# NORTH KOHALA RECYCLING AND TRANSFER STATION ALTERNATIVE SITE SURVEY

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## Prepared for:

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With the assistance of

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#### **EXECUTIVE SUMMARY**

This report describes a survey performed for the Hawai'i County Department of Environmental Management (DEM) by consultant Geometrician Associates with the assistance of volunteers from the organization WasteStream, a sponsored project of the North Kohala Community Resource Center. The purpose of this survey was to identify candidate properties in the North Kohala District for a proposed relocation of the existing solid waste convenience center, which will be transformed into a recycling and transfer station. A broad list of 104 candidate properties was first developed through a study of airphotos and Real Property Tax Maps, and all properties three acres or larger near Highway 270 with highway or major road frontage were included. These properties were then evaluated in the field by the WasteStream volunteers using a set of criteria determined by DEM, including parcel size, shape, orientation, neighbor context, vegetative cover, land use history, and other factors. Through a secondary evaluation process, the committee narrowed the list of candidates to 24 possible candidates, out of which 6 were deemed to be likely suitable. The other properties were eliminated because of access problems, the close proximity of homes, uncertain title, non-optimal size or shape, unwilling sellers, high expected purchase cost, and other considerations. After additional research ranking the properties, the top four are being advanced for consideration in the Environmental Assessment.

All four properties advanced for consideration are owned by the State of Hawai'i; three are under agricultural lease, and one is currently unencumbered. The leased parcels would require withdrawal of a portion of the lease and subdivision of the property. Each of these properties is sufficiently large to accommodate a recycling and transfer station as well as wide buffers, appears to lack highly sensitive environmental constraints, is in an area that can serve the residents of North Kohala, and is owned by an entity (the State) that is willing to consider the use. Furthermore, State land has the advantage of being available to the County at no cost or negligible cost, given approval of the use.

Given current evaluative criteria, these four sites are the only ones currently recommended for advancement for further study in an Environmental Assessment. However, the wider public involvement expected in the early stages of the EA process may identify additional properties for consideration, or may reveal hitherto unknown information that could qualify previously excluded properties, which will be evaluated using the same criteria.

Special thanks are due to WasteStream, the North Kohala Community Resource Center, and other North Kohala residents, in particular Bob Martin, Christine Richardson, Jesse Wells, Dee Chapon, Jim Pedersen, Robyn Skudlarek, Colleen Nevins, Karen Rosen, and Hermann Fernandez, and the Infrastructure Focus Group and the Steering Committee of the North Kohala Community Development Plan. This plan, currently pending approval with the Hawai'i County Council, calls for the new Recycling and Transfer Station in Strategy 4.1.

#### SECTION 1: PROJECT BACKGROUND AND PURPOSE

#### 1.1 PROJECT BACKGROUND

The County of Hawai'i does not provide household waste collection for single-family residences, as the long haul distances and low population density on the island currently appear to make this cost-prohibitive. Instead, private companies collect from about half of residences, mostly in urban areas, while the other half haul their own household waste to one of the 21 County convenience centers <sup>1</sup> that provide convenient and free disposal for single-family households. Sixteen of the convenience centers are gated, with set hours of operation, and are monitored by County attendants or security guards, who provide some public education and monitor for prohibited materials including household hazardous waste. The convenience centers have proven to be an economical alternative to County collections in areas with sparse populations and long haul distances. Several of the convenience centers in the Puna District with particularly severe infrastructure problems are in the process of being upgraded with a new and improved design that will facilitate recycling, and a new convenience center is being planned in the Ocean View area of the Ka'u District. These are expected to be the templates for future facilities, which will be called "Recycling and Transfer Stations" to emphasize their revised functions.

North Kohala is served by one convenience center in Kaʻauhuhu (Figures 1a and 1b). This small, aging and inconveniently located facility was recently repaired from earthquake damage sustained in October 2006. The Kaʻauhuhu chute takes in more solid waste per year than any other chute on the island. The traffic congestion and the one-lane road approach cause long waiting times and unsafe traffic conditions during many hours of each week.

The new facility is planned to be a one-stop drop-off point for waste of all kinds. It will provide two chutes for household rubbish, doubling the capacity of the current station, plus a full service recycling center. Additionally, plans call for a re-use facility, operated as an entrepreneurial enterprise, which will repair and refurbish appliances and other re-usable material and offer these to the community at affordable prices. Greenwaste collection and processing may also occur at the station, as another entrepreneurial opportunity, and chips, mulch, and compost will be available for local gardens and agricultural interests.

The new recycling and transfer station is being planned with the concept of reducing waste at the source: the community. This concept asserts that most of the "trash" leaving Kohala is really a valuable resource stream. Greenwaste, for example, is a critical ingredient in maintaining and improving our local soil. Discarded appliances and construction material often can be repaired, refurbished and reused. Recycling HI5 items provides financial support to families and local organizations. Cardboard and shredded paper, when used in the back yard garden as mulch and compost material, are free soil amendments. All of these by-products of the new facility will reduce the tonnage of trash leaving Kohala and benefit the community as well.

North Kohala Recycling and Transfer Station Alternative Site Survey

<sup>&</sup>lt;sup>1</sup> Current legal terminology refers to facilities such as those present in North Kohala as "convenience centers", rather than "transfer stations." Permit applications will be submitted to the State Department of Health to change "residential" convenience centers to "Recycling and Transfer Stations" which would allow some commercial and business use of the recycling components.

