

**ALA WAI CANAL FLOOD RISK MANAGEMENT STUDY
O'AHU, HAWAI'I**

**FINAL FEASIBILITY STUDY REPORT WITH INTEGRATED
ENVIRONMENTAL IMPACT STATEMENT**

**APPENDIX C
REAL ESTATE PLANNING REPORT**

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Real Estate Planning Report

**Ala Wai Watershed Project
Oahu, Hawaii**

**Section 209 of Flood Control Act of 1962
(Public Law 87-874)**

**Prepared for
Honolulu District, USACE**

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ADDENDUM 1, Ownership Breakout (PII has been redacted for the public distribution of this document)

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1. EXECUTIVE SUMMARY

The Ala Wai Watershed Project is a single purpose flood risk management project being investigated under Section 209 of the Flood Control Act of 1962 (Public Law 87-874). The local sponsor is the State of Hawaii, Department of Land and Natural Resources. The City and County of Honolulu by virtue of an agreement with DLNR is also a key partner. A Feasibility Cost Sharing Agreement was originally executed in January 2001 between USACE and the State of Hawaii. Amendments were executed in December 2006, and November 2012. Another amendment is scheduled to be completed in October 2015. The study is investigating and evaluating solutions to flood damage problems throughout the entire Ala Wai watershed including Mānoa, Palolo, and Makiki drainages into Waikiki and surrounding areas. The objective is to develop a comprehensive integrated plan that reduces riverine flood hazards to property and increases life safety in the Ala Wai watershed to include improving water conveyance; use of environmentally sustainable design where practicable; and integrating non-structural approaches where practicable. The feasibility study is scheduled for completion in October 2015.

The Ala Wai watershed encompasses over 16 square miles from the Ko'olau mountains to Waikiki and terminates in the Ala Wai Canal. This canal has degraded over the years by silt and debris from the upper watershed. During the November 1965 and December 1967 storms and Hurricane Iniki in 1992 the Ala Wai Canal was overtopped and resulted in flooding in Waikiki.

The current proposed alternative consists of the construction of multiple debris and detention basins throughout the watershed, one debris catchment structure in Mānoa Stream, and construction of floodwalls along the Ala Wai Canal. The project also includes in-stream improvements to improve passage for native aquatic species, as compensatory mitigation for impacts to Waters of the U.S.

Many of the upstream features and the floodwalls are located on sponsor owned lands and as such will not involve acquisitions. There are, however, approximately 28 acquisitions required from private owners for the entire project. Additionally there are 4 sites that are either wholly or partially owned by the City and County of Honolulu (Waihi, Waiakeakua, Monoa Park and Kanewai). The State of Hawaii will either have to acquire the requisite interests or the City and County will have to make their lands available for the project through a 3rd party agreement.

The estimated real estate costs associated with the proposed project is approximately \$16,964,762.00, including all LERRD and administrative costs.

2. AUTHORITY/PURPOSE

The Ala Wai Watershed Project was authorized under Section 209 of the Flood Control Act of 1962 (Public Law 87-874). The purpose is to achieve a flood risk management designed project to meet existing laws, USACE regulations and policies such as the Environmental Operating Principles.

USACE proposes to construct 9 upstream debris and detention basins, one debris catchment structure, and floodwalls along the entire south side of the Ala Wai Canal and partially along the north side.

The State of Hawaii, DLNR will be the local sponsor for the project, and has confirmed that the State is willing to condemn for acquisition if necessary. The City and County of Honolulu plans to evaluate the outcome of the feasibility study and will determine at that time whether or not to be a non-Federal Sponsor. They are currently participating as a key player in the feasibility study.

This Real Estate Planning Report (REPR) is the recommendation report for the acquisition of certain lands for the construction phase of the Ala Wai Watershed Project. The REPR identifies and describes the real estate requirements for the lands, easements, rights-of-way, relocations and disposals (LERRDs) that will be required.

3. DESCRIPTION OF PROPERTIES

(listed in order from North to South within the Project):

A. Waihi Debris and Detention Basin

- 1) **Site:** The Waihi site is located in the upper Mānoa Valley above Honolulu and above any residential development. It is on the Waihi Stream, a tributary of the Mānoa Stream Watershed. Lyon Arboretum is located just to the west of the proposed detention basin. This area is heavily vegetated with lush tropical plants and large trees due to the high precipitation at this elevation. Lyon Arboretum averages about 151" of rainfall/year with a monthly average in excess of 12". Public access is provided by Mānoa Road located about 100' to the west of the project footprint and the road terminates at the arboretum. Mānoa Falls trail is also just to the west of the project. Topography is very steep and rugged with numerous stream channels, and the elevation is approximately 400'. This site is not in a flood zone.
- 2) **Proposed Project Feature Description:** Refer to Appendix A2, Plate 11, C-301 and C-308. A 37' high earthen dam is planned to be constructed with a 3:1 slope on the upstream and a 2:1 slope on the downstream. The dam will be capped with a 10' wide x 100' long concrete spillway and 2' deep of grouted rip rap will be installed on the downstream and upstream slopes of spillway. A 314' long spur lengthens the structure to maintain

the Flood Pool. A 12' x 6' concrete box culvert with anti-seep collar is intended to maintain normal flowage within the streambed. The highest point of the dam is 404' above sea level. The Flood Pool is estimated to be 1.12 acres. An upstream catchment structure consists of a concrete pad; 8' wide, 2' thick, laid within the stream bed; and steel posts (8' high) to catch debris, spaced in a "U"-shape at the mouth of the arch culvert. A 129' long riprap dissipation and scour protection structure is planned to be constructed directly downstream of the dam. A 15' wide perimeter is to be cleared and maintained around the dam to prevent tree and large shrub growth and keep vegetation to under 6" in height, the cost allowance is considered sufficient to accommodate this potential need. Waihi has no direct public access to the project site. A maintenance and access road will be constructed from Mānoa Road to the west and will require approximately 300 feet of new road to connect to the dam. An approximate 2,500 sf Staging Area will be required at the most southern curve of the access road.

- 3) Ownership Data:** Refer to Addendum 1, Ownership Breakout. There are five ownerships impacted by the project: 290540190000; 290540290000; 290550090000; 290540100000 and 290550010000. The first four vary from just over an acre to over 5 acres and are owned by the CCH. The fifth ownership is State owned and is a portion of a large watershed acreage in excess of 800 acres. All parcels are zoned for conservation/watershed and light recreation use and carry the P-1 zoning. There have been no transactions involving these properties for many years.
- 4) Proposed Acquisition of Property:** Refer to Addendum 1, Ownership Breakout. The Waihi site will require a Road Easement from CCH. Fee value is given to the Footprint and a Flowage Easement is required above the Footprint for the Flood Pool. A Staging Area is on CCH-owned property and will require a Temporary Work Easement.
- 5) Proposed Severance Damages:** None.

6) Estimated Costs:

| | |
|--|----------|
| In-stream dam (fee) (0.808 ac.) | \$20,200 |
| Road easement (0.39 ac.) | \$9,300 |
| Flowage easement (0.95 ac.) | \$9,500 |
| Temporary staging area easement (2,500 sq.ft.) | \$500 |
| Temporary construction area easement (0.666 ac.) | \$1,000 |
| Incremental costs (Contingency) | \$12,200 |
| Total site cost | \$52,700 |

B. Waiakeakua Debris and Detention Basin

- 1) **Site:** The Waiakeakua site is located in the upper Mānoa Valley above Honolulu and above any residential development. It is on the Waiakeakua Stream, a tributary of the Mānoa Stream Watershed. Lyon Arboretum is located about 1/3 mile to the northwest, but there is a ridge separating the two. This area is heavily vegetated with lush tropical plants and large trees due to the high perception at this elevation. Lyon Arboretum averages about 151" of rainfall/year with a monthly average in excess of 12". Public access is provided by Waaloa Way which dead ends a few hundred feet southwest of the subject site. There is a Board of Water Supply access road which runs to the subject site and beyond, but it is posted against trespass and gated. Topography is very steep and rugged with numerous stream channels, and the elevation is approximately 300'. This site is within flood zone X and a base flood elevation has not been determined.
- 2) **Proposed Project Feature Description:** Refer to Appendix A2, Plate 11, C-302. A 34' high earthen dam is planned to be constructed with a 3:1 slope on the upstream and a 2:1 slope on the downstream. The dam will be capped with a 20' wide x 80' long concrete spillway and 2' deep of grouted rip rap will be installed on the downstream and upstream slopes of spillway. A 12' x 6' concrete box culvert with anti-seep collar is intended to maintain normal flowage within the streambed. The highest point of the dam is 338' above sea level. The Flood Pool is estimated to be 2.85 acres. An upstream catchment structure consists of a concrete pad; 8' wide, 2' thick, laid within the stream bed; and steel posts (8' high) to catch debris, spaced in a "U"-shape at the mouth of the box culvert. A 129' long riprap dissipation and scour protection structure is planned to be constructed directly downstream of the dam. A 15' wide perimeter is to be cleared and maintained around the dam to prevent tree and large shrub growth and keep vegetation to under 6" in height, the cost allowance is considered sufficient to accommodate this potential need. Wa`aloa Way Bridge 1 and Wa`aloa Way Bridge 2 primarily services the Board of Water Supply road, and receives very limited public use. Wa`aloa Way Bridge 1 was constructed in 1967 and is not presently considered historic, but will be in 2017. Wa`aloa Way Bridge 2, constructed in 1965, is eligible for listing on the National/State Register under criterion C. Both bridges will be reinforced, perhaps temporarily, to support construction equipment and future monitoring activities. Access and maintenance road will be over the footprint of the existing road just east of the dam. It will be raised to match the height of the dam. An approximate 2,300 sf staging area will be required west of Wa`aloa Way Bridge 2.
- 3) **Ownership Data:** Refer to Addendum 1, Ownership Breakout. There are five ownerships impacted by the project: 290540340000, 290540020000,

290540040000, 290540060000, and 290540130000. The first one is owned by the State and is just over an acre in size. Lots 290540020000, 290540040000, and 290540060000 are owned by CCH and range from just over 3 acres to over 5 acres in size. Lot 290540130000 is owned by a private entity and is over 27 acres in size. All parcels are zoned for conservation/watershed and light recreation use and carry the P-1 zoning. Lot 290540130000 sold in conjunction with other land in September 2014 for \$1,950,000. There have been no other transactions involving these properties for many years.

