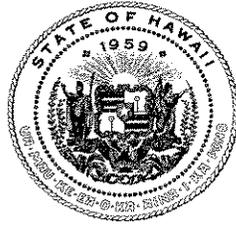


LINDA LINGLE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**

DIVISION OF STATE PARKS  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 24, 2006

Ms. Genevieve Salmonson, Director  
Office of Environmental Quality Control  
235 S. Beretania St., Suite 702  
Honolulu, HI 96813

Dear Ms. Salmonson:

Finding of No Significant Impact (FONSI) for the Kalihi Valley Nature Park and Active Living Center, TMK (1) 1-4-14: 01, 26 and 1-4-16: 03, Honolulu, O'ahu, Hawai'i

The Department of Land and Natural Resources has reviewed the comments received on the draft environmental assessment that were received during the 30-day comment period that began on October 8, 2005. We have determined that the project will not have significant impacts and are issuing a FONSI. Please publish this notice in the June 8, 2006 issue of *The Environmental Notice*.

Enclosed are the completed OEQC Bulletin Publication Form, 4 hard copies of the final EA, and the project summary on a CD for this project. Should you have questions or need additional information, please contact Lauren Tanaka at 587-0293 or by email to: [Lauren.A.Tanaka@hawaii.gov](mailto:Lauren.A.Tanaka@hawaii.gov).

Very truly yours,

A handwritten signature in cursive script, appearing to read "Daniel S. Quinn".

Daniel S. Quinn  
State Parks Administrator

c: Gary Gill, Active Living by Design Program Coordinator

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
DEPUTY DIRECTOR - LAND

DEAN NAKANO  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
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CONSERVATION AND RESOURCES ENFORCEMENT  
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LAND  
STATE PARKS

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Final Environmental Assessment

# Kalihi Valley Nature Park and Active Living Center



**KOKUA KALIHI VALLEY**

**(Comprehensive Family Services)**

2239 North School Street, Honolulu, HI 96819

Phone (808) 791-9400 ♦ Fax (808) 848-0979

May, 2006

## Notice to Reader:

For your convenience, language included in this Final Environmental Assessment that differs from the Draft EA is written in **Bold Text**.

**Changes to the Final EA include:**  
**corrections to the description of the parcel zoning,**  
**description of the possible need for a city zoning, grading and grubbing permits,**  
**assessing boulder and rock fall hazards,**  
**description of the 'Elepaio Critical Habitat including map on page 29,**  
**reference to the City Development Plan and Kalihi Palama Action Plan,**

A new section has been added at the end of this document to include the 5 comment letters received during the comment period and KKV's responses to those comments.

# Kalihi Valley Nature Park and Active Living Center

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**Comment Letters and Responses**

## Summary

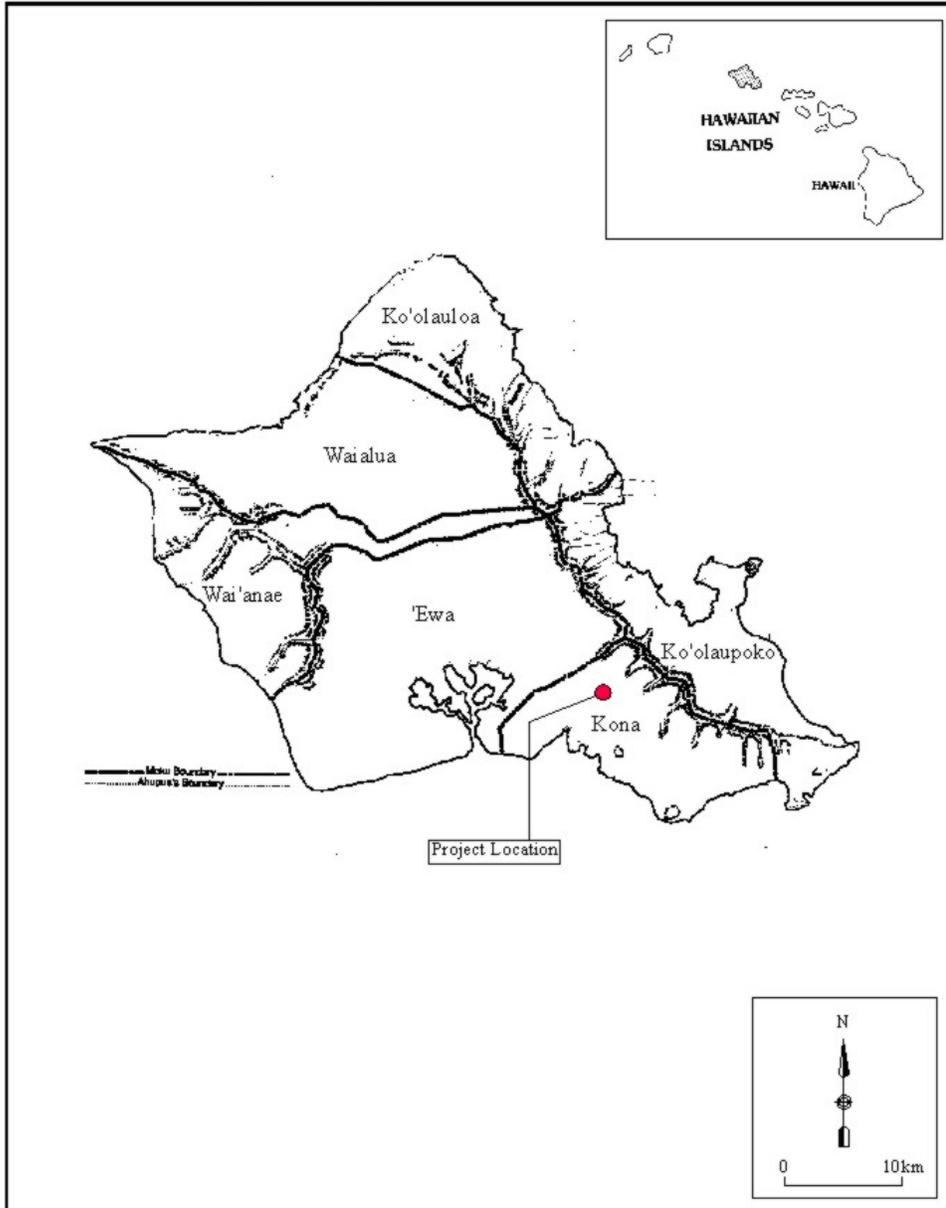
Applicant:	Kokua Kalihi Valley
Approving Agency:	Department of Land and Natural Resources
Project Location:	Kalihi Valley, O’ahu, Hawaii
Tax Map Keys:	1-4-014:0026, 1-4-014:001, 1-4-016:003
Area:	99.65 Acres
Fee Owner:	State of Hawai’i, Department of Land and Natural Resources, State Parks Division
Existing Use:	Vacant, Undeveloped Park Land
State Land Use Classification:	Urban <b>(1-4-014:0026, 1-4-016:003)</b> , Conservation <b>(1-4-014:001)</b>
Development Plan Designation:	<b>Preservation</b>
County Zoning Designation:	<b>P2 General Preservation, P-1 Restricted Preservation (1-4-014:001)</b>
Proposed Action:	On 100 acres of public land that have been designated for park development for more than 25 years, Kokua Kalihi Valley, a non-profit community organization, proposes to develop the Kalihi Valley Nature Park and Active Living Center. The project will include the restoration of 2 existing homes, creation of as many as 20 acres of community and native Hawaiian gardens, preserved and restored ancient Hawaiian agricultural walls and terraces, the creation of new walking paths and hiking trails, a nature camp with a bunk house and a tent camping area. Currently the site is overgrown with exotic species. Over time, exotic plants will be removed and native species restored. One of the existing homes will be renovated and serve as a resident caretaker’s quarters, a meeting place and a Watershed Education Center. The Park and Center will be privately operated but open to the public as a place of quiet recreation, nature studies, health education and the preservation of Hawaiian culture.

- Impacts:** No significant environmental impacts are anticipated by the development of the Kalihi Nature Park and Active Living Center. Existing archaeological sites will be surveyed, protected, and in some cases restored to productive agricultural use. The community gardens will be encouraged to use organic farming techniques and run-off will be directed to vegetated retention basins and wetlands to mitigate any impacts on Kalihi Stream. The passive use of the site will not cause harmful traffic on the narrow upper reaches of Kalihi Street. Adequate off-street parking will be provided for users of the park and Center. Short term noise and air quality impacts that may occur during renovation of existing structures will be minimized by adherence to applicable state and county rules. No rare or endangered native species have been found on the site. An active program of alien pest species eradication will be part of the park operation. Some large exotic trees will be removed over time but will be replaced by native species. The view of the park will remain verdant and well forested. A wide buffer will be maintained between park activities and neighboring residences to minimize visual and noise impacts. Existing debris and abandoned vehicles that litter the site will be removed.
- Determination:** Finding of No Significant Impact
- Consulted Parties:** Department of Land and Natural Resources, Department of Health, Kalihi Valley Neighborhood Board, Honolulu Board of Water Supply, National Park Service, Hawai'i Nature Center, UH Center for Conservation, Research and Training – Natural Heritage Program, Hawai'i Pig Hunters Association, Boy Scouts of America, Kalihi YMCA, Kalihi Palama Community Council, Hawai'i Wellness Institute, Urban Garden Center, Hawai'i Community Action Program (HCAP) Gardening Program, Kuhio Park Terrace Res. Assn., Kuhio Park Terrace Property Manager, Hawai'i Geographic Society, Kalihi Valley Homes Manager, Kalihi Valley Homes Res. Assn., Mason Architects, Halau Lokahi Public Charter School, Plan Pacific, UH School of Urban and Regional Planning, Honolulu Community College, Belt Collins Planning, Office of Hawaiian Affairs, O'ahu Invasive Species Committee.

### 1. Project Site

The Kalihi Valley Nature Park and Active Living Center are located on 99.65 acres of land at the head of Kalihi Valley. The property stretches from the center of Kalihi Stream to the top of Kamañaki Ridge. Access to the site is at the mauka end of Kalihi Street, past the last wooden bridge. The historic land division (ili) of Māluawai and a portion of ‘Ōuaua combine to make the park site.

Figure 1: Project Location on a Map of O‘ahu

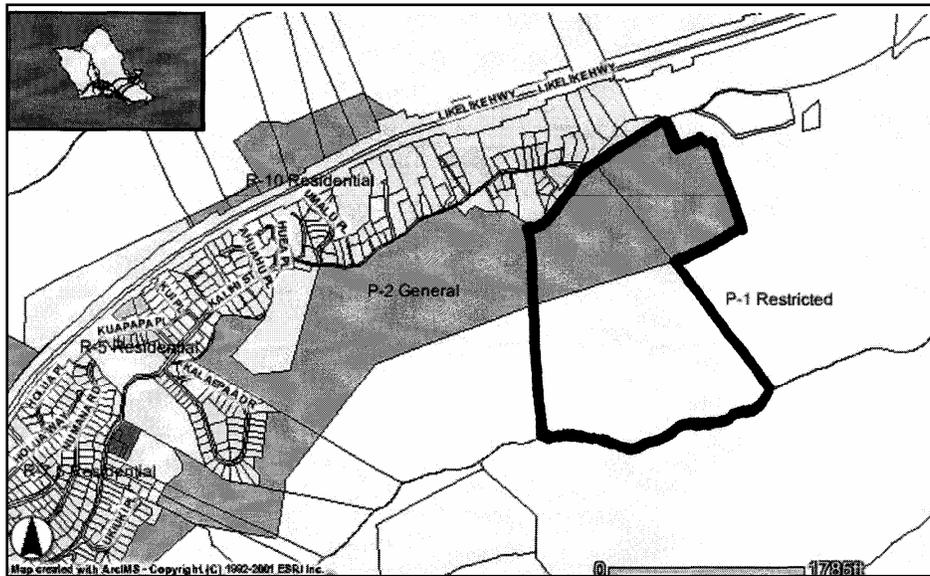


Kalihi Ahupua'a TMK: 1-4-14: 01 & 26 and 1-4-16: 03

source: Adapted from Nogelmeier in Snakenberg 1990

The portion of the site nearest to Kalihi Stream (about 42 acres) is designated as Urban by the state. Approximately 57 acres of up-slope land nearest the crest of Kamañaki Ridge are designated as Conservation land and therefore more tightly regulated. The City zoning of the site is **General Preservation (P-2) for the two parcels nearest the stream and Restricted Preservation (P-1) for the upslope parcel.**

Figure 2: Zoning map of Kalihi Nature Park. The lower 44 acres zoned P2 is also in the state Urban District. The P1 zoned area is in the state Conservation District.



At one time, three residences were occupied on the site. The first home is referred to as the former home of Col. Charles Marek at 3659 Kalihi St. This home and detached studio will be renovated to become the Active Living Center, Watershed Education Center and a home for the park's resident caretaker. An old cottage nearby, referred to as the McPherson residence at 3683 Kalihi St. has completely collapsed and will be cleared away and replaced with a gardening pavilion. The third house at 3635 Kalihi St. was once occupied by the proprietors of a nursery operation on the upper slopes of the park site. This home will be converted into a bunkhouse as part of a nature camp.

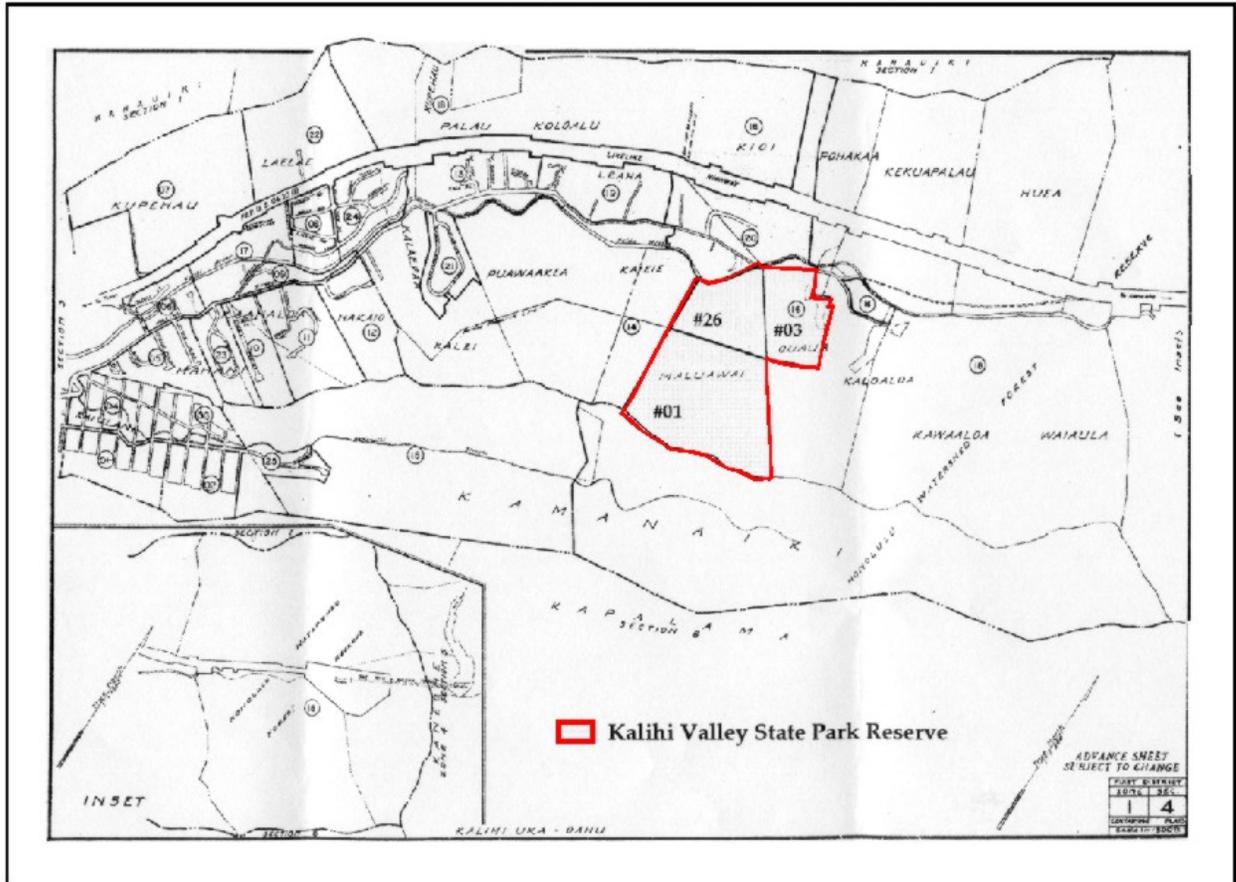
Several old driveways remain on the property. The Marek house driveway is still serviceable and leads to an old carport that has lost its roof over time. A driveway that leads to the McPherson house can still be seen under fallen trees and has been overgrown in part by a bamboo grove. A long driveway to the mauka nursery site is overgrown and eroded and can only be traveled by foot as a walking path.

This region of Kalihi Valley was once intensively cultivated by Hawaiian people prior to western contact. Three complexes of stone-lined water channels and surrounding agricultural terraces remain in varying stages of disrepair. It is assumed that these stone features date from prehistoric times. An agricultural heiau is reported to have once been located not on, but nearby the park site. At the time of the Great Mahele, when land in

the islands was first converted to private ownership, the ‘ili of Māluawai was deeded to Kamamalu, the sister of King Kamehameha IV and V.

In historic times the land was used for grazing cattle. By the mid-1800s, few trees stood in the valley floor and most of the property was grassland. In the later part of the 19<sup>th</sup> century and most of the 20<sup>th</sup> century, trees began to grow again in the area as a result of re-forestation efforts by the government and private land owners. Today, the entire site is covered by exotic species such as albisia, rose apple and bamboo.

Figure 3: Location of Subject Property on a Tax Key Map



Kalihi Ahupua'a TMK: 1-4-14: 01 & 26 and 1-4-16: 03

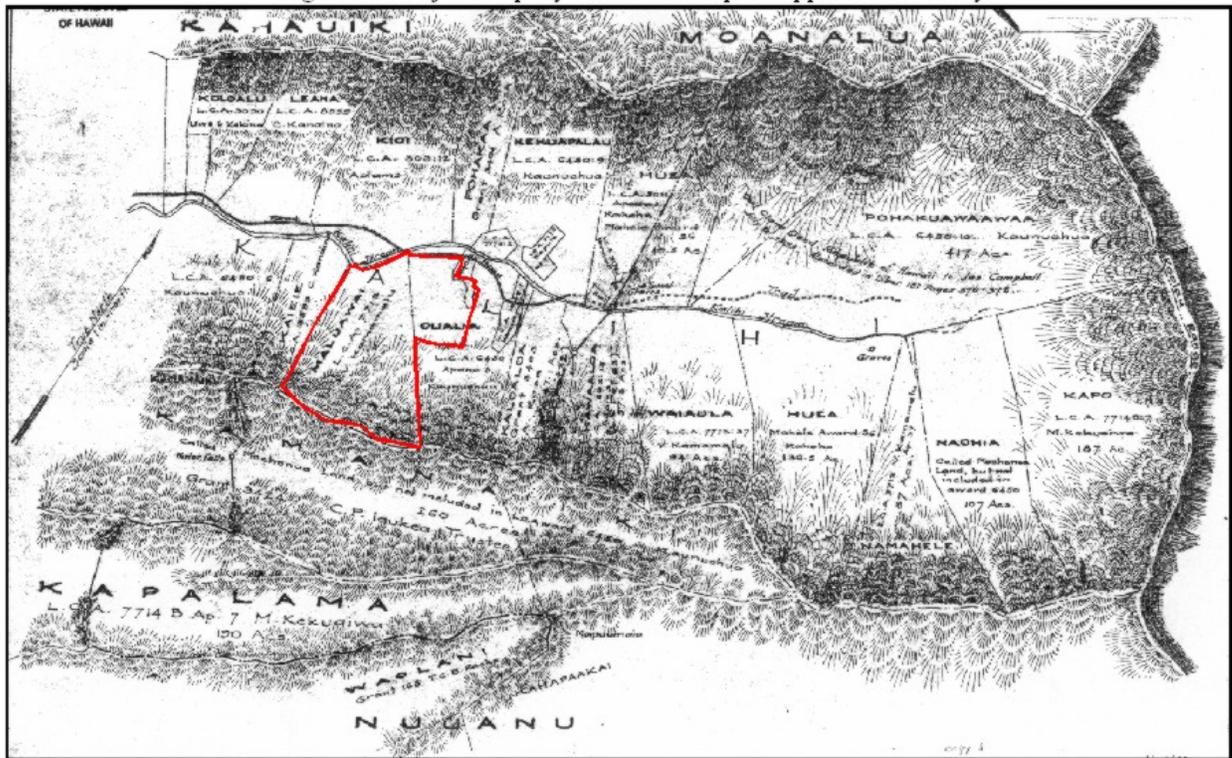
source: Department of Taxation, Tax Maps Bureau 1932

The properties that now make up the park have changed hands a number of times over the years. Much of the land mauka of the park site was condemned to preserve a watershed to protect Honolulu's drinking water supply and is currently owned by the Honolulu Board of Water Supply. In the 1970's a developer proposed to construct a residential subdivision on the site. In response to community concerns, in 1980, the City and County of Honolulu purchased the 100 acres for a park.