Ka`auhûhu Transfer Station 155°48'30" W MILE 1000 METERS 155°50'00" W 155°49'00" W 155°48'00" W WGS84 155°47'30" W \*/MN 10° 1000 FEET 0 Map created with TOPOI® ©2002 National Geographic (www.nationalge

Figure 1a
North Kohala Existing Convenience Center Location Map

Figure 1b North Kohala Existing Convenience Center Location Airphoto

#### Consistency With County Plans

County plans and policies recognize the need for a new recycling and transfer station in the area. The General Plan for the County of Hawai'i (County of Hawai'i 2005: 10-25) states that "appropriately designed and cost effective recycling and transfer station sites shall be located in areas of convenience and easy access to the public." Standards for Solid Waste Management Facilities cite the important effects that such management has on the health, aesthetic, and land use characteristics of a community.

The current version of the Integrated Solid Waste Management Plan (ISWMP) was adopted in 2002 using a Solid Waste Advisory Committee (SWAC) of public and private individuals to set priorities for the County's solid waste management system (Hawai'i County DEM 2002). The ISWMP specified expansion of the existing solid waste transfer system to include two new convenience centers at Waikoloa and Ocean View (the Ocean View center is currently in the EIS phase). Most importantly, the ISWMP emphasized reconfiguring all centers to emphasize recycling, with a demonstration recycling center at Kea'au, which has been implemented. DEM is currently revising the ISWMP, and although curbside collection is being seriously considered, convenience centers are still expected to play a role in dealing with the resource values of solid waste, particularly in rural areas such as North Kohala.

The North Kohala Community Development Plan (CDP) (Hawai'i County Planning Department 2008), currently in its final stages prior to adoption, specifically recognizes the need for a new recycling and transfer station in North Kohala. In the June 18, 2008 draft, the CPD stated as Strategy 4.1:

"The Ka'auhuhu Transfer Station is Kohala's sole solid waste transfer station. At 17 acres, it is too small for current demand, in part due to the steep-sided gully that encompasses most of the 17 acres. Not only does the size limit the amount of trash and recyclables that it can receive, the small driveway causes frequent circulation problems within the facility, as well as causing traffic jams on the access road. The facility also offers limited recycling options, which is especially important to a community like Kohala, which has won accolades from the County for its recycling efforts. In 2004, the "WasteStream" project was formed. WasteStream works to expand the community's capabilities to reuse, reduce, and recycle, and was instrumental in talking to the County about getting a new transfer station with improved recycling capabilities. The County's Department of Environmental Management (DEM) subsequently placed the district at the top of its list to receive an upgraded facility, in the form of a Class 1 Neighborhood Recycling Center (NRC). DEM would like the new site to be selected by the community, since residents know which location would be most convenient and would work best for them."

The CDP also recognized the need for an interim plan to repair the existing Ka'auhuhu Convenience Center, as a result of the earthquake damage. This work was recently accomplished in September, 2008.

#### 1.2 PROJECT PURPOSE

Geometrician Associates was retained by the County of Hawai'i Department of Environmental Management (DEM) to assist in determining potential alternative sites for a relocated and expanded convenience and recycling center to service the residents of North Kohala. The scope of work for this project included working closely with DEM to provide the following services:

- With direction from DEM personnel and assistance from community members, conduct an inventory
  of properties in a band within one-half mile mauka and makai of State Highway 270 between
  roughly Halelua in the east and Upolu in the west, a distance of about five miles.
- The primary measures on which properties will be rated will include size, zoning, current property uses, slope and topography, road access, current and potential traffic issues, proximity of water and electric utilities, user community centrality, usefulness, hazardous substances or activities, drainage and flooding, flora, fauna, and ecosystems, known historic sites, and proximity to environmentally sensitive properties or resources.
- A geographic database developed within ArcView will be used to store, display, and provide analysis. The Geographic Information System (GIS) files will be compatible with the County system and will be available for County use.
- The final product will be a document and database that present the results of the findings and recommends sites to advance for further study and consideration.

DEM determined that the optimum process for evaluating sites would include intensive community involvement, as the local community is best able to determine particular needs and is familiar with the existing uses and constraints of various potential sites. Fortunately, there was an existing organization in North Kohala known as WasteStream, a group of about a dozen residents who have been working hard in the community over the years to increase recycling and reduce waste. Their track record included working with the County to agree to allow a recycling pavilion at the convenience center, getting most of the building materials and grading donated, and then building it themselves. WasteStream had already been working on the idea of relocating and improving the convenience center, and had helped get it included as a project under the Infrastructure Focus Group of the North Kohala Community Development Plan process.

### **SECTION 2:** SURVEY AND EVALUATION OF PROPERTIES

#### 2.1 INITIAL PROPERTY CRITERIA AND IDENTIFICATION

The first tasks were to explicitly define the study area and refine the criteria for initially evaluating potential sites. As discussed in Section 1.2, above, the inventory of properties was initially restricted to a band within one-half mile mauka and makai of State Highway 270 between roughly Halelua in the east and Upolu in the west, a distance of about five miles. This "search area" had been proposed during contract scoping primarily because it seemed to define the limits of the majority of North Kohala's population. Furthermore, Halawa Gulch, a hairpin turn on Highway 270 to the east of Halelua, represented a natural limit to a route that sought to be convenient for drivers. The area west of Upolu Road becomes increasingly windy, dry and fire-prone, making it less suitable for convenience centers. Census data were consulted to determine if the population between these two endpoints could easily be determined, but the geographic structure of the census data for North Kohala (which contains 291 irregularly shaped blocks by U.S. Census definitions) was unsuitable for this type of analysis. The designated "places" in North Kohala include Halaula (2000 pop. 495), Hawi (pop. 938), and Kapa'au (pop. 1159) (Figure 2). These are all within this core and total 2,592 of North Kohala's 6,038 residents, and when the areas between, mauka, and adjacent to these named places are considered, the core likely contains well over half the population in North Kohala. Discussions with WasteStream members, all of whom live and work in Kohala, indicated that Halelua to Upolu captured the large majority of the population and represented a reasonable central core for analysis. However, for analytical purposes, properties as far southwest from Upolu as Kapa'a County Park were also initially considered, but as there proved to be virtually no suitable properties, the boundaries were fixed again at their original limits.