4) Proposed Acquisition of Property: Refer to Addendum 1, Ownership Breakout. The Waiakeakua site has no direct public access but does have a Board of Water Supply road that leads to the site. Since this is private access, it will be necessary to acquire a Road Easement starting at the bridge crossing on Wa’aloa Way and running east approximately 150 to 200 feet. Fee value is given to the Footprint and a Flowage Easement is required above that Footprint. A Staging Area is on CCH-owned property and will require a Temporary Work Easement.

5) Proposed Severance Damages: None.

6) Estimated Costs:

| | |
|--|----------|
| In-stream dam (fee) (0.955 ac.) | \$23,900 |
| Road easement (0.318 ac.) | \$1,000 |
| Flowage easement (2.907 ac.) | \$29,100 |
| Temporary staging area easement (2,500 sq.ft.) | \$500 |
| Temporary construction area easement (0.716 ac.) | \$1,100 |
| Incremental costs (Contingency) | \$16,700 |
| Total site cost | \$72,300 |

C. Falls 8

1) Site: The Falls 8 mitigation site is small and impacts the rear portion of residential lots that back up to Mānoa Stream. The distance between Falls 8 and Falls 7 is less than 300 feet and the entire stretch is less than one block long. Inspection of these lots from aerials suggest that many of the lots have fences and or walls that separate the level useable yard area from the stream bed. Observation suggests that none of the abutting lots have incorporated the stream into their use of the property. For all practical purposes the lot lines end at the easement boundaries.

2) Proposed Project Feature Description: Refer to Attachment 6, C-106 and C-108. The purpose of this mitigation measure is to improve passage for native fish species. Within the Mānoa streambed, existing fish passage barriers will be removed through a combination of demolition/removal of existing concrete, and reconstruction with a boulder

and/or riprap step-pool structure to create continuous water surface contact for fish passage. Access and staging are assumed available on the public street which borders the site.

- 3) **Ownership Data:** Refer to Addendum 1, Ownership Breakout. Of primary importance on Falls 8, and the access between Falls 8 and Falls 7, is the fact that the NFS already has an easement within the stream which allows them to maintain the flow across the impacted lots.
- 4) **Proposed Acquisition of Property:** Refer to Addendum 1, Ownership Breakout. This site impacts 3 residential lots and access and staging are assumed available on the public street (Pawaina Street) which borders the site. Generally, fee title is required for fish and wildlife mitigation lands, ecosystem restoration, and other environmental purposes. However, a lesser, or easement estate (Channel Improvement Easement), is appropriate based on the extent of interest required for the operation and requirements of this Project, and this is essentially an easement overlapping an existing NFS-owned easement which likely provides the same rights. A Street Usage Permit from the City’s Department of Transportation Services shall have to be obtained for any construction-related work that may require the temporary closure of any traffic lane on a City street.
- 5) **Proposed Severance Damages:** None.
- 6) **Estimated Costs:**

| | |
|---|---------|
| Channel Improvement Easement (0.022 ac) | \$3,000 |
| Incremental costs (Contingency) | \$900 |
| Total site cost | \$3,900 |

D. Falls 7

- 1) **Site:** The Falls 7 mitigation site is small and impacts the rear portion of residential lots that back up to Mānoa Stream. The distance between Falls 7 and Falls 8 is less than 300 feet and the entire stretch is less than one block long. Inspection of these lots from aerials suggest that many of the lots have fences and or walls that separate the level useable yard area from the stream bed. Observation suggests that none of the abutting lots have incorporated the stream into their use of the property. For all practical purposes the lot lines end at the easement boundaries.
- 2) **Proposed Project Feature Description:** Refer to Attachment 6, C-106 and C-107. The purpose of this mitigation measure is to improve passage for native fish species. Within the Mānoa streambed, existing fish passage barriers will be removed through a combination of demolition/removal of existing concrete, and reconstruction with a boulder

and/or riprap step-pool structure to create continuous water surface contact for fish passage. Access is assumed by foot only and along the stream bed from Falls 8. This access was estimated at 10 feet wide and 233 feet long. Materials for constructing the mitigation measure will have to be brought in on foot by wheelbarrow or buckets.

- 3) **Ownership Data:** Refer to Addendum 1, Ownership Breakout. Of primary importance on Falls 7, and the access between Falls 7 and Falls 8, is the fact that an easement is in place within the stream which allows free flow of Mānoa Stream across the impacted lots.
- 4) **Proposed Acquisition of Property:** Refer to Addendum 1, Ownership Breakout. This site impacts 4 residential lots and access and staging are assumed available on the public street (Pawaina Street) which borders Falls 8. Generally, fee title is required for fish and wildlife mitigation lands, ecosystem restoration, and other environmental purposes. However, a lesser, or easement estate (Channel Improvement Easement), is appropriate based on the extent of interest required for the operation and requirements of this Project, and this is essentially an easement overlapping an existing easement which likely provides the same rights. A Street Usage Permit from the City’s Department of Transportation Services shall have to be obtained for any construction-related work that may require the temporary closure of any traffic lane on a City street.
- 5) **Proposed Severance Damages:** None.

6) **Estimated Costs:**

| | |
|--|----------|
| Channel Improvement easement (0.017 ac.) | \$4,000 |
| Access easement (0.087 ac.) | \$5,000 |
| Incremental costs (Contingency) | \$2,700 |
| Total site cost | \$11,700 |

E. Woodlawn Ditch and Detention Basin

- 1) **Site:** The Woodlawn site is located in the upper Mānoa Valley above Honolulu and within a heavily populated residential area. This site is approximately a mile below the Waiakeakua site. Woodlawn ditch is another tributary of the Mānoa Stream which continues down slope to Honolulu proper. It is actually a fairly shallow drainage basin and the topography is more level and much easier developed. The north end of the property is an existing cemetery and the south end is mostly wooded but has some improvements on the land. Access is quite good with East Mānoa Road fronting on the west side and Lower Road on the east side. It is totally surrounded by residential development with the exception of the northwest corner which borders another cemetery. This is a popular residential area and in high demand. The average rainfall drops to about

100" per year in this area and the elevation is approximately 210'. This site is within flood zone X and base flood elevations have not been determined.

- 2) Proposed Project Feature Description:** Refer to Appendix A2, Plate 11, C-305. A three-sided, "U"-shaped, 15' high earthen berm is planned to be constructed with a 3:1 slope on the upstream and a 2:1 slope on the downstream. A small portion of the berm will be capped with a 10'x80' wide concrete spillway and 2' deep of grouted rip rap will be installed on the downstream and upstream slopes of spillway. The northwestern portion of the berm roughly follows the northwestern side of the stream bank. The design does not include diversion of flows. A 4'-1"x12'x85' arch culvert is intended to maintain normal flowage within the streambed. A 15' wide perimeter is to be cleared and maintained around the dam to prevent tree and large shrub growth and keep vegetation to under 6" in height, the cost allowance is considered sufficient to accommodate this potential need. An access road will be necessary along the existing cemetery road plus an extension of the road in a level area slotted for additional grave sites. An approximate 2,500 sf staging area will be required north of the southeastern portion of the berm.
- 3) Ownership Data:** Refer to Addendum 1, Ownership Breakout. The only ownership impacted by the project is 290430020000, containing 14.61 acres. It is privately owned and is zoned P-2 for conservation purposes. The northern end of the subject property is an existing cemetery, but none of the project features impact the graves. The owner stated that he had plotted additional grave sites to the south but none are sold and are not believed to be impacted by the project. There have been no transactions involving this property for many years, other than grave sites.
- 4) Proposed Acquisition of Property:** Refer to Addendum 1, Ownership Breakout. Fee value is appropriate for the berm Footprint plus the Construction Limits around the berm. A Flowage Easement will essentially encompass the area between the two ends of the "U". The estimated square footage in Addendum 1 does not include severance property.
- 5) Proposed Severance Damages:** It appears that there are two sets of improvements that will be necessary for acquisition due to proximity to the berm. Severance damages are appropriate for a narrow strip of land lying south of the berm to Lower Road. This land is too narrow for any significant utility to the landowner and will need to be acquired or damages paid and left with the owner.