After years of inaction by the City, the park land was conveyed to the State in a land exchange that concluded in 1997. The State Parks Division currently has jurisdiction over the site. Unable to secure funding to develop a nature park, State Parks sought the involvement of private organizations to make the park a reality. In 2004, Kokua Kalihi Valley began discussions with State Parks to seek a long-term lease of the site for the

purpose of finally bringing the park to life. In December of 2004, the Board of Land and Natural Resources approved a 20 year lease over the 99-acre park land to KKV. KKV began a community-based planning effort to design the park in keeping with the expressed interest of Kalihi residents and parameters established by the state. This Environmental Assessment and master plan is a byproduct of guidance by a community park planning committee and input by many members of the public.

Figure 4: Subject Property on a 1923 Map of Upper Kalihi Valley



Kalihi Ahupua'a  
TMK: 1-4-14: 01 & 26 and 1-4-16: 03

Source: Board of Agriculture and Forestry,  
map no. O-33, 1923  
(on file: Hawaii State Archives)

## 2. Project Need

The decision to create a public park on this 100-acre site in Kalihi Valley was first made by the Honolulu City Council in 1980. Even before that time, valley residents and community leaders had urged the site be preserved and developed as a public resource. As Kalihi and the rest of Honolulu continue to grow in population, the need for additional recreation space has also increased. Access to the mountains and forested areas near urban Honolulu is very limited. The Kalihi area is currently underserved by public parks. Urban living conditions are often cramped and overcrowded in the area. The Kalihi Valley Nature Park and Active Living Center will help meet the recreational needs of the people of Honolulu.

In recent years, the importance of environmental education has become more recognized by Hawai'i's educational system and the general public. Civic leaders have begun to

articulate the need for “sustainable” development of our islands and assert the need to more carefully manage Hawai’i’s natural resources to assure their health in the future. A proven method of educating both young and old about natural ecosystems is to physically introduce them to natural areas and provide proper educational curriculum and interpretive signage along walking and hiking trails. Through the restoration of native vegetation, the active preservation of ancient Hawaiian agricultural sites and the development of a network of trails with interpretive signage, the Kalihi Valley Nature Park will enhance the understanding of sustainable human communities and sensitivity to the natural world.

From the perspective of public health, Americans are currently suffering from an epidemic of obesity. Recent studies indicate that during the 1990’s Americans have not increased the time they spend being physically active. This suggests that traditional health strategies focused on changing individual behavior have not been effective. To combat obesity, we need to design our living environment in a way that promotes biking, walking, running, hiking and all forms of physical activity. The Kalihi Valley Nature Park and Active Living Center will increase the opportunity provided to valley residents to become more physically active. The park will include acres of community gardens, miles of hiking trails and nature walks and environmental and cultural learning opportunities for the people of Honolulu. This project will give people a chance to work the land and grow fresh produce to improve their diet. Learning about the natural environment will encourage a deeper understanding of human health and a sense of pride in community and self.

### ***3. Project Description***

#### **Kalihi Valley Nature Park and Active Living Center**

At the end of Kalihi Street, just past the last wooden bridge, lie 100 acres of undeveloped state park land. For more than 25 years, Kalihi residents and community leaders have been petitioning the State and City governments to make this land a quiet nature preserve for environmental education, recreation and the preservation of Hawaiian culture. But money was never budgeted to create the Kalihi Valley Park and today it is covered by jungle.

Kokua Kalihi Valley, a non-profit, community-based organization has volunteered to make the park a reality. The State has approved a 20-year lease of this public land to KKV. This narrative will explain KKV’s vision for the 100-acre site.

#### **Goal:**

To create a facility at the head of Kalihi Valley to promote active living, cultural learning, and watershed-based environmental stewardship.

**Setting:**

The 100-acre site includes two old homes in need of major repair, agricultural terraces that may date to prehistoric times and the remains of facilities from a defunct nursery operation. The lower elevation of the site is covered by introduced species while some native plants remain nearer the Kamaikai ridge summit. Parts of the property are littered with old, rusting abandoned vehicles, car parts, trash and nursery equipment. Mauka of the site is undeveloped watershed and forest land. Makai of the site lie private residences on either side of Kalihi Street.

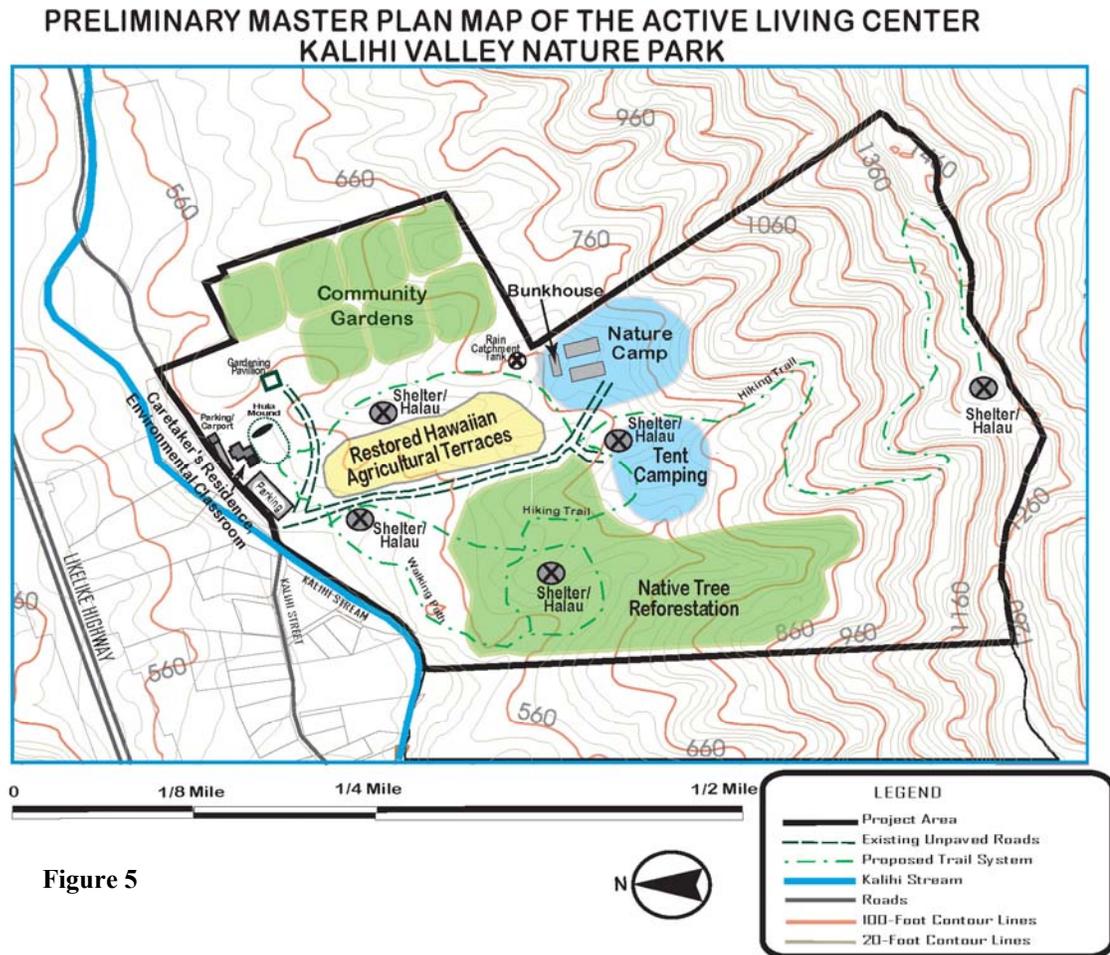


Figure 5

**Site Plan:**

KKV will restore and renovate the existing residential structure near Kalihi Street and convert it into a classroom and watershed resource center. The facility will include a large, outdoor lanai area that would serve as a gathering place for students, classes and program participants. Indoor meeting rooms, restrooms, office space and a caretaker residence would be incorporated into the floor plan of the renovated structure on the existing building footprint and foundation.

The grounds of the Center will include the retention of many of the trees and landscaping currently in the area. New interpretive walking paths will be constructed to encourage visitors to explore the area and enjoy nature. Existing agricultural terraces will be restored and replanted by community members with historic and cultural food crops. Native plants will be restored throughout the area and labeled for the education of Center visitors. A hula mound will be constructed and made available to halau (native dance schools) for the perpetuation of their art. Eventually, a network of hiking trails leading deep into the valley and along the mountain ridges will invite people to go beyond the Center's grounds and explore pristine mountain pools and dramatic vistas.

### **Program Components:**

Programs at the Kalihi Valley Active Living Center will be a community partnership between Kokua Kalihi Valley, schools and community groups in the region. Activities at the Center will include environmental education focusing on the Kalihi Watershed and the geological and cultural history of the valley. A deeper understanding of native flora and fauna will be incorporated into a hands-on program of plant propagation and animal collection and observation. Active living will be promoted through exercise classes, walking, hiking and tending to the plantings at the Center. The Center will serve as a unique location for the teaching of native arts, crafts and culture. Area schools will be invited to utilize the Center to teach earth science and enjoy field trips. Community groups will be invited to meet at the center for retreats and special gatherings.

### **Specific components of Active Living Center and Nature Park**

#### **1. Active Living Center - Caretaker's Residence - Watershed Education Center**

The home at 3659 Kalihi Street was first built in 1930. While the foundation and walls are in solid shape, the roof of the structure needs to be replaced. This home was once the residence of noted landscape artist Charles S. Marek. In later years the surrounding grounds hosted a plant nursery operation. The most recent tenants left the site in the spring of 2004 when it was determined that the home was no longer safe. The home will be restored to livable condition and used as a caretaker's residence and classroom facility.



Photo #1. The former Marek home originally built circa 1930. After renovation, this will be the site of a caretaker's residence, the Watershed Education Center and the Active Living Center.

A lava rock wall encircles a large, outdoor lanai area that will serve as a gathering place for students, and community groups. The home's living room will be used for "Active Living" meetings and health-related classes. Kokua Kalihi Valley will provide a variety of classes to encourage physical and mental health. We envision dance and exercise, nutrition and counseling classes. Space in the home and on the surrounding lanai may be made available to community groups and may also be used for art and cultural activities.

Public restrooms and office space will be incorporated into the floor plan. A large kitchen will be incorporated into the house to accommodate the needs of visiting groups. A covered lanai will be reconstructed to serve as a place to gather for lessons or meals.

Adjacent to the renovated caretaker's residence we will restore an existing studio building to become the Watershed Education Center. This room will be filled with interactive environmental displays and educational material. A bank of computers will be installed to allow students to input data and track the water quality of Kalihi Stream.

The renovated structures will all remain on the existing building footprint and foundation.

## **2. 20 acres of community gardening**

Over time, bamboo jungle and other exotic plants will be cleared from the upstream portion of the 100-acre site. This area will be made available to community groups for planting food crops. Each plot will be organized, planted, tended and harvested by an individual community organization. Each group with a garden plot will pay a small fee to help cover the cost of maintaining the gardens, park and facilities. Each group would also delegate one individual to sit on a "kuleana council" that would oversee the operations of the community garden element of the park. Groups that no longer properly tend to their "kuleana garden plot" will be replaced by new groups from a waiting list maintained by the kuleana council.

Produce grown on the site may be distributed or sold by the community group. A portion of the produce from each garden plot or the income from its sale may be used to generate income for the entire garden and park operation.

To assure that the natural environment of Kalihi Valley is protected and to avoid any polluted rainwater run-off from the site, the use of agricultural pesticides and herbicides will be prohibited and organic gardening practices will be encouraged. Any run-off from the site will be directed to vegetated detention areas designed to reduce silted water from gardening plots and protect the water quality of Kalihi Stream.

### **3. Native Hawaiian garden with medicinal and endangered species**

In the center of the 100-acre site, a network of ancient Hawaiian agricultural walls and terraces remain in relatively intact condition. These resources will be protected (see next section) and brought into productive use. Medicinal and cultural as well as food crops are to be re-established in this area. An organization such as a Hawaiian language charter school will be encouraged to assume responsibility for the planting of a native Hawaiian garden in this area. The garden could be incorporated into the curriculum of the sponsoring school and interpretive signs would be created to help educate park visitors on the specific plants and agricultural methods of Hawai'i's first farmers.



Photo #2. Stone walls and agricultural terraces, assumed to be work of a pre-contact Hawaiian farming community. These will be protected and restored to productive agricultural use as part of the Kalihi Valley Nature Park.

### **4. Restored, interpreted Hawaiian agricultural terraces**

In at least 3 gullies that run perpendicular to Kalihi Stream from Kamaikai ridge down-slope, the remnants of ancient Hawaiian agricultural walls, terraces and stone-lined

stream channels can be clearly seen. All the archaeological resources on the site will be professionally surveyed and inventoried. Appropriate mapping of these walls and features will be performed by archaeologists. A preservation plan will be drafted to assure that any activities on the park site will not endanger the existing stone structures. A part of the network of walls will be restored by experts in Hawaiian stone work and made available for active planting with native crops. Many of the sites will be protected in their current state and marked with interpretive signage to educate visitors on the history of agricultural land use in Kalihi Valley. Some sites could serve as living laboratories for students of archaeology in the future.

#### **5. Wheelchair-accessible paved walkways and parking**

Access to the Active Living Center/Watershed Education Center, community garden site and the Native Hawaiian Garden will be established via graded walking paths. These paths will be developed to accommodate people using wheelchairs and the disabled as required by the Americans with Disabilities Act (ADA). Appropriate automobile parking near the Active Living Center will be provided. From the Center, a network of accessible, paved pathways will allow people to easily visit a portion of the community garden area including the gardening pavilion. Accessible pathways will also lead to the Native Hawaiian Garden and provide a short nature walk through the site.

#### **6. Hiking, walking and biking trails**

A network of interconnecting hiking trails will be created over the 100-acre site. Some of these trails will be less strenuous and relatively flat. Some trails will be designed to allow bicycle riding. It is likely that these trails will be gravel paved to minimize slippery and muddy conditions. Trails will lead people to sites of interest on the property including gardens and archaeological sites. Access to the top of Kamanaiki ridge will be established by the construction of a switchback trail that climbs the southern slope. Trails will be developed and maintained to the standards created by the State Na Ala Hele program.

#### **7. Picnic areas with shelters**

At various locations on the site, picnic shelters will be created as resting places for park visitors. Shelters will be constructed to blend in with the natural surroundings. The shelters will be used for picnicking and as “halau” or “outdoor classrooms” for visiting school children. These shelters will be placed in areas away from surrounding homes to avoid noise impacts on residents.

### **8. Gardening pavilion with restrooms and tool storage**

At the site of a former cabin on the upstream portion of the park, the existing concrete slab will provide the foundation for a gardening pavilion. This pavilion will support the community gardens located nearby. It will provide a place for gardeners to take shelter from the rain, a covered picnic area, restrooms and tool storage.



Photo #3. Old nursery house to be renovated for “bunkhouse” and over night accommodations for youth and service groups

### **9. Mauka “nature camp” and overnight accommodations in “bunkhouse”**

An existing 4-bedroom, 2-bath, plantation-style home on the mauka part of the park will be restored and used as a bunkhouse for as many as 16 guests. The house will remain on rain catchment water and its existing septic system. It is possible to restore electrical service to the structure. In the alternative, solar-powered or propane lights and cooking appliances could be installed. The bunkhouse would be made available for use by community groups such as youth or scouting organizations.

The bunkhouse and the surrounding grounds may be used as a retreat center for organizations and for group counseling and team-building events. In addition, volunteers working to restore or construct park features could be housed in the bunkhouse for the duration of the work project. Over time, the surrounding old nursery “warehouse” structures could be utilized to provide space for the practice of crafts such as wood and canoe carving and other activities.

Nearby, the forest could host a “ropes course” or similar features designed to encourage team building, physical and mental growth and provide a dramatic alternative to urban activities.

### **10. Mauka walk-in tent camp sites**

Near the bunk house on the mauka part of the property are about 10 acres of relatively flat land that was once developed as a plant nursery operation. This portion of the park could accommodate day camp activities for local scout groups or similar organizations. In addition, a limited number of overnight tent camping sites will be developed here for community use. While service vehicle access to the mauka site would be re-established, campers would be required to walk to the area and carry their gear. The camp is to be maintained as a “primitive” site without hot water or electricity. Composting toilets would be provided to maintain sanitary conditions in the camp. Some of the existing exotic trees and underbrush will be removed from this area. Remnant nursery materials such as pipes and planters will be removed. The number of day and overnight campers will be controlled to assure that the site will be maintained as a place for quiet enjoyment of the natural surroundings.

### **11. Gateway to the back of Kalihi Valley for hiking**

The development of the Kalihi Nature Park will provide enhanced access to the hiking path that leads up Kamaikai ridge toward the Ko’olau summit. The valley bottom mauka of the park site is owned and controlled by the Honolulu Board of Water Supply and maintained as forest reserve and a watershed to protect the City’s drinking water supply. The Board of Water Supply is currently working with the State and others to coordinate access to the mauka watershed by pig hunters in an effort to control feral animals that can harm the environment. The Kalihi Nature Park and its resident caretaker could play a part in coordinating and controlling access to the mauka lands in cooperation with their landowner.



Photo #4. View from Kamaikai Ridge over Kalihi Valley Nature Park site (foreground) to the back of Kalihi Valley and the Ko’olau summit.

### **12. Rainwater catchment system to irrigate garden**

Due to the heavy rainfall at the park site, it is expected that the community and native Hawaiian garden programs will not need much irrigation. However, the old nursery site employed a rain catchment system to service its operation. A similar system that employs water tanks to contain water running down the mountain slope or off the shelter roofs will be re-established. Gardening operations will not need to use any municipal water for their plantings. A gravity-fed system of plastic pipes will carry water from the upslope area to the gardens below.

### **13. Energy self-sufficient, efficient and sustainable design**

It is the intent of the Kalihi Valley Nature Park and Active Living Center to showcase a sustainable system of human habitation. Garden waste will be composted and used as soil amendment. Organic gardening practices will be employed and the use of herbicides and pesticides will be strictly limited. Use of fossil fuels will be reduced by the installation of solar or other sources of renewable power. Potable water use will be minimized by the creation of a rainwater catchment system. Composting toilets will be installed for use by gardeners and campers. Design of structures will employ natural ventilation rather than air conditioning. Recycled materials will be employed in construction and renovation of park facilities. In most cases, physical labor will be provided by groups of volunteers rather than power equipment. Runoff from garden areas will be diverted to a series of vegetated retention basins to trap sediment and help clean water runoff before it can enter Kalihi Stream.

### **14. Remove exotic plant species, reforest with native trees**

Decades ago, the nursery that operated at this site introduced the invasive pest species miconia to Kalihi. Eradicating this plant is one of the top priorities of the O’ahu Invasive



Photo #5. Remnant Koa forest on park site. Exotic plants to be removed, natives restored.

Species Program. Regular sweeps through the site and the neighboring forest will be accelerated to find and remove any miconia seedlings. Care will be taken to assure that visitors to the park are educated to clean their boots and tools upon leaving the property to reduce the chance of spreading miconia seeds off site. Other exotic plant species such as clidemia, rose apple, and bamboo will be carefully removed from the site over time and replaced by native plants that thrived in the valley before human contact. Examples of native trees that will once again grow in the park are koa, ohia, and kou. The replanting of native species will take place by volunteer community efforts over time. Care will be taken not to expose more than an acre of land at one time to reduce any topsoil loss to heavy rain and runoff.

### **15. Program of pig control**

The feral pig population in the Ko’olau Mountains seems to be on the rise. Feral pigs can destroy gardens and plantings, uproot native trees and create breeding grounds for mosquitoes. Humane methods of feral pig control will be utilized to control the pig population in the park area. A system of fences may be employed to protect garden areas from destruction by pigs.



Figure 6. Rendering of caretaker’s residence, Watershed Education Center and Active Living Center after renovations are completed. (Old Marek home.)

## ***4. Description of the existing environment, project impacts and mitigation measures***

### **4.1 Climate**

The climate of Kalihi Valley is typical of lands near the Ko’olau Mountains. Rainfall is moderately heavy in the area averaging well over 100 inches annually at the BWS Kalihi Reservoir and the upper portions of the valley. The majority of precipitation occurs between November and April when winter storms add to trade wind rainfall. Predominant trade winds from the Northeast blow through the windward pass of the Ko’olau summit and down the valley toward Honolulu. Temperatures at Honolulu International Airport range between 70 and 84 degrees Fahrenheit. Upper Kalihi Valley can be expected to be somewhat cooler than the temperature recorded at the Airport.

#### **Impacts and Mitigation Measures:**

The project will not impact local climate conditions.

## 4.2 Topography and Soils

### Topography:

The project site ranges in altitude from a low point of nearly 500 feet above sea level at the Kalihi Stream channel to a height of approximately 1,400 feet along the top of Kamaikai Ridge. Kalihi Stream runs through a steep sided channel in places nearly 40 feet deep. Immediately above the stream channel much of the project site is relatively level, gently sloping land. Some of the land on the stream side of the property has been graded into wide terraces or excavated during the time of commercial nursery operations. A series of shallow gullies run generally perpendicular to the stream up to the valley ridge to the south. Slopes along the lower portion of these gullies are generally moderate and easily traversed. A wide plateau lies about halfway up the slope to the ridgeline. This is the site of the mauka nursery operation. Evidence of significant earth movement and grading are clearly visible at this location. Above this plateau, the valley walls become steeper. The gullies climb to become narrow gulches stepping up with sheer rock cliffs and dry waterfalls. Steep side ridges reach up from the lower valley and intersect the top of Kamaikai Ridge.