Figure 2 Census Designated Places in North Kohala

The next step was to compile a list of properties for evaluation and winnowing to the most suitable candidates. In order to look widely and err on the side of inclusion, only the following criteria were considered of primary importance at this step:

- At least three acres in size;
- Good highway or major County road access; and
- Within the east-west limits discussed above.

A GIS map search of County of Hawai'i Real Property Tax Maps using these criteria was conducted using ArcView. A total of 104 properties met these three criteria; they are depicted and identified in a series of maps. Figure 3 is an overall map with a USGS base, and Figures 4a-d are detailed maps using an airphoto base. Appendix A provides a spreadsheet with a listing of each property, with details on ownership, size and zoning that provided further information on the potential viability of the sites.

#### 2.2 SECONDARY CRITERIA AND EVALUATION

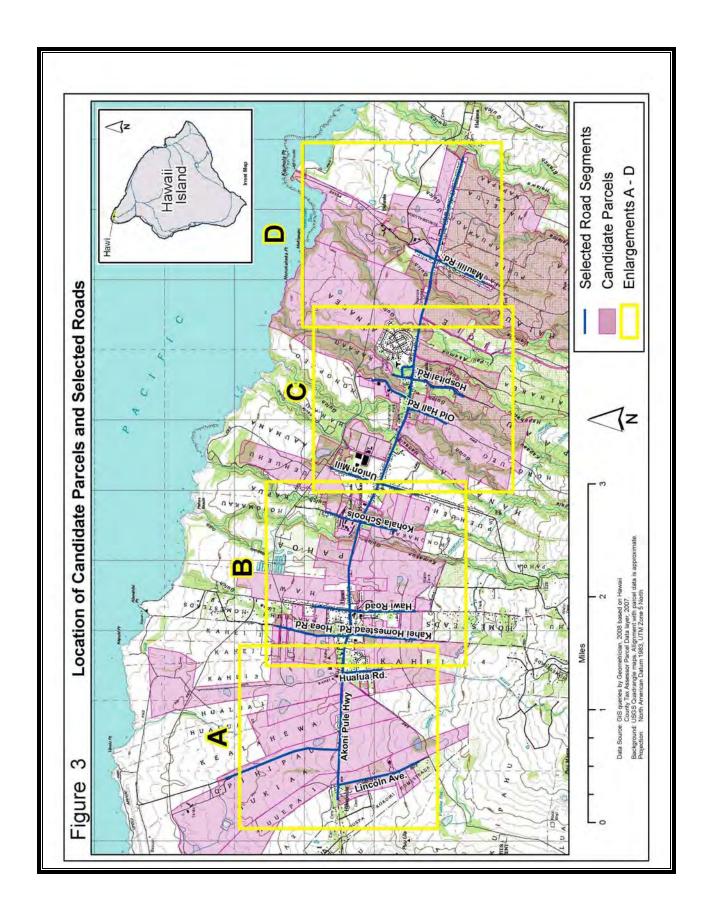
Selection criteria were refined at this point to include the following:

- Size, with eight acres as the desirable minimum
- Appropriate zoning (Agricultural or Urban, not commercial)
- No unsuitable current property uses
- Suitable slope and topography
- Good road access
- No current and potential traffic issues
- Proximity of water and electric utilities
- User community centrality
- No obvious evidence of hazardous substances or activities
- No obvious drainage or flooding hazards
- Non-native flora, fauna, and ecosystems
- No known historic sites
- Not near environmentally sensitive properties or resources.

Equipped with these maps and the spreadsheet, a team of community volunteers from the organization WasteStream divided into four sub-groups, one for each of the four map sections, led by Bob Martin. It was recognized that there might be no property that met every criterion in this secondary evaluation, but those that met a large number and overall seemed to be good candidates could be advanced for further study. In the end, all of the 104 properties were classified in one of three categories:

**YES**, potentially a good choice, **MAYBE**, but has problems, and **NO**, definitely will not work.

After the secondary evaluation process was complete, a "long list" of 24 YES and MAYBE candidates was compiled, which is provided in Table 1, below.



