DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

February 10, 2006

Ms. Genevieve Salmonson, Director
State of Hawai'i
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
CONSTRUCTION OF THE ISLANDWIDE WATER SPIGOTS FACILITIES
TAX MAP KEY PORTION OF 1-4-001:002, 1-5-004:001, 1-5-040:065, 1-6-003:065, 1-7-003:019, 1-8-002:049, 3-5-003:035, 8-3-013:021, 8-4-008:002, 9-5-005:001, AND 9-5-006:002
ISLAND OF HAWAI'I, COUNTY OF HAWAI'I, STATE OF HAWAI'I

This is the Final Environmental Assessment (FEA) for the Construction of the Islandwide Water Spigots Facilities.

The County of Hawai'i Department of Water Supply has reviewed the comments received during the 30-day public comment period, which began on November 23, 2005. The agency has determined that this project will not have significant environmental effects and has issued a Finding of No Significant Impact (FONSI). The United States Environmental Protection Agency has also reviewed the environmental assessment and has issued a draft, "unsigned" Federal FONSI to satisfy National Environmental Policy Act (NEPA) requirements. Please publish this notice in the next available Office of Environmental Quality Control (OEQC) Environmental Notice.

We have enclosed a completed OEQC Publication Form and four copies of the FEA. The project summary has changed since the Draft Environmental Assessment (DEA) publication.

If there are any questions, please contact Mr. Owen Nishioka at (808) 961-8070, extension 259.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

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(w/enc.) Ms. Denise Dang Manuel, State of Hawai'i, Department of Health (only 1 copy of FEA)
(w/enc.) Mr. Barry Pollock, United States Environmental Protection Agency (only 1 copy of FEA)

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Final Environmental Assessment
Construction of Islandwide Spigot Facilities

Island of Hawai‘i, Hawai‘i

FEBRUARY 2006

Prepared for:

Department of Water Supply
County of Hawaii
345 Kekuanaoa Street
Hilo, Hawai‘i 96720

Prepared by:

M&E Pacific, Inc.

METCALF & EDDY | AECOM

Davies Pacific Center, 841 Bishop Street
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Appendix D: Aquifer Systems and Lava Hazard Figures
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SECTION 1

PROJECT SUMMARY

Project Name: Construction of Islandwide Water Spigots Facilities

Applicant/ Approving Agency: County of Hawaiʻi Department of Water Supply
345 Kekuanaoa Street
Hilo, County of Hawaiʻi, Hawaiʻi 96720
Contact: Mr. Owen Nishioka, DWS
Phone: (808) 961-8070 x259 Fax: (808) 961-8080

Applicant Agent: M&E Pacific, Inc.
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaiʻi 96813
Contact: Mr. Martin Nakasone, PM
Phone: (808) 521-3051 Fax: (808) 524-0246

Location: Eleven (11) sites around the Island of Hawaiʻi to be evaluated, as listed in **Table 1-1**.

TABLE 1-1
LIST OF PROPOSED PROJECT SITES

Site		TMK #	Property Owner	State Land Use Classification	County Zoning	County Plan	SMA
A	Honaunau Rodeo Arena	8-4-008:002	State of Hawaiʻi (CoH Dpt. Parks & Rec.)	Agricultural	A-5a	ial	No
B	Honaunau School	8-3-013:021	County of Hawaiʻi	Agricultural	A-1a	ial	No
C	Papa'aloa Gym	3-5-003:088	County of Hawaiʻi	Urban	A-1a	ial	Yes
D	Mountain View Gym & Park	1-8-002:049 1-8-004:030	County of Hawaiʻi	Urban	RS-20 & Open	ldu & mdu	No
E	Kurtistown Ball Park	1-7-003:019	County of Hawaiʻi	Urban	Open	ope	No
F	Kea'au Transfer Station	1-6-003:065	County of Hawaiʻi	Agricultural	A-20a	ea	No
G	Hawaiian Paradise Park Fire Station	1-5-040:065	County of Hawaiʻi	Agricultural	A-1a	rur	No
H	Nanawale Estates Arena	1-5-004:001	State of Hawaiʻi	Agricultural	A-1a	con	No
I	Kapoho-Pohoiki Road Junction	1-4-001:002 (vicinity of)	State & County of Hawaiʻi ROW	Agricultural	A-1a	ea	No
J	Waiohinu Flood Channel	9-5-006: 002	County of Hawaiʻi	Agricultural	A-20a	ea	No
K	Waiohinu Transfer Station	9-5-005:001	County of Hawaiʻi	Agricultural	A-20a	ea	No

Proposed Action:	This project proposes to construct water spigots facilities at various locations of the Island of Hawaiʻi in order to improve accessibility to potable water, including the construction of drainage features, concrete aprons and/or other safety features around the spigots. This project will also improve the safety and flow of traffic approaching the spigots. Necessary upgrades to existing facilities are dependent upon site specific conditions.
Environmental Assessment:	The purpose of this EA is to cite any environmental impacts that may occur due to the construction of a water spigot facility at the proposed 11 locations. If any impacts are determined, an effective mitigation plan shall be addressed. The purpose of this EA is not to make the determination of the six sites for construction. It will act as one of parameters by which a site will be evaluated by the County of Hawaiʻi. Representatives from the Department of Water Supply will select six of the eleven sites evaluated for construction, following acceptance of this EA. Issues regarding specifics on design, construction and operations, while noted, may not be defined as an Environmental Impact.
Determination:	Finding of No Significant Impact (FONSI)

SECTION 2

CONSULTATION LIST

2.1 FEDERAL

2.1.1 AGENCY LIST

Advisory Council on Historic Preservation
U.S. Department of Agriculture, Natural Resources Conservation Service
U.S. Department of Transportation, Federal Highway Administration (Hawai'i Division)
U.S. Environmental Protection Agency
U.S. Fish & Wildlife Service, Pacific Region

2.1.2 CONTACT INFORMATION & SUMMARY

Advisory Council on Historic Preservation	
Contact:	Mr. Don Klima, OFAP Director
Address:	12136 West Bayaud Avenue, Suite 330 Lakewood, CO 80228
09/23/05	Consultation Request Letter sent for review of all sites, refer to **Appendix A**.
	Response not received by the 30-day deadline.

U.S. Department of Agriculture, Natural Resources Conservation Service	
Contact:	Mr. Milton Martinez, Soil Scientist
Address:	Natural Resources Conservation Service P.O. Box 50004 Honolulu, HI 96850
10/28/05	Consultation Request Letter sent for review of all sites, refer to **Appendix A**.
1/9/06	NRCS response received.
Summary:	The FPPA does not apply for the sites reviewed.

U.S. Dept. of Transportation, Federal Highway Administration, Hawai'i Division	
Contact:	Ms. Kainani Kraut
Address:	Federal Highway Administration, Hawai'i Division 300 Ala Moana Boulevard, #3-306 Box 50206 Honolulu, HI 96850
09/22/05	Consultation Request Letter sent for review of all sites, refer to **Appendix A** for all correspondence.
10/26/05	USDOT FHWA response received.
Summary:	As the project is not being funded by USDOT funds, it is not subject to Section 4(f).

U.S. Environmental Protection Agency	
Contact:	Mr. Barry Pollock, Hawai'i PWSS Project Officer / USEPA Region 9
Address:	U.S. Environmental Protection Agency Drinking Water Office / WTR-6 75 Hawthorne Street San Francisco, CA 94105
10/03/05	Preliminary Draft EA sent for review; refer to **Appendix A** for all correspondence.
10/21/05	EPA response received.
Summary:	Additional information and/or discussion needed on the NEPA process and requirements, existing/proposed spigot information, Federal Cross-cutter information
10/27/05	E-mail request sent for clarification on comments received.
10/28/05	EPA e-mail response received.
Summary:	In response to questions posed, the FWS letter received is sufficient to fulfill requirements and should be included in the EA; a list of all entities to be contacted in the EA process should be included in the EA, as well as their contact information and method of communication; although preferred, a formal letter is generally not required for a conclusion of no finding, provided that sufficient documentation is provided supporting the finding that there is no effect to the element/issues in question.
1/26/06	Preliminary Final EA sent for review; refer to **Appendix A** for all correspondence.
2/06/06	EPA response received.
Summary:	Additional information and/or discussion needed on the project funding, the site selection process and the alternatives considered (specifically the "No Action" alternative). The EPA also expresses concern over the safety and health of students and others at the Honaunau School proposed site.
2/06/06	Revised sections sent to EPA for review and approval via e-mail.
2/08/06	EPA unsigned Federal FONSI received; refer to **Appendix A**.
Summary:	Unsigned Federal FONSI issued by the EPA, assuming the revisions approved via e-mail are incorporated into the EA.

U.S. Fish & Wildlife Service, Pacific Region	
Contact:	Mr. Patrick Leonard, Field Supervisor & Mr. Michael Molina
Address:	U.S. Fish & Wildlife Service, Pacific Region Pacific Islands Fish & Wildlife Service 300 Ala Moana Boulevard, #3-122 Box 50088 Honolulu, HI 96850
09/26/05	Consultation Request Letter sent for review of all sites, refer to **Appendix A**.
10/18/05	USFWS response received. Refer to **Appendix B**.
Summary:	No endangered or threatened species known at or near the indicated project sites.
11/15/05	Copy of DEA sent for review, refer to **Appendix A**.
11/17/05	USFWS response received. Refer to **Appendix B**.
Summary:	BMPs should be employed to protect streams for sediment & pollutants as a result of the project. Provided this measure is incorporated the USFWS does not anticipate the fish and wildlife resources would be affected by the proposed project, and would support a FONSI.

2.2 STATE OF HAWAI'I

2.2.1 AGENCY LIST

Department of Education
Department of Education, Honaunau School
Department of Hawaiian Homelands
Department of Health
Department of Land and Natural Resources, Forestry and Wildlife Division
Department of Land and Natural Resources, Historic Preservation Division
Department of Land and Natural Resources, State Parks Division
Department of Natural Resources and Environmental Management, College of Tropical Agriculture and Human Resources
Department of Transportation, Traffic Division
Disability and Communication Access Board
Hawai'i Natural Heritage Program, Center for Conservation Research and Training (recently renamed to the Hawai'i Biodiversity & Mapping Program)
Office of Hawaiian Affairs (Oahu)
University of Hawai'i Environmental Center

2.2.2 CONTACT INFORMATION & SUMMARY

Department of Education	
Contact:	Ms. Patricia Hamamoto, Superintendent
Address:	P.O. Box 2360 Honolulu, HI 96804
09/22/05	Consultation Request Letter sent for review of Site B (Honaunau School), refer to **Appendix A** for all correspondence.
10/03/05	DOE request received for additional information on the water spigot facilities.
10/03/05	M&E response to DOE request. Additional information provided via e-mail.
10/07/05	DOE comments received.
Summary:	The DOE has concerns regarding the proposed spigot facility, particularly on student safety, traffic conflicts and additional noise disrupting class activities.
11/18/05	Response letter to comments sent.

Department of Education, Honaunau School	
Contact:	Ms. C. Faye Ogilvie, Principal
Address:	83-5360 Mamalahoa Highway Captain Cook, HI 96704
12/15/05	Comment Letter received.
Summary:	The Honaunau School has concerns regarding the proposed spigot facility, particularly on student safety, traffic conflicts and additional noise disrupting class activities. The school staff and Community Council strongly feel that a spigot at the proposed location does not serve the best interest of the school and is unacceptable. They request the County of Hawai'i consider an alternate site in South Kona.

Department of Hawaiian Home Lands	
Contact:	Mr. Ken Taguchi, Information & Community Relations
Address:	Department of Hawaiian Home Lands 1099 Alakea Street, Suite 2000 Honolulu, HI 96813
Phone:	(808) 586-3842
Fax:	(808) 586-3843
09/22/05	Fax request sent for list of Native Hawaiian organizations that may be impacted by project, all sites. Re-faxed on 10/07/05, per telecom request. Refer to **Appendix A** for all correspondence.
10/11/05	DHHL response received via telcon.
Summary:	DHHL suggested that the Makapuu Farmers Association regarding the proposed work at Site G, Hawaiian Paradise Park Fire Station. No other comments or organizations were indicated.

Department of Health	
Contact:	Ms. Denise Dang
Address:	State Department of Health, Environmental Management Division Safe Drinking Water Branch 919 Ala Moana Boulevard, Room 308 Honolulu, Hawai'i 96814
10/03/05	Preliminary Draft EA sent for review; refer to **Appendix A** for all correspondence.
10/19/05	DOH response received.
Summary:	Additional information requested on proposed operations for water spigot locations and how it will affect the owner's operations; NEPA may require a letter indicating no finding or no comment.
11/18/05	Response letter to comments sent.

DLNR, Forestry and Wildlife Division	
Contact:	Mr. Paul Conry, Administrator
Address:	Department of Land and Natural Resources Forestry and Wildlife Division 1151 Punchbowl Street, Room 325 Honolulu, HI 96813
09/26/05	Consultation Request Letter sent for review of Site H (Nanawale Estates Arena) and Site I (Kapoho-Pohoiki Road Junction), refer to **Appendix A**. Response not received by the 30-day response deadline.

DLNR, Historic Preservation Division	
Contact:	Ms. Melanie A. Chinen, Administrator
Address:	Department of Land and Natural Resources Historic Preservation Division Kakuhihewa Building, Room 555 601 Kamokila Boulevard Kapolei, HI 96707
09/22/05	Consultation Request Letter sent for review of all sites, refer to **Appendix A**.
12/10/05	Follow-up call to SHPD to inquire about status of review, was told to contact Ms. Maigret of the Hawai'i Office. See summary below.
1/17/06	Follow-up call to SHPD to inquire about status of review, resent copy of consultation request letter per SHPD request.
1/27/06	Follow-up call to SHPD to inquire about status of review. SHPD indicated that a letter of review should be provided shortly.
2/06/06	Follow-up call to SHPD to inquire about status of review. Status to be determined.
2/08/06	Letter sent to inform SHPD that we will assume SHPD has no knowledge of historical properties on the project sites, as a response was not received by the 30-day deadline.
2/09/06	Letter received indicating, "no historic properties will be affected" by the project.

DLNR, Historic Preservation Division – Hawai'i Office	
Contact:	Ms. Mary Anne Maigret
Address:	Department of Land and Natural Resources Historic Preservation Division, Hawai'i Office
E-mail:	MaryAnne.B.Maigret@hawaii.gov
09/13/05	E-mail request sent for list of Native Hawaiian organization within the project site vicinities; refer to **Appendix A**. Fax was followed up with a voicemail message and e-mail message.
12/10/05	Follow-up call to inquire about listing and consultation review. Voicemail message left.
1/17/06	Follow-up call to inquire about listing and consultation review. Voicemail message left.
	Response not received by the 30-day response deadline.

DLNR, State Parks Division	
Contact:	Mr. Daniel Quinn, Administrator
Address:	Department of Land and Natural Resources State Parks Division 1151 Punchbowl Street, Room 310 Honolulu, HI 96813
09/26/05	Consultation Request Letter sent for review of Site I (Kapoho-Pohoiki Junction), refer to **Appendix A** for all correspondence.
10/20/05	DLNR SP response received.
Summary:	There is a concern with line of sight and sight distances for on-coming vehicles and turning vehicles due to road curvature at site.
11/18/05	Response letter to comments sent.

Department of Natural Resources and Environmental Management	
Contact:	Ms. Trisha Macomber
Address:	Department of Natural Resources and Environmental Management College of Tropical Agriculture and Human Resources
E-mail:	macomber@hawaii.edu
09/22/05	E-mail consultation request for existing water catchment information; refer to **Appendix A** for all correspondence.
09/23/05	Ms. Macomber's response received via e-mail.
Summary:	Approximately 40,000 residents of the Big Island rely on catchment systems.
1/10/06	E-mail request for additional information on catchment user distribution
1/11/06	Ms. Macomber's response received via e-mail.
Summary:	District breakdown provided showing number of households without municipal water.

Department of Transportation, Highways Division	
Contact:	Mr. Alvin Takeshita, Engineering Program Manager
Address:	Department of Transportation Highways Division 601 Kamokila Boulevard, Room 602 Kapolei, HI 96707
09/22/05	Consultation Request Letter sent for review of Site H (Nanawale Estates Arena) and Site I (Kapoho-Pohoiki Road Junction), refer to **Appendix A**.
	Response not received by the 30-day response deadline.

Disability and Communication Access Board	
Contact:	Mr. Curtis Motoyama, Facility Access Coordinator
Address:	Disability and Communication Access Board 919 Ala Moana Boulevard, Room 101 Honolulu, HI 96814
Phone:	(808) 586-8121
Fax:	(808) 586-8129
11/03/05	Fax request for technical guidance: conformance to ADAAG 4.3 requirements, refer to **Appendix A** for all correspondence.
11/04/05	DCAB response received via telecom.
Summary:	Project will need to conform to ADAAG Section 4.3, where accessible routes must be provided to all elements within the site (example used: County park site). One would need to make a case that the facility is located at a separate site to comply with ADA guidelines.
11/04/05	Clarification requested via telecom.
11/08/05	DCAB response received via telecom.
Summary:	Per DCAB - If a spigot facility had a separate entrance than the other elements at the park (for example), then one could argue that the facility is on a "separate" site and therefore does not need an accessible route per ADAAG. However, this would be a difficult case to make if the spigot facility is within the park parcel. An interpretive opinion was made specifying that a newly constructed building would only need to provide an accessible route to other accessible buildings on the same site. DCAB felt that interpretive opinion would also apply to this case.

Hawai'i Natural Heritage Program (Hawai'i Biodiversity & Mapping Program)	
Contact:	Mr. Roy Kam, Database Manager
Address:	Hawai'i Natural Heritage Program Research Corporation of the University of Hawai'i Center for Conservation Research and Technology 677 Ala Moana Boulevard, Suite 705 Honolulu, HI 96813
E-mail:	rkam@hawaii.edu
09/13/05	E-mail request for database information for endangered or threatened species on or near all sites; refer to **Appendix A**.
09/16/05	HNHP response received via e-mail. Refer to **Appendix B**.
Summary:	Database information provided for the 11 project sites.

Office of Environmental Quality Control	
Contact:	Ms. Genevieve Salmonson, Director
Address:	235 South Beretania Street, Suite 702 Honolulu, Hawai'i 96813
12/19/05	Comment Letter on DEA received.
Summary:	The Final EA should be printed double-sided.

Office of Hawaiian Affairs	
Contact:	Ms. Ululani Sherlock, Community Resource Coordinator
Address:	Office of Hawaiian Affairs 162-A Baker Avenue Hilo, HI 96720
09/22/05	Consultation Request Letter sent for review of all sites, refer to **Appendix A** for all correspondence.
09/22/05	Fax request for list of Native Hawaiian organization within the project site vicinities. Fax was followed up with several a voicemail messages. Response not received by the 30-day comment deadline.

University of Hawai'i Environmental Center	
Contact:	Dr. John T. Harrison, Environmental Coordinator
Address:	2500 Dole Street Krauss Annex 19 Honolulu, Hawai'i 96822
12/22/05	Comment Letter to DEA received.
Summary:	The reviewers at the Environmental Center requested: additional information on the distribution of residents on catchment and the limits of the existing water supply infrastructure, discussion of cost and benefits of extending the County water system, clarification on intent for sites that are located within existing gate enclosures, discussion on how to address the concerns raised by Ms. Hamamoto regarding the proposed spigot at the Honaunau School.

2.3 COUNTY OF HAWAI'I

2.3.1 AGENCY LIST

Department of Environmental Management
Department of Parks and Recreation
Department of Planning
Department of Public Works
Department of Water Supply
Fire Department
Mayor Harry Kim

2.3.2 CONTACT INFORMATION AND SUMMARY

Department of Environmental Management	
Contact:	Mr. Nelson Ho, Deputy Director
Address:	County of Hawai'i, Department of Environmental Management 25 Aupuni Street, Room 210 Hilo, HI 96720
Fax:	(808) 961-8086
07/14/05	Site plans for the transfer stations provided in-person.
09/10/05	Fax request for consultation review of Site F (Keaau Transfer Station) and Site K (Waiohinu Transfer Station). Refer to **Appendix A** for all correspondence.
09/19/05	DEM response received via e-mail and postal mail.
Summary:	The DEM has concerns regarding the location of the proposed spigot facilities. The transfer stations are or will be gated, and have limited hours of operation. Additionally, the DEM has plans for improvements to the Waiohinu Transfer Station, and the water spigot facility should be coordinated with these plans. There are concerns about trash accumulation at the site. The paved area within the Keaau Transfer Station is currently used as a Christmas tree mulching site; however, the DEM is willing to work with DWS to use this location if an alternate mulching site can be established.
10/21/05	DEM comments received on the Preliminary Draft EA; refer to **Appendix A** for all correspondence.
Summary:	The DEM listed concerns regarding traffic safety as vehicles enter and exit the Keaau Transfer Station. They also would like to address the issue of trash accumulation at the sites, and recommended to establish an operations and maintenance plan for the proposed facilities, as well as post signs to deter improper use of the sites.
11/18/05	Response letter to comments sent.
11/25/05	Comment Letter on DEA received.
Summary:	No further comments.

Department of Parks and Recreation	
Contact:	Ms. Patricia G. Engelhard , Director & Mr. James Komata, Park Planner
Address:	County of Hawaiʻi, Department of Parks and Recreation Aupuni Center 101 Pauahi Street, Suite 6 Hilo, HI 96720
07/14/05	Site plans for Kurtistown Ball Park, Mountain View Park and Honaunau Rodeo Arena provided via e-mail. Refer to **Appendix A** for all correspondence.
09/10/05	Fax request for consultation review of Site A (Honaunau Rodeo Arena), Site C (Papa'aloa Gym), Site D (Mountain View Gym) and Site E (Kurtistown Ball Park). Response not received.
10/19/05	DPR comments to the Preliminary Draft EA received.
Summary:	The DPR listed various concerns regarding maintenance and operations, safety, security, ADA transition plan coordination, ADA requirements and conformance, refuse mitigation, facility location and feasibility.
11/18/05	Response letter to comments sent.

Department of Planning	
Contact:	Mr. Chris Yuen, Department Head
Address:	County of Hawaiʻi, Department of Planning Aupuni Center 101 Pauahi Street, Suite 3 Hilo, HI 96720
09/23/05	Consultation Request Letter sent for review of all sites, refer to **Appendix A** for all correspondence. Response not received.
10/18/05	DPW comments to the Preliminary Draft EA received.
Summary:	Correction needed to the land use designation shown for Site D; Planning Dept. plan approval is required for all sites; Site C is location in an SMA, however does not require a Conservation District Use Permit as it is outside of the Conservation SLU designation.
11/18/05	Response letter to comments sent.
12/9/05	Comment Letter to DEA received.
Summary:	The comments to the preliminary have been correctly incorporated. An SMA Use permit will not be required for the Papa'aloa Gym site. However, it will still be subject to a Plan Approval issued by the Planning Department.

Department of Public Works	
Contact:	Mr. Bruce McClure, Director
Address:	County of Hawai'i, Department of Public Works Aupuni Center 101 Pauahi Street, Suite 7 Hilo, HI 96720
09/12/05	Fax request for consultation review of Site A (Honaunau Rodeo Arena), Site C (Papa'aloa Gym), Site D (Mountain View Gym) and Site E (Kurtistown Ball Park). Refer to **Appendix A** for all correspondence.
	Response not received.
10/24/05	DPW comments to Preliminary Draft EA received.
Summary:	Requested information on operations and maintenance; noted that drainage improvements should be provided to avoid ponding, and inquired as to the justification for the 2 proposed Waiohinu project sites.
11/18/05	Response letter to comments sent.

Department of Water Supply	
Contact:	Mr. Milton Pavao, Department Head
Address:	Department of Water Supply 345 Kekuanaoa Street, Suite 20 Hilo, Hawai'i 96720
09/23/05	Consultation Request Letter sent for review of all sites, refer to **Appendix A**.
	No comments received.
	No comments received on Preliminary Draft EA or the Draft EA.

Fire Department	
Contact:	Mr. Darryl Oliveira, Fire Chief
Address:	County of Hawai'i, Fire Department 25 Aupuni Street, Suite 103 Hilo, Hawai'i 96720
09/22/05	Consultation Request Letter sent for review of Site G (Hawaiian Paradise Park Fire Station), refer to **Appendix A** for all correspondence.
10/05/05	FD response received.
Summary:	The Fire Department has concerns regarding student safety, personnel safety, station security, conflicts with emergency vehicle movement and the reduced benefit of locating a spigot facility off the main highway.
11/18/05	Response letter to comments sent.

Mayor Harry Kim	
Contact:	Mayor Harry Kim
Address:	25 Aupuni Street, Room 215 Hilo, Hawai'i 96720
11/27/05	Comment Letter to DEA received.
Summary:	24-hour access is preferred at each site, however if this is not possible then the longest possible hours of operation must be planned.

2.4 COMMUNITY

2.4.1 ORGANIZATION LIST

Hawaiian Paradise Park Owner's Association
Hui Malama I Na Kupuna O Hawai'i Nei
Makapuu Farmers Association
Nanawale Community Association

2.4.2 CONTACT INFORMATION AND SUMMARY

Hawaiian Paradise Park Owner's Association	
Contact:	Mr. Frank Annin, President & Ms. Bobbi Stutsman, General Manager
Address:	Hawaiian Paradise Park Owner's Association HC 3 Box 11000 Keaau, HI 96749
09/22/05	Consultation Request Letter sent for review of Site G (Hawaiian Paradise Park Fire Station), refer to **Appendix A** for all correspondence.
10/20/05	HPPOA response received.
Summary:	The HPP Owner's Association supports the installation of the water spigot facility, however has concerns regarding road safety and would prefer to have the driveway entrance placed off of 21st Avenue; trash accumulation and would prefer to have receptacles provided at the site; maintenance and operations responsibilities.
11/18/05	Response letter to comments sent.

Hui Malama I Na Kupuna O Hawai'i Nei	
Contact:	Mr. Edward Halealoha Ayau
Address:	Hui Malama I Na Kupuna O Hawai'i Nei P.O. Box 190 Haleiwa, HI 96712
09/22/05	Consultation Request Letter sent for review of all sites, refer to **Appendix A**. Response not received by the 30-day response deadline.

Makuu Farmers Association	
Contact:	Ms. Paula Kekahuna
Address:	Makuu Farmers Association P.O. Box 1357 Pahoa, HI 96778
10/13/05	Consultation Request Letter sent for review of all sites, refer to **Appendix A**. Response not received by the 30-day response deadline.

Nanawale Community Association	
Contact:	Ms. Elizabeth Salfen, General Manager
Address:	Nanawale Community Association 14-855 Kehau Street RR4 Box 2250 Pahoa, HI 96778
09/22/05	Consultation Request Letter sent for review of Site H (Nanawale Estates Arena), refer to **Appendix A** for all correspondence.
10/13/05	NCA response received.
Summary:	The Nanawale Community Association supports the installation of the water spigot facility. They requested sufficient sight distance be provided at Nanawale Blvd, and suggested a spot on the property that has previously been cleared and bulldozed over.
11/03/05	Ms. Salfen was contacted via telecom for additional information on the suggested location.
11/18/05	Response letter to comments sent.

SECTION 3

PROJECT DESCRIPTION

3.1 PROJECT NEED AND OBJECTIVE

Approximately 40,000 to 50,000 residents on the Island of Hawai'i presently use water catchment systems for their household water supply, and must go outside their homes to acquire potable water. While a portion of these residents utilize household drinking wells, most obtain their drinking water from public water spigot utilities provided by the County of Hawaii Department of Water Supply and the Civil Defense Agency. Currently, there are fifteen (15) existing spigot locations on the island as shown on **Figure 3-1**. About half of the existing spigots are located in the South Hilo and Puna districts.

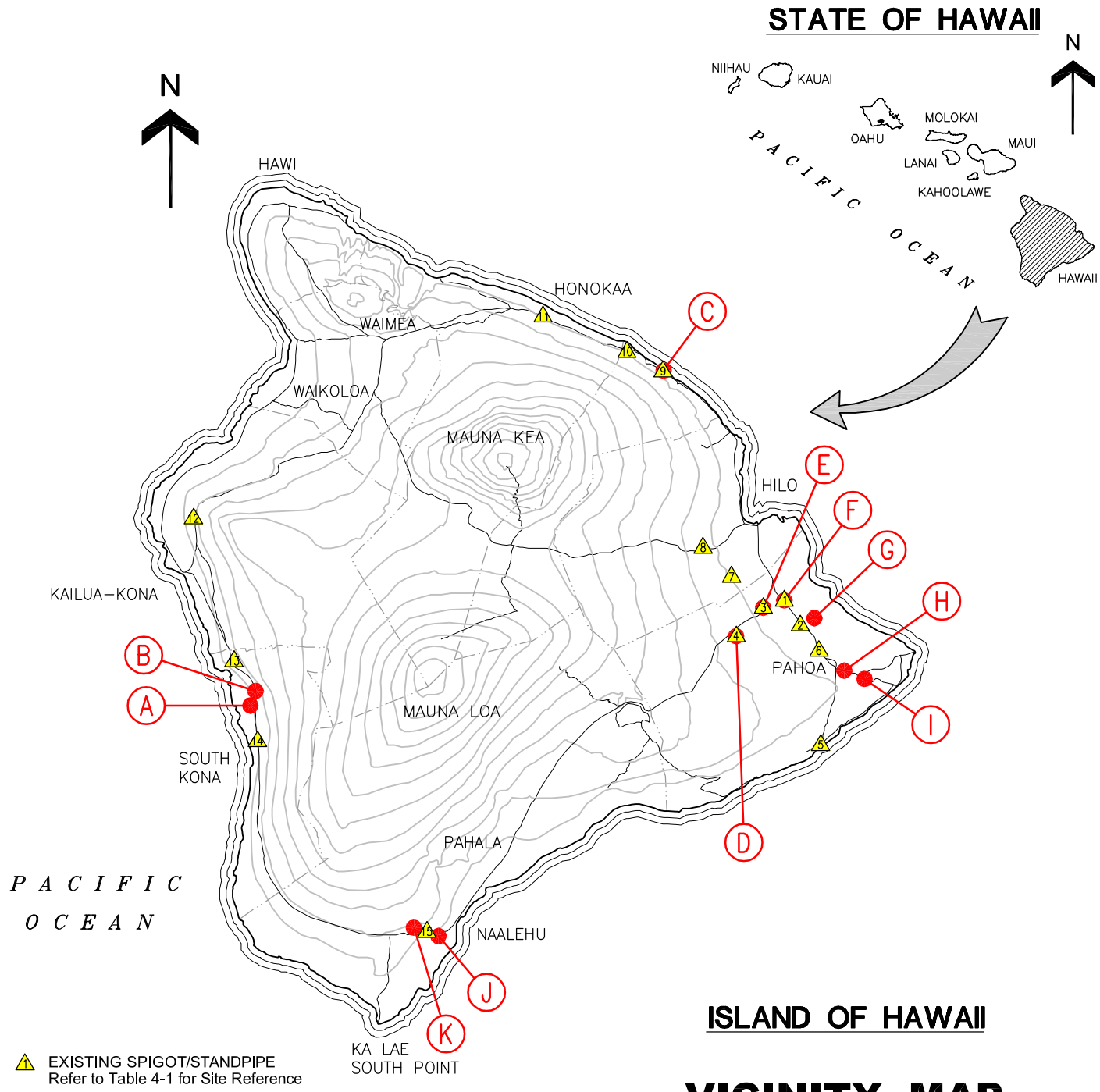
Fire Department estimates from 2004 indicate that nearly 35% of households on the island are not connected to the County municipal water supply system and rely on well water and/or the public water spigot facilities to fulfill their drinking water needs. The majority of these households are located in the Puna, North Kona and South Hilo districts, as shown on **Figure 3-2**. General areas with County-operated water and sewer systems are shown as the shaded portions on the figure. As indicated, the communities located in Ka'u and Puna are largely reliant on water catchment or well systems.