6) Estimated Costs:

| | |
|--|-----------|
| In-stream berm (fee) (1.821 ac.) | \$273,200 |
| Road easement (0.376 ac.) | \$19,000 |
| Flowage easement (1.036 ac.) | \$77,700 |
| Temporary staging area easement (2,500 sq.ft.) | \$500 |
| Improvements (two sets) | \$80,000 |
| Incremental costs (Contingency) | \$159,400 |
| Severance | \$81,000 |
| Total site cost | \$690,800 |

F. Mānoa Park In-Stream Debris Catchment

- 1) Site:** The Mānoa Park site is located in the upper Mānoa Valley above Honolulu and centrally within the Mānoa neighborhood. This is a fairly large park that contains the Mānoa Elementary School as well as community facilities for recreation and is a very high use park. Mānoa Stream forms the southeast boundary of the park and it has some existing channelization features at the south end. Access is quite good with Mānoa Road fronting on the northwest side and Kahaloa Drive providing access into the park area. Additionally Olopuia Street provides access to the school and park area. It is totally surrounded by a popular residential area and in high demand.. The average rainfall drops to about 78” per year in this area and the elevation is approximately 175’. The topography is level throughout the park. The entire park is in flood zone X but the stream is zoned as a floodway, and this is the location of the project feature site.
- 2) Proposed Project Feature Description:** Refer to C-318 of Appendix A2, Plate 11. The project site is the south tip of the park and is entirely within the stream banks and does not impact the current or any potential future use of the ownership. It is an in-stream catchment structure designed not to impound water. This catchment structure consists of a concrete pad; 8’ wide, 2’ thick, 60’ across, laid within the stream bed; and steel posts (4’ high) to catch debris, spaced every 4’ along concrete pad. The pad will be laid to follow the contour of the existing stream bed.
- 3) Ownership Data:** Refer to Addendum 1, Ownership Breakout. The ownerships impacted by the project is 290360030000, containing 43.97 acres, owned by CCH and is zoned P-2 for conservation purposes. There have been no transactions involving this property for many years. The remaining ownership is 290290530000, privately owned, and subject to an existing easement within the stream which allows CCH to maintain the flow across the impacted lot.
- 4) Proposed Acquisition of Property:** Refer to Addendum 1, Ownership Breakout. This structure is minimal and will only impact the stream bed of the park land and the private ownership on the opposite side of the

stream; a Channel Improvement Easement is considered appropriate. This is essentially an easement overlapping an existing CCH-owned easement which likely provides the same rights. Approximately 750 feet of access will need to be brought in from the parking lot to the structure along an existing walkway under a Road Easement. An approximate 2,500 sf Staging Area is on CCH-owned property and will require a Temporary Work Easement.

5) Proposed Severance Damages: None.

6) Estimated Costs:

| | |
|--|----------|
| Catchment structure (fee) (0.026 ac.) | \$1,000 |
| Road easement (0.344 ac.) | \$8,200 |
| Temporary staging area easement (0.057 ac.) | \$500 |
| Temporary construction area easement (0.060 ac.) | \$1,000 |
| Incremental costs (Contingency) | \$3,200 |
| Total site cost | \$13,900 |

G. Pukele Debris and Detention Basin

1) Site: Pukele Stream is located toward the Windward or east side of the Ala Wai Watershed and originates in the slopes above the Palolo neighborhood. This area is about 3 miles northeast of the Ala Wai Canal in Waikiki. The stream is entirely above ground and has channel improvements works in the areas closer to Waikiki. It is a very well defined channel for its full length. Access to the site is provided by Ipulei Place on the west side of the stream and La`i Road on the east side. Both roads slope steeply to the stream and the distance between the two streets is fairly narrow. Despite the steep slope down from Ipulei Place there are several residences located along the stream side of the street. These lots are steep and the houses are below street grade. The lot depth between the street and stream bank is minimal and the houses have very small useable backyards. Portions of the lots are on the opposite side of the stream. Dense residential development lies to the west and most of the area to the east is steep hillside and undeveloped. The average rainfall is approximately 85" per year in this area and the elevation is approximately 460'. These sites are within flood zone X with no flood elevation determinations.

2) Proposed Project Feature Description: Refer to Appendix A2, Plate 11, C-313. A 34' high earthen dam is planned to be constructed with a 3:1 slope on the upstream and a 2:1 slope on the downstream. The dam will be capped with a 10' wide x 80' long concrete spillway and 2' deep of grouted rip rap will be installed on the downstream and upstream slopes of spillway. A 12'x6' concrete box culvert is intended to maintain normal flowage within the streambed. An upstream catchment structure consists of a concrete pad; 8' wide, 2' thick, laid within the stream bed; and steel posts (8' high) to catch debris, spaced in a "U"-shape at the mouth of the

arch culvert. A 15' wide perimeter is to be cleared and maintained around the dam to prevent tree and large shrub growth and keep vegetation to under 6" in height, the cost allowance is considered sufficient to accommodate this potential need. An approximate 2,500 sf Staging Area with Access Road will be required from La`i Road.

- 3) Ownership Data:** Refer to Addendum 1, Ownership Breakout. Six ownerships are impacted by the Footprint: 340190080000, 340190090000, 340190100000, 340190110000, 340190120000, and 340190560000. All but the last parcel are subdivided lots that front on Ipulei Place and the sixth is a larger property that fronts on La`i Road. In addition to the Footprint, there is a requirement for a Flood Pool above the structure impacting 340190010000, 340190020000, 340190030000, 340190040000, 340190050000, 340190060000, 340190070000. All the properties are privately owned.
- 4) Proposed Acquisition of Property:** Refer to Addendum 1, Ownership Breakout. The Construction Limits around the dam are valued in Fee. Parcels 340190090000 and 340190100000 will need to be acquired for the project in their entirety due to the loss of much of the useable part of their ownerships as well as making them non-conforming lots for the zoning. These parcels are improved with newer houses that were constructed in 2009 and 2012. The estimated square footage in Attachment 1 does not include severance property. The acquisition on parcels 340190080000, 340190110000, and 340190120000 is less damaging and they will remain useable lots. Parcel 340190560000 is a larger parcel that is located across the stream and has frontage on La`i Road. This parcel is zoned residential but has no density requirement and is unimproved. A Flowage Easement will impact 6 additional lots but it will remain within the stream banks and have limited impact. The Access Road requires a Road Easement, and the Staging Area requires a Temporary Work Easement.
- 5) Proposed Severance Damages:** Refer to Addendum 1, Ownership Breakout. There are two houses impacted by the detention structure. 340190100000 has a 1,239 square foot house constructed in 2009. It is a 3 bedroom/2 bath, single story, double wall structure with a 2 car attached garage and appears in good condition. 340190090000 has a 2,411 square foot house constructed in 2012. It is a 5 bedroom/3 bath, two story, double wall structure with an attached 2 car garage and in good condition. The houses appear to be within 10' of the stream bank and as such will be damaged by the footprint of the dam and will have to be acquired. Relocation benefits are recommended for the residents. Parcel 340190110000 will contain 211 sf of uneconomical remnant at rear of parcel; recommend Fee acquisition of the remnant.

6) Estimated Costs:

| | |
|--|-------------|
| In-stream dam (fee) (0.382 ac.) | \$68,000 |
| Road easement (0.099 ac.) | \$16,700 |
| Flowage easement (0.675 ac.) | \$60,100 |
| Temporary staging area easement (0.057 ac.) | \$600 |
| Temporary construction area easement (0.865 ac.) | \$9,200 |
| Channel Improvement easement (0.359 ac.) | \$9,600 |
| Incremental costs (Contingency) | \$589,600 |
| Severance | \$1,801,000 |
| Total site cost | \$2,554,800 |

H. Waiomao Debris and Detention Basin

- 1) Site:** The Waiomao site is located east and just over the ridge from the Pukele site and is approximately the same distance from Waikiki and the Ala Wai Canal. The stream is entirely above ground and has channel improvements works in the areas closer to Waikiki. It is a very well defined channel for its full length. Access to the site is provided by Waiomao Road which runs along the east side of the stream. Despite the steep slope down from Waiomao Road there are some residences between the street and the stream near the subject site. The depth to the stream is only about 200'. The stream and steep hillside across the stream effectively severs the rear portion of these properties. Dense residential development lies to the south and east of the subject site and scattered rural homesites are located to the north. This is a narrow valley floor and the ridges on either side rise approximately 400 feet above the valley floor. The average rainfall is approximately 73" per year in this area and the elevation is approximately 350'. This site is within flood zone X with no flood elevations determined.
- 2) Proposed Project Feature Description:** Refer to Appendix A2, Plate 11, C-308. A 33.4' high earthen dam is planned to be constructed with a 3:1 slope on the upstream and a 2:1 slope on the downstream. The dam will be capped with a 10' wide x 100' long concrete spillway and 2' deep of grouted rip rap will be installed on the downstream and upstream slopes of spillway. A 20' x 5' concrete box culvert with anti-seep collar is intended to maintain normal flowage within the streambed. An upstream catchment structure consists of a concrete pad; 8' wide, 2' thick, laid within the stream bed; and steel posts (8' high) to catch debris, spaced in a "U"-shape at the mouth of the arch culvert. A 15' wide perimeter is to be cleared and maintained around the dam to prevent tree and large shrub growth and keep vegetation to under 6" in height, the cost allowance is considered sufficient to accommodate this potential need. A maintenance and Access Road will be constructed from Waiomao Road to the west and will require approximately 570 feet of new road to connect to the dam. An approximate 2,500 sf staging area will be required directly adjacent to Waiomao Road. A 12,465 sf Excavation Area will extend upstream, affecting four parcels.

