reasonable cost allowance. Even modest noise reduction equipment may significantly increase project costs to the extent that economic feasibility is eliminated. A full discussion of the noise issue, including mitigating measures and their costs must be presented.

Another issue that needs to be addressed is the impact of the proposed facility on residential property values in the vicinity: An analysis of the loss in property values in adjacent residential areas as a result of this operation and the resulting socio-economic impacts is needed.

The proposed site is only 0.5 miles away from Alckoko Fish Ponds and Huleia National Wildlife Refuge, both environmentally sensitive habitats. Our reviewers disagree with the statement in the DEA that no adverse effects on the habitat would result from the proposed site. A strong possibility exists for contaminated water to reach these habitats through drainage ditches leftover from sugarcane fields, or from groundwater. Due to the nature of the potential pollutants such as grease, oil, trace metals, and other contaminants associated with this type of facility, even small amounts of these pollutants could create serious detrimental impacts to the sensitive fish ponds and bird sanctuaries. This issue needs to be explored further.

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Mr. Troy Tanigawa
October 23, 1997
Page 3

Best Management Practices

The DEA does not mention the implementation of BMPs for Phase I. The lack of such planing is crucial and needs to be addressed since Phase I includes the use of heavy machinery, and storage of "unprocessed" and "undrained" vehicles for indefinite time periods.

We note that during Phase I of the project, workers will be present on site yet there is no plan to provide water or restroom facilities. Will portable toilets be installed? How will the indicated "landscaping" proceed without water supplies? Landscaping needs to be planted immediately to minimize visual impacts. The DEA indicates that hundreds of "unprocessed" vehicles, i.e. flammable and other toxic liquids have not been removed, will be stored for possibly long periods of time. This poses a serious concern in terms of fire hazard. Will fire fighting capabilities be provided as soon as Phase I begins?

Socioeconomic Impacts

The conclusion, that off-site cost is prohibitive, is not supported by the data presented. The total cost of off-site disposal is about \$400,000 per year (1,400 cars at \$300). The costs of running the facility including labor cost between \$162,000 and \$324,000 (without benefits, workers comp, etc...), construction cost amortization, property lease payments, and many other expenses (as well as allowing for fair profit for the entrepreneur), adds up to a figure that may be even more expensive than off-site disposal. The business plan should be evaluated more carefully.

Conclusion

In general, the purpose of an environmental assessment is to fully describe the proposed action, and to list all equipment to be used and facilities to be built, so the potential impacts can be properly evaluated and their significance determined. This DEA fails to address many of the potentially significant issues associated with either the preliminary storage of the vehicles (Phase I) or for the operations that are presumed to take place in Phase II. It appears that insufficient information is presently available for the preparation of an adequate DEA. Perhaps the timing for submittal of this document is premature. Operational plans are unclear and a private entrepreneur has not yet been chosen to manage the proposed facility. Since the environmental impacts have not been adequately examined in the present DEA, and will depend on as yet poorly defined operations, two courses of action seem open. The first, is to revise and resubmit a new DEA at such time as plans are more firm. The second, is to submit the present DEA as a Preparation Notice and solicit the necessary information on which a comprehensive DEIS can be prepared. Regardless of which course of action is pursued, the following points are examples of the types of information that will be needed in a revised DEA or DEIS. The document should include a discussion of: (1) What type of equipment(s) will be used to crush vehicles and the manufacturer's specifications as to the noise produced during operations; (2) Dimensions and noise levels of shredders used to "cut up" tires at this site, (3) Design of all fluid storage

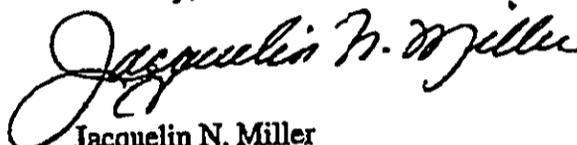
Mr. Troy Tanigawa
October 23, 1997
Page 4

facilities to minimize fugitive odor emissions, fire hazards, and spills; and, (4) Estimates as to the quantity and quality of air emissions including dust generation. Lack of this type of information in the present DEA precludes the evaluation of potential impacts. What is clear is that based on the information presented, significant socioeconomic impacts, noise, and potential safety (fire hazard and toxic discharges to sensitive environments) are predicted. Thus, an Environmental Impact Statement should be prepared.

Although the proposed Puhi Metals Recycling Center would promote an environmental ethic and perform a much needed service for the County of Kauai, the selected project site is not compatible with neighboring land. Furthermore, since the entrepreneur has not been chosen and critical environmental information remains undisclosed, the DEA should be withdrawn and resubmitted when more details are available.

Thank you for the opportunity to comment.

Sincerely,



Jacquelin N. Miller
Associate Environmental Coordinator

cc: OEQC
Belt Collins Hawaii
Roger Fujioka
Roger Babcock
Nancy Bushnell
Marshall Mock
Alexandra Gurary

DEPT. OF PUBLIC WORKS

974 P02 NOV 25 '97 13:34

MARYANNE W. KUSAKA
MAYOR



CESAR C. PORTUGAL
COUNTY ENGINEER
TELEPHONE 241-6600

RUSSELL SUGANO
ACTING DEPUTY COUNTY ENGINEER
TELEPHONE 241-6631

**AN EQUAL OPPORTUNITY EMPLOYER
COUNTY OF KAUAI**

DEPARTMENT OF PUBLIC WORKS
4444 RICE STREET
MO'IKIHA BUILDING, SUITE 275
LIHU'E, KAUAI, HAWAII 96766

November 25, 1997

Ms. Jacquelin N. Miller
Associate Environmental Coordinator
University of Hawaii at Manoa
Environmental Center
Crawford 817
2550 Campus Road
Honolulu, Hawaii 96822

Dear Ms. Miller:

**RE: RESPONSE OF COMMENTS ON ENVIRONMENTAL
ASSESSMENT, PROPOSED PUHI METALS
RECYCLING CENTER, KAUAI, HAWAII**

Thank you for your comments on the Draft Environmental Assessment (EA) for the Proposed Puhi Metal Recycling Center, Kauai. Before addressing your specific comments, please note that since the Draft EA was published, the County has temporarily acquired use of the former vehicle processing facility site (operated by Masterworks) located near the airport on Ahukini Road. This site will be used to recover vehicle fluids and batteries from the 930 vehicles (most recent count) currently stored at the Wailua and Hanalei temporary storage locations. After the vehicles are pre-processed they will be shipped to Honolulu for further processing. This activity is anticipated to occur within an 8-month period and is considered a separate action from the subject EA.