Many of the existing spigot facilities are comprised of one or more spigot outlet(s) with piping that is connected to a water source, such as a fire hydrant, and are located dangerously close to high speed roadways. Most of the existing spigots are in need of maintenance and are not ADA accessible. Samples of existing spigot assemblies are shown in **Photos 3-1** and **3-2** below. Individual existing spigot assemblies are also described in the following sections of this study. A review of the water consumption records of the existing facilities over the past year indicate that there is a high demand for potable water in these areas, and residents would greatly benefit from the addition and/or upgrade of spigot sites. This is especially apparent in the Puna, Ka'u and South Kona districts, whose spigots have the highest estimated demand of all known facilities.

Photo 3-1

Photo 3-2

The proposed project will construct six (6) new or upgraded water spigot facilities at various locations around the island. These installations will provide a safe, accessible source of potable water to communities which predominantly or exclusively utilize water catchment. Eleven (11) possible site locations have been selected by the County of Hawai'i for study and are evaluated in this report. The final spigot facility locations will be determined by the County of Hawai'i Mayor's Office and the Department of Water Supply.



ISLAND OF HAWAII

VICINITY MAP

NOT TO SCALE

SPIGOT LOCATIONS		
ID	TMK	LOCATION
A	8-7-008:002	Honaunau Rodeo Arena
B	8-3-013:021	Honaunau School
C	3-5-003:088	Papa'aloa Gym
D	1-8-002:049	Mountain View Gym
E	1-7-003:019	Kurtistown Ball Park
F	1-6-003:065	Kea'au Transfer Station
G	1-5-040:065	Hawaiian Paradise Park Fire Station
H	1-5-004:001	Nanawale Estates Arena
I	1-4-001:002	Kapoho-Pohoiki Road Junction
J	9-5-006:002	Waiohinu Flood Channel
K	9-5-005:001	Waiohinu Transfer Station

M&E Pacific, Inc.

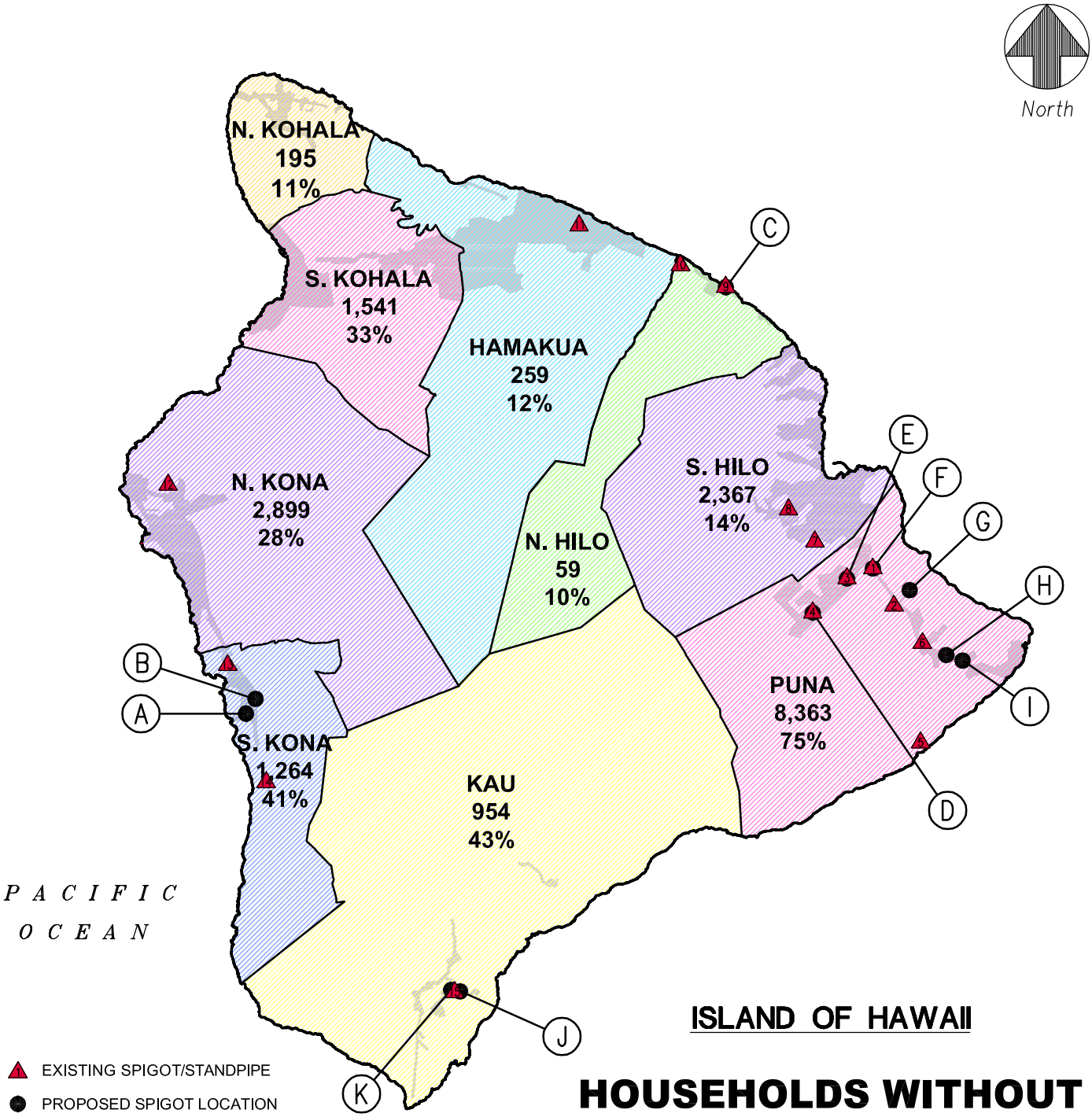
METCALF&EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure 3-1
Vicinity Map

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 03-1.dwg
LAST UPDATE: February 01, 2006 @ 04:49:18 pm
PLOT DATE: February 22, 2006 @ 08:42:52 am



ISLAND OF HAWAII

HOUSEHOLDS WITHOUT MUNICIPAL WATER

NOT TO SCALE

By District:
Number of Households without Municipal Water
&
Percentage of Households without Municipal Water

Source:
Trisha Macomber, UH CHTAR &
County of Hawaii Fire Department (2004)

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Figure 3-2
Households Without Municipal Water
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 03-2.dwg LAST UPDATE: February 01, 2006 @ 04:50:07 pm PLOT DATE: February 22, 2006 @ 08:44:12 am

This Environmental Assessment (EA) discusses possible environmental impacts the proposed project may have to the existing sites, and mitigative strategies at the various spigot locations.

See **Figure 3-1**, Vicinity Map for project site and existing spigot locations.

3.2 PROJECT OVERVIEW AND DESCRIPTION

The proposed project will create new spigot facilities, upgrade and increase accessibility to existing spigot facilities, as well as improve related safety and environmental measures in and around the existing facility areas. The proposed project includes plans to construct spigot outlets within a concrete apron, runoff drainage features at the sites to minimize occasions of standing water and erosion, and concrete curbs and other safety and security features to protect both the water source and surrounding environment. The proposed project will also provide paved parking areas at each facility. Relocation of existing water spigots facilities may be required at some sites in order to maximize accessibility and safety, and to minimize environmental impact. Construction of the spigots may also require waterline trenching to existing County of Hawai'i water lines. At some locations, the sites are located at a gated portion of the property. Installation at some sites may require the relocation and/or removal of existing gate enclosures to provide access to the proposed sites. An alternative to gate relocation would be adjusting spigot operational hours to that of the gated facility. However, all spigot sites in operation at this time are currently open to the public 24 hours a day.

3.3 PROJECT COST AND DURATION

Projected construction costs for the project are anticipated to be approximately $120,000 per site. This project, along with the Mamalahoa Highway Water Line Improvement Project (covered under a separate Environmental Assessment and FONSI issued in 2004) are together partially funded by a Federal Grant from the Environmental Protection Agency called "Upgrade of Drinking Water System" via EPA Grant ID number XP-97951001-0. This grant was awarded to the County of Hawai'i Department of Water Supply. As the Grant Recipient, the DWS is required to provide a 45% funding match. The design of the project will commence upon approval of the Final EA. Construction of the spigot facilities are anticipated to be completed by 2009.

3.4 PURPOSE OF ENVIRONMENTAL ASSESSMENT

This EA results from the use of State and County lands and the use of Federal funds. In accordance with Chapter 343 of the Hawai'i Revised Statutes, the Department of Health's Hawai'i Administrative Rules Title 11-200, the National Environmental Protection Act (NEPA) statute in the Federal Regulations 40 CFR Part 1500-1508, and the EPA's NEPA regulations found at 40 CFR Part 6, an Environmental Assessment (EA) is required to provide a written evaluation of environmental, technical, social and economic aspects of the proposed Construction of Islandwide Water Spigots Facilities. The EA identifies potential project impacts and their significance and develops strategies to mitigate those impacts. This EA then compares all aspects and impacts against 13 significance criteria listed in §11-200-12 to provide a determination as to whether an Environmental Impact Statement is required. The County of Hawai'i Mayor's Office and the Department of Water Supply will use the approved Final EA as one parameter to determine which of the study sites would be appropriate location to construct a water spigots facility.

This EA will also be used to address the federal NEPA requirements, and will be the document from which the EPA will determine whether an EIS is required or a FONSI may be issued. The NEPA process consists of an evaluation of the environmental effects of a federal activity, including its alternatives. While there are certain criteria by which an undertaking may be excluded from a detailed environmental analysis, this project does not meet that criteria and therefore requires an EA to determine whether the proposed activities will significantly affect the environment. The EA process includes periods of public review, in which the affected community may voice their comments and concerns to the proposed work. If the EA establishes that the proposed activity will not affect the surrounding environment to a significant degree, the agency will issue a finding of no significant impact (FONSI). Should the analysis indicate that a significant impact will be experienced due to the proposed activity; the federal agency must prepare an Environmental Impact Statement (EIS), which is a more detailed evaluation of the proposed action and alternatives.

3.5 ALTERNATIVES CONSIDERED

3.5.1 NO ACTION ALTERNATIVE

The “No Action” alternative entails the decision to not provide any type of repair, replacement or improvement work on the existing public water spigot facilities, nor the construction of new water spigot facilities on the Island of Hawaiʻi. Therefore, this alternative will not incur any physical or social effects on the environment, and would not require immediate costs for planning, design and construction of the County nor the Federal governments.

This project is proposed because the condition and location of many existing spigot facilities are mostly rickety, unsanitary, inconvenient, dangerous, not ADA-accessible, and/or are placed in locations that create traffic and pedestrian safety hazards. Furthermore, the limited number of existing spigot facilities do not conveniently adequately service the thousands of Hawaiʻi Island residents who mainly rely on the public spigot facilities for their household potable water supply. While the geographical locations of the existing facilities are generally situated in areas with greater numbers of users, many residents must travel as much as 30 or more miles to obtain their drinking water.

There is a clearly identified need to improve and increase access to potable water from watering points for persons who do not have a connection to the public water system. The benefits from providing improved and/no new spigot locations are greater than any negative issued identified in this EA. Therefore, the “No Action” alternative is not the preferred alternative.

3.5.2 EXPANSION OF THE COUNTY OF HAWAIʻI MUNICIPAL WATER SYSTEM ALTERNATIVE

The County of Hawaiʻi DWS has previously studied the alternative to extend the County municipal water system into the Puna district. The results of this 1999 study indicated that it would cost approximately $88 million to construct the necessary wells, reservoirs and primary transmission lines to provide a “‘backbone’ water system” in this area (Smith 2005). Due to the high cost of installing such a system, and the additional cost of installing lateral distribution lines into the various subdivisions, there are currently no plans to expand the water system into Puna and other rural districts. Therefore, the County water system expansion alternative is not considered a feasible option.

3.5.3 CONSTRUCTION OF UPGRADED WATER SPIGOT FACILITIES ALTERNATIVE

3.5.3.1 Description

The preferred alternative is to provide the public with a minimum of six (6) safe and sanitary water spigot sites to obtain potable water for domestic use, as proposed by the County of Hawai'i DWS. These spigot facilities will be constructed at various locations on the Island of Hawai'i, and may serve to either replace a spigot facility in the area, upgrade existing facilities, or provide a newly constructed facility provided in addition to the existing spigot locations. Installation of the proposed facilities may include the construction of drainage features, concrete aprons and/or other safety features. This project will also provide improvements to the safety and flow of traffic approaching the facilities.

The DWS and County of Hawai'i Mayor's Office have identified eleven (11) potential sites for the water spigot facilities. A description of these sites and an evaluation of the environmental effects a facility would impose on each site are provided in **Sections 5** to **15** of the EA.

This is the recommended alternative as it is a responsible action to increase and improve the quality and accessibility of drinking water sources to those who require them, and is the most practical and expeditious of those options considered. Further discussion on the need and benefits of the proposed project is provided in the previous portions of this EA. Ultimately, construction of the proposed facilities will serve to provide island residents with safe, secure locations to obtain drinking water for their households.

3.5.3.2 Site Selection Process

This EA also identifies specific issues and concerns for the various proposed sites. However, selection of the six (6) facility sites will not be determined within the parameters of the EA. Site review and selection will instead commence upon approval of the EA. Acceptance of the Final EA will entail a review by the U.S. EPA, as well as a public review period during which meetings are held with the communities affected by this proposed construction. Once a federal FONSI is issued, representatives from the County of Hawai'i DWS, with input from the Mayor's Office, will then use the information provided by the EA and gathered from public comments and meetings to select the six sites for facility construction.

DWS will provide the final approval of the water spigot facility sites, as they will tap into the County water system. As described by the Mayor's Office, other issues that will be considered during the site selection include:

- The new facilities are located in the best areas to be available to residents with the greatest need;
- The new facilities are located in areas that that are removed from the traffic and safety hazards posed by the existing facilities;
- The availability of land that meet the basic requirements of safety and need;
- Residential acceptance of the possible additional vehicular and user traffic the new facilities may attract; and
- Fairness in distribution.

SECTION 4

DESCRIPTION OF ACTION'S TECHNICAL, ECONOMIC, SOCIAL AND ENVIRONMENTAL CHARACTERISTICS

4.1 TECHNICAL

The islandwide water spigots facilities project will consist of construction to install new facilities or to upgrade substandard facilities at six (6) spigot locations around the Island of Hawai'i. Eleven (11) sites have been selected to be evaluated as a potential spigot site, and are described in the following sections of this EA.

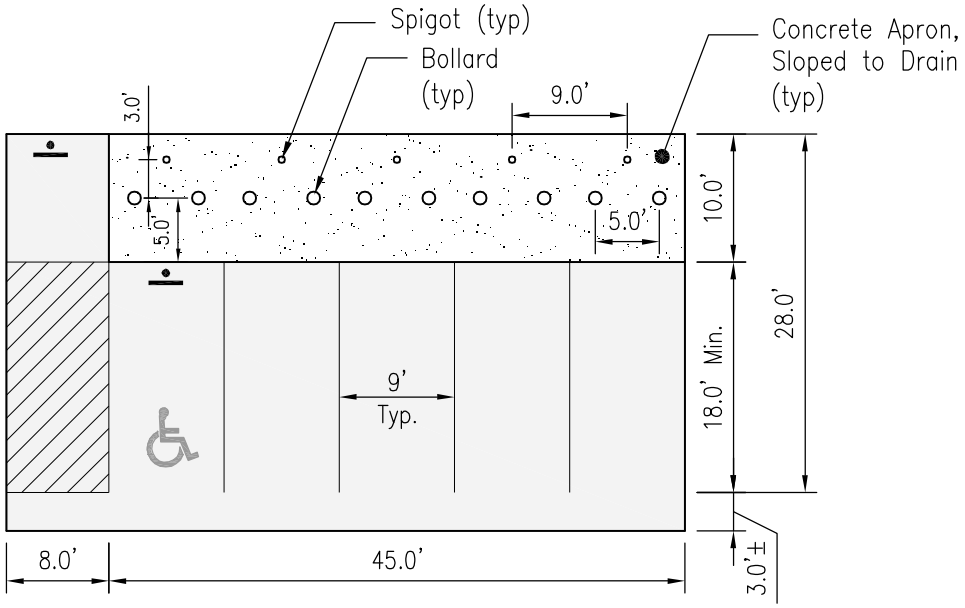
The facility design has not yet been determined. The design phase for this project will commence upon selection of the water spigot locations. However, possible facility layouts are shown on **Figure 4-1** for discussion purposes. The actual number of spigot outlets, their arrangement and the parking capacity of each facility will be determined by available space and demand during the design phase of the project.

Each site will include the installation of approximately four (4) or five (5) spigot outlets on a concrete apron, with an adjacent paved and striped parking area. Drainage features, such as drywells and/or swales will also be constructed to capture runoff from the spigot sites. Security features such as fencing will also be installed to provide safety to both the users and the water facilities. At most sites, construction of the spigots facilities will also require the installation of a waterline to connect the facilities to the County waterlines generally located within the State and County road right-of-ways. Each facility will be provided with a dedicated water meter.

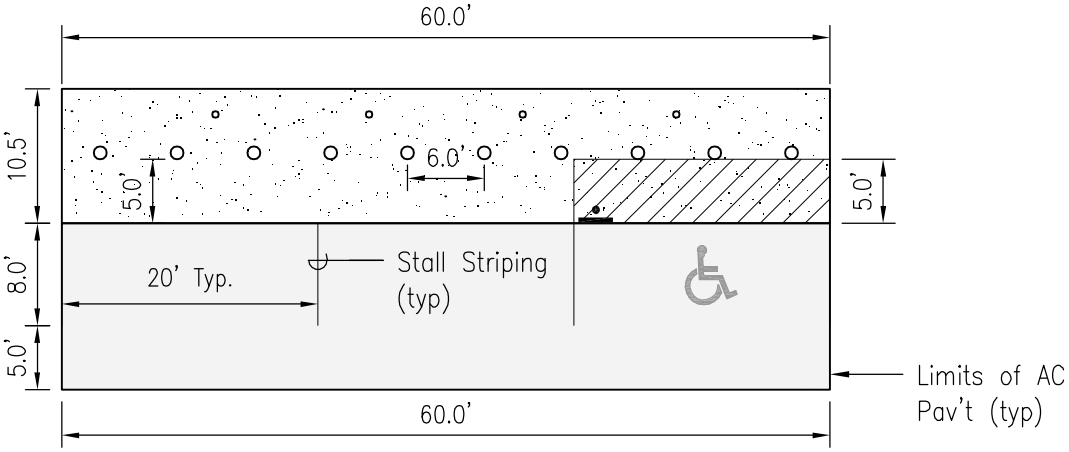
The water spigots facilities will be designed and constructed to conform to all applicable sections of the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Accessible parking and access routes, as well as accessible spigot controls, as required, will be incorporated into the facility during the project design phase. During pre-consultation with the Disability and Communication Access Board (DCAB), it was determined that an accessible route would need to be provided to all other accessible elements on the same site, as per ADAAG Section 4.3 (see correspondence in **Appendix A**). The design consultant will be instructed to confer with ADAAG during the design phase to determine the extent that accessibility is required at each site.

Based upon the water consumption records of the existing water spigot facilities over the past year, the proposed facilities are estimated to require a demand of approximately 0.0001 to 0.004 maximum millions of gallons per day (MGD) per site. This demand relates to an approximate average visitor rate of 15-30 visitors per hour[1], based upon the busiest existing spigot locations. The demand and visitor rate will fluctuate based on factors such as spigot location, time of day, and time of the year. The consumption records generally indicate that water demand is highest during the summer months, and lower during the spring and winter months. Refer to **Tables 4-1** and **4-2** for a summary of water consumption and estimated visitor rate information for each site.

[1] The maximum demand estimate is based upon the highest demand recorded for the past year. Visitor rate calculation based upon the average demand at each site, with 20 gallons/visit for a 24-hour period. Vehicle counts at existing facilities are not available.



TYPE A:
PERPENDICULAR



TYPE B:
PARALLEL

Notes:
1. Number of spigots dependent on available space and final design.
2. Layouts proposed are for general sizing and siting purposes only. The actual layout will be determined during the design phase.
3. Accessible stalls to be signed, striped and configured to conform to ADA guidelines.
4. No parking signs should be posted as necessary.

Possible Spigot Facility Layouts

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Figure 4-1
Possible Spigot Layouts
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 04-1.dwg LAST UPDATE: November 09, 2005 @ 09:06:36 pm PLOT DATE: February 22, 2006 @ 08:44:57 am

TABLE 4-1
EXISTING WATER CONSUMPTION DATA

EXISTING SPIGOT/STANDPIPE WATER CONSUMPTION			Meter	Max Ave/Day (1,000 gal)	Max Ave/Day (MGD)	Date of Highest Demand	Low Ave/Day (MGD)	Date of Lowest Demand
1.	1-6-003-065	Keaau Rubbish Dump	5/8"	1.69	0.00169	5/05	0.00079	12/04
2.	1-6-000-000*	Civil defense - Kipuka	1"	5.88	0.00588	9/04	0.00203	4/05
3.	1-7-003-000	Kurtistown Park	5/8"	3.21	0.00321	5/05	0.00142	12/04
4.	1-8-002-049	Mt. View Park	5/8"	4.26	0.00426	9/04	0.00127	12/04
5.	1-2-004-000	Ahia Road	1"	1.53	0.00153	5/05	0.00036	2/05
6.	1-5-010-013	Keonepoko Nui	1"	8.69	0.00869	5/05	0.00243	4/05
7.	2-4-007-040	2276 Ainaola Dr.	5/8"	1.71	0.00171	9/04	0.00007	4/05
8.	2-5-002-000	Saddle Road Hyd 4-4	5/8"	1.1	0.0011	5/05	0.0001	6/05
9.	3-5-003-000	Papaaloa Gym	1"	0.69	0.00069	9/04	0.00006	8/05
10.	3-9-005-019	Ookala	5/8"	0.33	0.00033	5/05	0	11&12/04
11.	4-3-003-000	Pohakea Homestead Road	5/8"	0.13	0.00013	6&7/05	0	11&12/04 & 2&4/05
12.	7-3-003-011	Mamalahoa Highway	5/8"	0.27	0.00027	4/05	0.00004	7/05
13.	8-2-013-005	Yano Hall (Greenwell Park)	5/8"	1.07	0.00107	3/05	0.0005	2/05
14.	8-6-001-001	Hookena Standpipe	5/8"	2.9	0.0029	3/05	0.00169	9/04
15.	9-5-001-031	Waiohinu Park	5/8"	4.77	0.00477	5/05	0.00215	10/04

* Taken as the spigot near Orchidland Drive.

TABLE 4-2
EXISTING AND PROPOSED VISITOR VOLUMES

Site	Location	Existing Spigot	Exist. Max MGD*	Exist. Visitor/ Day*	Proposed Action	Est. Max MGD**	Est. Visitor/ Day
A	Honaunau Rodeo Arena	No	0.0020	100	Install new	0.0030	100
B	Honaunau School	No	0.0020	100	Install new	0.0030	100
C	Papa'aloa Gym	Yes	0.0007	35	Upgrade at existing site	0.0007	35
D	Mountain View Gym	Yes	0.0043	215	Remove existing and install new at different location	0.0043	215
E	Kurtistown Ball Park	Yes	0.0032	160	Remove existing and install new at different location	0.0043	160
F	Kea'au Transfer Station	Yes	0.0017	85	Upgrade at existing site	0.0017	85
G	Hawaiian Paradise Park Fire Station	No	0.0017	85	Install new	0.0058	120
H	Nanawale Estates Arena	Yes (standpipe)	0.0087	108	Install new	0.0033	82
I	Kapoho-Pohoiki Road Junction	Yes (standpipe)	0.0087	108	Install new	0.0033	82
J	Waiohinu Flood Channel	No	0.0048	240	Install new	0.0025	125
K	Waiohinu Transfer Station	No	0.0048	240	Install new	0.0025	125

* Based on existing spigot records, or reflects activity of nearest existing spigot location(s).
** Consideration given to existing sites and the probability of site location (i.e., either site J or K will be selected, for a total of 2 sites in the Waiohinu area.)

At sites with existing water spigots, the existing assemblies will be demolished and removed from the site. Construction at some of the project sites will include the demolition and replacement of pavements and other hardscape features. In all cases, the Contractor will be instructed to conduct the demolition and disposition of the demolished materials appropriately, as per the applicable State and County regulations. Demolition of hazardous materials is not anticipated for any of the proposed project sites.

4.2 ECONOMIC

This project, along with the Mamalahoa Highway Water Line Improvement Project is partially funded by a Federal Grant from the Environmental Protection Agency (Grant ID number XP-97951001-0), and partially funded by the Grant Recipient, the County of Hawai'i Department of Water Supply. Federal grant recipients under this program are required to provide a 45% match for projects funded by these grants. This project will not cause an increase in taxes to the general public.

4.3 SOCIAL

The proposed water spigots facilities will provide essential potable water to residents living in rural areas of the island and who do not have an immediate domestic access to the County of Hawai'i water system. These residents utilize individual rainwater catchment systems for their everyday household water supply. However, due to the nature of the catchment systems the water collected by these systems is not necessarily suitable for consumption. Therefore, such residents rely on spigot facilities and/or private water supply companies to obtain safe drinking water for their family's potable use.

Currently, many of the existing water spigots provided by the County of Hawai'i are located just off the side of high-speed roadways and/or in locations without designated parking areas, or security measures. As such, spigot users are typically forced to park along the roadsides or pull up in front of the existing spigots, often interrupting traffic flow and safety. Additionally, the population increases in areas with high catchment system use have also resulted in a growing demand for spigot facilities around the island.

The proposed facility installations will provide residents with a safe, accessible source of potable water, and will allow the County of Hawai'i DWS accommodate the demand for additional sources of drinking water in accordance with the County of Hawai'i General Plan.

4.4 ENVIRONMENTAL

The construction of islandwide water spigots facilities will not affect the overall environmental quality of the area. A reduction of standing water and erosion at existing sites due to protective concrete and drainage features, as well as environmentally conscious construction at new sites, will mitigate any possible environmental impact.

Short-term construction related impacts are expected from this project. These impacts and procedures to mitigate their effects are discussed in the following sections of this EA.

No long-term impacts due to water spigots facility upgrades or installation are expected. These issues are examined in detail and by site in the subsequent sections.

SECTION 5

SITE A: HONAUNAU RODEO ARENA (TMK: 8-4-008: 002)

5 AFFECTED ENVIRONMENT

5.1 PHYSICAL

5.1.1 LOCATION

The project site is located in the South Kona District, and is identified as the State of Hawai'i Third Tax Division, Tax Map Key (TMK) 8-4-008:002. Project location and site maps are presented as **Figures 5-1** and **5-2**, respectively. Photographs of the existing site are provided in **Figure 5-3**.

5.1.2 CLIMATE

Description:

According to the Western Regional Climate Center, the average temperature in nearby Kainaliu, HI is 69.6°F with average minimum and maximum monthly temperatures ranging from 61.3°F and 77.9°F, respectively. The annual rainfall averages approximately 63.4 inches.

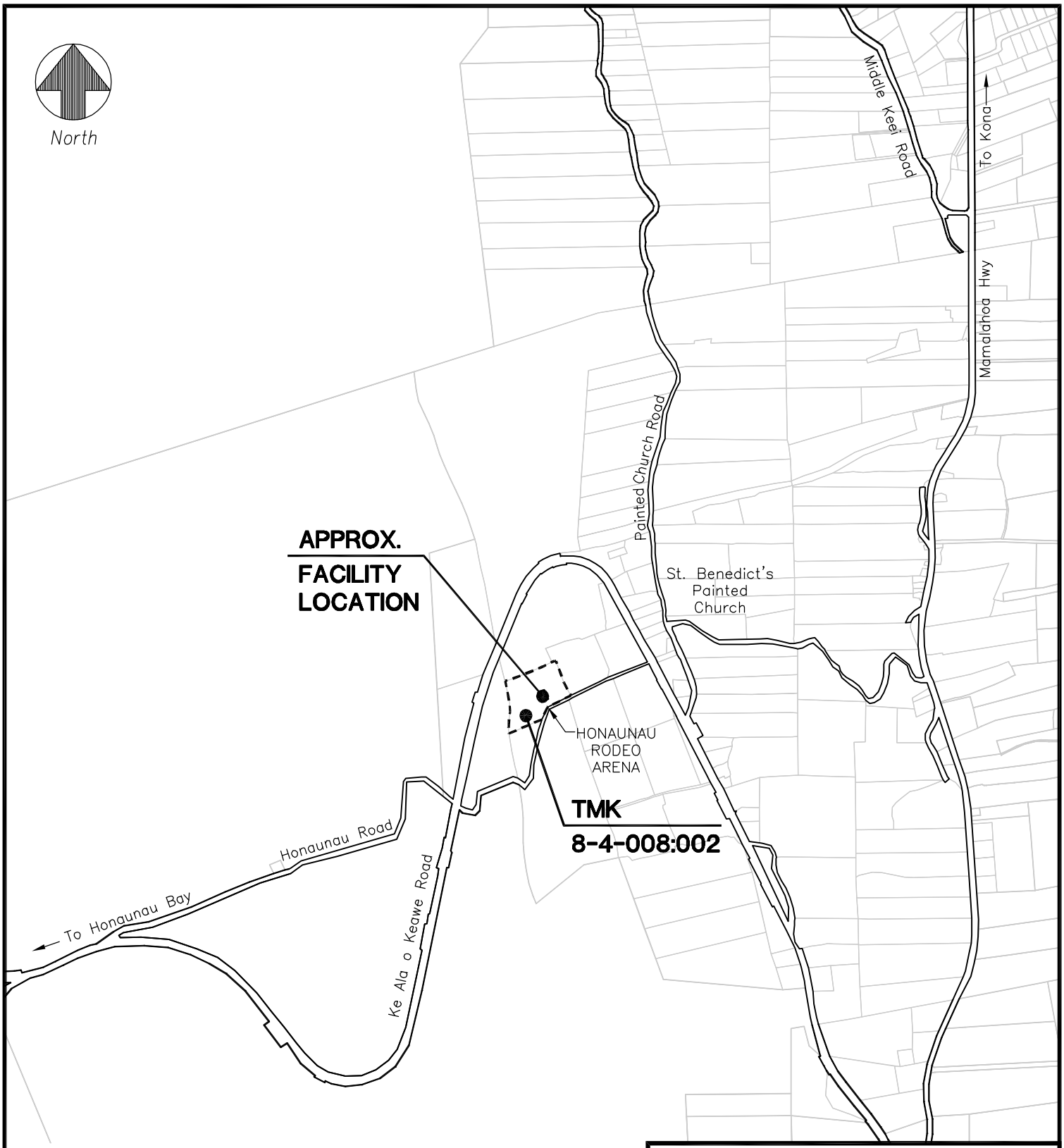
Located on the leeward side of the Island of Hawai'i, Honaunau is not exposed to the northeasterly trade winds.