- 3) Ownership Data:** Refer to Addendum 1, Ownership Breakout. Eight ownerships are impacted by the project: 340340010000, 340340080000, 340340090000, 340340100000, 340340180000, 340160370000, 340160580000, and 340160590000. All the properties are privately owned and zoning is both P-1 and R-5.
- 4) Proposed Acquisition of Property:** Refer to Addendum 1, Ownership Breakout. The Waiomao Debris and Detention Basin will require approximately 0.457 acre of land for the Footprint of the structure; the Fee interest is appropriate for this feature. An area of the stream on the upstream side of the berm will require excavation (Channel Improvement Easement) in order to provide a pool for the temporary storage of flood water. The area required for excavation amounts to approximately 0.286 acre. A Flowage Easement is also required and encompasses about 0.826 acre. The Excavation Area is completely overlapping with the Flowage Easement area. An Access Road (Road Easement) for construction and maintenance (530' by 20') is required from Waiomao Road that encumbers approximately 10,600 square feet. A temporary Staging Area of 2,500 square feet is required along the Waiomao Road frontage as well as a 20' wide band around the site for an additional temporary area (Temporary Work Area Easement) of 10,650 square feet.
- 5) Proposed Severance Damages:** 340160590000 will have to be acquired in its entirety due to the loss of the useable portion of the ownership. The parcel recently sold for \$650,000 as a vacant lot. The dam will essentially sever the back portion of 340160590000 and cause severance damages. The access road is located on the only viable place on the lot for a residence and as such will eliminate the utility of the lot. Severance damages are appropriate for the remainder of this lot.

6) Estimated Costs:

| | |
|--|-----------|
| In-stream dam (fee) (0.569 ac.) | \$93,900 |
| Road easement (0.22 ac.) | \$34,500 |
| Flowage easement (0.816 ac.) | \$53,900 |
| Temporary construction area easement (0.805 ac.) | \$8,000 |
| Channel Improvement easement (0.286 ac.) | \$8,500 |
| Incremental costs (Contingency) | \$107,600 |
| Severance | \$160,000 |
| Total site cost | \$466,400 |

I. Makiki Debris and Detention Basin

- 1) Site:** The Makiki site is located just west of Mānoa Valley and lower on the mountain slope. This stream goes underground just south of the proposed project at the intersection of Makiki Street. This is a narrow stream valley with access on both sides of the stream. Makiki Heights Drive fronts on the west and Round Top Drive fronts on the east. This is a narrow strip of land

that is only about 160' wide at the project footprint and slopes steeply to the stream from both roads. The topography is fairly steep and the stream channel is large and well defined. Neighboring uses are residential and open hillsides with scattered houses. The average rainfall drops to about 45" per year in this area and the elevation is approximately 150'. This site is in flood zone X with no defined flood elevation determinations.

- 2) Proposed Project Feature Description:** Refer to Appendix A2, Plate 11, C-315. A 24' high earthen dam is planned to be constructed with a 3:1 slope on the upstream and a 2:1 slope on the downstream. The dam will be capped with a 12' wide x 90' long concrete spillway and 2' deep of grouted rip rap will be installed on the downstream and upstream slopes of spillway. A 4'-1" x 12' aluminum arch culvert with anti-seep collar is intended to maintain normal flowage within the streambed. An upstream catchment structure consists of a concrete pad; 8' wide, 2' thick, laid within the stream bed; and steel posts (8' high) to catch debris, spaced in a "U"-shape at the mouth of the arch culvert. A Flood Pool will require approximately 0.497 acre of stream channel and bank. Excavation of the stream bank will require an area of about 0.267 acre and a temporary construction area around the perimeter of the site encompasses another 0.459 acre. A 15' wide perimeter is to be cleared and maintained around the dam to prevent tree and large shrub growth and keep vegetation to under 6" in height, the cost allowance is considered sufficient to accommodate this potential need. A 20' wide maintenance and access road will be constructed parallel to the east of Makiki Heights Drive and will require approximately 370 feet of new road to connect to the berm feature. An approximate 2,500 sf staging area will be required south of the site.
- 3) Ownership Data:** Refer to Addendum 1, Ownership Breakout. Most affected parcels are owed by the NFS: 250200010000, 250200050000, 250200080000, and 250200030000. 250200010000 is set-aside lands by the Governor of the Territory of Hawaii under Executive Order 419, dated 24 June 1930. An unknown parcel is presumed to be owned by CCH due to the parcel being Round Top Drive. A street usage permit from the City's Department of Transportation Services should be obtained for any construction-related work that may require the temporary closure of any traffic lane on a City street.
- 4) Proposed Acquisition of Property:** Refer to Addendum 1, Ownership Breakout. The CCH Board of Water Supply was designated to control and manage 250200010000 for the Makiki Pumping Plant; therefore, it may be necessary for the State Governor to withdraw such lands as found in HRS § 171-11, as stated, "The governor may withdraw public lands and, with the prior approval of the board of land and natural resources, set aside the withdrawn lands to another department or agency of the State, the city and county, county, or political subdivision of the State, or to the United

States for public use or purpose, provided that no structure on such lands shall be built, demolished or altered until after the legislative action or inaction as herein below provided...The power granted to the governor in this section to set aside or withdraw or withdraw and set aside public lands shall be exercised subject to disapproval by the legislature by two-thirds vote of either the senate or the house of representatives or by the majority vote of both, in any regular or special session next following the date of the setting aside or withdrawal, or withdrawal and setting aside...”

5) Proposed Severance Damages: None.

6) Estimated Costs:

| | |
|--|----------|
| In-stream dam (fee) (0.394 ac.) | \$9,900 |
| Road easement (0.331 ac.) | \$7,900 |
| Flowage easement (0.322 ac.) | \$3,200 |
| Channel improvement easement (0.322 ac.) | \$1,400 |
| Temporary staging area easement (2,500 sq.ft.) | \$500 |
| Temporary construction area easement (0.459 ac.) | \$1,000 |
| Incremental costs (Contingency) | \$7,200 |
| Total site cost | \$31,100 |

J. Kanewai Field Debris and Detention Basin

1) Site: Kanewai Field is a city park located just north of the H-1 Freeway and adjacent to the west side of the University of Hawaii, Mānoa Campus. This is central Oahu due north of Waikiki and a very good location. The park consists of two baseball fields a swimming pool, tennis courts and basketball courts. Mānoa Stream forms the north boundary and separates the park from the university. It is a well-defined stream with a typical width of about 35'. Residential development surrounds the park on the remaining sides with the exception of the southwest corner where Hokulani Elementary School is located. Topography is relatively flat throughout the park and the elevation is approximately 37 feet. Access to the park is provided by Dole Street which borders it on the east. This lower elevation at the base of the mountains is much dryer and averages about 34" per year. The bulk of the ball fields is in flood zone AE but the north end near the stream is a flood way. The existing P-2 zoning only allows recreational use of the land.

2) Proposed Project Feature Description: Refer to Appendix A2, Plate 11, C-306. A three-sided, "W"-shaped, 7' high earthen berm is planned to be constructed with a 2:1 slope on the upstream and a 3:1 slope on the downstream. The northwest portion of the berm will be capped with a 60' wide concrete spillway and 2' deep of grouted rip rap will be installed on the downstream and upstream slopes of spillway. The northwestern portion of the berm roughly follows the northwestern side of the stream bank. A 4'-1"x12'x85' arch culvert is intended to maintain normal flowage within the streambed. The berm will contain the 100-yr. flood pool which

will encompass approximately 4.5 acres. A 15' wide perimeter is to be cleared and maintained around the dam to prevent tree and large shrub growth and keep vegetation to under 6" in height, the cost allowance is considered sufficient to accommodate this potential need. An Access Road will come in from Dole Street around the basketball courts to the berm. An approximate 2,500 sf Staging Area will be required at the northeastern corner of the berm. The design does include diversion of flows. Upon reaching the height of the spillway, the stream will be diverted east into the detention basin. The water will be released back into the Watershed through an existing 2' drainage pipe.

3) Ownership Data: There is only one owner impacted by the project but it encompasses two parcels: 280290110000 which contains approximately 9.33 acres; and 280290040000 which is surrounded by the larger parcel and contains 0.725 acres. Both parcels are owned by CCH and are zoned P-2, which only allows recreational use of the land. It should be noted that Parcel 280290040000 was originally acquired under Land Commission Award (L.C. Aw.) 1618:1 and a portion of 280290110000 was acquired under L.C. Aw. 1627:1.

4) Proposed Acquisition of Property: Refer to Addendum 1, Ownership Breakout. Total length of the berm is estimated at 1,256 lineal feet and the 7' high berm will have approximately a 45' footprint, which equates to approximately 1.298 acres. A perpetual Flood Protection Levee Easement is considered adequate for this feature. A Road Easement approximately 350 feet long will enter from the east and travel around the current facilities to the southeast corner of the ball fields. This is an existing maintenance lane although it is simply a grass covered surface. The road encompasses approximately 0.162 acre. The entire area within the perimeter of the berm will be a Flowage Easement for the 100-yr. pool. An estimate of the area of the flowage easement is approximately 4.5 acres. An approximate 2,500 sf Staging Area will be required at the northeastern corner of the berm, under Temporary Work Area Easement.

5) Proposed Severance Damages: None.