Due to the acquisition of the Ahukini site, proposed Phase I activities for the Puhi project have been modified for the final EA. During Phase I, pre-processed vehicles (vehicles that have had their fluids and batteries removed) will be stored at the Puhi site after the temporary use of the Ahukini site expires. No vehicle will be accepted at the Puhi site that has not had its fluids and battery removed. The public will be responsible for complying with the provision; abandoned vehicles will be pre-processed at the County's maintenance facility in Lihue. These provisions will eliminate stored vehicles at the Puhi site as a source of significant contamination to the environment.

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Ms. Jacquelin N. Miller
Associate Environmental Coordinator
University of Hawaii at Manoa
November 25, 1997
Page 2

The following responses, which have been reflected in the Final EA (FEA), address your specific comments.

Changes to Phase I described in the Draft EA, and additional information concerning Phase I infrastructure and Best Management Practices (BMPs) have been included in the FEA. The Operations Plan for the Metal Recycling Facility, which will address many of your concerns regarding BMPs, will be developed after the FEA is completed.

A land use map for county districts has been included in the FEA. The metal recycling facility is proposed to be developed adjacent to an existing industrial park, and southwest of a proposed residential community. Additional information and mitigation of noise and visual impacts has been included in the FEA and these reflect consideration of the residential neighborhood. The proposed facility will be developed to address residential neighborhood constraints.

All vehicle processing and equipment maintenance will be performed over an enclosed, impermeable surface area (denoted as the vehicle processing area in the Figure 3-1 of the FEA). Fluids and batteries from vehicles and white goods will be drained into tanks and containers over the impermeable surface area. If spills were to occur over this area, they will be cleaned up immediately using methods appropriate to the size and content of the spill; use of dry absorbents are planned. Vehicles stored in the unpaved storage area will have been drained of fluids and had batteries removed prior to storage, and are therefore not a source of significant contamination. Oil and grease from the operation of heavy equipment, similar to heavy equipment use on neighboring cane fields, are the most likely pollutants released from the proposed project. If oils and grease are observed in the runoff, they can be removed with specially designed absorbent materials; sediment runoff from the site will be contained in the drainage impoundment. Therefore, off-site transport of contaminants is not anticipated due to processing procedures, spill response practices, and best management practices that will be employed at the site. For comparison purposes, impacts on the down-gradient Huleia National Wildlife Refuge and Nawiliwili Bay will be less than that which might result from a parking lot or roadway of similar size (5.6 acres).

Comments under Socioeconomic Impacts are not accurate. The cost of off-site disposal (1,400 vehicles at \$300 per vehicle) is incorrect because it should also reflect other costs such as off-island ground transportation and disposal. Long-term costs of processing and shipping derelict vehicles off-island will exceed the costs for the County to support an entrepreneur's operation.

Ms. Jacquelin N. Miller
Associate Environmental Coordinator
University of Hawaii at Manoa
November 25, 1997
Page 3

Specific information on potential sources of noise (i.e., vehicle crushers) has been included. In addition, all tanks and storage containers for hazardous and other vehicle related materials will meet fire and environmental codes and requirements.

Please contact Mr. Troy Tanigawa at (808) 241-6880 if you have further comments or concerns.

Sincerely,


CESAR C. PORTUGAL
County Engineer

RECEIVED TIME NOV.25. 1:21PM

PRINT TIME NOV.25. 1:24PM

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



LAWRENCE MIKE
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to:

November 10, 1997

97-128A/epo

Mr. Troy Tanigawa
Department of Public Works
County of Kauai
4444 Rice Street, Suite 275
Lihue, Hawaii 96766

Dear Mr. Tanigawa:

Subject: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
Project: Puhi Metals Recycling Center
Location: Kauai, Hawaii
TMK: (4) 3-3-02: Por. 1

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:

Wastewater

It has been determined that the subject project is not located within the County sewer service system. The subject project is located in the critical wastewater disposal area as determined by the Kauai County Wastewater Advisory Committee. No new cesspools will be allowed.

The Department of Health requires that a treatment individual wastewater system (IWS), such as a septic tank, be constructed on site. Treatment and disposal of non-domestic wastewater or other liquid wastes generated by the metals recycling operation must be addressed separately. When sewer laterals become available, connection will be required.

All domestic wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We reserve the right to review the detailed wastewater plans for conformance to applicable rules.

Should you have any questions on these comments, please contact Ms. Lori Kajiwara of the Wastewater Branch at 586-4294.

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Mr. Troy Tanigawa
November 10, 1997
Page 2

97-128A/epo

Safe Drinking Water

Typical activities associated with the proposed activity are such that subsurface and groundwater contamination is possible. To minimize the possibility of this contamination, we recommend the following:

1. All cleaning, repairs, and maintenance of equipment involving the use of industrial liquids, such as gasoline, diesel, solvent, motor oil, hydraulic oil, gear oil, brake fluid, acidic or caustic liquids, antifreeze, detergents, degreasers, etc., shall be conducted on a concrete floor, whether roofed or unroofed. The concrete floor shall be constructed so as to be able to contain any drips or spills and to provide for the recovery of any spilled liquid. Water drainage from these concrete floors, if necessary, shall pass through a separator sump before being discharged.
2. All employees shall be informed to immediately collect and contain any industrial liquid spills on the concrete floor and should be informed against discharging or spilling any industrial liquids. Employees shall be aware to prevent any industrial liquid spills onto the bare ground.
3. Barrels for the temporary storage of used oil or other industrial liquids shall be kept on a concrete surface. The surface shall be bermed to prevent the loss of liquid in the event of spills or leaks. The barrels shall be sealed and kept under shelter from the rain. (The Department of Labor and Industrial Relations' Occupational Safety and Health regulations, sections titled, "Housekeeping Standards" and "Storage of Flammable or Combustible Liquids," shall be followed along with the local fire code).

