

FINAL—Cultural Impact Assessment of TMK: (1) 7-1-001:002 and :005, Wahiawā Ahupua‘a, Wahiawā District, and TMK: (1) 6-5-002:010, Kamananui Ahupua‘a, Waialua District, Island of O‘ahu, Hawai‘i



Prepared For:
Environmental Planning Solutions, LLC
945 Makaiwa Street
Honolulu, Hawai‘i, 96816

January 2015

Keala Pono 

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MANAGEMENT SUMMARY

A Cultural Impact Assessment was conducted for TMK: (1) 7-1-001:002 (por.) and :005 (por.) in Wahiawā Ahupua‘a, Wahiawā District, and TMK: (1) 6-5-002:010 (por.), Kamananui Ahupua‘a, Waialua District, on the island of O‘ahu, Hawai‘i. This was done in preparation for ground disturbance associated with construction of four proposed reservoirs.

The current study took the form of background research and an ethnographic survey consisting of five interviews, all of which are included in this report. The background research synthesizes traditional and historic accounts and land use history for the Wahiawā area. Community consultations were performed to obtain information about the cultural significance of the subject properties and Wahiawā as a whole, as well as to address concerns of community members regarding the effects of the proposed construction on places of cultural or traditional importance.

As a result of this work, the cultural significance of the project lands has been made clear. The background study revealed that the project area was a sacred region peopled by high-ranking chiefs. At the center of these chiefly lands were the hallowed grounds called Kūkaniloko. Consultations with individuals knowledgeable about Wahiawā produced information on its rich cultural history.

The consultants expressed a wide range of concerns regarding construction of the proposed reservoirs. They stated that the reservoirs will adversely affect places of cultural significance, and recommended that the reservoirs are not built or that archaeological and cultural monitoring is implemented during construction.

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INTRODUCTION

At the request of Environmental Planning Solutions, Keala Pono Archaeological Consulting conducted a Cultural Impact Assessment of TMK: (1) 7-1-001:002 (por.) and :005 (por.) in Wahiawā Ahupua‘a, Wahiawā District, and TMK: (1) 6-5-002:010 (por.) in Kamananui Ahupua‘a, Waialua District, on the island of O‘ahu, Hawai‘i. Four reservoirs are proposed for the properties. The Cultural Impact Assessment study was designed to identify any cultural resources or practices that may occur in the area and to gain an understanding of the community’s perspectives on the proposed reservoir construction.

The report begins with a description of the project area and an historical overview of land use and archaeology in the area. The next section presents methods and results of the ethnographic survey. Project results are summarized, and recommendations are made in the final section. Hawaiian words, flora and fauna, and technical terms are defined in a glossary, and an index at the end of the report assists readers in finding specific information. Also included are appendices with documents relevant to the ethnographic survey, including full transcripts of the interviews.

Project Location and Environment

The project area is located in Wahiawā Ahupua‘a, Wahiawā District, and Kamananui Ahupua‘a, Waialua District, in Central O‘ahu (Figure 1). The district of Wahiawā is a relatively modern construct, created in 1913 (Kamehameha Schools 1987). Before this change, the entire project site was within Kamananui Ahupua‘a in the district of Waialua.

Wahiawā is located on the Schofield Plateau in Central O‘ahu, sandwiched between the Wai‘anae and Ko‘olau Mountain Ranges. Wahiawā District is the only *moku* that does not stretch from the mountains to the sea, but is landlocked by Waialua to the north, Ko‘olauloa to the east, ‘Ewa to the south, and Wai‘anae to the west. MacDonald et al. explain the geology of this region:

Lava flows from the Koolau volcano banked against the already-eroded slope of the Waianae volcano to form the gently sloping surface of the Schofield Plateau. An erosional unconformity between the rocks of the two volcanoes is visible along Kaukonahua Gulch, at the eastern foot of the Waianae Range, where Waianae lavas slope 10° to 15° northeastward and are overlapped by Koolau lavas dipping 5° northwestward. (1983:420)

The four reservoirs are located on three TMK parcels, all of which are owned by the State of Hawai‘i. An archaeological inventory survey (AIS) was conducted for the four reservoir project areas, for a total of 30.83 acres (12.48 ha). However, this Cultural Impact Assessment was designed to include the entire TMK parcels within which the reservoirs are located. The TMK parcels are described below.

TMK: (1) 6-5-002:010 is a 310 acre (125 ha) parcel bounded by Kaukonahua Road to the south, Poamoho Gulch to the north, and farmlands to the east and west. This eastern boundary is also the border between the Waialua and Wahiawā Districts.

TMK: (1) 7-1-001:002 is a 302 acre (122 ha) parcel bounded by Kaukonahua Road on the north, Kamananui Road on the east, Wilikina Drive on the south, and farmland to the west. This western boundary is also the border between the Waialua and Wahiawā Districts.

TMK: (1) 7-1-001:005 is a 236 acre (96 ha) property adjacent to undeveloped land on the north, Saipan Drive on the east, Whitmore Avenue on the southeast, and Kamehameha Highway on the southwest and west.

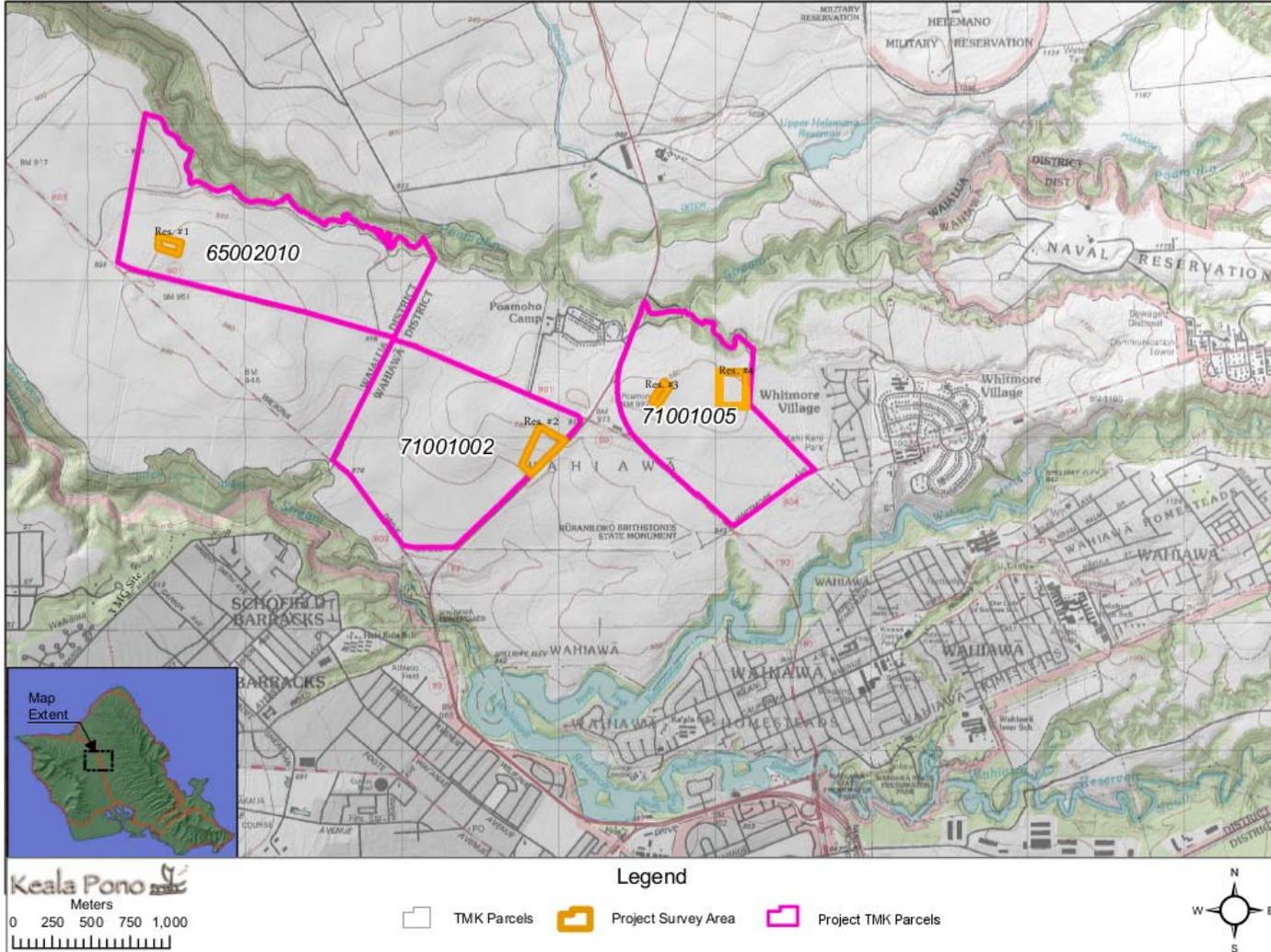


Figure 1. Project area on a 7.5 minute USGS Haleiwa quadrangle map with TMK overlay.

The parcels lie between 860 and 980 feet (262–299 m) in elevation and are roughly 7 miles (11 km) from the nearest coastline, at Kaiaka Bay in Hale‘iwa. The properties are relatively flat and are currently undeveloped, with traces of former pineapple cultivation evident throughout. Vegetation within the project areas consists mainly of California grass.

Rainfall is moderate in the Central O‘ahu project area, averaging approximately 40–80 in. (102–203 cm) per year (Juvik and Juvik 1998). The two main watercourses of Wahiawā, Poamoho Stream and Kaukonahua Stream, run north and south of the project area, respectively.

Soils are of the Helemano-Wahiawa association, described as “Deep, nearly level to moderately sloping, well-drained soils that have a fine-textured subsoil; on uplands” (Foote et al. 1972). Specifically, soils in the project area mostly consist of Wahiawa silty clay, 0–3% slopes (WaA) and Wahiawa silty clay, 3–8 % slopes (WaB) (Figure 2). There are also small patches of Kolekole silty clay loam, 1–6% slopes (KuB), Kolekole silty clay loam, 6–12% slopes (KuC), Kunia silty clay, 0–3% slopes (KyA), and Manana silty clay loam, 2–6% slopes (MoB) (see Figure 2).

The Undertaking

The State of Hawai‘i Agribusiness Development Corporation (ADC) is proposing farm land preparation for construction of four reservoirs on fallow pineapple fields often referred to as the former Galbraith Estate Lands. In 2012 the State of Hawai‘i acquired approximately 1,700 acres (688 ha) of land near the town of Wahiawā in Central O‘ahu that were owned by the Estate of George Galbraith (“Galbraith Estate Lands”). As part of the acquisition, approximately 1,207 acres (489 ha) were transferred to ADC and 495 acres (200 ha) to the Office of Hawaiian Affairs. In total the acquisition of Galbraith Estate Lands comprised 12 separate land parcels.

Improvements for this project are proposed on three parcels owned by the State of Hawai‘i and controlled by ADC. Land owned by the Office of Hawaiian Affairs is not part of the proposed action. ADC is also responsible for leasing land under their control to farmers and agricultural ventures. Thus far, ADC has executed licenses with Kalena Farms for 230 acres on TMK: (1) 6-5-002:010 and with Ohana Best Farm for 160 acres of TMK: (1) 7-1-001: 005.

The proposed action is the construction of four water storage reservoirs. ADC proposes to construct two reservoirs and private parties two reservoirs. An environmental assessment is being prepared for the four reservoirs because they are similar actions, serve similar purposes, are located in the same general area, and are on state land.

ADC will construct a 3.0 MG and 10.0 MG reservoir. The private parties each will construct 3.0 MG reservoirs. The reservoirs will be constructed on land under ADC jurisdiction. As shown on Figure 1, the reservoir sites are dispersed over the project area to serve existing and future agricultural users.

Reservoir 1 is a 3.0 MG reservoir to be constructed by Kalena Farms for its use. Reservoir 2 is 3.0 MG reservoir that will be funded and constructed by ADC. Reservoir No. 3 is a 3.0 MG reservoir that will be funded and constructed by Ohana Best Farms. Reservoir No. 4, a 10.0 MG reservoir, will be funded and constructed by ADC.

All reservoirs will be constructed below existing grade. The respective reservoir sites will be graded and excavated to below grade design elevations that can contain the desired storage volume. Typical design criteria for the reservoirs are listed below but may vary by individual reservoir.

- Impounding berm to be engineered at 2:1 slope (Horizontal:Vertical)
- Base and inner slopes to be lined with woven HDPE Polypropylene fabric pond liner
- Erect security and safety fencing
- Provide driveway of adequate width for service and maintenance vehicles

Preliminary design plans for the two private reservoirs show the reservoir basin enclosed by approximately 7-foot (2.1-m) high earth berms for impounding water. Above grade earth berms are not proposed for the ADC reservoirs.

Two wells, one located outside the project area, will supply water for the reservoirs. A state-owned well on TMK: (1) 6-5-002:026, located across Kaukonahua Road from Reservoir 1, already is developed and in use. The well, which is identified as Well No. 3-3103-0001 on Commission on Water Resource Management maps, has a pumping capacity of 2,000 gallons per minute. There is no storage reservoir associated with this well.

A second source well is proposed in the vicinity of Reservoir 4. The well will be developed by ADC sometime in the future. Drilling, testing, engineering design, and construction of this well is subject to capital improvements funding from the State of Hawai‘i.

Well construction and water use permits will be sought from the Commission on Water Resources Management, Department of Land and Natural Resources for construction of a new well and water use.

This cultural impact assessment was conducted of the reservoir sites only and did not include the proposed water distribution system lines or proposed well, because the distribution system will be legislatively funded and commissioned to be designed at a later date. The need for archaeological work at the location of the proposed well and distribution lines will be determined when funding for the well is secured.

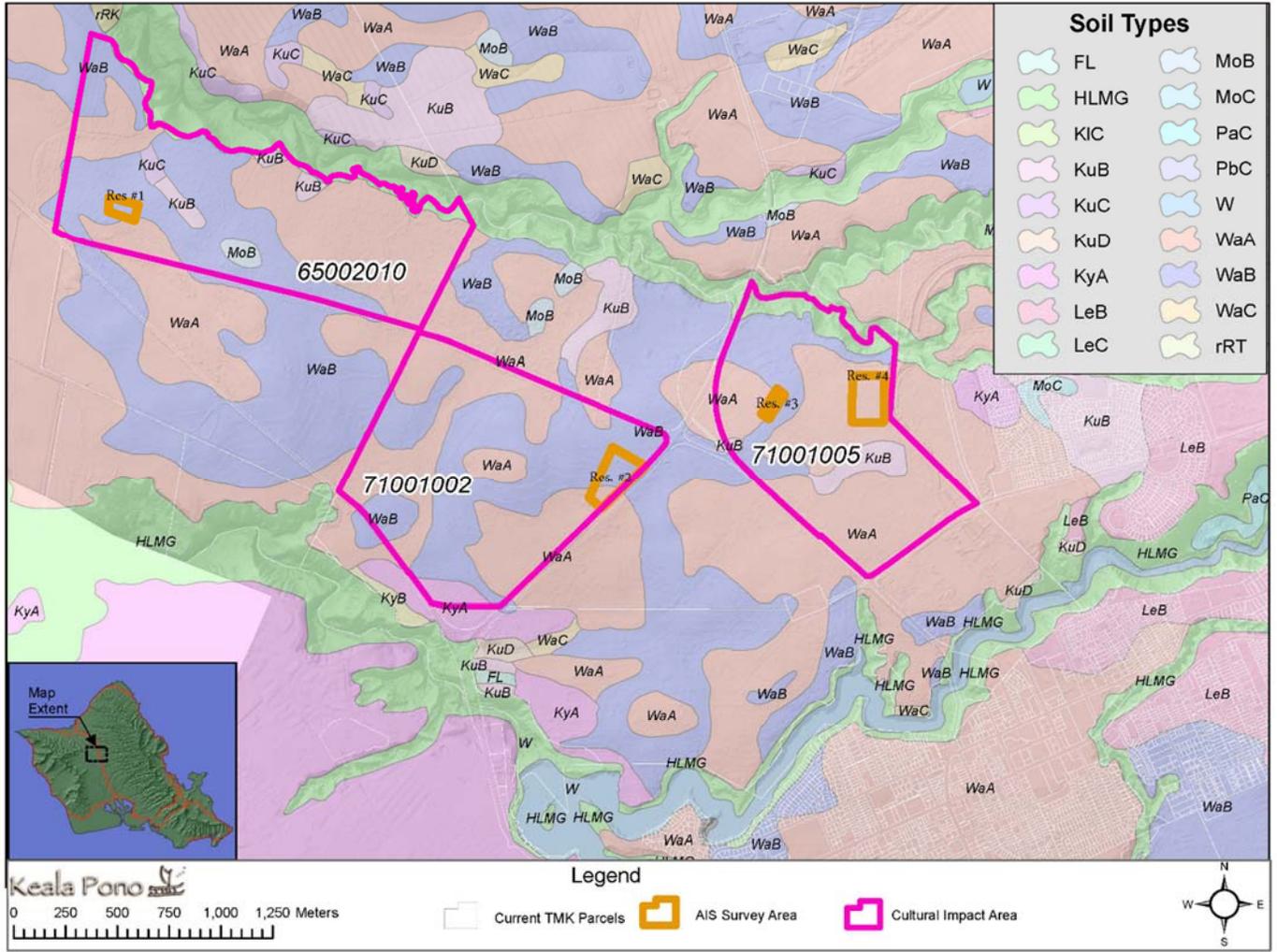


Figure 2. Soils in the vicinity of the project area.

BACKGROUND

This section of the report presents background information as a means to provide a context through which one can examine the cultural and historical significance of the project lands. In the attempt to record and preserve both the tangible (i.e., traditional and historic archaeological sites) and intangible (i.e., *mo'olelo*, *'ōlelo no'eau*) culture, this research assists in the discussion of anticipated finds. Research was conducted at the Hawai'i State Library, the University of Hawai'i at Mānoa libraries, the SHPD library, and online on the Papakilo database, Ulukau database, and the State of Hawai'i Department of Accounting and General Services (DAGS) website. Historical maps, archaeological reports, and historical reference books were among the materials examined.

Pre-Contact Wahiawā

In pre-contact times, before the arrival of Westerners in 1778, the Wahiawā region constituted the sacred center of O'ahu known as Līhu'e. Numerous *heiau* and the Kūkaniloko *ali'i* birthing stones were located here. There were agricultural areas as well, with *kalo* and *'uala* grown in the *lo'i* and *kula* lands, respectively.

Place Names and Boundaries

Before the establishment of Wahiawā District in 1913, the project area was located in the traditional *moku* of Waialua. Several conflicting accounts inform on the naming of Waialua District. Thrum (in Sterling and Summers 1978:88) states that “Waialua” translates to “two waters,” thus many believe that the name derived from Waialua's two streams. However, he believes that the district was named after a taro patch, and a common saying was that if you traveled to Waialua and did not see this taro patch, then you did not really see Waialua. Pukui (in Sterling and Summers 1978:88) asserts that the district was named for the cruel chief Waia, grandson of Wakea. Waia carried out his evil deeds at Waialua, and there was so much suffering there that the district was named Waialua, or “doubly disgraceful.” Another source attributes the name to Waialua Pool at Kemo'o (Awai in Sterling and Summers 1978:88).

The Wahiawā District boundary has a complicated history (Sterling and Summers 1978:134). At the turn of the 20th century, Wahiawā Ahupua'a fell within the Waialua District. By 1913, the community had grown apart from Waialua District, and the new district of Wahiawā was established. Thus, in 1913, the *ahupua'a* of Wahiawā and Wai'anae Uka were moved from Waialua District to the new district of Wahiawā. In 1925 the size of Waialua District was reduced as large plots of land were transferred to Wahiawā. However, in 1932 the original 1913 land boundaries were reinstated, with some small parcels added to the Schofield Barracks Military Reservation. Today the western parcel of the project area (TMK: [1] 6-5-002:010) lies within the *ahupua'a* of Kamananui, while the eastern parcels (TMK: [1] 7-1-001:002 and :005) are in Wahiawā.

Kamananui translates to “the large branch,” and a grove of trees in the *ahupua'a* was named Pōloa, or “the long night” (Pukui et al. 1974:80). Wahiawā on O'ahu should not be confused with Wahiawa on Kaua'i, a stream and *heiau* located in Kōloa. Wahiawā can be translated as “place of noise,” as rough seas were said to be heard there (Pukui et al. 1974:218). In ancient times, Hi'iaka, sister of Pele, heard the bellowing seas and composed a chant about Wahiawā and Waialua and the sound of the sea (Emerson in Handy and Handy 1991:465).

Līhu'e translates to “cold chill” (Pukui et al. 1974:132). The place name Līhu'e may pre-date the formation of *ahupua'a* on O'ahu and “seems to exist independently of the *ahupua'a* in which it falls” (Desilets et al. 2009:43). Desilets et al. help to define the boundaries of the Līhu'e region:

Judging from traditional usage, Līhu‘e appears to be an ancient place-name that refers, minimally, to the entire region west of Wahiawā and east of the Wai‘anae range. As a traditional place, its boundaries are necessarily imprecise, but it is clear that the region encompasses most of western Wai‘anae Uka and all of Schofield Barracks. Līhu‘e also appears to be used more generally to refer to the entire Central Plateau, encompassing such sacred sites as Kūkaniloko. Although it is difficult to determine with any certainty, it seems probable that Līhu‘e had broader boundaries prior to the institutionalization of the *moku* and *ahupua‘a* land divisions we know today. Līhu‘e is most often referred to as the “uplands,” although that could well mean the whole Central Plateau, which relative to coastal areas is upland. (2009:39)

Traditional Land Use

Traditionally, Kamananui was one of the three *ahupua‘a* (along with Pa‘ala‘a and Kawailoa) in the fertile heartland of Waialua Moku. The *makai* areas of Waialua once contained many *lo‘i*, while the *mauka* slopes were covered with *kula* of red soil, an environment very good for growing sweet potato (Handy and Handy 1991:466; Kirch and Sahlins 1992:1:20). Sterling and Summers (1978:103) note that “there were large terrace areas along the flatlands between the junction of Helemano and Poamoho Streams and the flatland west of Poamoho,” as well as small terraces in the lower flats of Poamoho and Kaukonahua Valleys. It is probable that sweet potato and bananas were grown around house sites along the ridges of the gulches. The upland areas of Kamananui/Wahiawā were one of the few places on the island where sweet potato agriculture was irrigated, with water brought in from Helemano Stream and Wahiawā Stream, both of which had many terraces along the stream banks (Handy and Handy 1991:464–5).

The population was most densely settled in the lower floodplains of the *ahupua‘a*, irrigated in large part by a two mile-long waterway that at the time was the longest on the island. The *lo‘i* and fishponds of the lower areas, as well as the rainfall agriculture of the *kula* supported a pre-contact community estimated at 6,000 to 8,000, which was probably the majority of the population in Waialua. In this pre-contact period (pre-Western arrival in 1778), “Kamananui was the ritual and political center of Waialua,” although the seat of power moved to the neighboring *ahupua‘a* of Kawailoa by the early 1800s (Kirch and Sahlins 1992:1:20).

Līhu‘e was home to the highest class of chiefs, the Lō Ali‘i. The Lō Ali‘i lived in the uplands of O‘ahu, including Wahiawā, and were under strict *kapu* because of their sacredness:

The chiefs of Līhu‘e, Wahiawā, and Halemano on O‘ahu were called *lō ali‘i*. Because the chiefs at these places lived there continually and guarded their *kapu*, they were called *lō ali‘i* [from whom a “guaranteed” chief might be obtained, *loa‘a*]. They were like gods, unseen, resembling men. (Kamakau 1991:40)

The chiefs of Lihue, Wahiawa, and Halemano on Oahu were called Lo chiefs, Po‘e Lo Ali‘i [“people from whom to obtain a chief”], because they preserved their chiefly *kapus*. The men had *kapus*, and the women had *kapus*, and when they joined their *kapus* and children were born, the children preserved their *kapus*. They lived in the mountains (*i kuahiwi*); and if the kingdom was without a chief, there in the mountains could be found a high chief (*ali‘i nui*) for the kingdom. Or if a chief was without a wife, there one could be found—one from chiefly ancestors. Kauakahi‘ailani, Ma‘ilikukahi, Kalona, Piliwale, Kukaniloko, Pa‘akakanilea [Pa‘akanilea], Ka‘akauualani, Ka‘au, Lale, Paoakalani, Pakapakaua, Nononui, Kokoloea, and a great many others were *Lo* chiefs. (Kamakau 1964:5)

Kamananui was very much the ceremonial center of the island. The *ahupua‘a* contains numerous *heiau*, including two presided over by Kū, which were also *heiau luakini* associated with human

sacrifice (Kirch and Sahlins 1992:1:21). In Wahiawā is also located one of the most sacred sites on the island, Kūkaniloko (“the sound or resonance rises from within”), birthing stones situated near where Kamehameha Highway intersects with Whitmore Road (Yent 1999:15; Yent 1995) (also see Archaeological and Historic Sites section).