6) Estimated Costs:

| | |
|--|--------------------|
| Levee easement (0.905 ac.) | \$144,800 |
| Road easement (0.149 ac.) | \$28,300 |
| Flowage easement (4.43 ac.) | \$708,800 |
| Temporary construction area easement (0.862 ac.) | \$10,300 |
| Incremental costs (Contingency) | \$267,700 |
| Total site cost | \$1,159,900 |

K. Hausten Ditch Detention Basin

- 1) **Site:** Hausten Ditch is a drainage ditch that drains directly into the Ala Wai Canal and runs only a short distance from just north of Date Street to the canal and has a total length of less than ½ mile. It is a fairly straight ditch, portions of which are improved with channel lining and portions underground. Hausten Ditch Detention Basin is located on the north side of Ala Wai Canal just west of the southern termination of University Avenue. This is a part of the Ala Wai Park and consists of a baseball field, a tennis court and basketball court. This is a completely level site with an elevation of about 5 feet. In addition to the sports fields the southeast corner is used for canoe storage and launching. There is a parking area on the east side and a foot path that meanders along the canal. Hausten Ditch forms the northwest boundary of the subject detention area. The park extends to the northwest and has two additional ball fields that are not within the proposed basin. This low land is much drier and receives only about 28 inches per year of rainfall.
- 2) **Proposed Project Feature Description:** Refer to Appendix A2, Plate 11, C-102, C-316, and C-401. The feature consists of a combination of three (3) floodwalls and one (1) earthen berm that will trap flood water in a much larger pool within the enclosed area. The design does not include diversion of flows. Three concrete floodwalls surround the north, west, and south ends of the detention basin. They are of typical design and approximately 4' high. An approximately 4' high earthen berm is planned to be constructed with 3:1 slopes on the eastern side of the detention basin. It will contain a 15' wide park access with geotextile and 3" of surge material. Hausten Ditch runs through the detention basin. The western floodwall runs parallel to Hausten Ditch. A staging area will be required at the northeastern corner of the berm, next to the basketball courts.
- 3) **Ownership Data:** Refer to Addendum 1, Ownership Breakout. The Hausten Ditch Detention Basin Site encompasses portions of 270360000000 and 270360010000, owned by the NFS. It should be noted that 270360010000 contains improvements which would be funded by the National Parks Service (NPS) Land and Water Conservation Fund (LWCF) grant. The portion of 270360010000 affected by the grant is shown on Drawing C-2, "Department of Design and Construction, City & County of Honolulu, Facilities Design and Engineering, Ala Wai Community Park, Plot Plan."
- 4) **Proposed Acquisition of Property:** The Federal law governing the LWCF funding restricts the use of these lands for purposes other than recreation. The current features included in the TSP include a floodwall along Ala Wai Canal and a berm/levee along Hausten Ditch. The process required for acquisition involves the NFS, in its capacity as the

administrator of LWCF at the State level, to make a determination regarding the impacts to the recreational value resulting from implementation of the proposed project. In its determination, the State must consider consistency of the proposal with the statewide outdoor recreation plan, impacts to the value of recreation at the site, and impacts to the value of the real estate at the site. "Conversion" of lands from recreational use to some other use will require compensatory replacement of both recreational value as well as real estate. It is likely that some compensatory replacement will be necessary for the use of these lands. In initial discussions with the State (13 JAN 2016), the program administrator indicated that compensatory replacement would be likely for some features, however, not all of the features may have an adverse impact on the recreational value of the park, thereby triggering replacement (e.g. floodwalls may not necessarily inhibit the existing recreation use at the site). The program administrator indicated that compensatory replacement would not likely need to occur on-site, but should occur on the island of Oahu, and that replacement could occur in conjunction with existing park acquisitions currently underway. HQ-USACE has determined that any replacement costs would be cost-shared and would result in additional costs not currently included in the TSP cost estimate; however, LWCF lands are not to be credited more than once. The magnitude of these costs is unclear but will not likely exceed the permanent lands necessary for implementation of the TSP within the park, currently estimated at 1.110-acres. Compatibility of TSP features with recreational use will lower the replacement requirement and will be discussed between NPS, the State and USACE. The program administrator estimated that the timeline from start to finish is approximately one year, however, the acquisition schedule currently includes adequate time for this action, provide that acquisition of other properties is pursued concurrently by the NFS.

5) Proposed Severance Damages: None.

6) Estimated Costs:

| | |
|---|-----------|
| Floodwall easement (0.191 ac.) | \$8,700 |
| Levee easement (0.473 ac.) | \$11,400 |
| Road easement (0.075 ac.) | \$3,400 |
| Flowage easement (3.52 ac.) | \$84,500 |
| Temporary construction area easement (1.18 ac.) | \$3,400 |
| Incremental costs (Contingency) | \$33,000 |
| Total site cost | \$144,400 |

L. Ala Wai Golf Course Multi-Purpose Detention Basin

1) Site: The Ala Wai Golf Course is located along the north side of the Ala Wai Canal and on the southeast end of the canal. It is an 18 hole

municipal course with a large club house, banquet rooms, and indoor handball court and related facilities. It has the distinction as the highest used golf course in the world; this distinction is logically due to its location in the heart of a major city with thousands of visiting tourists. Access is provided by Date Street on the north and Kapahulu Avenue on the east. It is located in a FEMA flood zone class AO and can experience flood depths of about 2 feet for the 100-yr. flood. The course is relatively level and is well maintained; elevation throughout the course varies from about 3' to 7' with the west side the highest. Rainfall in this area is about 27 inches and the weather provides year-round golf.

- 2) Proposed Project Feature Description:** Refer to Appendix A2, Plate 11, C-103, C-317, A-102, and A-302. Earthen berm, designed to protect adjacent developed areas of Waikiki from flooding, would be constructed around entire outer eastern perimeter of existing golf course property; passive drainage back into the Ala Wai Canal, about 5,037' long, used to retain flooding in a 541,300 square feet sedimentation basin. The golf course will continue to flood as in its natural condition. The detention basin would be comprised of an earthen/grass berm designed to be a multi-purpose feature, which once constructed, is expected to blend and be visually commensurate with the existing park or golf course facilities. An additional feature at this site is the excavation of about 12.42 acres of the course rough that will serve to provide a sedimentation basin for flood water. A pump station is planned for the Golf Course grounds to prevent flooding behind the floodwalls from interior drainage. It is estimated that the pump station would be approximately 8,000 square feet for the building with 8,600 square feet for an access road to the pump station.. There is no access requirement for this site since public access is readily available; however, a staging area is proposed for the far eastern portion of the parcel.
- 3) Ownership Data:** Refer to Addendum 1, Ownership Breakout. The main parcel involved in this project site is 270360020000, containing approximately 137.88 acres, and all the proposed improvements. There are two other parcels which add approximately 7.86 acres to the golf course for the club house and driving range. The total acreage for the golf course equates to approximately 145.14 acres. This total facility is zoned P-2 for conservation purposes. The Ala Wai Golf Course is owned by the NFS, having apparently been acquired by condemnation in the 1940's from private property owners, and was placed under the jurisdiction of the Territorial Fair Commission until soon after statehood in 1959, when the State legislature enacted the following statute (HRS §46-65.7):

“The fair commission of Hawaii is abolished and the functions and authority of the fair commission of Hawaii relating to the Ala Wai golf course are transferred to the city

and county of Honolulu, together with the use and control of all lands, property, and facilities under its jurisdiction; provided that the lands, property, and facilities shall be used for the purposes of operating a municipal golf course; and provided further that the governor may by executive order transfer the use and control of the lands, property, and facilities or any part of the lands, property, and facilities to the appropriate department or agency of the State designated by the governor upon the giving of six months' written notice before the date of the transfer back to the State to the city and county of Honolulu.”

4) Proposed Acquisition of Property: By its own terms, HRS §46-65.7 provides a streamlined process for transferring control of all or part of the property back to the State, if the Governor is willing to send the necessary notice to the City and County. Although the statute only requires six months' notice from the State to the City and County, it is likely that the Governor would only take such action after first having the proposed transfer approved by the State Board of Land and Natural Resources, which vets nearly every public land transaction. Whether there will be political impediments (e.g., public protest) to such a transfer may depend upon the degree to which the project is perceived to intrude upon the golf course's use.

5) Proposed Severance Damages: None.

6) Estimated Costs:

| | |
|---|-------------|
| Levee easement (3.932 ac.) | \$196,600 |
| Flowage easement/excavation area (fee) (12.427 ac.) | \$497,000 |
| Temporary construction area easement (6.72 ac.) | \$40,300 |
| Pump station #2 (fee) (0.184 ac.) | \$18,400 |
| Channel improvement easement (12.427 ac.) | \$223,700 |
| Incremental costs (Contingency) | \$293,000 |
| Total site cost | \$1,269,000 |

M. Ala Wai Canal Floodwalls and Pump Station

1) Site: Ala Wai Canal is a rather short canal the runs approximately 10,000 feet in length along the back side of Waikiki's primary tourist area from about Kapahulu Avenue to the mouth at Ala Moana Boulevard. This canal was created by Walter F. Dillingham's Hawaiian Dredging Company in 1921–1928, first known as the Waikiki Drainage Canal, to drain the rice patties and fish and duck ponds that are now the tourist areas of Waikiki. It also serves as the final drainage channel for the many streams that originate in the mountains above Honolulu. It is a straight canal with only one turn and has canal walls along much of both sides, but primarily on the south (ocean) side. It has a fairly uniform width of approximately 250' and three bridges cross the

canal. The south side is mixed use high density residential and commercial with numerous tourist attractions, hotels and restaurants. On the north side, it is primarily public parks and the Ala Wai Golf Course. The Hawaii Convention Center is located on the north side just west of Kalakaua Avenue. It is a very popular area for walking, fishing, canoeing and light recreation. The entire south side has a pedestrian walk way the full length with attractive grass areas and palm trees. Much of the north side also has similar walkways. This low land is much drier and receives only about 26 inches per year of rainfall and the elevation is about 1' to 4'. Ala Wai Boulevard runs the full length along the south side but the north side is only accessible by foot traffic. This entire area is within flood zone AE.