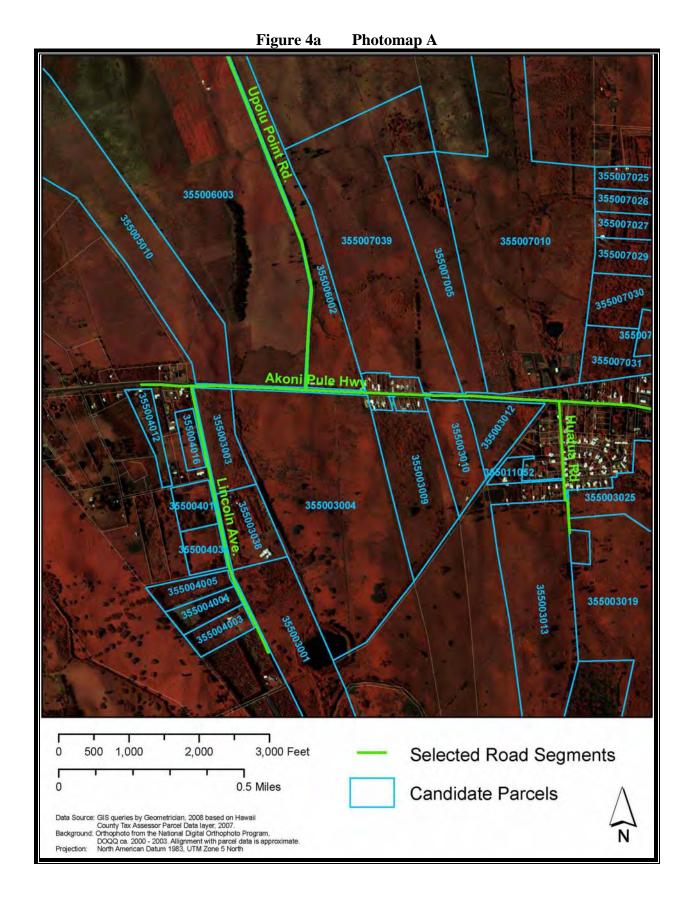
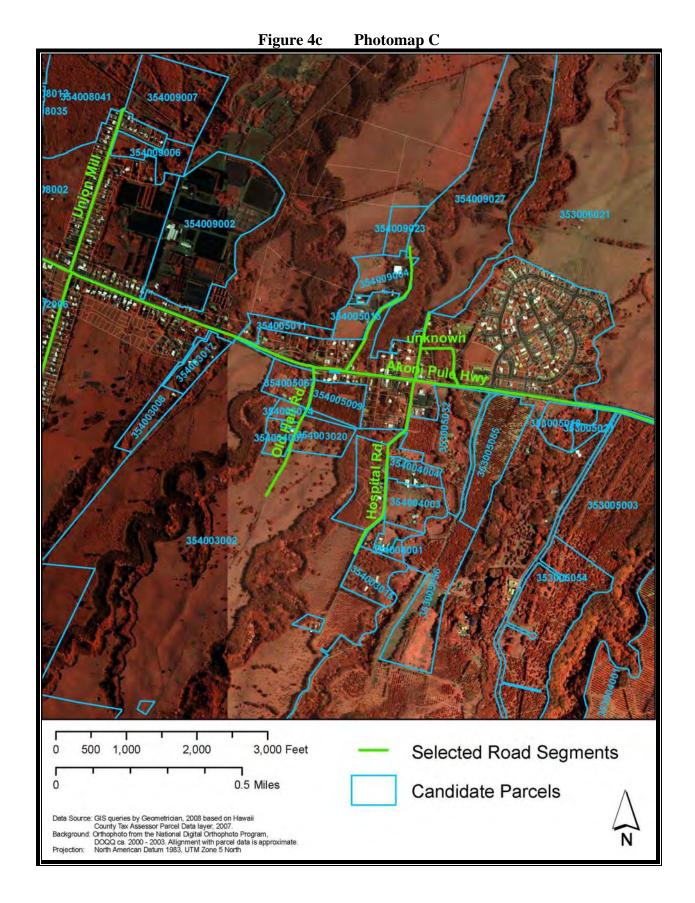
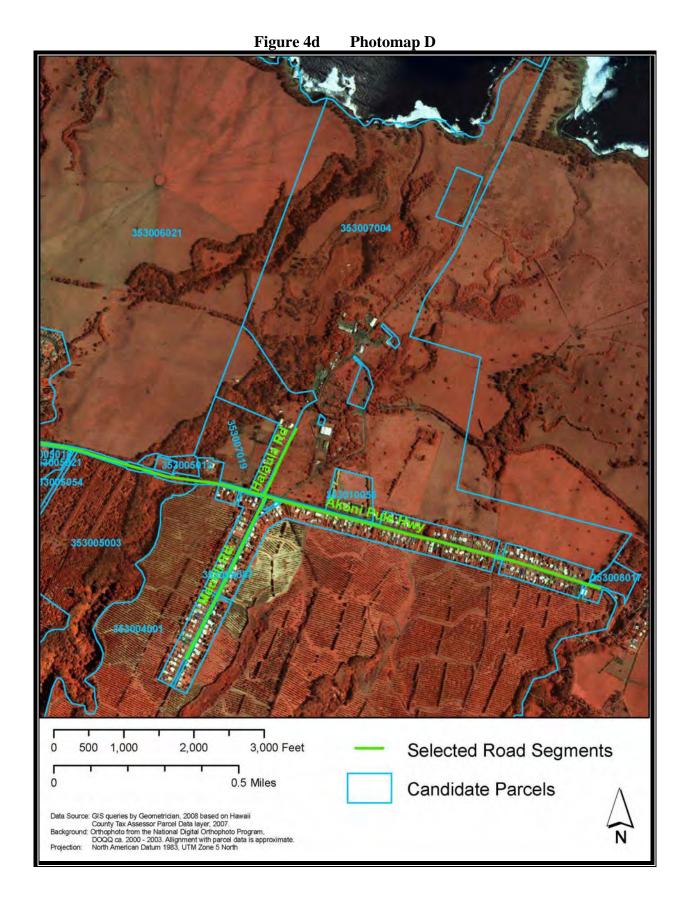


Figure 4b Photomap B 355002024 35 002 500 1,000 2,000 3,000 Feet Selected Road Segments 0.5 Miles Candidate Parcels Data Source: GIS queries by Geometrician, 2008 based on Hawaii
County Tax Assessor Parcel Data layer, 2007.

Background: Orthophoto from the National Digital Orthophoto Program,
DOQQ ca. 2000 – 2003. Allignment with parcel data is approximate.