### Soils:

Geologically, the Kalihi Valley Nature park site is situated in a very old valley eroded into Ko'olau volcanic shield. Older alluvium underlies the floor and slopes of the valley. Younger Kalihi lava of the Honolulu Volcanic Series were deposited 450,000 years ago from vents in Kalihi and Kamaikai Valleys. Kalihi Stream cut a channel and deposited stream terraces of younger alluvium. The slope of Kamaikai Ridge on the southern half of the site is classified as rock land. Soil underlying the more gently sloping valley floor is classified as lokeka'a silty clay.

### Land Classification:

The project site is classified by the State Land Use Commission as Urban for the 'Ōuaua parcel and the Māluawai parcel nearest Kalihi Stream. The upslope Māluawai parcel that includes the old nursery house and terrace is classified as Conservation. **The City zoning of the site is General Preservation (P-2) for the two parcels nearest the stream and Restricted Preservation (P-1) for the upslope parcel.**

### Impacts and Mitigation Measures:

This project will not cause any significant impact to existing soils or topographic conditions on the site. No major earth moving is planned. Soils will be exposed to erosion during gardening and tree clearing activities. Care will be taken to expose less than one acre of soil at any time. Exposed land will be quickly re-vegetated. Run off from garden sites will be directed to vegetated detention areas to recover any soil that may be carried away by rainfall. **Hazards from boulder and rock falls are minimal at the Active Living Center site because it is hundreds of yards from a steep slope. The cliffs above the bunkhouse and camping site will be surveyed for unstable areas and dangerous rocky outcrops. (See response to comments from the Department of Planning and Permitting).**

### 4.3 Hydrology and Water Quality

#### Groundwater:

The project site overlies aquifers perched within the alluvium and Kalihi basalt. Rainfall over areas underlain by Ko’olau basalt infiltrates deeply into the volcanic rock of Oahu to recharge dike-confined aquifers and the basal aquifer water. An average of approximately 10 million gallons of water each day enters the Kalihi groundwater system. Both the perched and basal aquifers are tapped as drinking water sources for Honolulu. There are 10 drinking water wells currently operated by the Honolulu Board of Water Supply in the Kalihi area and two by Kamehameha Schools in the basal aquifer. BWS also has an artesian perched well above the park site. The sustainable yield of the Kalihi aquifer is estimated by the Commission on Water Resource Management to be 9 million gallons per day. The average pumpage from the Kalihi system is 9 million gallons per day.

#### Surface Water:

Kalihi Stream flows perennially along the northern boundary of the project site. The average stream flow of Kalihi Stream is 7.3 mgd but minimum flow may fall below 0.5 mgd in dry years. Upstream of the project site, the stream drains the relatively undeveloped Kalihi watershed. The watershed is host to the Likelike Highway, a major transportation corridor between windward O’ahu and Honolulu's downtown. Old Kalihi Street also penetrates the watershed and serves the Board of Water Supply reservoir and water pipelines. Negative impacts on stream water quality in this upper region include alien plants and animals that hinder the ability of the land to absorb rainwater and increase muddy runoff into the stream. During heavy rain events, flow increases dramatically and stream water typically becomes brown and turbid. Kalihi Stream flows down slope through residential and industrial districts of Honolulu to meet the sea at Ke’ehi Lagoon. Kalihi Stream has been listed as an impaired water body by the State Department of Health under the provisions of the federal Clean Water Act.

The park site includes 4 gullies that host small fresh water seeps or springs. Each spring sends its water trickling down slope and into Kalihi Stream.

#### **Impacts and Mitigation Measures:**

This project will not cause any significant impact to ground or surface water resources. As native vegetation is restored to the site, it is expected that the absorption of rainfall into ground water aquifers will be enhanced. The quality of surface waters will be protected by the creation of vegetated detention basins designed to filter runoff before it reaches Kalihi Stream.

### 4.4 Air Quality

Air quality at the site is excellent. The site is served by regular trade winds through the Ko’olau. Most sources of air pollution lie downwind of the park site in urban and industrial Honolulu. On days without trade winds, the park is impacted just like the rest of the island by hazy air sometimes contributed to by volcanic emissions that form “vog.”

The clearing of alien plants from the park may expose soil that could cause dust to become airborne in a strong wind. As the site is usually damp, dust from community gardens or native re-planting is not expected to be a problem.

**Impacts and Mitigation Measures:**

This project will not have any significant impact on air quality. The potential for dust to be blown from the site will be mitigated by assuring that no more than one acre of soil is exposed at any time during the development of community gardens or the re-forestation of native plants.

#### **4.5 Hazardous materials**

Portions of the Park site are littered with abandoned automobiles, car parts and other trash. These materials could pose a safety risk to park users causing cuts or other injuries. The old nursery operations on the site could have utilized chemicals that have entered the soil or remain stored in old containers. A phase 1 environmental site assessment has been performed to investigate the historic use of any hazardous chemicals. The investigation shows that there is no trace of harmful chemicals in or around the equipment and debris that remains on site. The phase one study recommends that existing debris be carefully removed and soil sampling take place if stained soil or distressed vegetation is observed. Also standard precautions relating to lead paint that may exist in the old home should be followed.

**Impacts and Mitigation Measures:**

This project will reduce or eliminate any significant environmental impact caused by hazardous materials on the site by removing old cars, machinery and materials that currently litter the park area. If further investigation is called for it will be performed.

#### **4.6 Flood Hazard**

Based on the Flood Insurance Rate Map (“FIRM”) sheet number 0352, prepared by the Federal Emergency Management Agency (FEMA), the project site is determined to be outside the 500-year flood plain.

**Impacts and Mitigation Measures:**

This project will not have any significant impact on flooding or flood hazards.

#### **4.7 Flora and Fauna**

Prior to western contact, the park site was intensively used by Hawaiians for agriculture. At that time, the valley floor was stripped of much of its original flora to make way for native food crops. In the past 200 years, grazing animals such as cows converted much of the valley into grasslands. The site has been reforested by the introduction of exotic tree species planted by the government and private land owners. A botanical survey found that no rare or endangered plants were found anywhere on the 100-acre park site.

While the upper reaches of the valley walls remain home to some native species such as Koa and ‘Ōhi’a, most of the site is completely overrun by exotic trees and weeds.

The notorious exotic weed miconia was introduced to the site by the previous nursery operation. Crews of volunteers have been working to remove miconia from the site. This eradication effort will be supported and accelerated as part of the Nature Park operation. Other exotic flora such as rose apple trees, bamboo and clidemia that blanket the park site will be removed and replaced by native plants.

The predominant exotic plant forest in the valley bottom is not known to provide habitat for any native animal. The higher slopes of the Ko’olau Range provide habitat for the Hawaiian forest bird, `elepaio. There have not been any recorded `elepaio sightings on the park property and such sightings would not be expected at this elevation. **The upper elevations of the Park property are included in U.S. Fish and Wildlife Service designated Elepaio Critical Habitat. The designated critical habitat will not affect the development of the Nature Park. (See map on page 29).**

Alien animal species that are known to inhabit the park property include a wide range of introduced bird species such as thrushes, doves, mynahs and finches. Feral pigs are known to visit the property to feed on fallen fruit and roots. A colony of Australian Brush-Tailed Rock Wallaby has been established nearby and there is evidence that some wallabies visit the park site. Introduced mosquitoes are common at the park site, multiplying in great numbers in the dark, wet forest environment.

#### **Impacts and Mitigation Measures:**

This project will not have a significant impact on flora or fauna in the area. The alien species currently on the site will be eradicated or reduced and native plants will be restored.

#### **4.8 Noise**

The park site enjoys a remote and quiet location at the mauka end of a residential street. Noises that can now be heard on the site include the sound of local vehicle traffic, vehicle noise from Likelike Highway and lawn and garden equipment being used in nearby residences. Animal sounds include nearby populations of domestic and feral chickens and neighborhood dogs. On weekends the singing from local church services can be heard on the park site.

The park will create temporary noise during tree trimming and construction operations. The sound of chain saws, trucks and heavy equipment and power saws and hammers will be noticed by the nearest neighbors.

As the Active Living Center and Park become operational, school children and day camp users will visit the site and will likely make noise consistent with groups of young people.

#### **Impacts and Mitigation Measures:**

Temporary noise impacts due to construction operations will be mitigated by adherence to applicable State and City noise controls. A buffer area will be included in the park design to assure an adequate distance between park users and nearby residents. Any overnight visitors to the bunkhouse or tent camps will follow a night “quiet time.” No amplified sound systems or music players will be allowed at the nature camp.

#### **4.9 Archaeological, Historic, and Cultural Resources**

None of the western structures on the site have been judged to be of historic quality worthy of protection or listing on the State or Federal register of Historic Properties. Even so, the two residences that remain standing will be restored and renovated to closely reflect their original form and put to adaptive re-use. The walls and floor plan of the old Marek home will be mostly preserved and a new roof will replace shed roofed home extensions with an integrated structure. No additional floor area will be created and the surrounding rock walls, water features and lanais will be restored.

The old nursery home will be repaired and made into a “bunkhouse” for overnight accommodations for groups. No significant changes to the home are anticipated. The leaking roof may require new metal and the louver windows need new glass. A hole in the floor will be patched.

In at least 3 gullies that run perpendicular to Kalihi Stream from Kamanaiki ridge down-slope, the remnants of ancient Hawaiian agricultural walls, terraces and stone lined stream channels can be clearly seen. These remains of Hawaiian rock architecture are of high value because of their size, intactness and easy proximity to urban Honolulu.

All the archaeological resources on the site will be professionally surveyed and inventoried. Appropriate mapping of these walls and features will be performed by archaeologists. A preservation plan will be drafted to assure that any activities on the park site will not endanger the existing stone structures. A part of the network of walls will be restored by experts in Hawaiian stone work and made available for active planting with native crops. Many of the sites will be protected in their current state and marked with interpretive signage to educate visitors on the history of agricultural land use in Kalihi Valley. Some sites could serve as living laboratories for students of archaeology in the future.

The cultural value of the site to native Hawaiian and other cultural practitioners is significant. In recent years, the site has been a place of subsistence hunting and gathering for pig hunters and others who enter the site to collect fern shoots and other plants. Kalihi Valley in general is named in a number of ancient chants and hula as documented in the related Cultural Impact Study. Local stories and anecdotes about the site underscore its tradition as a place of agricultural abundance and habitation.

#### **Impacts and Mitigation Measures:**

This project will not have any significant impact on archaeological, historic or cultural resources. If anything, these resources will be enhanced and protected by the operation

of the park including the restoration of the Hawaiian walls and agricultural terraces to traditional use and the interpretive signage that will be placed throughout the site.

#### **4.10 View and Visual Impacts**

Views of this site from any public vantage point are almost non-existent. A thick, uninterrupted canopy of trees hides views from Likelike Highway across the valley to the park site. Similarly, upper Kalihi Street is overhung by many trees and bordered by thick foliage and a view of the park land is usually obscured. Hikers along the top of Kamañaki Ridge will see the park as they look mauka from the park's western boundary. The two homes that will be restored as part of the park plan are now completely covered by shade trees and cannot be seen even from the height of the ridge. The only impact the park development will have on views is the gradual removal of large, exotic trees and their replacement with native species. The community garden areas may expose brown dirt to the sky for short periods but will be soon covered by new growth of crops and native plants.

##### **Impacts and Mitigation Measures:**

This project will not have any significant impact on views.

#### **4.11 Public Services and Infrastructure**

##### **4.11.1 POLICE SERVICES**

The nearest police station is about 2 miles away directly down the valley at the Kalihi Sub-Station on Kamehameha IV Road. Should any emergency occur at the park, travel time from the police station to the park is less than 5 minutes.

##### **Impacts and Mitigation Measures:**

This project will not have any significant impact on police services.

##### **4.11.2 FIRE SERVICES**

The nearest fire station is located immediately next to the Kalihi Police Station. The station is home to both a hazardous material company and an engine company. A fire hydrant is placed immediately across Kalihi Street from the driveway that leads to the future park caretaker's quarters and Active Living Center. The mauka nursery house is beyond the reach of the nearest fire hydrant and will be served by catchment water not city water.

##### **Impacts and Mitigation Measures:**

No significant impact is expected on fire services. A utility roadway to the mauka nursery site will be restored for access by emergency vehicles. Fire protection for the mauka nursery site will be provided by a gravity-fed catchment water system.

##### **4.11.3 HEALTH SERVICES**

The project is located within about 5 miles of St. Francis Hospital, Kuakini Hospital, the Kalihi Palama Health Center, Tripler Hospital, and Kokua Kalihi Valley's Judd Clinic.

The programs sponsored at the Active Living Center and on the park grounds are designed to improve the health of participants. Medical and public health organizations will be invited to coordinate and sponsor healthy activities and programs at the park site.

**Impacts and Mitigation Measures:**

This project will not have any significant impact on Health Services in the area.

**4.11.4 PUBLIC EDUCATION SERVICES**

The Kalihi area is home to 6 public elementary schools, two middle schools and Farrington High School. Kamehameha Schools and other private schools are also located nearby. Student from these schools will be invited to make use of the park site and programs. Plans call for an environmental education curriculum to be developed for use by school children on field trips to the park and center. A native Hawaiian charter school is slated to develop programs to restore and plant some of the ancient agricultural stone walls as part of its school activities.

**Impacts and Mitigation Measures:**

This project will not have any significant impact on public education services and is likely to enhance current educational opportunities for Honolulu’s students.

**4.11.5 RECREATION**

Kalihi Valley residents currently have access to a number of parks including Kalihi District Park with its ball fields and swimming pool, DeCourt Park, and Kupehau Slopes Park.

**Impacts and Mitigation Measures:**

This project will not have any significant impact on the park system of Kalihi. It will enhance public opportunities for recreation and add access to natural areas for activities such as hiking and gardening that currently do not exist for many people.

## **4.12 Traffic and Parking**

Access to the park is along a relatively quiet residential street. For much of its length, Kalihi Street does not include any paved sidewalks. Pedestrians must navigate the unimproved shoulders of the road or compete with cars as they walk on the street pavement. The road narrows to approximately 12 feet along the park property. Between Kalaepapa Drive and the park property, Kalihi street ranges from 21 to 13 feet in width. This portion of Kalihi Street provides the only vehicular access to homes and churches in the upper valley. Current traffic counts indicate that as many as 470 vehicles per hour travel out of the valley at Numana Road during the weekday peak morning rush hour. During the evening rush back up the valley, the peak hour can generate as many as 350 cars heading into the valley counted at the same location.

Conservative estimates indicate that the Kalihi Valley Nature Park could generate as many as 15 new trips in the morning peak hour and as many as 42 new trips at the peak

hour on Sundays. These added cars will not have a significant impact on traffic along Kalihi Street and will not necessitate roadway improvements or widening.

The park, when it is fully developed, is estimated to attract at most, 200 people at any one time. The public demand for site access will create the need for 50 vehicle parking stalls at the site. Ten parking spaces currently exist along the driveway of the Active Living Center. Additionally, 2 wheelchair-accessible parking stalls will be provided.

#### **Impacts and Mitigation Measures:**

While the traffic study indicates that Kalihi Street in its existing configuration is adequate to accommodate the moderate number of new trips generated by the development of the Kalihi Valley Nature park and Active Living Center, KKV will encourage the city and private land owners along Kalihi Street to remove trees and vegetation that encroach onto the pavement, limiting sightlines and effectively narrowing the drivable surface of the road. It is expected that future improvements to Kalihi Street will include paving its shoulders to increase durability and safety for automobiles and pedestrians.

Organized groups such as school classes that visit the park will be required to car pool or use a van shuttle system to reduce vehicle trips along Kalihi St. and the need for parking at the site. Appropriate road width, signage and lighting will be installed near the park entrance and any landscaping will ensure that adequate sight lines are maintained. Vehicle access to the park will be directed up an improved access driveway immediately past the bridge. This will preempt the need to widen the last section of Kalihi St. to 16 feet as recommended in the traffic study.

### **4.13 Utilities**

The park site enjoys access to city water and sewer systems. Electrical and telephone services have previously been brought to the site and will be restored. A standard fire hydrant is in place nearby. Regular garbage collection and mail delivery takes place as normal.

#### **Impacts and Mitigation Measures:**

This project will not have any significant impact on the provision of utilities. Low-flow water fixtures will be installed throughout the park. Energy efficient fixtures will be utilized for lighting and water heating. Irrigation will be provided by a system of rain water catchment to reduce any demand for city water. Composting toilets on the site will reduce water and sewer system demand.

## ***5. Relationship to Land Use, Policies and Controls***

### **5.1 State Land Use Controls**

The project site is classified by the State Land Use Commission as Urban for the ‘Ōuaua parcel and the Maluwai parcel nearest Kalihi Steam. The upslope Maluwai parcel that includes the old nursery house and terrace is classified at Conservation. **The proposed**

**Nature Park is consistent with state land use controls. The state has planned this area for a park and will approve the park plans and grant a Conservation District Use Permit prior to any development on the mauka parcel.**

**5.2 County Zoning and Land Use Controls**

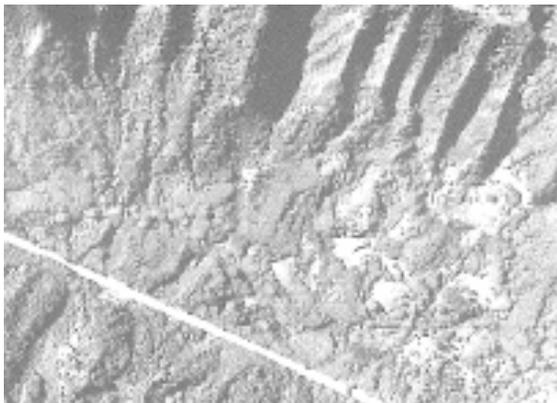
**The City zoning of the site is General Preservation (P-2) for the two parcels nearest the stream and Restricted Preservation (P-1) for the upslope parcel. The Primary Urban Center Development Plan calls for protecting and enhancing Honolulu’s natural, cultural and scenic resources. The Kalihi-Palama Action Plan urges environmental restoration and respect for the cultural fabric of Kalihi. The park development and environmental education programs described in this EA are entirely consistent with these city planning documents.**



Photograph #6 . Aerial Photograph of Kalihi Valley Feb. 16, 1949.



Photograph #7.  
Aerial Photograph of Kalihi Valley Sept. 6, 1969.



Photograph #8.  
Aerial Photograph  
of Kalihi Valley June 17, 1974.

## **6. Determination and Compliance – Finding of No Significant Impact**

### A. Finding

Finding of No Significant Impact (chapter 343, HRS and Title 11, Chapter 200 HAR)

### B. Applicant

Kokua Kalihi Valley

### C. Accepting Authority

Department of Land and Natural Resources, State of Hawai'i

### D. Determination and Review of Significance Criteria

Potential impacts of the proposed project have been evaluated in accordance with HRS Chapter 343 and HAR 11-200. The Kalihi Valley Nature Park and Active Living Center **will not:**

#### **1. Involve an irrevocable commitment to the loss or destruction of any natural or cultural resource;**

This project will restore native forest and remove alien species. Cultural use of the property will be encouraged and supported.

#### **2. Curtail the range and beneficial uses of the environment;**

This project will establish a sustainable use of the natural environment where currently little or no use takes place and area is threatened by invasive species and illegal dumping.

#### **3. Conflict with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;**

This project is in keeping with the state's goals to expand environmental education opportunities, encourage the active practice and preservation of Hawaiian culture, expand recreational facilities and encourage a more active, healthy lifestyle among our people.

#### **4. Substantially affect the economic welfare, social welfare and cultural practices of the community or state;**

This project will improve the economic welfare of the public by providing garden space for the growing of food crops and thereby reducing the cost to feed the family. Social welfare and cultural practices will be enhanced by programs provided at the site such as heath classes and the restoration of ancient Hawaiian agricultural terraces.

#### **5. Substantially affect public health;**

The project will have a positive effect on public health by encouraging physical activity and healthy living.

**6. Involve substantial secondary impact, such as population changes or effects on public facilities;**

This project will be a low-impact passive park on unutilized park land. It is not expected to have any significant impact on public utilities or services which are currently adequate to support the planned development. The project will not cause any change in population patterns or land uses.

**7. Involve a substantial degradation of environmental quality;**

This project will have only minor, short term impacts on environmental quality caused by small scale construction and the removal and replacement of vegetation and trees on the site. With the incorporation of the mitigation measures noted, this project will not result in any significant degradation of the environment. With the restoration of native species on the site, the natural environment will, in fact, be improved.

**8. Have individually limited but cumulatively considerable effect upon the environment or involves a commitment for larger actions;**

No cumulative impacts or commitment to a larger action is inherent to this project.

**9. Substantially affect a rare, threatened, or endangered species, or its habitat;**

No rare or endangered species have been found on this park site. The restoration of native plants on the site over time may enhance the habitat for native birds or insects.

**10 Detrimentially affect air or water quality or ambient noise levels;**

This project may temporarily elevate noise and dust levels in the immediate area due to small-scale construction activities and the removal of vegetation. The adoption of the noted mitigation measures will assure that no significant impact to stream and water quality is caused by the activities at the nature park.