Should you have any questions regarding these matters, please contact Mr. Chauncey Hew of the Safe Drinking Water Branch at 586-4258.

Sincerely,



BRUCE S. ANDERSON, Ph.D.
Deputy Director for Environmental Health

c: WWB
SDWB

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MARYANNE W. KUSAKA
MAYOR

DEPT. OF PUBLIC WORKS



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CESAR C. PORTUGAL
COUNTY ENGINEER
TELEPHONE 241-6600

RUSSELL SUGANO
ACTING DEPUTY COUNTY ENGINEER
TELEPHONE 241-6631

**AN EQUAL OPPORTUNITY EMPLOYER
COUNTY OF KAUAI**

DEPARTMENT OF PUBLIC WORKS
4444 RICE STREET
MO'IKAHA BUILDING, SUITE 275
LIHL'E, KAUAI, HAWAII 96766

November 25, 1997

Dr. Bruce Anderson
Deputy Director
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96803

Dear Dr. Anderson:

**RE: RESPONSE OF COMMENTS ON ENVIRONMENTAL
ASSESSMENT, PROPOSED PUHI METALS
RECYCLING CENTER, KAUAI, HAWAII**

Thank you for your comments on the Draft Environmental Assessment (EA) for the Proposed Puhi Metal Recycling Center, Kauai. Before addressing your specific comments, please note that since the Draft EA was published, the County has temporarily acquired use of the former vehicle processing facility site (operated by Masterworks) located near the airport on Ahukini Road. This site will be used to recover vehicle fluids and batteries from the 930 vehicles (most recent count) currently stored at the Wailua and Hanalei temporary storage locations. After the vehicles are pre-processed they will be shipped to Honolulu for further processing. This activity is anticipated to occur within an 8-month period and is considered a separate action from the subject EA.

Due to the acquisition of the Ahukini site, proposed Phase I activities for the Puhi project have been modified for the final EA. During Phase I, pre-processed vehicles (vehicles that have had their fluids and batteries removed) will be stored at the Puhi site after the temporary use of the Ahukini site expires. No vehicle will be accepted at the Puhi site that has not had its fluids and battery removed. The public will be responsible for complying with the provision; abandoned vehicles will be pre-processed at the County's maintenance facility in Lihue. These provisions will eliminate stored vehicles at the Puhi site as a source of significant contamination to the environment.

Dr. Bruce Anderson
Deputy Director
Department of Health
November 25, 1997
Page 2

The following responses, which have been reflected in the Final EA (FEA), address your specific comments

An individual wastewater treatment system is planned for the Puhi facility. The final wastewater plans will conform with Hawaii Administrative Rules, Chapter 11-62.

Best Management Practices (BMPs) as well as waste management and spill cleanup protocol are outlined in the FEA to address surface runoff issues. These practices are consistent with recommendations from the Safe Drinking Water Branch.

Please contact Mr. Troy Tanigawa at (808) 241-6880 if you have further comments or concerns.

Sincerely,


CESAR C. PORTUGAL
County Engineer



United States Department of the Interior

FISH AND WILDLIFE SERVICE
 PACIFIC ISLANDS ECOREGION
 300 ALA MOANA BOULEVARD, ROOM 3108
 BOX 50088
 HONOLULU, HAWAII 96850
 PHONE: (808) 541-3441 FAX: (808) 541-3470

OCT 23 1997

Mr. Troy Tanigawa
 County of Kauai
 Department of Public Works
 4444 Rice Street, Room 230
 Lihue, HI 96766

Post-It® Fax Note	7671	Date	# of pages
To	LESLIE MATSUMOTO	From	TROY TANIGAWA
Co./Dept.	BEST COLLINS HA	Co.	County of Kauai
Phone #	521-5361	Phone #	241-6880
	537-1817		251-6609

Subject: *Draft Environmental Assessment for Puhī Metals Recycling Center, Kauai*

Dear Mr. Tanigawa:

The U.S. Fish and Wildlife Service (Service) has reviewed the September 1997 Draft Environmental Assessment (DEA) for the proposed Puhī Metals Recycling Center, Kauai, Hawaii. The proposed 10-acre county facility will provide temporary storage for waste metal products and processing for shipment to off-island recyclers. Automobiles, white products, tires, and scrap metal will be stored and processed. Processing will entail removal and temporary on-site storage of waste oil, gasoline, antifreeze, car batteries, and freon. The proposed facility site is located approximately ½ mile upgradient of the Huleia National Wildlife Refuge. The following comments are provided for your consideration.

1. ~~Section 2.4 Biological Environment: Section 2.4 states that there are no threatened or endangered species on the site. While this may be true for the proposed facility site, the potential impacts of the project could extend off-site to sensitive habitats supporting four federally listed, endangered species of waterbirds. On page 4-8, the DEA supports this by stating, "The most likely flow of surface water runoff from the proposed site is to Puhī or Papakolea Streams. From these streams, water flows into the Huleia Stream, located in the Huleia National Wildlife Refuge..."~~ The following federally listed, endangered species are present in and around the Huleia Refuge: Hawaiian stilt (*Himantopus mexicanus knudseni*), common Moorhen (*Gallinula chloropus sandvicensis*), Hawaiian coot (*Fulica alai*), and the Hawaiian duck (*Anas wyvilliana*). We request that the final Environmental Assessment (EA) reflect the presence of these species and the fact that they could be affected by contaminated runoff from the project site. The EA should also mention that water from Papakolea Stream is used for a tree farming operation.