Projection: North American Datum 1983, UTM Zone 5 North





**Table 1 Secondary Evaluation Results** 

Notes	Status	Map ID/No	ТМК	Tax Acres	LUD/ Zoning	Major Owner/ Bldg Value
Access questionable, located 15 ft. above highway, access to west is next						-
to house, in use as mac nut orchard, directly across from Ainakea subdivision	MAYBE	C/68	353005055	20.00	A/ A-20a	Other/0
Proper zoning, ag. Businesses near by, currently negotiating grinding	IVIATOL	C/00	333003033	20.00	A/ A-20a	Otrier/o
lease; paved road 3/4 of the way to the site; all inhabitants are Surety						
lessees; Phase 1 ESA done by New Moon; land sale much more						
attractive to Surety Kohala (Surety) than lease; close to large user group; access to power and water, many nearby houses could be a problem,						
need to discuss with Surety	IN	D/5	353007004	353.82	A/ A-20a	Surety/773,400
Need to discuss with Surety Kohala unless ruled out	MAYBE	B/71	354002003	55.68	A/ A-20a	Surety /100,400
Needs road improvement	MAYBE	B/21	354002010	21.16	A/ A-20a	Other/1,006,600
Needs road improvement	MAYBE	B/22	354002011	32.80	A/ A-20a	Other/430,800
Need to discuss with Surety Kohala unless ruled out	MAYBE	C/32	354003002	378.77	A/ A-20a	Surety/0
Might work but access road too narrow & would require improvements,		0/47	05400000	2.22		0.1 (0
located behind Sunshine Hardware, 2nd parcel mauka  Might work but access road too narrow and would require improvements,	IN	C/47	354003020	9.03	A/ A-20a	Other/0
behind Sunshine Hardware, first parcel mauka	IN	C/44	354005009	9.46	A/ A-20a	Other/0
Need to discuss with Surety Kohala unless ruled out	MAYBE	B/11	355002023	203.62	A/ A-20a	Surety/196,100
Need to discuss with Surety Kohala unless ruled out	MAYBE	B/12	355002024	11.85	A/ A-5a	Surety /30,000
Mauka of highway, open pasture, slopes mauka, upwind of house lots but						
site could be on east side of parcel, small berm at highway but would be in view at road; may be able to landscape effectively	MAYBE	A/20	355003004	136.94	A/ A-20a	Govt. State/0
Private homes on site	MAYBE	A/49	355003004	35.59		Other 0/0
Near homes but possible to hide with landscaping	MAYBE	A/49 A/93	355003009	14.37		State/0
Directly mauka and behind many houses with poor access between two	WATEL	A/93	333003012	14.37	0/ A-20a	State/0
houses	MAYBE	A/52	355003038	20.00	A/A-20A	Other/ 1,192,600
Too residential	MAYBE	A/59	355004034	7.91	A/A-20A	Other/ 0
Highway access but upwind house lots, might work if placed well makai of	MANDE	A /00	055005040	007.07	A / A 00-	1/ O-b
houses  Access off hwy goes past house lots, further down access off Upolu Point	MAYBE	A/60	355005010	227.67	A/ A-20a	Kam. Schools/0
Road, a single lane road, would require road work	MAYBE	A/61	355006002	44.50	A/ A-20a	State/248,200
Good corner off highway, near Kamehameha Schools site, natural		. /				Q /====
depression blocking view from Akoni Pule.  Surrounded by open pasture, upwind of camp 17 but station could be	IN	A/62	355006003	404.12	A/ A-20a	State/563,200
placed to avoid this issue	IN	A /15	355007005	40.57	A/ A-20a	Govt. State/0
Close to residential area, discuss with Surety	MAYBE	B/76	355007010	331.75		Surety/ 64,000
Close to residential area, discuss with Surety	MAYBE	A/63	355007039	124.76		Surety/0
On highway, before school	MAYBE	B/36	355008018	6.48		Other/42,700
Self help Phase II or III?	MAYBE	B/2	355008046	31.21		Other/0
Need to discuss with Surety Kohala unless ruled out	MAYBE	B/3	355008048	143.56		Surety/0

#### 2.3 FINAL CANDIDATE PROPERTY IDENTIFICATION

These 24 candidates were then more intensively examined, and for various reasons 19 of the properties were deemed to be unsuitable. The six remaining candidates, each of which is discussed in the list below, were then subjected to more detailed individual analysis. From this final list of six, a group of four candidates emerged that by consensus of the committee were clearly superior to the other candidates. These four candidates have been advanced for consideration in the Environmental Assessment and are described in Table 2.

Table 2
Four Top Candidate Properties

FD 577 / / / / / / /	Tour Top Cumulature Troper ites
TMK/Acreage/Owner	Description
5-5-007:005	This narrow parcel extends makai from Akoni Pule Highway, from which it is
40.57 acres	accessed. At Akoni Pule Highway it is about 400 feet wide, widening to about 600
State of Hawai'i	feet at its makai boundary. It is currently used for pasture. Residences are located
	about 500 feet from its boundary with Akoni Pule Highway. Greenhouses are on
	adjacent parcel to the east. Akoni Pule Highway has very good sight lines in this
	area. Agricultural zoning and LUD. Relief may lend itself to hiding facility from
	view, with a rise near highway, then a descending slope makai. USGS
	topographic map indicates an earthen reservoir was previously located near center
	of site.
5-5-003:004	This large parcel is located mauka of Akoni Pule Highway, which gives the only
136.94 acres	access. A number of residences are located along Akoni Pule Highway near the
State of Hawai'i	northeast corner of the parcel and one residence is located in an adjacent property
	along Lincoln Avenue. This parcel is currently used for pasture. An earthen
	reservoir is located at the southern corner. Akoni Pule Highway has very good
	sight lines in this area. The parcel is virtually treeless. Agricultural zoning and
	LUD. Relief does not generally lend itself to hiding facility from view from
	highway
5-5-006:002	This narrow parcel abuts both Akoni Pule Highway and Upolu Point Road. This
44.50 acres	parcel is about 800 feet wide at Akoni Pule Highway and narrows to about 200
State of Hawai'i	feet wide at about 1200 feet makai. Using the wider and mauka portion of the
	parcel would place the facility near the residences located along Akoni Pule
	Highway. Upolu Point Road is one-lane and would require improvement. USGS
	topo indicates an earthen reservoir previously located in the wider portion of this
	property. This parcel is used for pasture and has agricultural zoning and LUD.
5-5-006:003	This large parcel lies to the north and west of Akoni Pule Highway and Upolu
404.12 acres	Point Road, respectively, and can be accessed from both. This parcel is used for
State of Hawai'i	pasture and has agricultural zoning and LUD. Currently there are no residences
	on adjacent parcels. It is mostly treeless and its relief is generally uniformly
	sloping makai. If used for access, Upolu Point Road is one-lane and would require
	improvement.