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

5.1.3 AIR QUALITY

Ambient air quality refers to the state of purity of the general outdoor atmosphere. Ambient air quality is regulated under the Clean Air Act. The U.S. Environmental Protection Agency (USEPA) established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants as a measure of ambient air quality. These six criteria pollutants include carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone and particulate matter less than or equal to 10 micrometers (PM_{10}). In addition, the State of Hawai'i established standards for carbon monoxide and nitrogen dioxide that are more stringent that Federal standards as well as an additional ambient air standard for hydrogen sulfide (HIAAQS). **Table 5-1** summarizes the Federal and State Air Quality Standards.



Site A:
Honaunau Rodeo Arena

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Figure 5-1
Site A Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 05-1 Location A-06.dwg LAST UPDATE: February 08, 2006 @ 05:57:04 pm PLOT DATE: February 22, 2006 @ 09:34:19 am

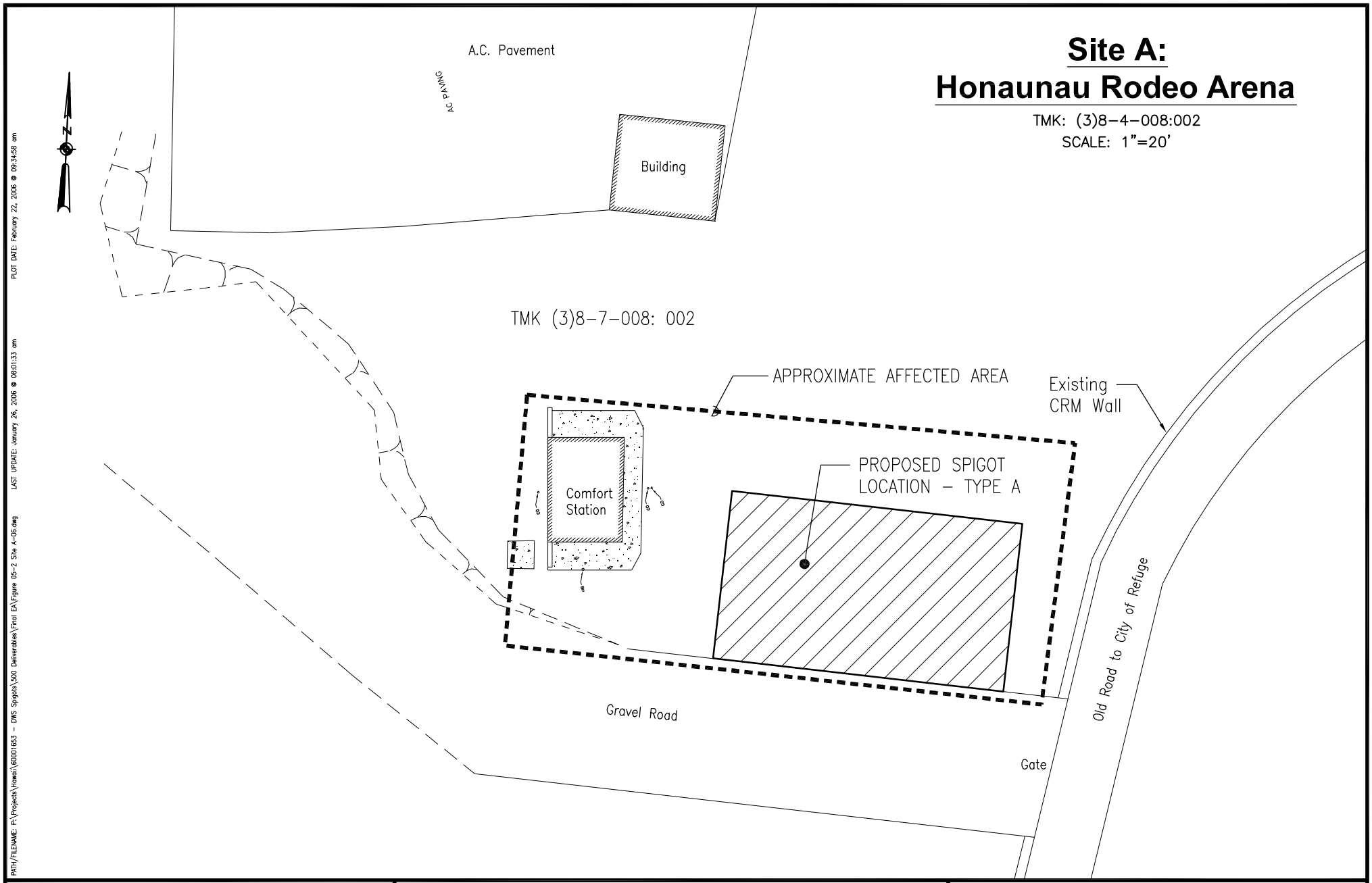

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Figure 5-2
Site A Site Map
Honaunau Rodeo Arena
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

Existing Site - Comfort Station

Comfort Station & Pavilion

Proposed Location and Existing Gate

Site A:
Honaunau Rodeo Arena

TMK: (3)8–4–008:002

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Figure 5-3
Site A Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 – DWS Spigots\500 Deliverables\Final EA\Figure 05-3 Photo A-06.dwg LAST UPDATE: January 26, 2006 @ 08:02:01 am PLOT DATE: February 22, 2006 @ 09:35:30 am

TABLE 5-1
NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	NAAQS ($\mu g/m^3$)	HI AAQS ($\mu g/m^3$)
Carbon Monoxide	1-hour 8-hour	40,000 10,000	10,000 5,000
Nitrogen Dioxide	Annual	100	70
Sulfur Dioxide	3-hour 8-hour Annual	No Standard 365 80	1,300 365 80
Lead	Quarterly	1.5	1.5
Ozone	8-hour	157	157
PM_{10}	24-hour Annual	150 50	150 50
Hydrogen Sulfide	1-hour	No Standard	35

Source: Hawaiʻi Department of Health, December 2002

Volcanic gases are emitted during all types of eruptions. The main components of these emissions are water vapor, carbon dioxide and sulfur dioxide. Sulfur dioxide is the main cause for concern, because it reacts with oxygen, dust particles and atmospheric moisture to form sulfuric acid droplets and sulfate particles that result in “vog” and acid rain. Vog causes such symptoms as headaches, itchy eyes, breathing discomfort, and can aggravate pre-existing respiratory conditions. The Ka’u area often experiences “vog” conditions, because of the prevailing trade winds from the northeast; however, when “kona” winds blow from the southwest, vog conditions do not occur. Vog is estimated to contribute approximately 13% of total sulfur dioxide emission.

According to the State of Hawaiʻi Department of Health (DOH) 2004 Annual Summary of Hawaiʻi Air Quality Data, the “air quality in the State of Hawaiʻi continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards.” The DOH determined that the State of Hawaiʻi was in attainment for all federal ambient air quality standards in 2004.

Impacts and Mitigative Measures:
The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. Dust mitigative measures such as dust screens and water spraying shall be considered under the Best Management Practices during the construction phase.

No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity. No long-term mitigative measures are required.

5.1.4 TOPOGRAPHY

Description:

The project site is located between Honaunau and Honaunau Bay. The ground elevation at the site is approximately 580'. The land in the area of the proposed spigot site generally slopes from the east to the west.

Impacts and Mitigative Measures:

No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore no mitigative measures are required.

5.1.5 SOILS

Description:

The Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture classifies the soil in the Honaunau area as Kaimu extremely stony peat, 7 to 25 percent slopes (rKED).

The Kaimu series consists of well-drained, thin organic soils over Aa lava. They are gently sloping to moderately steep and have elevations that range form near sea level to 1,000 feet. This soil type is generally not suitable for cultivation, however small areas are used for pasture, macadamia nuts, papaya and citrus fruit. The natural vegetation consists of Christmas berry, guava, guineagrass and lantana.

In a representative profile, the surface layer is very dark brown extremely stony peat about 3 inches thick. The surface layer is underlain by fragmental Aa lava. The soil is neutral in reaction.

The peat is rapidly permeable. Runoff is slow, and the erosion hazard is slight.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawai'i (ALISH) maps (**Appendix C**) indicate that the proposed site will not be located on or affect protected farmlands. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

5.1.6 WATER RESOURCES

Description:

The project area lies within the Kealakekua aquifer system, which has a sustainable yield of approximately 38 million gallons per day (mgd). A map of the aquifer systems and sustainable yields for the Island of Hawai'i is presented in **Figure D-1** in **Appendix D**. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawai'i.

Figures provided in the 2005 County of Hawai'i General Plan indicate that the average consumption of the South Kona water system is 0.97 mgd. This water system is supplied by three wells at Keei and a well at Halekii. The total capacity of the system is 5.0 mgd, and a safe capacity of 3.0 mgd.

There are no existing DWS waterlines in the vicinity of this project site. However, an existing private customer line runs along the portion of Honaunau Road fronting the

project area parcel. This waterline is metered with a 5/8-inch meter owned by Kamehameha Schools, and is used to service the existing comfort station at the arena.

Visual inspection, USGS map and USFWS online map reviews (**Appendix C**) indicate that there are no streams, ponds, lakes or wetlands within or near the proposed site. The nearest stream (Kiilae Stream, non-perennial) is approximately 1 mile to the south of the site, and the coastline is approximately 1.5 miles to the west.

There are no existing water spigots at the project site. The closest spigot facilities are located at Greenwell Park (approximately 4.2 miles to the north) and at Hookena (approximately 5.4 miles to the south). These facilities are indicated as Site Reference #13 and #14 on **Figures 3-1** and **3-2**, and are shown in **Photos 5-1** and **5-2**, respectively.

Photo 5-1
Existing Greenwell Park Spigot

Photo 5-2
Existing Hookena Spigot

The water spigot at Greenwell Park is located behind the park, and is accessed from Kinue Road, off Mamalahoa Highway. The spigot is currently at the intersection of a narrow access road and a steeply sloped driveway as shown in **Photo 5-1**. Vehicle parking is not available at this location. While the spigot is located on a low-speed, low-volume access road, its position at the driveway intersection and lack of lighting and designated parking poses a hazard to spigot users, especially during evening and night hours.

The Hookena spigot is located in the middle of the South Kona district. This spigot site is located off Mamalahoa Highway, and has a dedicated driveway/turn-around area with space for vehicle parking. A standpipe is also provided at this location for commercial water trucks. The entry and exit of the turn-around area is off the high-speed highway, and currently poses a traffic safety hazard when vehicles slow to turn into the spigot area or exit the site. Night lighting is not provided at this site.

The water consumption records over the past year for these spigots indicate that the maximum average daily demands were approximately 0.001 MGD and 0.003 MGD, respectively. The highest average demands occurred in the month of March for both spigots. According to the estimates obtained by the Fire Department, the existing water spigots collectively serve the approximately 41% of households (~1,264 households) in the South Kona district that are not connected to the municipal water system (**Figure 3-2**). Currently, residents in this district need to travel a maximum distance of about 16.5 miles to obtain water from an existing spigot.

Impacts and Mitigative Measures:
Should the Honaunau Rodeo Arena be selected as a new water spigot facility site, the DWS and the Mayor's Office may consider using the new facility as a replacement for one of the existing spigot facilities due to the personal and traffic safety hazards concentrated at the existing facilities. In this case, the existing spigot will remain in place until the proposed facility is in operation. Therefore, the water demand will shift from the existing spigot to the proposed facility. Based upon the water consumption records of the nearest existing water spigots, the installation of the spigot is expected to impose a maximum average demand of approximately 0.001 to 0.003 million gallons per day. This anticipated demand will result in a minimal increase in the average daily consumption, and therefore will not affect the capacity of this water system. If the proposed facility is to be constructed as an additional spigot site, then the anticipated maximum average demand would be an estimated 0.001 million gallons per day. This minimal increase will not affect the capacity of the water system.

The proposed spigot will connect to the private waterline metered by the Kamehameha Schools Bishop Estate (KSBE). This connection will have a dedicated water meter, and will require DWS to come to an agreement with KSBE on usage and payment for service to the water spigot facilities. The County of Hawai'i Department of Parks and Recreations noted that KSBE has indicated to the County their interest in developing a community center and other amenities adjacent to the Rodeo Arena. These improvements may result in an increased water demand, and may require the existing meter and pipeline to be upsized. The DWS may also consider extending the County waterline along Ke Ala o Keawe Road and Old Honaunau Road (approximately 1,700 linear feet) to connect to the Honaunau Rodeo site.

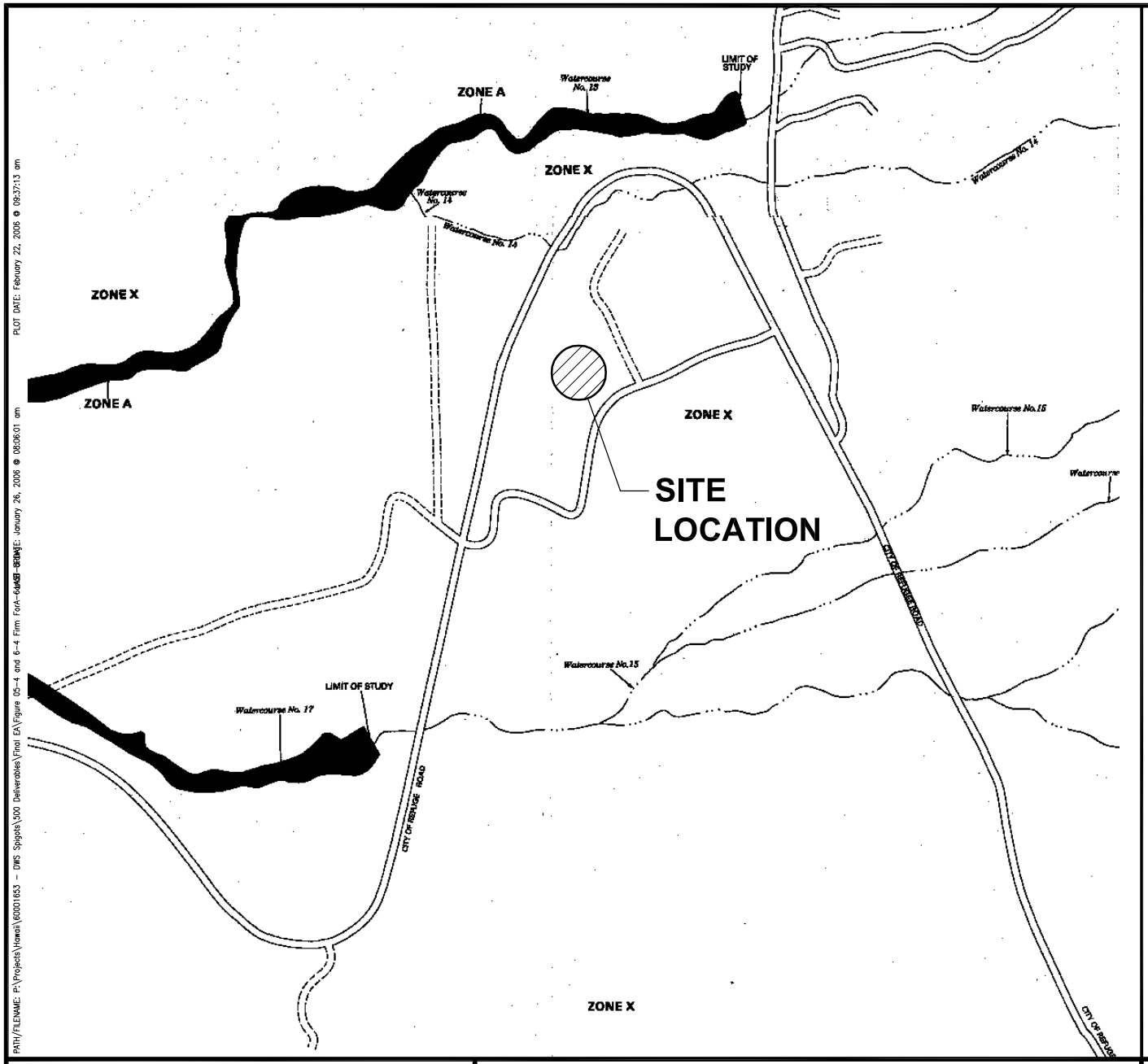
No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated.

5.1.7 NATURAL HAZARDS
Natural hazards in Hawai'i include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

5.1.7.1 Floods
Description:
The project site is located in Zone X, determined by the Federal Emergency Management Agency. This zone is described as an area that is outside the 500-year flood plain. See the FIRM map, **Figure 5-4**.

The proposed project site is not located in an area which contains estuary, fresh water or coastal waters.

Impacts and Mitigative Measures:
This project site is not within a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigative measures are required.



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** No base flood elevations determined.
- **ZONE AE** Base flood elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** To be protected from 100-year flood by Federal flood protection system under constructing; no base elevations determined.
- **ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- **ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- **ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside 500-year flood plain.
- **ZONE D** Areas in which flood hazards are undetermined.

Flood Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 — Base Flood Elevation Line; Elevation In Feet*

D — D — Cross Section Line

(EL 987) — Base Flood Elevation In Feet Where Uniform Within Zone*

RM7X — Elevation Reference Mark

M20 — Quadrille Mile

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all topographic features outside special flood hazard areas.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

Coastal base flood elevations apply only landward of the shoreline.

Elevations reference marks are described in the Flood Insurance Study Report.

For adjoining map panels see separately printed Map Index.

MAP REPOSITORY

County of Hawaii Public Works Department
25 Aupuni St. Hilo, Hawaii 96720 (Maps available for reference only, not for distribution.)

INITIAL IDENTIFICATION:
JUNE 6, 1970

FLOOD HAZARD BOUNDARY MAP REVISIONS:
JUNE 4, 1971
JULY 1, 1974

FLOOD INSURANCE RATE MAP EFFECTIVE:
JUNE 6, 1970

FLOOD INSURANCE RATE MAP REVISIONS:
May 3, 1982 - to change and add upgraded flood hazard areas, to change and add base flood elevations.
Map revised SEPTEMBER 16, 1988 to add base flood elevations, to add and change special flood hazard areas, and to update map format.

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET
500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

HAWAII COUNTY, HAWAII

PANEL 1167 OF 1900
(SEE MAP INDEX FOR PANELS NOT PRINTED)

PANEL LOCATION

COMMUNITY-PANEL NUMBER
155168 1167 C

MAP REVISED:
SEPTEMBER 16, 1988

Federal Emergency Management Agency

PATH/FILENAME: P:\Projects\Hawaii\60001653 – DWS Spigots\500 Deliverables\Final EA\Figure 05-4 and 6-4 Firm For A-6 DWG PLOT DATE: January 26, 2006 @ 08:36:01 am PLOT DATE: February 22, 2006 @ 09:37:13 am

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Figure 5-4
Site A FIRM Map
Honaunau Rodeo Arena
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

5.1.7.2 Hurricanes

Description:

The first hurricane officially recorded in Hawai'i (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawai'i, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawai'i remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

Impacts and Mitigative Measures:

Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

5.1.7.3 Volcanic Eruptions

Description:

There are four active volcanoes on the Island of Hawai'i. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.

The project area is located to the west of the Mauna Loa summit and southeast rift zone, and is within a lava hazard zone of "3" on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawai'i is presented as **Figure D-2**, in **Appendix D**. Zone 3 areas are generally described as being less gradationally hazardous than Zone 2 areas due to their greater distance from recently active vents and/or their topography decreases the likelihood that flows will cover these areas.

Impacts and Mitigative Measures:

The risk of lava hazards at this site is relatively low; therefore no mitigative measures are required.

5.1.7.4 Earthquakes

Description:

Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active", future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:

Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

5.1.8 FLORA AND FAUNA

Description:

The general project site is currently occupied by an existing rodeo arena and paved access roadway. The project site has been previously cleared and graded for the construction and use of the arena. The Hawai'i Natural Heritage Program (HNHP)[2] was consulted, and while a review of their database records determined that no threatened or endangered species have been recorded within the site, it was also noted that the endangered Hawaiian Hawk was observed roughly 0.5 miles north of the arena (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is also provided in **Appendix B**.

Impacts and Mitigative Measures:

Installation of the proposed water spigot will be confined to the immediate spigot location on the indicated parcel, with waterline trenching to meet and an existing waterline along Honaunau Road. This installation will cause minimal short-term adverse impacts on local vegetation. All of the work associated with the installation will take place in previously cleared and/or paved areas, and will only disturb various grasses. Existing large trees will be protected from construction activities to the maximum extent possible. All disturbed grassed areas will be re-vegetated as soon as possible upon completion of the spigot installation to prevent soil erosion and reduce visual impacts.

No endangered wildlife habitats are noted in the EA for the proposed water spigots facility site. Although an endangered wildlife habitat may possibly existing in the vicinity of the proposed project site, the affected area of the site is relatively small, and construction activities are not anticipated to pose negative impacts to the immediate site surroundings. Construction and operation of the installation will not encroach into uninhabited or undeveloped areas. It will be advised to confine all construction activities and disturbances to the immediate project area. No further mitigative measures are required.

5.1.9 VISUAL

Description:

The project site is located in a fairly developed area at the existing Honaunau Rodeo Arena. It is in the vicinity of the Arena's existing one-story comfort station and pavilion. The immediate project area is dominated by gently sloping grassed areas, which overlooks the rodeo arena on the downslope of the parcel.

Impacts and Mitigative Measures:

The proposed location for the water spigots facility in a spot that is near the existing comfort station and pavilion, to keep the public facilities within one area on the site. The comfort station and pavilion will also partially obscure the facility from the rodeo arena. While the proposed spigot facility does not fit with the overall "pastoral, agrarian and old-time paniolo" look and feel of the arena, its impact is lessened by locating it near the other public facilities such as the existing comfort station.

[2] The Hawai'i Natural Heritage Program database is compiled based upon on the research and observations of scientists and individuals, and is not necessarily a result of comprehensive site-specific field survey.

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. The proposed project will not result in a significant negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

5.2 SOCIAL

5.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:

According to the State Historic Preservation Department's (SHPD) Hawai'i National Register of Historic Places, no historical or archaeological sites will be affected by the construction of a spigot facility at this project site.

In order to mitigate the possible impact of construction activities upon any potential resources, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." Refer to **Appendix A**. The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas of the rodeo grounds. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs
Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:

The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

5.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:

No road closures or traffic disruptions are anticipated to take place in conjunction with the construction and operations of the water spigots facility. Access to the arena will be available throughout construction. The adjacent comfort station will continue to operate as well.

A separate water meter is recommended to be considered during the design stage to isolate usage between the spigots and the rodeo arena. The tap into the existing water system will be coordinated with Honaunau personnel to ensure the temporary disruption does not impact the existing facility.

Impacts and Mitigative Measures:
No disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. Therefore, no mitigative measures are required.

5.2.3 NOISE

Description:
Due to its location in a rural area, the project site is generally quiet when an event is not being held. The current noise is generated mainly by vehicular movements along Ke Ala o Keawe Road. There are no residential subdivisions or commercial activities sited across this side of the rodeo property.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor.

Impacts and Mitigative Measures:
Noise generated by construction activities will comply with noise provisions established by the State Department of Health and no further measures are required to mitigate short-term impacts. Construction activities are short-term and localized in nature, therefore no long-term or cumulative impacts are anticipated due to the proposed projects and no other mitigative measures are required.

5.2.4 TRAFFIC

Description:
There are no existing spigots at this location, however, the maximum average visitor rate (based on water consumption records) of the two nearest existing facilities is approximately 100 visitors a day. The introduction of the proposed water spigot facility would attract an estimated maximum average of 50-100 visitors a day to this site, as indicated in **Table 4-2**. There will be minimal, if any, impacts to traffic during the construction and future operation of the water spigots. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place on the site away from the roadway. Similarly, future use of the spigots will not occur on the roadway.

Impacts and Mitigative Measures:
No work will be done to the existing roadway and no road closures are expected. Therefore no mitigative measures are required.

5.2.5 RECREATIONAL FACILITIES

Description:
The project site is located at a County rodeo arena, and will utilize a portion of publicly used lands.

Impacts and Mitigative Measures:
The proposed spigot site is at a location where use will not affect the activities at or the flow of traffic to the existing rodeo arena. Construction activities may potentially cause minor temporary disruption to vehicle movement to the arena; however installation will most likely be completed during periods without arena visitors. If necessary, the Contractor will be directed to maintain access to the arena at all times. No significant

short-term or long-term impacts are anticipated; therefore no further mitigative measures are required.

5.3 SOCIO-ECONOMIC

5.3.1 DEMOGRAPHICS

Description:

According to the 2000 census for the South Kona Census County Division (CCD), the total population of the area is 8,589 people. The population density of the South Kona district is 25.6 (where 8,589 people reside on 335.38 square miles of land) while that of the entire island of Hawaiʻi is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:

The proposed water spigots facility will help provide potable water to the South Kona district. It is not anticipated that the facility will induce or reduce population in this area in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

5.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:

The population of the South Kona district has greatly increased since 1980. By 2000, the district had seen an average growth of approximately 45% of its population, with the majority of the growth occurring between 1980 and 1990 (County of Hawaiʻi, 2005).

The primary economic activity in the South Kona district is the agriculture industry, including coffee growing and processing, macadamia nuts, citrus fruits and cattle ranching. The district has a limited tourism industry, as there are few accommodations for overnight visitors in this area.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the South Kona CCD. While this may not apply to all the communities within the South Kona district, it does provide a glimpse of the social environment in the vicinity of the project area. The median age of the South Kona district resident is 41.2 years old. Of the population 16 years and older, 67.2% are employed, while 32.8% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales and construction. The median household annual income for residents of the South Kona district is $42,058.

Impacts and Mitigative Measures:

The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawaiʻi DWS customers. Therefore, no mitigative measures are required.

5.3.3 ENVIRONMENTAL JUSTICE

Description:

These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawaiʻi DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or are in areas where there is open land. The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the

installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:
No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

5.4 LAND USES AND OWNERSHIP

5.4.1 LAND USE DESIGNATIONS

The land use designations for TMK: 8-4-008: 002 are as follows:

State Land Use –	Agricultural
Hawai'i County General Plan –	Important Agricultural Land
County Zoning –	Agricultural District (A-5a) (min. building site of 5 acres)

This site is also located within a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:
As directed in the Hawai'i Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawai'i must be consistent with the policies set by the Hawai'i Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawai'i Coastal Zone (CZM) Management Program. A summary of the site-specific CZM federal consistency assessment is provided in **Appendix C**. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawai'i CZM Program will be required.

This project will be placed at the Honaunau Rodeo Arena, which is located off the Old Honaunau Road, a dedicated public right-of-way. The site will not be located within the ROW, and will not affect public access to or use of the recreational area. Construction of the proposed project will take place in an area has been previously graded; however installation will require some minor grading and excavation activities. The proposed construction will occur on a designated Agricultural land, but is located on a site that has previously been developed, and is not expected to impact the intended use of the land. This is further discussed in **Section 5.4.4**. The project site is not located near the coastline, and therefore will not affect coastal ecosystems.

The project site does not provide a habitat for endangered species of plant, birds or mammals; however there have been recorded sightings of the endangered Hawaiian Hawk approximately 0.5 miles away. This is discussed in further detail in **Section 5.1.8**.

5.4.2 HAWAI'I STATE PLAN

Description:
Chapter 226 of the Hawai'i Revised Statutes provides for long-range planning for the State of Hawai'i. The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows:

§226-13 Objectives and policies for the physical environment - - land, air, and water quality.
(a)(1): "Maintenance and pursuit of improved quality in Hawai'i's land, air, and water resources."
(b)(2): "Promote the proper management of Hawai'i's land and water resources."

§226-14 Objectives and policies for facility systems - - in general.
(b)(1): "Accommodate the needs of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with state and county plans."

§226-16 Objectives and policies for facility systems - - water.
(b)(5): "Support water supply services to areas experiencing critical water problems."

Impacts and Mitigative Measures:
Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with both of these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

5.4.3 STATE LAND USE LAW

Description:
The State Land Use Law, Chapter 205 of the HRS, classifies all State lands in one of four categories: urban, rural, agricultural and conservational. Permitted uses for each category are defined in statute. The State assumes sole management responsibility in the conservation district, County governments assume sole responsibility in the urban district and both share responsibilities in the rural and agricultural districts.

The project site, located at TMK 8-4-008:002, is classified by the State as agricultural land and is under the joint jurisdiction of the State and the County.

Specifically, the Land Use Law relates to the proposed project site as follows:

§205-4.5 Permissible Uses within the agricultural districts.
(a)(7): "Public, private and quasi-public utility lines and roadways, transformer stations, communication equipment buildings, solid waste transfer stations, major water storage tanks, and appurtenant small buildings such as booster pumping stations, but not including offices or yards for equipment, material, vehicle storage, repair or maintenance, or treatment plants, of corporation yards, or other like structures."

Impacts and Mitigative Measures:
The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

5.4.4 COUNTY OF HAWAIʻI

Description:

Under the County of Hawaiʻi's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific, applicable land use objectives for the agricultural land classification within the South Kona district include the encouragement of buffer zones or compatible uses between important agricultural land and adjacent uses of land.

The project area land use designation is "Important Agricultural Lands."

Impacts and Mitigative Measures:

The proposed project is consistent with the County of Hawaiʻi's General Plan. Installation of the water spigots facility will be completed in a previously developed area, and will not affect the land use or development of agriculture in the district. No short-term or long-term impacts are anticipated; therefore no mitigative measures are required.

5.4.5 PROPERTY OWNERSHIP

Description:

The property affected by the installation of the proposed water spigots facility is identified as 3rd Tax Division TMK: 8-4-008: Parcel 002. This parcel is owned by the State of Hawaiʻi, and is maintained by the County of Hawaiʻi Department of Parks and Recreation.

Impacts and Mitigative Measures:

The State of Hawaiʻi currently owns the property identified by 3rd Tax Division TMK: 1-7-003: Parcel 019. The proposed water spigots facility does not require the taking of any private lands; however installation of the proposed water spigots facility on this site will require an easement or Memorandum of Understanding (MOU) between the State and County agencies.

5.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:

The County of Hawaiʻi Department of Parks and Recreation was consulted to identify possible concerns regarding the proposed project and how it may affect operation of the Honaunau Rodeo Arena.

The entrance to the Honaunau Rodeo Arena is currently gated. This gate is only opened during rodeo events or for maintenance activities. The only available area with adequate room to accommodate a proposed facility is located within the gated portion of the site.

It was observed at other existing spigot locations that spigot users have a tendency to leave their trash at the spigot site. Additionally, users are inclined to rinse out their water containers before refilling them, and dump the rinse water onto the ground.

There are additional personal safety concerns regarding the lack of existing lighting at this site, as well as the relative remoteness of the arena as it is located off a lightly used public roadway.

The Department of Parks and Recreation also has concerns that the location of the spigot facility may conflict with rodeo arena improvements and impede access for trucks hauling livestock trailers and other rodeo users.

Impacts and Mitigative Measures:
The installation of a water spigots facility at this project site would require discussion and coordination between DWS, Parks and Recreation, and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the spigot facility. This plan should be established during the design phase of the project and should outline road/driveway maintenance, facility maintenance, operating hours and procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to any of the participating agencies/organizations.

The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal.