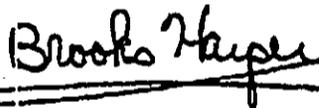
2. *Section 4.2.2 Potential Impacts and Mitigation:* The primary sources of stormwater contamination include spills from vehicles and appliances stored on bare ground, and spills

from storage tanks for the toxic fluids removed during processing. However, the DEA does not provide sufficient detail about the proposed mitigation and the degree to which the mitigation will reduce threats to wildlife and sensitive habitats. The Service requests that the EA provide detailed answers to the following questions:

- ▶ How will leaks from unprocessed cars and appliances stored on bare ground be prevented and cleaned up? How long will Phase 1 of the project last, during which unprocessed automobiles will be stored without being drained of hazardous fluids?
- ▶ What sort of secondary containment, spill cleanup capabilities, and best management practices will be employed to prevent spills from hazardous/flammable fluid storage tanks from migrating off-site?
- ▶ Will stormwater effluent be regularly tested for contaminants? Will water quality testing in Papakolea Stream be required?
- ▶ Presumably, sediments in the 1/2 acre impoundment basin will become increasingly contaminated as stormwater continues to wash contaminants into the basin. Why wouldn't this increasing load of contaminants be leached off-site? Will basin maintenance entail periodic removal and disposal of contaminated sediments?
- ▶ How rapidly will the impoundment basin drain and what is the likelihood of overflow due to successive but separate winter storms?

We appreciate the opportunity to comment and look forward to reviewing the final EA. If you have any questions, please contact Chris Swenson, of my staff, at 541-3441.

Sincerely,



Brooks Harper
Field Supervisor
Biological Services

cc: Tom Alexander, USFWS, Kilauea Point NWR
Gary Gill, OEQC, Honolulu
Don Heacock, Division of Aquatic Resources, DLNR, Lihue
Lesley Matsumoto, Belt Collins Hawaii, Honolulu
Gary Ueunten, Clean Water Branch, DOH, Lihue

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MARYANNE W. KUSAKA
MAYOR



CESAR C. PORTUGAL
COUNTY ENGINEER
TELEPHONE 241-6600

RUSSELL SUGANO
ACTING DEPUTY COUNTY ENGINEER
TELEPHONE 241-6631

AN EQUAL OPPORTUNITY EMPLOYER
COUNTY OF KAUAI

DEPARTMENT OF PUBLIC WORKS
4444 RICE STREET
MO'IKEHA BUILDING, SUITE 276
LIHUE, KAUAI, HAWAII 96766

November 25, 1997

Mr. Brooks Harper, Field Supervisor
U.S. Department of Interior
Fish and Wildlife Service
Box 50088
Honolulu, HI 96850

Dear Mr. Harper:

**Response of Comments on
Environmental Assessment, Proposed Puhi Metals Recycling Center, Kauai, Hawaii**

Thank you for your comments on the Draft Environmental Assessment (EA) for the Proposed Puhi Metal Recycling Center, Kauai. Before addressing your specific comments, please note that since the Draft EA was published, the County has temporarily acquired use of the former vehicle processing facility site (operated by Masterworks) located near the airport on Ahukini Road. This site will be used to recover vehicle fluids and batteries from the 930 vehicles (most recent count) currently stored at the Wailua and Hanalei temporary storage locations. After the vehicles are pre-processed they will be shipped to Honolulu for further processing. This activity is anticipated to occur within an 8-month period and is considered a separate action from the subject EA.

Due to the acquisition of the Ahukini site, proposed Phase I activities for the Puhi project have been modified for the final EA. During Phase I, pre-processed vehicles (vehicles that have had their fluids and batteries removed) will be stored at the Puhi site after the temporary use of the Ahukini site expires. No vehicle will be accepted at the Puhi site that has not had its fluids and battery removed. The public will be responsible for complying with this provision; abandoned vehicles will be pre-processed at the County's maintenance facility in Lihue. These provisions will eliminate stored vehicles at the Puhi site as a source of significant contamination to the environment.

The following responses, which have been reflected in the Final EA (FEA), address your specific comments.

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Mr. Brooks Harper
November 25, 1997
Page 2

Information on endangered bird species and the fact that Papakoloa Stream is used for farming has been included in the FEA. Because no water quality impacts are anticipated for Papakoloa Stream, discussions concerning pollutant effects on endangered bird species will not be included. The drainage impoundment has been developed for a 50-year 1-hour storm, and there is a 2 percent chance of overflow in any one year. For a 50-year 1-hour storm, the volume of runoff contained in the impoundment is estimated to require 24 hours to percolate. The volume of overflow would depend on the type of storm, for a 100-year 24-hour storm, overflow volume could be 55,000 cubic feet.

All vehicle processing and equipment maintenance will be performed over an enclosed, impermeable surface area (denoted as the vehicle processing area in the Figure 3-1 of the FEA). Fluids and batteries from vehicles and white goods will be drained into tanks and containers over the impermeable surface area. If spills were to occur over this area, they will be cleaned up immediately using methods appropriate to the size and content of the spill; use of dry absorbents are planned. Vehicles stored in the unpaved storage area will have been drained of fluids and had batteries removed prior to storage, and are therefore not a source of significant contamination. Oil and grease from the operation of heavy equipment, similar to heavy equipment use on neighboring cane fields, are the most likely pollutants released from the proposed project. If oils and grease are observed in the run-off, they can be removed with specially designed absorbent materials; sediment runoff from the site will be contained in the drainage impoundment. Therefore, off-site transport of contaminants is not anticipated due to processing procedures, spill response practices, and best management practices that will be employed at the site. For comparison purposes, impacts on the down-gradient Huleia National Wildlife Refuge and Nawiliwili Bay will be less than that which might result from a parking lot or roadway of similar size (5.6 acres).