The two "Top Six" candidates not advanced to the EA are discussed below.

TMK 5-5-003:012, 14.37 acres. Owner: State of Hawai'i. This triangular parcel is located on the mauka side of Akoni Pule Highway. This parcel has residences in adjacent parcels located to the west and east, and to the northeast across the highway. It is used for pasture. This parcel is treeless and the relief would not lend itself to hiding the facility. Agricultural zoning, urban LUD (not certain). This parcel is reported to be a likely place for affordable housing.

TMK 5-3-007:004, 353.82 acres. Owner: Surety Kohala Corp. This parcel is currently undergoing consolidation and resubdivision; industrial areas including the mill site will be consolidated into one parcel of 46 acres (TMK unknown). Surety Kohala Corp. VP Herman Fernandez has stated that Surety will only sell this parcel in its entirety, which would likely be a price so high as to be beyond County consideration.

Hardcopy and digital copies of maps and databases supporting the selection of the four candidate properties have been provided to the County of Hawai'i.

Given current evaluative criteria, these four sites are the only ones recommended for advancement for further study in an Environmental Assessment. It should be recognized that the wider public involvement expected in the early stages of the EA process may identify additional properties for consideration, or may reveal hitherto unknown information that could qualify previously excluded properties, which will be evaluated using the same criteria.

#### REFERENCES

Hawai'i County Department of Environmental Management (DEM). 2002. *Update to the Integrated Solid Waste Management Plan (ISWMP) for the County of Hawai'i, January, 2003.* Honolulu: Harding ESE.

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# APPENDIX 1

# INITIAL PROPERTIES CONSIDERED

NOTES	MAP ID	ТМК	Tax Acres	Road_name	State LUD	Zoning	Land Value	Major Owner	Building Value (\$)	Home- owner?
Becoming New Moon property in near future	D	353004001	1070.08	Maulili Rd.	Α	A-20a	284400	other	0	N
Discussed with New Moon and ruled out due to 80 year old Mac Nut orchard and difficulty of access and proximity to Ainakea subdivision	C/D	353005003	122.31	Akoni Pule Hwy	A	A-20a	191800	New Moon Fdn.	0	N
Lot too small	D	353005012	3.01	Akoni Pule Hwy	Α	A-20a	408300	other	311900	Υ
Discussed with New Moon, and ruled out due to proximity of neighbors and NM is in design for a house on this site	C/D	353005018	7.92	Akoni Pule Hwy	A	A-20a	503300	New Moon Fdn.	47100	N
Lot too small	C/D	353005021	3.46	Akoni Pule Hwy	Α	A-20a	5300	other	190300	N
Lot on mauka stream-flood plain at location of highway washout in February 2005, too risky	С	353005032	23.90	Hospital Rd.	А	A-20a	719500	other	73500	N
Narrow road easement	C/D	353005054	10.06	Akoni Pule Hwy	Α	(road)	100	New Moon Fdn.	0	N
Access questionable, located 15 ft. above highway, access to the west is next to house, in use - mac nuts, across highway from Ainakea subdivision	С	353005055	20.00	Akoni Pule Hwy	A	A-20a	60000	other	0	N
Located too far off highway, ag use mac nuts	С	353005056	32.27	Akoni Pule Hwy	Α	A-20a	74200	other	103800	N
Although this site is in D sector, the large parcel of this property on the highway was recently acquired by New Moon. We discussed this lot and ruled it out due to its proximity to Ainakea Subdivision and NM's plans for organic agriculture on the property.	C/D	353006021	533.09	Akoni Pule Hwy	A	A-20a	217800	Surety Kohala, now New Moon	5700	N
Proper zoning, ag. Businesses near by, currrently negotiating grinding lease; paved road 3/4 of the way to the site; all inhabitants are Surety lessees; Phase 1 environmental assessment done by Bennett; land sale much more attractive to Surety than lease; close to large user group; access to power and water	D	353007004	353.82	Halaula Rd.	A	A-20a	1576600	Surety Kohala	773400	N
C. Caravahlo doing ag. Operations	D	353007019	20.00	Akoni Pule Hwy	Α	A-20a	20900	other	199000	N
TOO POPULATED; too gulchy, no access, small lot	D	353008017	4.38	Akoni Pule Hwy	Α	A-20a	551700	other	0	N
This is an easement road	D	353009087	3.43	Maulili Rd.	U	(road)	100	Surety Kohala	0	N
Behind Middle School	D	353010056	8.61	Akoni Pule Hwy	U	RS-15	421700	Govt. State	702500	N
Need to discuss with Surety Kohala unless ruled out	В	354002003	55.68	Kohala Schools	А	A-20a	167000	Surety Kohala	100400	N
Landlocked	В	354002006	20.00	Akoni Pule Hwy	Α	A-20a	8400	other	0	N
Needs road improvement	В	354002010	21.16	Kynnersley	Α	A-20a	150700	other	1006600	N
Needs road improvement	В	354002011	32.80	Kynnersley	Α	A-20a	143700	other	430800	N
Need to discuss with Surety Kohala unless out	С	354003002	378.77	Old Hall Rd.	Α	A-20a	41700	Surety Kohala	0	N