The establishment of Kūkaniloko as a sacred birthplace goes back to the time of the earliest chiefs of O‘ahu. Nanakāoko was the chief, Kahihiokalani was the chiefess, and they made Kūkaniloko as a birthplace for their son, Kapawa. Kapawa’s birth and the birth of later chiefs at Kūkaniloko was accompanied by prescribed ceremony. The historian Samuel Kamakau describes the first royal birth there:

Kūkaniloko was made by Nanakāoko and his wife Ka-hihi-o-ka-lani as a place for the birth of their child Kapawa... When the child was born, it was immediately taken into the *waihau heiau* Ho‘olono-pahu. There forty-eight chiefs ministered to the child and cut the navel cord. Ho‘olono-pahu was a furlong and a half south of Kūkaniloko. Two furlongs to the east of Kūkaniloko was where the sacred drum Hāwea was beaten; it indicated the birth of a chief. On the east of the stream on that side of Kua‘ikua were the *maka ‘āinana* --- a great many of them --- and to the south, three furlongs distant, were the *kauwā*. (Kamakau 1991:38)

Kamakau points out that long after Kapawa, the sacredness of Kūkaniloko continued and that all of the “chiefs born at Kūkaniloko were the *akua* of the land and were *ali‘i kapu* as well” (Kamakau 1991:53).

The historian John Papa Ii adds that besides being a sacred birthplace, Kūkaniloko was also a designated place of refuge:

The Hale o Keawe was called Kaikaialealea and was a *pu‘uhonua*, or place of refuge. Similarly, Kukaniloko in Wahiawa, Oahu; and Holoholoku in Wailua, Kauai, were places to which one who had killed could run swiftly and be saved. (Ii 1959:138)

As a place of refuge, Kūkaniloko fits in the story of the newborn twin chiefesses Laielohelohe and Laiekawai. Their mother Malaekahana feared that her newborns would be harmed, so she sent one of them to the safe haven of Kūkaniloko to be raised by Kapukaihaoa (Beckwith 1970).

Even after the arrival of Westerners, Kūkaniloko remained to be a place of great significance among the Hawaiian population. Ii reminds us that this important place was situated along one of the major trails that traversed O‘ahu Island:

From the stream of Anahulu and from Kamani, above the houses and taro patches, a trail stretched along in front of Kuokoa’s house lot and the church. This trail went on to meet the creeks of Opaepala and Halemano, the sources of the stream of Paalaa, on down to the stream of Poo a Moho, and on to the junction where the Mokuleia trail branched off to Kamananui and Keawawahie, to Kukaniloko, the birthplace of chiefs. (Ii 1959:98)

Mo‘olelo and ‘Ōlelo No‘eau

The Līhu‘e chiefs are memorialized in *mo‘olelo*, with the story of Lō Kaholi-a-Lale (Kamakau 1991:50–51). Lō Kaholi-a-Lale was born and raised in the Līhu‘e uplands, where he learned the arts of war, including throwing of the spear, for which the Līhu‘e chiefs were particularly renowned. However, the *mō‘ī* of ‘Ewa, named Piliwale, was also highly skilled at spear throwing and offered his daughter’s hand in marriage to any man who could throw as well as his own instructor, ‘Awa. It was said that ‘Awa “could grasp ten spears in his right hand and ten in his left...he could throw ten spears from the shoulder, two backwards, and two directly to the navel” (Kamakau 1991:50–51). Lō

Kaholi-a-Lale studied the moves of ‘Awa as other suitors unsuccessfully battled him. He challenged ‘Awa at Hālaulani, and his feats are memorialized as place names of ‘Ewa and Waipi‘o. These include Kūpahu, which means “to hurl,” and Hanapouli, or “make dark” (Kamakau 1991: 50–51). Lō Kaholi-a-Lale’s success earned him the hand of Piliwale’s daughter, Kohe-palaoa, and the significance of this is as follows:

That was the beginning of the combining of the *lō* and the *wohi*, the ranks of Kaholi-a-Lale. As for Kohe-palaoa, her rank was that of a Kumuhonua chief of Kūkaniloko; she was a *nī‘aupi‘o*. They had a son named Kānehōalani who became the chief of Ko‘olau. (Kamakau 1991:51)

Pukui (1983:291) notes a saying: “*Pili pono ka lā i Kamananui*,” meaning “the sun is very close to Kamananui.” Although the *‘ōlelo no‘eau* is supposed to refer to a person in power who becomes very angry and scorches people like the hot sun, the indication that the sun is very close to Kamananui in particular very likely references both Kamananui’s association with the Lō Ali‘i, as well as the solar calendar function of Kamananui’s most sacred site, Kūkaniloko. The *‘ōlelo no‘eau* for the sun’s relationship to Kamananui is in stark contrast to that of nearby Wai‘anae in the saying, “*Kapakahi ka lā ma Wai‘ane*,” meaning “lopsided is the sun at Wai‘anae” (Pukui 1983:164).

In addition to power, Kamananui is also associated with violence in a number of *mo‘olelo*. Within Kamananui, Keawawaihi (*mauka* of Hale‘iwa) was known as “The Valley of the Spears,” named for the brigands of robbers who went rogue after being trained for war using spears or a shark’s tooth tied to the hand with *olonā* fiber, and by using the warrior art of *lua*, “the art of dislocating the joints and rendering an opponent helpless” (Sterling and Summers 1978:107). Pohakukae in Keawawaihi Gulch is the location of another tale of bloodshed. The large rock on the north ridge of the gulch was named after an event in which a man named Kalaimoku stood on the rock and called out to the people below: “*E na kanaka o Keawawaihi ea ka ai he kukae*,” or “Men of Keawawaihi here is the food, excrement” (Sterling and Summers 1978:107). The people became enraged and tore Kalaimoku and his attendants to pieces.

A few miles southeast of Kūkaniloko, near the south fork of Kaukonahua Stream, was a place later called O‘ahunui (named after the last resident chief), the former residence of the ruling *ali‘i* of O‘ahu. A *mo‘olelo* associated with the site indicates that O‘ahunui practiced cannibalism, and his most horrific act involved eating his two plump nephews (his older sister’s sons), for which he and his sister were decapitated in retribution by the boys’ father. Their bodies turned to stone, and O‘ahunui is said to resemble the shape of O‘ahu. The site was considered desecrated by the act, and the residence of the ruling chief was moved from Kamananui to Waikīkī (Kawaharada 1999:52–53; Sterling and Summers 1978:137).

Historic Waihiawā

In historic times (post-1778), the Waihiawā region has been used for harvesting sandalwood, sugarcane and pineapple cultivation, and for military interests.

Early Historic Land Use

When Kamehameha I conquered O‘ahu in 1795, Waialua was given to his ally, Chief Ke‘eaumoku, and for the next 70 years, the land was controlled by his descendants, primarily his daughter, Queen Ka‘ahumanu. In the early 19th century, Waialua was a source of food, sandalwood for trade, and building lumber for the royalty (Office of State Planning 1995:1).

The sandalwood trade in Hawai‘i began in 1791, with most of the wood shipped to China, where it was valued for its fine grain and pleasant scent. The peak trade years were 1810–1840, and this was

also a period in which there was an increased desire for Western goods, which led to debts held by Hawaiian monarchs who paid these by urging or even forcing the *maka'āinana* to cut down large numbers of trees in the upper regions (Harrington 2013:33). This effort to collect sandalwood for trade placed great strain on the people of Waialua because the trees were located up in the mountains, “far from the people’s homes and gardens,” the collection of which necessitated “sustained operations of days, weeks, or sometimes months on end” (Kirch and Sahlins 1992:1:83). While away, they were then not tending to the gardens and animals needed for their own sustenance.

As the sandalwood trade died down, whaling would become an important element in the economic, political, and social structure in Waialua. The height of the whaling period was approximately 1830–1860, which was also an era in which Waialua lost roughly half of its people to disease and emigration. At the same time, the ruling *ali'i*, *konohiki*, and other officials taxed the commoners more heavily in order to pay for the Western goods and customs they had come to covet. Most income to the *ali'i* came from sales of supplies to the whaling ships, with supplies of food (e.g. cattle, taro, sweet potato), salt, and other materials generated by the *maka'āinana*. The commoners of Waialua were additionally burdened by collateral issues tied to supplying the ships. Many who worked the farms and homesteads in the area had to build walls (most were built in the late 1840s and early 1850s) around their lots not to keep personal livestock in but to keep out the cattle of supply companies that allowed their herds to wander freely (Kirch and Sahlins 1992:1:99–165).

Agricultural Interests

In the mid-1860s, Castle & Cooke, established by Samuel Castle and Amos Starr Cooke, backed the first commercial sugar cultivation in Waialua, started by two sons of Levi Chamberlain. Early businesses managed by them and others were unsuccessful, and in 1874 the operation was sold to a partnership including Robert Halstead. Halstead was able to generate a profit, and prospects improved with the development of a railroad line. Castle & Cooke and Halstead together formed Waialua Agriculture Company in 1898. Development continued and soon the company embarked on a mammoth irrigation project to dam Kaukonahua Stream and create the Wahiawā Reservoir.

The Wahiawā Reservoir has been called the “key to Waialua’s irrigation” (Wilcox 1996:109). Completed in January of 1906, it was the largest reservoir in the islands, with a capacity of 2.5 billion gallons (Wilcox 1996:109). At 136 feet (41.5 m) tall, the earthen dam is the highest in Hawai‘i. The 461 foot (140.5 m)-long dam with a 580 foot (176.8)-thick base created a massive reservoir, occupying a 7 mile (11 km) length of Kaukonahua Gulch (Wilcox 1996:109). This reservoir, later dubbed Lake Wilson, delivered 90% of the surface water for the Waialua Sugar Company’s fields. In the book *Sugar Water*, Wilcox describes the ditch system associated with the reservoir:

The source was 8000 acres of watershed at the head of the Koolau Mountains. Lake Wilson was fed by a ditch system known first as the Oahu Ditch and later as the Mauka Ditch Tunnel. It consisted of 4 miles of main ditch and 8 miles of laterals, which included thirty-eight tunnels. It was started in June 1900 and completed in March 1902 at a cost of \$80,000. The capacity of this ditch system was 90.5 mgd. Besides developing water in the Kaukonahua watershed, it also diverted from the Poamoho watershed.

Another 4 miles of ditch, tunnel, and siphons delivered the water from Lake Wilson (as well as from Helemano and Opaepala ditches) to Waialua’s upper fields at 730 feet elevation. This Wahiawā Ditch had a capacity of 50 mgd. The total cost was \$49,177.59, making it one of the least costly projects of its size, averaging out to \$1.5 a lineal foot. Of the ditch’s 20,740 feet, only 1600 feet was in open ditch. The remaining length comprised twenty tunnels, the longest of which was 1742 feet. It had the largest and tallest flume on Oahu: 130 feet high. In 1923, most of the flumes spanning the gulches were replaced by siphons. (1996:109–110)

Sugarcane production became less dominant with some of the land use in Waialua shifting to pineapple and military interests in later years. James Drummond Dole founded the first pineapple plantation in Wahiawā in 1900 (Hawkins 2011). He organized the Hawaiian Pineapple Company in 1901 and packed the first batch of pineapples in 1903 (Napoka 1976). In 1922, Dole leased 12,000 acres (4,856 ha) from the Waialua Agriculture Company for pineapple production (Office of State Planning 1995).

Both sugarcane and pineapple production in the Wahiawā/Kamananui area were enabled by the train service established from Pearl City to Wahiawā, and later up through Hale‘iwa. O‘ahu was the last island to “come aboard” the new mode of transportation following King Kalākaua’s 1878 Act to Promote the Construction of Railways, after railroad service began on Maui in 1879 and on the Big Island in 1880 (Chiddix and Simpson 2004:14). The Oahu Railway and Land Company (OR&L), founded, owned, and ran by Benjamin Franklin Dillingham, began operations in 1889 (Chiddix and Simpson 2004:19).

Established portion by portion, the OR&L line originally spanned from Honolulu to Kahuku, with a branch line running from Waipahu out to Wahiawā that was constructed in 1905 to accommodate the pineapple plantation established there by Dole. Soon after construction, this line was unofficially extended to Hale‘iwa—a “hush-hush track” due to the establishment of Schofield Barracks and the wartime need for back-up transportation (Kneiss 1957:13–14).

Poamoho Camp, to the north of the project area, was constructed in 1912 for workers of the Hawaiian Preserving Company, Ltd. pineapple cannery in Wahiawā. The camp consisted of 20 houses situated around a men’s boarding structure. It remains as a residential neighborhood today, with approximately 300 residents (Boylan 2004), although the houses have been remodeled.

The U.S. Military

Adjacent to Wahiawā, in Wai‘anae ‘Uka, the land underwent increased military use with the establishment of Schofield Barracks. The U.S. military first occupied Schofield Barracks, originally called Castner Village, in 1909. Most major planned building projects were completed by the early 1920s. Soon after World War II began, the facilities were expanded to accommodate the Ranger Combat School created to train soldiers for “jungle” activities. The current Schofield Barracks Military Reservation’s three main training areas included the Impact Zone, the South Range, and the East Range (Sullivan and Dega 2003:21).

The Helemano Military Reservation, north of Wahiawā in Pa‘ala‘a Ahupua‘a, was established in 1943. The reservation served as a communications station for the U.S. Army, and in 1944, a signal center was constructed. The reservation became a permanent sub-installation of Schofield Barracks in 1956 (Towill Corp. 1981).

Historic Maps

Historic maps help to paint a picture of Wahiawā in years past and illustrate the many changes that have taken place in the region. The earliest maps found for this area are from the late 1800s. The first shows two land grants in 1885 (Figure 3). The north and south branches of Kaukonahua Stream are illustrated, and Kokoloea is labeled along the southern boundary of the *ahupua‘a*. The second map dates to 1899 and shows the entire *ahupua‘a* (Figure 4). Several ridges and gulches are illustrated, although the only one labeled is Poamoho Gulch. Land grants are also outlined, and a fence is shown, with points designated as “Kokoloea” and “Paka.” The Government Road runs through the west side of the region with two gates and a bridge depicted. Two houses are shown: one near the south fork of Kaukonahua Stream, and the other on Galbraith lands.

Two maps were found that date to the early 1900s. The first depicts lands of the Waialua Agricultural Company in 1901 (Figure 5). The entire *ahupua'a* is shown with details of natural features such as streams and gulches. The Government Road is illustrated, along with many land grants throughout the region. The second map of this era shows Central O'ahu in 1904 (Figure 6). The only notable addition in Wahiawā is a "pile of stones" that marks the corner of the property boundaries near Poamoho Gulch.

The final two maps date to the mid-1900s. The first depicts the 'Ewa Forest Reserve in 1946 (Figure 7). In the uplands of Wahiawā, a "Mauka Ditch," and the Schofield-Waikane Trail are illustrated. The Poamoho Tunnel and an unnamed trail are shown between Poamoho Stream and the north fork of Kaukonahua Stream. Pineapple lands and a reservoir are in the western portion of the *ahupua'a*. The final map shows Wahiawā in 1950 (Figure 8). The area is much more developed, with a network of streets and several additional reservoirs illustrated.

Māhele Land Tenure

THE MAHELE is rightfully considered one of the most significant chapters in the modern history of Hawai'i. Several legislative acts during the period 1845–1855 codified a sweeping transformation from the centuries-old Hawaiian traditions of royal land tenure to the western practice of private land ownership. (Moffat and Fitzpatrick 1995)

The change in the traditional land tenure system in Hawai'i began with the appointment of the Board of Commissioners to Quiet Land Titles by Kamehameha III in 1845. The Great Māhele took place during the first few months of 1848 when Kamehameha III and more than 240 of his chiefs worked out their interests in the lands of the Kingdom. This division of land was recorded in the Māhele Book. The King retained roughly a million acres as his own as Crown Lands, while approximately a million and a half acres were designated as Government Lands. The Konohiki Awards amounted to about a million and a half acres, however title was not awarded until the *konohiki* presented the claim before the Land Commission.

In the fall of 1850 legislation was passed allowing citizens to present claims before the Land Commission for lands that they were utilizing within the Crown, Government, or Konohiki lands. By 1855 the Land Commission had made visits to all of the islands and had received testimony for about 12,000 land claims. This testimony is recorded in 50 volumes that have since been rendered on microfilm. Ultimately between 9,000 and 11,000 *kuleana* land claims were awarded to *kama'āina* totaling only about 30,000 acres and recorded in ten large volumes.

During the Māhele of 1848, the land of Waialua, at that time held by Princess Victoria Kamāmalu, was divided: Kamāmalu retained thousands of acres in Pa'ala'a and Kawailoa; 134 *kuleana* holdings were awarded; and the western sections of Kamananui and Mokuleia, as far as Ka'ena Point, were given to the government and made available for public purchase. There were no LCA awards in the immediate vicinity of the project area. Although no Central O'ahu lands were awarded to the commoners, they undoubtedly helped farm those lands. There are documents preceding the Māhele which mention the vast cultivated *lo'i* found in this central area (Henry et al. 1992).

Two years after the enactment of the Māhele, King Kamehameha III passed another law, this one allowing foreigners to buy land. The Waihona 'Aina database shows that following the allowance of foreigners to buy land in Hawai'i, the property around present-day Wahiawā were overwhelmingly bought out by Westerners. By 1860, approximately 290 patents were granted, with roughly one in eight sold to foreigners and naturalized citizens, including John S. Emerson and Samuel Northrup Castle (Office of State Planning 1995:1–2). In the case of the project area, those

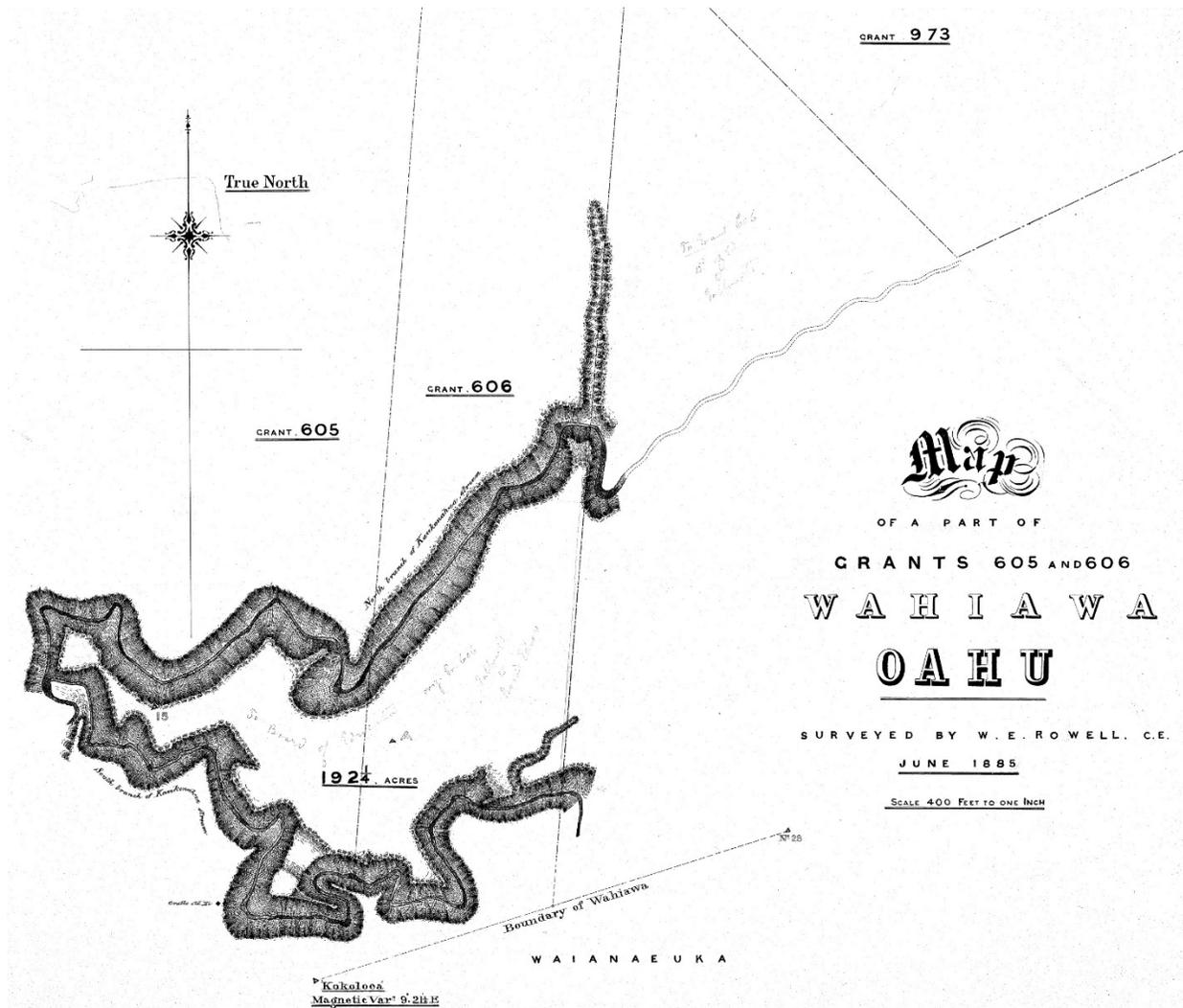


Figure 3. Land grant map of Wahiawā (Rowell 1885).

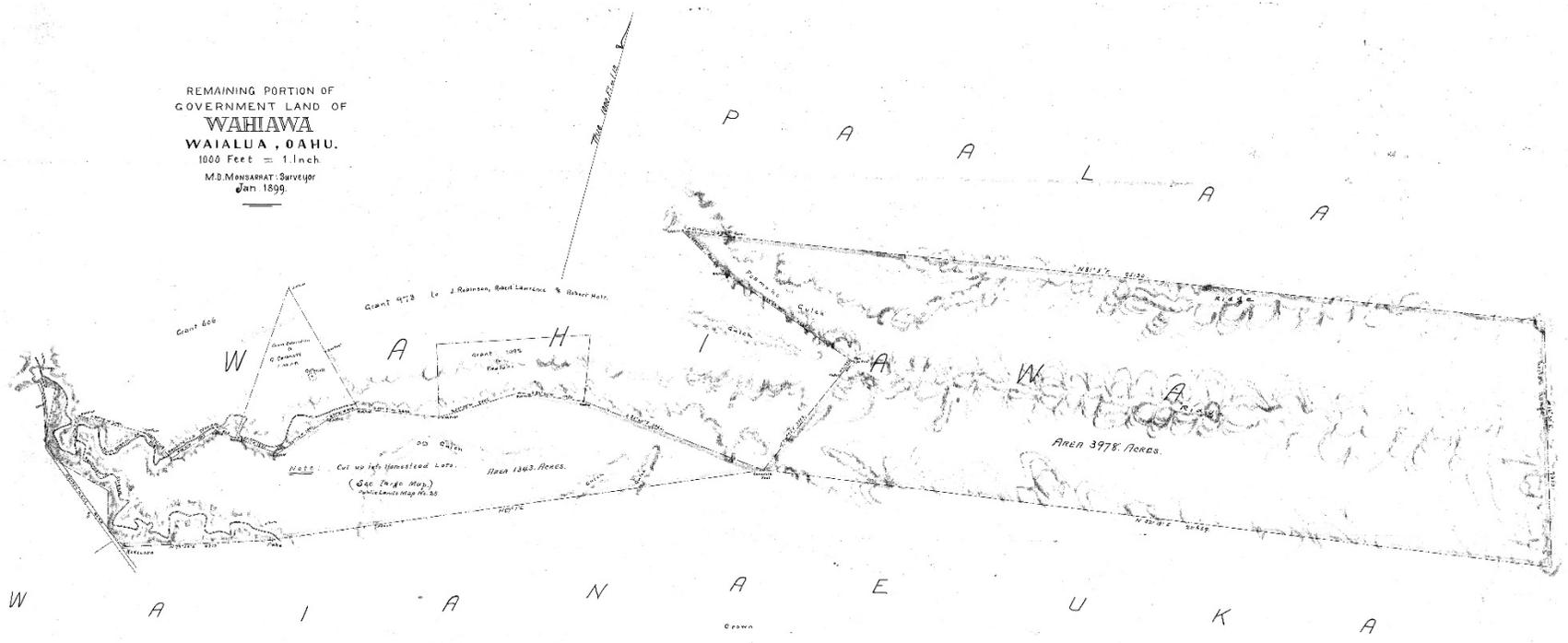


Figure 4. Government land of Wahiawā (Monsarrat 1899).