As the project site is located within an existing gate enclosure, the gate may need to be relocated to allow clear access to the proposed facility. Additional fencing and/or security may be needed to prevent unauthorized access to other areas of the arena. Additionally, the DWS should consider installing lighting features to enhance personal security at this location. If it is not possible to relocate the existing gate to provide access, individual users will be able to access the spigot site after hours by foot, though vehicular access would be prohibited when the rodeo is not in operation. While it is preferable to allow all-hour access to the proposed spigot facility, access may be limited to the arena's designated hours of operation if clear access cannot be provided. The facility hours of operation will be determined based upon the final site design and coordination/discussion with the rodeo owners and operators during the design phase. Should the operating hours be restricted, effort should be made to ensure the longest possible times are provided.

The final location of the spigot facility will be determined during the design phase of this project. The determination will consider the existing layout of the arena and will coordinate with the Department of Parks and Recreation to accommodate their plans for the site and minimize any impacts to the arena operations.

Should this site be selected for a spigot facility, then the operations, maintenance and coordination issues described in this section will need to be considered and adequately addressed. However, it is not anticipated that installation of a facility at this site will pose short-term or long-term environmental impacts.

SECTION 6

SITE B: HONAUNAU SCHOOL (TMK: 8-3-013:021)

6 DESCRIPTION OF AFFECTED ENVIRONMENT

6.1 PHYSICAL

6.1.1 LOCATION

The project site is located in the South Kona District, and is identified as the State of Hawai'i Third Tax Division, Tax Map Key (TMK) 8-3-013:021. Project location and site maps are presented as **Figures 6-1** and **6-2**, respectively. Photographs of the existing site are provided in **Figure 6-3**.

6.1.2 CLIMATE

According to the Western Regional Climate Center, the average temperature in nearby Kainaliu, HI is 69.6°F with average minimum and maximum monthly temperatures ranging from 61.3°F and 77.9°F, respectively. The annual rainfall averages approximately 63.4 inches.

Located on the leeward side of the Island of Hawai'i, Honaunau is not exposed to the northeasterly trade winds.

6.1.3 AIR QUALITY

Description:

In general, air quality at the project site is good. The general area around the project site is rural in character and absent of heavy industry. The only significant source of air pollution is from volcanic eruptions.

Due to the prevailing wind conditions, the area is usually free of vog. Vog can become a noticeable pollutant under unusual meteorological conditions.

According to the State of Hawai'i Department of Health (DOH) 2004 Annual Summary of Hawai'i Air Quality Data, the "air quality in the State of Hawai'i continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards." The DOH determined that the State of Hawai'i was in attainment for all federal ambient air quality standards in 2004. Please refer to **Table 5-1** for Federal and State Ambient Air Quality Standards.

Impacts and Mitigative Measures:

The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity.

6.1.4 TOPOGRAPHY

Description:

The project site is located between Kealia and Captain Cook. The ground elevation at the site is approximately 1170'. The land in the area of the proposed spigot site generally slopes from the northeast to the west.

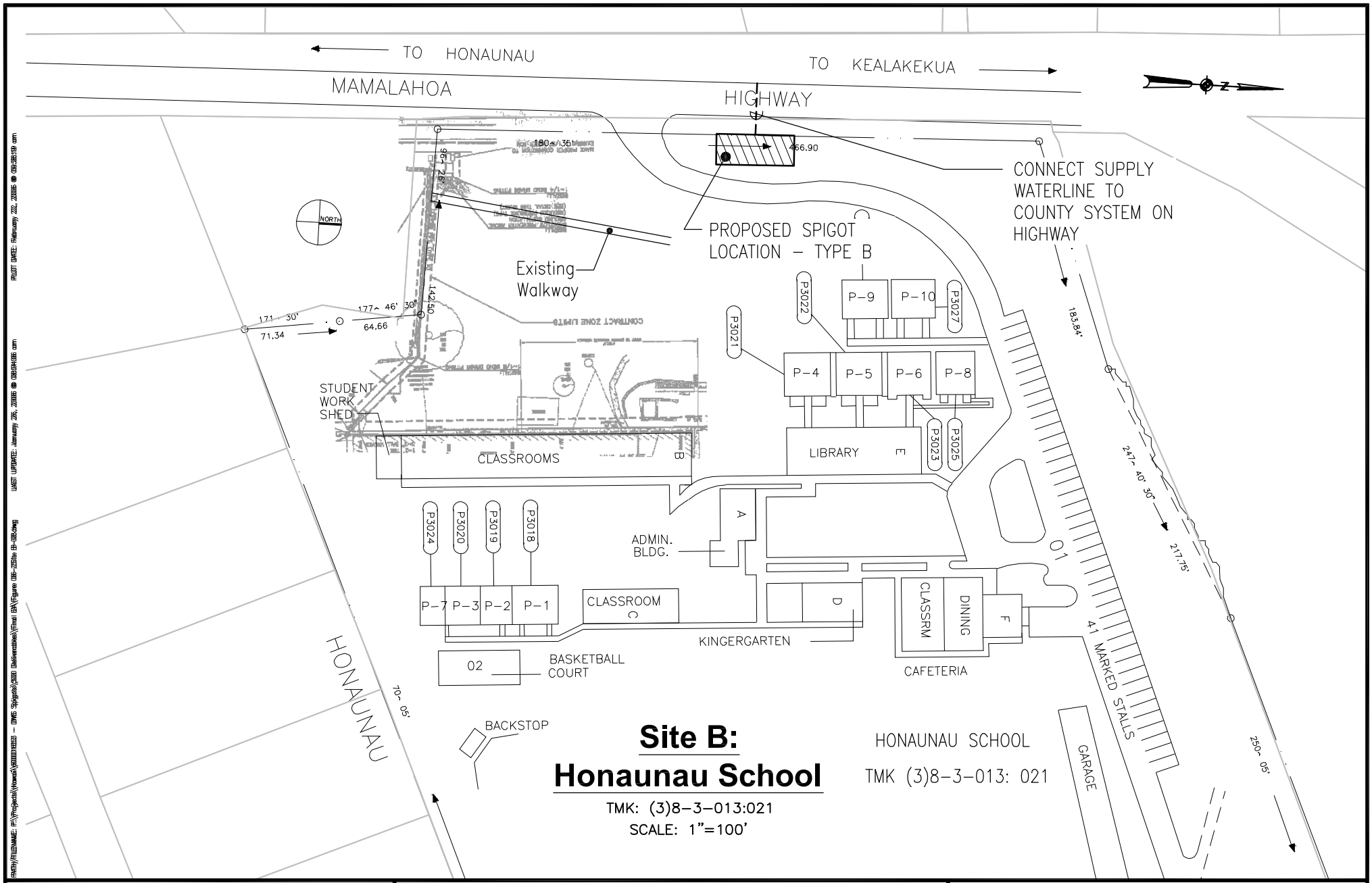

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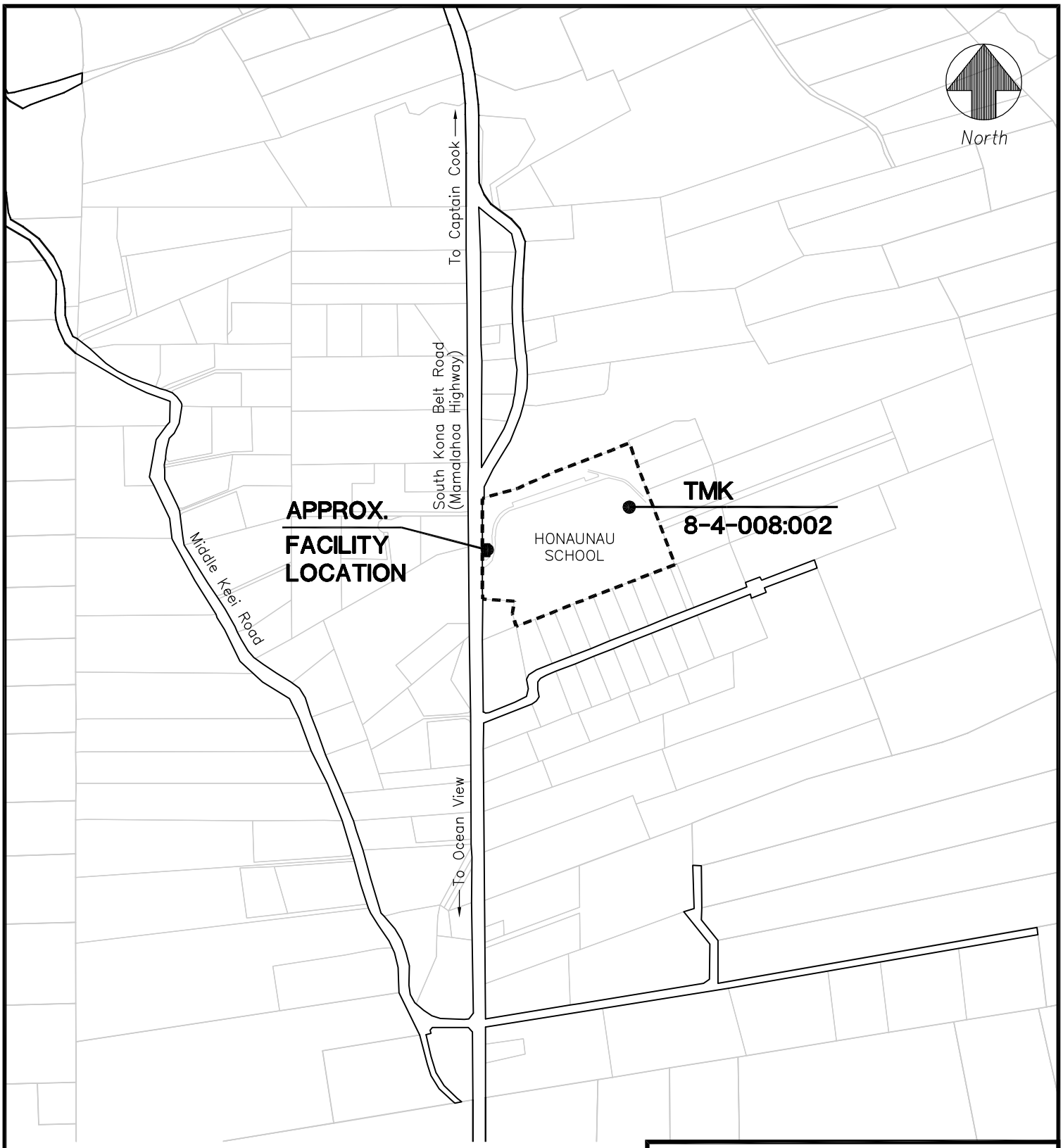
Figure 6-2
Site B Site Map
Honaunau School
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006



Site B:
Honaunau School

NOT TO SCALE

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Figure 6-1
Site B Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 06-1 Location B-08.dwg LAST UPDATE: January 26, 2006 @ 08:03:22 am PLOT DATE: February 22, 2006 @ 09:37:54 am

Looking Across Driveway Towards Proposed Location

Towards Proposed Location

Site B:
Honaunau School

TMK: (3)8-3-013:021

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Figure 6-3
Site B Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 06-3 Photo B-08.dwg LAST UPDATE: January 26, 2006 @ 08:05:47 am PLOT DATE: February 22, 2006 @ 09:38:40 am

Impacts and Mitigative Measures:
No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore no mitigative measures are required.

6.1.5 SOILS

Description:
The Natural Resources Conservation Service of the U.S. Department of Agriculture classifies the soil in the Honaunau area as Kona extremely rocky muck, 6 to 20 percent slopes (rKYD).

The Kona series consists of well-drained, thin organic soils over pahoehoe lava bedrock. They are gently sloping to moderately steep, and have elevations that range from 1,000 to 3,500 feet. These soils are used mostly for pasture and watershed, although small areas may be used for coffee and macadamia nuts. The natural vegetation consists of guava, Christmas berry, californiagrass and kikuyugrass.

This soil type is at intermediate elevations on Mauna Loa and Hualalai. In a representative profile, the surface layer is very dark brown muck about 5 inches thick. The surface layer is underlain by pahoehoe lava bedrock. The soil is slightly acidic.

The soil is rapidly permeable, and water moves rapidly through the cracks of the lava. Runoff is medium, and the erosion hazard is slight.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawai'i (ALISH) maps (**Appendix C**) indicate that the proposed site will be located on a portion of land designated as "Other Lands" and is considered a protected farmland. However, the proposed site is located at Honaunau School, which has been previously graded and developed and would therefore not impact the protected farmland. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:
No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

6.1.6 WATER RESOURCES

Description:
The project area lies within the Kealakekua aquifer system, which has a sustainable yield of approximately 38 million gallons per day. A map of the aquifer systems and sustainable yields for the Island of Hawai'i is presented in **Figure D-1** in **Appendix D**. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawai'i.

Figures provided in the 2005 County of Hawai'i General Plan indicate that the average consumption of the South Kona water system is 0.97 mgd. This water system is supplied by three wells at Keei and a well at Halekii. The total capacity of the system is 5.0 mgd, and a safe capacity of 3.0 MGD.

An existing 8" DWS waterline runs along the portion of Mamalahoa Highway fronting the project area parcel. The reservoir servicing this waterline has an elevation of 624'.

Visual inspection, USGS map and USFWS online map reviews (**Appendix C**) indicate that there are no streams, ponds, lakes or wetlands within or near the project site.

There are no existing water spigots at the project site. The closest spigot facilities are located at Greenwell Park (approximately 4.2 miles to the north) and at Hookena (approximately 5.4 miles to the south). These facilities are indicated as Site Reference #13 and #14 on **Figure 3-2** and are shown in **Photos 6-1** and **6-2**, respectively.

Photo 6-1
Existing Greenwell Park Spigot

Photo 6-2
Existing Hookena Spigot

The water spigot at Greenwell Park is located behind the park, and is accessed from Kinue Road, off Mamalahoa Highway. The spigot is currently at the intersection of a narrow access road and a steeply sloped driveway as shown in **Photo 6-1**. Vehicle parking is not available at this location. While the spigot is located on a low-speed, low-volume access road, its position at the driveway intersection and lack of lighting and designated parking poses a hazard to spigot users, especially during evening and night hours.

The Hookena spigot is located in the middle of the South Kona district. This spigot site is located off Mamalahoa Highway, and has a dedicated driveway/turn-around area with space for vehicle parking. A standpipe is also provided at this location for commercial water trucks. The entry and exit of the turn-around area is off the high-speed highway, and currently poses a traffic safety hazard when vehicles slow to turn into the spigot area or exit the site. Night lighting is not provided at this site.

The water consumption records over the past year for these spigots indicate that the maximum average daily demands were approximately 0.001 MGD and 0.003 MGD, respectively. The highest average demands occurred in the month of March for both spigots. According to the estimates obtained by the Fire Department, the existing water spigots collectively serve the approximately 41% of households (~1,264 households) in the South Kona district that are not connected to the municipal water system (**Figure 3-2**). Currently, residents in this district need to travel a maximum distance of about 16.5 miles to obtain water from an existing spigot.

Impacts and Mitigative Measures:
The proposed spigot facility will connect with a meter to the main County waterline within the South Kona water system. Should the Honaunau School be selected as a new water spigot facility site, the DWS and the Mayor's Office may consider using the new facility as a replacement for one of the existing spigot facilities due to the personal and traffic safety hazards the existing facilities currently pose. In this case, the existing spigot will remain in place until the proposed facility is in operation. Therefore, the water demand will shift from the existing spigot to the proposed facility. Based upon the water consumption records of the nearest existing water spigots, the installation of the spigot is expected to pose a maximum average demand of approximately 0.001 to 0.003 million gallons per day. This anticipated demand will result in a minimal increase in the average

daily consumption, and therefore will not affect the capacity of this water system. If the proposed facility is constructed as an additional spigot site, then the anticipated maximum average demand would be approximately 0.001 million gallons per day. This minimal increase will not affect the capacity of the water system.

As the existing spigot facilities pose personal safety and/or traffic safety hazards, the DWS intends to remove one of the existing sites should the Honaunau School be selected as a new water spigot facility site. The existing spigot will remain in place until the proposed facility is in operation. Therefore, the water demand will shift from the existing spigot to the proposed facility.

No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated.

6.1.7 NATURAL HAZARDS

Natural hazards in Hawaiʻi include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

6.1.7.1 Floods

Description:

The project site is located in Zone X, determined by the Federal Emergency Management Agency. This zone is described as an area that is outside the 500-year flood plain. See the FIRM map, **Figure 6-4**.

The proposed project site is not located in an area which contains estuary, fresh water or coastal waters.

Impacts and Mitigative Measures:

This project site is not within a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigative measures are required.

6.1.7.2 Hurricanes

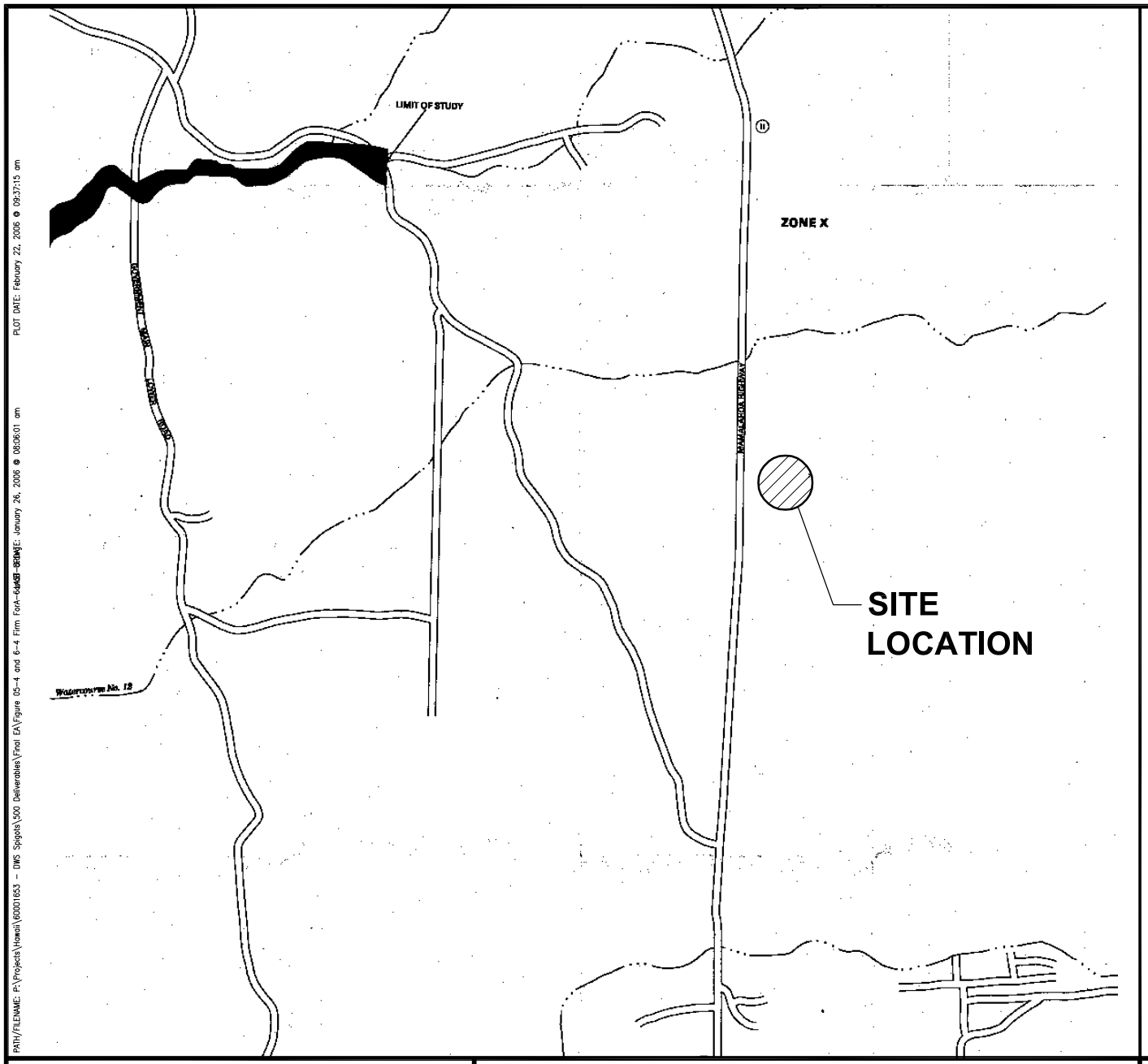
Description:

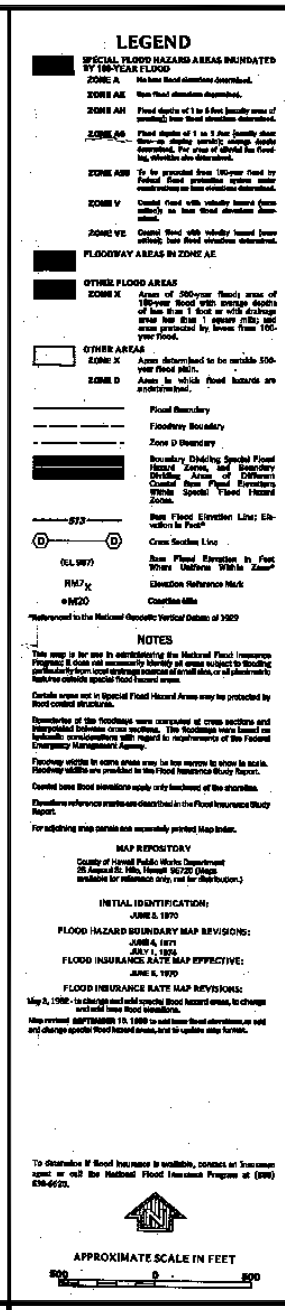
The first hurricane officially recorded in Hawaiʻi (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawaiʻi, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawaiʻi remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

Impacts and Mitigative Measures:

Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.





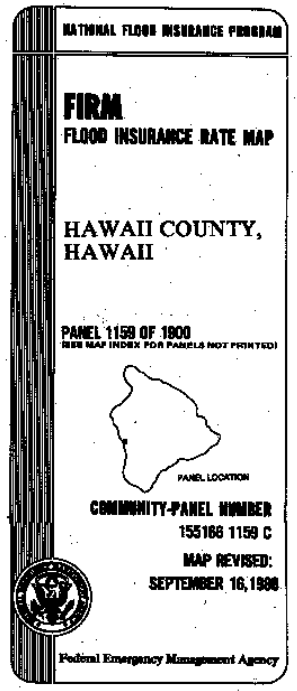


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Figure 6-4
Site B FIRM Map
Honaunau School
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
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6.1.7.3 Volcanic Eruptions

Description:

There are four active volcanoes on the Island of Hawai'i. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.

The project area is located to the west of the Mauna Loa summit and southeast rift zone, and is within a lava hazard zone of "3" on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawai'i is presented as **Figure D-2**, in **Appendix D**. Zone 3 areas are generally described as being less gradationally hazardous than Zone 2 areas due to their greater distance from recently active vents and/or their topography decreases the likelihood that flows will cover these areas.

Impacts and Mitigative Measures:

The risk of a volcanic eruption in this area is moderate. It is located downslope of a rift zone of Kilauea volcano, however is protected from a lava flow by either distance or topography. Although the proposed improvements may be damaged in the event of a lava flow in this area, there are no practical mitigative measures currently available. The proposed project will comply with the current regulatory design standards.

6.1.7.4 Earthquakes

Description:

Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active", future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:

Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

6.1.8 FLORA AND FAUNA

Description:

The general project site is currently occupied by an existing elementary school. The entire site has been previously cleared and graded for the construction and use of the school. The Hawai'i Natural Heritage Program (HNHP) was consulted, and a review of their database records determined that no threatened or endangered species have been recorded within the site (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is also provided in **Appendix B**.

Impacts and Mitigative Measures:
Installation of the proposed water spigot will be confined to the immediate spigot location on the indicated parcel, with waterline trenching to meet the County waterline along Mamalahoa Highway. This installation will cause minimal short-term adverse impacts on local vegetation. All of the work associated with the installation will take place in previously cleared and/or paved areas, and will only disturb various grasses. All disturbed grassed areas will be re-vegetated as soon as possible upon completion of the spigot installation to prevent soil erosion and reduce visual impacts.

No endangered wildlife habitats are noted in the EA for the proposed water spigots facility site, and no endangered wildlife habitats are anticipated to exist in the vicinity of the proposed project site. Therefore, no mitigative measures are required.

6.1.9 VISUAL

Description:
This project site is located in a developed area at the entrance of the Honaunau School, just *mauka* of the Mamalahoa Highway. The proposed project area is located in an elevated grassed area that gently slopes toward the Highway in the *makai* direction. A nearly unobstructed view plane extends towards the ocean from the elevated project site. The top of residential dwellings and tree tops are slightly visible from the site in the *makai* direction. A landscaped area and one of the school's classroom buildings are located above the site in the *mauka* direction.

Impacts and Mitigative Measures:
The proposed water spigots facility will be constructed in a location that is obscured from view of the school buildings by the existing landscaped trees at the entrance of the school driveway. The low-lying facility will also be slightly offset from the Highway, which will minimize its visibility to drivers approaching the location along the roadway. The existing Highway is elevated above the line of vision of those residing immediately to the *makai* direction of the project site, and therefore the project will not have a visual impact to the adjacent residents.

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. The proposed project will not result in a negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

6.2 SOCIAL

6.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:
Based on the information from a 1990 EA of the same site, no recorded archaeological or historical sites will be affected by project work. The site was also checked against the State Historic Preservation Department's Hawai'i National Register of Historic Places, and no historical or archaeological sites were distinguished.

In addition, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas of school grounds. Should the Contractor uncover any

cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs
Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:
The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

6.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:
No road closures are anticipated to take place in conjunction with the construction and operations of the water spigots facility. The specific location of the facility may be at the school frontage, along side Mamalahoa Highway. If this area is selected during the design stage, while closure will not occur, temporary traffic control signage and coning may be engaged.

Access to the school, via vehicular or pedestrian access, will be available throughout construction. The school and its support facilities will continue operations without disruption.

A separate water meter is recommended to be considered during the design stage to isolate usage between the spigots and school. The tap into the existing water system will be coordinated with Honaunau School personnel to ensure the temporary disruption does not impact the existing facility.

Impacts and Mitigative Measures:
No appreciable disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. As mentioned above, for safety purposes, temporary traffic controls may be required if construction occurs adjacent to Mamalahoa Highway. Beyond this condition, no significant short-term or long-term impacts are anticipated; therefore, no mitigative measures are required.

6.2.3 NOISE

Description:
The project site is generally quiet when school is not in session. The current noise is generated mainly by vehicular movements along Mamalahoa Highway and school activities. There are well-spaced residential units located across the highway, further downhill from the school.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor.

The operation and usage of the proposed water spigot facility may contribute to the noise levels due to conversations between users and the vehicles entering and exiting the facility.

Impacts and Mitigative Measures:
Noise generated by construction activities will comply with noise provisions established by the State Department of Health. However, any construction activity in that area is not conducive to school operations. To mitigate any noise impacts to the school, construction of a facility on this site should occur during the summer or winter breaks when classes are not in session.

The noise generated by the use of the proposed facility is anticipated to be on the same level as the existing ambient traffic noise. However, facility noise may carry towards the nearby classrooms during periods of no or low traffic and disrupt the students' activities. To minimize this disruption, it may be necessary to restrict the facility operating hours to a period of time that school is not in session. DWS may also consider reducing the number of spigots available at this location to reduce the potential for gathering and conversation between users.

6.2.4 TRAFFIC

Description:
There are no existing spigots at this location, however, the maximum average visitor rate (based on water consumption records) of the two nearest existing facilities is approximately 100 visitors a day. The introduction of the proposed water spigot facility would attract an estimated maximum average of 50-100 visitors a day to this site, as indicated in **Table 4-2**.

There will be minimal impacts to the general traffic flow during the construction and future operation of the water spigots. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place off the road right-of-way and on the school property.

Similarly, future use of the spigots will not occur on the roadway. The design of this facility will ensure that all water filling activities take place out of the road right-of-way.

With regard to the residential units located across the highway, the driveways or road intersections for these properties do not occur across the school property. Therefore, any activity occurring on Mamalahoa Highway, fronting Honaunau School will not affect the local traffic into their residential properties.

Impacts and Mitigative Measures:
Due to the school schedule, traffic in this area is generally heavy during morning and afternoon pick-up/drop-off periods. Therefore, any impacts to the traffic would occur during these periods. Should this site be selected, spigot access should be restricted to off-peak traffic hours when school is in session. Although the proposed facility is anticipated to generate a relatively low average traffic volume, as the entrance to the site

would be located off a main highway DWS may need to determine if the introduction of an additional driveway would warrant further traffic study.

Minimal impact to the local traffic is anticipated from the construction and operation of the spigot facility. As mentioned above, for safety purposes, temporary traffic controls may be required should construction occur adjacent to Mamalahoa Highway. Beyond this condition, no significant short-term or long-term environmental impacts are anticipated; therefore, no further mitigative measures are required.

6.2.5 RECREATIONAL FACILITIES

Description:

This project site is not located on nor adjacent to any recreational facilities; however it is located at the entrance to an elementary school and will utilize a portion of publicly used lands.

Impacts and Mitigative Measures:

The proposed spigot site is at a location where use will not disrupt the activities at or access to the school. Construction activities may potentially cause minor temporary disruption to vehicle movement to the school; however installation will most likely be completed during a period when school is not in session. Additionally, the Contractor will be directed to maintain access to the school at all times. No short-term or long-term impacts are anticipated, therefore, no further mitigative measures are required.

6.3 SOCIO-ECONOMIC

6.3.1 DEMOGRAPHICS

Description:

According to the 2000 census for the South Kona Census County Division (CCD), the total population of the area is 8,589 people. The population density of the South Kona district is 25.6 (where 8,589 people reside on 335.38 square miles of land) while that of the entire island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:

The proposed water spigots facility will help provide potable water to the South Kona district. It is not anticipated that the facility will induce or reduce population in this area in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

6.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:

The population of the South Kona district has greatly increased since 1980. By 2000, the district had seen an average growth of approximately 45% of its population, with the majority of the growth occurring between 1980 and 1990 (County of Hawai'i, 2005).

The primary economic activity in the South Kona district is the agriculture industry, including coffee growing and processing, macadamia nuts, citrus fruits and cattle ranching. The district has a limited tourism industry, as there are few accommodations for overnight visitors in this area.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the South Kona CCD. While this may not apply to all the communities within the South Kona district, it does provide a glimpse of the social environment in the

vicinity of the project area. The median age of the South Kona district resident is 41.2 years old. Of the population 16 years and older, 67.2% are employed, while 32.8% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales and construction. The median household annual income for residents of the South Kona district is $42,058.

Impacts and Mitigative Measures:
The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawai'i DWS customers. Therefore, no mitigative measures are required.

6.3.3 ENVIRONMENTAL JUSTICE

Description:
These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawai'i DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or are in areas where there is open land. While this parcel includes an existing school there are large areas within the lot that are open and not incorporated into the school activities.

The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:
No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

6.4 LAND USE DESIGNATIONS

6.4.1 LAND USE DESIGNATIONS

The land use designations for TMK: 8-3-013: 021 are as follows:

State Land Use –	Agricultural
Hawai'i County General Plan –	Important Agricultural Land
County Zoning –	Agricultural District (A-1a) (min. building site of 1 acre)

This site is also located within a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:
As directed in the Hawai'i Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawai'i must be consistent with the policies set by the Hawai'i Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawai'i Coastal Zone (CZM) Management Program.