**11. Affect or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plane, tsunami zone, beach , erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;**

This project is not in or near any area that is environmentally sensitive or could cause it to suffer damage due to natural hazards.

**12. Substantially affect scenic vistas and view planes;**

This project will be difficult to see from any public vantage point. It will remain green and well vegetated and blend in with its forested surroundings. No significant visual impacts will be caused.

**13. Require substantial energy consumption;**

This project will not consume substantial energy. Energy efficient fixtures will be installed in the Active Living Center. It is expected that the Center/Caretaker's residence will not consume any more energy than an average home. The "bunk house" at the nature camp may be designed to be completely off the electrical grid.

## ***7. Alternatives to the Proposed Action***

### **7.1 No Action Alternative**

In the no action alternative, Kokua Kalihi Valley would withdraw from its lease of the 100-acre parcel and the site would remain undeveloped until either the State of Hawai'i dedicated funds to create a nature park or another non-profit organization was selected to pursue the project. Under this alternative, the archaeological sites on the 100-acre parcel would continue to decay and the remnant stands of native vegetation would continue to be smothered by alien species. The site would likely remain a dumping ground for abandoned vehicles and trash and no significant recreational or cultural programs would take place on the site.

### **7.2 Partial Development Alternative**

In this alternative, only a portion of the proposed activities on the site would be realized. The Active Living Center and Caretaker's Residence would still be developed but fewer of the related developments would take place. Which projects move forward would depend on the availability of funding, community support and the extent of any environmental contaminants from the previous nursery operation that may be discovered on the site. One scenario would be to delete or defer the creation of the nature camp and tent camping area on the upslope conservation land. The restoration of archaeological sites may also prove to be too expensive to pursue in the near term. The program of community gardens requires both a consistent demand for garden space and the organizational capacity to manage the garden plots safely and effectively. KKV may choose to defer the gardening program until such time as additional funding or staff is available to assure its success. Finally, the reforestation component of the project is expected to be accomplished over many years. The time line for clearing exotic species and replacing them with native plants may be adjusted to meet the supply of volunteer labor and financial support available.

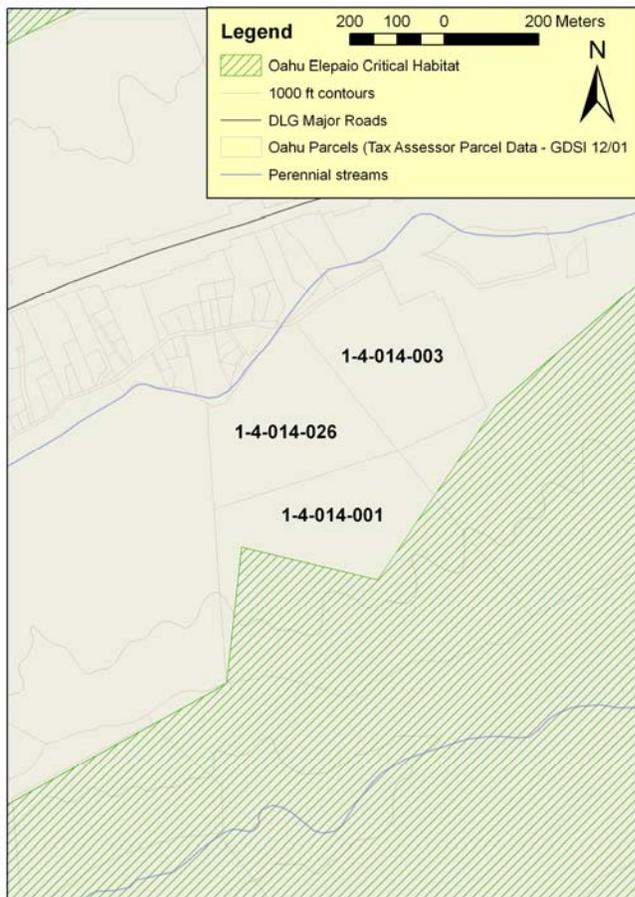
## ***8. Permits and Approvals***

**Because the Nature Park will be a public park operated on behalf of the State of Hawai'i by Kokua Kalihi Valley, the improvements on the site should be considered a public use and therefore will be allowed as a principle use with respect to county zoning. No conditional use permits or variances will be needed. KKV will voluntarily pursue a city building permit for the restoration and replacement of the roof of the Active Living Center and Caretaker's Residence although it is not strictly needed.** Any development in the Conservation District (the proposed Nature Camp and Tent Camping Ground) will require a Conservation District Use Permit (CDUP) from the state Department of Land and Natural Resources. The lease of the 100-acre parcel to KKV will stipulate a periodic compliance review by the State Parks Division. Thus, the continual approval of DLNR will be required for the duration of the 20-year lease period. **If land is graded or grubbed beyond the exemption threshold under the law, a county grading or grubbing permit will be required.**

### 9. Consulted Parties

The following organizations and individuals were consulted during the drafting of this Environmental Assessment and the Kalihi Valley Nature Park and Active Living Center master planning process.

Department of Land and Natural Resources, Department of Health, Kalihi Valley Neighborhood Board, Honolulu Board of Water Supply, National Park Service, Hawai’i Nature Center, UH Center for Conservation, Research and Training – Natural Heritage Program, Hawai’i Pig Hunters Association, Boy Scouts of America, Kalihi YMCA, Kalihi Palama Community Council, Hawai’i Wellness Institute, Urban Garden Center, Hawaii Community Action Program (HCAP) Gardening Program, Kuhio Park Terrace Res. Assn., Kuhio Park Terrace Property Manager, Hawaii Geographic Society, Kalihi Valley Homes Manager, Kalihi Valley Homes Res. Assn., Mason Architects, Halau Lokahi Public Charter School, Plan Pacific, UH School of Urban and Regional Planning, Honolulu Community College, Belt Collins Planning, Office of Hawaiian Affairs, Oahu Invasive Species Committee.



### ‘Elepaio Designated Critical Habitat

This map indicates that the U.S Fish and Wildlife Service has designated the upper elevations of parcel 1-4-014-001 as critical habitat for the native ‘Elepaio bird. This designation will not affect plans to develop the nature park. The only park feature in the habitat area will be a hiking trail.

## Referenced Documents

### A: Submittal to the Board of Land and Natural Resources by Division of State Parks

State of Hawaii  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Division of State Parks  
Honolulu, Hawaii

December 10, 2004

Board of Land and Natural Resources  
State of Hawaii  
Honolulu, HI 96813

Subject: Request for Approval to Lease State Park  
Land at Kalihi Valley State Park Reserve, Kalihi, Oahu

#### Board Members:

The Department has received a request to lease the subject State Park Land. The 99.9 acre site was transferred to the State by the City and County of Honolulu in 1992. The State has no funds or plans to make improvements or any funds or personnel to maintain the area. Until this year, a hold over tenant rented the old residential structure on the site.

A non-profit organization, Kokua Kalihi Valley (KKV) has made a proposal to lease the site and develop, maintain and operate a public park facility there.

The site was once occupied by a nursery operation and some of the structures and nursery supplies were left on the property. There are several covered parking/work spaces, two residential units and several utility and other buildings. Since the tenant vacated the old structure, it appears that transients have made use of the structures.

KKV proposes to create, restore and renovate the old residential structure on the site and create a classroom and watershed reserve center. They propose to use a large open lanai for an outdoor gathering place. The structure would be renovated to provide meeting rooms, restrooms, office space and possibly a caretakers residence. The KKV envisions retaining many of the existing trees and building new interpretive walking paths. They propose to landscape the area with native plants and to provide labels for interpretation. The proposal includes construction of a hula mound which will be available to Hula Halau. The attached information includes a conceptual design which shows a layout of the improvements envisioned for the old home on the site.

This proposal provides an opportunity for development and use of this area as a park without significant investment of State funds. Staff has been discussing this project with KKV for some time and believe this to be a positive course of action.

KKV is requesting a long term lease of the area in order to be able to secure grant funds. They are also concerned about assuming responsibility for removal of the old structures and debris from the site.

ITEM E-4

The Board is authorized to enter into lease agreements at a nominal consideration, by direct negotiation with non-profit organizations under Chapter 171-43.1, Hawaii Revised Statutes.

Before improvements can be made, an overall plan must be developed, and the impact assessed. KKV has made a commitment to go through an environmental assessment process to develop a community based plan. The plan will be submitted to the Department for approval.

In order to allow this process to get underway, staff is <sup>recommending</sup> ~~recommending~~ issuing a revocable permit for the interim period while the lease is being processed. Staff is recommending a lease term of 20 years with a performance review by the Department at the end of the first, third, fifth, tenth and fifteenth years of the lease term. Additionally, the state will provide assistance with cleaning up the rubbish on the site.

**RECOMMENDATION:**

- 1) That the Board approves a 20 year lease to Kokua Kalihi Valley (KKV) for the Kalihi Valley State Park Reserve, Kalihi, Oahu with a lease rent of \$144.00 annually.
- 2) That the Board approve issuing a revocable permit to KKV for Kalihi Valley State Park Reserve, with the following conditions:

That KKV shall conduct an environmental assessment and develop a community based plan to be submitted to the Department for approval, and

That there be a performance review by the Department at the end of the first, third, fifth, tenth and fifteenth years of the agreement, and

That the lease be subject to standard terms and conditions and any special conditions deemed appropriate by the Chairperson.

Respectfully submitted,



Daniel S. Quinn  
State Parks Administrator

Approved for submittal

  
For Peter T. Young, Chairperson

**B: Botanical Resources Survey**

# A Botanical Reconnaissance of Kalihi Valley Nature Park

for Kokua Kalihi Valley  
June 20, 2005

Joel Q. C. Lau  
Botanist, Hawai`i Specialist  
Hawaii Natural Heritage Program

## A Botanical Reconnaissance of Kalihi Valley Nature Park

### Introduction

Kokua Kalihi Valley, a non-profit community service organization has received approval for a 20-year lease of about 100 acres of state park land in Kalihi Valley. KKV intends to plan and implement improvements on the property to create a nature park with hiking trails, community gardens, and other facilities. To make way for the park improvements, plans call for the removal of some trees and vegetation. The purpose of this report is to assist the park planning process and help guide or constrain the implementation of park programs that could affect the botanical resources of the site.

A botanical reconnaissance of the land where park development has been planned was conducted on March 19, 2005. The main objective of this reconnaissance was to search for rare and endangered native plants that should be protected from harm in the development of the park, and that could possibly be included among the park's managed natural resources. The plants targeted in the reconnaissance were those that have been listed as endangered or threatened species by the U.S. Fish and Wildlife Service, along with any other native plant species that have not been listed as endangered or threatened, but are considered rare or "species of concern" by the U.S. Fish and Wildlife Service, the state Division of Forestry and Wildlife, or by the Hawai'i Natural Heritage Program.

The parcels of land included in the park extend from about 500 ft to almost 1,500 ft in elevation. The reconnaissance was focused on the lower elevations of the property, from about 500-800 ft in elevation, which is where the currently planned park development will take place. Only a short time was spent in the elevations above 800 ft on the steeply sloped valley side, in order to assess the potential for that part of the property to contain rare plants. For the purposes of this document, the portion of the property below 800 ft is referred to as the valley bottom. The part of the property above 800 ft is referred to as the valley side. The reconnaissance involved traversing the area on foot, and utilizing binoculars at vantage points. Plant taxonomy and nomenclature in this document follows Wagner *et al.* 1999 for the flowering plants and Palmer 2003 for the ferns and fern allies.

### Description of the setting and vegetation

Parts of the valley bottom of the property had been leased to plant nurseries in the past. The nurseries were abandoned and the land has been unused for more than two decades. Warehouses, nursery structures, and roadways are still located on the property. Areas that were open when the nurseries were in operation have since been overgrown. Other areas that had not been cleared are vegetated in old alien forest.

The forest below 800 ft is mostly dominated by naturalized alien tree species, with only small patches of native vegetation remaining. Much of the forest canopy is composed of albizia (*Falcataria moluccana*). Other common alien trees are rose apple (*Syzygium jambos*), gunpowder tree (*Trema orientalis*), black bamboo (*Phyllostachys nigra*), koka

(*Bischofia javanica*), strawberry guava (*Psidium cattleianum*), common guava (*Psidium guajava*), shoebuttan ardisia (*Ardisia elliptica*), ironwood (*Casuarina equisetifolia*), fiddlewood (*Citharexylum caudatum*), kukui (*Aleurites moluccana*) and Formosan koa (*Acacia confusa*). There are also some trees in the parcel that were planted in the early 1900's, but have not spread very much, such as the Cook pine (*Araucaria columnaris*), and eucalyptus (*Eucalyptus* sp.).

The vegetation below 700 ft is almost totally alien in composition. Above 700 ft native plants within the alien forest are more frequently encountered. The native plants observed here include `ōhi`a (*Metrosideros* spp.), koa (*Acacia koa*), hapu`u pulu (*Cibotium chamissoi*), `ie`ie (*Freycinetia arborea*), papala kepau (*Pisonia umbellifera*), mamaki (*Pipturus albidus*), lama (*Diospyros sandwicensis*), alahe'e (*Psydrax odorata*), and uluhe (*Dicranopteris linearis*). Polynesian introductions seen below 800 ft included kukui, kamani (*Calophyllum inophyllum*), ti (*Cordyline fruticosa*), `ohi`a `ai (*Syzygium malaccensis*), coconut (*Cocos nucifera*), and hau (*Hibiscus tileaceus*; possibly native). A variety of ornamental plant species persists around abandoned nursery structures and residences.

The vegetation of the steep valley wall portion of the parcel is largely dominated by alien plant species, but a larger percentage of the vegetation here is native compared to the alien forest of the valley bottom portion. The native plants observed here were common mesic forest plants.

## **Discussion and Recommendations:**

No listed endangered or threatened native plants nor any other rare native plants were found during this reconnaissance. This was not unexpected, given the long history of alteration and destruction of native vegetation of the valley bottoms in the Honolulu area in pre-Western times up until today. There is little potential for the discovery of rare plants that may have been missed on this reconnaissance based on the documented patterns of occurrence of rare and endangered native plants in the valleys in the Honolulu area.

The potential for the discovery of rare plants is greater in the valley wall part of the property than in the valley bottom portion. These upper elevations would require further survey for rare and endangered plants should any park development be planned there.

Some of the alien plants in the part of the study area that are planned for park development are not compatible with many aspects of park use. For instance, the albizia that dominates in the lower elevations is known to be especially hazardous because its limbs frequently break off and fall to the ground. Many of the albizia trees are still young, and the problem will worsen if the trees are allowed to mature.

Another alien plant species of the study area that should be controlled is the black bamboo. This bamboo species spreads rapidly by rhizomes and is very tenacious. Land

that is overgrown with bamboo would be of little use. It is probably in the best interest of the park for the bamboo to be contained, and eventually eradicated.

Two widely separated immature plants of the alien weed *Miconia calvescens* were found on this reconnaissance. The species is considered one of the most serious alien plant threats to the native Hawaiian biota, and an effort by state Division of Forestry and Wildlife personnel is underway aimed at eradicating it on O`ahu. The park property has been for several years a key site in the eradication attempt, and as indicated by the finding of two immature individuals of *Miconia* on this reconnaissance, the parcel needs to continue to be a focal point in the island-wide *Miconia* eradication program.

The restoration of native forest could be incorporated into plans for the park. A restoration effort in the park would serve as a valuable educational resource, since there is not much native mesic forest of any kind on O`ahu that is of easy access to residents of the island. Not much native forest restoration has been attempted in Hawai`i, so such an endeavor would necessarily be experimental in nature. Some of the species of the original native forest of the valley bottom still survive in the area. Others probably have been locally extirpated and would have to be reintroduced from elsewhere on the island. The species selected for reintroduction should be based on research on the species composition of examples of native vegetation on O`ahu, or the remnants of it, in settings similar to the park property in terms of geography and climatic conditions.

## References

Palmer, D. D. 2003. *Hawai`i's Ferns and Fern Allies*. University of Hawai`i Press, Honolulu. 324 pp.

Wagner, W. L., D. R. Herbst, and S. H. Sohmer. 1999. *Manual of the flowering plants of Hawai`i*, revised edition with supplement by Wagner, W. L. and D. R. Herbst, pp. 1855-1918. University of Hawai`i Press, 1919 pp. in 2 volumes. (Bishop Museum Special Publication 97).

**C: Traffic and Parking Analysis**

**Kalihi Valley Nature Park  
Traffic Study**

**Compiled by: Kokua Kalihi Valley**

**from the volunteer services of transportation professionals.**

**July 2005**

## Summary

At the request of Kokua Kalihi Valley, a group of transportation engineers and planners donated their time and expertise to investigate the potential traffic impacts that could be caused by the development of the Kalihi Valley Nature Park. Traffic counts were taken on Kalihi Street and the collected data was analyzed. Applicable federal, state and county standards and procedures were utilized to generate the recommendations presented in this report. KKV is solely responsible for the content of this study.

The findings of this report suggest that traffic impacts that could be caused by the development of the Kalihi Nature Park as proposed will be minimal. No street widening, signalization or major improvements are called for. The current level of service of Kalihi Street will not be affected by the proposed park development.

To meet the public demand for parking at the Nature Park, Kokua Kalihi Valley intends to provide at least 50 off-street parking stalls. Roadway signage, lighting and sightlines will be carefully considered to assure safe access to the park site.

## Existing Conditions

Internal and Adjacent Roadway System - The master plan for the nature park envisions a limited roadway system to access selected attraction sites and a 50-space grass-crete parking lot. The nature park will include such items as a caretaker's residence and classroom, about 20 acres for community gardening, ancient agricultural terraces, a Hawaiian garden, walking paths, hiking trails, picnic areas, a hula mound, and a nature camp site. Only half of the 100-acre nature park will be accessible to the public as the rest is made up of steep land with a single hiking trail proposed across it.

The northeast end of Kalihi Street forms one boundary and the entrance to the nature park. Beyond this, Kalihi Street is gated and access to the adjacent Board of Water Supply site/facilities is restricted.

Around the entrance to the nature park, Kalihi Street is approximately 12 feet wide with occasional 2-4 foot shoulders. A wooden bridge, approximately 19 feet wide, is located about 0.1 miles southwest (makai) of the entrance. The bridge has a sign declaring a 10-ton limit. The segment of Kalihi Street between the wooden bridge and the gated end also provides access to two homes located across from the nature park.

Access to Nature Park - Kalihi Street provides the only vehicular access to the proposed 100-acre nature park. This city roadway has direct access to Likelike Highway and H-1/Lunalilo Freeway. Although short sections of asphalt or concrete sidewalks may occasionally appear, Kalihi Street is essentially void of sidewalks or curbs north (mauka) of Waialele Street. Street lights line the entire length of Kalihi Street.

Functional Classification - Between Likelike Highway and Kalaepa'a Drive, Kalihi Street is classified as a collector. Northeast (mauka) of Kalaepa'a Drive, Kalihi Street is classified as a local street

Roadway Widths and Speed Limits – Kalihi Street is a two lane (one lane in each direction) roadway from the wooden bridge to Wailele Street. Between Kalaepaa Drive and the wooden bridge, Kalihi Street varies from 13 to 21 feet in width. This roadway serves low density homes, two churches, a dojo, and a small cemetery. South of Kalaepa’a Drive, Kalihi Street is approximately 21 feet wide.

A 25 mph speed limit is generally posted for Kalihi Street. Due to a winding road with limited sight distance, a short segment just south of Kapaepa’a Drive is posted at 20 mph.

Transit Service - The Route 7 bus runs on Kalihi Street up to Ahuahu Place (0.7 mile from the nature park). Buses run approximately every 15 minutes during the weekday peak and every 40 minutes during the off peak. On Saturdays and Sundays, buses run about every 30 and 60 minutes respectively.

### **Traffic Analysis**

Traffic Counts - Traffic counts were taken on Kalihi Street just north of Numana Road. This is approximately 1.5 miles south of the nature park. Numana Road is the last access to Likelike Highway. Any vehicle entering the valley north of this intersection must also pass this point to exit the valley.

#### **Weekday Traffic:**

Figures 1-4 compare total (non-directional) traffic volumes between the May and June data sets.

Figure 1 compares traffic volumes between Friday, May 20, 2005 and Friday, June 17, 2005. This figure indicates a similar distribution of traffic volume over time with the exception of a pronounced “bump” in the morning and afternoon peak period traffic volumes.

Figure 2 compares the various weekday traffic volumes taken. The data indicate that morning and afternoon “bumps” in traffic are similar on each weekday. The Friday, May 20, 2005 traffic volumes are higher overall than the counts taken in June (600-850 vehicles over a 24-hour period) and having a higher morning peak hour volume (75-100 vehicles) and a higher afternoon peak hour volume (50-90 vehicles). This is probably accounted for by the additional school related traffic on May 20, 2005.

#### **Weekend Traffic:**

Figure 3 compares traffic volumes between Saturday, May 21, 2005 and Saturday, June 18, 2005. The distribution of traffic volume over time between the two data sets is similar.

Figure 4 compares traffic volumes between Sunday, May 22, 2005 and Sunday, June 19, 2005 and again shows a relatively constant trip count over the course of the day.

Figures 5-9 illustrates the distribution of traffic volumes, by direction, on Kalihi Street, north of Numana Road for June 17-21, 2005. During the weekday, peak hour southbound traffic occurs around 6:45 to 7:45 a.m. (380 vehicles) and peak hour northbound traffic occurs around 4:15 to 5:15 p.m. (290 vehicles). When adjusted for school traffic, peak hour southbound traffic is projected to be 470 vehicles and 350 vehicles in the southbound and northbound directions, respectively.