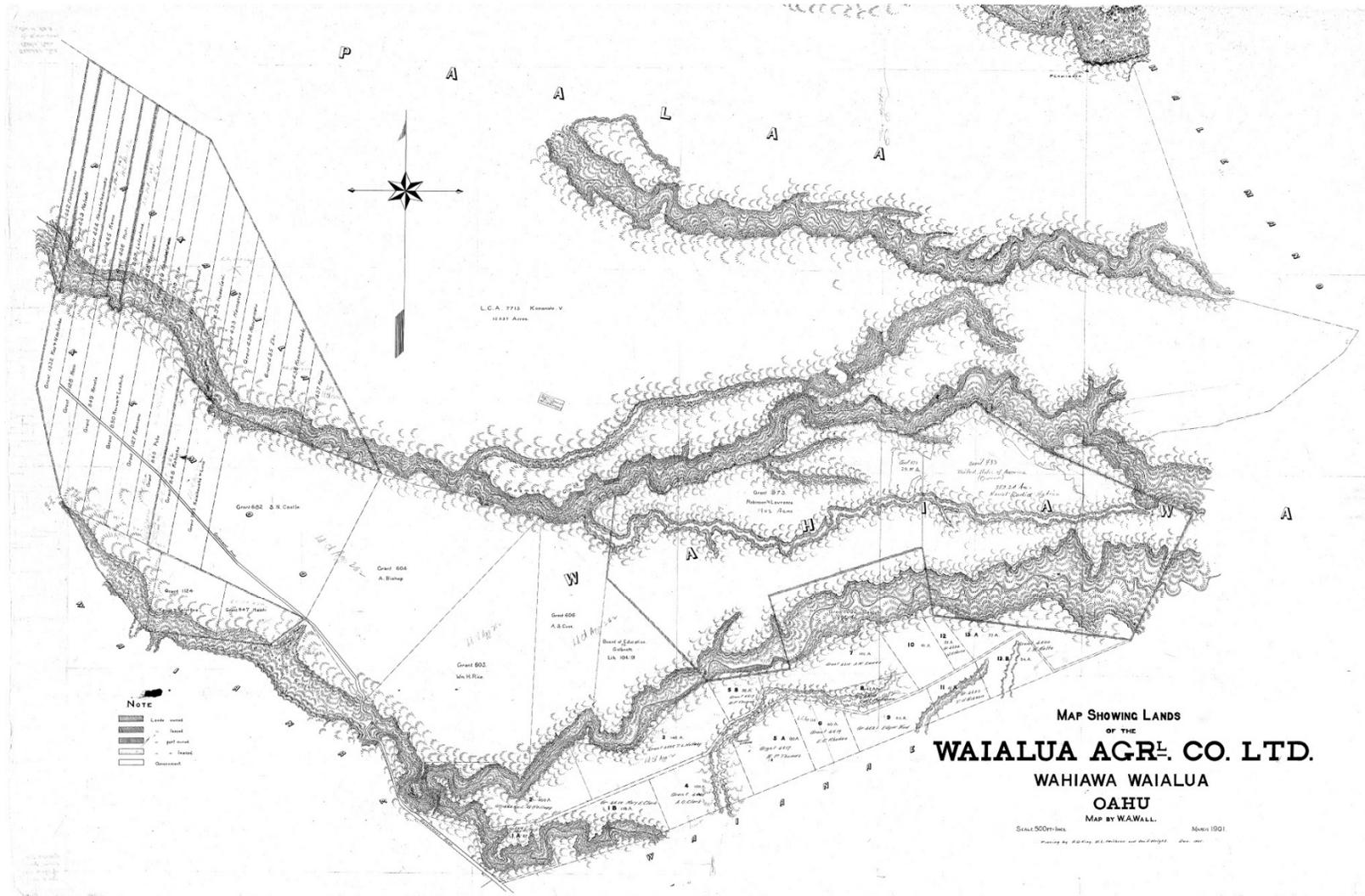


Figure 5. Waialua agricultural land (Wall 1901).

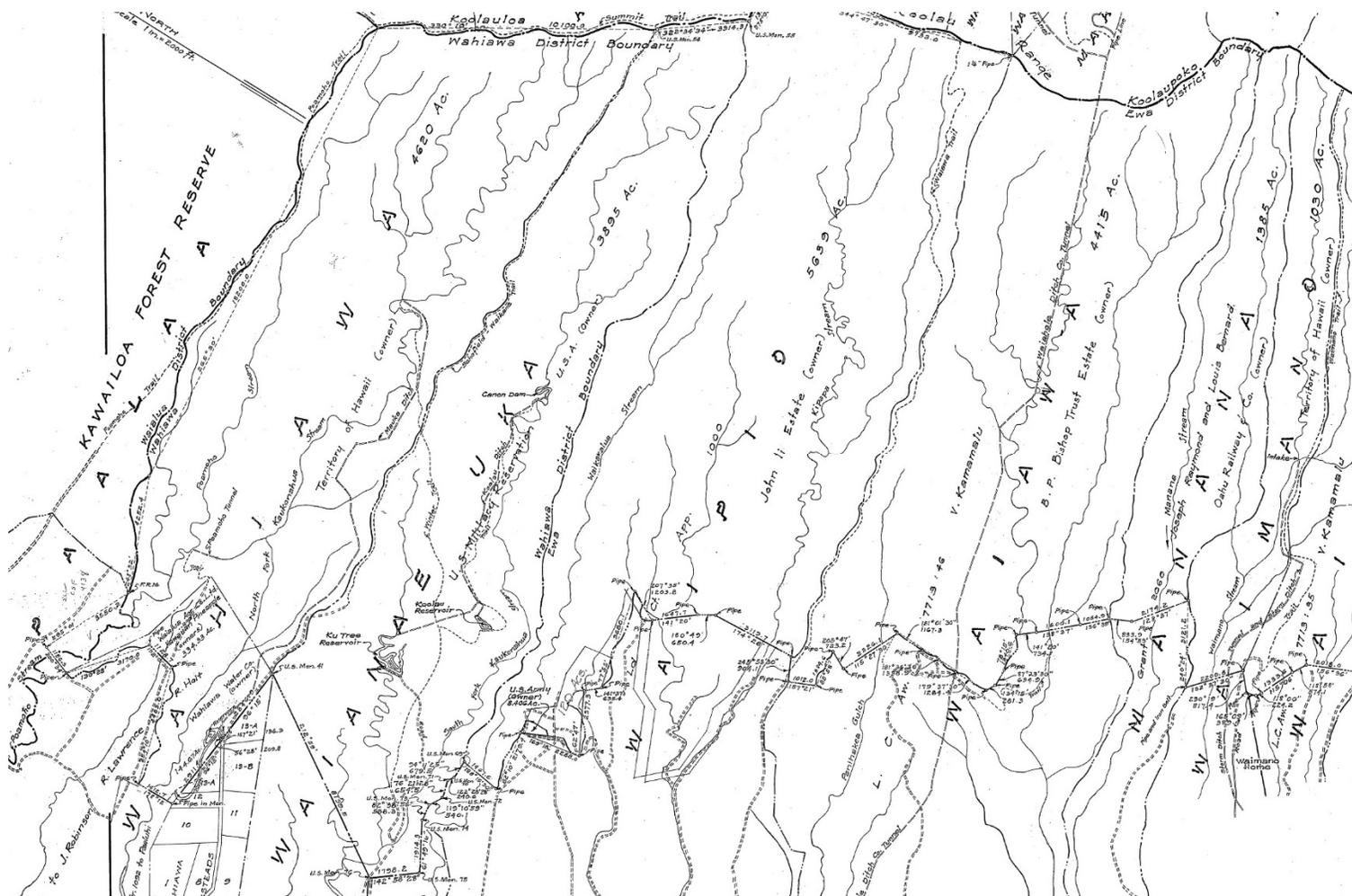


Figure 7. Portion of an 'Ewa Forest Reserve map (Marks 1946).

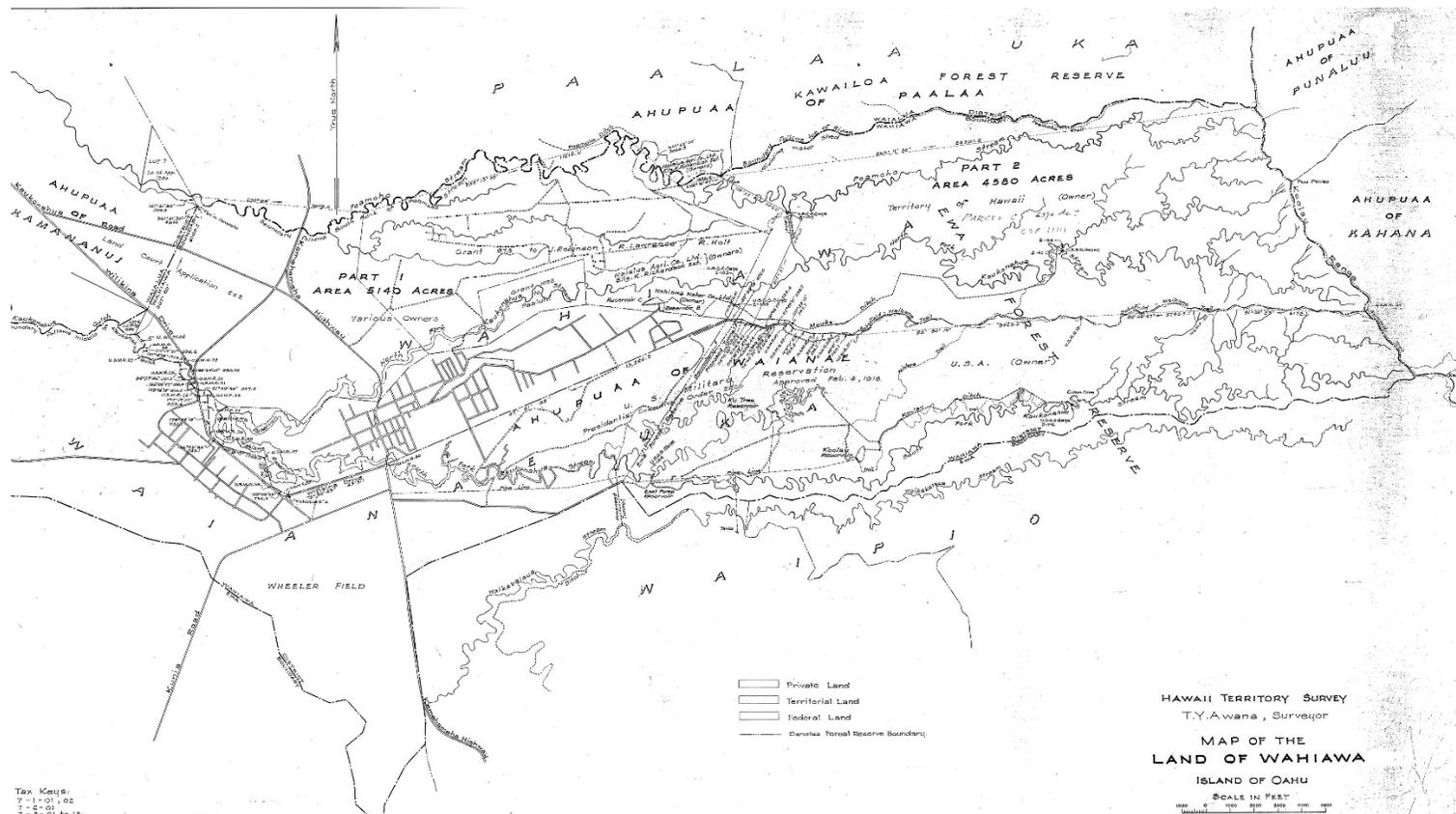


Figure 8. Territory Survey map of Wahiawā (Awana 1950).

lands eventually fell into the ownership of George Galbraith. Neither the exact date of Galbraith's purchase of the property could be found, nor whether he bought his lands all at once or if he bought it piecemeal.

Archaeological and Historic Sites

Many historic sites are located within Wahiawā, the most notable of which is Kūkaniloko, or the Birthing Stones, one of the most sacred sites on O'ahu. Kūkaniloko is comprised of a number of stones associated with royal births, and a birth there legitimized a chief's high ranking right to be a leader (Yent 1999).

The site was established in the 12th century, when Nānākāoko and his wife, Kahihokalani birthed their son, Kapawa at Kūkaniloko. This became the traditional birth site of the *ali'i* (Sterling and Summers 1978:139–40; James 2010:113; Beckwith 1970:377). A child born here was then taken to nearby Ho'olonopahu Heiau, the site of the sacred drums 'Ōpuku and Hāwea, that would sound the announcement of sacred births (Yent 1999:18–23). This location, as Beckwith (1970:377) notes, "is one frequently visited by thunderstorms, whose manifestations were regarded as the voice of ancestral gods of the heavens welcoming an offspring of divine rank," and it is therefore possible that the drums "simulated the voice of the deity." Kakuhihewa, later king of O'ahu, was born at Kūkaniloko, "in the sleeping place consecrated by the tabu of Liloe," and was announced according to such a ritual (Sterling and Summers 1978:139).

It is also posited that some of the stones were arranged to represent the various islands of Polynesia, and the area served as a navigational school. One of the stones, shaped somewhat like O'ahu, contains carved ridges aligned with peaks on the Ko'olau and Wai'anae mountain ranges, and these ridges cast shadows across concentric circles at the center of the stone that were likely used in an astronomical/calendrical function to tell the solstice and equinox times of the year (James 2010:114; Yent 1999:35).

Traditionally, Kūkaniloko referred to a much larger area that spanned from Waikakalaua and Līhu'e in the south, Kalena in the west, and Helemano in the north (Yent 1999:15). The central site included 36 stones aligned in two parallel rows of 18 (seats for the presiding chiefs of the island), a resting stone for the woman giving birth, and numerous other stones (Kawaharada 1999:51; Kirch 1996:35). The sitting stones from the original parallel rows of 18, many of which have bowl-like indentations, are now arranged "haphazardly in a small grove of coconut and eucalyptus trees" (James 2010:113).

The entire complex includes approximately 180 stones in a 25 x 50 m area. Petroglyphs have been recorded on three of the stones. Two of the petroglyphs are believed to be post-contact; one petroglyph, identified in Yent (1995:4) as Stone #103, features concentric circles with a dot in the center, and the stone in which the image is set contains fluted points that most likely had "an astronomical function." From Kūkaniloko, "the solstitial and equinoctial positions of the sun could be observed and marked for use as a calendar" (Yent 1999:35).

Identified by McAllister (1933:134–137) as Site 218, the .5-acre (.2-ha) Kūkaniloko site was placed on the National Register of Historic Places in 1972. In 1994, it was listed on the Hawai'i Register of Historic Places, and the size of the official site was increased to 5 acres (2 ha). In 1997, The Department of Land and Natural Resources-State Parks entered into an agreement with the Hawaiian Civic Club of Wahiawā and the Friends of Kūkaniloko, who are the recognized curators of the monument. Tom Lenchenko "placed several alignments of boulders within the 5-acre parcel to symbolize the traditions associated with the site," including the current arrangement (which is not the original) of 36 stones in two parallel rows leading to the site and the 48 stones at the western

edge of the 5-acre site (Yent 1995:14). Other improvements have been made to the site to repair damage and to help protect the site.

Ho‘olonopahu, McAllister’s Site 219 (1933:137) was a *kapu* place for rituals but did not necessarily have a permanent structure. The temporary structure on the sacred site, believed to have been approximately 400 m northwest of Kūkaniloko, was probably constructed of wood of the *mākālei*, a supernatural tree of Moloka‘i. It is said that the drums ‘Ōpuku and Hāwea were kept there (McAllister 1933:137). These sacred drums were sounded to announce an *ali‘i* birth at Kūkaniloko. What remained of the site was presumed destroyed by the 1920s when the land was used for pineapple (Yent 1999:18–23).

The Wahiawā Healing Stones, several rocks with healing properties, are reported to have been moved several times in fairly recent history. In Sterling and Summers (1978:141), William Galbraith recounts that his father and grand-uncle moved a stone from its original location on a river bed on the lower side of the Wahiawā Dam to Kūkaniloko to serve as the headstone of a Hawaiian chief. It was moved to Wahiawa Cemetery in 1927. James (2010:115) gives a slightly more curious account:

In the late 19th century, prompted by a dream in which the spirit of the stone addressed him, an Irish rancher by the name of George Galbraith moved the stone from a riverbed to a clearing at Kūkaniloko, where it drew many Hawaiians who experienced its curative powers. Pilgrims flocked to the sacred stones, offering prayers and gifts, and the stone was moved to a cemetery in Wahiawā, a mile away. However, the next day it appeared back at its original location. It was moved again, and again it somehow returned, people said, on its own. A third time it was moved in a wagon from which it fell and broke in two. The two stones now remained at the spot where they were placed, and became even more popular.

Two stones are now located in a Japanese crypt-like shelter near a Hindu structure, worshiped by some as a manifestation of Shiva, at a suburban housing development that was built over the former cemetery at 108 California Street. The larger stone is called Pōhaku Ho‘ola Kino or Keanianileihua, while the name of the smaller rock is not known (James 2010:115–116).

Helemano Trail (connected to the Wahiawa-Pupukea Trail, later called Drum Road) was a traditional thoroughfare near the project area (Kakesako 2002). Not much of the earlier history of the trail is known before the military extended and developed the road in the 1930s, which involved reconstructing old trails and creating new paths (Cultural Resources Section Staff 2012).

The Chinese cemetery of Wahiawā, a historic-era site, was originally located at 130 California Avenue, next to Ka‘ala School (south of the current project area). The site was reported to have been used for the burial of Dole company employees, with the last burial done in 1947. In 1972, all marked and unmarked burials were disinterred and relocated to Mililani Memorial Park (Char and Char 1988:163–164).

Previous Archaeological Studies

The earliest archaeological work in the Wahiawā region was part of McAllister’s islandwide survey (1933). Two sites were identified near the project area: Site 218, Kūkaniloko, and Site 219, Ho‘olonopahu Heiau, both described above. McAllister noted that Kūkaniloko was “one of the two famous places in the Hawaiian islands for the birth of children of tapu chiefs. The other is at Holoholoku, Wailua, Kauai” (1933:134). At the time of McAllister’s survey, Kūkaniloko was the only archaeological site on O‘ahu that was being “officially preserved” (1933:135). Ho‘olonopahu Heiau is where drums were beaten to signal the birth of an *ali‘i*. The site was reported as destroyed by the time of McAllister’s survey, and only pineapple lands remained (1933:137).

Modern archaeological work consists of archaeological surveys, monitoring, and other such projects. The following discussion provides information on archaeological investigations that have been carried out in the vicinity of the project area, based on reports found in the SHPD library in Kapolei, Hawai'i (Figure 9, Table 1).

A surface survey was conducted on Phase I of the Wahiawa Fresh Water Park (Griffin and Yent 1977). Structures found during the survey include a railroad trestle and the roadbed for railroad tracks, as well as a terrace complex that is either historic or historically modified. Griffin and Yent (1977) recommended contacting the Hawaiian Railway Society to determine the significance of the railroad structures. No State Inventory of Historic Places (SIHP) site numbers were assigned.

James Saifuku submitted to the SHPD several drawings of sites he had encountered along Poamoho Stream, drawn from his memory of what had been there in the 1940s (Saifuku 1987a and 1987b). Drawings and notes indicate the presence of traditional Hawaiian artifacts in the pineapple fields along Poamoho Gulch, as well as a rock wall alignment and former *heiau* within the gulch.

An archaeological reconnaissance survey was completed in three areas associated with Helemano family housing construction (Watanabe 1990). Work Area 1 was a waterline re-route approximately 220 m (722 ft.) long, south of the Helemano Radio Station. No cultural features were encountered. Work Area 2 was an access road corridor approximately 15 m (49 ft.) wide and 750 m (2,640 ft.) long, running through former pineapple fields to the northeast of the current project area. Excavation revealed a plow zone in the upper meter that seemed associated with seasonal field preparation. Work Area 3 was approximately 100 m², adjacent to Kamehameha Highway, also in an active pineapple field. No cultural materials were encountered there. No further archaeological work was recommended (Watanabe 1990).

An archaeological inventory survey of Galbraith Trust Lands was performed as part of an environmental impact statement to be submitted in support of a proposed development plan amendment application (Henry et al. 1992). The survey area included the current project parcels, along with additional lands in between and south toward Schofield Barracks. Survey methods included an aerial survey by helicopter, a variable-intensity ground survey, and subsurface testing. During the aerial and pedestrian surveys, two previously identified sites were documented: SIHP 50-80-04-218, Kūkaniloko, located outside of the current project area to the south, and SIHP 50-80-04-4571, a stacked rock wall outside of the current project area to the north (Henry et al. 1992:18). Saifuku (1987a) had previously identified a *heiau* (SIHP 50-80-04-1605) to the north of the current project area, in Poamoho Gulch, but this could not be located. Henry et al. note: "If future development plans include ground disturbance in Poamoho Stream Gulch, further efforts to locate Site 1605 may be necessary" (1992:32). No cultural deposits were found in the shovel tests.

An archaeological assessment of an exploratory well site was completed within the Board of Water Supply Corporation Yard on California Avenue (Colin and Hammatt 1994), south of the current project area. The pedestrian survey produced no findings and the area was determined to be "devoid of archaeological potential" (Colin and Hammatt 1994:7).

A cultural resources overview with an archaeological survey was conducted at the Naval Communications Center Area Master Station (Landrum et al. 1997). No pre-contact archaeological sites were identified, although it was suggested that they may be located in the gulch that was not surveyed (Landrum et al. 1997:i). Several historic buildings were documented.

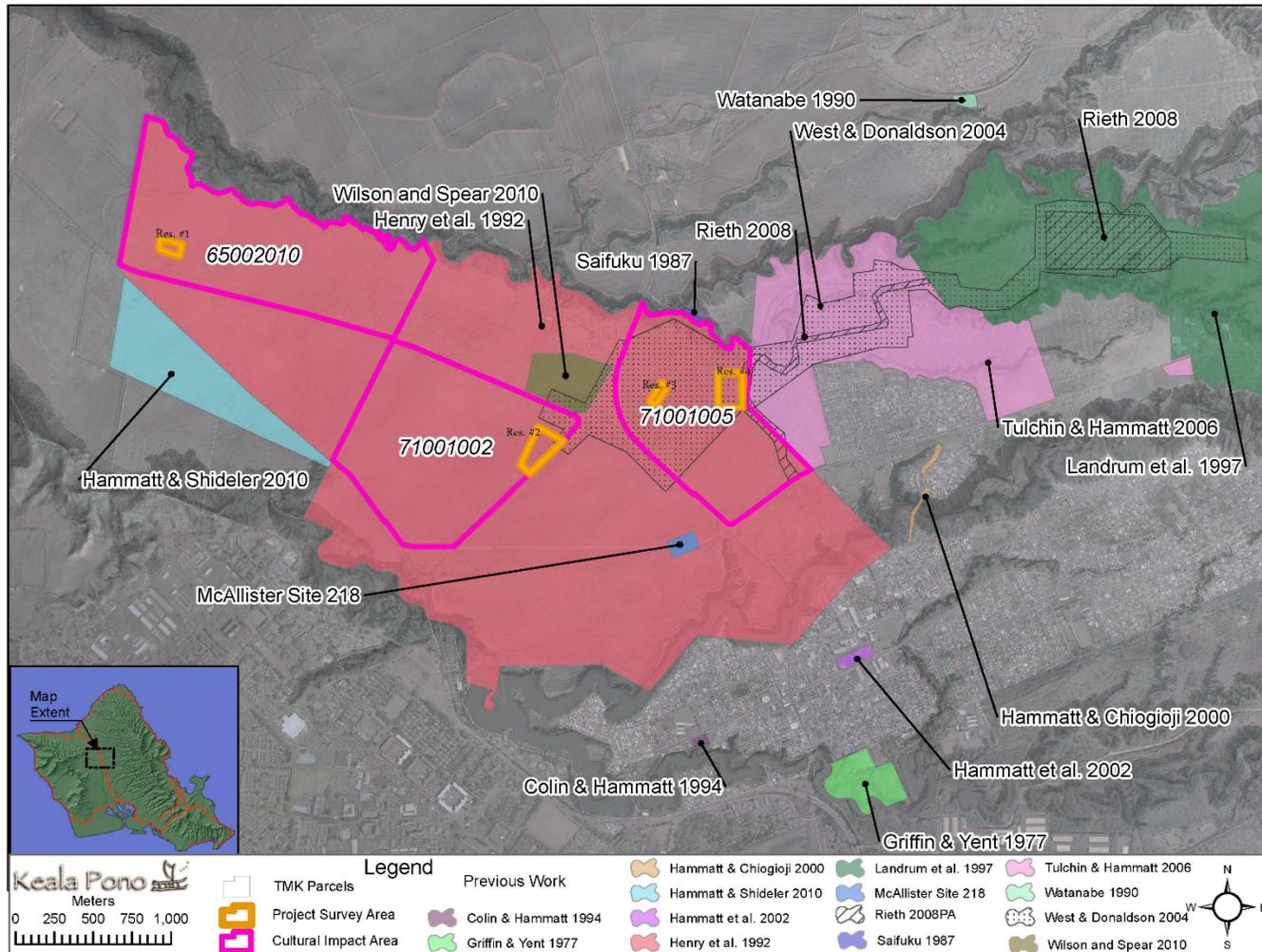


Figure 9. Location of previous studies in the vicinity of the project area.

Table 1. Previous Archaeology in Wahiawā

Author and Year	Work Completed	Findings
McAllister 1933	Islandwide Survey	Identified Site 218, Kūkaniloko, and Site 219, Ho‘olonopahu Heiau near the project area.
Griffin and Yent 1977	Archaeological Inventory Survey	Documented terraces in Kaukonahua Stream and a railroad bed.
Saifuku 1987a and b	Site Drawings	Documented several new sites, including a wall and <i>heiau</i> along Poamoho Stream.
Watanabe 1990	Archaeological Reconnaissance Survey	No findings.
Henry et al. 1992	Archaeological Inventory Survey	No findings.
Colin and Hammatt 1994	Archaeological Assessment	No findings.
Landrum et al. 1997	Cultural Resources Overview Survey	Documented several historic buildings.
Hammatt and Chiogioji 2000	Archaeological Assessment	No findings.
Hammatt et al. 2002	Archaeological and Cultural Impact Evaluation	No findings.
West and Donaldson 2004	Archaeological Inventory Survey	No findings.
Tulchin and Hammatt 2006	Literature Review and Field Inspection	Identified historic railroad trestle foundations.
Reith 2008	Archaeological Monitoring	No findings.
Hammatt and Shideler 2010	Archaeological Assessment	No findings.
Wilson and Spear 2010	Archaeological Inventory Survey	No findings.
Sims et al. 2011	Archaeological & Cultural Monitoring	Identified a subsurface charcoal lens.