A summary of the site-specific CZM federal consistency assessment is provided in **Appendix C**. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawai'i CZM Program will be required.
The project site is located at the entrance of the Honaunau School, just off the Mamalahoa Highway. This site is not adjacent to any recreational facilities, nor will impede access to the shoreline. Construction of the proposed project will take place in an area has been previously developed; however installation may require some minor grading and excavation activities. The proposed construction will occur on a designated Agricultural land, but is located on a site that has previously been developed, and is not expected to impact the intended use of the land. This is further discussed in **Section 6.4.4**. The project site is not located near the coastline, and therefore will not affect coastal ecosystems.

6.4.2 HAWAI'I STATE PLAN

Description:

The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows: **§226-13 (a)(1)** and **(b)(2), §226-14 (b)(1)**, and **§226-16 (b)(5).** Please refer to **Section 5.4.2** for a description of these items.

Impacts and Mitigative Measures:

Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with both of these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

6.4.3 STATE LAND USE LAW

Description:

The project site, located at TMK 8-3-013:021, is classified by the State as agricultural land and is under the joint jurisdiction of the State and the County.

The portion of the Land Use Law which relates to the proposed project site is: **§205-4.5 (a)(7).** Please refer to **Section 5.4.3** for a description of this item.

Impacts and Mitigative Measures:

The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

6.4.4 COUNTY OF HAWAI'I

Description:

Under the County of Hawai'i's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix an din keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific, applicable land use objectives for the agricultural land classification within the South Kona district include the encouragement of buffer zones or compatible uses between important agricultural land and adjacent uses of land.

The project area land use designation is "Important Agricultural Lands."

Impacts and Mitigative Measures:
The proposed project is consistent with the County of Hawai'i's General Plan. Installation of the water spigots facility will not affect the land use or development of agriculture in the district. No short-term or long-term impacts are anticipated; therefore no mitigative measures are required.

6.4.5 PROPERTY OWNERSHIP

Description:
The property affected by the installation of the proposed water spigots facility is identified as 3rd Tax Division TMK: 8-3-013: Parcel 021. This parcel is owned by the State of Hawai'i.

Impacts and Mitigative Measures:
The State of Hawai'i currently owns the property identified by 3rd Tax Division TMK: 8-3-013: Parcel 021. The proposed water spigots facility does not require the taking of any private lands; however installation of the proposed water spigots facility on this site will require an easement or Memorandum of Understanding (MOU) between the appropriate State and County agencies.

6.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:
The State of Hawai'i Department of Education (DOE) was consulted to identify possible concerns regarding the proposed project and how it may affect operation of the Honaunau School. The DOE indicated considerable concerns regarding student safety, increased traffic and the potential disruption the proposed facility may impose on classroom activities. Additional concerns regarding maintenance of the site were raised, and comments received from the Honaunau School state that the DOE and the school are unwilling to assume responsibility for maintenance of the proposed facility. Furthermore, it should be noted that the Honaunau School staff and School Community Council asserted that they are strongly against placing a spigot facility at the school and find it unacceptable. Please refer to the Honaunau School comment letter dated December 15, 2005 in **Appendix A**.

The proposed project site is located at the driveway entrance to the elementary school, as shown in **Figures 6-1** to **6-3**. It is situated across of a spot used by parents as a drop-off and pick-up location for students, and is downslope of existing classroom buildings.

It was observed at other existing spigot locations that spigot users have a tendency to leave their trash at the spigot site. Additionally, users are also inclined to rinse out their water containers before refilling them, and dump the rinse water onto the ground.

Impacts and Mitigative Measures:
The installation of a water spigot facility at this project site would require discussion and coordination between DWS, DOE and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the

spigot facility. This plan should outline road/driveway maintenance, facility maintenance, operating hours and procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to each of the participating agencies/organizations.

The proximity of the proposed site to the elementary school raises concern regarding student safety. Allowing the spigot facility to remain open at all hours, as is preferred for a public spigot facility, would allow vehicles to freely congregate outside of the school for periods of time without restriction. This possibility not only poses security hazards to the students, but also has the potential to create noise disruption to the classrooms above the proposed site. In light of these issues, the DWS may consider the following mitigative measures to minimize the possible effects the facility installation may incur.

- Erection of additional fencing or enclosure around the facility to minimize access to the school grounds from the facility, and to provide control over the facility access during non-operating hours.
- Additional security personnel may be necessary to ensure the safety of the students while the facility is in use; especially during before- and after-school hours when students would be present in the vicinity of the proposed facility.
- The number of water spigots provided may be reduced to restrict the number of users it can accommodate at a time and reduce conversational noise between users.
- The spigot facility operating hours may be limited to times that school is not in session or when students are not anticipated to be within or near the project area. (Also refer to discussions in **Sections 6.2.3** and **6.2.4**.) Should this measure be employed, effort should be made by all parties to ensure the longest possible operating hours are provided. Signage should also be posted to inform users of the restricted hours.

The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal. Signs shall also be posted to outline operating rules and to deter improper use of the site.

Currently, the County of Hawai'i Civil Defense Agency (CDA) is responsible for maintaining the existing water spigot locations. At this time, it is not known if the CDA will assume the maintenance responsibilities at the proposed facilities. The issue of trash and facility maintenance should be addressed during the design phase with the establishment of the operating and maintenance plan as described above.

Should this site be selected for a spigot facility, then the operations, maintenance, coordination and security issues described in this section need to be adequately addressed to the satisfaction of the DOE, Honaunau School staff and the Honaunau School Community Council prior to construction and use. Due to the serious concerns over the installation of a facility at the school, all parties associated with the school should be consulted during the design phase of this project. Consultation during the site selection phase is also highly recommended for this site.

Although there are various operational and security issues that need to be satisfied at the proposed location, it is not anticipated that installation of a facility at this site will pose short-term or long-term *environmental* impacts.

SECTION 7

SITE C: PAPA'ALOA GYM (TMK: 3-5-003:088)

7 DESCRIPTION OF AFFECTED ENVIRONMENT

7.1 PHYSICAL

7.1.1 LOCATION

The project site is located in the North Hilo District, and is identified as the State of Hawai'i Third Tax Division, Tax Map Key (TMK) 3-5-003:088. Project location and site maps are presented as **Figures 7-1** and **7-2**, respectively. Photographs of the existing site are provided in **Figure 7-3**.

This site lies on the North Hilo coast, and is located within a Special Management Area zone.

7.1.2 CLIMATE

Description:

According to the Western Regional Climate Center, the average temperature in nearby Ookala, Hawai'i is 72.7°F with average minimum and maximum monthly temperatures ranging from 66.3°F to 79.0°F, respectively. The average annual precipitation is 117.6 inches.

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

7.1.3 AIR QUALITY

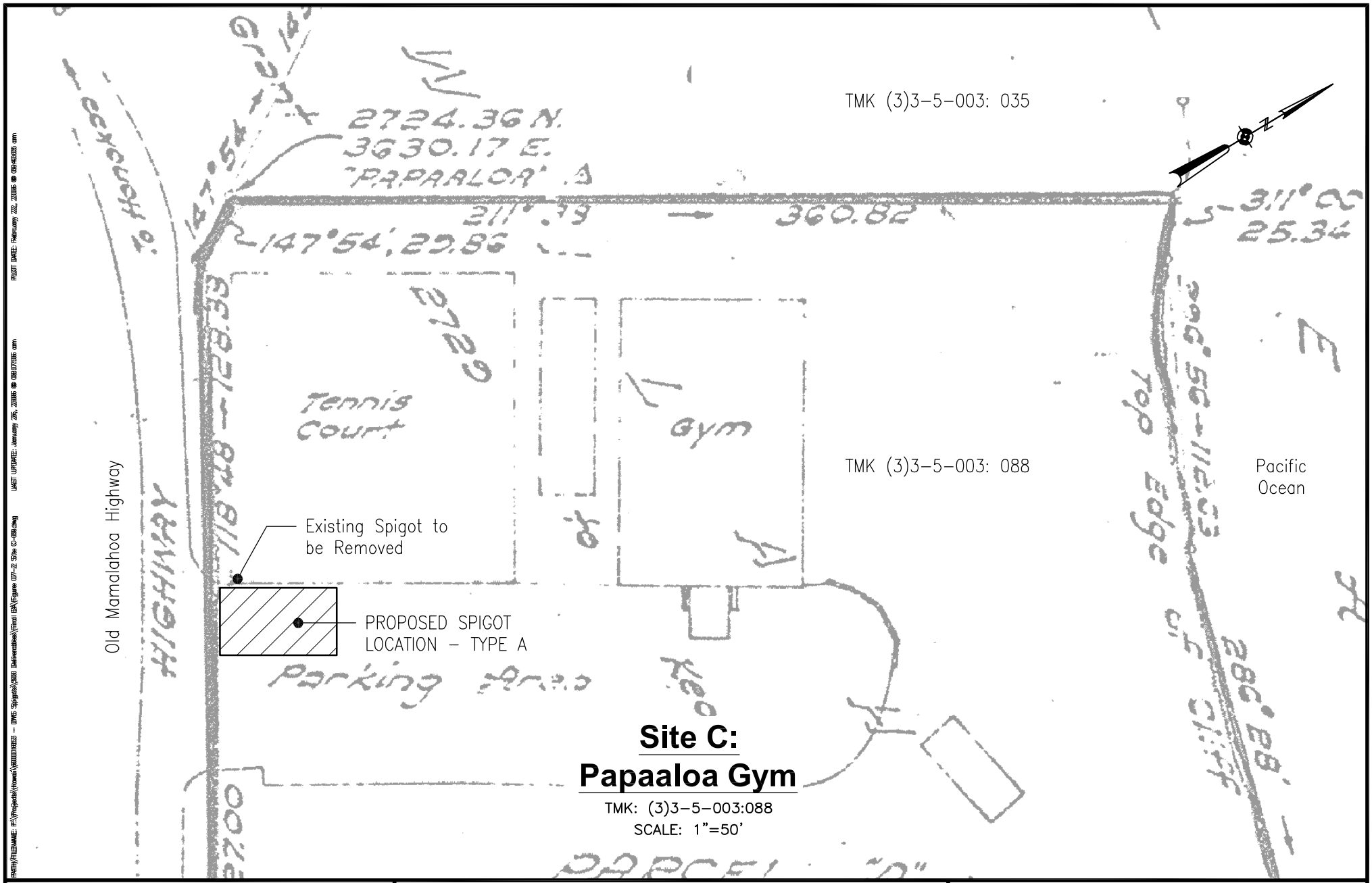
Description:

In general, air quality at the project site is good. The area around the project site is rural in character and absent of heavy industry. The only significant source of air pollution is from volcanic eruptions. Because the site is upwind of Kilauea, the area is usually free of vog. When Kona winds prevail, the vog becomes a noticeable pollutant.

According to the State of Hawai'i Department of Health (DOH) 2004 Annual Summary of Hawai'i Air Quality Data, the "air quality in the State of Hawai'i continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards." The DOH determined that the State of Hawai'i was in attainment for all federal ambient air quality standards in 2004. Please refer to **Table 5-1** for Federal and State Ambient Air Quality Standards.

Impacts and Mitigative Measures:

The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity.



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METCALF & EDDY | AECOM

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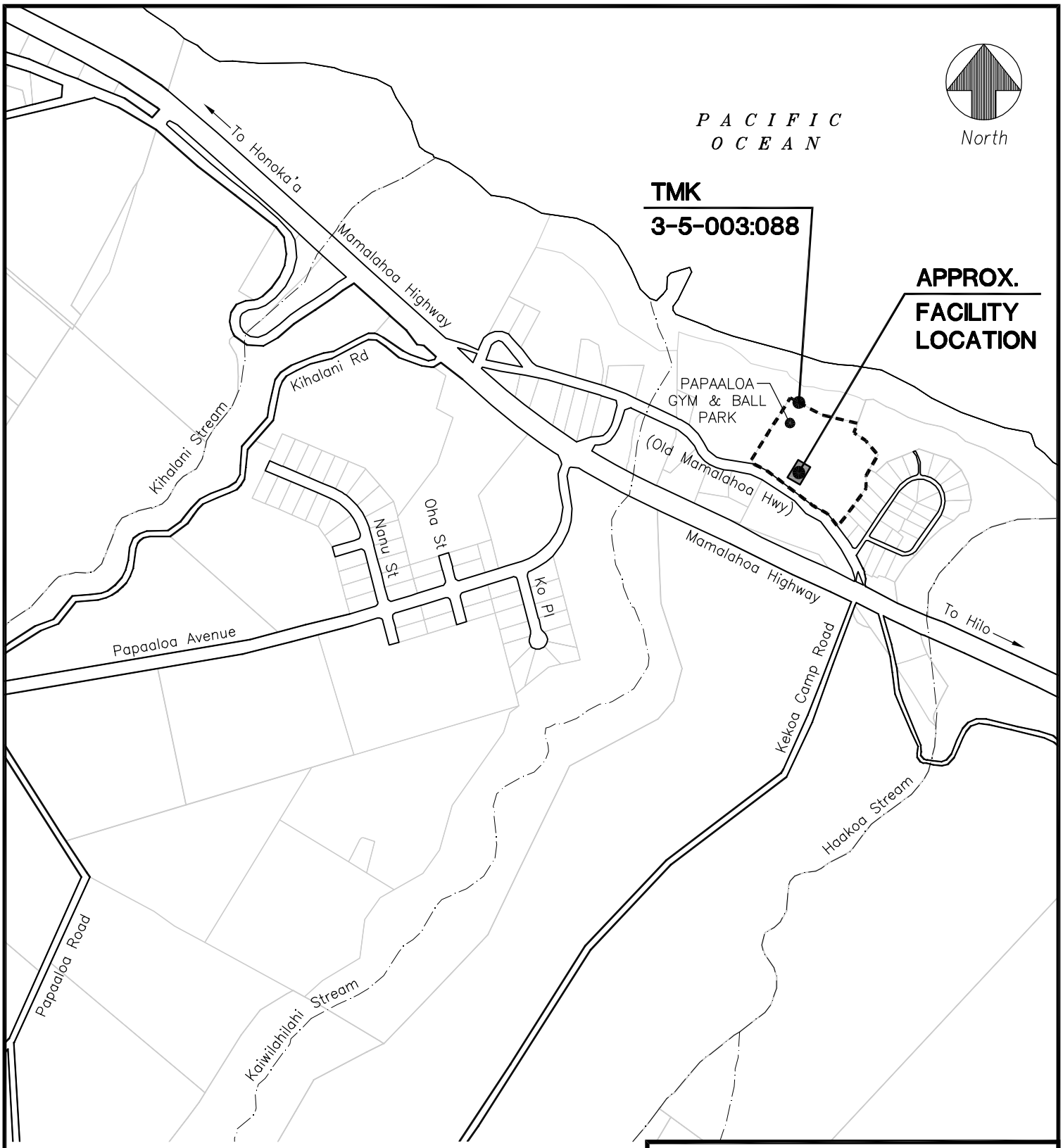
Figure 7-2
Site C Site Map
Papa'aloa Gym
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006



Site C:
Papaaloa Gym

NOT TO SCALE

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Figure 7-1
Site C Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 07-1 Location C-09.dwg LAST UPDATE: January 26, 2006 @ 08:06:22 am PLOT DATE: February 22, 2006 @ 09:39:12 am

Proposed Location

Existing Gym Facility

Existing Spigot

Site C:
Papa'aloa Gym

TMK: (3)3-5-003:088

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Figure 7-3
Site C Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 07-3 Photo C-09.dwg LAST UPDATE: February 08, 2006 @ 05:29:34 pm PLOT DATE: February 22, 2006 @ 09:41:40 am

7.1.4 TOPOGRAPHY

Description:

The project site is located between Kuku Points and Laupahoehoe. The ground elevation at the site is approximately 295'. The land in the area of the proposed spigot site generally slopes from the southwest to the northeast.

Impacts and Mitigative Measures:

No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore no mitigative measures are required.

7.1.5 SOILS

Description:

The soils found in the Papa'aloa area are Ookala silty clay loam, 12 to 20 percent slopes (OoC).

The Ookala series consists of well-drained, silty clay loams that formed in volcanic ash. They are gently sloping to steep, and have elevations that range from near sea level to 1,000 feet. These soils are used for sugarcane. The natural vegetation consists of hilograss, guava and californiagrass.

In a representative profile, the surface layer is dark reddish-brown silty clay loam about 12 inches thick. The subsoil, about 43 inches thick, is dark-brown to dark yellowish-brown silty clay loam. The subsoil is underlain by A'a lava fragments that are very dark grayish brown, and partly weathered. The surface layer is very strongly acid and the subsoil is slightly to medium acid.

The permeability of the soil is moderately rapid. Runoff is slow, and the erosion hazard is slight.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawaiʻi (ALISH) maps (**Appendix C**) indicate that the proposed site will not be located on or affect protected farmlands. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

7.1.6 WATER RESOURCES

Description:

The project area lies within the Hakalau aquifer system, which has a sustainable yield of approximately 150 million gallons per day. A map of the aquifer systems and sustainable yields for the Island of Hawaiʻi is presented as **Figure D-1** in **Appendix D**. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawaiʻi.

Figures provided in the 2005 County of Hawaiʻi General Plan indicate that the average daily consumption of the Laupahoehoe system is 0.11 mgd. This water system is supplied by high level springs in Manowaiopae and Kuwaikahi Gulches, a deep well with a 0.14 mgd pumping unit, and a deep well with a 0.43 mgd pumping unit.

An existing 8" DWS waterline runs along the portion of the access road fronting the project area parcel. The reservoir servicing this waterline has an elevation of 673'. The proposed spigot facility site is located adjacent to an existing fire hydrant.

An existing water spigot is currently located at the proposed spigot facility location. The existing spigot has two outlets, and is connected directly to a fire hydrant. A photo of the existing water spigot is shown on **Figure 7-3**. This water spigot will be removed and an upgraded facility with additional water spigot outlets, enhanced drainage features and paved parking area will be installed. According to the estimates obtained by the Fire Department, the existing spigot is one of two facilities that currently service the approximately 10% of households (~59 households) in the North Hilo district that are not connected to the municipal water system (**Figure 3-2**). Due to its proximity to the South Hilo district, the spigot at the proposed site may also be visited by some of the 2,367 households (14% of households) located in South Hilo without municipal water.

The other existing water spigot assembly is located at Ookala, along the north district border approximately 5 miles to the northwest of the proposed project site. This spigot assembly is located off a portion of the Old Mamalahoa Highway, and is shown on **Figures 3-1** and **3-2** as Site Reference #10.

The water consumption records over the past year indicate that the maximum average daily demand for this spigot was 0.0007 mgd and occurred in the month of September.

The proposed project site is located approximately 900' upslope of the perennial Kaiwilahihi Stream, as shown on **Figure 7-1**. USGS map and USFWS online map reviews (**Appendix C**) indicate that there are no other streams, ponds, lakes or wetlands within or near the proposed site.

Impacts and Mitigative Measures:
The proposed spigot will connect with a meter to the main County waterline within the Laupahoehoe water system. The maximum average daily demand is not expected to change with the installation of an upgraded facility. Therefore, the facility will not affect the capacity of this water system.

Should this site be selected as for a water spigot facility upgrade, the County of Hawai'i may consider using the upgraded facility as a replacement for one of the existing spigot facilities due to the personal and traffic safety hazards the other existing facilities currently pose.

Due to the distance of the stream from the project site, runoff from construction activities and everyday use is not anticipated to enter the stream waterway. The Contractor will be directed to employ standard best management practices to ensure that runoff during construction is prevented from flowing into the stream, and that it is discharged of properly. No short-term or long-term impacts are anticipated; therefore no additional mitigative measures are required.

No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated.

7.1.7 NATURAL HAZARDS

Natural hazards in Hawai'i include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

7.1.7.1 Floods

Description:

The project site is located in an area of "Minimal Tsunami Inundation," as determined by the Federal Emergency Management Agency. The proposed project site is located approximately 900' upslope of the perennial Kaiwilahihi Stream. Although a flood analysis has not been performed for this location, based on the topography of the area and the distance from the stream, flooding is not anticipated for this area.

Impacts and Mitigative Measures:

This project site is not within a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigative measures are required.

7.1.7.2 Hurricanes

Description:

The first hurricane officially recorded in Hawai'i (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawai'i, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawai'i remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

Impacts and Mitigative Measures:

Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

7.1.7.3 Volcanic Eruptions

Description:

There are four active volcanoes on the Island of Hawai'i. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.

The project area is located on the lower slopes of Mauna Kea to the northeast of the summit, and is within a lava hazard zone of "8" on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawai'i is presented as **Figure D-2**, in **Appendix D**. Only a small percentage of Zone 8 areas have been covered by lava in the last 10,000 years.

Impacts and Mitigative Measures:

The risk of a volcanic eruption in this area relatively low, therefore no mitigative measures are required.

7.1.7.4 Earthquakes

Description:

Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active", future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:

Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

7.1.8 FLORA AND FAUNA

Description:

The general project site is currently occupied by an existing gym facility and ball park with a paved parking area. The entire site has been previously cleared and graded for the construction and use of the recreational facilities. The Hawai'i Natural Heritage Program (HNHP) was consulted, and a review of their database records determined that no threatened or endangered species have been recorded within the site. The HNHP did note that there is a Hawaiian Continuous Perennial Stream located in the vicinity of the project (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is provided in **Appendix B**.

Impacts and Mitigative Measures:

Installation of the proposed water spigot will be confined to the immediate spigot location on the indicated parcel, with waterline trenching to meet the County waterline along the access road. This installation will cause minimal short-term adverse impacts on local vegetation. All of the work associated with the installation will take place in previously cleared and paved areas, and is not anticipated to disturb existing vegetation.

No endangered wildlife habitats are noted in the EA for the proposed water spigots facility site, and no endangered wildlife habitats are anticipated to exist in the vicinity of the proposed project site. The proposed water spigots facility location is approximately 900 feet upslope of the recorded Hawaiian Continuous Perennial Stream, and runoff from construction activities will be prevented from entering the stream. Therefore, no mitigative measures are required.

7.1.9 VISUAL

Description:

This project site is located in a developed area adjacent to the existing tennis courts at the County of Hawai'i's Papa'aloa Gym facility, and ball park. The proposed project area is located in the existing level, paved parking area of the gym, just makai of the paved access road. The project site overlooks the ocean with a view plane partially obstructed

by the existing gym facility and a row of palm trees. Several one-story residential dwellings are located in the mauka direction of the project site, and the site overlooks the ball park in the southeast direction.

Impacts and Mitigative Measures:
This project will replace the existing water spigot outlet with an upgraded low-lying facility that includes allocated parking areas and improved drainage features to properly discharge runoff from the proposed spigots.

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. Existing facilities will be protected from construction activities. The proposed project will not result in a negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

7.2 SOCIAL

7.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:
According to the State Historic Preservation Department's Hawai'i National Register of Historic Places, no historical or archaeological sites will be affected by construction at this project site.

In addition, to mitigate the possible impact of construction activities upon any potential resources, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas of gym/park grounds. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs
Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:
The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

7.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:

No road closures are anticipated to take place in conjunction with the construction and operations of the water spigots facility. Access to the gym, tennis courts or adjacent ball field will be available throughout construction. There is a large parking area as part of this park, and while several stalls will be lost if the spigots are installed here, the remaining capacity will be adequate for the park functions.

An existing water spigot source (2 spigots) is located on this parcel near the tennis courts. The installation of water spigots on this property will upgrade the facility and therefore removal of the existing spigots will be incorporated as part of the plans.

A separate water meter is recommended to be considered during the design stage to isolate usage between the spigots and school. The tap into the existing water system will be coordinated with Department of Parks & Recreation personnel to ensure the temporary disruption does not impact the existing facility.

Impacts and Mitigative Measures:

No appreciable disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

7.2.3 NOISE

Description:

The project site is generally quiet when the park is not being used. The current noise is generated mainly by vehicular movements along Old Mamalahoa Highway and sport activities at the park. Portable-type office units are located across the highway, further downhill from the entrance driveway.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor.

Impacts and Mitigative Measures:

Noise generated by construction activities will comply with noise provisions established by the State Department of Health. However, any construction activity in that area is not conducive to park operations. To mitigate noise impacts to any sports event, construction of a facility on this site should be coordinated with the Department of Parks & Recreation as well as the community board.

7.2.4 TRAFFIC

Description:

The existing spigot at this site has an estimated maximum average of 35 visitors a day, based upon water consumption records. The maximum average visitor rate is not expected to increase with the upgrade of the spigot site. There will be minimal, if any, impacts to traffic during the construction and future operation of the water spigots. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place off the road right-of-way and on the park property.

Similarly, future use of the spigots will not occur on the roadway. The design of this facility will ensure that all water filling activities take place out of the road right-of-way.

With regard to the residential units located across the highway, the driveways or road intersections for these properties do not occur across the school property. Therefore, any activity occurring on Old Mamalahoa Highway, turning into the park property, will not affect the local traffic into their residential properties.

Impacts and Mitigative Measures:
No work will be done to the existing roadway and no road closures are expected. Therefore no mitigative measures are required.

7.2.5 RECREATIONAL FACILITIES

Description:
The project site is located in the parking area of a County gym facility and will utilize a portion of publicly used lands.

Impacts and Mitigative Measures:
The proposed spigot site is at a location where use and construction are not expected to affect the activities at or the flow of traffic to the gym facility. During construction, the Contractor will be directed to ensure that access to the gym is maintained at all times. No short-term or long-term impacts are anticipated, therefore, no further mitigative measures are required.

7.3 SOCIO-ECONOMIC

7.3.1 DEMOGRAPHICS

Description:
According to the 2000 census for the North Hilo Census County Division (CCD), the total population of the area is 1,720 people. The population density of the North Hilo district is 5.3 (where 1,720 people reside on 322.45 square miles of land) while that of the entire island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:
The proposed water spigots facility will help to provide potable water to the North Hilo district. It is not anticipated that the facility will induce or reduce population in this area in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

7.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:
The population of the North Hilo district is beginning to increase after a period of decline between 1980 and 1990. By 2000, the district had seen an average growth of 11.6% over a ten year period.

The primary economic activity in the North Hilo district is the agriculture industry, including cattle grazing and the logging to native and planted forests. Other crops grown in this district include macadamia nuts, ginger, bananas, tropical foliage, orchids, topical fruits, cacao, kava, papaya and taro. This district does not support a tourism industry, as there are no accommodations for visitors or popular tourist attractions.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the North Hilo CCD. While this may not apply to all the communities

within the North Hilo district, it does provide a glimpse of the social environment in the vicinity of the project area. The median age of the North Hilo district resident is 40.4 years old. Of the population 16 years and older, 55.2% are employed, while 44.8% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales, construction and transportation. The median household annual income for residents of the North Hilo district is $39,881.

Impacts and Mitigative Measures:
The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawai'i DWS customers. Therefore, no mitigative measures are required.

7.3.3 ENVIRONMENTAL JUSTICE

Description:
These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawai'i DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or open land areas. The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:
No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

7.4 LAND USES AND OWNERSHIP

7.4.1 LAND USE DESIGNATIONS

The land use designations for TMK: 3-5-003: 088 are as follows:

State Land Use –	Urban
Hawai'i County General Plan –	Important Agricultural Land
County Zoning –	Agricultural District (A-1a) (min. building site of 1 acre)

This site is also in a Special Management Area (SMA) zone and a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:
This site is located within a Special Management Area (SMA) zone. However, the County of Hawai'i Planning Department has determined that a SMA Use permit is not required as the replacement of the existing water spigot facility will not adversely affect the environment or coastal resources. This project site is located at a parcel that is partially within the Conservation State Land Use (SLU) designation. However, as the

site itself is well outside of the Conservation SLU, this project will *not* require a Conservation District Use Permit from the Department of Land and Natural Resources.

As directed in the Hawai'i Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawai'i must be consistent with the policies set by the Hawai'i Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawai'i Coastal Zone (CZM) Management Program. A summary of the site-specific CZM federal consistency assessment is provided in **Appendix C**. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawai'i CZM Program will be required.

This project will be placed at the Papa'aloa Gym and ballpark parking area, which is located off an access road connecting to the old Mamalahoa Highway, a dedicated public right-of-way. The site will not be located within the ROW, and will not affect or impede public access to or use of the recreational areas. Construction of the proposed project will take place in an area has been previously developed; however installation may require some minor grading and excavation activities. The project site overlooks the coastline; however, as the site has already been developed will not affect coastal ecosystems.

The project site is located upslope of the perennial Kaiwilahilahi Stream and downslope of the perennial Haakoa Stream. However, due to the topography of the land and the distance of project site to the streams, runoff from construction or operational activities will not enter the stream waterway. The Contractor will be directed to employ standard best management practices to ensure that runoff during construction is prevented from flowing into the stream, and that it is discharged of properly. No short-term or long-term impacts are anticipated; therefore no additional mitigative measures are required.

7.4.2 HAWAI'I STATE PLAN

Description:

The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows: **§226-13 (a)(1)** and **(b)(2), §226-14 (b)(1)**, and **§226-16 (b)(5).** Please refer to **Section 5.4.2** for a description of these items.

Impacts and Mitigative Measures:

Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with both of these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

7.4.3 STATE LAND USE LAW

Description:

The project site, located at TMK 3-5-003:088, is classified by the State as urban land and is under the sole jurisdiction of the County of Hawai'i.

Impacts and Mitigative Measures:
The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

7.4.4 COUNTY OF HAWAI'I

Description:
Under the County of Hawai'i's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific, applicable land use objectives for the agricultural land classification within the North Hilo district include the encouragement of large landowners to make agricultural lands available for agriculture.

The project area land use designation is "Important Agricultural Land." The portion of the Hawai'i County General Plan which relates to the proposed project site is: **§14.1.1**, which states;

> "Certain areas that could have been classified as Important Agricultural lands have been placed within urban land use categories. Generally, these are adjacent to existing urban areas. This represents a decision that the orderly development of those urban areas justifies the eventual conversion of those lands to urban use."

Impacts and Mitigative Measures:
The proposed project is consistent with the County of Hawai'i's General Plan. Installation of the water spigots facility will not affect the land use or development of agriculture in the district. No short-term or long-term impacts are anticipated; therefore no mitigative measures are required.

7.4.5 PROPERTY OWNERSHIP

Description:
The property affected by the installation of the proposed water spigots facility is identified as 3rd Tax Division TMK: 3-5-003: Parcel 088. This parcel is owned by the County of Hawai'i.

Impacts and Mitigative Measures:
The County of Hawai'i currently owns the property identified by 3rd Tax Division TMK: TMK: 3-5-003: Parcel 088. The proposed water spigots facility does not require the use or acquisition of any private lands. Therefore, no mitigative measures are required.

7.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:
The County of Hawai'i Department of Parks and Recreation was consulted to identify possible concerns regarding the proposed project and how it may affect the operation of the Papa'aloa Gym.

The Department of Parks and Recreation has established County park hours as 6:00 a.m. and 11:00 p.m. Individuals who enter the park outside of the posted hours may be

charged for violation of the park rules, and are subject to prosecution. Access to the spigot sites may be limited to the park's posted hours.

It was observed at other existing spigot locations that spigot users have a tendency to leave their trash at the spigot site. Additionally, users are also inclined to rinse out their water containers before refilling them, and dump the rinse water onto the ground.

Impacts and Mitigative Measures:
The installation of a water spigot facility at this project site would require discussion and coordination between DWS, Parks and Recreation, and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the spigot facility. This plan should outline road/driveway maintenance, facility maintenance, operating procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to any of the participating agencies/organizations.