Appendix 1 provides the traffic counts taken from June 17-21, 2005.

Non-directional traffic counts were taken on May 20 through 22, 2005 (Friday through Sunday) and directional traffic counts were taken on June 17 through 21, 2005 (Friday through Tuesday). School was in session during the May 20-22, 2005 traffic counts.

The weekends do not show the peaking characteristics of the weekdays. Noting this, the highest hourly volume on Saturdays occurs around 9 to 10 a.m. in the southbound direction (213 vehicles), and around 4 to 5 p.m. in the northbound direction (219 vehicles). For Sunday, the highest hourly volume in the southbound direction occurs around 9:45 to 10:45 am (237 vehicles), and around 5:30 to 6:30 p.m. in the northbound direction (208 vehicles). This information is presented in Table 1.

Table 1  
Peak Hour Traffic Volumes on Kalihi Street North of Numana Road

<u>Time Period</u>	<u>NB Vehicles</u>	<u>SB Vehicles</u>
Weekday A.M. Peak Hour		470
Weekday P.M. Peak Hour	350	
Saturday Peak Hour	219	213
Sunday Peak Hour	208	237

### **Trip Generation**

Trips generated from the 100-acre nature park were calculated using rates from the Institute of Transportation Engineers (ITE), Trip Generation, 6<sup>th</sup> Edition. Average rates for a 100-acre regional park were used to generate the values identified in Table 2. This was assumed to be a conservative approach as only half of the 100 acres of the proposed nature park would be usable.

Due to the distance of the nearest bus stop, all travel entering the nature park is assumed to be by auto.

Table 2  
Projected Trips Generated From Proposed Nature Park

<u>Time Period</u>	<u>Vehicle Trip Ends</u>	<u>Enter/Exit</u>
Weekday A.M. Peak Hour	15	57:43
Weekday P.M. Peak Hour	26	44:56
Saturday Peak Hour	34	48:52
Sunday Peak Hour	42	34:66

### No traffic impact study needed

ITE guidelines from Traffic Access and Impact Studies for Site Development, A Recommended Practice, 1991 states that “a traffic access/impact study be conducted whenever a proposed development will generate 100 or more added (new) peak direction trips to or from the site during the adjacent roadways’ peak hours or the development’s peak hour.” The nature park is not expected to meet ITE’s threshold for the conduct of an impact study.

Level of Service (LOS) – LOS is a grading system used in transportation planning that assigns a grade to a roadway based on the traffic volume and capacity of the roadway. The grade scale is represented by the letters A through F, with LOS A representing the best condition and LOS F representing the worst. LOS A through LOS D is generally considered an acceptable operating condition, while LOS E and F are not. The Capacity of Kalihi Street north of Numana Road is estimated to be 600 vehicles per hour per lane.

Existing and projected LOS on Kalihi Street north of Numana Road are presented in Tables 3 and 4 respectively. No change in LOS is anticipated as a result of the traffic generated from the nature park.

Table 3  
Existing Level of Service on Kalihi Street North of Numana Road

<u>Time Period</u>	<u>NB Vehicles</u>	<u>SB Vehicles</u>
Weekday A.M. Peak Hour		C
Weekday P.M. Peak Hour	B	
Saturday Peak Hour	A	A
Sunday Peak Hour	A	A

Table 4  
Level of Service on Kalihi Street North of Numana Road with Nature Park

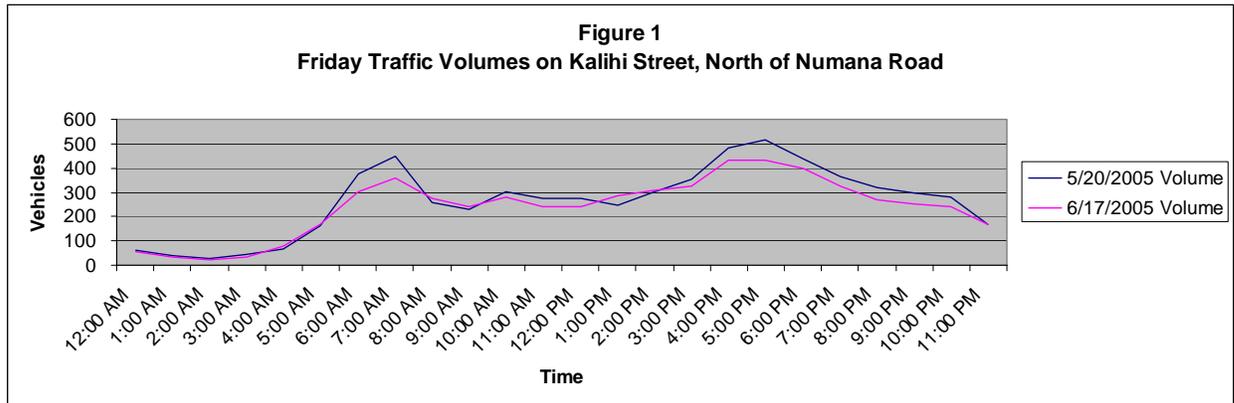
<u>Time Period</u>	<u>NB Vehicles</u>	<u>SB Vehicles</u>
Weekday A.M. Peak Hour		C
Weekday P.M. Peak Hour	B	
Saturday Peak Hour	A	A
Sunday Peak Hour	A	A

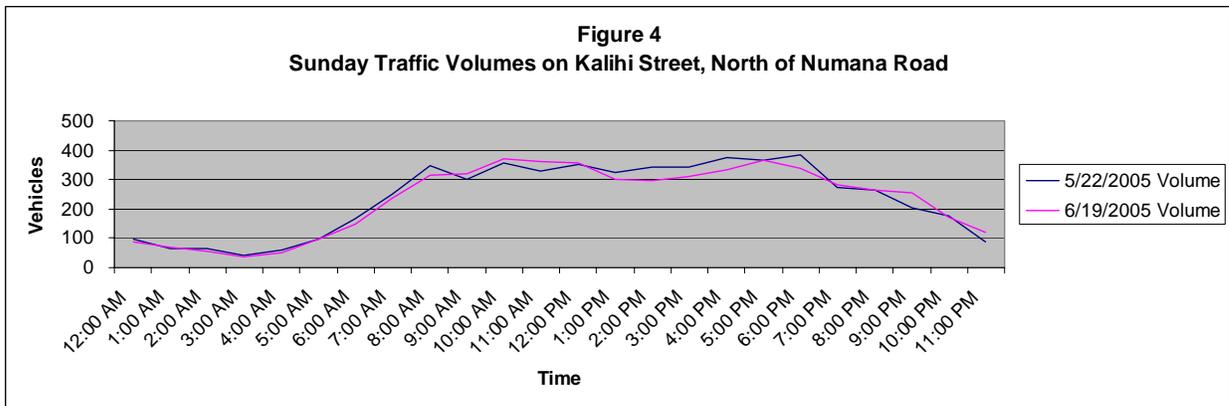
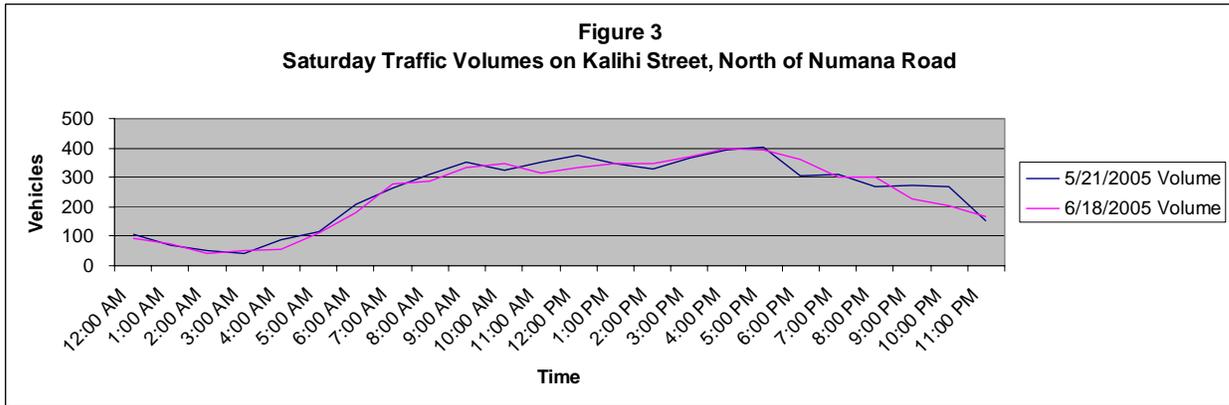
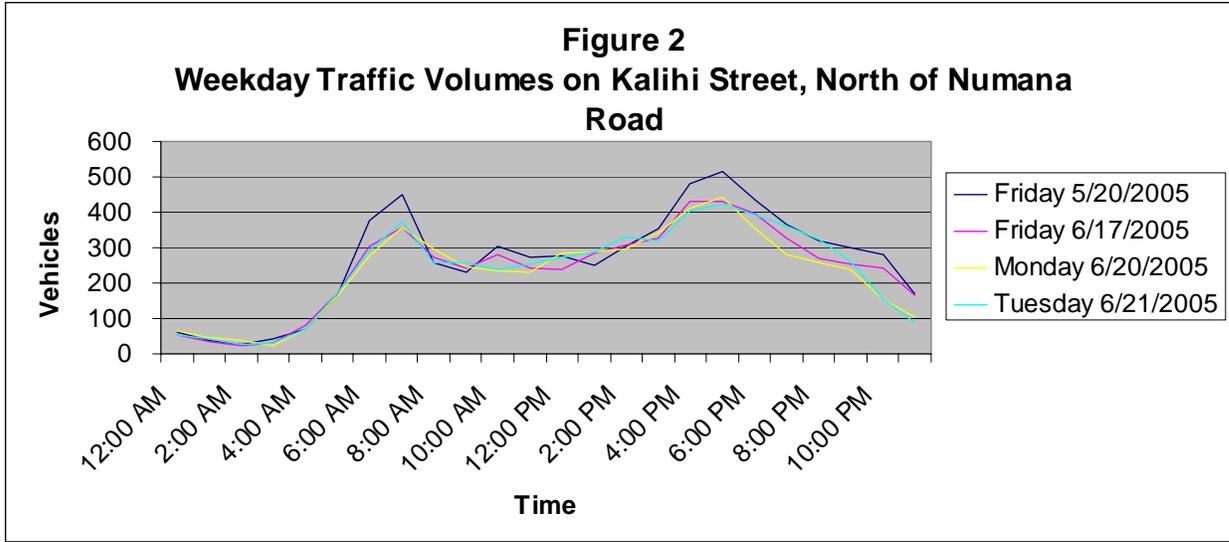
**Recommendations**

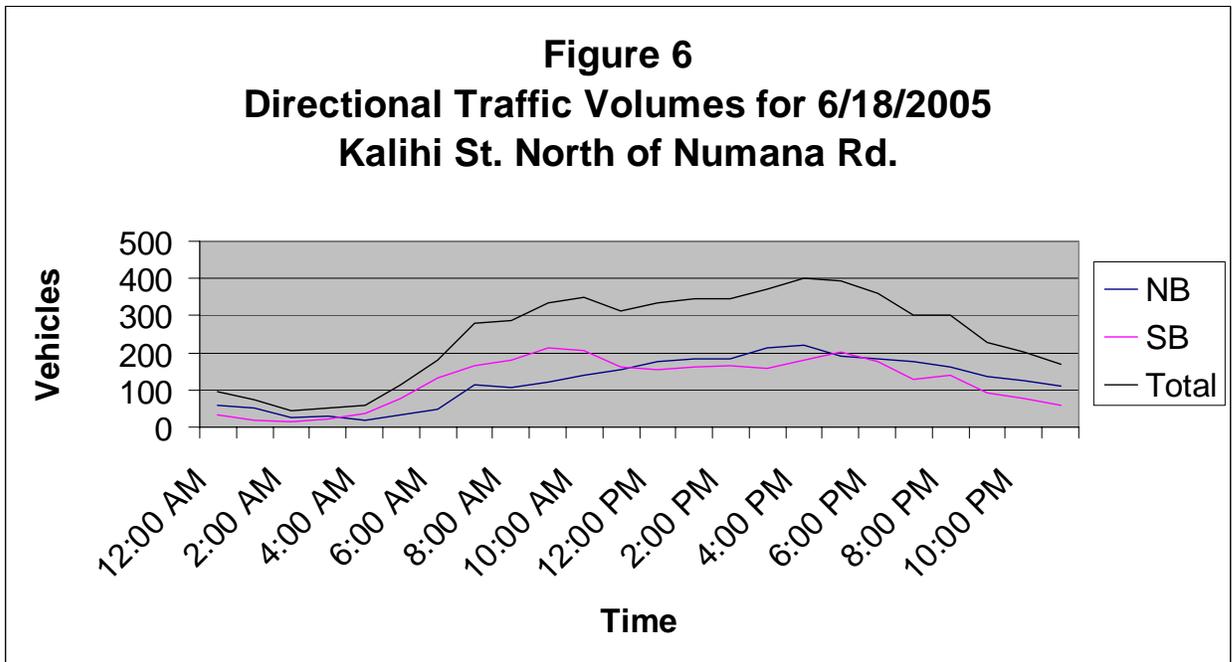
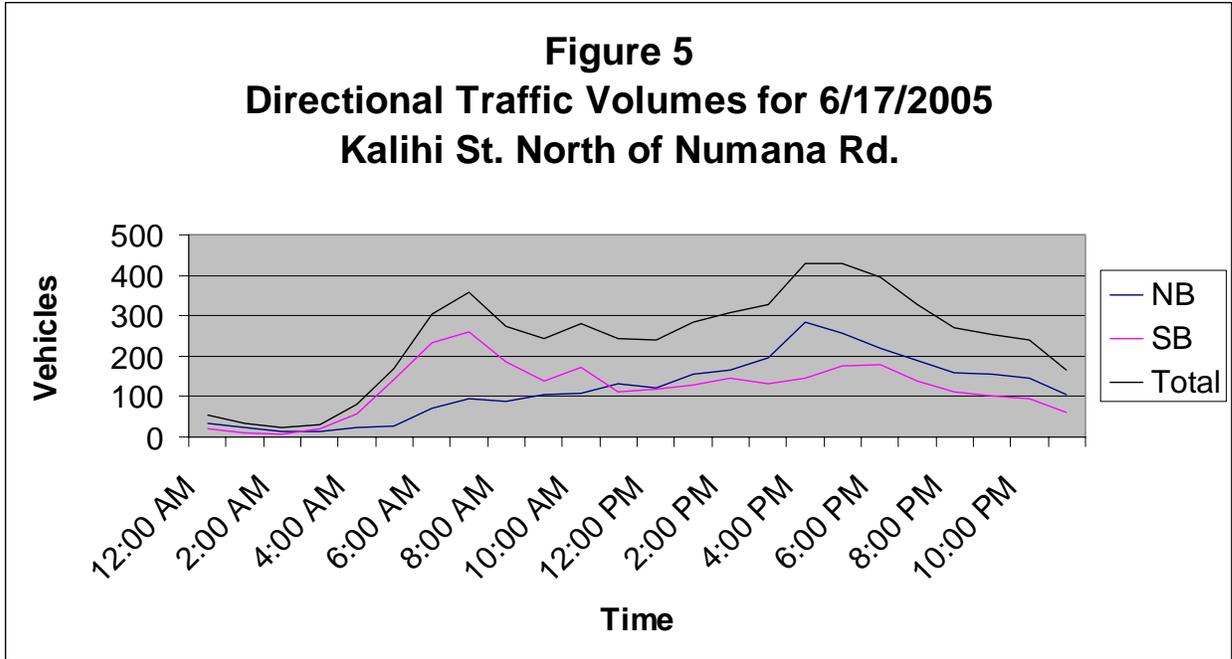
During the design of the nature park, verification of adequate lighting and sight lines from the nature park entrance and the roadway leading within the proximity of the nature park should be conducted. Any landscaping at the entrance to the nature park should ensure that sight lines are maintained. Warning signs, if appropriate, should be erected if sight lines are a problem.

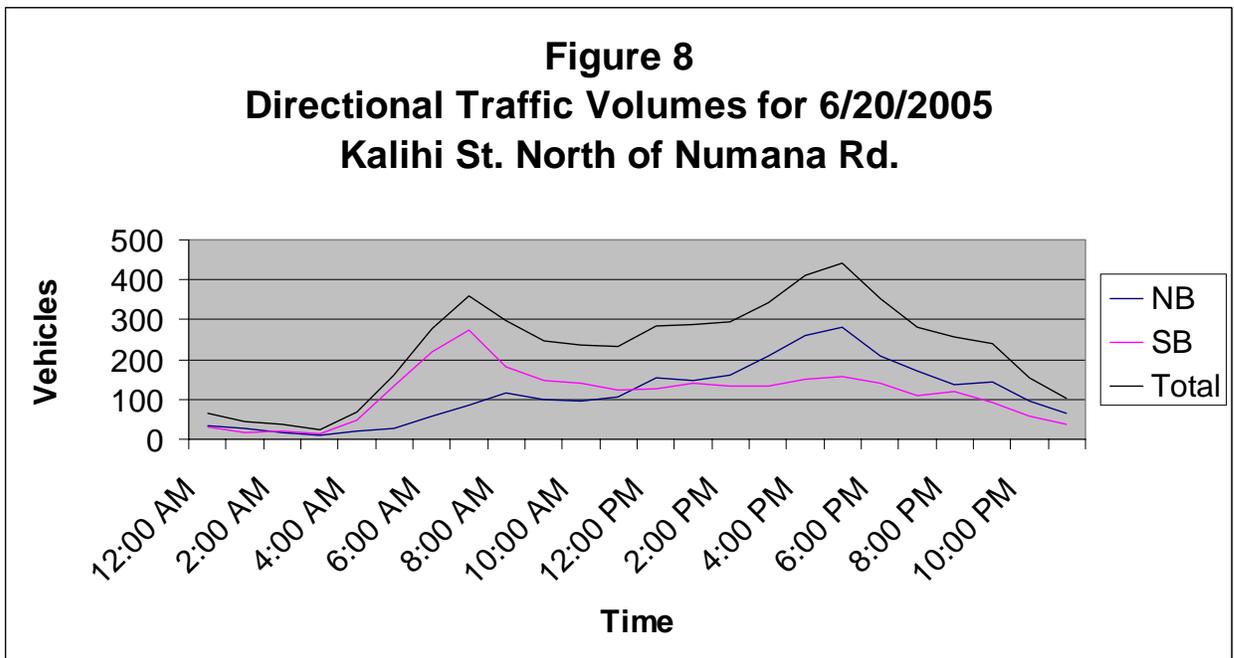
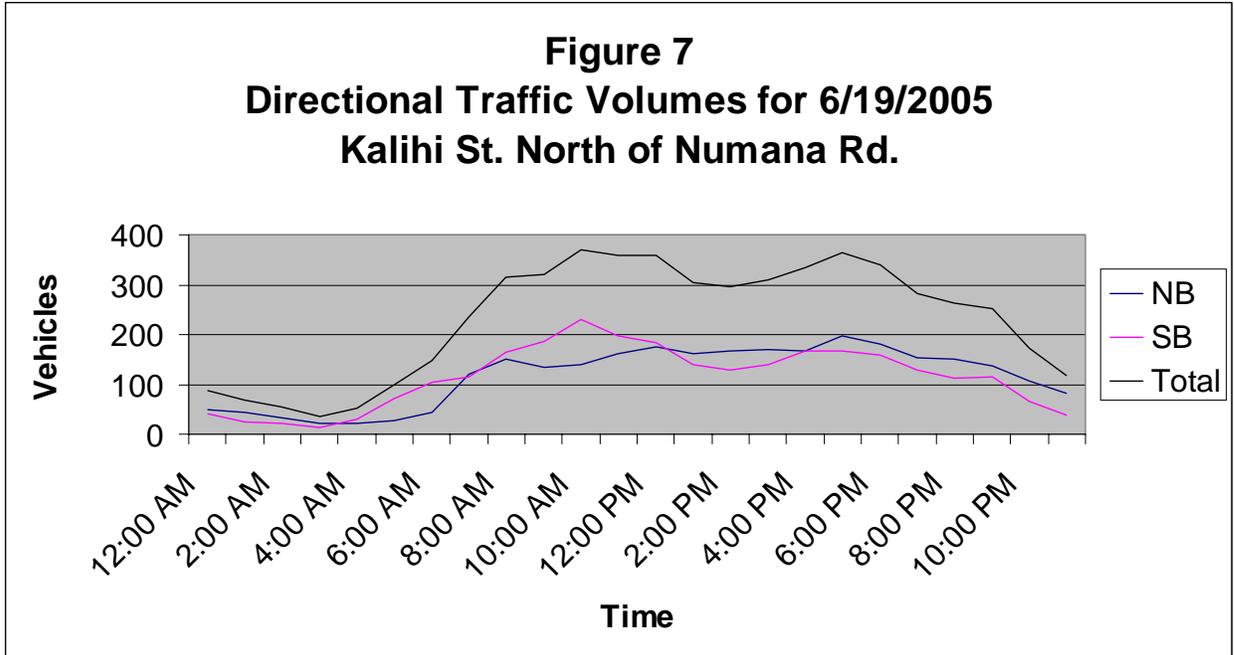
Roadway access to the nature park from the wooden bridge should be expanded to a minimum 16-foot pavement with 2-foot grass/dirt shoulders.