An archaeological assessment of a 16-inch water line route connecting the Wahiawā and Whitmore Village water systems was conducted east of the current project area (Hammatt and Chiogioji 2000). No surface archaeological sites were observed. No further archaeological work and no monitoring during construction activities were recommended.

An archaeological and cultural impact evaluation for the Wahiawā Community Transit Center was completed, which involved a literature review and field inspection (Hammatt et al. 2002). The field inspection revealed no surface archaeological sites and the cultural and historic research produced no evidence of traditional, historic, or ongoing cultural practices.

An archaeological survey was conducted at the proposed location of the new Hawaii Regional Security Operations Center (HRSOC), including a new access road (West and Donaldson 2004). Surface surveys were conducted, portions of which overlap with the current project area. Subsurface testing, consisting of two shovel test units, was conducted only on military land. No cultural materials were found in the pedestrian survey or shovel tests. It was concluded that “the project area has a low potential for any archaeological resources, and no further archaeological treatment or consideration is recommended” (West and Donaldson 2004:iii).

A literature review and field inspection were done for the proposed Whitmore Village development project (Tulchin and Hammatt 2006), adjacent to the easternmost parcel of the current project area. During the field inspection, Tulchin and Hammat (2006) encountered one historic property, a series of historic railroad trestle foundations in the northeastern portion of their project area that are presumed to be part of a spur off the OR&L Helemano Extension (Tulchin and Hammatt 2006:28). No SIHP site number was given in the report. An archaeological inventory survey was recommended to further document the site.

Archaeological monitoring was performed at the HRSOC, east of the current project area (Reith 2008). No archaeological features, deposits, or artifacts were found; however, historical documents and previous archaeological studies describe a *heiau* and a traditional stone wall in the vicinity, suggesting “the possibility that truncated subsurface features and, more likely, agricultural features within the drainages are present” (Reith 2008:5).

An archaeological assessment was completed for a proposed composting facility in a parcel adjacent to the current project area (Hammatt and Shideler 2010). The field inspection yielded no finds. Observations indicated that the landscape had been impacted by decades of sugarcane and pineapple cultivation.

An archaeological inventory survey of 34.117 acres (13.807 ha) of former agricultural land was conducted south of Poamoho Camp (Wilson and Spear 2010). Fieldwork consisted of a pedestrian survey and 24 test excavations. The surface survey yielded no sites. Subsurface testing revealed a layer of tilled soil at 0–80 cmbs, with modern debris over a soil layer of dark reddish-brown clayey silt (Wilson and Spear 2010:7). No subsurface cultural remains were encountered and no further archaeological work was recommended.

Archaeological and cultural monitoring were conducted for the construction of the Helemano Trail, located to the west of the current project area, extending from Schofield Barracks Military Reservation to Helemano Military Reservation (Sims et al. 2011). A subsurface charcoal lens, SIHP 50-80-04-7173, was identified near the north edge of the plateau above Kaukonahua Gulch. The lens was excavated in full and two radiocarbon dates were obtained. A sample of *‘ulei* dated to 371±30 BP (1440–1530 and 1550–1640 cal AD), while a sample of *‘ulu* dated to 393±31 BP (1430–1530 and 1550–1630 cal AD) (Sims et al. 2011:50). The lens was interpreted as a pre-contact combustion feature (Sims et al. 2011).

Summary and Settlement Patterns

According to the Hawaiian history and culture scholar George Kanahale, the major colonization of the Hawaiian Islands occurred around AD 300 (Kanahale 1995). The initial settlers came from other Pacific Islands looking for a new home that was accessible to the sea and able to sustain their new population. Although the Central O‘ahu area was rich with fresh water and food resources, it was far upland from the canoe landing sites on the seashore and the abundance that the ocean provided. As a result, it was settled relatively late compared to the villages on the coastal areas.

While the earliest form of society throughout the Hawaiian Islands centered on extended family units headed by a number of patriarchs, as the population expanded, it evolved into a strict hierarchal class-society ruled by divine chiefs. It is suggested that the archipelago’s organization under divine chiefdoms probably first appeared around AD 800 (Kanahale 1995). The Hawaiian Islands consisted of several sovereign island kingdoms independent of each other for almost 1,000 years. During this time, different islands were consolidated under one ruler, and at other times, the chiefdoms consisting of several islands were splintered, all of this fluidity due to inter-island wars and alliances.

Regarding the project area in the present-day region of Wahiawā and upper Kamananui, its appearance on the historical record begins as the birthplace and home of the great chiefly line known as the Lō Ali‘i. Therefore, all of Central O‘ahu was a sacred region peopled by high-ranking chiefs. At the center of these chiefly lands were the hallowed grounds called Kūkaniloko.

As the birthplace and residence of the high chiefs, Central O‘ahu remained a sacred place throughout the centuries even after the O‘ahu kingdom fell to the Maui kingdom of Chief Kahekili, and the Maui kingdom subsequently fell to the Hawai‘i kingdom of Chief Kamehameha. In the late 18th century, the arrivals of Westerners to O‘ahu, first under the rule of Kahekili and then under Kamehameha, eventually brought with it incursions into Central O‘ahu for sandalwood harvesting. It also brought the infiltration of newly introduced animals such as cattle into the central uplands from ranching enterprises around the island, yet Central O‘ahu continued to be the land of the chiefs.

At the time of the Māhele, the Central O‘ahu locale of Wahiawā was not yet delineated as its own district, and the project area was within Kamananui Ahupua‘a. With the increased presence of foreign influence and interests in the islands, the 19th century ended with the overthrow of the Hawaiian monarchy by foreign residents backed by their foreign government. The overthrow was in 1893, and it was followed by American annexation in 1898.

That same year, the Waialua Agriculture Company, a sugarcane-growing enterprise, was founded, and it soon embarked on a project to dam the Central O‘ahu waters and create a massive reservoir later named Lake Wilson. With this reservoir, there was established an important irrigation system which enabled the plains of Central O‘ahu to be converted into fields of sugarcane and pineapple. In 1912, land was set aside to house pineapple plantation workers in a housing project called Poamoho Camp.

Around the same time that the sugarcane and pineapple industries were profiting from the cultivation of Central O‘ahu fields, the American military established its presence in the adjacent area of Wai‘anae Uka. The Army lands of Schofield started as Castner Village in 1909, but by 1920, most of the major construction was done, and it remains a significant military base today. Another important but smaller military installation was established in Pa‘ala‘a in 1943. This is the present-day Helemano Military Reservation, and it was designated a sub-installation of Schofield in 1956.

By the latter half of the 20th century, Central O‘ahu had seen a marked growth in its population with a corresponding increase in housing at Schofield Barracks Military Reservation, Wahiawā Town, and Whitmore Village. Poamoho Camp still exists today next to the open lands of the project area at the Galbraith Estate, and next to that, Kūkaniloko is now a historical property protected by the State of Hawai‘i (Henry et al. 1992). After raising several generations of families, this area of O‘ahu, now recognized as its own district of Wahiawā, continues to grow and prosper.

ETHNOGRAPHIC SURVEY

As we all know, there are some things that cannot be found in the archives, in textbooks, or at the library. It is here, through the stories, knowledge and experiences of our *kama'āina* and *kūpuna*, that we are able to better understand the past and plan for our future. With the goal to identify and understand the importance of, and potential impacts to, traditional Hawaiian and/or historic cultural resources and traditional cultural practices of Wahiawā, ethnographic interviews were conducted with community members who are knowledgeable about the project area.

Methods

This Cultural Impact Assessment was conducted through a multi-phase process between October and November 2014. Guiding documents for this work include The Hawai'i Environmental Council's Guidelines for Assessing Cultural Impacts, A Bill for Environmental Impact Statements, and Act 50 (State of Hawai'i). Key personnel involved with this study include Windy McElroy, PhD, Principal Investigator of Keala Pono Archaeological Consulting, and Dietrix Duhaylonsod, BA, Ethnographer and Archival Researcher.

Consultants were selected because they met one or more of the following criteria: 1) was referred by Keala Pono Archaeological Consulting or Environmental Planning Solutions; 2) had/has ties to the project area or vicinity; 3) is a known Hawaiian cultural resource person; 4) is a known Hawaiian traditional practitioner; or 5) was referred by other cultural resource professionals. Five individuals participated in the current study. *Mana'o* and *'ike* shared during these interviews are included in this report.

Interviews were taped using a digital MP3 recorder. During the interviews, consultants were provided with a map or aerial photograph of the subject property, the Agreement to Participate (Appendix A), and Consent Form (Appendix B), and briefed on the purpose of the Cultural Impact Assessment. Research categories were addressed in the form of open questions which allowed the consultant to answer in the manner that he/she was most comfortable. Follow-up questions were asked based on the consultant's responses or to clarify what was said.

Transcripts were produced by listening to recordings and typing what was said. A copy of the edited transcript was sent to each consultant for review, along with the Transcript Release Form. The Transcript Release Form provided space for clarifications, corrections, additions, or deletions to the transcript, as well as an opportunity to address any objections to the release of the document (Appendix C). When the forms were returned, transcripts were corrected to reflect any changes made by the consultant. Three consultants provided written statements in lieu of or in addition to their interview transcript. Tom Lenchanko wanted his written statement used instead of his transcript, and Christophor Oliveira submitted written answers to the interview questions in addition to participating in an in-person interview with Glen Kila. Vicki Pakele opted to write a letter statement instead of having an interview.

The ethnographic analysis process consisted of examining each transcript and organizing information into research themes, or categories. Research topics include traditional land use and archaeological sites, connections to Wahiawā, *mo'olelo*, change through time, effects on cultural resources, and concerns and recommendations. Following the topical breakouts, letter statements by Tom Lenchanko and Vicki Pakele are reprinted in full. Edited transcripts for the other interviews are presented in Appendices D–F.

Consultant Background

The following section includes background information for each consultant. This includes information on the consultant's *'ohana* and where the consultant was born and raised. If interview transcripts were completed, this is in the consultant's own words, as conveyed during the interview. Consultants include Glen Kila, Tom Lenchanko, Christophor Oliveira, Kaleo Paik, and Vicki Pakele.

Glen Kila

This is Glen Kila, and I am a kupu ka 'āina of the Wai'anae moku that extends from Wai'anae Kai, the Wai'anae Coast, to Wahiawā, or what we called in the old days, Wai'anae Uka. I am familiar of the properties in Wahiawā-Wai'anae Uka because one of my ancestors, Kahaleula, lived in Waianae Valley. And he also received properties next to this Galbraith property next to Kūkaniloko. So that's my family roots to this area.

Back in the 1960s, my grandfather Soren Nelson and my relatives, the Willet family, moved to that area called California Avenue. So as a teenager growing up, this has been part of our grounds where we grew up, next to Kūkaniloko and the streams.

Specifically, our family, the Kahaleula family, which is part of our family, received land grants to Kūkaniloko area. He was the *Kahuna Nui* responsible for the religious sites. His property consisted of sweet potato lands that the priest used to feed the people in Wai'anae Uka, or next to Kūkaniloko.

Later on, as I was growing up, in the area we used to frequent Kūkaniloko because we knew it was a sacred *wahi pana*, and so it became a part of our family heritage. We also went to Lake Wilson and through the streams over there.

Tom Lenchanko

In response to the questions asked of the community consultants, Uncle Thomas Joseph Lenchanko submitted his reply in writing. Rather than give his own personal background, Uncle Tom Lenchanko emphasizes his roots inside the project area and adjacent lands. His knowledge about the project area stems from this family connection. Speaking on behalf of Aha Kukaniloko Koa Mana Mea Ola Kanaka Maui Hawaiian Lineal Descendants, he expresses his objection to any development on their ancestral lands of Central O'ahu.

Christophor Oliveira

My name is Christophor Oliveira, I was born in October 1983 in Oahu. I moved to Nanakuli homestead at 3 and was fostered to Solomon Waiolama and Vivia Purdy. I went to Nanakuli Elementary for kindergarten and first grade. After leaving Nanakuli I lived in many different places.

My mother is Spaniard, German, Portuguese, Hawaiian and my father is Spaniard, Norwegian, Portuguese, Hawaiian. My mother's father is German Hawaiian, parents' name Edward Wilhelm and Margaret Kaheluahi from Hana and Kipahulu. My father's mother is Hawaiian, parents' name John Kealiinohomoku and Lilia Wahine Maika'i Ka'apuiki.

Kaleo Paik

...My name is Kaleo Paik, and I'm originally from Kona Hema. I was born and raised there. My high school is Konawaena High School, and when I was growing up, it's very interesting because I was born in 1951, and in that time, South Kona still had many of our *kūpuna* who practiced the old ways. So I was able to see for myself and witness for myself many of the old traditional ways. I moved to Honolulu, O'ahu I should say, when I went to college. So I went to the University of Hawai'i, and I stayed here ever since then. And

for about 25 years, I lived out in Mokulē‘ia, so right on Crozier Drive. So right in the midst of that, which is considered that same, Helemano, Moklē‘ia, you know, Pa‘ala Kai, and all of those places, so I got to meet people and hear a lot of the stories of the area. I think in that respect, I can connect to that property by living on that side for that many years. And I think that is what my contribution will be today. [Kaleo Paik]

My grandmother was pure Hawaiian, and she came from Keālia which is South Kona, and her parents were both from Keālia. So in that one Keālia area, I have five generations of my ‘ohana who actually were born, raised, never left. If you move further north to Nāpō‘opo‘o, it is where we originally came from, going back another ten generations. So we were right in the midst of the rise of Kalani‘ōpu‘u, rise of Kamehameha, and all of that area. So our ‘ohana and our names in our ‘ohana are Kuluwaimaka, Kahumoku, Kālua, Palakē. That is our ‘ohana from that side basically for many, many generations. [Kaleo Paik]

Vicki Pakele

In response to the questions asked of the community consultants, Aunty Vicki Pakele had a very busy schedule that prevented a sit-down interview with her. However, she did submit her reply in writing. Aunty Vicki is a community member connected with the Wahiawa Civic Club and the ‘Aha Kukaniloko organization. She introduced herself as follows:

My name is Vicki Pakele. I am of Hawaiian descent of both maternal and paternal sides. My family’s connection to the land goes back centuries. My personal link to the Hawaiian Civic Club of Wahiawa is the result of long time involvement in the conservation and protection of the Hawaiian Heritage site of Kukaniloko Birthstones State Monument including all of the 36,000 acres of kalana Kukaniloko.

Wahiawa population shares a single water resource. Sequestering significant quantities of this limited resource for the benefit for a corporate interest is a worrisome and a serious matter. Our concerns are more far reaching than simply the neighborhoods of Wahiawa.

Topical Breakouts

A wealth of information was obtained through the oral interviews. Quotes from the interviews are organized in the following sections by topic. Topical breakouts include traditional land use and archaeological sites, connections to Wahiawā, *mo‘olelo*, change through time, effects on cultural resources, and concerns and recommendations. Note that data from the two written statements are not included in the topical breakouts, and the statements are instead reproduced at the end of the chapter in their original form.

Traditional Land Use, Archaeological Sites

The area is part of Waianae Moku. It is in the vicinity of the remnants of Kukaniloko and also in certain sacred sites. [Christophor Oliveira]

...As I recall thirty, forty years ago, our *kūpunas* talked about Kūkaniloko, which those rocks that we see there [today] are only a small portion of the complex for the *ali‘i*. The *ali‘i* used it [the Kūkaniloko area] as part of their habitation, like I mentioned about my *tūtū*, my ancestor, he had several acres of sweet potato land. So it was part of the agricultural lots as well as religious sites. And as I recall, it went all the way down to the stream, on the Honolulu side, and then it went all the way up to the Whitmore area, to Halemano. So when we talk about Kūkaniloko, we’re talking from the ridges of Halemano, all the way down through the stream, all the way to Schofield Barracks, and also down to Poamoho. [Glen Kila]

The entire area was once Kukaniloko and part of a much larger system called *kaananiau*. Rather than boundaries as emphasized in the *ahupua'a* system, *kaananiau* is about the *piko*. [Christophor Oliveira]

I do not know the specific sites and the extent of the construction so I can't intellectually comment. However, I would like to point out that the places least visited are usually the most sacred and important. [Christophor Oliveira]

And we used to go up Helemano. I had a good friend was a biker, and we used to travel and go up in there, and we actually saw sites up in here that are unrecorded [pointing at Helemano on map]. And I'm sure you're going to find unrecorded sites in here as well [pointing at the project area on the map], because they are just too close in proximity to each other. But that's the one story you'd be interested in, the stones, the unmoving stones. [Kaleo Paik]

Absolutely, absolutely [there are archaeological sites in the area], and what is difficult, I think, in looking for the undocumented sites, is that some of them might be so obscured. There really needs to be a trained eye to see the relationship of what the area has, and by gathering these stories, I think you'll find that there might be a commonality, or there might be an anthropological view of it of how people traveled in these areas, because I know Wai'anae Uka, from other people, they traveled over here a lot from Wai'anae. So this was not a secretive place as far as our people knowing about it. People traveled to this place. [Kaleo Paik]

...It makes a lot of sense that you will find unrecorded sites because if you have a site like this, there have to have been other sites around to support this area. So that would be my caution and my advice. [Kaleo Paik]

...And we've seen sites up here in Schofield that really triangulates the importance to Kukaniloko, so I'm sure you're going to see some more this way and that way. [Kaleo Paik]

It would be naïve of us to think that such a sacred site as Kukaniloko would not have travelers traveling from all different directions, congregating and having sites along the way for them to stop, to rest, to cook their food, to prepare offerings because they would not have done it at Kukaniloko because that's a birthing place, and there's certain protocols. So you would give all of your ceremony for your own families outside of that area and then have all of these different places for you. So I don't know specifically where they are, but I can almost guarantee, I would be 100% sure that gathering happened, because as I said, even the grandparents of people I knew, the secondhand stories all said they came up here. They would gather from up here because they had certain things that they needed, whether it was *lā'au* that they needed, whether it was only the mountain things that could provide for down below. But not a whole lot of people lived here. So this was really the place for gathering rather than down below where most of the people lived. I would definitely say it would be naïve for us to think that gathering did not happen in this area. And I can see, even coming from the BAX and looking at some of those site visits we went on or just listening to their conversations and looking at the pictures, I'm going. "Yeah, that's something right there." What it is I can't tell you, but I can tell you that our people would have put something there to mark paths. [Kaleo Paik]

And just to share something, people might ask, "Oh, why was the whole site special?" Well, when we isolate our view in looking at the project area, we're really limiting ourselves because that's not how our ancestors looked at our *'āina*. When we look at O'ahu, we have to look at it as an *ahu*, and really the bigger picture and the connections and everything that goes between. [Christophor Oliveira]

I know there's an *'auwai* from the plantation time that goes all the way from Kahana Valley, the tunnels that they dugged in the mountain, and it brings the water from the Ko'olaus right through this area all the way down to Waipi'o. They still get 'em actually.

If you go behind Waipi‘o Park, they still got the beds for the water channels and everything.
[Christophor Oliveira]

Connections to Wahiawā

...Living out in Mokulē‘ia area doesn’t restrict me only from that area. We did extensive hiking up in Poamoho. So we went all the way up on the trail, all the way up to the cliff, and were looking. And we were very active in community efforts. So we always had our pulse on what was going on, not just in our neighborhood, but also North Shore, going up to Wahiawā. So that whole north side from Wahiawā down was pretty much what we kept our pulse on. I was very active with the Waialua Community Association, and I know a lot of people in the Mokulē‘ia Community Association, and of course, we always had our hands in the pot with any kind of community concerns. [Kaleo Paik]

A lot of our friends worked for Dole, so that also was a connection for us. And then there was the Galbraith Estate. I believe that they still had pineapple growing even in their lands all the way up to Schofield. Whether they leased it or not, they had all that acreage. So we were able to take private little tours in all the different areas in the subject area. It’s kinda interesting to come here and sit here today and talk about things I almost forgot about. Yeah, going back on all those old, you know, pineapple roads, getting dust in your hair, and also going up to Mount Ka‘ala. We’ve had several trips up there, overlooking the valleys, it was nice. But that would be my association here. [Kaleo Paik]

A lot of information I got was second-hand stories from people who actually had the story. Now I’m not sure how far up the family did own property, but I know that they owned a lot of Mokulē‘ia, the whole *ahupua‘a* coming up over Helemano and all of that, and these were the Hawaiian ancestors of modern-day Matsugoras, the Almeidas, and the Soares families. When the war came about, they [the military] took over a lot of their lands. The Dillingham Airfield, they had to give up that land and also other lands. [Kaleo Paik]

Some of the properties are still under our family, but again this is not the *kuleana* lands, but lands that were purchased during the 1960s. Kūkaniloko was very, very important because of its relationship to the *ali‘is*. So back in the 1970s, our *kūpunas* took me to Kūkaniloko to share the history about the area which is part of this development that you folks are looking at. Specifically with Auntie Lei Fernandez and one of our uncles, Kekawa—Papa Kekawa. So Uncle Kekawa and Auntie Lei took me to Kūkaniloko back in the ‘70s, and then they shared about the history about the area. [Glen Kila]

And so, that area that we call Kūkaniloko is just a small portion of the greater historic site called Kūkaniloko, which incorporates, right now, hundreds of acres, or even thousands of acres that was part of the *piko* of the *‘āina*. [Glen Kila]

It is our, Koa Mana, *kuleana*. I am the *haumana* of Glen Kila, whom is *haumana* of ‘Imilani and Kahu o Kanenuiakea, ‘o Kane‘ilio, ‘o Kaneikapualena ‘o Kukaniloko, Kahu kula‘iwi o Wai‘anae moku. [Christophor Oliveira]

[I have acquired knowledge] mainly through my *kupuna* as well as personal research and professional consultations. Our *‘āina* is our religion. [Christophor Oliveira]

Mo‘olelo

It’s almost never that we’re at home, we’re always traveling all over the place. Same thing with our *kūpunas*. They would travel from Ka‘ena over to Wai‘anae side. They would come from Mokulē‘ia, and come up the hill, coming to these areas. So the stories that they had was of their upbringing or their grandparents’ upbringing because that’s who they were talking about, really traversing through trails, coming up and down, to getting supplies from the uplands, which was more verdant than in Mokulē‘ia side. And they would come up here and get what they needed, bring it back down, and in turn, they would bring fish

from the shoreline, and bring it up to them. And they would go Ka‘ena and collect salt, and they would do all these different things as a means of, not just commerce, I think commerce is a misused word here, it’s more of a western sense. But in the Hawaiian sense, they would barter, [and say], “This is what I have; do you need some of this?” This area was frequented. There’s also stories, and this is from McAllister, and I take whatever he has to say with a grain of salt because I’m not sure if they told him everything, misdirected him to show him only what they wanted to show him. But there were, from other sources, there were the ‘*aikanaka*. And Poamoho—what is the one [place] right by the pineapple stand? Is that Poamoho? That is yeah? [Kaleo Paik]

And Helemano. They were in that area. So a lot of the travelers would avoid that area and hug closer to Mount Ka‘ala side, come up through Kaukonahua side, and then come up to this area. So they stayed away from this side. And that is one of the stories that they shared. So it was kind of interesting to see that in the old days, how they actually traversed between districts. [Kaleo Paik]

This is what our *tūpunas* called the land of the *mo‘o*, which there were several water deities of the area that we worshipped, and also [this land was] an alignment to the sun, Ka‘aumakua. Going back to my *tūpunas* that took me over there in the 1970s, we went to pray at Ka‘aumakua on the Līhu‘e side, or the Helemano side, by ‘Ōpae‘ula area, we went all over the valley, Ko‘olaus. And next to Mililani prison, which they shared with me, the goddess Kaiona, the pregnant *wahine* from next to Mililani Mauka, and so all of that area encompasses this area called Kūkaniloko which even the Shinto in Wahiawā, the Shinto religion also recognizes that as the *piko* for the universe, for Hawai‘i. So when we meet with other religious groups, be it Buddhist, Hawaiian, Shinto, Christian, and all that, we share our understanding of the importance of this area. [Glen Kila]

So Kūkaniloko, all the history about our *kūpunas*, the *ali‘is* being born there, the babies were taken from Kūkaniloko right after birth and sent to Wai‘anae Kai to be raised because it was warm weather, it was healthier for the children to live, [there was] more protein, the fish and other protein, in Wai‘anae Kai than in Wahiawā. So that place was basically used for giving birth and rituals. [Glen Kila]

We’re talking about the history of the *ali‘i*. The genealogies of all the islands, their connection to Kūkaniloko. During the time of Huanuikala‘ila‘i, and his daughter, one being the priestess in the Wahiawā area and the other one being the priestess or *ali‘i* for Moloka‘i, and so you’re talking about 2,000 years of history in this specific area next to Kūkaniloko, and the *mo‘olelo* of our *ali‘is* stemming from there, such as Mailikūkahiki. Yeah, so Mailikūkahiki was the eight *ali‘i aiwohi* directly from Moikeha. He was born in Kūkaniloko. Hawea sounded during his birth up there. Those drums were brought back by Kila and La‘amaikahiki to Hawai‘i along with the *hula* in the beginning, the old, old sit-down style and the *kā‘eke* drum. [Glen Kila]