The proposed spigot facility has been placed at the outside corner of the gym parking area. In order to provide all-hour access to the upgraded facility, additional fence enclosures may need to be installed around the facility and gym parking area to prohibit entry into the gym and park after hours. However, In the interest of operational uniformity and personal security, the Department of Parks and Recreation may prefer to limit facility access to follow the park's posted hours of operation. A sign indicating the valid access hours should be posted if the operating hours are to be restricted. Additionally, effort must be made by all applicable parties to ensure that the longest possible operating hours are provided.

The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal. Signs shall also be posted to outline operating rules and to deter improper use of the site.

Should this site be selected for a spigot facility, then the operations, maintenance and coordination issues described in this section will need to be considered and adequately addressed. However, it is not anticipated that installation of a facility at this site will pose short-term or long-term environmental impacts.

SECTION 8

SITE D: MOUNTAIN VIEW GYM
(TMK: 1-8-002:049, 1-8-004:030)

8 DESCRIPTION OF AFFECTED ENVIRONMENT
8.1 PHYSICAL
8.1.1 LOCATION
The project site is located in the Puna District approximately 15 miles southwest of the town of Hilo, and is identified as the State of Hawaiʻi Third Tax Division, Tax Map Key (TMK) 1-8-002:049. The adjacent Mountain View Park is located at TMK 1-8-004:030. Project location and site maps are presented as **Figures 8-1** and **8-2**, respectively. Photographs of the existing site are provided in **Figure 8-3**.

8.1.2 CLIMATE
Description:
According to the National Water and Climate Center (USDA), the average temperature in nearby Volcanoes National Park, HI is 60.9°F with average minimum and maximum monthly temperatures ranging from 52.7°F and 69.1°F, respectively (NWCC/USDA). Annual rainfall at this site averages 109.0 inches.

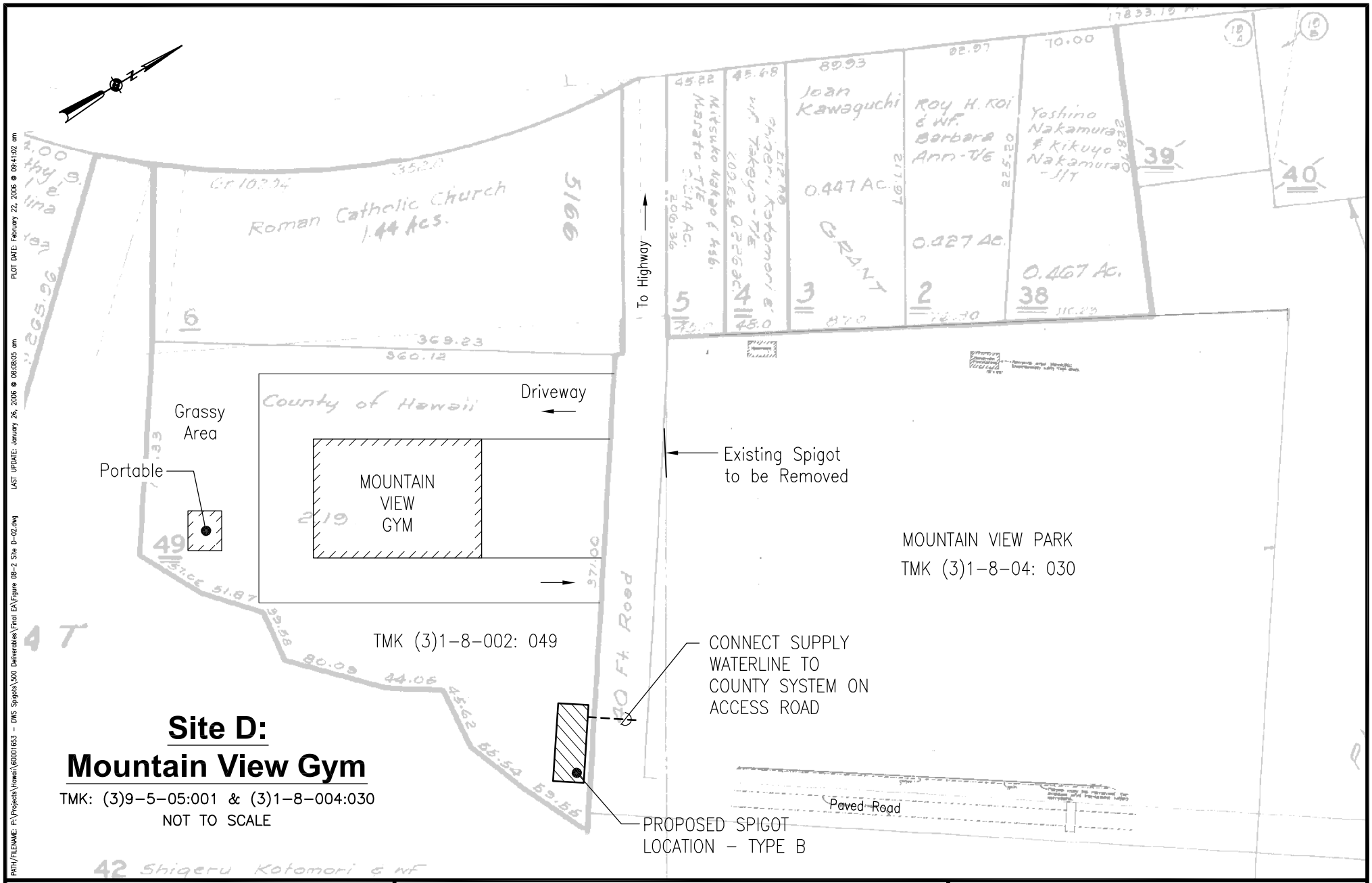
Located on the windward side of the island, Mountain View has nearly constant exposure to the northeast tradewinds.

Impacts and Mitigative Measures:
No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

8.1.3 AIR QUALITY
Description:
In general, the air quality at the project sites is good. The area around the project site is rural in character and absent of heavy industry. Air pollution in the project area is largely a result of open burning, spraying of agricultural chemicals, and vehicle exhaust. Kona winds cause vog conditions.

According to the State of Hawaiʻi Department of Health (DOH) 2004 Annual Summary of Hawaiʻi Air Quality Data, the "air quality in the State of Hawaiʻi continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards." The DOH determined that the State of Hawaiʻi was in attainment for all federal ambient air quality standards in 2004. Please refer to **Table 5-1** for Federal and State Ambient Air Quality Standards.

Impacts and Mitigative Measures:
The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity.



Site D:
Mountain View Gym

TMK: (3)9-5-05:001 & (3)1-8-004:030

NOT TO SCALE

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 08-2 Site D-02.dwg LAST UPDATE: January 26, 2006 @ 08:38:05 am PLOT DATE: February 22, 2006 @ 09:41:02 am

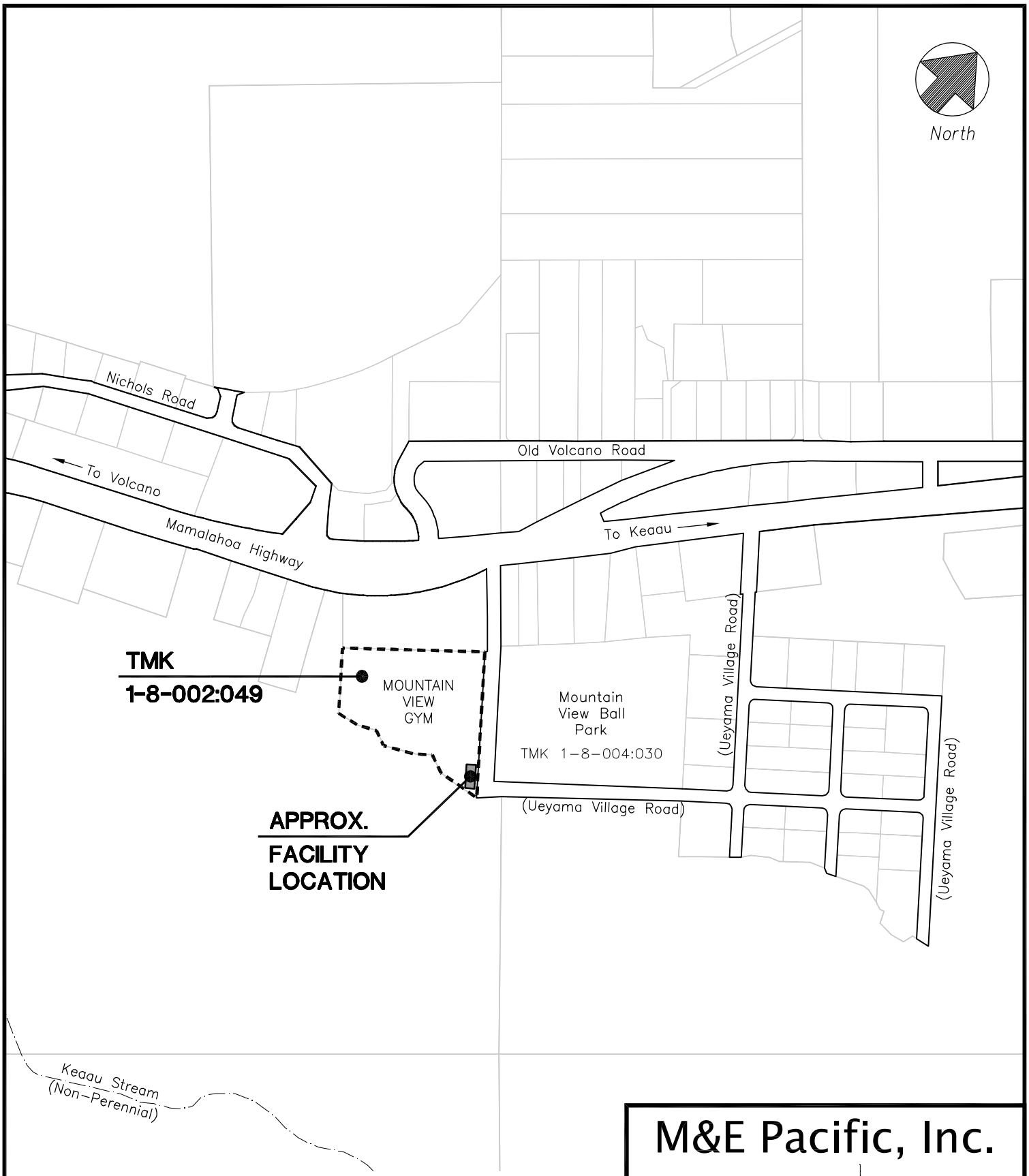
M&E Pacific, Inc.

METCALF & EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure 8-2
Site D Site Map
Mountain View Gym

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006



Site D:
Mountain View Gym

NOT TO SCALE

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Figure 8-1
Site D Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 08-1 Location D-02.dwg LAST UPDATE: January 26, 2006 @ 08:07:50 am PLOT DATE: February 22, 2006 @ 09:41:22 am

Existing Site - Looking Toward Proposed Location

Existing Site - Looking Toward Proposed Location

Site D:
Mountain View Gym

TMK: (3)9-5-05:001

M&E Pacific, Inc.

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Figure 8-3
Site D Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 08-3 Photo D-02.dwg LAST UPDATE: January 26, 2006 @ 08:08:48 am PLOT DATE: February 22, 2006 @ 09:40:44 am

8.1.4 TOPOGRAPHY

Description:

The project site is located between Keaau and Volcano. The ground elevation at the site is approximately 1502'. The land in the area of the proposed spigot site generally slopes from the west to the east.

Impacts and Mitigative Measures:

No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore no mitigative measures are required.

8.1.5 SOILS

Description:

The Natural Resources Conservation Service of the U.S. Department of Agriculture classifies the soil in Mountain View as Ohia extremely stony silty clay loam, 0 to 20 percent slopes (OSD).

The Ohia series consists of well-drained, silty clay loams that formed in volcanic ash. They are nearly level to steep soils and have elevations that range from 900 to 2,000 feet. These soils are used mostly for sugarcane, pasture and woodland. The natural vegetation consists of ohia, tree fern, glenwoodgrass and hamakua pamakani.

In a representative profile, the surface layer is only 20 to 36 inches deep and lies over fragmental A'a lava. Runoff is slow to medium, and the erosion hazard is slight to moderate.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawai'i (ALISH) maps (**Appendix C**) indicate that the proposed site will not be located on or affect protected farmlands. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

8.1.6 WATER RESOURCES

Description:

The project area lies within the Keaau aquifer system, which has a sustainable yield of approximately 393 million gallons per day. A map of the aquifer systems and sustainable yields for the Island of Hawai'i is presented in **Figure D-1** in **Appendix D**. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawai'i.

The Olaa-Mountain View water system is supplied by three deep wells, and extends from the former Puna Sugar Company mill to the Olaa Reservation Lots, and then to the vicinity of Kaloli Drive. The average consumption of this system is about 0.82 mgd. Olaa Wells A, B & C have maximum pump capacities of 1.6 mgd, 0.72 mgd and 2.0 mgd, respectively. Olaa Well C is the primary source for this water system.

Three additional water systems also service the Puna District: the Pahoa water system, the Kapoho water system, and the Kalapana water system. The total average consumption of all systems in the district is 1.2 mgd. The Glenwood and Volcano areas are presently not serviced by any public water system. Many of these areas depend on

roof catchment systems. According to estimates obtained by the Fire Department, approximately 75% of households in the Puna district (~8,363 households) are not connected to the County municipal water system (**Figure 3-2**).

An existing water spigot is currently located at the Mountain View Park, which is located across of the access road from the Mountain View Gym. The existing spigot is off the side of the road and does not have an allocated parking space or pull-up area. It will be removed once the proposed spigot facility has been constructed and is operational. The existing spigot is one of six (6) facilities that currently service the Puna district households without municipal water.

The water consumption records over the past year indicate that the maximum average daily demand for this spigot was 0.0043 mgd and occurred in the month of September.

The existing water spigot facilities closest to this site are located at Kurtistown Ball Park (Site E, approximately 4.2 miles to the northeast), Ainaola Drive (approximately 6.6 miles to the northwest) and Kaumana Drive (approximately 10 miles to the northwest). These facilities are indicated as Site Reference #3, #7 and #8 on **Figures 3-1** and **3-2**, respectively.

The spigot at Kurtistown Ball Park is described in **Section 9** of this EA. Sites #7 and #8 are located in the South Hilo District and are shown in **Photos 8-1** and **8-2**, respectively.

Photo 8-1
Existing Ainaloa Spigot

Photo 8-2
Existing Kaumana Drive Spigot

Both spigots are located on the shoulder of narrow low-traffic two-lane roads, and are each connected directly to a fire hydrant. Neither site has parking available for spigot users, or lighting features for night use. These spigots pose a traffic and pedestrian hazard as users slow to pull off the road or turn to enter the traffic flow.

An existing 4" DWS waterline runs along the portion of the access road fronting the project area parcel. This waterline connects to the main waterline at the intersection of Mamalahoa Highway. The reservoir servicing this waterline has an elevation of 1686.5'.

There is a non-perennial stream (Keaau Stream) approximately 0.2 miles to the southeast of the project site. However, due to the ground topography and distance, runoff from the facility will not discharge directly into the stream. USGS map and USFWS online map reviews (**Appendix C**) indicate that there are no other streams, ponds, lakes or wetlands within or near the proposed site.

Impacts and Mitigative Measures:
The proposed spigot will connect with a meter to the existing County waterline within the Olaa-Mountain View water system. The maximum average daily demand is not expected to increase with the upgraded facility; therefore the proposed installation will not affect the capacity of this water system. Should this site be selected as for a water spigot facility upgrade, the County of Hawai'i may consider using the upgraded facility as a replacement for one of the existing spigot facilities due to the personal and traffic safety hazards the existing facilities currently pose.

Due to the distance of the stream from the project site, runoff from construction activities and everyday use is not anticipated to enter the stream waterway. The Contractor will be directed to employ standard best management practices to ensure that runoff during construction is prevented from flowing into the stream, and that it is discharged of properly. No short-term or long-term impacts are anticipated; therefore no additional mitigative measures are required.

No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated.

8.1.7 NATURAL HAZARDS
Natural hazards in Hawai'i include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

8.1.7.1 Floods
Description:
The project site is located in an area of "Minimal Tsunami Inundation", as determined by the Federal Emergency Management Agency. Flooding is not anticipated for this area.

The proposed project site is not located in an area which contains estuary, fresh water or coastal waters.

Impacts and Mitigative Measures:
This project site is not within a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigative measures are required.

8.1.7.2 Hurricanes
Description:
The first hurricane officially recorded in Hawai'i (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawai'i, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawai'i remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

Impacts and Mitigative Measures:
Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

8.1.7.3 Volcanic Eruptions

Description:

There are four active volcanoes on the Island of Hawai'i. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.

The project area is located to the east of the Mauna Loa northeast rift zone, and is within a lava hazard zone of "3" on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawai'i is presented as **Figure D-2**, in **Appendix D**. Zone 3 areas are described as being less hazardous than Zone 2 areas due to their greater distance from recently active vents and/or their topography decreases the likelihood that flows will cover these areas.

Impacts and Mitigative Measures:

The risk of a volcanic eruption in this area is moderate. It is located downslope of a rift zone of Kilauea volcano, however is protected from a lava flow by either distance or topography. Although the proposed improvements may be damaged in the event of a lava flow in this area, there are no practical mitigative measures currently available. The proposed project will comply with the current regulatory design standards.

8.1.7.4 Earthquakes

Description:

Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active", future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:

Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

8.1.8 FLORA AND FAUNA

Description:

The general project site is currently occupied by an existing gym facility with a paved parking area. The entire site has been previously cleared and graded for the construction and use of the gym facility. The Hawai'i Natural Heritage Program (HNHP) was consulted, and a review of their database records determined that no threatened or endangered species have been recorded within the site. The HNHP also indicated that the endangered Hawaiian Hawk and Hawaiian Hoary Bat were observed along Mamalahoa Highway (Highway 11); however these sightings were not near the project site (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and

information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is also provided in **Appendix B**.

Impacts and Mitigative Measures:
Installation of the proposed water spigot will be confined to the immediate spigot location on the indicated parcel, with waterline trenching to meet the County waterline along the paved access road. While minor clearing and grading would be required, this installation will cause minimal short-term adverse impacts on local vegetation. All of the work associated with the installation will take place in previously cleared and/or paved areas, and will only disturb various grasses. All disturbed grassed areas will be re-vegetated as soon as possible upon completion of the spigot installation to prevent soil erosion and reduce visual impacts.

No endangered wildlife habitats are noted in the EA for the proposed water spigots facility site. Although there have been sightings of endangered species in the general area, construction activities for and operation of the installation will not encroach into uninhabited or undeveloped areas. Therefore, no mitigative measures are required.

8.1.9 VISUAL
Description:
The project site is located in a developed area just *makai* of Mamalahoa Highway. It is in the vicinity of an existing one-story County of Hawai'i gym facility and ball park. Various one-story dwellings are located adjacent to the site parcel. The project site overlooks a vegetated area in the *makai* direction, and the ball park and residential area in the *mauka* direction. No relatively tall buildings are located near the site.

Impacts and Mitigative Measures:
Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. Existing trees will be protected from construction activities to the maximum extent possible. The proposed project will not result in a negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

8.2 SOCIAL
8.2.1 SECTION 106 AND CULTURAL RESOURCES
Description:
According to the State Historic Preservation Department's Hawai'i National Register of Historic Places, no historical or archaeological sites will be affected by construction at this project site.

In addition, to mitigate the possible impact of construction activities upon any potential resources, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas of gym/park grounds. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs
Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:
The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

8.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:
No road closures are anticipated to take place in conjunction with the construction and operations of the water spigots facility. Access to the gym and ball field will be available throughout construction.

An existing water spigot source (2 spigots) is located adjacent to the ball field, along side the local road separating the two areas. The installation of water spigots on this property will upgrade the facility and therefore removal of the existing spigots will be incorporated as part of the plans.

A separate water meter is recommended to be considered during the design stage to isolate usage between the spigots and school. The tap into the existing water system will be coordinated with Department of Parks & Recreation personnel to ensure the temporary disruption does not impact the existing facility.

Impacts and Mitigative Measures:
No appreciable disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

8.2.3 NOISE

Description:
The project site is generally quiet when the park is not being used. The current noise is generated mainly by sport activities at the park.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor.

Impacts and Mitigative Measures:
Noise generated by construction activities will comply with noise provisions established by the State Department of Health. However, any construction activity in that area is not conducive to park operations. To mitigate noise impacts to any sports event,

construction of a facility on this site should be coordinated with the Department of Parks & Recreation as well as the community board.

8.2.4 TRAFFIC

Description:

The existing spigot at this site has an estimated maximum average of 215 visitors a day, based upon water consumption records. The maximum average visitor rate is not expected to increase with the upgrade of the spigot site. There will be minimal, if any, impacts to traffic during the construction and future operation of the water spigots. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place off the road right-of-way and on the park property.

Similarly, future use of the spigots will not occur on the roadway. The design of this facility will ensure that all water filling activities take place out of the road right-of-way. This will provide a much safer zone for the public, in lieu of mixing vehicular and pedestrian actions along a road side.

Impacts and Mitigative Measures:

No work will be done to the existing roadway and no road closures are expected. Therefore no mitigative measures are required.

8.2.5 RECREATIONAL FACILITIES

Description:

The project site is located in the parking area of a County gym facility and will utilize a portion of publicly used lands.

Impacts and Mitigative Measures:

The proposed spigot site is at a location where use and construction are not expected to affect the activities at or the flow of traffic to the gym facility. During construction, the Contractor will be directed to ensure that access to the gym is maintained at all times. No significant short-term or long-term impacts are anticipated; therefore no further mitigative measures are required.

8.3 SOCIO-ECONOMIC

8.3.1 DEMOGRAPHICS

Description:

Census information for the Puna district is divided into two CCDs within the area: the Keaau-Mountain View CCD, and the Pahoa-Kalapana CCD. The total population of the district in 2000 was reported as 31,335 people.

According to the 2000 census for the Keaau-Mountain View CCD, the total population of the area is 22,738 people. The population density of the Keaau-Mountain View area is 98.7 (where 22,738 people reside on 230.38 square miles of land). The total population of the Pahoa-Kalapana CCD is 8,597 people, for 269.07 square miles of land. The density of the entire Island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:

The proposed water spigots facility will help provide potable water to the Puna district. It is not anticipated that the facility will induce or reduce population in this area in the short-

term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

8.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:

The population of the Puna district has significantly increased since 1980. By 2000, the district had seen an average growth of nearly 167% of its population, mostly due to the employment opportunities provided by the district's agriculture industry and the businesses in Hilo, as well as the land affordability offered in Puna (County of Hawai'i, 2005).

The primary economic activity in the Puna district is the agriculture industry, including truck farming, the farming of papaya, anthuriums, orchids and bananas. There is a small tourism industry in this district due to popular attractions such as the Volcanoes National Park, however, visitor accommodations and facilities in Puna are limited to mostly bed and breakfast and vacation rental operations.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the Puna district. While this may not apply to all the communities within the Puna district, it does provide a glimpse of the social environment in the vicinity of the project area. A weighted average was taken for the two CCDs within the district. The median age of the Puna district resident is 56.3 years old. Of the population 16 years and older, 59.6% are employed, while 40.4% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales, farming/fishing/forestry, construction, transportation and agriculture. The median household annual income for residents of the Puna district is $31,040.

Impacts and Mitigative Measures:

The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawai'i DWS customers. Therefore, no mitigative measures are required.

8.3.3 ENVIRONMENTAL JUSTICE

Description:

These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawai'i DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or are in areas where there is open land. The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:

No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

8.4 LAND USES AND OWNERSHIP

8.4.1 LAND USE DESIGNATIONS

The land use designations for TMK: 1-8-002:049 & 1-8-004:030 are as follows:

State Land Use –	Urban
Hawai'i County General Plan –	Low Density Urban
County Zoning –	Single-Family Residential District (RS-20) (min. building site area of 20,000 sq. ft.)

This site is also located within a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:

As directed in the Hawai'i Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawai'i must be consistent with the policies set by the Hawai'i Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawai'i Coastal Zone (CZM) Management Program. A summary of the site-specific CZM federal consistency assessment is provided in **Appendix C**. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawai'i CZM Program will be required.

This project site is located along the access road to the Mountain View Gym and Ball Park which is off Mamalahoa Highway. The site will not be located within the ROW, and will not affect public access to or use of the recreational areas. Construction of the proposed project will take place in an area has been previously developed; however installation may require some minor grading and excavation activities. The project site is not located near the coastline, and therefore will not affect coastal ecosystems.

8.4.2 HAWAI'I STATE PLAN

Description:

The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows: **§226-13 (a)(1)** and **(b)(2), §226-14 (b)(1)**, and **§226-16 (b)(5).** Please refer to **Section 5.4.2** for a description of these items.

Impacts and Mitigative Measures:

Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with both of these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

8.4.3 STATE LAND USE LAW

Description:

The project site, located at TMKs 1-8-002:049 and 1-8-004:030, is classified by the State as urban land and is under the sole jurisdiction of the County of Hawai'i.

Impacts and Mitigative Measures:

The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

8.4.4 COUNTY OF HAWAI'I

Description:

Under the County of Hawai'i's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific land use objectives for the single-family residential classification within the Puna district includes the improvement and development of roadways, water and sewer systems and other basic facilities necessary to encourage development of lands suitable for residential use.

The project area land use designation is "Low Density Urban."

Impacts and Mitigative Measures:

The proposed project is consistent with the County of Hawai'i's General Plan. Installation of the water spigot facilities will not affect the land use or development of the area. No short-term or long-term impacts are anticipated, therefore no mitigative measures are required.

8.4.5 PROPERTY OWNERSHIP

Description:

The property affected by the installation of the proposed water spigots facility is identified as 3rd Tax Division TMK: 1-8-002: Parcel 049. This parcel is owned by the County of Hawai'i.

Impacts and Mitigative Measures:

The County of Hawai'i currently owns the property identified by 3rd Tax Division TMK: 1-8-002: Parcel 049. The proposed water spigots facility does not require the use or acquisition of any private lands. Therefore, no mitigative measures are required.

8.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:

The County of Hawai'i Department of Parks and Recreation was consulted to identify possible concerns regarding the proposed project and how it may affect operation of the Mountain View Gym.

During the site investigation, it was observed that users of the existing water spigot had a tendency to leave their trash at the spigot site. Additionally, users would also rinse out their water containers before refilling them, and dump the rinse water onto the ground. A resident informed the site investigators that users also use the water spigots to wash down their vehicles, resulting in ponding water and runoff along the access roadway.

The Department of Parks and Recreation has established County park hours as 6:00 a.m. and 11:00 p.m. Individuals who enter the park outside of the posted hours may be charged for violation of the park rules, and are subject to prosecution. All-hour access to spigot sites within the parks may not be feasible.

Impacts and Mitigative Measures:
The installation of a water spigot facility at this project site would require discussion and coordination between DWS, Parks and Recreation, and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the spigot facility. This plan should outline road/driveway maintenance, facility maintenance, operating hours and procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to any of the participating agencies/organizations.

The proposed spigot facility has been placed at the end of the access road to the gym and ball park area. All-hour access to the facility is preferable, however in the interest of operational uniformity and personal security, DWS and the Mayor's Office may consider limiting access to follow the park's posted hours of operation. A sign indicating the valid access hours should be posted if the operating hours are to be restricted. A determination on this issue will be made during the design phase of the project, and will consider the location of the facility and discussion with the park owners and operators. Should the operating hours of the proposed facility be restricted, effort should be made by all applicable parties to ensure the longest possible operating hours are provided.

The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal. Signs shall also be posted to outline operating rules and to deter improper use of the site.

Should this site be selected for a spigot facility, then the operations, maintenance and coordination issues described in this section will need to be considered and adequately addressed. However, it is not anticipated that installation of a facility at this site will pose short-term or long-term environmental impacts.

SECTION 9

SITE E: KURTISTOWN BALL PARK (TMK: 1-7-003:019)

9 DESCRIPTION OF AFFECTED ENVIRONMENT

9.1 PHYSICAL

9.1.1 LOCATION

The project site is located in the Puna District, approximately four miles south of Hilo, and is identified as the State of Hawaiʻi Third Tax Division, Tax Map Key (TMK) 1-7-003:019. Project location and site maps are presented as **Figures 9-1** and **9-2,** respectively. Photographs of the existing site are provided in **Figure 9-3**.

9.1.2 CLIMATE

Description:

The average temperature in nearby Keaau, HI is 72.5°F with average minimum and maximum monthly temperatures ranging from 65°F to 80°F, respectively. Annual rainfall averages 125 inches.

The project area is on the windward side of the island and usually experiences tradewind conditions.

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

9.1.3 AIR QUALITY

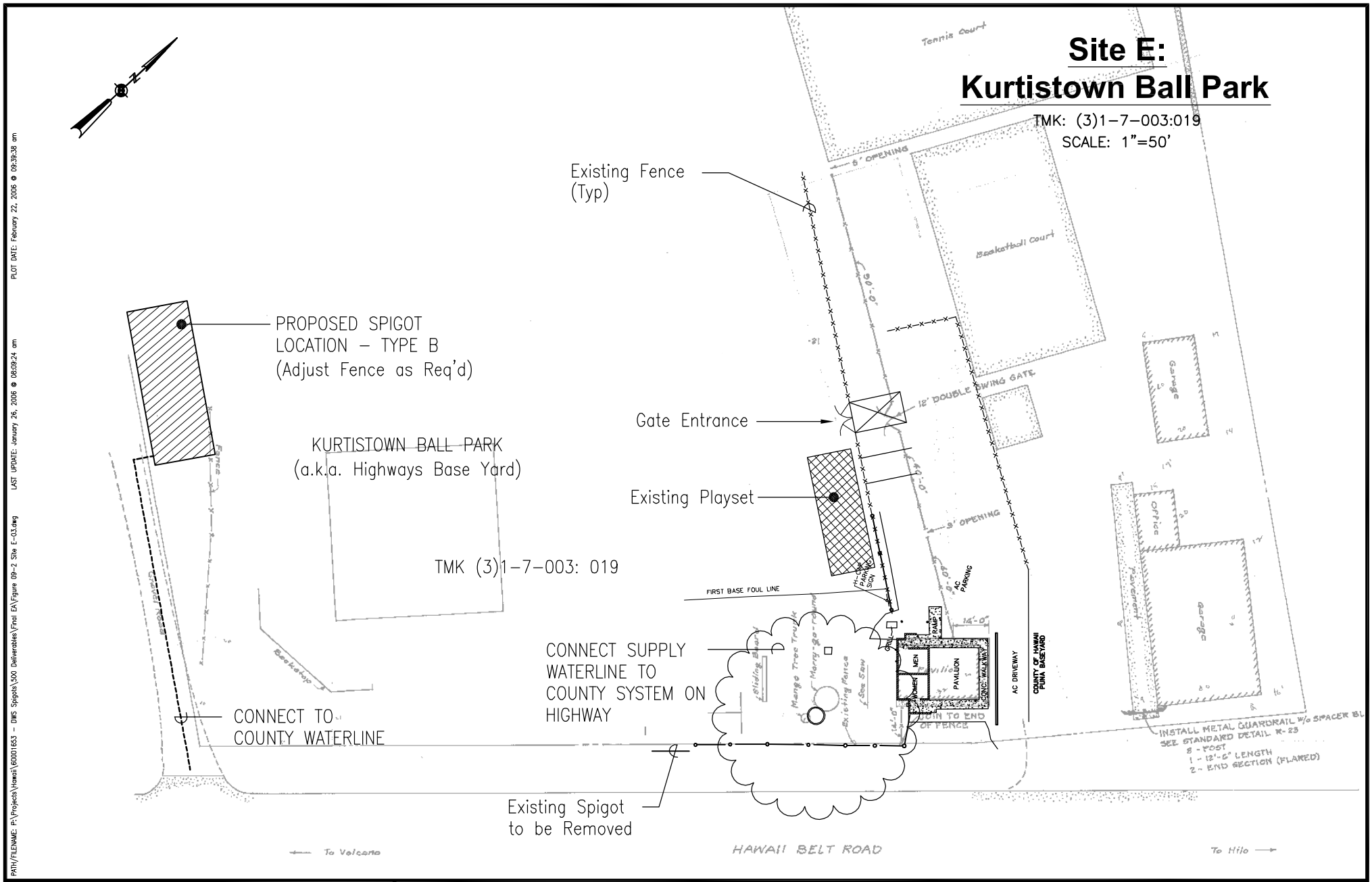
Description:

In general, air quality at the project site is good. The area around the project site is rural in character and absent of heavy industry. The only significant source of air pollution is from volcanic eruptions. Because the site is upwind of Kilauea, the area is usually free of vog. When Kona winds prevail, the vog becomes a noticeable pollutant.