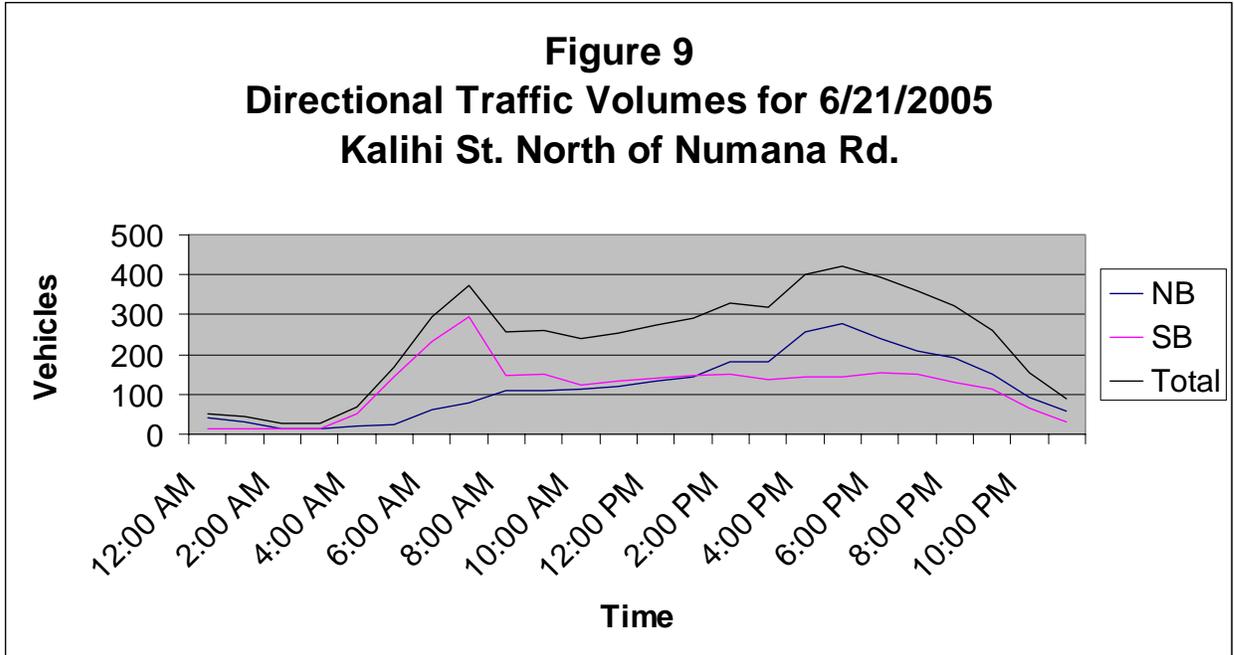
Routing of construction vehicles should take into consideration the segments of Kalihi Street which are winding and/or where large vehicles may cross over the roadway centerline. Weight limit on the wooden bridge will also dictate the types of construction vehicles used.











APPENDIX 1 - TRAFFIC COUNTS AT KALIHI STREET NORTH OF NUMANA STREET - JUNE 17-21, 2005															
Begin	Friday, June 17, 2005			Saturday, June 18, 2005			Sunday, June 19, 2005			Monday, June 20, 2005			Tuesday, June 21, 2005		
Time	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	8	9	17	21	13	34	9	13	22	11	15	26	11	6	17
12:15 AM	7	3	10	17	12	29	15	8	23	5	5	10	12	4	16
12:30 AM	4	6	10	7	2	9	14	12	26	8	10	18	10	2	12
12:45 AM	15	3	18	15	7	22	11	7	18	9	1	10	7	0	7
1:00 AM	7	3	10	19	6	25	15	7	22	7	3	10	10	3	13
1:15 AM	6	1	7	9	5	14	8	9	17	5	5	10	5	6	11
1:30 AM	7	4	11	16	3	19	5	8	13	7	5	12	11	3	14
1:45 AM	5	2	7	8	6	14	15	2	17	10	4	14	4	2	6
2:00 AM	3	2	5	9	6	15	8	5	13	6	4	10	10	3	13
2:15 AM	2	1	3	3	5	8	13	3	16	3	3	6	2	2	4
2:30 AM	6	2	8	11	1	12	5	6	11	4	11	15	1	4	5
2:45 AM	3	3	6	4	4	8	6	8	14	3	3	6	1	4	5
3:00 AM	4	4	8	5	2	7	8	8	16	0	2	2	3	4	7
3:15 AM	4	3	7	9	10	19	3	1	4	3	2	5	6	4	10
3:30 AM	1	7	8	7	2	9	7	2	9	6	4	10	2	3	5
3:45 AM	4	5	9	8	7	15	4	3	7	0	6	6	3	4	7
4:00 AM	7	8	15	4	2	6	7	3	10	5	7	12	6	8	14
4:15 AM	3	11	14	4	9	13	3	7	10	4	3	7	5	12	17
4:30 AM	7	20	27	6	12	18	6	10	16	5	12	17	2	15	17
4:45 AM	6	18	24	6	14	20	5	11	16	6	26	32	6	15	21
5:00 AM	4	21	25	5	13	18	5	12	17	6	16	22	4	22	26
5:15 AM	6	33	39	3	22	25	6	13	19	6	23	29	7	24	31
5:30 AM	10	38	48	11	22	33	7	23	30	5	46	51	6	43	49
5:45 AM	8	50	58	15	22	37	9	24	33	12	47	59	8	54	62
6:00 AM	16	62	78	11	44	55	5	30	35	9	57	66	12	46	58
6:15 AM	17	47	64	12	27	39	13	30	43	14	38	52	14	53	67
6:30 AM	20	62	82	8	39	47	10	20	30	19	57	76	16	60	76
6:45 AM	18	62	80	17	21	38	17	23	40	16	67	83	18	74	92
7:00 AM	27	82	109	18	35	53	22	20	42	19	78	97	20	85	105
7:15 AM	21	62	83	33	41	74	34	30	64	18	71	89	24	80	104
7:30 AM	24	59	83	34	52	86	35	37	72	22	70	92	12	70	82
7:45 AM	24	58	82	28	37	65	29	28	57	25	56	81	24	58	82
8:00 AM	17	47	64	25	37	62	34	35	69	34	53	87	22	35	57

8:15 AM	22	48	70	30	53	83	38	50	88	30	56	86	27	46	73
8:30 AM	33	50	83	25	48	73	37	37	74	29	37	66	24	34	58
Begin	<u>Friday, June 17, 2005</u>			<u>Saturday, June 18, 2005</u>			<u>Sunday, June 19, 2005</u>			<u>Monday, June 20, 2005</u>			<u>Tuesday, June 21, 2005</u>		
Time	<u>NB</u>	<u>SB</u>	<u>Total</u>	<u>NB</u>	<u>SB</u>	<u>Total</u>	<u>NB</u>	<u>SB</u>	<u>Total</u>	<u>NB</u>	<u>SB</u>	<u>Total</u>	<u>NB</u>	<u>SB</u>	<u>Total</u>
8:45 AM	16	41	57	27	41	68	41	42	83	23	35	58	37	31	68
9:00 AM	32	31	63	24	48	72	24	40	64	26	47	73	28	27	55
9:15 AM	32	41	73	29	51	80	36	49	85	30	35	65	29	42	71
9:30 AM	23	36	59	31	65	96	39	52	91	14	43	57	22	46	68
9:45 AM	19	29	48	36	49	85	36	45	81	29	23	52	31	34	65
10:00 AM	32	45	77	36	47	83	32	56	88	26	39	65	27	39	66
10:15 AM	25	49	74	29	38	67	31	48	79	23	35	58	31	31	62
10:30 AM	24	42	66	42	59	101	37	88	125	22	29	51	22	31	53
10:45 AM	26	36	62	34	63	97	40	39	79	26	36	62	34	24	58
11:00 AM	27	31	58	32	41	73	38	48	86	24	34	58	32	34	66
11:15 AM	32	33	65	47	38	85	41	38	79	25	37	62	38	36	74
11:30 AM	36	22	58	35	42	77	42	59	101	34	25	59	22	34	56
11:45 AM	36	25	61	40	39	79	42	52	94	24	29	53	27	30	57
12:00 PM	28	29	57	44	40	84	49	53	102	46	31	77	30	38	68
12:15 PM	25	27	52	60	43	103	45	55	100	30	37	67	35	42	77
12:30 PM	35	28	63	31	35	66	47	44	91	38	31	69	25	25	50
12:45 PM	34	34	68	42	38	80	33	32	65	41	29	70	45	35	80
1:00 PM	40	32	72	36	41	77	42	32	74	37	31	68	45	24	69
1:15 PM	35	26	61	42	34	76	41	33	74	34	38	72	32	36	68
1:30 PM	40	36	76	49	46	95	39	40	79	42	34	76	34	47	81
1:45 PM	42	34	76	57	40	97	40	36	76	33	39	72	32	40	72
2:00 PM	48	30	78	38	41	79	55	25	80	29	30	59	48	42	90
2:15 PM	47	40	87	54	40	94	34	39	73	37	33	70	35	34	69
2:30 PM	36	41	77	49	50	99	36	32	68	35	40	75	48	41	89
2:45 PM	33	33	66	41	34	75	41	34	75	61	31	92	49	32	81
3:00 PM	46	36	82	53	40	93	47	40	87	48	31	79	40	37	77
3:15 PM	48	36	84	62	28	90	44	36	80	55	34	89	41	30	71
3:30 PM	44	26	70	53	53	106	42	31	73	44	32	76	38	37	75
3:45 PM	59	33	92	46	37	83	38	32	70	61	38	99	63	32	95
4:00 PM	67	39	106	53	33	86	40	32	72	48	43	91	51	40	91
4:15 PM	67	37	104	55	53	108	49	46	95	70	30	100	80	35	115
4:30 PM	75	37	112	52	51	103	47	33	80	76	40	116	47	38	85
4:45 PM	74	33	107	59	43	102	30	57	87	67	37	104	80	31	111

5:00 PM	69	48	117	42	48	90	39	47	86	73	38	111	81	27	108
5:15 PM	63	43	106	47	60	107	45	46	91	70	41	111	63	29	92
5:30 PM	67	39	106	58	50	108	54	39	93	73	36	109	64	41	105
5:45 PM	57	44	101	45	45	90	59	36	95	66	44	110	69	48	117
Begin	<u>Friday, June 17, 2005</u>			<u>Saturday, June 18, 2005</u>			<u>Sunday, June 19, 2005</u>			<u>Monday, June 20, 2005</u>			<u>Tuesday, June 21, 2005</u>		
Time	<u>NB</u>	<u>SB</u>	<u>Total</u>	<u>NB</u>	<u>SB</u>	<u>Total</u>	<u>NB</u>	<u>SB</u>	<u>Total</u>	<u>NB</u>	<u>SB</u>	<u>Total</u>	<u>NB</u>	<u>SB</u>	<u>Total</u>
6:00 PM	37	53	90	37	37	74	43	43	86	59	42	101	65	40	105
6:15 PM	91	41	132	44	46	90	52	42	94	45	24	69	55	41	96
6:30 PM	53	49	102	53	47	100	45	36	81	50	48	98	57	33	90
6:45 PM	37	35	72	49	46	95	40	39	79	56	28	84	63	40	103
7:00 PM	58	37	95	52	31	83	45	35	80	42	27	69	65	44	109
7:15 PM	45	33	78	29	35	64	33	32	65	38	30	68	50	28	78
7:30 PM	40	42	82	54	35	89	37	32	69	52	27	79	44	47	91
7:45 PM	45	27	72	41	26	67	39	29	68	38	26	64	51	31	82
8:00 PM	33	28	61	41	32	73	46	34	80	39	32	71	66	35	101
8:15 PM	41	27	68	36	37	73	44	27	71	34	29	63	46	26	72
8:30 PM	46	25	71	49	36	85	27	27	54	32	35	67	33	35	68
8:45 PM	39	32	71	37	34	71	34	24	58	32	24	56	47	35	82
9:00 PM	30	28	58	33	23	56	34	38	72	31	21	52	37	32	69
9:15 PM	45	17	62	36	21	57	41	22	63	43	20	63	35	30	65
9:30 PM	42	30	72	28	29	57	31	21	52	36	29	65	47	22	69
9:45 PM	37	26	63	38	19	57	32	34	66	35	24	59	30	28	58
10:00 PM	42	24	66	38	28	66	32	29	61	28	16	44	27	32	59
10:15 PM	41	22	63	37	19	56	26	14	40	34	15	49	19	10	29
10:30 PM	27	24	51	28	22	50	28	11	39	19	18	37	18	16	34
10:45 PM	36	25	61	21	9	30	21	11	32	15	9	24	27	6	33
11:00 PM	32	20	52	26	19	45	17	15	32	15	9	24	18	10	28
11:15 PM	27	9	36	28	10	38	29	7	36	21	7	28	14	8	22
11:30 PM	32	14	46	35	11	46	19	8	27	19	14	33	12	8	20
11:45 PM	15	17	32	21	18	39	16	8	24	11	6	17	15	5	20
Total:	2,886	2,883	5,769	2,964	2,955	5,919	2,794	2,749	5,543	2,735	2,758	5,493	2,851	2,830	5,681

**D: Cultural Impact Assessment Excerpts (for full report contact KKV)**

**NATIVE HAWAIIAN CULTURAL IMPACT ASSESSMENT  
KALIHI VALLEY NATURE PARK PROJECT  
KALIHI AHUPUA‘A, KONA DISTRICT  
ISLAND OF O‘AHU  
TMK’s: 1-4-14-01 & -26, 1-4-16-03**

**JULY 2005**

**Prepared by**

**Francine Palama, AS, ASDE, BS  
Graduate Student  
University of Hawai‘i at Mānoa  
Honolulu, Hawai‘i 96822**



**For  
Kalihi Valley Nature Park  
Gary Gill, Design Program Coordinator  
The Active Living Center, Kokua Kalihi Valley  
2239 North School Street  
Honolulu, Hawai‘i 96819**

## INTRODUCTION

This document comprises “A Native Hawaiian Cultural Impact Assessment Report” for the Active Living Center: Kokua Kalihi Valley Nature Park Master Plan. The parcels that make up Kalihi Valley Nature Park are in the Conservation district and are leased from the Department of Land and Natural Resources (DLNR), State of Hawai‘i by Kokua Kalihi Valley, therefore are subject to the requirements of Chapter 343, Hawai‘i Revised Statutes. Cultural impact assessments differ from other types of impact assessments included in environmental assessments or environmental impact statements, as it includes information relating to the practices and beliefs of a particular cultural or ethnic group or groups.

The following section provides information on the cultural and historic patterns of the Kalihi Valley Nature Park project area. A historical and cultural understanding of the project area contributes to the understanding of how the area has changed over time. Chapter 1 provides background information on the framework of the study and Native Hawaiian political status. This includes a description of objectives, respondent qualifications, and research methodologies. Chapter 2 describes the ethnological history of the Kalihi Valley Ahupua‘a in the Kona District, island of O‘ahu that includes an historical overview of events and figures from the mythical era to the contemporary period. Chapter 3 reports on spiritual beliefs and practices, place names and legends pertaining to Kalihi Valley. Chapter 4 describes areas of concern for Kalihi Valley, access and trails, hunting, gathering rights and any other cultural practices. Chapter 5 discusses conclusions derived from results of the research project and recommendations for mitigating cultural impacts.

### **Purpose and Guidelines**

The purpose of this study is to gather information on Hawaiian ethnographic resources in the region of upper Kalihi Valley, Honolulu, O‘ahu, in order to assess potential impacts to traditional cultural beliefs, practices and resources that may result from activities proposed in the Kalihi Nature Park Master Plan. State of Hawai‘i policy under Chapter 343, HRS, articles IX and II and other state laws and legal precedents require the state to promote and preserve cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups. These aspects of culture have been passed down through the generations, usually orally or through continuous practice.

The major tasks of this study were to:

1. Conduct literature searches at the following locations: the University of Hawai‘i Hamilton Library, Bernice Pauahi Bishop Museum, the State of Hawai‘i Public Library, and the Hawai‘i State Archives. This activity provided a foundation for ethno-historical and ethnographic information on Native Hawaiian cultural and religious customs, beliefs, and practices as they relate to the project site.

2. Extract place names from historical maps found in museums and archives for interpretation by tradition bearers and practitioners. There is a broad range of meanings for many Hawaiian place names and there is extensive speculation over meanings that may have been obscured over generations. The intent of this aspect of the research was to clarify the location, geographic extent, and possible pronunciation and cultural meaning.
3. Review chants and hulas to identify significant sites, *wahi pana* (sacred places), and cultural and religious use areas.

Native Hawaiians with traditional or oral knowledge of natural and cultural resources in upper Kalihi Valley were the participants in this study. However, Native Hawaiians with a range of skills, knowledge and interests are involved in or seek to revive and re-establish the traditional cultural and religious customs and practices in the project area.

## CONCLUSION

### **Evaluation of Cultural Impacts and Recommendations for Mitigation**

The Kalihi Valley *ahupua'a* is well documented with ancient historic sites and legends. Kalihi today could be considered a modern *kipuka* because of multi-ethnic and part Hawaiian residents. Thus the area must be protected pursuant to state laws. Any development within the project area could impact on or in some way interfere with the exercise of Hawaiian beliefs, traditions, customs, or practices.

Today, many Native Hawaiian communities persevere in their struggles against development of ancestral and national lands on all islands. Culturally sensitive and environmentally restorative activities and practices would serve to mitigate any negative impacts and provide access and opportunities for Native Hawaiians to practice, perpetuate and educate others about their culture.

The design and activities of the nature park should be considered to protect Native Hawaiians' ability to practice their customs, beliefs and traditions:

1. Design physical features and programs in the nature park so that Native Hawaiians can be restored to a healthier lifestyle by experiencing the *'ahupua'a* and healing their spiritual, physical, and mental well being.
2. Preserve and protect the existence of Native Hawaiian flora and fauna to perpetuate their cultural understanding and use for medicinal purposes and decoration in traditional activities.

3. Define areas of archeological and historic significance and protect them from unrestricted access while educating visitors on the observance of proper protocols and behavior when visiting such areas.

Specific recommendations for recreational resources:

1. Conduct guided tours
2. Limit group size
3. Schedule and monitor groups to minimize impacts
4. Provide signage and handouts to educate on cultural practices
5. Prohibit smoking or alcoholic beverage consumption; control or prevent littering
6. Conduct an environmental education program that includes concepts of the conservation ethic intrinsic to Native Hawaiian cultural practices

Specific recommendations for culturally and historically significant sites:

1. Limit access – declare some areas *kapu* (restricted)
2. Use a cultural interpreter on site during hours of operation
3. Provide cultural orientation and interpretation

Specific recommendations for custom and practice related to the project area:

1. Encourage cultural practitioners to perform traditional activities.
2. Enhance ability to perpetuate beliefs and customs by providing space for cultural practitioners.
3. Ensure the space for cultural practices is protected from competing uses in the park.

It is important to take into account the interdependence of culture and the environment. The Kalihi Valley Nature Park should enhance the ability of Native Hawaiians to perpetuate their traditional customs and practices. Careful designing, planning, and implementation of the program is required to assure a positive impact on cultural practices.

On the other hand, the site has been neglected and used as a dumping ground. Leaving the site as status quo is not appropriate. Increased stewardship and oversight of the area could enhance culturally appropriate use of the site.

Gradually, Hawaii's unique habitats have been polluted, resources lost and indigenous customs and practices distorted. Regarding the unique Kalihi Valley Nature Park project area that exists within the limited ecosystem on this island, we cannot afford to miss an opportunity to preserve our heritage together with our *'ohana* community.

With these recommendations, the project should move forward.

**E: Archaeological Assessment Summary (for full report contact KKV)**

**An Archaeological Assessment  
for a Property Located at TMK: 1-4-14 & 26 and 1-4-16:03  
in Kalihi Ahupua`a, Kona District, Island of Oahu  
July 2005**

Prepared by: Archaeological Consultants of the Pacific, Inc.  
Elena Kourneski, B.A., Diane Guerriero, B.A., Joseph Kennedy, M.A.  
59-624 Pupukea Road Haleiwa, Hawaii 96712

**Abstract**

Although titled “An Archaeological Assessment,” this document is the first phase of an Archaeological Inventory Survey conducted on a property located in Kalihi Ahupua`a, Kona District, on the island of O`ahu. The purpose of these investigations, following the guidelines set forth in a unique scope of work agreed upon by State Parks, ACP, Inc., and Kokua Kalihi Valley, was to determine if significant historic properties exist within the project limits, and if so, to indicate their approximate locations on a topographic map. A second follow-up exercise to be conducted at a later date will supply the necessary components to complete a proper Inventory Level Survey.

Investigations took the form of an 80% surface survey of the Phase I area of the subject property in conjunction with a brief review of the historic background of the area. Following the limited guidelines in the scope of work created by ACP in consultation with State Parks archaeologist Martha Yent, 11 sites were identified on the property and their approximate locations were indicated on a map of the area. Site evaluations must await further work.