Again, thank you for your comments on this EA. Please contact Mr. Troy Tanigawa at (808) 241-6880 if you have further comments or concerns.

Sincerely,


Cesar Portugal
County Engineer

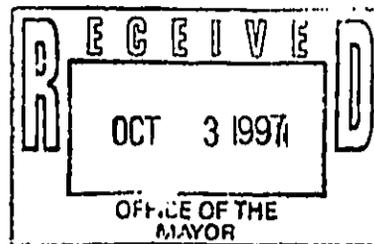
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September 30, 1997

Honorable Maryanne Kusaka, Mayor
County of Kauai

Aloha,



I am requesting assistance and guidance from your organization on behalf of the Kapule families of Kauai and Oahu. Our ancestral *kuleana* lands and burial grounds in Huleia will be impacted upon by zone changes requested by the County of Kauai, Department of Public Works (DPW). DPW has requested the Special Permit, Use Permit and Class IV Zoning Permit to establish a public facility for the processing and storage of motor vehicles, tires, white goods, and scrap metal on property in Puhi, Kauai, along the west side of Puhi Road immediately at its intersection with Hulemalu Road, further identified by Tax Map key 3-3-02:1, containing a project area of 10 acres.

I received notice of a public hearing and with my cousins presented testimony on Thursday, September 25. This public facility project will be placed in the watershed area of Huleia with projected run-off into Papakolea stream which feeds into the Huleia stream. Our *kuleana* lands are in the wetland plain of Huleia adjacent to the Huleia Fish and Wildlife Sanctuary. Papakolea stream is right next to the proposed dump area, and Huleia stream is 1,000 feet from this area. Our properties are approximately .5 mile from the area. There are residential townhouses, homes, and a light industrial park in this area. Tourists travel the Hulemalu Road on their way to Alakoko Fish pond or *menehune* fishpond. Another light industrial request near Niupalu was denied by the commission because the roads were inadequate for trucks to travel to Nawiliwili Harbor. Nawiliwili harbor is zoned as a Class II pollution level. Huleia stream can be restored and our family did register the stream to protect the water flow level.

With this fax is a copy of the hearing notice and my testimony. I will mail the Environmental Assessment study done by Belt Collins for DPW. DPW reported during the hearing that they were finalizing the land lease arrangements with Grove Farm for the property site of the proposed dump. I questioned whether this hearing was a done deal. Because none of the planning commissioners received a copy of this report further discussion on this permit request was delayed until November.

My involvement with wetlands was as former President of Kawai Nui Heritage Foundation and I worked with Muriel Seto to establish the Historical District Park. I need some guidance and assistance on stopping this zone change and finding other locations for the county to address their need for storage/recycling.

There are State lands next to the Lihue Refuse Area known as Ahukini where the dump was closed. State lands in proximity to this area are available and would help conserve the County's resources. Could this location be more appropriate?

Mahalo nui loa, VerlieAnn Kapule Malina-Wright and John C. Wright, 361 Kaimake Loop, Kailua, HI 96734 Phone 261-3714 Fax: 261-1337.
30 September 1997

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PRINT TIME OCT. 23. 2:16PM

MARYANNE W. KUSAKA
MAYOR

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CESAR C. PORTUGAL
COUNTY ENGINEER
TELEPHONE 241-8600

RUSSELL SUGANO
ACTING DEPUTY COUNTY ENGINEER
TELEPHONE 241-8631

**AN EQUAL OPPORTUNITY EMPLOYER
COUNTY OF KAUAI**

DEPARTMENT OF PUBLIC WORKS
4444 RICE STREET
MO'IKEHA BUILDING, SUITE 275
LIHUE, KAUAI, HAWAII 96766

November 25, 1997

Dr. VerlieAnn Kapule Malina-Wright and Mr. John C. Wright
361 Kaimake Loop
Kailua, HI 96734

Dear Dr. Malina-Wright and Mr. Wright:

**Response of Comments on
Environmental Assessment, Proposed Puhi Metals Recycling Center, Kauai, Hawaii**

Thank you for your comments on the Draft Environmental Assessment (EA) for the Proposed Puhi Metal Recycling Center, Kauai. Before addressing your specific comments, please note that since the Draft EA was published, the County has temporarily acquired use of the former vehicle processing facility site (operated by Masterworks) located near the airport on Ahukini Road. This site will be used to recover vehicle fluids and batteries from the 930 vehicles (most recent count) currently stored at the Wailua and Hanalei temporary storage locations. After the vehicles are pre-processed they will be shipped to Honolulu for further processing. This activity is anticipated to occur within an 8-month period and is considered a separate action from the subject EA.

Due to the acquisition of the Ahukini site, proposed Phase I activities for the Puhi project have been modified for the final EA. During Phase I, pre-processed vehicles (vehicles that have had their fluids and batteries removed) will be stored at the Puhi site after the temporary use of the Ahukini site expires. No vehicle will be accepted at the Puhi site that has not had its fluids and battery removed. The public will be responsible for complying with this provision; abandoned vehicles will be pre-processed at the County's maintenance facility in Lihue. These provisions will eliminate stored vehicles at the Puhi site as a source of significant contamination to the environment.

The following responses, which have been reflected in the Final EA (FEA), address your specific comments.

It has been confirmed by the State Historic Preservation Division that no known cultural resources are on or adjacent to the proposed Metals

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Dr. VerlieAnn Kapule Malina-Wright and Mr. John C. Wright
November 25, 1997
Page 2

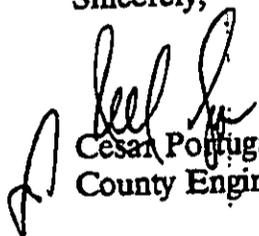
Recycling facility. Additional information on mitigation of visual and noise impacts have been addressed in the FEA. These will be developed to meet requirements of the planned residential community to the northeast.