Access very limited with steep grade into lot,		254002000	7.50	Alconi Dulo Llun		A 20	25200	athar	129600	N
multiple residences on road  Lot too small	C	354003008 354003014	7.52 3.06	Akoni Pule Hwy Old Hall Rd.	A	A-3a A-20a	35300 90400	other other	138600 269500	N
Poor access, too populated	С	354003014	10.08	Hospital Rd.	A	A-20a	70800	other	107100	N
Lot in gulch	С	354003017	7.52	Akoni Pule Hwy	A	A-3a	35300	other	125400	N
Might work but access road too narrow and				,		7.00				
would require improvements, located behind Sunshine Hardware, second parcel mauka	С	354003020	9.03	Old Hall Rd.	Α	A-20a	1100	other	0	N
Lot too small	С	354004001	3.18	Hospital Rd.	Α	A-20a	125500	other	39100	Υ
Poor access off Hospital Road, too populated	С	354004003	10.87	Hospital Rd.	Α	A-20a	14900	other	236200	N
Poor access off Hospital Road, too populated	С	354004004	5.45	Hospital Rd.	Α	A-20a	227500	other	238900	N
Lot too small	С	354004007	3.81	Old Hall Rd.	Α	A-20a	14200	other	0	N
Might work but access road too narrow and would require improvements, behind Sunshine Hardware, first parcel mauka	С	354005009	9.46	Old Hall Rd.	_	A-20a	336400	other	0	N
Kohala Club property in use	С	354005009	5.68	Akoni Pule Hwy	A	A-20a A-20a	570500	other	66000	N N
Konala Club property in use	C	354005011	3.00	Kamehameha	A	A-20a	570500	otriei	00000	IN
Kamehameha Park	С	354005016	7.09	Rd.	U	RS-15	768900	Govt. State	1812200	N
Lot situated in huge gulch	С	354005067	7.36	Old Hall Rd.	Α	A-20a	196100	other	118000	N
Close to school and poor road access	В	354007007	7.92	Akoni Pule Hwy	Α	A-20a	1000	other	0	N
School proximity	В	354007010	5.18	Akoni Pule Hwy	U	RS-15	749000	EWM Investments	0	N
School proximity	В	354007011	5.22	Akoni Pule Hwy	Α	A-20a	337200	other	453500	N
School proximity	В	354007014	11.45	Honomakau Rd.	U	RS-15	1559800	Govt. State	1149500	N
Too small	В	354008002	3.81	Akoni Pule Hwy	Α	A-20a	500	Surety Kohala	0	N
Lot too small	В	354008012	3.23	Honomakau Rd.	U	RS-15	479900	other	255500	N
School proximity	В	354008021	6.56	Honomakau Rd.	U	RS-15	911600	Govt. State EWM	89400	N
School proximity	В	354008035	16.80	Honomakau Rd.	U	A-20a	1800	Investments	0	N
At bottom of Union Mill Road - densely populated	C/B	354008041	137.42	Union Mill	Α	A-20a	1259600	EWM Investments	0	N
In use by Kohala Nursery	С	354009002	57.38	Akoni Pule Hwy	Α	A-20a	238800	other	313200	N
Kamehameha Park swimming pool	С	354009004	10.44	Kamehameha Rd.	А	A-20a	557100	Govt. County of Hawaii	0	N
At bottom of Union Mill Road - densely										
populated	С	354009006	9.01	Union Mill	Α	A-20a	597700	other	0	N
At bottom of Union Mill Road - densely populated	С	354009007	27.41	Union Mill	А	A-20a	818600	EWM Investments	0	N
Kamehameha Park golf park (Surety Kohala)	С	354009023	5.58	Kamehameha Rd.	А	A-20a	417500	Surety Kohala	0	N
Inaccessible makai and to East of park and from Kapaau downtown	С	354009027	94.77	Kamehameha Rd.	А	A-20a	42600	EWM Investments	3100	N

				Hawi Road						
No road access	В	355002020	14.74	(South of Akoni Pule)	Α	A-20a	6200	other	0	N
100 Toda decess		333002020	17.77	Kahei	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	A-20a	0200	Otriei	0	IN
No road access	В	355002021	6.27	Homestead Rd.	Α	A-20a	100	other	0	N
	-	05500000	0.00	Kahei		4.00	74400		0.400	
No road access	В	355002022	9.92	Homestead Rd. Hawi Road	Α	A-20a	71100	other	2400	N
Need to discuss with Surety Kohala unless				(South of Akoni						
ruled out	В	355002023	203.62	Pule)	Α	A-20a	795100	Surety Kohala	196100	N
Need to discuss with Surety Kohala unless	_									
ruled out	В	355002024	11.85	Akoni Pule Hwy	Α	A-5a	5400	Surety Kohala	30000	N
Small lot	В	355002025	4.58	Akoni Pule Hwy	Α	A-5a	124500	other	600	N
No road access	В	355002029	15.38	Kahei Homestead Rd.	Α	A-20a	6500	other	0	N
Good access	В	355002029	20.00	Akoni Pule Hwy	A	A-20a A-20a	631000	other	608700	N
Good access	ь	333002114	20.00	Akoni Pule Hwy	A	A-20a	631000	Kamehameha	000700	IN
NO ACCESS	Α	355003001	68.12	Lincoln Ave.	Α	A-20a	27100	Schools	0	N
								Kamehameha		
DOWNWIND OF HOUSELOTS	Α	355003003	19.38	Akoni Pule Hwy	Α	A-20a	8100	Schools	0	N
OPEN PASTURE, SLOPES, NATURAL BERM										
BUT IN VIEW AND DOWNWIND OF HOUSELOTS	Α	355003004	136.94	Akoni Pule Hwy	Α	A-20a	12300	Govt. State	0	N
TIOGGEEGTO	A	355003004	35.59	Akoni Pule Hwy	Α	A-20a	903200	other	0	N
DOWNWIND FROM HOUSELOTS	A	355003003	21.35	Akoni Pule Hwy	Α	A-10a	49700	other	331600	N
		333003010	21.00	Akoni i die i wy	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	A-10a	43700	otriei	331000	IN
NEAR HOMES BUT POSSIBLE TO HIDE WITH LANDSCAPPING	Α	355003012	14.37	Akoni Pule Hwy	U	A-20a	6000	Govt. State	0	N
NO ACCESS	A	355003012	69.52	Hualua Rd.	A	A-20a A-20a	29200	Govt. State	0	N
NO ACCESS	В	355003019	84.04	Hualua Rd.	A	A-20a A-20a	35000	Govt. State	0	N
	A/B	355003019		Hualua Rd.	U	RS-15		Govt. State	0	N
Poor access, too populated		355003025	24.75				3141300		-	
Dorrance?	Α		20.00	Lincoln Ave.	A	A-20a	221200	other	1192600	N
NO ACCESS	Α	355004003	8.00	Lincoln Ave.	Α	A-20a	12600	other	267100	N
NO 400500		0==004004			1				0.5000	
NO ACCESS	A	355004004	7.70	Lincoln Ave.	A	A-20a	22900	other	95000	N
NO ACCESS	A	355004005	7.98	Lincoln Ave.	Α	A-20a	31900	Govt. State	0	N
NO ACCESS	Α	355004012	7.11	Akoni Pule Hwy	Α	A-20a	56700	other	29700	N
NO ACCESS	Α	355004013	7.90		Α	A-20a		other	0	N
NO ACCESS	Α	355004016	5.04	Lincoln Ave.	Α	A-20a	432300	other	0	N
across from Dorrance?	Α	355004034	7.91	Lincoln Ave.	Α	A-20a	3300	other	0	N
Highway access but upwind houselots	Α	355005010	227.67	Akoni Pule Hwy	А	A-20a	13300	Kamehameha Schools	0	N
Access off HWY goes past house lots, further										
down access off single lane rd, would require	_					1				
road work	Α	355006002	44.50	Upolu Point Rd.	Α	A-20a	16200	Govt. State	248200	N