The sites encountered on the subject parcel can be divided into two categories, those constructed between 1900 and 1950 including two houses and a nursery, and those sites of unknown age and of unusual construction. Those in the second category most critically need additional work in the form of subsurface testing, mapping and dating before evaluations can be made that determine their age, function, or who was responsible for their construction. In the meantime, all sites on the present subject property are recommended for preservation until further work determines otherwise.

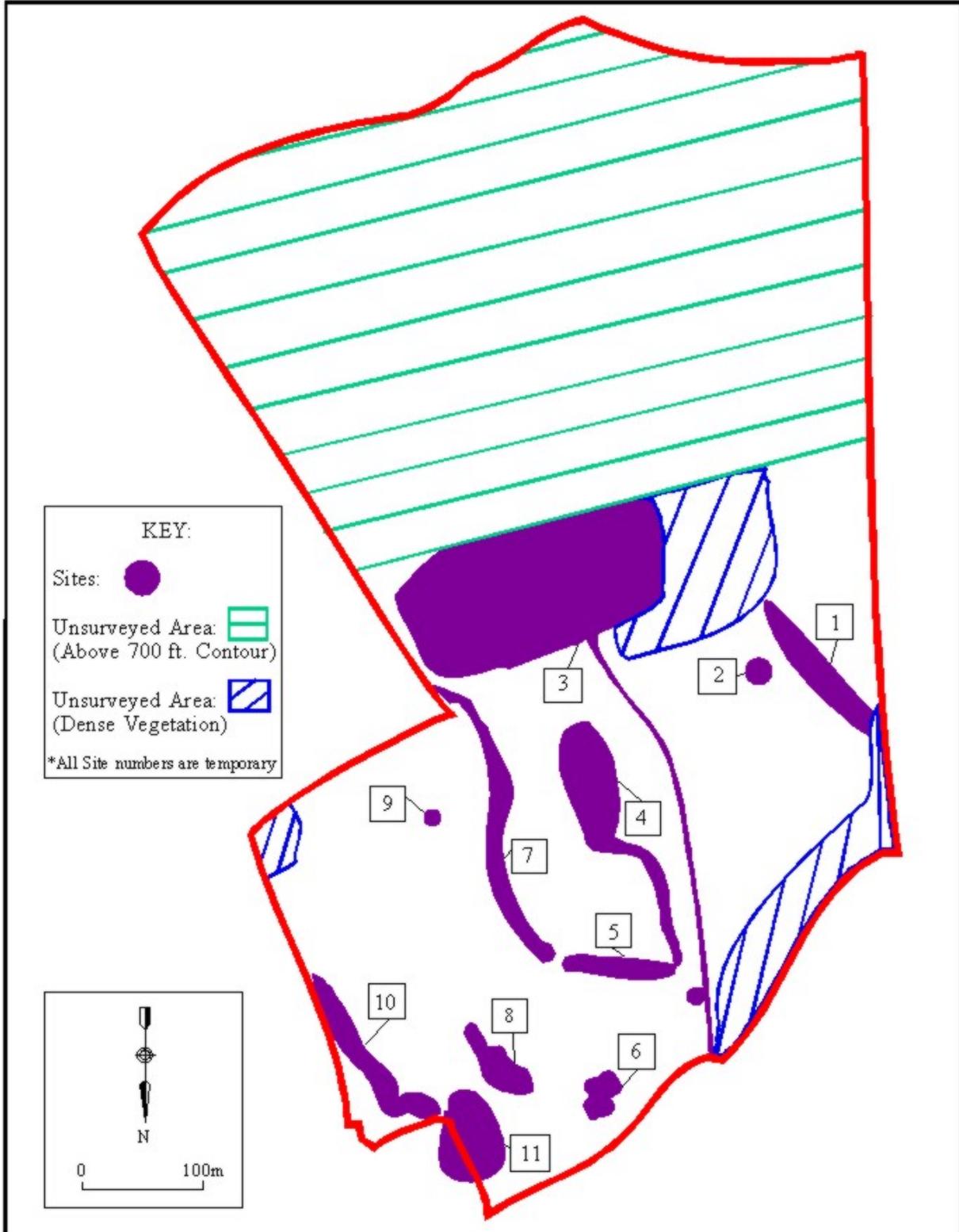
Based upon the results of the current investigations, ACP recommends that the appropriate agency make a determination that the proposed development will have an “effect with proposed mitigation commitments” on significant historic properties. Because the current investigations have not yet collected sufficient information regarding any of the sites on the subject parcel, additional mitigation commitments associated with the proposed development are necessary and further archaeological work is recommended for all sites on the current subject property.

**Table 1: Temporary Site Numbers, Site Descriptions and Tentative Functions**

Temporary Field #	Description	Function
1A	Stream bank retaining wall	Water diversion
1B	Rock walls	Water diversion
1C	‘Auwai	Water diversion
1D	‘Auwai	Water diversion
1E	‘Auwai	Water diversion
2	Possible historic refuse scatter	Habitation Related
3	Nursery	Agricultural/habitation
4A	Stream bank retaining wall	Water diversion
4B	Rock mound	Ag/boundary*
4C	Rock mound	Ag/boundary*
4D	Rock mound	Ag/boundary*
4E	Rock alignment	Ag*
4F	Terrace and rock mound	Water diversion
4G	Terrace	Water diversion
4H	Terrace	Ag
4I	Terrace	Ag
4J	Terrace	Ag
4K	Terrace	Ag
4L	Rock mound	Ag/boundary*
4M	Rock mound	Ag/boundary*
4N	Rock mound	Ag/boundary*
4O	Rock mound	Ag/boundary*
4P	Terrace	Ag*
5A	Stream bank retaining wall	Water diversion
5B	Terrace	Ag*
5C	Stone platform	Habitation*
5D	Stream bank retaining wall	Water diversion
5E	Stone dam	Water diversion
6	Historic House	Habitation
7A	Stream bank retaining walls	Water diversion
7B	Rock mound	Water diversion
8A	Stone-retained slope	Habitation related
8B	Dilapidated house	Habitation
8C	Pump house	Habitation related
8D	Well	Habitation related
8E	Stream bank retaining wall of cement blocks and stone with mortar	Habitation related
9	Ahu	Landmark/boundary*
10	Stream bank retaining wall	Water Diversion
11A	Historic refuse site	Habitation related
11B	Rock alignment	Habitation related
11C	Historic midden scatter	Habitation related

*\*indicates a tentative designation*

Figure 7: Subject Property Site Plan



Kalihi Ahupua'a  
TMK: 1-4-14: 01 & 26 and 1-4-16: 03

Archaeological Consultants of the Pacific, Inc. 2005

**F: Phase I Environmental Site Assessment  
(for full report contact KKV)**

Prepared for:  
State of Hawaii Department of Health  
Hazard Evaluation and Emergency Response Office  
919 Ala Moana Boulevard, Room 206  
Honolulu, Hawaii 96814

Prepared by:  
AMEC Earth and Environmental, Inc.  
3375 Koapaka Street  
Suite F251  
Honolulu, Hawaii 96814

ASO Log No. 02-131  
June 2005

**Summary of report**

The purpose of this Phase I ESA is to permit the user of the document to satisfy one of the requirements to qualify for innocent landowner defense status in reference to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). To establish innocent landowner status, the landowner “must have undertaken, at the time of the acquisition, all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial and customary practice.”

The purpose of this investigation was to identify and evaluate recognized environmental conditions that need to be addressed prior to the proposed leasing of the subject property by Kokua Kalihi Valley from the State of Hawaii. This was accomplished by conducting a Site reconnaissance and a review of existing information pertaining to the Site and evaluating if further investigation or removal/remediation activities were warranted.

The scope of services included a review of historical records including aerial photography, property transfer records, and Hawaii and EPA databases. A visual reconnaissance of the property was made and findings summarized. Finally, recommendations to address the existing conditions were included in the report.

**Findings**

No gas station, automotive repair, dry cleaning operations have been reported within the subject property boundaries. The small size of the nursery area and the potential usage of de minimus quantities of pesticide is not considered an environmental concern. No federal or state listings of hazardous waste sites were found to be associated with the park property. The site is littered with abandoned cars and other debris. Asbestos floor tiles and lead-based paint are assumed to exist in the old house. One transformer was found

on the site. The transformer is not in operation and PCB content is unknown. Though a large number of drums and small number of tanks were found, their presence does not constitute a recognized environmental condition. The drums appear to have been used as planters, no indication of stained soils or affected vegetation was observed near the drums. Also volatile organic compound, oxygen, hydrogen sulfide, and lower explosive level readings were normal.

#### Recommendations

The following issues warrant further investigation:

1. The various debris found throughout the Site should be removed before further development. The drums do not appear to be potential environmental concerns. However, if upon removal, it appears the drums may be of concern, further examination may be required.
2. Removal of the abandoned cars is recommended. Once the cars have been removed from the Site, a thorough visual inspection should be conducted to ascertain whether petroleum products from the machinery have leaked into the surrounding area.
3. Asbestos containing tiles were found in the residence of a previous owner. These tiles should be removed prior to any renovation/restoration activities.
4. Possible lead-based paint was also found in the residence of a previous owner. Proper analysis and abatement, if needed should be performed.

## **G: Management and Financial Plan**

### Introduction:

The lease of this undeveloped state park to a non-profit, community service organization is unique. To successfully create and manage the park, a unique relationship must therefore be established between the lessee and the state.

The park has remained undeveloped by its public owners for more than 30 years due to lack of funding and political will. Kokua Kalihi Valley has agreed to make the park a reality on behalf of the people of Kalihi, the island and the state. This project represents a clear financial liability to KKV. Among the liabilities of the site are the following conditions:

- The 100-acre site is covered by a thick jungle making much of it difficult to access.
- Over the years, abandoned vehicles and other debris have collected on the site and all the trash will be costly and difficult to remove.
- Structures on the property are uninhabitable and will require tens of thousands of dollars and many volunteer hours to be made safe and useable.
- The site is home to historically significant archaeological sites that must be properly studied and preserved at great expense.

These tasks and other costly improvements will require a concerted and dedicated effort by KKV to raise needed funds and coordinate volunteer community efforts. While KKV expects to find private financing and solicit community donations to pay for improvements described in this master plan, it will be necessary to generate some income from activities at the park to help cover maintenance and operating costs. All fees or income generated from the park site will be used to support the park operations and for no other purpose.

The site remains public land and will be used for a public purpose while a private entity, (Kokua Kalihi Valley) will be tasked with the responsibility to govern the site, enforce rules and make day to day decisions regarding activities and programs that will take place at the Kalihi Valley Nature Park.

To govern the site on behalf of the Department of Land and Natural Resources Division of State Parks, KKV must be given authority to act to protect and manage the site within the limitations of the land's deed restrictions and lease agreement. It is the intent of KKV to manage the 100-acre site as a public park while applying and enforcing standard park rules. KKV will adopt park rules substantially similar to the Department of Land and Natural Resources HAR Chapter 13-146. However, because KKV is not a public entity and cannot depend upon public financing or exercise the police powers of the Department of Land and Natural Resources, some rule provisions will be amended to fit the special circumstances surrounding this park. The fee schedule for permitted activities at the park may also differ from fees collected at state-operated parks. As authorized by DLNR, KKV will manage day-to-day operations of the Kalihi Valley Nature Park, determine fees and define allowable park activities.

The master plan submitted to DLNR and the public for review outlines a low-impact and fiscally-conservative vision for the Kalihi Nature Park. KKV intends to minimize costs and develop efficient management of park operations. We do not plan to build extensive new programs that would require hiring many new staff people. Rather, we hope to develop the Nature Park over time, using as much in-kind and volunteer services as possible. We intend to make the site available to community groups and organizations to strengthen their programs. For example, community organizations will be asked to accept responsibility for a community garden plot and integrate the gardening activities into their own programs. Similarly, rather than developing a new environmental education program, we hope to encourage local schools to apply their existing curriculum using the park site as an “outdoor classroom.”

#### Income:

KKV will adopt park rules substantially similar to the Department of Land and Natural Resources HAR Chapter 13-146. These rules will allow for the collection of fees for the issuance of permits. All monies collected from park activities will be used to support park operations and for no other purpose. KKV will collect fees for the following activities at the Kalihi Valley Nature Park.

- **Camping**  
A nightly or per-person fee will be established for use of the primitive, walk-in tent camping area to be developed at the old nursery site designated on the master plan.
- **Lodging**  
A nightly or per-person fee will be collected for use of the bunkhouse.
- **Group use**  
Groups of 25 people or more will need to secure a permit prior to using any part of the site.
- **Special use**  
Events such as a luau or hula performance would require a special use permit. The issuance of a permit to an organization to operate a community garden plot will be considered a special use and a fee will be charged to support the garden program.

A portion of any income generated by an organization from activities on the park site (e.g. income from selling produce grown at the park at an off-site farmers market) would be assessed by KKV to support the park.

Temporary event concession permits (e.g. craft or food booths at a hula performance) may be allowed in accordance with adopted rules and a fee for such permits may be assessed.

Occasionally, a unique event or park use that has not been anticipated by rules may be proposed. If such use is acceptable under the lease and deed restrictions for the park, KKV may issue a permit for the use and determine appropriate terms, conditions and fees.

Commercial uses, as defined by state law and rules, will not be allowed on the grounds of the Kalihi Valley Nature Park.

To further support the operations of the Kalihi Valley Nature Park, KKV will continually solicit grants from private foundations and public entities. KKV will also consider community-based fundraising activities and encourage donations from the public to support the park.

**Fee Schedule for Kalihi Valley Nature Park:**

The following maximum initial fee schedule is proposed for permitted activities described above. KKV may choose to charge less than these amounts for the listed activities. These fees and any others established over time are subject to DLNR approval. These fees will be permitted to increase over time to support the operation and development of the park.

<b>Type of Permit</b>	<b>Max. Fee</b>
Camping: Hawaii resident	\$10 per person per night
Non-resident	\$30 per person per night
Lodging: Hawaii resident	\$15 per person per night
Non-resident	\$45 per person per night
Group Use	\$50 per group per day
Special Use: Event	\$500 per event per day
Event concession permit	25% of gross revenues
Community garden plot	\$500 per plot per year
Unique event or use	To be determined by KKV

**Expenses:**

Income generated from the collection of fees at the Kalihi Valley Nature Park will be used only to support the park operation and management. On-going expenses for the park are expected to include but not be limited to the following categories:

- **Caretaker**  
The resident caretaker may require a salary or stipend depending on the extent of responsibilities assigned to this position.
- **Program management staff**  
Over time, as the park activities expand, staff to handle camping reservations, education programs, community gardening and other park activities will need to be employed.
- **Grounds keeping**  
The regular sweeping of walkways, mowing of grass, clearing brush from hiking trails and cutting exotic trees on the site will require professional help to supplement volunteer efforts.
- **Facility development and maintenance**  
The structures on the site will require constant repair and upkeep. As the park grows pursuant to the master plan, new picnic shelters and structures will be added at significant expense.

- Utilities  
The cost of providing city water and sewer services, electricity, telephone and internet connections and related services will be a constant expense
- Insurance  
KKV will maintain insurance coverage for the park grounds and operations.

#### Conclusion

Kokua Kalihi Valley is excited and proud to be able to transform 100 acres of neglected public land into a beautiful park that will contribute to the health, education and pride of the people of Kalihi and the state. To succeed in this mission, provision must be made to allow the collection of appropriate fees and empower KKV to make day-to-day decisions regarding park operations. Support from private foundations and volunteer community efforts will be made possible because of KKV's governance of the park land. The efficient and low-cost operation of the park will be provided by KKV at little cost to the State of Hawaii and the taxpayers.

DEPARTMENT OF DESIGN AND CONSTRUCTION  
CITY AND COUNTY OF HONOLULU

850 SOUTH KING STREET, 11<sup>TH</sup> FLOOR  
HONOLULU, HAWAII 96813  
Phone: (808) 523-4534 • Fax: (808) 523-4557  
Web Site: [www.dcd.hawaii.gov](http://www.dcd.hawaii.gov)



WAYNE M. HASHIRO, P.E.  
DIRECTOR  
GEORGE C. LEE, P.E.  
DEPUTY DIRECTOR

October 11, 2005

Ms. Zavi Brees-Saunders  
Kokua Kalihi Valley  
(Comprehensive Family Services)  
2239 North School Street  
Honolulu, Hawaii 96819

Dear Ms. Brees-Saunders:

Subject: Draft Environmental Assessment  
Kalihi Valley Nature Park and Active Living Center

Thank you for inviting us to submit our comments regarding the above Draft Environmental Assessment.

The Department of Design and Construction (DDC) recommends the following:

- A Sewer Connection Application should be filed with the Department of Planning and Permitting
- Potential rock falls and slides near all areas used by the public should be addressed

Should you have any questions, please contact Eldon Franklin, Chief of our Wastewater Division, at 523-5040 and Marvin Char, Chief of our Civil Division, at 527-6381.

Very truly yours,

*Wayne M. Hashiro*  
WAYNE M. HASHIRO, P.E.  
Director

WMH:jt (122331)

c: DDC Wastewater Division  
DDC Civil Division

JANA LUNDIE  
Coordinator of Health



STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
DEPARTMENT OF HEALTH

LEOPOLD A. KAWAHAMENA  
226 SOUTH BERETANIA STREET, SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 586-4185  
FACSIMILE (808) 598-4186  
ELECTRONIC MAIL: [ooeq@doh.hawaii.gov](mailto:ooeq@doh.hawaii.gov)

In Reply, please refer to:  
File: 2005-10-06 KALIVI VALLEY

GENEVIÈVE K. SALMONSON  
Director of OEQC

November 7, 2005

Mr. Gary Gill  
Kokua Kalihi Valley  
2239 North School Street  
Honolulu, Hawaii 96819

Mr. James Springer  
Division of State Parks – Department of Land and Natural Resources  
State of Hawaii  
P.O. Box 621  
Honolulu, Hawaii 96809

Dear Messrs. Gill and Springer:

The Office of Environmental Quality Control has reviewed the draft environmental assessment for the Kalihi Valley Nature Park and Active Living Center, Tax Map Key 1-4-14, parcels 01 and 26, and 1-4-16, parcel 5, situated in the judicial district of Honolulu. We offer the following comment for your consideration and response.

**Secondary Impacts Related to Access and Parking:** Page 23 of the draft environmental assessment discusses traffic and parking impacts based on a traffic study provided in the Appendix. What threshold level of trips generated in your estimate would require that Kalihi Street be widened to allow efficacious access to the Kalihi Valley Nature Park?

**Impacts Related to Scheduled Sewer and Water Improvements:** Kalihi Valley is scheduled for a major sewer or water main update. How will this impact traffic?

Thank you for the opportunity to comment. If there are any questions, or if you would like to discuss this matter further, please call Mr. Leslie Segundo, Environmental Health Specialist, at (808) 586-4185.

Sincerely,

*Genevieve Salmonson*  
GENEVIÈVE SALMONSON  
Director

PHONE (808) 594-1818

FAX (808) 594-1815

STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS  
711 KAPOLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813



MIKI HANIKOMI  
MANAGER

DEPARTMENT OF PARKS AND RECREATION  
CITY AND COUNTY OF HONOLULU  
KAPOLANI HALL • 1000 ULUKOHA STREET, SUITE 209 • HONOLULU, HAWAII 96813  
TELEPHONE (808) 528-5911 • FAX (808) 528-5151 • HOURS: 8:00AM-5:00PM



LESTER K. C. CHANG  
DIRECTOR  
DANA TAKAHASHI-OLDS  
DEPUTY DIRECTOR

October 24, 2005

HRD05/2067

Zavi Breese-Saunders  
Kokua Kalihi Valley  
2239 North School Street  
Honolulu, HI 967819

Ms. Zavi Breese-Saunders  
Kokua Kalihi Valley  
2239 North School Street  
Honolulu, Hawaii 96819

October 7, 2005

RE: Draft Environmental Assessment for the Proposed Kalihi Valley Nature Park and Active Living Center, Kalihi, O'ahu, TMK 1-4-014: 0026, 1-4-014: 001, 1-4-016: 003.

Dear Zavi Breese-Saunders,

Dear Ms. Breese-Saunders:

Subject: Draft Environmental Assessment  
Kalihi Valley Nature Park and Active Living Center

The Office of Hawaiian Affairs (OHA) is in receipt of your September 27, 2005 request for comment on the above listed proposed project, TMK 1-4-014: 0026, 1-4-014: 001, 1-4-016: 003. OHA offers the following comments:

The Draft Environmental Assessment appears to adequately address all environmental and cultural issues pursuant to Chapter 343, Hawaii Revised Statutes. The preliminary archaeological investigations have documented 11 historic properties, comprising 41 features on the property. Our office concurs with the recommendation to preserve these features, with exception to site enhancement/restoration efforts in coordination with the Office of Hawaiian Affairs, the State Parks Division and the State Historic Preservation Division of the Department of Land and Natural Resources. Our office also agrees with the applicant's proposal to replant portions of the property with native and indigenous plant life, a first step in native ecosystem restoration in the low-lying reaches of Kalihi Valley.

The Department of Parks and Recreation has no comment and as the proposed improvement will not impact any program or facility of this department, you are invited to remove us as a consulted party to the balance of the EIS process.

Thank you for your continued correspondence, we look forward to reviewing the Final Environmental Assessment.

Sincerely,

*Lester K. C. Chang*  
LESTER K. C. CHANG  
Director

LKCC:mk

(122464)

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse York at (808) 594-0239 or [jeyork@oha.org](mailto:jeyork@oha.org).