According to the State of Hawaiʻi Department of Health (DOH) 2004 Annual Summary of Hawaiʻi Air Quality Data, the “air quality in the State of Hawaiʻi continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards.” The DOH determined that the State of Hawaiʻi was in attainment for all federal ambient air quality standards in 2004. Please refer to **Table 5-1** for Federal and State Ambient Air Quality Standards.

Impacts and Mitigative Measures:

The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity.



PATH/FILENAME: P:\Projects\Hawaii\60001653 – DWS Spigots\500 Deliverables\Final EA\Figure 09-2 Site E-03.dwg LAST UPDATE: January 26, 2006 @ 08:59:24 am PLOT DATE: February 22, 2006 @ 09:39:38 am

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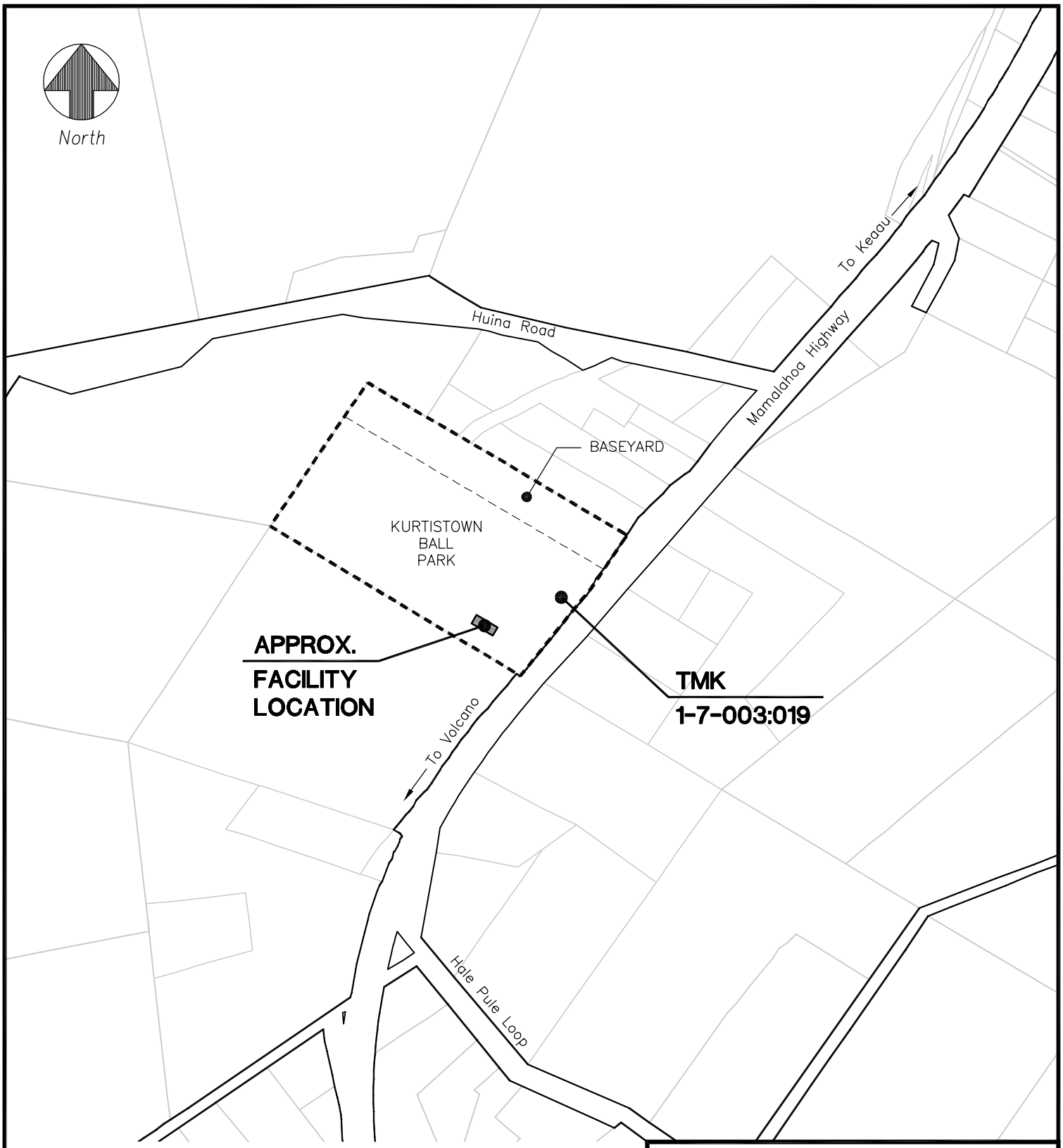
Figure 9-2
Site E Site Map
Kurtistown Ball Park
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006



Site E:
Kurtistown Ball Park

NOT TO SCALE

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Figure 9-1
Site E Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 09-1 Location E-03.dwg LAST UPDATE: January 26, 2006 @ 08:09:09 am PLOT DATE: February 22, 2006 @ 09:40:24 am

Proposed Location

Towards Proposed Location

Existing Spigot

Site E:
Kurtistown Ball Park

TMK: (3)1–7–003:019

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Figure 9-3
Site E Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 – DWS Spigots\500 Deliverables\Final EA\Figure 09-3 Photo E-03.dwg LAST UPDATE: January 26, 2006 @ 08:09:44 am PLOT DATE: February 22, 2006 @ 09:45:27 am

9.1.4 TOPOGRAPHY

Description:

The project site is located between Keaau and Mountain View. The ground elevation at the site is approximately 675'. The land in the area of the proposed spigot site generally slopes from the southwest to the northeast.

Impacts and Mitigative Measures:

No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore no mitigative measures are required.

9.1.5 SOILS

Description:

The Natural Resources Conservation Service of the U.S. Department of Agriculture classifies the soil in the Kurtistown area as Hilo silty clay loam, 0 to 10 percent slopes (HoC).

The Hilo series consists of well-drained silty clay loams. They are gently sloping to steep, and have elevations that range from near sea level to 800 feet. These soils are used mostly for sugarcane; however small areas are also used for truck crops, orchards and pasture. The natural vegetation consists of hilograss, californiagrass, guava, ohia and tree fern.

In a representative profile, the surface layer is dark-brown silty clay loam about 12 inches thick. The subsoil, about 48 inches thick, is dark-brown, dark reddish-brown, and very dark grayish-brown silty clay loam. The surface layer is very strongly acid, and the subsoil is strongly acid to medium acid.

The soil is rapidly permeable. Runoff is slow, and the erosion hazard is slight.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawai'i (ALISH) maps (**Appendix C**) indicate that the proposed site will not be located on or affect protected farmlands. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

9.1.6 WATER RESOURCES

Description:

The project area lies within the Keaau aquifer system, which has a sustainable yield of approximately 393 million gallons per day. A map of the aquifer systems and sustainable yields for the Island of Hawai'i is presented in **Figure D-1** in **Appendix D**. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawai'i.

The Olaa-Mountain View water system is supplied by three deep wells, and extends from the former Puna Sugar Company mill to the Olaa Reservation Lots, and then to the vicinity of Kaloli Drive. The average consumption of this system is about 0.82 mgd. Olaa Wells A, B & C have maximum pump capacities of 1.6 mgd, 0.72 mgd and 2.0 mgd, respectively. Olaa Well C is the primary source for this water system.

Three additional water systems also service the Puna District: the Pahoa water system, the Kapoho water system, and the Kalapana water system. The total average consumption of all systems in the district is 1.2 mgd. The Glenwood and Volcano areas are presently not serviced by any public water system. Many of these areas still depend on roof catchment systems. According to estimates obtained by the Fire Department, approximately 75% of households in the Puna district (~8,363 households) are not connected to the County municipal water system (**Figure 3-2**).

An existing water spigot is currently located just off Mamalahoa Highway at Kurtistown Ball Park and is shown in the photos on **Figure 9-3**. The existing spigot is off the high-speed roadway does not have an allocated parking space or driveway. It will be removed once the proposed spigot facility has been constructed and is operational. The existing spigot is one of six (6) facilities that currently service the Puna district households without municipal water.

The existing water spigot facilities closest to this site are located at Mountain View Gym (Site D, approximately 4.2 miles to the southeast), Keaau Transfer Station (Site F, approximately 2.9 miles to the northeast), Ainaola Drive (approximately 5.3 miles to the northwest) and Kaumana Drive (approximately 9.5 miles to the northwest). These facilities are indicated as Site Reference #4, #1, #7 and #8 on **Figures 3-1** and **3-2**, respectively.

The spigot at Mountain View Gym is described in **Section 8** of this EA and the Keaau Transfer Station spigot is described in **Section 10**. Sites #7 and #8 are located in the South Hilo District and are shown in **Photos 9-1** and **9-2**, respectively.

Photo 9-1
Existing Ainaloa Spigot

Photo 9-2
Existing Kaumana Drive Spigot

Both spigots are located on the shoulder of narrow low-traffic two-lane roads, and are each connected directly to a fire hydrant. Neither site has parking available for spigot users, or lighting features for night use. These spigots pose a traffic and pedestrian hazard as users slow to pull off the road or turn to enter the traffic flow.

The water consumption records over the past year for this spigot indicate that the maximum average daily demand was approximately 0.0032 mgd and occurred in the month of May.

An existing 8" DWS waterline runs along the portion of Mamalahoa Highway fronting the project area parcel. The reservoir servicing this waterline has an elevation of 860'.

USGS map and USFWS online map reviews (**Appendix C**) indicate that there are no streams, ponds, lakes or wetlands within or near the proposed site.

Impacts and Mitigative Measures:
The proposed spigot will connect with a meter to the main County waterline within the Olaa-Mountain View water system. The maximum average daily demand is not expected to increase with the upgrade of the facility; therefore the project will not affect the capacity of this water system. Should this site be selected as for a water spigot facility upgrade, the County of Hawaiʻi may consider using the upgraded facility as a replacement for one of the existing spigot facilities due to the personal and traffic safety hazards the existing facilities currently pose.

No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated.

9.1.7 NATURAL HAZARDS
Natural hazards in Hawaiʻi include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

9.1.7.1 Floods
Description:
The project site is located in an area of “Minimal Tsunami Inundation”, as determined by the Federal Emergency Management Agency. Flooding is not anticipated for this area.

The proposed project site is not located in an area which contains estuary, fresh water or coastal waters.

Impacts and Mitigative Measures:
This project site is not within a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigative measures are required.

9.1.7.2 Hurricanes
Description:
The first hurricane officially recorded in Hawaiʻi (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawaiʻi, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawaiʻi remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

Impacts and Mitigative Measures:
Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

9.1.7.3 Volcanic Eruptions
Description:
There are four active volcanoes on the Island of Hawaiʻi. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.

The project area is located to the east of the Mauna Loa northeast rift zone, and is within a lava hazard zone of "3" on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawai'i is presented as **Figure D-2**, in **Appendix D**. Zone 3 areas are described as being less hazardous than Zone 2 areas due to their greater distance from recently active vents and/or their topography decreases the likelihood that flows will cover these areas.

Impacts and Mitigative Measures:
The risk of a volcanic eruption in this area is moderate. It is located downslope of a rift zone of Kilauea volcano, however is protected from a lava flow by either distance or topography. Although the proposed improvements may be damaged in the event of a lava flow in this area, there are no practical mitigative measures currently available. The proposed project will comply with the current regulatory design standards.

9.1.7.4 Earthquakes
Description:
Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active", future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:
Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

9.1.8 FLORA AND FAUNA
Description:
The general project site is currently occupied by an existing County ball park with a paved parking area and comfort station/pavilion. The entire site has been previously cleared and graded for the construction and use of the park facilities. The Hawai'i Natural Heritage Program (HNHP) was consulted, and a review of their database records determined that no threatened or endangered species have been recorded within the site. The HNHP also indicated that the endangered Hawaiian Hawk and Hawaiian Hoary Bat were observed along Mamalahoa Highway (Highway 11), however these sighting were not near the project site (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is also provided in **Appendix B**.

Impacts and Mitigative Measures:
Installation of the proposed water spigot will be confined to the immediate spigot location on the indicated parcel, with waterline trenching to meet the County waterline along Mamalahoa Highway. This installation will cause minimal short-term adverse impacts on

local vegetation. All of the work associated with the installation will take place in previously cleared and/or paved areas, and will only disturb various grasses. All disturbed grassed areas will be re-vegetated as soon as possible upon completion of the spigot installation to prevent soil erosion and reduce visual impacts.

No endangered wildlife habitats are noted in the EA for the proposed water spigots facility site. Although there have been sightings of endangered species in the general area, construction activities for and operation of the installation will not encroach into uninhabited or undeveloped areas. Therefore, no mitigative measures are required.

9.1.9 VISUAL

Description:

The project site is located in a fairly developed area just *mauka* of Mamalahoa Highway. It is located in an existing level, paved parking area, adjacent to an existing County of Hawaiʻi baseball park, an existing one-story comfort station/pavilion, and an existing State of Hawaiʻi baseyard with a one-story garage building. The project site overlooks a vegetated area with several residential dwelling in the *makai* plane view, and a newly constructed one-story County of Hawaiʻi facility elevated above the site in the *mauka* direction.

Impacts and Mitigative Measures:

The proposed spigot facility is low-lying and is not anticipated to adversely affect the view of the ball park from the project area, or compromise the existing aesthetic character of the site. The installation of the proposed project will not change the overall view of this developed site.

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. Existing trees will be protected from construction activities to the maximum extent possible. The proposed project will not result in a negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

9.2 SOCIAL

9.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:

According to the State Historic Preservation Department's Hawaiʻi National Register of Historic Places, no historical or archaeological sites will be affected by construction at this project site.

In addition, to mitigate the possible impact of construction activities upon any potential resources, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas of the ball field and side road shoulder. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs
Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:
The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

9.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:
No road closures are anticipated to take place in conjunction with the construction and operations of the water spigots facility. Access to the ball field and basketball court will not be affected during construction or facility operation.

An existing water spigot source (6 spigots) is located adjacent to the ball field, along side Hawai'i Belt Road. The installation of water spigots on this property will upgrade the facility and therefore removal of the existing spigots will be incorporated as part of the plans. The Contractor will be instructed to demolish and dispose of the existing spigot assembly in a proper manner.

A separate water meter is recommended to be considered during the design stage to isolate usage between the spigots and school. The tap into the existing water system will be coordinated with Department of Parks & Recreation personnel to ensure the temporary disruption does not impact the existing facility.

Impacts and Mitigative Measures:
No appreciable disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

9.2.3 NOISE

Description:
The project site is generally quiet when the park is not being used. The current noise is generated mainly by vehicular movement along Hawai'i Belt Road and sport activities at the park.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor.

Impacts and Mitigative Measures:
Noise generated by construction activities will comply with noise provisions established by the State Department of Health. However, any construction activity in that area is not

conducive to park operations. Construction activities are short-term and localized in nature, therefore no long-term or cumulative impacts are anticipated due to the proposed projects and no other mitigative measures are required.

9.2.4 TRAFFIC

Description:

The existing spigot at this site has an estimated maximum average of 160 visitors a day, based upon water consumption records. The maximum average visitor rate is not expected to increase with the upgrade of the spigot site. There will be minimal, if any, impacts to traffic during the construction and future operation of the water spigots. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place off the road right-of-way and on the park property.

Similarly, future use of the spigots will not occur on the roadway. The design of this facility will ensure that all water filling activities take place out of the road right-of-way. This will provide a much safer zone for the public, in lieu of mixing vehicular and pedestrian actions along a road side.

Impacts and Mitigative Measures:

No work will be done to the existing roadway and no road closures are expected. Therefore no mitigative measures are required.

9.2.5 RECREATIONAL FACILITIES

Description:

The project site is located in the parking area of a County ball park and will utilize a portion of publicly used lands.

Impacts and Mitigative Measures:

The proposed spigot site is at a location where use and construction are not expected to affect the activities at or the flow of traffic to the park facilities. During construction, the Contractor will be directed to ensure that access to the park is maintained at all times. No significant short-term or long-term impacts are anticipated. Therefore, no mitigative measures are required.

9.3 SOCIO-ECONOMIC

9.3.1 DEMOGRAPHICS

Description:

Census information for the Puna district is divided into two CCDs within the area: the Keaau-Mountain View CCD, and the Pahoa-Kalapana CCD. The total population of the district in 2000 was reported as 31,335 people.

According to the 2000 census for the Keaau-Mountain View CCD, the total population of the area is 22,738 people. The population density of the Keaau-Mountain View area is 98.7 (where 22,738 people reside on 230.38 square miles of land). The total population of the Pahoa-Kalapana CCD is 8,597 people, for 269.07 square miles of land. The density of the entire Island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:
The proposed water spigots facility will help provide potable water to the Puna district. It is not anticipated that the facility will induce or reduce population in this area in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

9.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:
The population of the Puna district has significantly increased since 1980. By 2000, the district had seen an average growth of nearly 167% of its population, mostly due to the employment opportunities provided by the district's agriculture industry and the businesses in Hilo, as well as the land affordability offered in Puna (County of Hawaiʻi, 2005).

The primary economic activity in the Puna district is the agriculture industry, including truck farming, the farming of papaya, anthuriums, orchids and bananas. There is a small tourism industry in this district due to popular attractions such as the Volcanoes National Park, however, visitor accommodations and facilities in Puna are limited to mostly bed and breakfast and vacation rental operations.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the Puna district. While this may not apply to all the communities within the Puna district, it does provide a glimpse of the social environment in the vicinity of the project area. A weighted average was taken for the two CCDs within the district. The median age of the Puna district resident is 56.3 years old. Of the population 16 years and older, 59.6% are employed, while 40.4% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales, farming/fishing/forestry, construction, transportation and agriculture. The median household annual income for residents of the Puna district is $31,040.

Impacts and Mitigative Measures:
The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawaiʻi DWS customers. Therefore, no mitigative measures are required.

9.3.3 SOCIAL JUSTICE

Description:
These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawaiʻi DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or in areas where there is open land. The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:
No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

9.4 LAND USES AND OWNERSHIP

9.4.1 LAND USE DESIGNATIONS

The land use designations for TMK: 1-7-003: 019 are as follows:

State Land Use –	Urban
Hawai'i County General Plan –	Open Area
County Zoning –	Open

This site is also located within a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:

As directed in the Hawai'i Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawai'i must be consistent with the policies set by the Hawai'i Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawai'i Coastal Zone (CZM) Management Program. A summary of the site-specific CZM federal consistency assessment is provided in **Appendix C**. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawai'i CZM Program will be required.

This project site is located at the Kurtistown Ball Park, along a side road off Mamalahoa Highway. The site will not be located within the ROW, and will not affect public access to or use of the recreational areas. Construction of the proposed project will take place in an area has been previously developed; however installation may require some minor grading and excavation activities. The project site is not located near the coastline, and therefore will not affect coastal ecosystems.

9.4.2 HAWAI'I STATE PLAN

Description:

The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows: **§226-13 (a)(1)** and **(b)(2), §226-14 (b)(1)**, and **§226-16 (b)(5)**. Please refer to **Section 5.4.2** for a description of these items.

Impacts and Mitigative Measures:

Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with both of these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

9.4.3 STATE LAND USE LAW

Description:

The project site, located at TMK 1-7-003:019, is classified by the State as urban land and is under the sole jurisdiction of the County of Hawai'i.

Impacts and Mitigative Measures:

The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

9.4.4 COUNTY OF HAWAI'I

Description:

Under the County of Hawai'i's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific land use objectives for the open classification within the Puna district include the provision and protection of open space for the social, environmental and economic well-being of the County and its residents, and the protection of designated natural areas.

The project area land use designation is "Open."

Impacts and Mitigative Measures:

The proposed project is consistent with the County of Hawai'i's General Plan. The water spigots facility will be constructed in a location that has already been developed, and its use is not expected to detract or disrupt the activities at the park facilities. This project will not affect the land use or development of the area. No short-term or long-term impacts are anticipated, therefore no mitigative measures are required.

9.4.5 PROPERTY OWNERSHIP

Description:

The property affected by the installation of the proposed water spigots facility is identified as 3rd Tax Division TMK: 1-7-003: Parcel 019. This parcel is owned by the County of Hawai'i.

Impacts and Mitigative Measures:

The County of Hawai'i currently owns the property identified by 3rd Tax Division TMK: 1-7-003: Parcel 019. The proposed water spigots facility does not require the use or acquisition of any private lands. Therefore, no mitigative measures are required.

9.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:

The County of Hawai'i Department of Parks and Recreation was consulted to identify possible concerns regarding the proposed project.

It was observed at other existing spigot locations that spigot users have a tendency to leave their trash at the spigot site. Additionally, users are also inclined to rinse out their water containers before refilling them, and dump the rinse water onto the ground.

The Department of Parks and Recreation has established County park hours as 6:00 a.m. and 11:00 p.m. Individuals who enter the park outside of the posted hours may be

charged for violation of the park rules, and are subject to prosecution. All-hour access to spigot sites within the parks may not be feasible.

Impacts and Mitigative Measures:
The installation of a water spigot facility at this project site would require discussion and coordination between DWS, Parks and Recreation, and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the spigot facility. This plan should outline road/driveway maintenance, facility maintenance, operating procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to any of the participating agencies/organizations.

The proposed spigot facility has been placed at a location outside of the park, adjacent to the park fence enclosure. It is not located near the park entrance. All-hour access to the proposed facility is possible. However, although this location is not physically within the park, the Department of Parks and Recreation may prefer to limit spigot access to follow the park's posted hours for operational uniformity. A sign indicating the valid access hours should be posted if the operating hours are to be restricted. A determination on this issue will be made during the design phase of the project, and will consider the location of the facility and discussion with DWS, the Mayor's Office and the park owners and operators. Should the operating hours of the proposed facility be restricted, effort should be made by all affected parties to ensure the longest possible operating hours are provided.

The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal. Signs shall also be posted to outline operating rules and to deter improper use of the site.

Should this site be selected for a spigot facility, then the operations, maintenance and coordination issues described in this section will need to be considered and adequately addressed. However, it is not anticipated that installation of a facility at this site will pose short-term or long-term environmental impacts.

SECTION 10

SITE F: KEA'AU TRANSFER STATION (TMK: 1-6-003:065)

10 DESCRIPTION OF AFFECTED ENVIRONMENT

10.1 PHYSICAL

10.1.1 LOCATION

The project site is located in the Puna District, approximately four miles southeast of Hilo, and is identified as the State of Hawaiʻi Third Tax Division, Tax Map Key (TMK) 1-6-003:065. Project location and site maps are presented as **Figures 10-1** and **10-2**, respectively. Photographs of the existing site are provided in **Figure 10-3**.

10.1.2 CLIMATE

Description:

The average temperature at the site is 72.5°F with average minimum and maximum monthly temperatures ranging from 65°F and 80°F, respectively. Annual rainfall averages from approximately 125 inches.

Located on the windward side of the Island of Hawaiʻi, Keaau has nearly constant exposure to the northeast trade winds.

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

10.1.3 AIR QUALITY

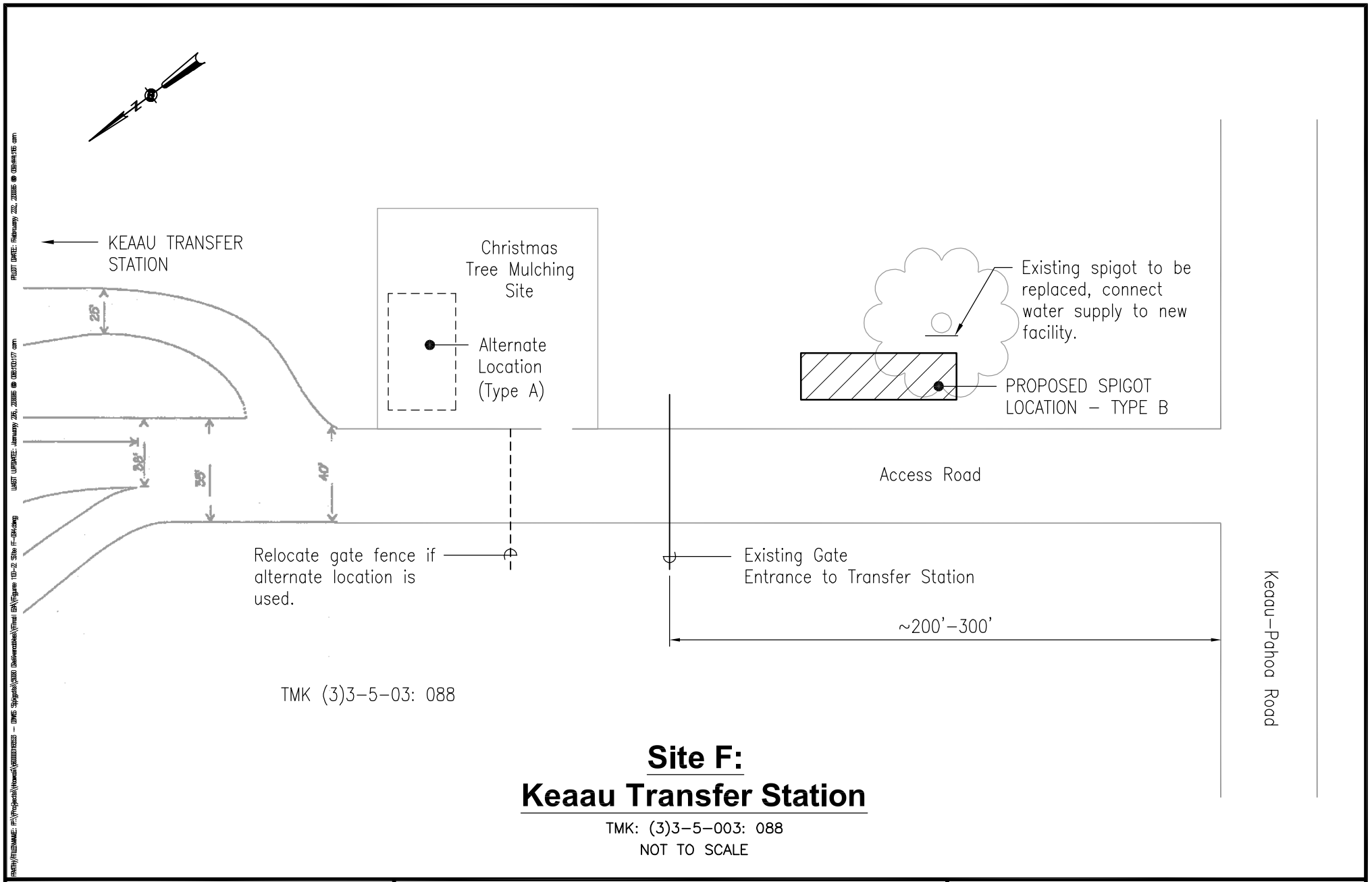
Description:

In general, air quality at the project site is good. The area around the project site is rural in character and absent of heavy industry. The only significant source of air pollution is from volcanic eruptions. Because the site is upwind of Kilauea, the area is usually free of vog. When Kona winds prevail, the vog becomes a noticeable pollutant.

According to the State of Hawaiʻi Department of Health (DOH) 2004 Annual Summary of Hawaiʻi Air Quality Data, the "air quality in the State of Hawaiʻi continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards." The DOH determined that the State of Hawaiʻi was in attainment for all federal ambient air quality standards in 2004. Please refer to **Table 5-1** for Federal and State Ambient Air Quality Standards.

Impacts and Mitigative Measures:

The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity.



Site F:
Keaau Transfer Station

TMK: (3)3–5–003: 088

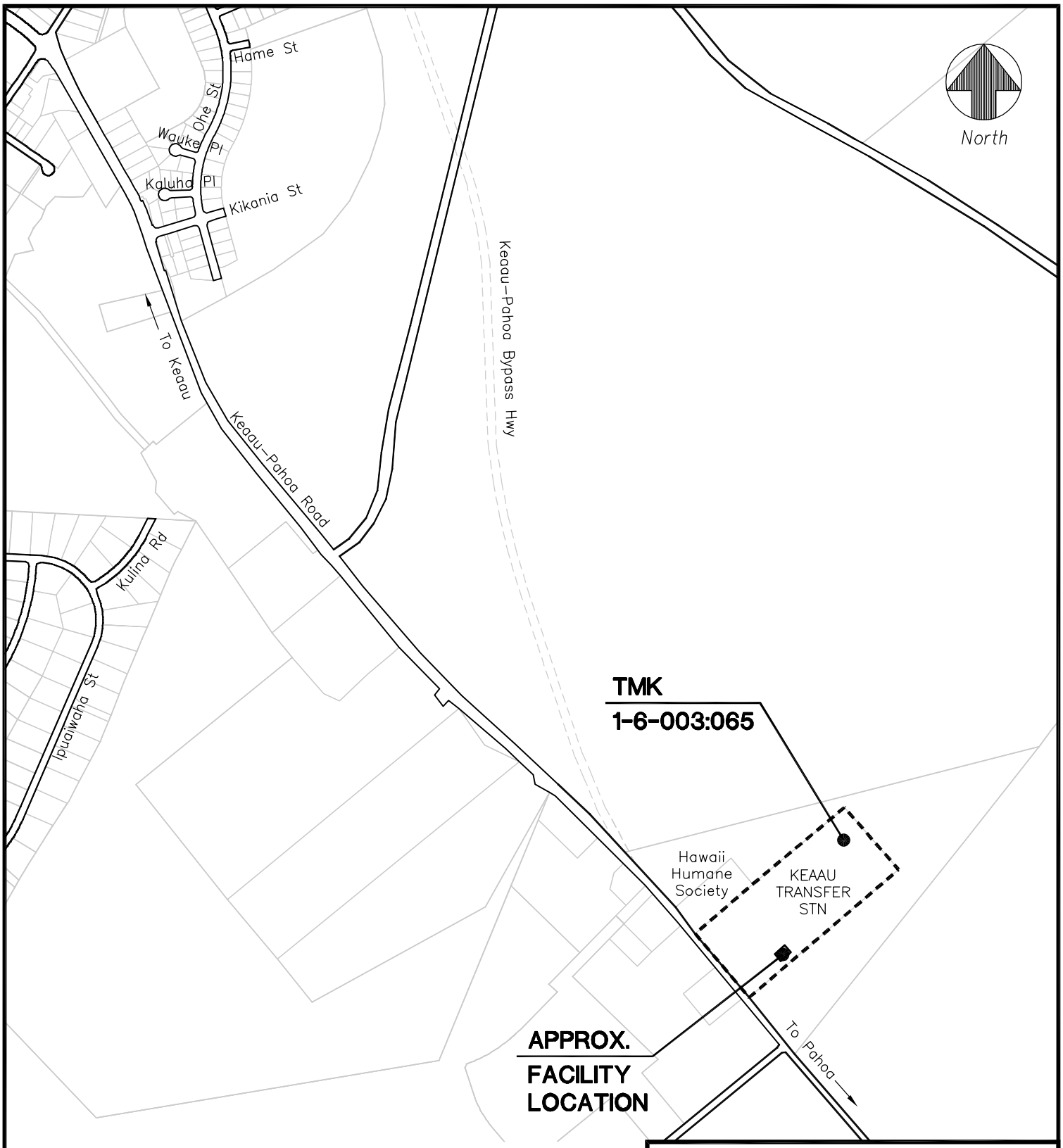
NOT TO SCALE

M&E Pacific, Inc.