All vehicle processing and equipment maintenance will be performed over an enclosed, impermeable surface area (denoted as the vehicle processing area in the Figure 3.1 of the FEA). Fluids and batteries from vehicles and white goods will be drained into tanks and containers over the impermeable surface area. If spills were to occur over this area, they will be cleaned up immediately using methods appropriate to the size and content of the spill; use of dry absorbents are planned. Vehicles stored in the unpaved storage area will have been drained of fluids and had batteries removed prior to storage, and are therefore not a source of significant contamination. Oil and grease from the operation of heavy equipment, similar to heavy equipment use on neighboring cane fields, are the most likely pollutants released from the proposed project. If oils and grease are observed in the run-off, they can be removed with specially designed absorbent materials; sediment runoff from the site will be contained in the drainage impoundment. Therefore, off-site transport of contaminants is not anticipated due to processing procedures, spill response practices, and best management practices that will be employed at the site. For comparison purposes, impacts on the down-gradient Huleia National Wildlife Refuge and Nawiliwili Bay will be less than that which might result from a parking lot or roadway of similar size (5.6 acres).

Additional information on the former metals recycling site, which had been managed by Masterworks in the Ahukini area, has been included in the FEA. This site is due to change ownership and is not available for long-term use as a metal recycling facility.

Again, thank you for your comments on this EA. Please contact Mr. Troy Tanigawa at (808) 241-6880 if you have further comments or concerns.

Sincerely,


Cesar Portugal
County Engineer

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CHAPTER 8 REFERENCES

Kauai County, Department of Public Works (February 1972). *Storm Drainage Standards*.

Letter from Kauai Fire Department to Lesley Matsumoto of Belt Collins Hawaii (July 24, 1997).

Line, D.E. et.al. (May/June 1997) *Water Quality of First Flush Runoff from 20 Industrial Sites*. As it appeared in *Water Environment Research*, Volume 69, Number 3, pp. 305-310.

Mink and Lau (1983). *Aquifer Identification and Classification for Hawaii: Groundwater Protection Strategy for Hawaii*. Water Resources Research Center, University of Hawaii.

Personal communication between Troy Tanigawa, County of Kauai, DPW, and Jane Dewell of Belt Collins Hawaii (November 20, 1997).

Personal communication between Troy Tanigawa, County of Kauai, DPW, and Lesley Matsumoto of Belt Collins Hawaii (November 13, 1997).

State of Hawaii, Department of Business, Economic Development and Tourism (July 1, 1996). *PPL-63 (CO-96-4) Estimates of the Population of Counties (Ranked by 1996 Population Size in State)*.

State of Hawaii, Department of Business, Economic Development and Tourism (1996). *Table 5, Selected Economic Activities: Kauai County*. Compiled by Economic Planning Information System, READ.

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State of Hawaii, Department of Land and Natural Resources (June 1982). *Median Rainfall, State of Hawaii, Circular C88*.

Telephone conversation between Mario Antonio, County of Kauai, and Lesley Matsumoto of Belt Collins Hawaii (August 12, 1997).

CHAPTER EIGHT

Telephone conversation between Derek Durbin of Abe's Auto Recycling and Jane Dewell of Belt Collins Hawaii (August 11, 1997).

Telephone conversation between Nancy McMahon, Historic Preservation Division of the Department of Land and Natural Resources, and Lesley Matsumoto of Belt Collins Hawaii (July 21, 1997).

Telephone conversation between Nancy McMahon, Historic Preservation Division of the Department of Land and Natural Resources, and Jane Dewell of Belt Collins Hawaii (November 7, 1997).

Telephone conversation between Troy Tanigawa of County of Kauai, Department of Public Works, and Lesley Matsumoto of Belt Collins Hawaii (August 22, 1997).

Telephone conversation between Troy Tanigawa, County of Kauai, Department of Public Works, and Lesley Matsumoto of Belt Collins Hawaii (November 6, 1997).

Telephone conversation with Dave VanVleet, R.M. Johnson Co., Inc. and Jane Dewell of Belt Collins Hawaii (November 6, 1997).

U.S. Department of Agriculture Soil Conservation Service (August 1972). *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii.*

University of Hawaii, Department of Geography (1983). *Atlas of Hawaii, Second Edition.*

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Appendix A

**Preliminary Engineering Design
Assumptions and Calculations for Drainage**

Proposed Puhi Metal Recycling Center
County of Kauai

Site Conditions

The site receives 55 to 65 inches of rain a year and could be considered "wet". DOH Solid and Hazardous Waste Branch, Lene Ichinotsubo, recommended if area is "wet" that the vehicle storage areas be hardstand. She has observed problems at other facilities, where the site is muddy. Given the average annual rainfall and area soils, surfacing the vehicle storage areas and access roads should be undertaken.

The site appears to be located at an apex of a ridge line from the limited topography shown on the USGS map. Therefore, runoff flowing onto the site under existing conditions is limited.

Site Layout

The layout developed was based on the information contained in the Scope of Services, the data contained in the DOH permit for Abe's Auto Recyclers in Pearl City and a telephone discussion with Abe's parts sales person. The main considerations as determined through the telephone call were:

- 15 to 20 cars a day are received
- cars are stored in the open, in a typical parking lot layout
- travel lanes are graveled surfaced, parking areas are dirt
- 1,000 to 2,000 cars are kept on site
- part sales from the stored cars amount to about half of their revenue; the other half is from scrap metal sales
- there is no stacking of cars (it is easier for their operations and safer for the part purchasing public)

From the above information it was estimated that Kauai's facility would handle one-third the volume of the Oahu facility. A storage area for 600 to 700 vehicles would be needed on Kauai, requiring about 5.56 acres based on a 90 degree parking plan.

A white goods area of about 1,500 square feet is proposed based on receiving one item a day and assuming a 60-day storage period. This area could remain dirt, provided proper processing for removal of fluids is undertaken.

Storage for tires would be based on economical hauling volumes. The standard dump truck has a capacity of 1,100 passenger tires. Allowing for one and one-half truck loads of on-site storage, and a 30 degree angle for tire stacking, a 2,100 square foot storage area would be required.