O wai ho no.  
*Clyde V. Nima'o*  
Clyde V. Nima'o  
Administrator

DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**  
 450 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813  
 TELEPHONE: (808) 522-4322 • FAX: (808) 522-2726  
 OFFICE HOURS: Monday-Friday, 8:00am-5:00pm



October 21, 2005

HENRY ENG, FAICP  
 DIRECTOR  
 DAWY K. TAYLOR  
 DEPUTY DIRECTOR  
 2005/ELOG-2314(JP)

Mr. Gary Gill, Coordinator  
 Active Living by Design Program  
 Kokua Kalihi Valley  
 2239 North School Street  
 Honolulu, Hawaii 96819

Dear Mr. Gill:

Re: Draft Environmental Assessment  
 Kalihi Valley Nature Park and Active Living Center  
 3635 and 3659 Kalihi Street – Kalihi Valley  
 Tax Map Keys 1-4-14-1 and 26, and 1-4-16-3

On September 29, 2005, we received the Draft Environmental Assessment (EA) for the proposed Kalihi Valley Nature Park and Active Living Center. We understand that the Kokua Kalihi Valley (KKV) organization would develop and operate the related use(s) on three (3) adjoining parcels of land, which are owned by the State of Hawaii. We have the following comments.

A. Civil Engineering Branch:

1. Section 8: A grubbing permit will be required.
  2. Section 4.2: Discuss whether there are any potential boulder hazards and/or unstable slopes on the project site and appropriate mitigation measures, if required.
  3. The Draft EA should discuss how the project will impact the wooden bridges, which has a posted weight limit of ten (10) tons.
- Please contact Mr. Don Fujii of our Civil Engineering Branch at 527-7320 if you have any questions concerning their comments.

23-4712

Mr. Gary Gill, Coordinator  
 October 21, 2005  
 Page 2

B. Wastewater Branch:

1. Approval of a Site Development Master Application for Sewer Connection is required for the renovation of an existing home to a residential caretaker's quarters, a meeting place, and a Watershed Education Center.
  2. A submeter is required for the residential and non-residential use(s).
  3. A wastewater system facility charge may be charged.
- Please contact Ms. Tessa Ching of our Wastewater Branch at 523-4956 if you have any questions concerning their comments.

C. Traffic Review Branch:

The Traffic Review Branch had no comments at this time. Please contact Mr. Mel Hirayama at 523-4119 if you have any questions concerning traffic issues.

D. Planning Division:

1. Summary, page 1: For clarification purposes, this section should specify the state land use classification and the county zoning designation for each parcel. It should be noted that Tax Map Key 1-4-014-001 has a county zoning designation of P-1 Restricted Preservation District. The Development Plan designation should also be changed from Park to Preservation. (See the Primary Urban Center Development Plan, Land Use Map - Central, June 2004.) The Final EA should note that the Preservation designation is not a site-specific designation, but rather an illustration of text policies. The proposed action is consistent with the intent of the Preservation designation.
2. Page 4: The sentence in the first paragraph pertaining to county zoning is incorrect. Tax Map Keys 1-4-014-026 and 1-4-016-003 are zoned P-2 General Preservation District, and Tax Map Key 1-4-014-001 is zoned P-1 Restricted Preservation District. This correction should also be made to Section 4.2 on page 17 and to Section 5.2 on page 25.
3. Section 4.7, Flora and Fauna: Before preparing the Final EA, the U.S. Fish and Wildlife Service should be consulted regarding the deepao unoccupied critical habitat which covers mauka portions of the Kalihi and Kapalama ahupuaas. (See the description and map in the Kalihi-Palama Action Plan, dated September 2004.

Mr. Gary Gill, Coordinator  
 October 21, 2005  
 Page 3

4. discussed below.) It is unclear whether the proposed project falls within the unoccupied critical habitat area.
5. Section 4.12, Traffic and Parking: The Draft EA states that organized groups such as school classes that visit the park will be required to car pool or use a van shuttle system to reduce vehicle trips along Kalihi Street, and the need for parking at the site. The Draft EA mentions the need for 50 vehicle parking stalls at the site. The Final EA should state if the proposed action includes parking spaces for buses, or if school and tour buses are to be prohibited.
6. Primary Urban Center Development Plan (PUC DP, dated June 2004): The Final EA should include a section on how the proposed action supports and is consistent with the vision, policies, and guidelines contained in the PUC DP that pertain to protecting and enhancing Honolulu's natural, cultural, and scenic resources (Sections 2.1, 3.1.2, and 3.1.3 of the PUC DP). A copy of the PUC DP is available at the City's Municipal Reference and Records Center.
7. Kalihii-Palana Action Plan (KPAP, dated September 2004): The Final EA should include a section on how the proposed action supports the vision and values contained in Section I of the KPAP. The Final EA should also describe how the proposed project is consistent with the Kalihii-Palana Urban Environmental Concept described in Section II of the KPAP. Furthermore, the elements of the Urban Environmental Concept are categorized into "Areas of Focus" in an effort to establish specific guidelines that can be applied to projects that are proposed in the Kalihii-Palana area. The Final EA should discuss how the proposed project supports the specific actions mentioned under the environmental restoration Area of Focus (Section 3.5 of the KPAP). The KPAP is available at the City's Municipal Reference and Records Center.

Please contact Ms. Dina Wong of our Planning Division at 527-6073 if you have any questions concerning their comments.

**E. Land Use Permits Division:**

1. For purposes of the Land Use Ordinance (LUO), certain activities associated with the of the proposed use can be considered "outdoor recreation facilities," which are permitted in the P-2 General Preservation District, but require an approved Conditional Use Permit (minor). However, many of the proposed activities are more consistent with "meeting facility" uses, which are not permitted uses in the

Mr. Gary Gill, Coordinator  
 October 21, 2005  
 Page 4

P-2 District. The appropriate land use classifications for the proposed activities are summarized as follows:

Activity	Outdoor Recreation		Meeting Facility
	Facility		
Community Gardens	X		
Hiking Trails and Nature Walks	X		
Environmental (Kalihi Watershed)	X		
Education		X	
Geological (Kalihi Valley) Education		X	
Cultural (Native Arts, Crafts and Culture)		X	
Education			X
Exercise and Dance Classes			X
Nutrition and Counseling Classes			X
Community Retreats and Gatherings (includes "Large" Kitchen)			X
"Bunkhouse" for overnight accommodations for up to 16 Guests		X <sup>1</sup>	
Tent Camping		X	

The proposed caretaker's dwelling is not a permitted use. On page 9 of the Draft EA, it is noted that the dwelling has not been occupied since the spring of 2004. Therefore, the nonconforming dwelling use has lapsed, pursuant to LUO Section 21-4.110(c)(2); and, once a nonconforming use has been discontinued, it cannot be resumed. See our Comment 5, below, for additional use-related issues.

2. Page 1, County Zoning Designation: The site involves both P-2 General Preservation and P-1 Restricted Preservation Districts.

3. Page 4, Project Site: The Draft EA states that the "zoning of the entire site is Preservation (P2)." In fact, only that portion of the site which is in the State Land Use Urban District is in the P-2 District, i.e., Parcels 3 and 26. The portion of the site which is in the State Land Use Conservation District is zoned P-1 District.

[Note: Our land use control records indicate that Parcel 1 may be split-zoned P-1 and P-2 District; however, our zoning map does not necessarily correspond to this condition. Therefore, we recommend that a State Land Use Boundary

<sup>1</sup>As "vacation cabins," which are only permitted as accessory uses to an outdoor recreation facility, cannot exceed 800 square-feet, and cannot exceed an overall density of one cabin per acre of land area associated with the outdoor recreation use.

Mr. Gary Gill, Coordinator  
October 21, 2005  
Page 5

Determination be performed to ascertain whether the lot is indeed split-zoned, and, if so, where the zoning lot lines are relevant to the property. This is particularly significant as some of the proposed uses on Parcel 1 are not permitted in the P-2 District, such as the "bunkhouse" which is proposed for overnight accommodations by up to 16 guests, and/or for meeting facility type activities. (Reference Section 9 of the Draft EA on page 13.]

4. Section 5.2, (page 25) County Zoning and Land Use Controls: The Draft EA states that the "entire 100 acres is zoned P-2." This is not correct, as already noted. (See Comments E2 and E3, above.) This section should also discuss compliance with applicable Land Use Ordinance (LUO) standards (e.g., P-2 District permitted use and development standards, off-street parking and loading requirements, landscaping and screening, signs).

5. Section 8, (page 28) Permits and Approvals: For the P-2 District portion of the site, outdoor recreation facilities require an approved conditional use permit (minor); meeting facilities and the caretaker's dwelling require an approved zoning (use) variance. (See Comment E1, above.) Please note that a variance approval requires a finding of "hardship." The three (3) tests for hardship stipulated by the City's Charter include:

- a. The applicant would be deprived of the reasonable use of the property or building if the variance were not granted; and
- b. The request is due to unique circumstances and not the general conditions of the neighborhood, so that the reasonableness of the neighborhood zoning is not drawn into question; and
- c. The request, if approved, will not alter the essential character of the neighborhood nor be contrary to the intent and purpose of the zoning ordinance.

As an alternative to the above-described county zoning requirements, the Board of Land and Natural Resources may choose to make formal arrangements with Kōkua Kalihi Valley, through its lease, an executive order and/or similar actions, for the organization to essentially operate the proposed facilities on the State's behalf. In this way, the state assumes full responsibility for the use, which may then be considered a "public use." Public uses and structures are permitted principal uses in all zoning districts. For example, the Disabled American Veterans organization is pursuing similar arrangements (e.g., amending the

Mr. Gary Gill, Coordinator  
October 21, 2005  
Page 6

original Executive Order or State lease, or adding explicit supplementary documents) to operate its various Kēahi Lagoon facilities.  
Please contact Jamie Pearson of our Land Use Permits Division at 527-5754 if you have any questions concerning their comments.

Thank you for opportunity to review and comment on the Draft EA. We look forward to seeing our comments addressed in the Final EA.

Very truly yours,

  
Henry Eng, FAICP, Director  
Department of Planning and Permitting

HE:pl  
cc: DLNR, Division of State Parks (Attn. Jim Springer)  
OEQC

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**KOKUA KALIHI VALLEY**  
(Comprehensive Family Services)  
2239 North School Street, Hicoonika, HI 96819  
Phone (808) 791-3400 • Fax (808) 848-0979  
Email: [www.kkv.net](http://www.kkv.net)

March 3, 2006

Mr. Wayne M. Hashiro P.E.  
Director  
Department of Design and Construction  
650 South King Street, 11<sup>th</sup> Floor  
Honolulu, Hawaii 96813

Dear Mr. Hashiro,

Thank you for your letter dated October 11<sup>th</sup> regarding the Environmental Assessment for the Kalihi Valley Nature Park and Active Living Center. Regarding your first comment, KKV has applied for and been granted a Sewer Connection Permit from the City and County. The sewer connection fees have been paid by us and the renovated structures are appropriately serviced by the city sewer system.

We would like to note that the residence at 3659 Kalihi Street has been connected to the sewer system for many years. The property is connected to the sewer lateral under Kalihi Street via a cast iron pipe. This kind of piping implies that the work was done in the 1970's or 1980's and suggests that work would have been done at the time when the city owned the subject property. We therefore suspect that the city did the sewer connection in-house and failed to apply for the appropriate sewer connection permit.

While the city's records did not comport with the reality of an existing sewer connection and this inconsistency delayed the processing of a building permit and added cost to our project, we are pleased to have been able to bring the city's records up to date.

Regarding your second comment suggesting that potential rock falls and slides near areas used by the public be addressed, we concur with your recommendation. The location of the Active Living Center and Caretaker's residence is on gently sloping land hundreds of yards from the base of any steep cliff or rocky outcrop. There is no evidence of rock or boulder falls upslope of the Center. We do not feel that this part of the 100 acre project is in any significant danger of damage from rock falls.

The future Bunkhouse and Campground are at the 700 foot elevation and closer to steep valley walls. The north face of Kamaonika Ridge rises through thickly vegetated and undeveloped lands to approximately 1,300 feet above sea level. Our explorations

Providing Medical & Dental Services, Health Education, Family Planning, Perinatal, WIC and Social Services to Kalihi Valley residents since 1972. "Neighbors being neighborly to neighbors."

of these lands have not identified any precarious outcroppings of rock or loose boulders as of this writing. As we continue to explore these mauka lands to identify a possible hiking trail alignment to the top of Kamaonika Ridge, we will also search for potential rock falls and slides.

The areas planned for a bunkhouse and campground were used for decades by a plant nursery operation. We have not found any damage or evidence of any rock slides in this area. Other than a single hiking trail, we do not propose any development of the area mauka of the campground. While erosion, including rock falls and slides are a natural part of the evolution of the Hawaiian Islands, we will not perform any development or alteration of the natural landscape that would exacerbate the danger of these occurrences.

Should you have any further questions or comments please do not hesitate to contact us.

Sincerely,

Gary Gill  
Active Living by Design Program Coordinator

Providing Medical & Dental Services, Health Education, Family Planning, Perinatal, WIC and Social Services to Kalihi Valley residents since 1972. "Neighbors being neighborly to neighbors."



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March 3, 2006

Ms. Genevieve Salmonson  
Director, Office of Environmental Quality Control  
235 South Beretania St. Suite 702  
Honolulu, Hawaii 96813

Dear Ms. Salmonson,

Thank you for your comments dated Nov. 7<sup>th</sup> on the Draft EA for the Kalihi Valley Nature Park and Active Living Center.

Regarding your first question, it is our estimation that improvements on Kalihi Street would be called for when the level of service experienced on the roadway reaches either LOS E or LOS F. The capacity of the street is listed as 600 vehicles per lane per hour. Traffic counts documented in our traffic study are far below the 600 vehicle per hour threshold and trips generated by the park will not have a significant effect on existing congestion. Roadway improvements that could ease congestion in the future are not limited to widening Kalihi Street beyond the existing 2 lane right of way. Signal changes signage, striping and constructing shoulders are some of the possible improvements that could be made by the city in the future. For the purpose of this EA, we assert that the development of the Kalihi Valley Nature Park will not trigger the need for any roadway improvements.

Regarding your second question, sewer and water main repairs scheduled in Kalihi Valley by the city are likely to have the usual impact on roadway traffic. Temporary delays should be expected around construction areas when lanes are closed for utility repair. This repair work is beyond the control of the Kalihi Valley Nature Park and will take place regardless of the park's development. We do not expect that trips to and from the park will increase traffic impacts at roadway construction sites. Thus, there will be no significant cumulative impacts on traffic caused by the development of the Nature Park.

Should you have any further questions or comments please do not hesitate to contact us.

Sincerely,

Gary Gill  
Active Living by Design Program Coordinator

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March 3, 2006,

Mr. Clyde W. Namu'o  
Administrator  
Office of Hawaiian Affairs  
711 Kapiolani Boulevard, Suite 500  
Honolulu, Hawaii, 96813

Dear Mr. Namu'o,

Thank you for your letter dated October 24<sup>th</sup> regarding the Environmental Assessment for the Kalihi Valley Nature Park and Active Living Center. We appreciate your support for our project and look forward to working with you in the future to assure that Hawaiian archaeological, cultural and botanical resources are properly preserved and enhanced.

KKV is fully committed to follow the laws governing the protection of historic sites and remains. We will stop work and appropriate agencies will be immediately contacted should any Iwi or Native Hawaiian cultural or traditional deposits be found in the future. Should you have any further questions or comments, please do not hesitate to contact us.

Sincerely,

Gary Gill  
Active Living by Design Program Coordinator

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 Email: [www.kkv@hawaii.gov](mailto:www.kkv@hawaii.gov)

March 3, 2006

Henry Eng FAICP,  
 Director  
 Department of Planning and Permitting  
 City and County of Honolulu  
 650 South King Street  
 Honolulu, HI 96813

Dear Mr. Eng:

Thank you for your letter dated October 21<sup>st</sup> regarding the Environmental Assessment for the Kalihi Valley Nature Park and Active Living Center. We offer the following responses to your comments.

**A. Civil Engineering Branch**

**1. Grubbing permit:**  
 Prior to any grubbing on the property of more than 15,000 square feet, KKV will apply for a grubbing permit from the city. Under the law, "Grubbing" means any act by which vegetation, including tree, timber, shrubbery and plant, is dislodged or uprooted from the surface of the ground. We understand that cutting trees and vegetation does not require a grubbing permit unless the soil is disturbed. Please note that tree and bush cutting is expected to take place at various locations around the 100 acre park. For example, we will be clearing underbrush from archaeological sites to allow field testing and dating. We do not expect that a grubbing permit will be required for this work.

**2. Potential boulder hazards:**

The location of the Active Living Center and Caretaker's residence is on gently sloping land hundreds of yards from the base of any steep cliff or rocky outcrop. There is no evidence of rock or boulder falls upslope of the Center. We do not feel that this part of the 100 acre project is in any significant danger of damage from rock falls.

The future Bunkhouse and Campground are at the 700 foot elevation and closer to steep valley walls and therefore more susceptible to rock falls. The north face of Kamaea Ridge rises through thickly vegetated and undeveloped lands to approximately 1,300 feet above sea level. Our explorations of these lands have not identified any precarious outcroppings of rock or loose boulders as of this writing. As we continue to explore these mauka lands to identify a possible hiking trail alignment to the top of Kamaea Ridge, we will also search for potential rock falls and slides.

*Providing Medical & Dental Services, Health Education, Family Planning, Perinatal, WIC and Social Services to Kalihi Valley residents since 1972. "Neighbors being neighbors to neighbors."*

The areas planned for a bunkhouse and campground were used for decades by a plant nursery operation. We have not found any damage or evidence of any rock slides in this area. Other than a single hiking trail, we do not propose any development of the area mauka of the campground. While erosion, including rock falls and slides are a natural part of the evolution of the Hawaiian Islands, we will not perform any development or alteration of the natural landscape that would exacerbate the danger of these occurrences.

**3. Wooden bridge:**

The development of the Nature Park will not require modification of the existing wooden bridge. Vehicles that are too heavy to cross the bridge will not cross it. As stated in the EA, park goers will be asked to carpool and student groups will be asked to arrive in mini vans. For many years, delivery vehicles and heavy equipment have crossed the bridge without a problem. We do not expect any impact on the existing structure.

**B. Wastewater Branch**

**1, 2, 3. Sewer connection, sub meter and fees:**  
 KKV has applied for and been granted a Sewer Connection Permit from the City and County. The sewer connection fees have been paid by us and the renovated structures are appropriately serviced by the city sewer system. Because we are developing the Park under the authority of the State of Hawaii as a public park, we do not feel that any additional permitting, charges or sub metering is required.

We would like to note that the residence at 3659 Kalihi Street has been connected to the sewer system for many years. The property is connected to the sewer lateral under Kalihi Street via a cast iron pipe. This kind of piping implies that the work was done in the 1970's or 1980's and suggests that work would have been done at the time when the city owned the subject property. We therefore suspect that the city did the sewer connection in-house and failed to apply for the appropriate sewer connection permit.

While the city's records did not comport with the reality of an existing sewer connection and this inconsistency delayed the processing of a building permit and added cost to our project, we are pleased to have been able to bring the city's records up to date.

**C. Traffic Review Branch**

We acknowledge that you have no comments at this time.

**D. Planning Division**

**1. State land use classification and County development plan designations:**  
 The final EA will correct the reference to the state and county land use designations as you recommend.

**2. County Zoning:**

The final EA will correct the reference to the county zoning as you recommend.

*Providing Medical & Dental Services, Health Education, Family Planning, Perinatal, WIC and Social Services to Kalihi Valley residents since 1972. "Neighbors being neighbors to neighbors."*

3. Elepaio habitat:  
We have consulted with the U.S. Fish and Wildlife Service and determined that the highest elevations of the park property are included in the elepaio unoccupied critical habitat. We do not expect that the elepaio would live in the lower elevations that are the majority of the park property. The higher reaches of the park property will remain untouched and the development of the park would not affect any bird population. The existence of the elepaio critical habitat does not impact the plan for the Nature Park in any way.

4. Traffic and parking:  
We do not anticipate or encourage the arrival of any tour buses at this site. We do not expect to provide any parking for buses.

5. Development Plan vision and policies:  
We believe that the development of the Kalihi Valley Nature Park and Active Living Center is fully consistent with the vision, policies, and guidelines contained in the Primary Urban Center Development Plan. The final EA will contain this reference.

6. Kalihi Palama Action Plan:  
We believe that the development of the Kalihi Valley Nature Park and Active Living Center is fully consistent with the vision, and values of the Kalihi-Palama Action Plan (KPAP). The final EA will contain this reference.

E. Land Use Permits Division  
The references to underlying zoning on the 100 acre parcel will be corrected as you suggest and as has been noted above.

Regarding the zoning requirements for meeting facilities and the caretaker's residence, we do not believe that a conditional use permit or zoning variance is required. Kokua Kalihi Valley has entered into a formal lease agreement with the State of Hawaii Department of Land and Natural Resources, Division of Parks to operate the facilities of the Kalihi Valley Nature Park on the State's behalf as a public park. Therefore, the development of park should be considered by the city as a public use. As a "public use" our proposed developments are allowed under county zoning.

Should you have any further questions or comments please do not hesitate to contact us.

Sincerely,  
  
Gary Gill  
Active Living by Design Program Coordinator

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