- 2) Proposed Project Feature Description:** Refer to Appendix A2, Plate 11, C-101, C-104, C-105, C-106, C-107, C-309, C-310, C-311, C-601, A-101, A-103, A-301 and A-303. Concrete floodwalls constructed the full length on the south side but only from the mouth to the Mānoa Stream confluence on the north side. This floodwall will be approximately 4 feet in height and will require about 10 feet for the footprint. A temporary construction area approximately 20 feet wide will be required for the full length of the floodwall. One (1) pump station (in addition to the one in the Golf Course) is planned for the Canal to prevent flooding behind the floodwalls from interior drainage. It is estimated that the pump station would be approximately four (4) stories tall. As the proposed floodwalls would function to contain higher water levels within the Ala Wai Canal, flapgates would be installed over each of the storm drain outfalls along the Canal to prevent the floodwaters from backing up into the stormwater drainage system. Slide gates and pump stations would be installed to allow for pumping of stormwater runoff from the larger outfalls to the Canal, including the Kapahulu storm drain. Access is unnecessary due to readily available public access.
- 3) Ownership Data:** Refer to Addendum 1, Ownership Breakout. The Canal encompasses three parcels: 230340000000, 230360000000 and 270360000000. The Canal is owned by the State as condemnation and eminent domain proceedings were lodged against the private property owners in accordance with Act 14 of the Territory of Hawaii, Legislature, at its Special Session, 1918 (An Act to Provide for the Draining and Filling of Certain Lands at Waikiki, Honolulu); and Act 231 of the Territory of Hawaii, Legislature, at its Regular Session, 1917 (An Act to Provide for the Appointment of a Commission to Prepare a Scheme for the Sanitation, Reclamation and Improvement of Certain Lands at Waikiki, Honolulu, and Making an Appropriation Therefor). Acquisition proceedings were detailed in the Reports of the Superintendent of Public Works to the Governor of the Territory of Hawaii for the Years Ending June 30, 1920, 1921, 1922, and 1923 as shown in Addendum 2.

The lands bound by these aforementioned acts include “that area of land in Honolulu, lying between King street and the seabeach, and between Kapahulu road and Sheridan street” “extending from Kapiolani Park to the sea at the Ewa (west) end of said area”.

State ownership of the Canal can be further established by applying *Kauai Springs, Inc. v. Planning Comm’n of Kaua’i*, 133 Haw. 141, 171, 324 P.3d 951, 981, 2014 Haw. LEXIS 104, *92-94 (Haw. 2014), where the Hawaii Supreme Court noted:

“The public trust in the water resources of this state...has its genesis in the common law.” *Waihole I*, 94 Hawai’i at 130, 9 P.3d at 442. See *King v. Oahu Ry. & Land Co.*, 11 Haw. 717, 725 (Hawai’i Rep. 1899) (holding that “[t]he people of Hawaii hold the absolute rights to all its navigable waters and the soils under them for their own common use,” and “[t]he lands under the navigable waters in and around the territory of the Hawaii Government are held in trust for the public uses of navigation”).

The majority of the remaining parcels (230340330000, 230340360000, 230350110000, 270360010000, 270360050000, 270360060000) are either owned exclusively by the State, or through joint-ownership by the State and CCH. 230360360000 is owned by CCH.

4) Proposed Acquisition of Property: Refer to Addendum 1, Ownership Breakout. Either coordination between the State and CCH or jurisdictional transfer from one state agency to the NFS will be required. A Street Usage Permit from the City’s Department of Transportation Services shall have to be obtained for any construction-related work that may require the temporary closure of any traffic lane on a City street. For 230360360000, the footprint for the floodwall would have to be acquired via a Flood Protection Levee Easement; and the construction areas would require a Temporary Work Area Easement.

5) Proposed Severance Damages: None.

6) Estimated Costs:

| | |
|--|-----------|
| Floodwall easement (3.535 ac.) | \$161,200 |
| Pump Station #1 (fee) (0.321 ac.) | \$7,700 |
| Temporary construction area easement (11.01 ac.) | \$31,700 |
| Incremental costs (Contingency) | \$60,180 |
| Total site cost | \$260,780 |

4. SPONSOR’S REAL ESTATE INTERESTS

As shown above, six of the feature sites are either wholly or partially owned by the local sponsor. These six sites will not require acquisitions but all the remaining feature sites

will require acquisition from private parties and/or a provision for making the property available from the City and County of Honolulu. Including the mitigation sites, a total of 71 parcels are affected by the project, 14 owned by the City and County of Honolulu, 17 are State owned, and the remaining 40 are privately owned.

The City and County of Honolulu will have to either transfer the requisite interest in their ownerships to the State or they will have to enter into an agreement to make their lands available for the project. In either case the State as local sponsor will have to provide evidence that they have the required interest in order to receive credit for the LERRD value.

To my knowledge none of the properties were acquired using federal funds. None of the sponsor owned parcels were acquired in anticipation of the proposed project.

5. ESTATES TO BE ACQUIRED

Project features consist of earthen berms in the stream channel, flood protection levees and floodwalls, road access, flowage easements, pump station sites, a debris catchment structure and temporary work areas. For general purposes, the recommended estates are as follows, more specific requirements are noted in Section 3 and Addendum 1, Ownership Breakout:

- Footprint: Fee
- Excavation Area: Channel Improvement Easement
- Construction Limit: Temporary Work Area Easement
- Staging Area: Temporary Work Area Easement
- Access Road: Road Easement

The fee interest is normally required for permanent structures such as the in-stream dams, pump station sites, and catchment structure. It is also noted that each of the structures excluding the pump station sites have a requirement for a 20' wide band around the structure that must be kept mowed and free of any structures or vegetation other than grass. Although this 20' band is shown as the "construction limits" on the provided drawings, the fee interest is used for the total area within the "construction limits" area. The following standard estates are proposed for the project.

FEE

The fee simple title to (the land described in Schedule A) (Tracts Nos. _____, _____ and _____), subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

FLOWAGE EASEMENT (Occasional Flooding)

The perpetual right, power, privilege and easement occasionally to overflow, flood and submerge (the land described in Schedule A) (Tracts Nos. _____, _____ and _____). (and to maintain mosquito control) in connection with the operation and maintenance of the project as authorized by the Act of Congress approved _____,

together with all right, title and interest in and to the structure; and improvements now situate on the land, except fencing ¹(and also excepting _____ (here identify those structures not designed for human habitation which the District Engineer determines may remain on the land)) ²; provided that no structures for human habitation shall be constructed or maintained on the land, that no other structures shall be constructed or maintained on the land except as may be approved in writing by the representative of the United States in charge of the project, and that no excavation shall be conducted and no landfill placed on the land without such approval as to the location and method of excavation and/or placement of landfill; ³ the above estate is taken subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used and enjoyed without interfering with the use of the project for the purposes authorized by Congress or abridging the rights and easement hereby acquired; provided further that any use of the land shall be subject to Federal and State laws with respect to pollution.

CHANNEL IMPROVEMENT EASEMENT

A perpetual and assignable right and easement to construct, operate, and maintain channel improvement works on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____) for the purposes as authorized by the Act of Congress approved _____, including the right to clear, cut, fell, remove and dispose of any and all timber, trees, underbrush, buildings, improvements and/or other obstructions therefrom; to excavate: dredge, cut away, and remove any or all of said land and to place thereon dredge or spoil material; and for such other purposes as may be required in connection with said work of improvement; reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

FLOOD PROTECTION LEVEE EASEMENT

A perpetual and assignable right and easement in (the land described in Schedule A) (Tracts Nos. _____, _____ and _____) to construct, maintain, repair, operate, patrol and replace a flood protection (levee) (floodwall)(gate closure) (sandbag closure), including all appurtenances thereto; reserving, however, to the owners, their heirs and assigns, all such rights and privileges in the land as may be used without interfering with or

¹ See footnote 3.

² Where substantial residential structures exist in areas subject to very infrequent flooding, and will not interfere with project operations, the following clause may be substituted, however, leaving these structures in place must be evaluated using the same criteria that would be used to grant permission for a new residential structure to be placed in the easement. See EC 405-1-80: "(and also excepting the structure(s) now existing on the land, described as _____, which may be maintained on the land provided that portion of the structure(s) located below elevation _____ feet, mean sea level, shall be utilized for human habitation to the extent that sleeping accommodations will be maintained therein)." The next clause would then be modified to read "provided that no other structures for..."

³ See footnote 4

abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

ROAD EASEMENT

A (perpetual [exclusive] [non-exclusive] and assignable) (temporary) easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____) for the location, construction, operation, maintenance, alteration replacement of (a) road(s) and appurtenances thereto; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; (reserving, however, to the owners, their heirs and assigns, the right to cross over or under the right-of-way as access to their adjoining land at the locations indicated in Schedule B)⁴; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

A temporary easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____), for a period not to exceed 12 months, beginning with date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a (borrow area) (work area), including the right to borrow and/or deposit fill, spoil and waste material thereon). (move, store and remove equipment and supplies, and erect and remove temporary * structures on the land and to perform any other work necessary and incident to the construction of the Project, together with the right to trim, cut, fell and remove, therefore all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

6. FEDERAL PROJECTS/OWNERSHIP

There are no federal lands within the project area and no previous federal projects that impact any of the proposed project lands.