						1				
Good corner off HWY, near Kam school lot,										
natural depression blocking view fr HWY	Α	355006003	404.12	Upolu Point Rd.	Α	A-20a	78100	Govt. State	563200	N
Surrounded by open pasture, upwind of camp										
17 unless go further in off hwy	Α	355007005	40.57	Akoni Pule Hwy	Α	A-20a	146800	Govt. State	0	N
Need to discuss with Surety Kohala unless ruled out	В	355007010	331.75	Akoni Pule Hwy	Α	A-20a	75900	Surety Kohala	64100	N
If Hoea is okay road	В	355007010	7.63	Hoea Rd.	A	A-20a A-20a	652800	other	04100	N
Lot too small	В	355007013	5.33	Hoea Rd.	A	A-20a A-5a	175200	other	0	N
Lot too small	В	355007019	5.26	Hoea Rd.	A	A-5a A-5a	175200	other	118700	Y
	В	355007019	5.79	Hoea Rd.	A	A-5a A-5a	51500	other	65500	N
Lot too small NO ACCESS	A/B			Hoea Rd.	-	A-5a A-5a		other	05500	N
		355007025	6.80		A		757700			
NO ACCESS	A/B	355007026	6.81	Hoea Rd.	Α	A-5a	3300	other	176800	N
NO ACCESS	A/B	355007027	7.28	Hoea Rd.	Α	A-5a	791300	other	62800	N
NO ACCESS	A/B	355007029	17.01	Hoea Rd.	Α	A-20a	5900	other	600	N
NO ACCESS	Α	355007030	20.01	Hoea Rd.	Α	A-20a	8500	other	372900	N
NO ACCESS	Α	355007031	14.76	Hoea Rd.	Α	A-20a	475500	other	669900	Υ
Need to discuss with Surety Kohala unless ruled out	Α	355007039	124.76	Akoni Pule Hwy	Α	A-20a	15000	Surety Kohala	0	N
Need to discuss with Surety Kohala unless ruled out	В	355008002	15.00	Hoea Rd.	_	A-20a	665400	oth or	179900	Υ
Hoea Road	A/B	355008002	15.09	Hoea Rd.	A			other		N
			15.12			A-20a	502100		232700	
On highway, before school	В	355008018	6.48	Akoni Pule Hwy	A	A-20a	385900	other	42700	N
Close to school and poor road access	В	355008024	9.51	Akoni Pule Hwy	U	A-20a	1342800	Govt. State	0	N
Hoea Road across form Greenwaste?	В	355008044	10.00	Hoea Rd.	Α	A-5a	45300	other	177100	N
Self help Phase II ?	В	355008046	31.21	Akoni Pule Hwy	Α	RS-7.5	13100	other	0	N
Need to discuss with Surety Kohala unless ruled out	В	355008048	143.56	Akoni Pule Hwy	Α	A-20a	25800	Surety Kohala	0	N
No road access	В	355010003	7.42	Kahei Homestead Rd.	U	RS-15	1224600	other	3456100	Υ
Lot too small	В	355010006	4.67	Kahei Homestead Rd.	U	RS-15	740700	other	113300	N
TOO POPULATED	Α	355011052	3.61	Hualua Rd.	U	RS-15	608700	other	342800	N
Lot too small	В	355013013	3.25	Hoea Rd.	Α	A-20a	106800	other	44900	N
Lot too small	В	355013014	3.36	Hoea Rd.	Α	A-20a	1800	other	122800	N
Lot too small	В	355013015	3.50	Hoea Rd.	Α	A-20a	100100	other	30700	N
Lot too small	В	355015041	3.44	Akoni Pule Hwy	U	RS-15	1008200	other	564300	Υ
				Hawi Road (South of Akoni						
NO ACCESS	Α	355016007	9.18		Α	A-20a	2200	other	71600	N