So when you look at Kūkaniloko, it’s not just our ancient history. Kamehameha also tried to have his son, Kauikeaouli, born at Kūkaniloko, but because what have you, Akua said, “‘*A‘ole*,” so he was born in Keauhou. But just to show you how much *mana* that place has. Chiefess Kūkaniloko was born there, all the way back, this is like to Moikeha. The first *ali‘i aiwohi* of Maui, Paumakua, traces back to Huanuikala‘ila‘i who is directly associated with there. So this is not just O‘ahu’s history that we’re talking about. We’re talking about every island’s history and a whole lineage of chiefs, all of ‘em. [Christophor Oliveira]

We also gotta be very careful because if we’re looking at the construction sites, they’re all in Wai‘anae Uka, yeah? All of them. And the reason why Wai‘anae is named Wai‘anae is for a very specific reason. Although it’s named Wahiawā now, originally it was Wai‘anae. And religiously, that name says a lot about the characteristics of the land, and being that all of them [reservoirs] are in here, it’s kind of worrisome. [Christophor Oliveira]

Now, however, I did hear some stories about rocks. And this is also coming from people that worked in the plantation. And they said that they went to go I think in this area here [pointing at map], at least very close to Whitmore Village, so it would be in this approximate area where they tried to move the stones. Now can you tell me where Helemano is? [Kaleo Paik]

Right here, yeah? So it's a little bit distance from it. But they were talking about bulldozing, and I believe that it was in this area, where the machine stopped. They could not move the stones. So what they did was they left the stones in place, and dug around it. And there are many, many stories of things happening in Helemano, and in this area, the same, exact things, where they would bulldoze, and they would move the rock, but the rock would be back. It happened so many times, to so many different people. I owned a drive-in down in Waialua, and so they would always come and tell me stories. The old timers would tell me stories about their days in the plantation, days when they had to work up in here or Dole, and they would always tell us the stories about the rocks, not being able to be moved. So if you look at when they used to burn the sugarcane, you'd see an area where there's just a pile of rocks, and you'd wonder why are there just these rocks and everything else is flat. But there's these rocks, but they refuse to move them because of the stories that happened with it, so they left them in place. So if anytime you see that in this particular area, I would say that that might be a sign of caution for any other development, any other farming in the area, that if they see stones that have no reason to be there except if they're all fallow all around it except for those, my suggestion would be, just leave them in place, because these have stories behind them. I know it happened in this area, between here and here [pointing at map between Helemano and Kūkaniloko]. [Kaleo Paik]

Change through Time

I'd say over a span of 30 years, I've been in the area. And over the 30 years, I have not seen the area change considerably because it was mostly in agriculture. It was in either sugarcane or pineapple, yeah? So I am not familiar with what it was prior to that. [Kaleo Paik]

However, in talking with some of the old, old timers, they would talk about riding their horses along the trails. Some of them had small little ranches, and what they would do is ride their horses up along some of those trails and come up to the uplands, which would be this area here. And they said that during their time, waters were still running in the streams. So for them, in their lifetime, they saw a huge change in water flow. Whether it be Lake Wilson, stopping the flow, diversion of water, whatever the reasons may be, they saw a huge difference in water. Their lands were starting to get drier. [Kaleo Paik]

Back in the '60s, it was overgrown, the area, sugarcane as I remember, specifically where the reservoirs are going to be constructed. Whitmore [Village], I believe, was just starting to grow or develop. It was a plantation town. Kunia was part of this development in Wahiawā. So it was basically agricultural. And there was not much going into the sugarcane area. But its close proximity to Kūkaniloko concerns me because of the reservoirs, being excavated in that area, could disturb the integrity of that area of Kūkaniloko. [Glen Kila]

And also, the stories I heard was it was highly vegetated before. It was forested. There were a lot of trees and stuff. I think they mentioned that cattle was one that kind of brought down the [vegetation of the] land, as well as feral animals. I'm not sure if it was goats, but anyway a very destructive element came in and just kind of wiped away a lot of their vegetation. And of course, the drought happened, so it dropped. But the interesting thing was hearing that the streams were running, and not just the main stream that goes by Otake Store, which comes from Lake Wilson and passes right through these areas here, but it was actually places like in between the valleys, there'd be running streams. They said they weren't like flowing, like really rough running streams. They were just meandering streams running

down, and the horses would stop, drink water. So that's a big change for them. But for my own self, I already saw it was agriculture. And I'm not sure, I never saw any streams, but you could see a lot of stream beds, lots of stream beds. So you have to wonder, where did the water go? Could be diverted, you know, to Mililani maybe, from the damming of Lake Wilson, going to other places, so therefore not enough. I'm not sure, but to hear that story, was quite interesting. [Kaleo Paik]

Effects on Cultural Resources and Practices

As far as construction, without going to the actual sites I would not be able to determine. However I am worried about the source of the water that will be used to fill these reservoirs and for what purpose. As is well-known, *wai* is sacred to our creator. It is critical to our faith that we manage our sacred waters from Kane, Kaneikawaiola. [Christophor Oliveira]

The source and use of the water is our biggest concern. This is the water that generations of our descendants will rely on. [Christophor Oliveira]

Also, there are concerns because when you put the reservoirs on higher ground, you gotta understand that that's where our *kūpuna* went too, yeah? Our *kūpuna* went up to the higher ground. They didn't go in the low ground. You have more of a vantage point. So whenever you build anything on high ground, you really gotta look, especially in Hawai'i. [Christophor Oliveira]

Without going to the sites and actually seeing it, my main concern is about the proximity to Kūkaniloko being that this is just a small part of this larger sacred site. I'm very concerned about that. [Glen Kila]

Several years ago, I'm not sure, but about fifteen years ago, Uncle Tom Lenchanko can give the specific dates, there was a concern about the continued rituals and practices of *kupu ka 'āina*, lineal descendants, using the area as a place to sanctify the next generation. And so for me, it's that we took people to that Whitmore and Halemano area, so I'm not sure if the reservoirs are going to impact those sites. I do know that during the birth of an *ali'i*, the sacred drums from Moikeha's family from Ra'iatea were beaten for the next generation, during the birth. [Glen Kila]

And just to add, these practices and traditions never stopped despite all of the influx of foreigners, despite the banning of the language, despite the overflow of the religions and the governments and all of that, these practices have never stopped. These traditions are still here. We have to make sure that we keep these intact. This is our religion, if you want to call it that, for lack of a better English word. [Christophor Oliveira]

That *ola i ka wai* underneath this *'āina* is sacred water. There's a lens there. We know there's water there. Wai'anae says there's water there. Wai'anae speaks of hidden waters yeah? So we know, just by the name, we don't really need to dig to know what we have under there. We know. And if the plan is to go into that water source, I would be very mindful of doing that. You open that up to contamination when you do it. [Christophor Oliveira]

Yes, because this is the *piko* of our *'āina*, yeah? It's similar to when they are trying to build a telescope on Mauna a Wākea, and that is the first place where the rains start to seep into the aquifer. So when we do these kinds of things, we have to be careful. This is being dug deep into the ground if it's a reservoir. This is not spraying surface chemicals on plants during agriculture. This is going into our water system. These waters flow through Wai'anae Mountain and end up as springs on our side. So we gotta be very careful. [Christophor Oliveira]

For myself, I'm very concerned about the religious aspect and cultural aspect of the development of these lands for agricultural use. I want to be sure that it doesn't impact any of the existing archaeological sites in the area. So we do need to have close cultural

monitoring or some kind of impact statement because it's very close to the *piko* of this island of O'ahu. [Glen Kila]

Ok, I'll give you an example [about gathering], and I don't know if you can use this, but we went to the BAX [area on Schofield] meetings, and the first thing that I told [the Schofield archaeologist] Gilda, "Do you think that our practices ended?" Because they were talking about finding organic material that was at the turn of the century, early 1900s. And I said, "Do you think we stopped our practices?" I would be surprised if you did not find any organic [material] because we still would have come over and paid our respects well into the 1900s until the Army made it harmful for us, with all of their live ammo, to traverse over these properties. [Kaleo Paik]

We just need to know and maybe fully investigate not the damage that was done but the anthropology of what our people would have done given the resources. So that's how I would kinda look at it. We need to study the migration of these people, even though they had a home somewhere, a *hale* somewhere, not all of what they needed was gathered in one area, so they had to go out and look for things. Let's say they had to do a ceremony, and they needed certain types of plants. Where would they go? Climb Ka'ala? Maybe. I think if people lived in Mokulē'ia, the much easier route would be around Ka'ala, come up to the saddle. Yeah? [Kaleo Paik]

I'll tell you this one story that was told to me by my cousin, and this happened in Kona. He was always sent out to get the *lā'au*. And it was *lā'au kāhea*, when you call. Now he was a young boy, and he had to go down without any light, because we're talking about the 1940s, late '30s. He would go down, and the plant would reveal itself to him. And he knew it. And he would ask [beforehand], "What is the plant? What does it look like?" And they [his elders] would tell him, "You will know." Yeah? [Kaleo Paik]

Those practices are still alive. We just are not accessing them. So if we don't have places to exercise those things, we are gonna truly lose them. So let's create those havens. And some of that was also ranchlands, so our practices and the other western practices did live together. We don't need to make it one or the other. We just need to make sure that one doesn't critically impact the other... [Kaleo Paik]

Concerns and Recommendations

Because so many concerns and recommendations were raised, this topic is broken down into several areas of discussion. These include 1) archaeological sites, archaeological monitoring, and consultation; 2) restricting development; 3) respectful, responsible development; 4) access; 5) water concerns and pesticides; and 6) avoiding the mistakes that happened at Kunia.

Archaeological Sites, Archaeological and Cultural Monitoring, Consultation

Maintaining the integrity of our sites as a whole is critical for our family. Potential developers should make a concerted effort to consult with the community and families of the area to avert any adverse effect. Not just to consult but also to respect and implement their wishes in order to develop in a way that is responsible and benefits the community that has always been there. [Christophor Oliveira]

Looking at the four reservoirs area, it's above Kūkaniloko. Although it's above, I have concerns of any excavations in the area because although it was used as plantation, they didn't really dig deep as you have to in a reservoir. [Glen Kila]

That's why we have to be very careful because although the development has changed the terrain, what we see today, it doesn't mean that that reservoirs are outside Kūkaniloko. What it means is that that whole area can incorporate the religious site, the birthing place *wahi pana*, so we need to look at the height. [Glen Kila]

So whenever you disturb *'āina*, or excavate, we gotta be really careful, especially near this area because you don't know, even if it was developed by plantation, you're not sure what's under one, two, three feet. I'm almost sure there's going to be monitoring, or there's going to be sites that we have to be really careful for monitoring. So during that time when they would protest against the military, the Stryker force, over several hundreds of Hawaiians gathered over there, and for our families, we recognized the various lineal descendants from Wahiawā, Wai'anae Kai, they were blessed over there. And throughout the years, our *kumu hula*, our people that were leaders were blessed at Kūkaniloko. And so my concern is that I would like to see where the development is going to be because it might be a major part of where the sites are. [Glen Kila]

So I'll reiterate the point on getting somebody who is trained in this specific area. Too often we have a lot of *ka po 'e Hawai 'i*, and they're put in a lot of areas, and they don't necessarily understand the specifics of the area. They know a generalized view of the culture, but not the actual specific practices. I would also want that cultural consultant to come from an NHO [native Hawaiian organization] and not be paid directly to that person, but rather to the NHO. This is just so we stay *pono* with our *kūpuna* in the area, and we make sure that the person there is going to be *pono* because if there is cultural monitoring, I believe the money should go back to the community, and the person monitoring should be an advocate for their community not an employee. This is one of the ways that we can avoid conflicts of interest between our culture and the current system that is now in place. [Christophor Oliveira]

I would like to echo that. That's very important for us to look at individual *kuleana*, their responsibility to the history and to the *'āina* and also to the *'ohana*, the *'ohana's kuleana*. By having an NHO monitor and all that, then you know that people are responsible for the culture. [Glen Kila]

And just one suggestion, if we were to go and look for somebody, it would be only *kuleana* for it to go to the people who steward the land as of now. So when I refer to NHOs and these type of things, I'm talking about Wahiawā Civic Club, Uncle Tom Lenchanko, and that they decide. [Christophor Oliveira]

My major emphasis is again having the families that reside there, making the appropriate monitoring and recommendations for the safekeeping of this area, the integrity of not just throwing anything up there. So our recommendation goes back to Uncle Tom Lenchanko as the *kahu* for Kūkaniloko and the Wahiawā Civic Club as the caretakers of the area to be consulted throughout the development of agricultural lots as well as reservoirs in the area. And also to tell the community that the State is responsible to include the community in the development of these parcels. [Glen Kila]

Ok, be at the table. In other words, Keala Pono, be at the table. Be at the table at DPP. Be at the table of the State when they want to do their planning so that they have a clear understanding, from a professional standpoint, some of the areas that need it. See right now they're not at the table. They're not. The developer is at the table. And I think that that needs to change. The only way you can change that is from the very top. It's to have that, from the governor, go down to his minions, and their minions go down to their super-minions, and on and on and on. But that's the only way to make that kind of change. I don't think it's impossible. I don't think it's asking a lot. I think it can be done. We have the right people. [Kaleo Paik]

We'd prefer an on-site visit, specifically to look at the terrain, and for us it's to look at the directions. There are some traditions that we know will specifically tell us where the major features are. You might not see it above ground now, but it's there underneath if you didn't disturb too much. So that's the major thing, like I said or what Chris mentioned, these ceremonies continue to now, in recognizing the different families or masters, people that will continue the traditions of the *kanaka maoli* and the history. [Glen Kila]

And also if they do go forward with building it, an actual on-site cultural monitor that is not going to be doing anything else but monitoring, somebody who is trained and who actually knows what they are looking for because without these people, construction guys don't really know, and there are too much times that people get hurt because they didn't know. So it would be in the best interest of everybody, including the workers and our families and the developers, that an on-site trained cultural consultant be there during construction. [Christophor Oliveira]

I believe that without actually seeing the sites, on-site, we wouldn't know what we're talking about as far as access goes. So in order to answer that question, I would believe we would need to actually have a site visit to actually see what the specific area is. [Christophor Oliveira]

Restricting Development

Let me say that we are not against progress. We really are not against development or anything like that. Usually we're a little bit more flexible on these types of things. But because the project area is such a sensitive place to us, our history, our traditions, I could see the only way of lessening the impact is not building it. However, the surface area was used previously. We understand that. A lot of our sites that would have been there are gone to history. Still though, we gotta remember that our ancestors lived here for thousands of years, thousands. So things accumulate, especially when you're growing sugarcane, the sugarcane die, burning, everything goes up, then people are moving things, things fall over, yeah there is no way to minimize the impact. [Christophor Oliveira]

When I say, too, about not developing over there, I'm serious about that, only because of the, again reiterating, the close proximity. My question is, "Why there?" There must be other places, there must be a reason why you folks have selected those four areas. Is it because of existing infrastructures during the plantation time that has water means in that area? It just seems awkward for me to put three, four reservoirs in this specific area. If they're serious, they should have been spaced out more appropriately. It just doesn't make sense to have it right there unless there's a reason. [Glen Kila]

Now if they're gonna use it for agriculture, which means that they're going to subdivide it up into more independent farmers, if they're gonna lease it out, the only thing I would say is, "Do not let it be 'gentleman farming'." In other words, the state has to be very cautious because with 'gentleman farming' comes structures, come buildings, comes different types of things, rather than agriculture. So I think that the developer needs to have a very clear idea of exactly what the measure of the agricultural purposes will be because that will determine the impact on the land. If you have farming, it's a much lower impact than you would have if they build structures to process their crops, or like bottling or drying or any of those other kinds of things. That would be the key—to find out what is the limit of their agricultural purposes. [Kaleo Paik]

Respectful, Responsible Development

And we would also like to talk about responsible and respectful development. Whoever is gonna be developing this land really, really needs to take a good look at what is happening with Kunia right now. Aunty Sheila Valdez and Uncle Tom and everybody have been fighting for that for ages now, five, six years going on. And now it comes to a head where the project is being stopped. So just on another note, besides cultural, please be respectful and responsible when developing. If you do that, you'll avoid all kinds of headaches. [Christophor Oliveira]

And also the City and County Permitting and Planning Office, they're very flexible to most developers. I would ask any developer, out of just respect and *kuleana* and responsibility, even though you can get away with it, please don't. [Christophor Oliveira]

Keeping the human footprint smaller than the agricultural one by a large percentage. 90% to 10% is more my idea instead of 60/40. [Kaleo Paik]

I'll say this is a general rule that I have for anything I look at. I'm not against development. What I am against is poorly planned development, in other words, a developer that does not take into account, not just their project, but the entire area of which they will impact. [Kaleo Paik]

So let's say that this will be used for agriculture. And yet, right here is all the military, and all the housing, and all of these other things. This impacts this [pointing at map]. I'm sorry you can't see this on the tape recorder, but what happens in Schofield definitely impacts the project area not just in physical contact, but also in atmospheric. You know with all the bombing, with all the leveling of this area in the BAX area, it has caused an incredible amount of erosion which to me is a direct effect on what's happening here. Whatever this project develops, and how it develops, must be very cognizant of the needs, not of us, but of the future. We need to think much further ahead than they are right now and see what kind of practices can be here, and I'm talking about agricultural practices. [Kaleo Paik]

Access

Ok, now if it's agricultural land, the access should not be a problem, even if it's leased land, because you're not having to deal with roadways, you're not having to deal with houses. You're having to deal with making a pathway which doesn't impact much. So access would be very easy to do to these sites once it's agriculture. But if you have roadways, and you have this, and you have that in between, then you have a problem with people going, "Well this is my private driveway. Oh I'm sorry, but you're going straight through my garage area." And then people have a little bit more cautiousness. But if it's in a field, and you say, "Ok, we're gonna dedicate a pathway to this site, with a boundary around it of so many feet." And then it's plausible, and you can have it anywhere, anytime. They can come on that public access road, park their cars, whatever, go in, come out. And even if they want to secure it because of the thefts, agricultural theft is really huge, you can still have a guard there, but the guards do not have to be asinine. They can be understanding that these are people who are going for their religious practices and going to visit sites. I think we need to educate others how to behave to us and our practices. [Kaleo Paik]

Now for our traditional practices, we need to have full access, not just to gather, but to protect things we need for our ceremonies. And if things can only grow in a certain area, a certain elevation, those things should be set aside, at least an area where we can start to propagate them again, so we can use our ancestral traditional *lau* for our practices. So far no one has done that. And I think that that's something that we can do here, because it's a large enough area, that they set aside some areas that they deem to be culturally good to produce back some of the things we need. Collecting water that has not touched the ground, how are we gonna do that, unless we have an area that foliage will collect for us, so we need to start really thinking of things in that nature. And as I said, I hope this can be a model, and hopefully with the political change, hopefully in the right direction, we can influence top leaders. And I can say this on tape because I said this in public, when I talked to [gubernatorial candidate] David Ige, I said, "We need to have change from the very top. We need to have change in decision makers because they're the ones who are limiting our access." We're supposed to have access to our sites, but we have to have a lawsuit just to practice our right. I don't think that's fair. So I'm thinking that if we use this as an example and we set aside areas, we really are cognizant of the cultural, the traditional comes first, and then live in harmony with each other, it's not about one or the other. [Kaleo Paik]

Water Concerns, Pesticides

The digging of the reservoirs, even though they're marked here right now, they may or may not have to be changed depending on what is found. But also, I believe that agriculture

brings back to the aquifers more than it takes out. People don't realize. They say, "Oh well, you know, farming requires more water than a development." But for a development, their water goes straight to the sewer. Agriculture percolates down right into the aquifers. That's what we want. We want to have a sustainable aquifer. Having agriculture helps us to do that. So that's the only thing I would be concerned about, the extent. [Kaleo Paik]

With that in mind, if it's purely agricultural, without too much structure, like I'm gonna have a 5 acre parcel, but a large portion of that is going to be used for humans, you know, instead of farming, then I think we have a problem. But if we have a clear understanding that this project is to promote agriculture and to provide crops, then I think we have a real good model for other places to follow. Who knows? If we do well enough and re-vegetate our uplands closer to Ka'ala, we may be able to bring back some of our rain that we're losing, and bring back the water, bring back our springs, bring back all those that have dried up. I think it's a domino effect on what we are trying to achieve at least, but as I said, I'm not real sure exactly what the sites are. We'd have to go on the property itself and you know, we go by our HPS yeah? Hawaiian Positioning System. We feel the sites. [Kaleo Paik]

And also with the existing infrastructure, I mean, they brought water from the Ko'olau through there already. We know this was done. We can actually go and see the whole channel that goes all the way to the holes in the back of Kahana Valley below Ka'aumakua. So like my *kumu* said, "Why the reservoirs?" [Christophor Oliveira]

And also, it being ag land, I don't know how this can be done, but the use of chemicals on this 'āina, you know, is it ag land like Monsanto ag land? Or is it individual plots for small time farms? Or is it big companies? If it's big companies, and they're spraying these things in our soil, you gotta understand that this is at the top, the *piko* of our 'āina, and all of that stuff is gonna spread outward and radiate to every side. [Christophor Oliveira]

Avoiding What Happened at Kunia

I think the only other issue would be making sure that these reservoirs do not happen like at Kunia, where it's falling apart. It's actually eroding out. I think it's so incredible. And the damage that reservoirs do is so huge. So the concern I would have is that these reservoirs are really researched—double, triple, quadruple times over—for impact before they're even considered as a site, because to build a reservoir, it's not just a reservoir. You have to have the land mass around it, in so much footage around it, in order to make sure it sustains the water. It's a really big impact. So that would be the only concern. Other concerns, I don't know except, you know, it would directly affect people in this area here, people coming and going to this area. [Kaleo Paik]

Well, my dad was actually in the Soil Conservation, so I grew up traveling with him, and so I got to see a lot of things. And one of the things about reservoirs is, if you're gonna build up a reservoir, like they did in Kunia, you have to be darn sure that it doesn't erode. You need to have ground cover immediately. You need to try to shore up your edgings along the way because if not, you're gonna have the runoff. And because it's not "packed in soil", it's just going to be easy for it to [erode]. Water coming down will make big huge gorges. So that's building up a reservoir. So in other words, if you're on a promontory like this (pointing to map), here's your reservoir, it starts off on solid ground, but then you have to build up. And I'm not sure how these will be. These might be ground level, but you'll still need a berm of some kind. [Kaleo Paik]

That's the problem. So ground cover needs to happen, or some kind of netting, something to keep the soil in place. And I think that what happened in Kunia was just so many violations of good practice. It was like, wow they bulldozed a road and had the sides, 45-degree angle. You cannot do that, you know, the collapse of that [is bound to happen]. They even tell you that in [making] trenches, you go 6 feet down, they tell you, "Oh, you're gonna have to have so much [of an angle]," and yet these guys. It was like crazy. So

anyway, I just don't want to see that happen. Kunia should be an example of what not to do for reservoirs. And as a matter of fact, there may be some historical data on ancient [types], not just wells, but keepers of water. So that might be a research item to look at. [Kaleo Paik]

Yeah, so I know in the news we hear a lot about permitting and all of these other violations. But the impetus to all of this was culture. The reason why Kunia got into the place it is was because the developers refused to listen to the families of the area. The developers refused to take our advice. The developers hid our *iwi*, illegally. The developers broke nearly every law. So this is one of our greatest worries. It's not just residential developments that can ruin *'āina*, it can be agricultural developments, too. [Christophor Oliveira]

Yeah, there are laws regarding the agricultural lots, that it's to be used for raising animals or for growing plants for food. What happened at Kunia is that it was used as a land banking where developers or families were purchasing these [agriculturally zoned] properties with the intent to develop it for smaller home lots. So from five-acre subdivision lots, they went down and resold and redid them into one-acre, and even the one-acre lots were redid to smaller lots of 10,000 square feet. So it became a land grab. It became a no-man's land where people that had money could purchase these farm lots and could subdivide it and make millions of dollars from these kinds of uncontrolled developments. So our concern is that if it's for agricultural, then the laws to protect agricultural enterprises need to be adhered to and not used for other developments. [Glen Kila]

Statement from Tom Lenchanko

In lieu of publishing transcripts from his interview, Tom Lenchanko provided a letter statement of his view of the project. The statement is reproduced in full below.

November 06, 2014

State of Hawaii
Department of Agriculture
1428 South King Street
Honolulu, Hawaii 96814

Agribusiness Development Corporation
235 South Beretania Street
Honolulu, Hawaii 96813

Akinaka & Associates
3375 Koapaka Street B206
Honolulu, Hawaii 96819

Environmental Planning Solutions
945 Makaiwa Street
Honolulu, Hawaii 96816

OBJECTION : Proposed reservoir project land north of Wahiawa...

**Hawaiian Traditional Cultural Property [Analysis] kalana Līhu`e, Wahiawā, Halemano...
36,000 acres O`ahu Island, Ko Hawaii Pae Aina, H.I. *the Hawaiian Islands*.**

Regarding: The State of Hawaii to reveal and affirm clear, unbroken chain of ownership to the subject parcel; and to prove transfer of "exclusive territorial jurisdiction" of

Kingdom of Hawaii, Hawaiian National Government land throughout the Hawaiian Archipelago to the United States of America; interpolation by foreign cultural resource management, cultural anthropologists and professional archaeologists; their remiss to include our Hawaiian perspectives of ontology, cosmology and epistemology articulated by the erudition of our family's deep ancestral connection to the genesis of our homeland; adverse effects, imminent harm and irreparable injury to our family's inheritance and traditional comprehension for our Hawaiian National Treasures.