7. NAVIGATION SERVITUDE

The Ala Wai Watershed is not considered navigable and Navigation Servitude does not apply to these lands.

8. MAPS

⁴ The parenthetical clause maybe deleted, where necessary; however, the use of this reservation may substantially reduce the liability of the Government through reduction of severance damages and consideration of special benefits; therefore, its deletion should be fully justified. Also, access may be restricted to designated points.

Real Estate mapping is provided as Addendum 3. Since the features design is only at the 35% level, and the mitigation measures are at the 10% level, the exact locations may change to some degree as design continues. Detailed mapping will be provided prior to the notification to the sponsor to provide the required LERRD.

9. INDUCED FLOODING

The purpose of the project is to reduce damages caused by flood waters. The project is not anticipated to induce flooding outside of the footprint of the proposed flood control features.

10. BASELINE COST ESTIMATE FOR REAL ESTATE

| | |
|--|---------------------|
| Fee Title | \$516,200 |
| Flowage Easement | \$1,523,800 |
| Road Easement | \$133,300 |
| Flood Protection Levee Easement | \$522,700 |
| Channel Improvement Easement | \$250,200 |
| Temporary Work Area Easement | \$110,100 |
| Improvements | \$80,000 |
| Hazard Removals | \$0 |
| Mineral Rights | \$0 |
| Severance Damages | \$2,042,000 |
| Incremental real estate costs (formally known as contingencies) | \$1,553,380 |
| Utilities Relocations | \$9,753,082 |
| Uniform Relocation Assistance (PL 91-646) | \$80,000 |
| Acquisition Administrative Costs | \$400,000 |
| TOTAL COST | \$16,964,762 |

The values in the baseline cost estimate for the project feature sites and mitigation measures were obtained from a gross appraisal prepared by Jim Doing, RAO, HQ, USACE dated 1 July 2016, and reviewed and approved by Heber Kennedy III, MAI, Review Appraiser, USACE, Seattle District. The effective date of value for the listed properties is 17 May 2016. The project features were at the 35% level of detail; the mitigation measures were at the 10% level of detail as of the writing of the gross appraisal.

The value calculation for mitigation are based primarily on county assessed values and an analysis of the impact on the individual parcels. The cost estimates are intended for planning purposes only and do not reflect appraised values.

The costs for the mitigation sites are considered worst case scenario and each of the sites should be examined for any existing rights that the sponsor or city/county may have in existing easements or maintenance rights connected with the stream. The site size and or placement can significantly impact the probable cost.

Real Estate Cost Summary by Site

The following chart summarizes all site costs:

| Site | Pump Station (fee) | Berm/Dam (fee) | Access (easement) | Flowage (easement) | Temporary (easement) | Floodwall/ Levee (easement) | Channel Improvement (easement) | Improvements | Severance | Incremental Costs | TOTAL |
|-------------|--------------------|----------------|-------------------|--------------------|----------------------|-----------------------------|--------------------------------|--------------|-------------|-------------------|-------------|
| Waihi | | \$20,200 | \$9,300 | \$9,500 | \$1,500 | | | | | \$12,200 | \$52,700 |
| Waiakeakua | | \$23,900 | \$1,000 | \$29,100 | \$1,600 | | | | | \$16,700 | \$72,300 |
| Falls 8 | | | | | | | \$3,000 | | | \$900 | \$3,900 |
| Falls 7 | | | \$5,000 | | | | \$4,000 | | | \$2,700 | \$11,700 |
| Woodlawn | | \$273,200 | \$19,000 | \$77,700 | \$500 | | | \$80,000 | \$81,000 | \$159,400 | \$690,800 |
| Mānoa | | \$1,000 | \$8,200 | | \$1,500 | | | | | \$3,200 | \$13,900 |
| Pukele | | \$68,000 | \$16,700 | \$60,100 | \$9,800 | | \$9,600 | | \$1,801,000 | \$589,600 | \$2,554,800 |
| Waiomao | | \$93,900 | \$34,500 | \$53,900 | \$8,000 | | \$8,500 | | \$160,000 | \$107,600 | \$466,400 |
| Makiki | | \$9,900 | \$7,900 | \$3,200 | \$1,500 | | \$1,400 | | | \$7,200 | \$31,100 |
| Kanewai | | | \$28,300 | \$708,800 | \$10,300 | \$144,800 | | | | \$267,700 | \$1,159,900 |
| Hausten | | | \$3,400 | \$84,500 | \$3,400 | \$20,100 | | | | \$33,000 | \$144,400 |
| Golf Course | \$18,400 | | | \$497,000 | \$40,300 | \$196,600 | \$223,700 | | | \$293,000 | \$1,269,000 |
| Canal | \$7,700 | | | | \$31,700 | \$161,200 | | | | \$60,180 | \$260,780 |
| TOTAL | \$26,100 | \$490,100 | \$133,300 | \$1,523,800 | \$110,100 | \$522,700 | \$250,200 | \$80,000 | \$2,042,000 | \$1,553,380 | \$6,731,680 |

11. PL 91-646 RELOCATION BENEFITS

Public Law 91-646, The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, commonly called the Uniform Act, is the primary law for acquisition and relocation activities on Federal or federally assisted projects and programs. The local sponsor is required to follow the guidance in this public law. The sponsor is aware of this and has experience in the Uniform Act policies.

As the project is currently laid out it appears that there will be two displaced families at the Pukele site. There are two relatively newer homes that will be acquired as a result of the in-stream berm on the back of these two lots.

There is also the possibility that two tenants will be displaced at the Woodlawn site. There are a total of 11 residential structures on this property and two of the structures are very near the footprint of the berm and it may require the acquisition of these structures. It is not known if the improvements are occupied.

12. MINERALS

The State of Hawaii owns all mineral rights within the state and there are no surface or subsurface minerals that would impact the project or acquisition.

13. ASSESSMENT OF SPONSOR'S ACQUISITION CAPABILITY

In compliance with the Water Resources Development Act of 1986 (WRDA 86), Pub. L. 99-662, the Uniform Act and 49 CFR Part 24, Real Estate has requested that the sponsor provide an assessment of their acquisition capability and when completed, this assessment will be added to the REPR. The request is listed as Addendum 5.

Both the State of Hawaii and the City and County of Honolulu have comprehensive powers of eminent domain and emergency management powers, which may prove useful in overcoming any obstacle posed by the use of submerged lands/water bottoms (as well as public recreation sites and ceded lands). The key question is whether the State would elect to exercise its powers of eminent domain and emergency powers to acquire any necessary lands or interests therein.

In the realm of eminent domain/condemnation, as a general premise “Private property may be taken for public use.” (HRS § 101-2). The State may take a fee simple or lesser estate (HRS § 101-5), including “water, water rights, and easements of every nature” (HRS § 101-6). The City and County of Honolulu also has the same powers of eminent domain (HRS § 101-13), and both the State and City and County may utilize an expedited procedure to gain possession of the subject property while a condemnation action is pending (HRS § 101-29). Under HRS § 101-29, in a procedure similar to that available in the federal eminent domain context under 40 U.S.C. §3114, the State or a county may file a motion with the court at any time after commencement of a condemnation proceeding, supported by an affidavit alleging its right to condemn, the public use for which the property is being taken, and the sum of money estimated by the condemnor or to be just compensation. Upon payment of such sum into the court, the court will issue an ex parte order effective in ten days, putting the condemnor in possession of the property. This expedited procedure was validated by the Hawaii Supreme Court when challenged. See *Honolulu v. Bishop Trust Co.*, 49 Haw. 494, 421 P.2d 300, 1966 Haw. LEXIS 74 (Haw. 1966).

Both the governor and the mayor have also been granted broad statutory emergency management powers, to develop and maintain “an effective capability to prevent, prepare for, respond to, mitigate, and recover from emergencies or disasters.” (HRS § 127A-2). Such powers include the authority of the governor and mayor to “furnish” any real or personal property of the State or county government as either official considers necessary “to promote the public welfare and protect the interest” of the State or county. (HRS § 127A-12).

14. ZONING

By in large the prevalent zoning on the proposed project lands is either P-1 or P-2. These are conservation/preservation zonings with the intent to keep the lands in a natural state or to at least limit the extent of development. Within the zoning class allowable uses are watershed, parks, cemeteries and light recreational use, such as the Ala Wai Golf Course. This zoning classification applies to most of the land in all the sites with the exception of Pukele. Pukele parcels are all zoned R-5 for residential purposes. There are minor exceptions to the conservation zoning on small portions of

Waiomoa upper reach, and Mānoa Park on a parcel located across the stream. It is noted that the Ala Wai Canal itself is not zoned. For all practical purposes this area is a city park and conservation is assumed for this site.