Due to cost considerations, paving of storage areas is not recommended at project start-up.

Hard stand surfacing costs about \$2.00 per square foot, which would greatly increase the facility's development cost. The conceptual layout was based on paving the main travelways, and gravel surfacing of the minor ones to provide all weather access. Additional surfacing of travelways and storage areas can be undertaken as needed based on operational experience.

Site Drainage

Based on the observations made during the Phase I assessment, storm runoff interceptor trenches are reportedly made periodically on the site. Thus, any on-site changes relative to storm water routing need to be assessed during facility design. The items to be considered are as follows.

- To minimize the on-site storm drainage improvements, off-site storm water runoff should be directed around the site. The suggested routing would be along the Cane Haul Road, connecting into the existing ditch along this road and Puhi Road. Since there are drainage culverts, 30" corrugated metal pipes (CMP), shown on the topographic survey the facility design would have to confirm that this rerouting could be undertaken without adversely impacting the culverts and causing roadway flooding.
- The irrigation ditches crossing the site should be filled for optimum development of the parcel. The facility design would also have to confirm that this filling could be undertaken without impacting upland areas.

If off-site conveyance of stormwater cannot be undertaken, then on-site runoff disposal would have to be undertaken. The two options available for disposal are a ponding basin and drywells.

- The ponding basin requires that a large open area be dedicated to stormwater handling. It will require maintenance to prevent it from becoming nuisance and vector breeding area. Under worse case conditions it may eventually be considered a wetland. The area would be lost for development and the County lease would have to be adjusted accordingly.
- The drywells are more costly to develop than the basin, but would allow full use of the site. The drywells consist of a dug hole, lined with concrete rings and having a traffic bearing grate inlet. Based on discussions with DOH Safe Drinking Water Branch, Norris Uehara, an Underground Injection Control (UIC) Permit would be required. Given the potential for improper use of the drywells for other than stormwater disposal, it was recommended to keep the well depth limited to 8-feet. The annual UIC permit requirements would most likely require sampling and monitoring a percentage of the wells. The wells would also be subject to periodic inspection by DOH.
- If on-site disposal is undertaken, the Kauai County Department of Public Works Storm Drainage Standards (February 1972) requires that the drainage system be designed for the 50-year, 1-hour storm. For the Puhi area, this rainfall intensity is 4-inches.

Given the large area, 5.56 acres for storage of vehicles, disposal of stormwater runoff through drywells or infiltration galleries is not practical. Using the 50-year rainfall intensity, the rate of runoff flow is about 11,400 gallons per minute. The cost for underground disposal facilities would range from \$210,000 for infiltration galleries to \$970,000 drywells as described above. This cost excludes installation of oil-water separators for runoff treatment.

A surface impoundment, with implementation of best management practices are thus the recommended means of stormwater handling and disposal. Using a 4-foot depth, the impoundment basin would require about 0.5 acres of the site. Runoff would be directed by sheet flow to the basin, located at the low end of the parcel.

Best management practices to control release on contaminates to surface and groundwater would include the following:

- Inspect vehicles as soon as they arrive to determine their processing requirements.
- Cover operational areas where vehicles are drained of fluids, and where the fluids are stored for reclamation or until disposal.
- If it is found that grease, oil or other fluids may be leaking or will wash off of a vehicle in the event of rain, provide a hardstand temporary storage area. Temporary storage could be in one of the operational facility bays, space permitting. If the temporary storage area is uncovered, the pad should be sloped to drain to a piped outlet connecting to an oil water separator, discharging to a drainage channel or drywell.
- Provide a paved entrance road to mitigate tracking mud and dirt onto the public road during inclement weather.
- Provide a stabilized surface, such as gravel, or cement or polymer treated soil, along the access aisles to less frequently traveled areas. Paving is expensive and may be unwarranted in areas that are accessed once a day or less, such as envisioned for the white goods area. Routinely grade accessways to assure drainage and compact to minimize erosion potential.
- Perform periodic maintenance on the ponding basin and drainage swales, berms and other features. The basin would have to be mowed and maintained during dry times, and treated for mosquitoes breeding during times when water is present.
- Vegetate non-travelway areas to mitigate dust and erosion.
- Construct and maintain silt fence for temporary erosion control during and following construction until vegetation returns and soils are stabilized.
- Specify a routine maintenance program in the Operation Plan to include frequent clean

up of potentially contaminating materials exposed to rainfall and runoff, and implement it upon commencement of operations.

Computations for the runoff storage area sizing and on-site percolation system options are presented in the following pages.

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Drainage

Drainage Calculations

Calculated by: JKY
Date: 8/12/97

1. Calculate the estimated flow rate for a 10 year and 50 year storm using rational method since area is less than 100 acres.

A. Calculate time of concentration.

Length of travel from furthest point = 1120 ft
Difference in elevation = 18 ft
Slope = 0.016071
Estimated time of concentration = 840 sec
14 min Plate 3, Kauai Drainage Standards

B. Calculate rainfall intensity for 10 and 50 year storms.

150 = 4 inches Kauai Storm Drainage Standards
110 = 3.1 inches Kauai Storm Drainage Standards

C. Estimate total area to be paved and unpaved.

Apaved = 5 acres
Asoil = 5 acres
Alot = 10 acres

D. Get a weighted runoff coefficient "C" value.

(Reference: Table 1, Kauai County Storm Drainage Standards)

Site Characteristics	paved	unpaved	
1. Slope =	0.03	0.03	
2. Infiltration	0.2	0.07	Puhi silty clay loam, 3 to 8% slopes, surface runoff slow.
3. Development type Residential	0.4	0.4	Based on Puhi silty clay loam
5. Vegetable cover	0.07	0.07	
Total C	0.7	0.57	