Subject: Testimony for our family complexes *iloko a me iwaho* [within and without] relative contiguous property set, thereupon, a 36,000 acre region – kalana Lihu`e, Wahiawa, Halemano – as described within and without the *ka`anani`au*, O`ahu island, Ko Hawaii Pae Aina, H.I.; and perpetual access to affirm their connectivity, as well as ours, to all components of our traditional comprehension, cultural property and its celestial view plane throughout the heavens.

he pule ho`ola`a ali`i [an ancient prayer for the dedication of an *ali`i* to the gods].

Our family's inheritance in perpetuity *oia ua`ike a`aia la* [so it is, this is known. there it is] no thing is older than Kukaniloko and those family members whom are buried in our homeland. *apa`akuma iwaiawaloa wahi huna kele* [a place for secreting Hawaiian human remains from the earliest line, *ho`ali`i*, descendants from the gods].

`ike pono a me ho`oia`i`o pule paulele [a prayer of faith to verify the truth and to know it is right and just]. Acknowledging that we are the hereditary guardian of our family's inheritance situated within and without the *ka`anani`au*, O`ahu island. Respectfully, *he Hawaii au* [I am Hawaiian] since time immemorial, time eternal. We are taught by *kupuna ma* [our elders] and those of whom came even before them, a prayer petitioning *na aumakua o ka po* [gods of the dim antiquity] *a me na aumakua o ke ao* [and the gods of the traditional times] to send forth a child, a child of character, strength and vision possessing the mental acumen moral rectitude imbued from on high to lead our people, our nation, toward a life filled with peace and prosperity. *`eli`eli kau mai* [may profound reverence alight].

ua`a`e lakou i luna o kahi la`a [they trespass upon a sacred place, they broke an agreement, law, *kapu* (a family privilege without the intrusion of a stranger)]. *wahi mana pili pono* [places of exact and concise supernatural power, *mana*] *ka`anani`au* [navigation points set on the land] their relationship to the celestial view plane of the Constellation Orion and their relative placement upon O`ahu island. These ancient structures though they may have succumbed to deterioration and deliberate, irreparable injury there remains *kilipue na kupuna ma* [embrace those ancients we choose to follow].

wahi mana pili pono na ka`anani`au – oahunui e maunauna, maunauna e puu kuua, puu kuua e kulihemo, kulihemo e kanewai, kanewai e leina kauhane, leina kauhane e halahape, halahape e oio, oio e halemano, halemano e paupalai, paupalai e halawa, halawa e hawea, hawea e kou... ho`ohewahewa mauiuhonua malama o pa`oe [to fail to recognize descendants of old *ali`i* of the land, be careful lest it be disastrous to you, a warning not to break a *kapu*].

Our family's expansive view of the cultural landscape on O`ahu island and the celestial posture of the stars and planets in the heavens draws from the cosmogonic and genealogical origins of the Kumuuli, Kumulipo, Ololo, Paliku and others, and highlights the connectivity of our traditional comprehension of cultural sites within and without the vast region of the *ka`anani`au*. This described land determination predates and is superimposed upon the *moku* and *ahupua`a* system of land division and tenure, circa the 10th century. The land within and without the *ka`anani`au* perpetuates all that is seen and unseen, the genesis of our homeland. Reaffirmed in 1891 Hawaiian Annual “ The divisions of the land were to a great extent made on rational lines, following a ridge, the bottom of a ravine or depression, but were often without these and sometimes in disregard of them. Sometimes a stone or rock known to the aboriginals

and notable for some tradition, or sacredness, marks a corner or determines a line. The line of growth of a certain kind of tree, herb or grass, the habitat of a certain kind of bird sometimes made a division. Certain persons were specially taught and made the repositories of this knowledge, which was carefully delivered from father to son.” Any disturbance to our land will disrupt the perpetuation of our family’s inheritance. *‘ike aina , malama aina , aloha aina* [know your family, care for your family, love your family].

As the life giving waters fall as rain from the heavens, cascading down along the mountains sides, into the rivers and streams fulfilling our family’s subsistence/sustenance, nurturing our *loi kalo* and *loko ea* and out into the extreme ocean, to once again return to fall as rain from the heavens... we continue our petition *na aumakua o ka po a me na aumakua o ke ao...*

apa`akuma a me iwiawaloa [Hawaiian human remains from the earliest line, *ho`ali`i*, descendants from the gods] of critical note, *mana* [supernatural power] of a traditional cultural property remains for all time despite the unauthorized removal of its guardian, physical features and structures. We contend to not merely preserve our family’s traditional comprehension, but to perpetuate the integrity of the generation upon generation of Hawaiian Nationals domiciled and buried within the 36,000 acre region –kalana Lihue, Wahiawa, Halemano and the *ka`anani`au*.

“In the old days the inheritance of the family burial place, the caves and secret burial places of our ancestors, was handed down from these to their descendants, without the intrusion of a single stranger unless by consent of the descendant, so that whenever a death occurred the body would be conveyed to its inheritance. These immovable barriers belonged to the burial rights for all time. The rule of kings and chiefs and their land agents might change, but the burial rights of the family survived on their land.” Ke Au Oko`a 1869 reaffirms our family’s traditional practice. We are the living evidence of those who came before us and now have become the land we manage and care for.

kahamalu`ihi – kaho`owahaokalani – kauakahiakaho`owaha a me mahuluanuiokalani na pua kukealaikauaokalani kunuiakea kuali`i – peleioholani a me kamakaimoku na pua kalanikumaieiwakamoku a me kalanikupuapaikalaninui... Criterion by association.

no ka noho aina ka aina [Land was given to people by the *ali`i*. Should members of the family go elsewhere, the one who dwelled on the land was considered the owner. A returning family member was always welcome, but the one who tilled the soil was recognized as holding the ownership].

We, Aha Kukaniloko Koa Mana mea ola kanaka maui Hawaiian descendants, OBJECT to the adverse effects, imminent harm and irreparable injury to our family inheritance kalana Lihue, Wahiawa, Halemano... and relative contiguous traditional cultural property, O`ahu Island, Ko Hawaii Pae Aina, H.I. *the Hawaiian Islands*.

he `ulaleo eia no ka `ula la
[a calling appeal a sacred thing is this]
Hawaiian ontology, cosmology and epistemology

Thomas Joseph Lenchanko, Hawaiian National 11/06/2014
kahuakai ola ko laila waha olelo Aha Kukaniloko Koa Mana mea ola kanaka maui na`au koa au pono e makaneole kalimapau pili aloha

Statement from Vicki Pakele

Vicki Pakele provided a letter statement instead of participating in an in-person interview. Her letter is reproduced in full below:

Welina, E Ulukoa,

Hope the Holiday Thanksgiving was with family and friends.

I deeply appreciate your patience and time, to compose my letter.

With profound consideration, I too, stand firmly with Uncle Tom and Uncle Glen with their comprehension and questions opposing the reservoirs in Wahiawa and Waialua.

There are three main concerns regarding the proposal to construct new water reservoirs in the Wahiawa/ Waialua area of O'ahu.

Water is a finite resource on the island. Current demand by independent farmers and residents for available water exceeds the available supply.

In order for additional reservoirs to be filled, the water will by necessity be diverted from existing users; thereby, decreasing their supply and increasing farmers.

There is no proposal benefit to existing residents and farmers. The only proposal industrial agriculture is the production of GMO seed crop necessitating the excessive saturation of the ground water with highly toxic herbicidal chemicals. This form of agriculture poisons the land and is opposed by the majority of inhabitants of the island and the state.

Proceeding with these proposed environmental modifications is tantamount to an act of treason and sabotages the health, welfare and economic base of the community.

The disregarding for ancient cultural heritage sites compounds the evil of this proposal.

EO!

Mahalo,
Vicki

Summary of Ethnographic Survey

A total of five ethnographic interviews were conducted with individuals knowledgeable about Wahiawā: Glen Kila, Tom Lenchanko, Christophor Oliveira, Kaleo Paik, and Viki Pakele. The consultants are all knowledgeable of cultural resources and traditional practices and beliefs associated with the study area. They continue to actively work toward preservation and perpetuation of Hawaiian practices and/or resources in the region.

The interviewees discussed the traditional importance of the project lands, which focused on the sacred site Kūkaniloko. They also noted that Kūkaniloko was not limited to its modern boundaries and once covered a larger area. They shared their *'ohana* background and connections to the project lands and noted that Wahiawā has seen many changes over time, particularly with regard to stream flow and vegetation.

The consultants expressed a wide range of concerns regarding construction of the proposed reservoirs. They stated that the reservoirs will adversely affect places of cultural significance, and recommended that the reservoirs should not be built or that archaeological and cultural monitoring is implemented during construction.

CONCLUSIONS AND RECOMMENDATIONS

The project lands played an important role in Hawai‘i in both the traditional and historic past. A rich corpus of background information was found for the region, including place names and their meanings, *‘ōlelo no ‘eau, mo ‘olelo*, information on land use in traditional and historic times, and data from archaeological work. Adding significantly to this is the information shared during the oral history interviews and within the consultants’ written statements. The consultants for this project all have strong ties to the region, and offered important insight into the history of the area.

Cultural Resources, Practices, and Beliefs Identified

Research and ethnographic survey compiled for the current study revealed that the project area was a culturally significant region as the birthplace and home of the great chiefly line known as the Lō Ali‘i. Therefore, all of Central O‘ahu was a sacred area peopled by high-ranking chiefs. At the center of these chiefly lands were the hallowed grounds called Kūkaniloko. As the birthplace and residence of the high chiefs, Central O‘ahu remained a revered place throughout the centuries.

Community members who are knowledgeable of the cultural resources of the study area provided their *‘ike* which identified significant cultural practices that continue to today. One consultant noted the importance of preserving areas “not just to gather [plants], but to protect things we need for our ceremonies.” It was asserted that the Kūkaniloko site is much more extensive than generally recognized today, and that buried cultural resources might lie beneath the surface.

Traditional religious practices are still carried out in the project lands. One consultant reaffirmed this with the following statement:

...These practices and traditions never stopped despite all of the influx of foreigners, despite the banning of the language, despite the overflow of the religions and the governments and all of that, these practices have never stopped. These traditions are still here. We have to make sure that we keep these intact. This is our religion, if you want to call it that, for lack of a better English word.

Potential Effects of the Proposed Project

Consultants expressed concern over several resources that may be affected by construction of the proposed reservoirs. Resources that might be affected include Kūkaniloko, other known and previously undocumented cultural sites, as well as the *wai* and *‘āina* (water and land).

Confidential Information Withheld

After one of the interviews was completed, a consultant asked to not have the interview transcribed and published. The consultant provided a written statement instead. During the course of researching the present report and conducting the ethnographic survey program, this is the only confidential information that was withheld.

Conflicting Information

No conflicting information was obvious in analyzing the gathered sources. On the contrary, a number of themes were repeated and information was generally confirmed by independent sources.

Recommendations/Mitigations

The consultants had many reservations about the construction of the proposed reservoirs. Their recommendations for mitigation are summarized here:

- not constructing the reservoirs at all
- restricting or limiting development
- practicing respectful and responsible development
- implementing a program of archaeological and cultural monitoring during construction
- resolving claims regarding the legitimacy of land conveyance and ownership
- allowing continued access to places of cultural significance
- avoiding what happened in Kunia (erosion/runoff, dishonesty, land banking)
- offering site visits so further information can be obtained before plans move forward
- continuing to consult with interested parties

One consultant summarized the significance of the region as follows:

...That area that we call Kūkaniloko is just a small portion of the greater historic site called Kūkaniloko, which incorporates, right now, hundreds of acres, or even thousands of acres that was part of the *piko* of the *'āina*.

GLOSSARY

'ae	Yes, to say yes, or to agree, approve, or consent.
ahu	A shrine or altar.
ahupua'a	Traditional Hawaiian land division usually extending from the uplands to the sea.
'āina	Land.
akua	God, goddess, spirit, ghost, devil, image.
ali'i	Chief, chiefess, monarch.
'a'ole	No, never, not; to have none.
'auwai	Ditch, often for irrigated agriculture.
boulder	Rock 60 cm and greater.
California grass	The invasive <i>Brachiaria mutica</i> that forms dense stands up to 2 m tall.
cobble	Rock fragment ranging from 7 cm to less than 25 cm.
gravel	Rock fragment less than 7 cm.
hale	House.
haumana, haumāna	Student, apprentice..
heiau	Place of worship and ritual in traditional Hawai'i.
'ike	To see, know, feel; knowledge, awareness, understanding.
iwi	Bone.
ka po'e Hawai'i	The people of Hawai'i.
kāhea	To call, cry out, or invoke.
kahu	Honored attendant, guardian, nurse, keeper, administrator, pastor.
kahuna nui	High priest and councilor to a high chief.
kalo	The Polynesian-introduced <i>Colocasia esculenta</i> , or taro, the staple of the traditional Hawaiian diet.
kama'āina	Native-born.
kanaka maoli	A person of pure Hawaiian blood.
kapu	Taboo, prohibited, forbidden.
kauwā	Outcast or slave caste within the traditional Hawaiian social hierarchy.
konohiki	The overseer of an <i>ahupua'a</i> ranked below a chief; land or fishing rights under control of the <i>konohiki</i> ; such rights are sometimes called <i>konohiki</i> rights.
Kū	The Hawaiian god of war.
kula	Plain, field, open country, pasture, land with no water rights.
kuleana	Right, title, property, portion, responsibility, jurisdiction, authority, interest, claim, ownership.
kumu	Teacher.

<i>kumu hula</i>	<i>Hula</i> teacher/master.
<i>kupu</i>	Sprout, growth, offspring; to rise suddenly; a supernatural being or spirit.
<i>kupuna</i>	Grandparent, ancestor; <i>kūpuna</i> is the plural form.
<i>lā‘au</i>	Medicine, medical, trees, plants.
<i>lau</i>	Leaf, greens.
<i>lo‘i, lo‘i kalo</i>	An irrigated terrace or set of terraces for the cultivation of taro.
<i>lua</i>	The ancient style of fighting involving the breaking of bones, dislocation of joints, and inflicting pain by applying pressure to nerve centers.
<i>luakini</i>	Large <i>heiau</i> of human sacrifice.
<i>mahalo</i>	Thank you.
Māhele	The 1848 division of land.
<i>maka‘āinana</i>	Common people, or populace; translates to “people that attend the land.”
<i>makai</i>	Toward the sea.
<i>mākālei</i>	A supernatural tree of Moloka‘i Island; parts of its root were placed near fishpond gates to attract fish.
<i>mana</i>	Divine power.
<i>mana‘o</i>	Thoughts, opinions, ideas.
<i>mauka</i>	Inland, upland, toward the mountain.
<i>mō‘ī</i>	King.
<i>moku</i>	District, island.
<i>mo‘o</i>	Lizard, dragon, water spirit.
<i>mo‘olelo</i>	A story, myth, history, tradition, legend, or record.
<i>‘ohana</i>	Family.
<i>ola</i>	Life, health, livelihood.
<i>‘ōlelo no‘eau</i>	Proverb, wise saying, traditional saying.
<i>olonā</i>	The native plant <i>Touchardia latifolia</i> , traditionally used for making cordage.
<i>piko</i>	Navel; summit; center.
<i>pono</i>	Correct, proper, good.
<i>pu‘uhonua</i>	Place of refuge.
sandalwood	<i>Iliahi (Santalum)</i> , several varieties endemic to Hawai‘i. Known for their aromatic wood and medicinal qualities. Heavily exported in the 1800s.
stone	Rock fragment ranging from 25 cm to less than 60 cm.
<i>tūtū</i>	Grandmother or grandfather.
<i>‘uala</i>	The sweet potato, or <i>Ipomoea batatas</i> , a Polynesian introduction.
<i>‘ūlei</i>	The native shrub <i>Osteomeles anthyllidifolia</i> , the berries of which were eaten, sewn into <i>lei</i> , and used to make lavender dye, and its hard wood used to produce a variety of implements.

<i>‘ulu</i>	The Polynesian-introduced tree <i>Artocarpus altilis</i> , or breadfruit.
<i>‘ulu maika</i>	Stone used in the <i>maika</i> game, similar to bowling.
<i>wahi pana</i>	Sacred places or legendary places that may or may not be <i>kapu</i> , or taboo.
<i>wahine</i>	Woman, wife; femininity. <i>Wāhine</i> is the plural.

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APPENDIX A: AGREEMENT TO PARTICIPATE

Agreement to Participate in the Cultural Impact Assessment for the Wahiawā Galbraith Estate Reservoirs Project

Dietrix J. U. Duhaylonsod, Ethnographer, Keala Pono Archaeological Consulting

You are invited to participate in a Cultural Impact Assessment (CIA) of the Galbraith Estate Reservoirs Project in Wahiawā, on the island of O‘ahu (herein referred to as “the Project”). The Project is being conducted by Keala Pono Archaeological Consulting (Keala Pono), a cultural resource management firm, on behalf of Environmental Planning Solutions. The ethnographer will explain the purpose of the Project, the procedures that will be followed, and the potential benefits and risks of participating. A brief description of the Project is written below. Feel free to ask the ethnographer questions if the Project or procedures need further clarification. If you decide to participate in the Project, please sign the attached Consent Form. A copy of this form will be provided for you to keep.

Description of the Project

This CIA is being conducted to collect information about Wahiawā and the subject properties in the central region of O‘ahu Island, through interviews with individuals who are knowledgeable about this area, and/or about information including (but not limited to) cultural practices and beliefs, *mo‘olelo*, *mele*, or *oli* associated with this area. The goal of this Project is to identify and understand the importance of any traditional Hawaiian and/or historic cultural resources, or traditional cultural practices in properties on the current subject properties. This Assessment will also attempt to identify any affects that the proposed development may have on cultural resources present, or once present within the Project area.

Procedures

After agreeing to participate in the Project and signing the Consent Form, the ethnographer will digitally record your interview and it may be transcribed in part or in full. The transcript may be sent to you for editing and final approval. Data from the interview will be used as part of the ethno-historical report for this project and transcripts may be included in part or in full as an appendix to the report. The ethnographer may take notes and photographs and ask you to spell out names or unfamiliar words.

Discomforts and Risks

Possible risks and/or discomforts resulting from participation in this Project may include, but are not limited to the following: being interviewed and recorded; having to speak loudly for the recorder; providing information for reports which may be used in the future as a public reference; your uncompensated dedication of time; possible misunderstanding in the transcribing of information; loss of privacy; and worry that your comments may not be understood in the same way you understand them. It is not possible to identify all potential risks, although reasonable safeguards have been taken to minimize them.

Benefits

This Project will give you the opportunity to express your thoughts and opinions and share your knowledge, which will be considered, shared, and documented for future generations. Your sharing of knowledge may be instrumental in the preservation of cultural resources, practices, and information.

Confidentiality

Your rights of privacy, confidentiality and/or anonymity will be protected upon request. You may request, for example, that your name and/or sex not be mentioned in Project material, such as in written notes, on tape, and in reports; or you may request that some of the information you provide remain off-the-record and not be recorded in any way. To ensure protection of your privacy, confidentiality and/or anonymity, you should immediately inform the ethnographer of your requests. The ethnographer will ask you to specify the method of protection, and note it on the attached Consent Form.

Refusal/Withdrawal

At any time during the interview process, you may choose to not participate any further and ask the ethnographer for the tape and/or notes. If the transcription of your interview is to be included in the report, you will be given an opportunity to review your transcript, and to revise or delete any part of the interview.

APPENDIX B: CONSENT FORM

Consent Form

I, _____, am a participant in the Galbraith Estate Reservoirs Project Cultural Impact Assessment (herein referred to as “Project”). I understand that the purpose of the Project is to conduct oral history interviews with individuals knowledgeable about the subject property and Wahiawā, in the central region of O‘ahu Island. I understand that Keala Pono Archaeological Consulting and/or Environmental Planning Solutions will retain the product of my participation (digital recording, transcripts of interviews, etc.) as part of their permanent collection and that the materials may be used for scholarly, educational, land management, and other purposes.

_____ I hereby grant to Keala Pono and Environmental Planning Solutions ownership of the physical property delivered to the institution and the right to use the property that is the product of my participation (e.g., my interview, photographs, and written materials) as stated above. By giving permission, I understand that I do not give up any copyright or performance rights that I may hold.

_____ I also grant to Keala Pono and Environmental Planning Solutions my consent for any photographs provided by me or taken of me in the course of my participation in the Project to be used, published, and copied by Keala Pono and Environmental Planning Solutions and its assignees in any medium for purposes of the Project.

_____ I agree that Keala Pono and Environmental Planning Solutions may use my name, photographic image, biographical information, statements, and voice reproduction for this Project without further approval on my part.

_____ If transcriptions are to be included in the report, I understand that I will have the opportunity to review my transcripts to ensure that they accurately depict what I meant to convey. I also understand that if I do not return the revised transcripts after two weeks from the date of receipt, my signature below will indicate my release of information for the draft report, although I will still have the opportunity to make revisions during the draft review process.

By signing this permission form, I am acknowledging that I have been informed about the purpose of this Project, the procedure, how the data will be gathered, and how the data will be analyzed. I understand that my participation is strictly voluntary, and that I may withdraw from participation at any time without consequence.

Consultant Signature	Date

Print Name	Phone

Address	

Thank you for participating in this valuable study.

APPENDIX C: TRANSCRIPT RELEASE

Transcript Release

I, _____, am a participant in the Cultural Impact Assessment for the Galbraith Estate Reservoirs Project (herein referred to as “Project”) and was interviewed for the Project. I have reviewed the transcripts of the interview and agree that the transcript is complete and accurate except for those matters delineated below under the heading “CLARIFICATION, CORRECTIONS, ADDITIONS, DELETIONS.”

I agree that Keala Pono Archaeological Consulting and/or Environmental Planning Solutions may use and release my identity, biographical information, and other interview information, for the purpose of including such information in a report to be made public, subject to my specific objections, to release as set forth below under the heading “OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS.”

CLARIFICATION, CORRECTIONS, ADDITIONS, DELETIONS:

OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS:

Consultant Signature	Date
Print Name	Phone

Address

APPENDIX D: INTERVIEW WITH GLEN KILA AND CHRISTOPHOR OLIVEIRA

TALKING STORY WITH

GLEN KILA (GK) and CHRISTOPHOR OLIVEIRA (CO)

Oral History for the Wahiawa reservoirs project at Galbraith Estate by Dietrix Duhaylonsod (DD)

For Keala Pono 10/13/2014

DD: Aloha, today is Monday, October 13, 2014. We're sitting at Zippy's Kapolei, with Uncle Glen Kila and his nephew Chris Oliveira. We'd like to thank them for taking the time to talk story with us regarding the building of reservoirs in Wahiawā at the Galbraith Estate.

We've talked story with Uncle before, and so we have some background about him that he shared previously, and we will add that [background information] in later, then we'll let Uncle look that over to see if it's okay, so we're gonna go straight to talking about the property area. So once again, thank you, Uncle, and Chris, for coming down. Aloha.

GK: Aloha. This is Glen Kila, and I am a *kupu ka 'āina* of the Wai'anae *moku* that extends from Wai'anae Kai, the Wai'anae Coast, to Wahiawā, or what we called in the old days, Wai'anae Uka. I am familiar of the properties in Wahiawā-Wai'anae Uka because one of my ancestors, Kahaleula, lived in Waianae Valley. And he also received properties next to this Galbraith property next to Kūkaniloko. So that's my family roots to this area.

Back in the 1960s, my grandfather Soren Nelson and my relatives, the Willet family, moved to that area called California Avenue. So as a teenager growing up, this has been part of our grounds where we grew up, next to Kūkaniloko and the streams.

DD: Thank you Uncle. Could you spell that name Soren Nelson?

GK: Soren is s-o-r-e-n. Soren. Nelson. n-e-l-s-o-n. Soren Nelson.

DD: *Mahalo* Uncle.

So Uncle is sharing his association to the property that we are talking about today. Uncle, if maybe, could you mention any ways that you may have acquired certain knowledge or just *'ike* of this area that we're talking about?

GK: Specifically, our family, the Kahaleula family, which is part of our family, received land grants to Kūkaniloko area. He was the *Kahuna Nui* responsible for the religious sites. His property consisted of sweet potato lands that the priest used to feed the people in Wai'anae Uka, or next to Kūkaniloko.

Later on, as I was growing up, in the area we used to frequent Kūkaniloko because we knew it was a sacred *wahi pana*, and so it became a part of our family heritage. We also went to Lake Wilson and through the streams over there.

Some of the properties are still under our family, but again this is not the *kuleana* lands, but lands that were purchased during the 1960s. Kūkaniloko was very, very important because of its relationship to the *ali 'is*. So back in the 1970s, our *kūpunas* took me to Kūkaniloko to share the history about the area which is part of this development that you folks are looking at. Specifically with Auntie Lei Fernandez and one of our uncles, Kekawa—Papa Kekawa. So Uncle Kekawa and Auntie Lei took me to Kūkaniloko back in the '70s, and then they shared about the history about the area.

And so, that area that we call Kūkaniloko is just a small portion of the greater historic site called Kūkaniloko, which incorporates, right now, hundreds of acres, or even thousands of acres that was part of the *piko* of the *'āina*.

DD: Thank you Uncle for sharing that.