15. MILESTONES

The following real estate milestones have been coordinated with Real Estate, and the Project Manager. For those parcels that are currently owned in fee by the local sponsor, they will need to demonstrate possession of the fee title prior to construction execution. For the private parcels that will be acquired, the sponsor will have to accomplish the acquisition prior to advertisement of the construction contract. The environmental analysis will be included in the feasibility report and the cultural analysis is to be completed in the PED phase of the project planning. There isn't a tentative date for PPA execution and construction will not be until 2020. The following timeline is realistic for LERRD requirements:

| | |
|---------------------|---------|
| Survey/Maps/Title | 90 Days |
| Legal Descriptions | 30 Days |
| Appraisals | 90 Days |
| LERRD certification | 21 Days |

16. PUBLIC UTILITIES RELOCATIONS

Guided by the definitions of "relocations" in ER 1105-2-100, Planning Guidance Notebook, 22 April 2000; ER 1110-2-1302, Civil Works Cost Engineering, 30 June 2016; and ER 405-1-12, Chapter 12, Real Estate Roles and Responsibilities for Civil Works: Cost Shared and Full Federal Projects, 1 May 98; the PDT determined two separate categories of relocations for the Ala Wai Project:

- 1) temporary relocations in which all work will be commenced and resolved under construction contract(s) within the same footprint; and
- 2) permanent relocations which require action on the part of the Non-Federal Sponsor in advance of the project to acquire lands for a permanent resettlement of the utility(ies) on a different footprint.

The LERRDs crediting on the costs of the relocations which fall into the two above categories will be provided in the Attorney's Opinion of Compensability, which is scheduled to be completed during the Planning, Engineering and Design Phase of this Project. Any conclusion or categorization contained in this report that an item is a utility or facility relocation to be performed by the Non-Federal Sponsor as part of its LERRD responsibilities is preliminary only. The Government will make a final determination of the relocations necessary for the construction, operation, or maintenance of the project after further analysis and completion and approval of Final Attorney's Opinions of Compensability for each of the impacted utilities and facilities.

A description of the facility or utility relocations that must be performed including information regarding the general nature of the impact to each facility or utility; the identity of the owners of the affected facilities and utilities; and the purpose of the affected facilities and utilities is detailed in the Draft Utility Assessment Report, prepared by CH2M Hill under Contract No. W9128A-12-D-0009-0002, dated June 2016. It is included as Addendum 4.

| | | | |
|---|--|--|-----------|
| Waiakeakua Debris and Detention Basin | | | |
| | Overhead Utility Poles | Relocate poles and overhead lines, as appropriate | \$150,354 |
| Kanewai Field Debris and Detention Basin | | | |
| | Overhead Utility Poles | Relocate poles, as appropriate | \$50,118 |
| | 6' x 4' RCB Storm Drain | No Action | \$0 |
| | Irrigation Lines | Relocate as needed during construction | \$25,059 |
| | USGS Gaging Station | No Action | \$0 |
| Hausten Ditch Detention Basin | | | |
| | Fence | Relocate as needed during construction | \$37,589 |
| Ala Wai Golf Course Multi-Purpose Detention Basin | | | |
| | Golf Cart Path | Relocate as needed during construction | \$852,015 |
| | Water Line #1 - 6" Diameter | Relocate water line, as necessary | \$31,217 |
| | Water Line #2 - 6" Diameter | Relocate water line, as necessary | \$144,813 |
| | Storm Sewer Line | No Action | \$0 |
| Ala Wai Canal Floodwalls and Pump Stations - Right Bank | | | |
| | Sidewalk Mānoa-Palolo Drainage Ditch to Sta 49+75 | Relocate as needed during construction | \$191,698 |
| | Sidewalk along Park to Sta 49+75 | Relocate as needed during construction | \$372,071 |
| | Sidewalk from Park Upstream McCully Bridge downstream to Kalakouo Bridge | Relocate as needed during construction | \$193,225 |
| | 3" waterline along Ala Wai Promenade west of Kalakaua Ave | Relocate within promenade area as needed during construction | \$842,612 |
| | Stadium Lights | No Action | \$0 |
| | Fence Adjacent to Stadium Lights | Relocate as needed during construction | \$54,779 |
| | Lighting lines along Walkway within Community Park | Relocate as needed during construction | \$702,780 |
| | Irrigation lines along Walkway along Canal | Relocate as needed during construction | \$663,383 |
| | Lighting lines along Walkway within Mānoa-Palolo Drainage Canal to Kolokua | Relocate as needed during construction | \$702,780 |
| | Light Pole Near Pump Station #2 | Relocate as needed during construction | \$4,240 |
| | Net Near Pump Station #2 | Relocate as needed during construction | \$4,444 |
| | Fence Near Pump Station #2 | Relocate as needed during construction | \$11,738 |
| | Utilities around Sta 49+75 | No Action | \$0 |

| Ala Wai Canal Floodwalls and Pump Stations - Left Bank | | | |
|--|---|--|-------------|
| | Sidewalk along Ala Wai Canal | Relocate as needed during construction | \$2,211,145 |
| | Electrical Distribution lines between Ala Wai Blvd & Exist Sidewalk | Relocate as needed during construction | \$568,917 |
| | Lighting lines between Ala Wai Blvd & Exist Sidewalk | Relocate as needed during construction | \$568,917 |
| | Traffic Signal lines between Ala Wai Blvd & Exist Sidewalk | Relocate as needed during construction | \$568,917 |
| | Irrigation lines between Ala Wai Blvd & Exist Sidewalk | Relocate as needed during construction | \$800,271 |
| TOTAL ESTIMATED UTILITIES RELOCATION COSTS | | | \$9,753,082 |

17. ENVIRONMENTAL IMPACTS

Environmental impacts, if any, are discussed in other sections of the Engineering Documentation Report.

18. ATTITUDES OF LANDOWNERS

While most landowners have not expressed whether they support or oppose the Project, at least two landowners have expressed that they strongly oppose the fee acquisition of their lands. Specific concerns are as follows:

A. Pukele Debris and Detention Basin

The Ala Wai Watershed Association states that residents are concerned about likely losing their real property to eminent domain and direct outreach is needed to those real property owners who may be affected by the proposed siting of and means of access to the detention basins included in the TSP. Residents along Carlos Long Street and La`i Road in Palolo are especially concerned about public safety and security risks by the creation of service road access to the secluded detention basins through their back of valley areas.

A local resident advises that all effort must be made that any site selection seriously take into consideration the economic impact on those directly affected including individual land holders and the entire neighborhoods in which the projects will be constructed. He questions if fair market and future market value be taken into consideration, and if the flowage will remain within the stream banks and have limited impact on the 6 additional lots.

The President of the Baruch Bakar Management Corporation expresses that the Pukele Debris and Detention Basin would require the loss of three residential properties, depriving the neighborhood of a duplex residence, a single-family residence, and a prospective fourth residence, and that no amount of compensation will enable the Corporation to purchase replacement properties comparable in natural beauty and proximity to town (Honolulu). Moreover, any connection the basin may afford to La`i Road across the stream would provide another entry into Ipulei Place and is strongly opposed by the greater Carlos Long neighborhood; a petition generated nearly 90

signatures opposing the basin. She states that the Neighborhood Watch works hard to keep intruders out of the neighborhood and sees the basin as a threat to their efforts. She further states that the basin will cause debris to collect and obstruct water flow, causing flooding to adjacent homes and the neighborhood; the collection of stagnant water in the basin will provide a prime breeding ground for mosquitoes and may promote the spread of dengue fever; and the basin will pose a drowning hazard. She questions if over-saturation of nearby land would compromise the foundation of homes built along Pukele Stream. She recommends that the end of Ahe street where Pukele and Waiomao streams feed into Palolo Stream should be considered as a point of intervention in the water flow, and Palolo Valley District Park could provide a detention basin.

An affected landowner is concerned his insurance company is likely to increase his rates, and questions if he will be compensated by the state for this increase. He further questions if the flood zone would change from X to D, and if he will be compensated for the loss of property value. He also stated he does not want his tax dollars buying land from citizens without a very compelling reason.

B. Waiomao Debris and Detention Basin

An affected landowner states that the basin has a monstrous construction zone footprint, will have a 130 feet of ugly unnatural rock faced slope, debris pipes, and will require the excavation of 2,000 cubic yards of material which would leave a scar in the ground to hold a massive 1,500,000 cubic feet of water. The dredged area will destroy almost 450 feet of the Waiomao Stream and leave behind a bare rock quarry looking pit in its place. He is against the purchase of his privately owned property and believes that there are alternatives that can be designed to utilize government owned lands both above and below the proposed Waiomao Detention Basin. He recommends the following TMKs: 340120230000, 340040080000, 340040070000, 340040020000, 340040060000, 340070160000, 340070180000, 340030100000, 340030090000, 340030300000, 340020010000, 340020020000, 340070170000, 340020440000, 340040100000, 340070140000, 340070030000, 340070130000, 340070090000, 340011220000, 340070010000, 330380960000, 330450670000, 330020540000, 330010050000, 280280360000, 270240010000, 270240000000, 270360010000.

C. Makiki Debris and Detention Basin

The Chair of the McCully - Mo`ili`ili Neighborhood Board #8 states that the use of eminent domain to acquire private property has been expressed as a concern from Makiki, Palolo and Mānoa Valley residents, and requests a response to these stakeholders, especially to the property owners who will live “next door” to these basins re: liability, trespassers, etc. He further questions why Kanewai Park being utilized as a retention/detention basin.

19. NOTIFICATION TO SPONSOR

The non-Federal sponsor and the City and County of Honolulu are fully involved in the planning process. They are also experienced in working with USACE on similar projects. There is little risk of premature acquisition by the local sponsor at this stage of the project. The sponsor has been advised of the risk of premature acquisitions as of 11 July 2016, as shown in Addendum 5.