Cpaved = 0.7
Cunpaved = 0.57
Cweighted = 0.635

Conservative assumption: assume half paved, half bare soil

E. Calculate 10 year and 50 year design flows using rational method and results from steps A thru D.

Peak flows with intensities for 1 hour storms.
25.40 cfs 50 year storm
19.69 cfs 10 year storm

2. Determine the runoff storage volume required and size percolation basin.

Using the rational method, the runoff storage volume can be determined by getting the area under the runoff hydrograph. This is approximately equal to:

$$V = 1/2 Q_{peak} * (2 (T_{conc}) + (storm\ duration - T_{conc})) = Q_{peak} * (T_{conc} + (storm\ duration - T_{conc}))$$

$$V = Q * t$$

V50 =	91440 ft ³
V10 =	70866 ft ³

Assume depth = 4 ft
Area required = 22860 ft² for 50 year storm.
0.524791 acres

Area required = 17716.5 ft² for 10 year storm
0.406713 acres

3. Determine how long it will take to percolate

Drainage

A. Determine the permeability of the soil (Reference: Soil Survey for Hawaii)

Permeability 2 to 6.3 in/hr
 4.63E-05 to 1.46E-04 ft/sec

Assume permeability = 2 in/hr
 4.63E-05 ft/sec

Permeability rate assuming percolation area of 0.524791 acres is permeability * area
= 1.058333 cfs for 50 yr storm
= 0.820208 cfs for 10 yr storm

B. Determine the time for the runoff to percolate into the ground.

Time for storage volume to drain is therefore rainfall volume/permeability flow rate
= 86400 sec for 50 yr storm
 1440 minutes
 24 hours

Infiltrator

Maximizer Infiltrator Unit Calculations for Hard Stand Area

Calculated by: JKY
Date: 8/14/97

1. Find the storage volume needed to handle a 50-yr storm

$$V_r = i_{50} \times \text{Area}$$
$$V_r = 1.853333 \text{ ac. ft.}$$

2. Find the area needed to store the 1.85 acre feet of runoff.

$$1.853333 \text{ ac. ft.} \times 43,560 \text{ cu. ft./1 ac. ft.} = 80,731 \text{ cu. ft.}$$

To get approximate square footage of Maximizer chamber bed needed, use a storage capacity of 2.15 cu. ft. of bed to store 1.60 ac. ft.

$$80,731 \text{ cu. ft.} / 2.15 \text{ cu. ft./sq. ft.} = 37,549 \text{ sq. ft. of bed to store } 1.853333 \text{ ac. ft.}$$
$$0.8620155 \text{ acres of bed}$$

3. Find the number and configuration of Maximizer chambers.

Using Table 1, and a chamber bed layout with fifty rows, it is determined that the average chamber volume (average includes volume of storage under bridges) is 46.7 cubic feet.

$$80,731 \text{ cu. ft.} / 46.7 \text{ cu. ft./chamber} = 1729 \text{ maximizer chambers needed.}$$

Therefore, 50 rows at 35 maximizer chambers/row.

4. Approximate cost of maximizer system.

\$2.07/cubic foot of storage (Maximizer Infiltrator Design Manual)

$$\$167,114 \times 1.25 (\text{Hawaii Factor}) = \$208,892$$

Say \$210,000

Perc Wells

Percolation Wells for Hardstand Area

Calculated by: JKY
Date: 8/14/97

1. Calculate the estimated flow rate for a 10 year and 50 year storm using rational method since area is less than 100 acres.

A. Calculate time of concentration.

Length of travel from furthest point = 710 ft
Difference in elevation = 10 ft
Slope = 0.014085
Estimated time of concentration = 720 sec 12 min Plate 3, Kauai Drainage Standards

B. Calculate rainfall intensity for 10 and 50 year storms.

i₅₀ = 4 inches Kauai Storm Drainage Standards

C. Estimate total area to be paved and unpaved.

A_{paved} = 2.78 acres
A_{soil} = 2.78 acres
A_{tot} = 5.56 acres

D. Get a weighted runoff coefficient "C" value.
(Reference: Table 1, Kauai County Storm Drainage Standards)

Site Characteristics	paved	unpaved
1. Slope =	0.03	0.03
2. Infiltration	0.2	0.07 Puhi silty clay loam, 3 to 8% slopes, surface runoff slow.
3. Development type Residential	0.4	0.4 Based on Puhi silty clay loam
5. Vegetable cover	0.07	0.07
Total C	0.7	0.57

C_{paved} = 0.7
C_{unpaved} = 0.57
C_{weighted} = 0.635 Conservative assumption: assume half paved, half bare soil

E. Calculate 50 year design flow using rational method and results from steps A thru D.

Peak flow for 50-yr, 1 hour storm.
Q_{in} = 14.12 cfs 50 year storm

F. Determine the permeability of the soil (Reference: Soil Survey for Hawaii)

Permeability 2 to 6.3 in/hr
4.63E-05 to 1.46E-04 ft/sec

Assume permeability = 2 in/hr
4.63E-05 ft/sec

Permeability flow based on total well area (including sidewalls) calculated in step 2.

Q_{out} = permeability x surface area

Q_{out} = 1.61 cfs 1.61 cfs guess c64 and change until matches with e64

2. Determine the runoff storage volume required and size percolation basin.

Using the rational method, the runoff storage volume can be determined by getting the area under the runoff hydrograph.

Perc Wells

This is approximately equal to:

$$V = (Q_{in} - Q_{out})(t - (t_c Q_{out}/Q_{in}))$$

$$V = Q \cdot t$$

V50 =	43998 ft ³
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Assume well area: 28.2744 ft² each
Depth required: 1556.091 ft for 50 year storm.
No. of wells required: 194.5114
Surface area per well: 179.0712 ft²
Total surface area: 34831.4 ft²

Dry well cost: GOOD & E RATE : \$1,000
(6' i.d.) 8' depth exc : \$1,600
dry well rings : \$2,000
\$4,600 \$5,000 / ea.

$$194 \times 5000 = 970,000$$