As far as you remember and your experiences there, could you share how the area has changed, like how it used to be and how it's different now?

GK: Back in the '60s, it was overgrown, the area, sugarcane as I remember, specifically where the reservoirs are going to be constructed. Whitmore [Village], I believe, was just starting to grow or develop. It was a plantation town. Kunia was part of this development in Wahiawā. So it was basically agricultural. And there was not much going into the sugarcane area. But its close proximity to Kūkaniloko concerns me because of the reservoirs, being excavated in that area, could disturb the integrity of that area of Kūkaniloko.

Chris, do you want to add?

CO: I know there's an *'auwai* from the plantation time that goes all the way from Kahana Valley, the tunnels that they dugged in the mountain, and it brings the water from the Ko'olaus right through this area all the way down to Waipi'o. They still get 'em actually. If you go behind Waipi'o Park, they still got the beds for the water channels and everything.

I'll write some of the stuff down about some of the sites, so that way I can gather my thoughts.

DD: Ok, thank you for that, for putting together your thoughts regarding the placement of these.

And Uncle was mentioning that Kūkaniloko encompasses a larger area? Would you be able to kind of illustrate maybe some of the boundaries so that people can get a better grasp on what it means that Kūkaniloko is smaller or larger?

GK: Ok, as I recall thirty, forty years ago, our *kūpunas* talked about Kūkaniloko, which those rocks that we see there [today] are only a small portion of the complex for the *ali'i*. The *ali'i* used it [the Kūkaniloko area] as part of their habitation, like I mentioned about my *tūtū*, my ancestor, he had several acres of sweet potato land. So it was part of the agricultural lots as well as religious sites. And as I recall, it went all the way down to the stream, on the Honolulu side, and then it went all the way up to the Whitmore area, to Halemano. So when we talk about Kūkaniloko, we're talking from the ridges of Halemano, all the way down through the stream, all the way to Schofield Barracks, and also down to Poamoho.

This is what our *tūpunas* called the land of the *mo'o*, which there were several water deities of the area that we worshipped, and also [this land was] an alignment to the sun, Ka'aumakua. Going back to my *tūpunas* that took me over there in the 1970s, we went to pray at Ka'aumakua on the Līhu'e side, or the Halemano side, by 'Ōpae'ula area, we went all over the valley, Ko'olaus. And next to Mililani prison, which they shared with me, the goddess Kaiona, the pregnant *wahine* from next to Mililani Mauka, and so all of that area encompasses this area called Kūkaniloko which even the Shinto in Wahiawā, the Shinto religion also recognizes that as the *piko* for the universe, for Hawai'i. So when we meet with other religious groups, be it Buddhist, Hawaiian, Shinto, Christian, and all that, we share our understanding of the importance of this area.

Looking at the four reservoirs area, it's above Kūkaniloko. Although it's above, I have concerns of any excavations in the area because although it was used as plantation, they didn't really dig deep as you have to in a reservoir. So Kūkaniloko, all the history about our *kūpunas*, the *ali'is* being born there, the babies were taken from Kūkaniloko right after birth and sent to Wai'anae Kai to be raised because it was warm weather, it was healthier for the children to live, [there was] more protein, the fish and other protein, in Wai'anae Kai than in Wahiawā. So that place was basically used for giving birth and rituals.

DD: *Mahalo* Uncle, *mahalo* for sharing that.

So to clarify, looking at the map, when you say these reservoirs are above Kūkaniloko, are you meaning the smaller portion of Kūkaniloko as designated by the state site? Because when you mention the larger Kūkaniloko, it looks like some of these reservoirs are within that larger Kūkaniloko area that you were talking about. Is that correct?

GK: That is correct. That's why we have to be very careful because although the development has changed the terrain, what we see today, it doesn't mean that that reservoirs are outside Kūkaniloko. What it means is that that whole area can incorporate the religious site, the birthing place *wahi pana*, so we need to look at the height. If Chris can share where the [reservoir] sites are, like is it on the hillside? All of these things need to be taken into consideration. You want to comment, Chris?

CO: Not really a comment, I have more questions as to like where the water would be coming from to fill the reservoirs because from the map that we have, it looks like a lot of ‘em [the reservoirs] are on top of mounds or hills, understandably for gravity and downflow, but I was just wondering where would the water be to fill it up, where it’s coming from.

Also, there are concerns because when you put the reservoirs on higher ground, you gotta understand that that’s where our *kūpuna* went too, yeah? Our *kūpuna* went up to the higher ground. They didn’t go in the low ground. You have more of a vantage point. So whenever you build anything on high ground, you really gotta look, especially in Hawai‘i.

DD: *Mahalo* for that, Chris, and we’ll ask about where the water source is going to be coming from, and we’ll get back to you. *Mahalo* for those comments.

Ok, so concerning this place, do you have any personal anecdotes or *mo‘olelo, mele*, place names, any other things that you’d like to share about this specific area, Uncle?

GK: We’re talking about the history of the *ali‘i*. The genealogies of all the islands, their connection to Kūkaniloko. During the time of Huanuikala‘ila‘i, and his daughter, one being the priestess in the Wahiawā area and the other one being the priestess or *ali‘i* for Moloka‘i, and so you’re talking about 2,000 years of history in this specific area next to Kūkaniloko, and the *mo‘olelo* of our *ali‘is* stemming from there, such as Mailikūkahi.

CO: Yeah, so Mailikūkahi was the eight *ali‘i aiwohi* directly from Moikeha. He was born in Kūkaniloko. Hawea sounded during his birth up there. Those drums were brought back by Kila and La‘amaikahiki to Hawai‘i along with the *hula* in the beginning, the old, old sit-down style and the *kā‘eke* drum.

So when you look at Kūkaniloko, it’s not just our ancient history. Kamehameha also tried to have his son, Kauikeaouli, born at Kūkaniloko, but because what have you, Akua said, “*A‘ole*,” so he was born in Keauhou. But just to show you how much *mana* that place has. Chiefess Kūkaniloko was born there, all the way back, this is like to Moikeha. The first *ali‘i aiwohi* of Maui, Paumakua, traces back to Huanuikala‘ila‘i who is directly associated with there. So this is not just O‘ahu’s history that we’re talking about. We’re talking about every island’s history and a whole lineage of chiefs, all of ‘em.

DD: *Mahalo, mahalo* for definitely sharing the *mana* and the significance of this place, thank you, I appreciate it.

So we usually ask about any traditional sites in the area, but it sounds like the whole area is considered a traditional site, would that be correct, rather than picking out this little site or that site?

GK: Yes.

CO: ‘*Ae*. And just to share something, people might ask, “Oh, why was the whole site special?” Well, when we isolate our view in looking at the project area, we’re really limiting ourselves because that’s not how our ancestors looked at our ‘*āina*. When we look at O‘ahu, we have to look at it as an *ahu*, and really the bigger picture and the connections and everything that goes between.

DD: Thank you for sharing that.

Ok, so for this development, do you think it would affect any place of cultural significance or affect access to a place of cultural significance?

GK: Without going to the sites and actually seeing it, my main concern is about the proximity to Kūkaniloko being that this is just a small part of this larger sacred site. I’m very concerned about that.

Several years ago, I’m not sure, but about fifteen years ago, Uncle Tom Lenchanko can give the specific dates, there was a concern about the continued rituals and practices of *kupu ka ‘āina*, lineal descendants, using the area as a place to sanctify the next generation. And so for me, it’s that we took people to that Whitmore and Halemano area, so I’m not sure if the reservoirs are going to impact those sites. I do know that during the birth of an *ali‘i*, the sacred drums from Moikeha’s family from Ra‘iatea were beaten for the next generation, during the birth.

So whenever you disturb ‘*āina*, or excavate, we gotta be really careful, especially near this area because you don’t know, even if it was developed by plantation, you’re not sure what’s under one, two, three feet. I’m almost sure there’s going to be monitoring, or there’s going to be sites that we have to be really careful for monitoring. So during that time when they would protest against the military, the Stryker force, over several hundreds of Hawaiians gathered over there, and for our families, we recognized the various lineal descendants from Wahiawā, Wai‘anae Kai, they were blessed over there. And throughout the years, our *kumu hula*, our people that were leaders were blessed at Kūkaniloko. And so my concern is that I would like to see where the development is going to be because it might be a major part of where the sites are.

CO: And just to add, these practices and traditions never stopped despite all of the influx of foreigners, despite the banning of the language, despite the overflow of the religions and the governments and all of that, these practices have never stopped. These traditions are still here. We have to make sure that we keep these intact. This is our religion, if you want to call it that, for lack of a better English word.

DD: *Mahalo* very much for that, you both bring up the topic of practicing traditions, and that is actually the next question, whether or not there are traditional practices, if they are in the area, and if so, how they would be affected. So it’s nice that you led into it by mentioning it.

Uncle mentioned sites being underneath and monitoring for them, so how would you see the checks and balances on that?

GK: We'd prefer an on-site visit, specifically to look at the terrain, and for us it's to look at the directions. There are some traditions that we know will specifically tell us where the major features are. You might not see it above ground now, but it's there underneath if you didn't disturb too much. So that's the major thing, like I said or what Chris mentioned, these ceremonies continue to now, in recognizing the different families or masters, people that will continue the traditions of the *kanaka maoli* and the history.

CO: And also if they do go forward with building it, an actual on-site cultural monitor that is not going to be doing anything else but monitoring, somebody who is trained and who actually knows what they are looking for because without these people, construction guys don't really know, and there are too much times that people get hurt because they didn't know. So it would be in the best interest of everybody, including the workers and our families and the developers, that an on-site trained cultural consultant be there during construction. *Mahalo*.

DD: Thank you for sharing that. I would like to continue on that, but first I'd like to finish that earlier question about access. That earlier question also asked about thoughts on how this development would affect access to sites. And then we'll return to what you just brought up regarding monitoring. Are there any thoughts concerning this development affecting access?

CO: I believe that without actually seeing the sites, on-site, we wouldn't know what we're talking about as far as access goes. So in order to answer that question, I would believe we would need to actually have a site visit to actually see what the specific area is.

GK: Looking at the map, I see these wiggly lines and shaded areas, are those the streams?

CO: This is the stream [pointing at the map]. That's the boundary. This is Wahiawā.

DD: This is Pa'ala'a [pointing at the map].

CO: This is Poamoho Gulch. And so you see, Waialua is on this side of that line?

GK: Oh, I see.

CO: Wahiawā is on this side. Wahiawā goes right through here.

GK: Can you paraphrase what you asked me again?

DD: Yeah, ok, so we're talking about if this development would affect any places of cultural significance, and also, if this would affect any access.

GK: I know that when we went to Helemano, we had to go through Whitmore. And so that's why we're not sure how far the road is. The access, I'm not sure.

CO: Can I just make one more comment that I just noticed? We also gotta be very careful because if we're looking at the construction sites, they're all in Wai'anae Uka, yeah? All of them. And the reason why Wai'anae is named Wai'anae is for a very specific reason. Although it's named Wahiawā now, originally it was Wai'anae. And religiously, that name says a lot about the characteristics of the land, and being that all of them [reservoirs] are in here, it's kind of worrisome.

DD: Yes, thank you for bringing that up because a lot of people don't realize that this is part of Wai'anae Uka now that Wahiawā is the name, so thank you.

Let's return then to the site monitoring. Were you suggesting an on-site visit to get a better feel for exactly where everything is situated and the flow of things? And the other thing is on-site monitoring by somebody who is competent, is that correct?

GK: Yes.

CO: Yes.

DD: Are there any other thoughts that you'd like to add regarding an on-site visit or the on-site monitoring?

CO: So I'll reiterate the point on getting somebody who is trained in this specific area. Too often we have a lot of *ka po'e Hawai'i*, and they're put in a lot of areas, and they don't necessarily understand the specifics of the area. They know a generalized view of the culture, but not the actual specific practices. I would also want that cultural consultant to come from an NHO [native Hawaiian organization] and not be paid directly to that person, but rather to the NHO. This is just so we stay *pono* with our *kūpuna* in the area, and we make sure that the person there is going to be *pono* because if there is cultural monitoring, I believe the money should go back to the community, and the person monitoring should be an advocate for their community not an employee. This is one of the ways that we can avoid conflicts of interest between our culture and the current system that is now in place.

GK: I would like to echo that. That's very important for us to look at individual *kuleana*, their responsibility to the history and to the *'āina* and also to the *'ohana*, the *'ohana's kuleana*. By having an NHO monitor and all that, then you know that people are responsible for the culture.

CO: And just one suggestion, if we were to go and look for somebody, it would be only *kuleana* for it to go to the people who steward the land as of now. So when I refer to NHOs and these type of things, I'm talking about Wahiawā Civic Club, Uncle Tom Lenchanko, and that they decide.

DD: Thank you for sharing those, Chris and Uncle. Thank you very much for explaining that.

Are there any other ways you can foresee lessening any possible adverse effects of this reservoir project?

CO: Let me say that we are not against progress. We really are not against development or anything like that. Usually we're a little bit more flexible on these types of things. But because the project area is such a sensitive place to us, our history, our traditions, I could see the only way of lessening the impact is not building it. However, the surface area was used previously. We understand that. A lot of our sites that would have been there are gone to history. Still though, we gotta remember that our ancestors lived here for thousands of years, thousands. So things accumulate, especially when you're growing sugarcane, the sugarcane die, burning, everything goes up, then people are moving things, things fall over, yeah there is no way to minimize the impact. [chuckling] I'm sorry.

GK: When I say, too, about not developing over there, I'm serious about that, only because of the, again reiterating, the close proximity. My question is, "Why there?" There must be other places, there must be a reason why you folks have selected those four areas. Is it because of existing infrastructures during the plantation time that has water means in that area? It just seems awkward for me to put three, four reservoirs in this specific area. If they're serious, they should have been spaced out more appropriately. It just doesn't make sense to have it right there unless there's a reason.

CO: And also with the existing infrastructure, I mean, they brought water from the Ko'olaus through there already. We know this was done. We can actually go and see the whole channel that goes all the way to the holes in the back of Kahana Valley below Ka'aumakua. So like my *kumu* said, "Why the reservoirs?"

DD: Ok, we will see if we can get an answer to that, the question being, "Why those spots were specifically chosen and how that is associated perhaps with previous infrastructure?"

CO: I just wanted to know, is it just reservoirs? Or are there going to be pumps? I would think there would be pumps to get the water into the reservoir. And that leaves me to a further question, where is the water being pumped from? And then another question, why tap into a new water source when you have an existing one, if that's the case?

DD: The existing water source you're talking about being?

CO: The existing water source being the old water source used by the plantation in Whitmore Village and all the way through.

DD: Ok, right. So also you're asking where the water is being tapped from, right?

CO: [nod]

DD: Ok, did either of you want to expand on any concerns regarding that?

CO: Yes, I do actually. That *ola i ka wai* underneath this *'āina* is sacred water. There's a lens there. We know there's water there. Wai'anae says there's water there. Wai'anae speaks of hidden waters yeah? So we know, just by the name, we don't really need to dig to know what we have under there. We know. And if the plan is to go into that water source, I would be very mindful of doing that. You open that up to contamination when you do it.

DD: Thank you, thank you for sharing that. So to reiterate, the reason you're asking where the water is being tapped from is because you'd be opposed to opening and possibly contaminating the water lens beneath, is that correct?

CO: Yes, because this is the *piko* of our *'āina*, yeah? It's similar to when they are trying to build a telescope on Mauna a Wākea, and that is the first place where the rains start to seep into the aquifer. So when we do these kinds of things, we have to be careful. This is being dug deep into the ground if it's a reservoir. This is not spraying surface chemicals on plants during agriculture. This is going into our water system. These waters flow through Wai'anae Mountain and end up as springs on our side. So we gotta be very careful.

DD: *Mahalo*.

GK: Yeah, I'm just looking at the alignments of the reservoirs. So I'm wondering if that's using the canals coming off of the Ko'olau?

CO: See I don't know until I get there.

GK: There must be a reason. And are these reservoirs in the 2,000 acres of Galbraith property that was purchased by the state? Is that the reason why they have it so close to this area? Because that's where the development is for agriculture.

CO: And we would also like to talk about responsible and respectful development. Whoever is gonna be developing this land really, really needs to take a good look at what is happening with Kunia right now. Aunty Sheila Valdez and Uncle Tom and everybody have been fighting for that for ages now, five, six years going on. And now it comes to a head where the project is being stopped. So just on another note, besides cultural, please be respectful and responsible when developing. If you do that, you'll avoid all kinds of headaches.

GK: For myself, I'm very concerned about the religious aspect and cultural aspect of the development of these lands for agricultural use. I want to be sure that it doesn't impact any of the existing archaeological sites in the area. So we do need to have close cultural monitoring or some kind of impact statement because it's very close to the *piko* of this island of O'ahu.

CO: And also, it being ag land, I don't know how this can be done, but the use of chemicals on this *'āina*, you know, is it ag land like Monsanto ag land? Or is it individual plots for small time farms? Or is it big companies? If it's big companies, and they're

spraying these things in our soil, you gotta understand that this is at the top, the *piko* of our *'āina*, and all of that stuff is gonna spread outward and radiate to every side.

GK: All the water lenses will be contaminated.

DD: *Mahalo, mahalo* for sharing that. It sounds like some things happened in Kunia. What in particular do you want us to be aware of regarding Kunia?

CO: Yeah, so I know in the news we hear a lot about permitting and all of these other violations. But the impetus to all of this was culture. The reason why Kunia got into the place it is was because the developers refused to listen to the families of the area. The developers refused to take our advice. The developers hid our *iwi*, illegally. The developers broke nearly every law. So this is one of our greatest worries. It's not just residential developments that can ruin *'āina*, it can be agricultural developments, too.

GK: Yeah, there are laws regarding the agricultural lots, that it's to be used for raising animals or for growing plants for food. What happened at Kunia is that it was used as a land banking where developers or families were purchasing these [agriculturally zoned] properties with the intent to develop it for smaller home lots. So from five-acre subdivision lots, they went down and resold and redivided them into one-acre, and even the one-acre lots were redivided to smaller lots of 10,000 square feet. So it became a land grab. It became a no-man's land where people that had money could purchase these farm lots and could subdivide it and make millions of dollars from these kinds of uncontrolled developments. So our concern is that if it's for agricultural, then the laws to protect agricultural enterprises need to be adhered to and not used for other developments.

CO: And also the City and County Permitting and Planning Office, they're very flexible to most developers. I would ask any developer, out of just respect and *kuleana* and responsibility, even though you can get away with it, please don't.

DD: *Mahalo*. Thank you for pointing out these things at Kunia. Thank you for sharing that.

Are there any other concerns that you can think of that we haven't brought up regarding the project?

GK: My major emphasis is again having the families that reside there, making the appropriate monitoring and recommendations for the safekeeping of this area, the integrity of not just throwing anything up there. So our recommendation goes back to Uncle Tom Lenchanko as the *kahu* for Kūkaniloko and the Wahiawā Civic Club as the caretakers of the area to be consulted throughout the development of agricultural lots as well as reservoirs in the area. And also to tell the community that the State is responsible to include the community in the development of these parcels.

DD: *Mahaaaalo*, Uncle, we'll make sure to annotate that, to keep the Wahiawā Civic Club, Uncle Tom and the community in the loop.

Are there any other *kūpuna*, *kama‘āina*, descendants you can think of that might be willing to share their *mana‘o* of this area?

GK: Kauila Clark.

DD: Kauila Clark, ok.

GK: I’m not sure what his number is, right now I don’t have it.

DD: Maybe you could send it to me some time later?

GK: Yes, because his family is *kupu ka ‘āina*. They’re part of our family, but his family never left this area. Anybody else, Chris?

CO: That’s the only person I can think of.

GK: I know there was Uncle Ha‘o. So Uncle Tom can probably share with you some of the old time families that were recognized at the Kūkaniloko family ceremonies that we had.

DD: Ok.

GK: *Mahalo*.

DD: *Mahalo ia ‘olua*.

Uncle Glen Kila and our brother Chris Oliveira, we’d just like to thank you again, this has been my pleasure talking story with you both. We really appreciate. Thank you for taking the time, *mahalo*, take care, and aloha.

GK: Aloha.

CO: Aloha.

APPENDIX E: INTERVIEW WITH CHRISTOPHOR OLIVEIRA

Have you read the Agreement To Participate? Yes

Do you have any questions before we begin? No

Will you please sign the Consent Form. Yes

1) To start please tell us about yourself...Name? Where/When you were born? Where you grew up? Where you went to school?

My name is Christophor Oliveira, I was born in October 1983 in Oahu. I moved to Nanakuli homestead at 3 and was fostered to Solomon Waiolama and Vivia Purdy. I went to Nanakuli Elementary for kindergarten and first grade. After leaving Nanakuli I lived in many different places.

2) Could you tell us about your *'ohana*/family background?

My mother is Spaniard, German, Portuguese, Hawaiian and my father is Spaniard, Norwegian, Portuguese, Hawaiian. My mother's father is German Hawaiian, parents' name Edward Wilhelm and Margaret Kaheluahi from Hana and Kipahulu. My father's mother is Hawaiian, parents' name John Kealiinohomoku and Lilia Wahine Maika'i Ka'apuiki.

3) What is your association to the subject property (family land, work place, etc.)?

It is our, Koa Mana, *kuleana*. I am the *haumana* of Glen Kila, whom is *haumana* of 'Imilani and Kahu o Kanenuiakea, 'o Kane'ilio, 'o Kaneikapualena 'o Kukaniloko, Kahu kula'iwi o Wai'anae moku.

4) What are the ways you have acquired special knowledge of this area (from your *'ohana*, personal research, specific sources)?

Mainly through my *kupuna* as well as personal research and professional consultations. Our *'aina* is our religion.

5) As far as you remember and your experiences, how has the area changed? Could you share how it was when you were young and how it's different now?

N/A I have not lived long enough to witness significant change in that area. I have seen minor changes but I think this is probably a question for *kupuna*.

6) Could you share your *mana'o* relevant to the area around the area of the proposed reservoirs and the surrounding Wahiawā area (personal anecdotes, *mo'olelo*, *mele*, *oli*, place names, etc.)?

The area is part of Waianae Moku. It is in the vicinity of the remnants of Kukaniloko and also in certain sacred sites.

7) Do you know of any traditional sites which are or were located on the Project site--for example: historic sites, archaeological sites and/or burials? Please elaborate.

The entire area was once Kukaniloko and part of a much larger system called *kaananiau*. Rather than boundaries as emphasized in the *ahupua'a* system, *kaananiau* is about the *piko*.

8) Do you think the proposed development would affect any place of cultural significance or access to a place of cultural significance? Please elaborate.

As far as construction, without going to the actual sites I would not be able to determine. However I am worried about the source of the water that will be used to fill these reservoirs and for what purpose. As is well-known, *wai* is sacred to our creator. It is critical to our faith that we manage our sacred waters from Kane, Kaneikawaiola.

9) Are you aware of any traditional gathering practices at the Project area and within the surrounding area of Wahiawā, both past and ongoing?

I do not know the specific sites and the extent of the construction so I can't intellectually comment. However, I would like to point out that the places least visited are usually the most sacred and important.

10) While development of the area continues, what could be done to lessen the adverse effects on any current cultural practices in the area?

Sorry but this question assumes that development will continue and will adversely effect cultural practice. It does not mention cultural properties. Maintaining the integrity of our sites as a whole is critical for our family. Potential developers should make a concerted effort to consult with the community and families of the area to avert any adverse effect. Not just to consult but also to respect and implement their wishes in order to develop in a way that is responsible and benefits the community that has always been there.

11) Are you aware of any other cultural concerns the community might have related to Hawaiian cultural practices within or in the vicinity of the Project site and surrounding Wahiawā area?

The source and use of the water is our biggest concern. This is the water that generations of our descendants will rely on.

12) Do you know of any other *kūpuna*, *kama'āina* or cultural/lineal descendants who might be willing to share their *mana'o* of the Project area and of the surrounding Wahiawā area?

Glen Kila, Alike Silva, Tom Lenchanko

APPENDIX F: INTERVIEW WITH KALEO PAIK

TALKING STORY WITH

KALEO PAIK (KP)

Oral History for the Wahiawā Reservoirs Project by Dietrix Duhaylonsod (DD)
For Keala Pono 10/13/2014

DD: Aloha.

KP: Aloha.

DD: Today is Monday, October 13, 2014, and we're sitting with Aunty Kaleo Paik. We'd like to *mahalo* her for spending time from her busy schedule and graciously talking story with us and sharing her thoughts. We will be talking about the Wahiawā Reservoir Project on the former Galbraith Estates. And so before we do that, we'd like to ask Aunty to introduce herself, where/when you were born, Aunty, where you grew up, where you went to school, any of that you can share about your background.

KP: Okay, my name is Kaleo Paik, and I'm originally from Kona Hema. I was born and raised there. My high school is Konawaena High School, and when I was growing up, it's very interesting because I was born in 1951, and in that time, South Kona still had many of our *kūpuna* who practiced the old ways. So I was able to see for myself and witness for myself many of the old traditional ways. I moved to Honolulu, O'ahu I should say, when I went to college. So I went to the University of Hawai'i, and I stayed here ever since then. And for about 25 years, I lived out in Mokulē'ia, so right on Crozier Drive. So right in the midst of that, which is considered that same, Helemano, Moklē'ia, you know, Pa'ala Kai, and all of those places, so I got to meet people and hear a lot of the stories of the area. I think in that respect, I can connect to that property by living on that side for that many years. And I think that is what my contribution will be today.

DD: Thank you, Aunty, thank you for that. Okay, is there anything more you can tell us about your 'ohana background?

KP: Sure. My grandmother was pure Hawaiian, and she came from Keālia which is South Kona, and her parents were both from Keālia. So in that one Keālia area, I have five generations of my 'ohana who actually were born, raised, never left. If you move further north to Nāpō'opo'o, it is where we originally came from, going back another ten generations. So we were right in the midst of the rise of Kalani'ōpu'u, rise of Kamehameha, and all of that area. So our 'ohana and our names in our 'ohana are Kuluwaimaka, Kahumoku, Kālua, Palakē. That is our 'ohana from that side basically for many, many generations.

I don't think there are many today who can claim, I know a few people today who can claim that they actually are continuing a line of people living in the same place for that many generations. And I'm just talking about within fifteen miles or ten miles. Prior to that we had our families go all the way back to North Kona, to Keolanahihi, all those

areas. Our family is very much in the Kona District going back a lot further. But that's pretty much, in a nutshell, our family.

DD: Thank you, Aunty. *Ka po 'e Kona!* Thank you for sharing. So from Kona side, we return to O'ahu, and you were saying you were living in Mokulē'ia side. So of course we are talking about these reservoirs which are very close by, Wahiawā. Are there any other ways you would like to elaborate on your association to this central area?

KP: Yeah, living out in Mokulē'ia area doesn't restrict me only from that area. We did extensive hiking up in Poamoho. So we went all the way up on the trail, all the way up to the cliff, and were looking. And we were very active in community efforts. So we always had our pulse on what was going on, not just in our neighborhood, but also North Shore, going up to Wahiawā. So that whole north side from Wahiawā down was pretty much what we kept our pulse on. I was very active with the Waialua Community Association, and I know a lot of people in the Mokulē'ia Community Association, and of course, we always had our hands in the pot with any kind of community concerns.

A lot of our friends worked for Dole, so that also was a connection for us. And then there was the Galbraith Estate. I believe that they still had pineapple growing even in their lands all the way up to Schofield. Whether they leased it or not, they had all that acreage. So we were able to take private little tours in all the different areas in the subject area. It's kinda interesting to come here and sit here today and talk about things I almost forgot about. Yeah, going back on all those old, you know, pineapple roads, getting dust in your hair, and also going up to Mount Ka'ala. We've had several trips up there, overlooking the valleys, it was nice. But that would be my association here.

DD: Okay, thank you for sharing that. Are there any specific ways that you've gotten specific *'ike* or knowledge of this area?

KP: A lot of information I got was second-hand stories from people who actually had the story. Now I'm not sure how far up the family did own property, but I know that they owned a lot of Mokulē'ia, the whole *ahupua'a* coming up over Helemano and all of that, and these were the Hawaiian ancestors of modern-day Matsugoras, the Almeidas, and the Soares families. When the war came about, they [the military] took over a lot of their lands. The Dillingham Airfield, they had to give up that land and also other lands.

So my ex-husband was very good friends with Harry Almeida, who used to work for where the water is. You know right across the street from Wheeler Air Force Base? There's a well that goes down, and you can actually go down into the subterranean. It's in that building, just a little building right by the freeway.

DD: Okay.

KP: And he was the caretaker for that. So I guess it was for the City and County, and Lake Wilson, and all of that. He would tell my ex-husband a whole lot of stories about the area. I think that what we forget is we tend to put people in an area and leave them

in that area. Today we have cars. It's almost never that we're at home, we're always traveling all over the place. Same thing with our *kūpuna*. They would travel from Ka'ena over to Wai'anae side. They would come from Mokulē'ia, and come up the hill, coming to these areas. So the stories that they had was of their upbringing or their grandparents' upbringing because that's who they were talking about, really traversing through trails, coming up and down, to getting supplies from the uplands, which was more verdant than in Mokulē'ia side. And they would come up here and get what they needed, bring it back down, and in turn, they would bring fish from the shoreline, and bring it up to them. And they would go Ka'ena and collect salt, and they would do all these different things as a means of, not just commerce, I think commerce is a misused word here, it's more of a western sense. But in the Hawaiian sense, they would barter, [and say], "This is what I have; do you need some of this?" This area was frequented. There's also stories, and this is from McAllister, and I take whatever he has to say with a grain of salt because I'm not sure if they told him everything, misdirected him to show him only what they wanted to show him. But there were, from other sources, there were the *'aikana*. And Poamoho—what is the one [place] right by the pineapple stand? Is that Poamoho? That is yeah?

DD: Yeah, Poamoho.

KP: And Helemano. They were in that area. So a lot of the travelers would avoid that area and hug closer to Mount Ka'ala side, come up through Kaukonahua side, and then come up to this area. So they stayed away from this side. And that is one of the stories that they shared. So it was kind of interesting to see that in the old days, how they actually traversed between districts.

DD: Yeah, thank you, Aunty. So you were mentioning Alameida, that's a-l-a-m-e-i-d-a?

KP: A-l-m-e-i-d-a. Almeida.

DD: Oh, Almeida. And then the other two family names you said?

KP: Soares and Matsugora. S-o-a-r-e-s.

DD: Oh, Soares, okay.

KP: And Matsugora. And now their name is Gora. At the war, they changed their name to Gora instead of Matsugora, to be less Japanese.

DD: Oh okay.

KP: But those were all the same families, who, their progenitors came from the Mokulē'ia area, and what their names were, I'm not sure. But they had the whole *ahupua'a*.

DD: I remember, at my previous job, where I was tasked with finding out the Dillingham Airfield history, and I did find myself up to a brick wall trying to trace what happened with the land. So it's interesting how it's connected.

KP: It is. And as I said, once they took away the land, a lot of them dispersed and went. Some stayed in Mokulē'ia, but further towards Waialua side. But those families actually had a large influence. The Hawaiian side of that family had a lot of influence in this area.

DD: Right. Thank you, Aunty.

So as far as you remember in your experiences, how has the area changed? Could you share how it used to be as opposed to now?

KP: Well, since I came here, I was 18, and then I lived out in Waialua with my cousin for a short period of time, and then we got married, and we stayed in Waialua. So I'd say over a span of 30 years, I've been in the area. And over the 30 years, I have not seen the area change considerably because it was mostly in agriculture. It was in either sugarcane or pineapple, yeah? So I am not familiar with what it was prior to that.

However, in talking with some of the old, old timers, they would talk about riding their horses along the trails. Some of them had small little ranches, and what they would do is ride their horses up along some of those trails and come up to the uplands, which would be this area here. And they said that during their time, waters were still running in the streams. So for them, in their lifetime, they saw a huge change in water flow. Whether it be Lake Wilson, stopping the flow, diversion of water, whatever the reasons may be, they saw a huge difference in water. Their lands were starting to get drier.

And also, the stories I heard was it was highly vegetated before. It was forested. There were a lot of trees and stuff. I think they mentioned that cattle was one that kind of brought down the [vegetation of the] land, as well as feral animals. I'm not sure if it was goats, but anyway a very destructive element came in and just kind of wiped away a lot of their vegetation. And of course, the drought happened, so it dropped. But the interesting thing was hearing that the streams were running, and not just the main stream that goes by Otake Store, which comes from Lake Wilson and passes right through these areas here, but it was actually places like in between the valleys, there'd be running streams. They said they weren't like flowing, like really rough running streams. They were just meandering streams running down, and the horses would stop, drink water. So that's a big change for them. But for my own self, I already saw it was agriculture. And I'm not sure, I never saw any streams, but you could see a lot of stream beds, lots of stream beds. So you have to wonder, where did the water go? Could be diverted, you know, to Mililani maybe, from the damming of Lake Wilson, going to other places, so therefore not enough. I'm not sure, but to hear that story, was quite interesting.

DD: Yeah, I'm trying to picture it. It must've looked really nice and different, forested with all those waters coming down.

KP: Yeah. Well to give you an example --- Kohala. The stream that came down to Kawaihae was flowing when I was growing up. And it was green all around. It was like a river, really running. And over time that dried up. So what changed? We have to remember that something changed environmentally, man-made whatever, caused the stream to stop flowing. And that's what reminds me of this place. The same thing must have happened.

DD: Similar history, yeah?

KP: Mmm-hmm.

DD: Okay, so thank you for that, Aunty.

What about this area, right where the reservoirs are, would you happen to know if it was sugarcane or pineapple? And any personal anecdotes or *mo'olelo, mele, oli*, place names with this project area?

KP: I'm not real familiar with what the real purpose of here is. I'm not sure, because if this is Whitmore Village, yeah, the sugar and pineapple was all around here [pointing at a map]. And Kaukonahua, going down, that's this one yeah? On this side was all sugar. So I'm thinking this must have been a lot in sugar.

Now, however, I did hear some stories about rocks. And this is also coming from people that worked in the plantation. And they said that they went to go I think in this area here [pointing at map], at least very close to Whitmore Village, so it would be in this approximate area where they tried to move the stones. Now can you tell me where Helemano is?

DD: [pointing at the map] Helemano, right here.

KP: Right here, yeah? So it's a little bit distance from it. But they were talking about bulldozing, and I believe that it was in this area, where the machine stopped. They could not move the stones. So what they did was they left the stones in place, and dug around it. And there are many, many stories of things happening in Helemano, and in this area, the same, exact things, where they would bulldoze, and they would move the rock, but the rock would be back. It happened so many times, to so many different people. I owned a drive-in down in Waialua, and so they would always come and tell me stories. The old timers would tell me stories about their days in the plantation, days when they had to work up in here or Dole, and they would always tell us the stories about the rocks, not being able to be moved. So if you look at when they used to burn the sugarcane, you'd see an area where there's just a pile of rocks, and you'd wonder why are there just these rocks and everything else is flat. But there's these rocks, but they refuse to move them because of the stories that happened with it, so they left them in place. So if anytime you see that in this particular area, I would say that that might be a sign of caution for any other development, any other farming in the area, that if they see stones that have no reason to be there except if they're all fallow all around it except for those, my suggestion would be, just leave them in place, because these have stories behind them.

I know it happened in this area, between here and here [pointing at map between Helemano and Kūkaniloko].

And we used to go up Helemano. I had a good friend was a biker, and we used to travel and go up in there, and we actually saw sites up in here that are unrecorded [pointing at Helemano on map]. And I'm sure you're going to find unrecorded sites in here as well [pointing at the project area on the map], because they are just too close in proximity to each other. But that's the one story you'd be interested in, the stones, the unmoving stones.

DD: *Mahalo* Aunty, that actually fits in right to the next question which was asking if you would happen to know if any sites which are or were located around this project area. So you're suggesting that we'll probably find some undocumented sites, right?

KP: Absolutely, absolutely, and what is difficult, I think, in looking for the undocumented sites, is that some of them might be so obscured. There really needs to be a trained eye to see the relationship of what the area has, and by gathering these stories, I think you'll find that there might be a commonality, or there might be an anthropological view of it of how people traveled in these areas, because I know Wai'anae Uka, from other people, they traveled over here a lot from Wai'anae. So this was not a secretive place as far as our people knowing about it. People traveled to this place.

Where is Kūkaniloko in here?

DD: Kūkaniloko should be right around here [pointing on map].

KP: Oh yeah, I see it right over here. Yeah, so see, it makes a lot of sense that you will find unrecorded sites because if you have a site like this, there have to have been other sites around to support this area. So that would be my caution and my advice.

DD: It makes a lot of sense, Aunty, that you're not going to have a stand alone site with all these people coming and going.

KP: Yeah, and we've seen sites up here in Schofield that really triangulates the importance to Kūkaniloko, so I'm sure you're going to see some more this way and that way.

DD: Yes, Aunty, we'll make sure to keep that fresh on our mind and let people know about this connection to other places.

Ok, do you think the proposed development would affect any place of cultural significance or access to a place of cultural significance?

KP: Now if they're gonna use it for agriculture, which means that they're going to subdivide it up into more independent farmers, if they're gonna lease it out, the only thing I would say is, "Do not let it be 'gentleman farming'." In other words, the state

has to be very cautious because with ‘gentleman farming’ comes structures, come buildings, comes different types of things, rather than agriculture. So I think that the developer needs to have a very clear idea of exactly what the measure of the agricultural purposes will be because that will determine the impact on the land. If you have farming, it’s a much lower impact than you would have if they build structures to process their crops, or like bottling or drying or any of those other kinds of things. That would be the key—to find out what is the limit of their agricultural purposes.

The digging of the reservoirs, even though they’re marked here right now, they may or may not have to be changed depending on what is found. But also, I believe that agriculture brings back to the aquifers more than it takes out. People don’t realize. They say, “Oh well, you know, farming requires more water than a development.” But for a development, their water goes straight to the sewer. Agriculture percolates down right into the aquifers. That’s what we want. We want to have a sustainable aquifer. Having agriculture helps us to do that. So that’s the only thing I would be concerned about, the extent.

With that in mind, if it’s purely agricultural, without too much structure, like I’m gonna have a 5 acre parcel, but a large portion of that is going to be used for humans, you know, instead of farming, then I think we have a problem. But if we have a clear understanding that this project is to promote agriculture and to provide crops, then I think we have a real good model for other places to follow. Who knows? If we do well enough and re-vegetate our uplands closer to Ka‘ala, we may be able to bring back some of our rain that we’re losing, and bring back the water, bring back our springs, bring back all those that have dried up. I think it’s a domino effect on what we are trying to achieve at least, but as I said, I’m not real sure exactly what the sites are. We’d have to go on the property itself and you know, we go by our HPS yeah? Hawaiian Positioning System. We feel the sites.

DD: Well maybe one day in the future we could visit there.

KP: Yeah, and there are other people who can do it too. We have to just make sure our net is thrown out far enough so that we capture a broader perspective.

DD: Yeah. So you’re saying that agriculture would help the environment, however to watch the blueprint so that you don’t have too many building structures taking the place of actual farming.

KP: Keeping the human footprint smaller than the agricultural one by a large percentage. 90% to 10% is more my idea instead of 60/40.

DD: Right, ok, and how about access?

KP: Ok, now if it’s agricultural land, the access should not be a problem, even if it’s leased land, because you’re not having to deal with roadways, you’re not having to deal with houses. You’re having to deal with making a pathway which doesn’t impact much. So access would be very easy to do to these sites once it’s agriculture. But if you have

roadways, and you have this, and you have that in between, then you have a problem with people going, “Well this is my private driveway. Oh I’m sorry, but you’re going straight through my garage area.” And then people have a little bit more cautiousness. But if it’s in a field, and you say, “Ok, we’re gonna dedicate a pathway to this site, with a boundary around it of so many feet.” And then it’s plausible, and you can have it anywhere, anytime. They can come on that public access road, park their cars, whatever, go in, come out. And even if they want to secure it because of the thefts, agricultural theft is really huge, you can still have a guard there, but the guards do not have to be asinine. They can be understanding that these are people who are going for their religious practices and going to visit sites. I think we need to educate others how to behave to us and our practices.

DD: Yes. I agree.

Are you aware if they are any traditional gathering practices at the project area or within the surrounding area?

KP: Ok, I’ll give you an example, and I don’t know if you can use this, but we went to the BAX [area on Schofield] meetings, and the first thing that I told [the Schofield archaeologist] Gilda, “Do you think that our practices ended?” Because they were talking about finding organic material that was at the turn of the century, early 1900s. And I said, “Do you think we stopped our practices?” I would be surprised if you did not find any organic [material] because we still would have come over and paid our respects well into the 1900s until the Army made it harmful for us, with all of their live ammo, to traverse over these properties.

It would be naïve of us to think that such a sacred site as Kūkaniloko would not have travelers traveling from all different directions, congregating and having sites along the way for them to stop, to rest, to cook their food, to prepare offerings because they would not have done it at Kūkaniloko because that’s a birthing place, and there’s certain protocols. So you would give all of your ceremony for your own families outside of that area and then have all of these different places for you. So I don’t know specifically where they are, but I can almost guarantee, I would be 100% sure that gathering happened, because as I said, even the grandparents of people I knew, the secondhand stories all said they came up here. They would gather from up here because they had certain things that they needed, whether it was *lā’au* that they needed, whether it was only the mountain things that could provide for down below. But not a whole lot of people lived here. So this was really the place for gathering rather than down below where most of the people lived. I would definitely say it would be naïve for us to think that gathering did not happen in this area. And I can see, even coming from the BAX and looking at some of those site visits we went on or just listening to their conversations and looking at the pictures, I’m going. “Yeah, that’s something right there.” What it is I can’t tell you, but I can tell you that our people would have put something there to mark paths.

We just need to know and maybe fully investigate not the damage that was done but the anthropology of what our people would have done given the resources. So that's how I would kinda look at it. We need to study the migration of these people, even though they had a home somewhere, a *hale* somewhere, not all of what they needed was gathered in one area, so they had to go out and look for things. Let's say they had to do a ceremony, and they needed certain types of plants. Where would they go? Climb Ka'ala? Maybe. I think if people lived in Mokulē'ia, the much easier route would be around Ka'ala, come up to the saddle. Yeah?

DD: Yes.

KP: Same kind of terrain as coming up here but less treacherous. That's what I look at, for what makes sense. What's more common sense?

DD: *Mahalo* Aunty. Good point. So while development of the area continues, what do you think could be done to lessen the adverse effects on any cultural practices of the area?

KP: I'll say this is a general rule that I have for anything I look at. I'm not against development. What I am against is poorly planned development, in other words, a developer that does not take into account, not just their project, but the entire area of which they will impact.

So let's say that this will be used for agriculture. And yet, right here is all the military, and all the housing, and all of these other things. This impacts this [pointing at map]. I'm sorry you can't see this on the tape recorder, but what happens in Schofield definitely impacts the project area not just in physical contact, but also in atmospheric. You know with all the bombing, with all the leveling of this area in the BAX area, it has caused an incredible amount of erosion which to me is a direct effect on what's happening here. Whatever this project develops, and how it develops, must be very cognizant of the needs, not of us, but of the future. We need to think much further ahead than they are right now and see what kind of practices can be here, and I'm talking about agricultural practices.

Now for our traditional practices, we need to have full access, not just to gather, but to protect things we need for our ceremonies. And if things can only grow in a certain area, a certain elevation, those things should be set aside, at least an area where we can start to propagate them again, so we can use our ancestral traditional *lau* for our practices. So far no one has done that. And I think that that's something that we can do here, because it's a large enough area, that they set aside some areas that they deem to be culturally good to produce back some of the things we need. Collecting water that has not touched the ground, how are we gonna do that, unless we have an area that foliage will collect for us, so we need to start really thinking of things in that nature. And as I said, I hope this can be a model, and hopefully with the political change, hopefully in the right direction, we can influence top leaders. And I can say this on tape because I said this in public, when I talked to [gubernatorial candidate] David Ige, I said, "We

need to have change from the very top. We need to have change in decision makers because they're the ones who are limiting our access." We're supposed to have access to our sites, but we have to have a lawsuit just to practice our right. I don't think that's fair. So I'm thinking that if we use this as an example and we set aside areas, we really are cognizant of the cultural, the traditional comes first, and then live in harmony with each other, it's not about one or the other.

I'll tell you this one story that was told to me by my cousin, and this happened in Kona. He was always sent out to get the *lā'au*. And it was *lā'au kāhea*, when you call. Now he was a young boy, and he had to go down without any light, because we're talking about the 1940s, late '30s. He would go down, and the plant would reveal itself to him. And he knew it. And he would ask [beforehand], "What is the plant? What does it look like?" And they [his elders] would tell him, "You will know." Yeah?

Those practices are still alive. We just are not accessing them. So if we don't have places to exercise those things, we are gonna truly lose them. So let's create those havens. And some of that was also ranchlands, so our practices and the other western practices did live together. We don't need to make it one or the other. We just need to make sure that one doesn't critically impact the other. Does that make sense?

DD: *He mana'o maika'i, Anake. 'Ae.* So you talk about good planning. Are there any other ways that you figure we can outline or coordinate as good planning?

KP: Ok, be at the table. In other words, Keala Pono, be at the table. Be at the table at DPP. Be at the table of the State when they want to do their planning so that they have a clear understanding, from a professional standpoint, some of the areas that need it. See right now they're not at the table. They're not. The developer is at the table. And I think that that needs to change. The only way you can change that is from the very top. It's to have that, from the governor, go down to his minions, and their minions go down to their super-minions, and on and on and on. But that's the only way to make that kind of change. I don't think it's impossible. I don't think it's asking a lot. I think it can be done. We have the right people.

DD: Yes, Aunty, *mahalo*.

Ok, so are you aware of any other cultural concerns the community might have related to the cultural practices in the vicinity of this project site or the surrounding area?

KP: I know some of the players that might have a real big concern, but I won't speak for them. As far as other community members, I would reach out to other people just to get how they feel about a project in the area.

I know Lloyd O'Sullivan. He's part-Hawaiian, he's lived down in Mokulē'ia for a long time, La'aua'aina Street. He's very active in the Mokulē'ia Community Association. But he's also someone that I think is reasonable. He is easy to talk to. He's not confrontational. But to ask people like that about their opinion of the area would be great because it doesn't only affect here [pointing at places on the map]. The next

community really is here, because this is a military community. It's transient yeah? This one is a new found community made up of workers from the plantation. But the old timers are here—Wai'anae and Honuliuli. These are your key areas where we need to find people to just ask them that very simple question. We don't even have to go through the whole realm. Just ask them, "Do you think that, if we had farming there, it would impact your life? Because these people have to pass here every day to get home. And I can supply you with a few names if you want.

DD: Yes, I would like. You said Lloyd O' Sullivan?

KP: Lloyd O' Sullivan. He's very good. Both he and his wife are struggling through some health issues, but he's really, really nice, easy to talk to. I can give you his phone number. I can email it to you. And just call and ask him, and let him know that you talked to me. He knows me more as Linda, so anytime just call him.

Now other people in the area that are really, really old-timers, a lot of them have passed on. The Silvas, in particular, I don't know if she's still alive, but they used to manage the water for Mokuleia Ranch. She's a Ho'okano, yeah, and the husband is Silva. Annie.

DD: Annie.

KP: Annie Silva, and her sons. I think they still live on the way to Mokuleia Ranch, if you look, [there's] this kind of big yard, and then this one little tiny house on it. I don't know her number, but if you pop in and just ask some questions, and just say that I sent you, they would be an old-time family down in that area. The Silvas, in fact, some of the stories actually came from them, about riding their horse up there, yeah, it would have been their grand-uncle.

So anyway, those two I would definitely suggest, and newer people would be: Bob Cherrey, he has a large ranch area that is down on Kaukonahua Road, and on this side of Kaukonahua. So it's kind of close, too. But it's on the side over here. The other one is Randy Paty, because that's Bill Paty's son, that used to run DLNR for years and years. He has a macadamia nut farm, but it's in Mokulē'ia, and that might be too far out. But anyway, I'm just giving you some names of people who have been in the community a long, long time. If I think of any others, I'll let you know.

DD: Ok, thank you, Aunty!

Are there any other issues or topics that we didn't mention that you think we should keep in mind for the future?

KP: I think the only other issue would be making sure that these reservoirs do not happen like at Kunia, where it's falling apart. It's actually eroding out. I think it's so incredible. And the damage that reservoirs do is so huge. So the concern I would have is that these reservoirs are really researched—double, triple, quadruple times over—for impact before they're even considered as a site, because to build a reservoir, it's not just a reservoir. You have to have the land mass around it, in so much footage around it, in

order to make sure it sustains the water. It's a really big impact. So that would be the only concern. Other concerns, I don't know except, you know, it would directly affect people in this area here, people coming and going to this area.

DD: Right.

So real quick, could you mention how the Kunia reservoirs were degrading, and do you know what we should be aware of to prevent that?

KP: Well, my dad was actually in the Soil Conservation, so I grew up traveling with him, and so I got to see a lot of things. And one of the things about reservoirs is, if you're gonna build up a reservoir, like they did in Kunia, you have to be darn sure that it doesn't erode. You need to have ground cover immediately. You need to try to shore up your edgings along the way because if not, you're gonna have the runoff. And because it's not "packed in soil", it's just going to be easy for it to [erode]. Water coming down will make big huge gorges. So that's building up a reservoir. So in other words, if you're on a promontory like this (pointing to map), here's your reservoir, it starts off on solid ground, but then you have to build up. And I'm not sure how these will be. These might be ground level, but you'll still need a berm of some kind.

DD: Yes.

KP: That's the problem. So ground cover needs to happen, or some kind of netting, something to keep the soil in place. And I think that what happened in Kunia was just so many violations of good practice. It was like, wow they bulldozed a road and had the sides, 45-degree angle. You cannot do that, you know, the collapse of that [is bound to happen]. They even tell you that in [making] trenches, you go 6 feet down, they tell you, "Oh, you're gonna have to have so much [of an angle]," and yet these guys. It was like crazy. So anyway, I just don't want to see that happen. Kunia should be an example of what not to do for reservoirs. And as a matter of fact, there may be some historical data on ancient [types], not just wells, but keepers of water. So that might be a research item to look at.

DD: Interesting.

KP: Yeah.

DD: Okie Doke. Well Aunty, it's been a long time since I last saw you. It's really good seeing you and talking story and relaxing.

KP: [laughs] Yeah.

DD: We'd like to just thank you again for taking time and talking story. So thank you so much, and *mālama pono* until we see you next time. And Aloha!

KP: Aloha!

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