METCALF & EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure 10-2
Site F Site Map
Keaau Transfer Station
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006



Site F:
Keaau Transfer Station

NOT TO SCALE

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Figure 10-1
Site F Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 10-1 Location F-04.dwg LAST UPDATE: January 26, 2006 @ 08:09:56 am PLOT DATE: February 22, 2006 @ 09:44:34 am

Existing Spigot Site

Transfer Station Entry Gate

Christmas Tree Mulching Site (Alternate Location)

Site F: Kea'au Transfer Station

TMK: (3)1-6-003:065

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Figure 10-3
Site F Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 10-3 Photo F-04.dwg LAST UPDATE: January 26, 2006 @ 08:11:03 am PLOT DATE: February 22, 2006 @ 09:43:56 am

10.1.4 TOPOGRAPHY

Description:

The project site is located between Kurtistown and Hilo. The ground elevation at the site is approximately 675'. The land in the area of the proposed spigot site generally slopes from the southwest to the northeast.

Impacts and Mitigative Measures:

No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore no mitigative measures are required.

10.1.5 SOILS

Description:

The Natural Resources Conservation Service of the U.S. Department of Agriculture classifies the soil in the Keaau area as lava flows, pahoehoe (rLW).

Lava flows, pahoehoe is a miscellaneous land type which has a billowy, relatively smooth glassy surface. The pahoehoe lava has no soil covering and is typically bare of vegetation, although as this site is in an area of higher rainfall scattered ohia trees, ohelo berry, and aalii have gained a foothold in cracks and crevices.

This land type is typically at an elevation ranging from sea level to 13,000 feet.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawai'i (ALISH) maps (**Appendix C**) indicate that the proposed site will not be located on or affect protected farmlands. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

10.1.6 WATER RESOURCES

Description:

The project area lies within the Pahoa aquifer system, which has a sustainable yield of approximately 435 million gallons per day. A map of the aquifer systems and sustainable yields for the Island of Hawai'i is presented in **Figure D-1** in **Appendix D**. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawai'i.

Figures provided in the 2005 County of Hawai'i General Plan indicate that the average consumption of the Pahoa water system is 0.40 mgd. This system has merged with the Kapoho water system, and together they are supplied by Pahoa Battery Well Nos. A & B, and Keonepoko Nui Well Nos. 1 & 2.

Three additional water systems also service the Puna District: the Olaa-Mountain View water system, the Kapoho water system, and the Kalapana water system. The total average consumption of all systems in the district is 1.2 mgd. The Glenwood and Volcano areas are presently not serviced by any public water system. Many of these areas still depend on roof catchment systems. According to estimates obtained by the Fire Department, approximately 75% of households in the Puna district (~8,363 households) are not connected to the County municipal water system (**Figure 3-2**).

An existing water spigot is currently located along the access road to the entrance of the Keaau Transfer Station. The existing spigot is off the side of the road and has a pull-up area that can accommodate one to two cars, as shown in **Figure 10-3**. This water spigot will be upgraded with additional water spigot outlets, enhanced drainage features and a paved parking area. The existing spigot is one of six (6) facilities that currently service the Puna district households without municipal water.

The water consumption records over the past year for this spigot indicate that the maximum average daily demand was approximately 0.0017 mgd and occurred in the month of May.

The existing water spigot facilities closest to this site are located at Kurtistown Ball Park (Site E, approximately 2.9 miles to the southwest) and Orchidland Drive (approximately 3.8 miles to the southeast). These facilities are indicated as Site Reference #3 and #2 on **Figures 3-1** and **3-2**, respectively.

The spigot at Kurtistown Ball Park is described in **Section 9** of this EA. The water spigot at Orchidland Drive is located along the shoulder of Mamalahoa Highway near Orchidland Drive and is shown in **Photo 10-1**. As shown in the photo, while parking is available for vehicles. However, the spigot location pose a traffic and pedestrian safety hazard as users slow down to pull up to the spigot, or pull into traffic as they exit the site.

Photo 10-1
Existing Orchidland Drive Spigot

An existing 12" DWS waterline runs along the portion of Keaau-Pahoa Road fronting the project area parcel. The reservoir servicing this waterline has an elevation of 1315'.

Two non-perennial streams, Olaa Stream and Keaau Stream, lie 1.7 miles to the north and 1.2 miles to the south of the project site, respectively. A review of the USGS map and the USFWS online maps (**Appendix C**) indicate that there are no other streams, ponds, lakes or wetlands within or near the proposed site.

Impacts and Mitigative Measures:
The proposed spigot will connect with a meter to the main County waterline within the Pahoa water system. The maximum daily demand is not expected to increase with the upgrade of this facility; therefore the project will not affect the capacity of this water system. Should this site be selected as for a water spigot facility upgrade, the County of Hawai'i may consider using the upgraded facility as a replacement for one of the existing spigot facilities due to the personal and traffic safety hazards the existing facilities currently pose.

Due to the distance of the stream from the project site, runoff from construction activities and everyday use is not anticipated to enter the stream waterway. The Contractor will be directed to employ standard best management practices to ensure that runoff during construction is prevented from flowing into the stream, and that it is discharged of properly.

No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated. No additional mitigative measures are required.

10.1.7 NATURAL HAZARDS

Natural hazards in Hawaiʻi include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

10.1.7.1 Floods

Description:

The project site is located in an area of "Minimal Tsunami Inundation", as determined by the Federal Emergency Management Agency. Flooding is not anticipated for this area.

The proposed project site is not located in an area which contains estuary, fresh water or coastal waters.

Impacts and Mitigative Measures:

This project site is not within a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigative measures are required.

10.1.7.2 Hurricanes

Description:

The first hurricane officially recorded in Hawaiʻi (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawaiʻi, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawaiʻi remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

Impacts and Mitigative Measures:

Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

10.1.7.3 Volcanic Eruptions

Description:

There are four active volcanoes on the Island of Hawaiʻi. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.

The project area is located to the north of the Kilauea east rift zone, and is within a lava hazard zone of "3" on an ascending scale of risk from 9 to 1, as determined by the

United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawai'i is presented as **Figure D-2**, in **Appendix D**. Zone 3 areas area described as being less hazardous than Zone 2 areas due to their greater distance from recently active vents and/or their topography decreases the likelihood that flows will cover these areas.

Impacts and Mitigative Measures:
The risk of a volcanic eruption in this area is moderate. It is located downslope of a rift zone of Kilauea volcano, however is protected from a lava flow by either distance or topography. Although the proposed improvements may be damaged in the event of a lava flow in this area, there are no practical mitigative measures currently available. The proposed project will comply with the current regulatory design standards.

10.1.7.4 Earthquakes

Description:
Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active", future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:
Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

10.1.8 FLORA AND FAUNA

Description:
The general project site is currently occupied by an existing transfer station and paved access roadway. The project site has been previously cleared and graded for the construction and use of the transfer station, with the exception of an existing large tree and adjacent vegetation. The Hawai'i Natural Heritage Program (HNHP) was consulted, and a review of their database records determined that no threatened or endangered species have been recorded within the site (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is provided in **Appendix B**.

Impacts and Mitigative Measures:
Installation of the proposed water spigot will be confined to the immediate spigot location on the indicated parcel, with waterline trenching to meet the County waterline along Mamalahoa Highway. This installation will cause minimal short-term adverse impacts on local vegetation. All of the work associated with the installation will take place in previously cleared and/or paved areas, and will only disturb various grasses. Existing large trees will be protected from construction activities to the maximum extent possible.

All disturbed grassed areas will be re-vegetated as soon as possible upon completion of the spigot installation to prevent soil erosion and reduce visual impacts.

No endangered wildlife habitats are noted in the EA for the proposed water spigots facility site, and no endangered wildlife habitats are anticipated to exist in the vicinity of the proposed project site. Therefore, no mitigative measures are required.

10.1.9 VISUAL

Description:

The project site is located in a fairly developed area just makai of Mamalahoa Highway, along a paved access road at the entrance to an existing transfer station. No buildings or dwelling are located on or near the project site. The immediate project area is paved, and is surrounded by a densely vegetated area with medium-sized trees on the upslope of the parcel and across of the existing paved access road.

Impacts and Mitigative Measures:

This project will replace the existing water spigot outlet with an upgraded facility that includes a paved parking area and improved drainage features to prevent soil erosion from spigot runoff.

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. Existing trees will be protected from construction activities to the maximum extent possible. The proposed project will not result in a negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

10.2 SOCIAL

10.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:

According to the State Historic Preservation Department's Hawai'i National Register of Historic Places, no historical or archaeological sites will be affected by the construction of a spigot facility at this project site.

In order to mitigate the possible impact of construction activities upon any potential resources, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas of the transfer station grounds. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs

Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:
The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

10.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:
No transfer station closure, road closures or traffic disruptions are anticipated to take place in conjunction with the construction and operations of the water spigots facility. Access to the transfer station will be available throughout construction.
A separate water meter is recommended to be considered during the design stage to isolate usage between the spigots and the transfer station. The tap into the existing water system will be coordinated with Department of Environmental Management, Solid Waste Division personnel to ensure the temporary disruption does not impact the existing transfer station.

Impacts and Mitigative Measures:
No disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. Therefore, no mitigative measures are required.

10.2.3 NOISE

Description:
Due to its location in a rural area, the project site is generally quiet when there is no public use of the facility. The current noise is generated mainly by vehicular movements to and from the station and solid waste deposits into the transfer bins. There are no residential subdivisions or commercial activities sited across this side of the transfer station property.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor.

Impacts and Mitigative Measures:
Noise generated by construction activities will comply with noise provisions established by the State Department of Health and no further measures are required to mitigate short-term impacts. Construction activities are short-term and localized in nature, therefore no long-term or cumulative impacts are anticipated due to the proposed projects and no other mitigative measures are required.

10.2.4 TRAFFIC

Description:
The existing spigot at this site has an estimated maximum average of 85 visitors a day, based upon water consumption records. The maximum average visitor rate is not expected to increase with the upgrade of the spigot site.

County of Hawaii DEM representatives have commented that as the site access intersects a high-traffic highway, vehicles currently attempting to turn left from the site

are delayed. This delay can sometimes cause vehicles to back up along the transfer station access road.

There will be minimal, if any, impacts to existing traffic during the construction and future operation of the water spigots. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place on the site away from the roadway and access to the transfer bin. Similarly, future use of the spigots will not occur on the roadway or access way.

Impacts and Mitigative Measures:
Due to the existing traffic condition at the site, DWS may need to determine if a traffic impact analysis is warranted at this location. At a minimum, DEM has requested that the traffic at this location be monitored after construction to ensure proper traffic flow.

Traffic at the spigot facility is not expected to change or to increase due to the proposed upgrade. No work will be done to the existing roadway and no road closures are expected, therefore no further mitigative measures are required.

10.2.5 RECREATIONAL FACILITIES

Description:
This project site is neither located on nor adjacent to any recreational facilities; it is, however, located near an existing waste transfer station.

Impacts and Mitigative Measures:
The proposed spigot site is at a location where use will not affect the activities at or the flow of traffic to the transfer station. Construction activities may potentially cause minor temporarily disruption to vehicle movement in the area, however the Contractor will be directed to maintain access to the transfer station at all times. No long-term impacts are anticipated, therefore, no further mitigative measures are required.

10.3 SOCIO-ECONOMIC

10.3.1 DEMOGRAPHICS

Description:
Census information for the Puna district is divided into two CCDs within the area: the Keaau-Mountain View CCD, and the Pahoa-Kalapana CCD. The total population of the district in 2000 was reported as 31,335 people.

According to the 2000 census for the Keaau-Mountain View CCD, the total population of the area is 22,738 people. The population density of the Keaau-Mountain View area is 98.7 (where 22,738 people reside on 230.38 square miles of land). The total population of the Pahoa-Kalapana CCD is 8,597 people, for 269.07 square miles of land. The density of the entire Island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:
The proposed water spigots facility will help provide potable water to the Puna district. It is not anticipated that the facility will induce or reduce population in this area in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

10.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:

The population of the Puna district has significantly increased since 1980. By 2000, the district had seen an average growth of nearly 167% of its population, mostly due to the employment opportunities provided by the district's agriculture industry and the businesses in Hilo, as well as the land affordability offered in Puna (County of Hawaiʻi, 2005).

The primary economic activity in the Puna district is the agriculture industry, including truck farming, the farming of papaya, anthuriums, orchids and bananas. There is a small tourism industry in this district due to popular attractions such as the Volcanoes National Park, however, visitor accommodations and facilities in Puna are limited to mostly bed and breakfast and vacation rental operations.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the Puna district. While this may not apply to all the communities within the Puna district, it does provide a glimpse of the social environment in the vicinity of the project area. A weighted average was taken for the two CCDs within the district. The median age of the Puna district resident is 56.3 years old. Of the population 16 years and older, 59.6% are employed, while 40.4% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales, farming/fishing/forestry, construction, transportation and agriculture. The median household annual income for residents of the Puna district is $31,040.

Impacts and Mitigative Measures:

The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawaiʻi DWS customers. Therefore, no mitigative measures are required.

10.3.3 ENVIRONMENTAL JUSTICE

Description:

These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawaiʻi DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or in areas where there is open land. The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:

No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

10.4 LAND USES AND OWNERSHIP

10.4.1 LAND USE DESIGNATIONS

The land use designations for TMK: 1-6-003: 065 are as follows:

State Land Use –	Agricultural
Hawai'i County General Plan –	Extensive Agriculture
County Zoning –	Agricultural District (A-20a) (min. building site of 20 acres)

This site is also located within a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:

As directed in the Hawai'i Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawai'i must be consistent with the policies set by the Hawai'i Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawai'i Coastal Zone (CZM) Management Program. A summary of the site-specific CZM federal consistency assessment is provided in **Appendix C**. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawai'i CZM Program will be required.

This project site is located along the access road to the Keaau Transfer Station which is off Keaau-Pahoa Road. The site will not be located within the ROW, and will not affect public access to or use of the transfer station. The proposed construction will occur on a designated Agricultural land, but is located on a site that has previously been developed, and is not expected to impact the intended use of the land. This is further discussed in **Section 10.4.4**.

Construction of the proposed project will take place in an area has been previously developed; however installation may require some minor grading and excavation activities. The project site is not located near the coastline, and therefore will not affect coastal ecosystems.

10.4.2 HAWAI'I STATE PLAN

Description:

The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows: **§226-13 (a)(1)** and **(b)(2), §226-14 (b)(1)**, and **§226-16 (b)(5).** Please refer to **Section 5.4.2** for a description of these items.

Impacts and Mitigative Measures:

Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with both of these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project

addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

10.4.3 STATE LAND USE LAW

Description:

The project site, located at TMK 1-6-003:065, is classified by the State as agricultural land and is under the joint jurisdiction of the State and the County. The portion of the Land Use Law which relates to the proposed project site is: **§205-4.5 (a)(7).** Please refer to **Section 5.4.3** for a description of this item.

Impacts and Mitigative Measures:

The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

10.4.4 COUNTY OF HAWAI'I

Description:

Under the County of Hawai'i's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific land use objectives for the agricultural land classification within the Puna district include the provision to assist in the further development of agriculture in the district.

The project area land use designation is "Extensive Agriculture."

Impacts and Mitigative Measures:

The proposed project is consistent with the County of Hawai'i's General Plan. While the installation of the water spigots facility will not directly encourage agricultural development in the area, it will not infringe on or affect lands that are intended for agricultural use. Therefore, no mitigative measures are required.

10.4.5 PROPERTY OWNERSHIP

Description:

The property affected by the installation of the proposed water spigots facility is identified as 3rd Tax Division TMK: 1-6-003: Parcel 065. This parcel is owned by the County of Hawai'i.

Impacts and Mitigative Measures:

The County of Hawai'i currently owns the property identified by 3rd Tax Division TMK: 1-6-003: Parcel 065. The proposed water spigots facility does not require the use or acquisition of any private lands. Therefore, no mitigative measures are required.

10.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:

The County of Hawai'i Department of Environmental Management (DEM) was consulted to identify possible concerns regarding the proposed project and how it may affect operation of the Keaau Transfer Station.

The transfer station is currently gated. Access to the transfer station is limited to the hours of 6:30 a.m. to 6:30 p.m. The existing water spigot at this site is located outside of

the entrance gate, on the side of the access road just off the main highway. DEM representatives indicated that users of this spigot site tend to pile their trash outside of the entry gates after hours. Additionally, residents have been observed to use the water spigots to wash out their rubbish bins, thus creating the need for additional clean-up efforts as these sites.

Impacts and Mitigative Measures:
In order to allow the water spigots facility to be accessible to the public at all hours, the facility should be placed outside of the planned entry gate. An existing paved area just inside the entry gates could accommodate a larger water spigots facility. This area is shown on the Site Plan, **Figure 10-2**, as an alternate location. This location is currently used by DEM for Christmas tree mulching. However, DEM has indicated that should DWS prefer the alternate location for the water spigots facility, DWS would need to clear a space to accommodate a relocation of the tree mulching activities. Additionally, use of the alternate site would require the relocation of the entry gate, approximately 650' towards the transfer station to allow for unrestricted access to the water spigots facility.

The upgrade of the water spigots facility at this project site would require discussion and coordination between DWS, DEM and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the spigot facility. This plan should outline road/driveway maintenance, facility maintenance, operating hours and procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to any of the participating agencies/organizations.

The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal. Signs shall be posted to outline operating rules and to deter improper use of the site.

Should this site be selected for a spigot facility, then the operations, maintenance and coordination issues described in this section will need to be considered and adequately addressed. However, it is not anticipated that installation of a facility at this site will pose short-term or long-term environmental impacts.

SECTION 11

SITE G: HAWAIIAN PARADISE PARK FIRE STATION (TMK: 1-5-040:065)

11 DESCRIPTION OF AFFECTED ENVIRONMENT

11.1 PHYSICAL

11.1.1 LOCATION

The project site is located in Keaau, approximately four miles southeast of Hilo, and is identified as the State of Hawaiʻi Third Tax Division, Tax Map Key (TMK) 1-5-040:065. Project location and site maps are presented as **Figures 11-1** and **11-2**, respectively. Photographs of the existing site are provided in **Figure 11-3**.

11.1.2 CLIMATE

Description:

The average temperature in Keaau is 72.5°F with average minimum and maximum monthly temperatures ranging from 65°F and 80°F, respectively. Annual rainfall averages approximately 125 inches.

Located on the windward side of the Island of Hawaiʻi, Keaau has nearly constant exposure to the northeast trade winds.

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

11.1.3 AIR QUALITY

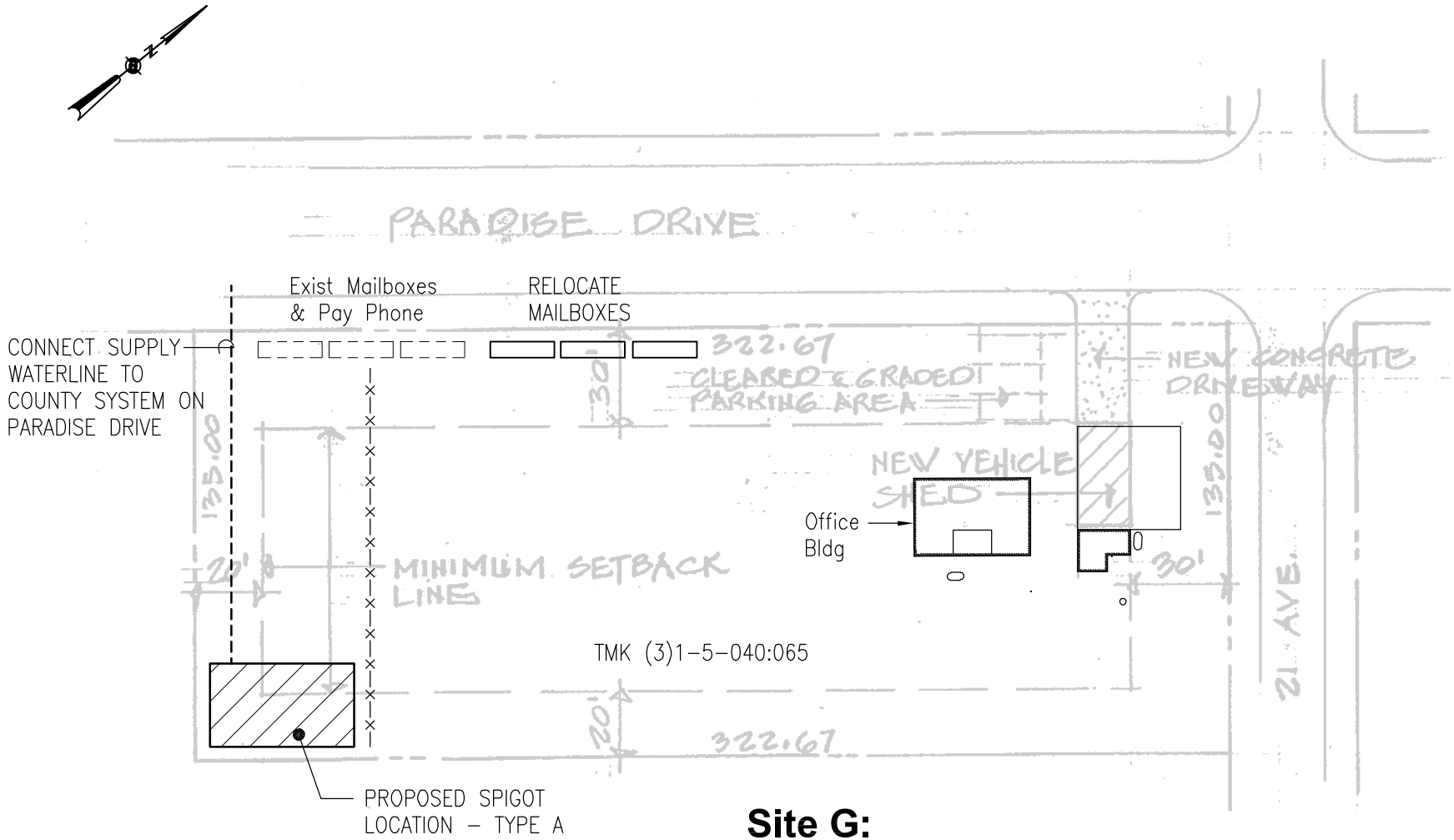
Description:

In general, air quality at the project site is good. The area around the project site is rural in character and absent of heavy industry. The only significant source of air pollution is from volcanic eruptions. Because the site is upwind of Kilauea, the area is usually free of vog. When Kona winds prevail, the vog becomes a noticeable pollutant.

According to the State of Hawaiʻi Department of Health (DOH) 2004 Annual Summary of Hawaiʻi Air Quality Data, the "air quality in the State of Hawaiʻi continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards." The DOH determined that the State of Hawaiʻi was in attainment for all federal ambient air quality standards in 2004. Please refer to **Table 5-1** for Federal and State Ambient Air Quality Standards.

Impacts and Mitigative Measures:

The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity. Therefore, no mitigative measures are required.



Site G:
Hawaiian Paradise Park
Fire Station

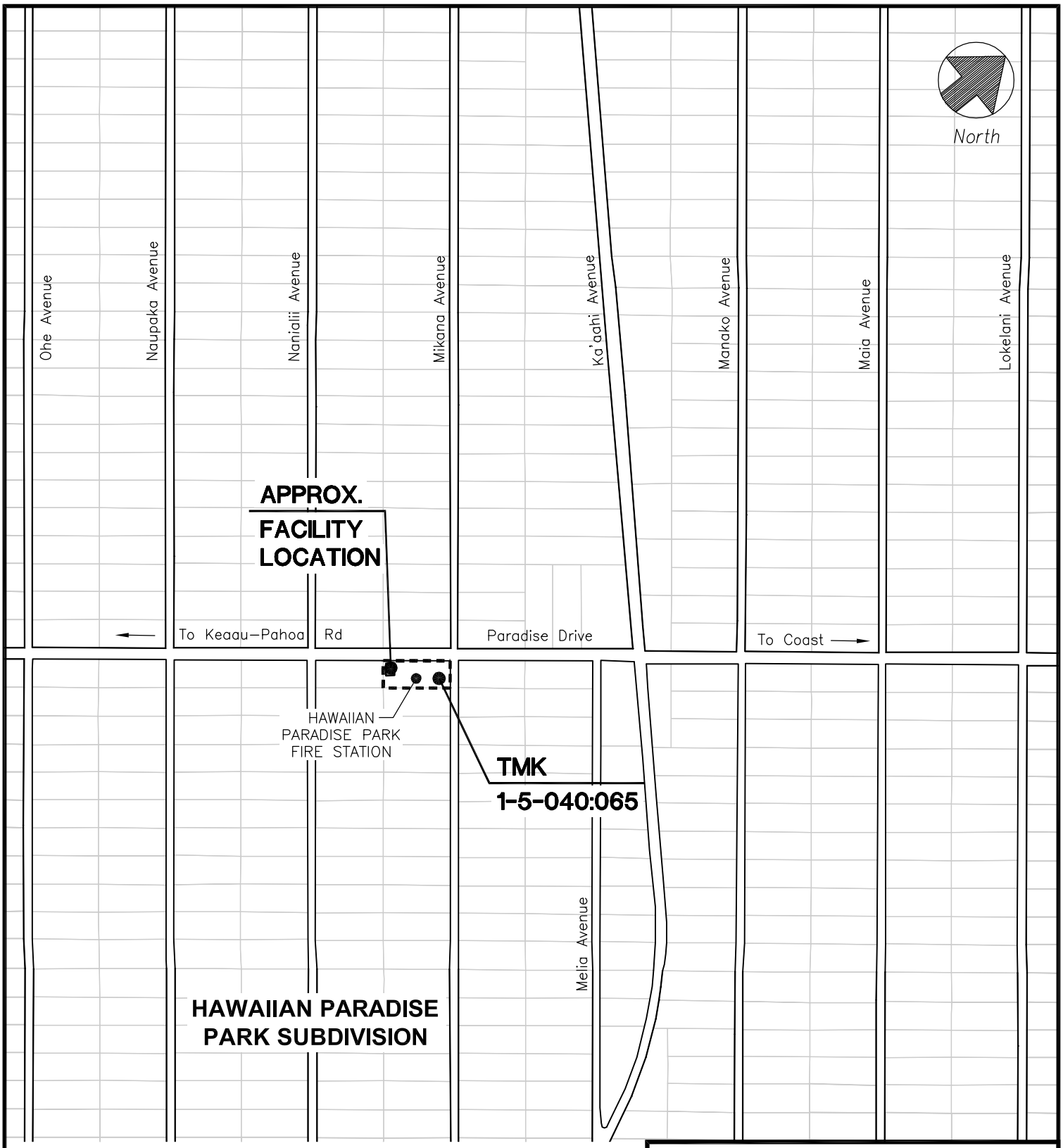
TMK: (3)1-5-040:065
SCALE: 1"=50'

M&E Pacific, Inc.

METCALF & EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure 11-2
Site G Site Map
Hawaiian Paradise Park Fire Station
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006



Site G:
Hawaiian Paradise Park Fire Station

NOT TO SCALE

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Figure 11-1
Site G Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 11-1 Location G-07.dwg LAST UPDATE: January 26, 2006 @ 08:11:23 am PLOT DATE: February 22, 2006 @ 09:43:37 am

HPP Fire Station

HPP Fire Station

Looking Toward Proposed Location

Existing Phone & Mailboxes

Site G:
Hawaiian Paradise Park
Fire Station

TMK: (3)1-5-040:065

M&E Pacific, Inc.

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Figure 11-3
Site G Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 11-3 Photo G-07.dwg LAST UPDATE: January 26, 2006 @ 08:13:09 am PLOT DATE: February 22, 2006 @ 09:42:51 am

11.1.4 TOPOGRAPHY

Description:

The project site is located in the Hawaiian Paradise Park subdivision, between Keaau and Pahoa. The ground elevation at the site is approximately 230'. The land in the area of the proposed spigot site generally slopes from the southwest to the northeast.

Impacts and Mitigative Measures:

No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore, no mitigative measures are required.

11.1.5 SOILS

Description:

The Natural Resources Conservation Service of the U.S. Department of Agriculture classifies the soil in the Hawaiian Paradise Park area as lava flows, pahoehoe (rLW).

Lava flows, pahoehoe is a miscellaneous land type which has a billowy, relatively smooth glassy surface. The pahoehoe lava has no soil covering and is typically bare of vegetation; although as this site is in an area of higher rainfall scattered ohia trees, ohelo berry, and aalii have gained a foothold in cracks and crevices.

This land type is typically at an elevation ranging from sea level to 13,000 feet.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawai'i (ALISH) maps (**Appendix C**) indicate that the proposed site will not be located on or affect protected farmlands. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

11.1.6 WATER RESOURCES

Description:

The project area lies within the Pahoa aquifer system, which has a sustainable yield of approximately 435 million gallons per day. A map of the aquifer systems and sustainable yields for the Island of Hawai'i is presented in **Figure D-1** in **Appendix D**. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawai'i.

Figures provided in the 2005 County of Hawai'i General Plan indicate that the average consumption of the Pahoa water system is 0.40 mgd. This system has merged with the Kapoho water system, and together they are supplied by Pahoa Battery Well Nos. A & B, and Keonepoko Nui Well Nos. 1 & 2.

Three additional water systems also service the Puna District: the Olaa-Mountain View water system, the Kapoho water system, and the Kalapana water system. The total average consumption of all systems in the district is 1.2 mgd. The Glenwood and Volcano areas are presently not serviced by any public water system. Many of these areas, including most of the Hawaiian Paradise Park subdivision, still depend on individual roof catchment systems. According to estimates obtained by the Fire Department, approximately 75% of households in the Puna district (~8,363 households) are not connected to the County municipal water system (**Figure 3-2**).

An existing 12" DWS waterline runs along the portion of Paradise Drive fronting the project area parcel. The reservoir servicing this waterline has an elevation of 624'.

There are no existing water spigots at the project site. The closest spigot facilities are located at the Keaau Transfer Station (approximately 3.8 miles to the northwest) and at Orchidland Drive (approximately 1.5 miles to the southwest). These facilities are indicated as Site Reference #1 and #2 on **Figures 3-1** and **3-2**. Photos and a description of the Keaau Transfer State spigot are provided in **Section 10** of this EA. The water spigot at Orchidland Drive is located along the shoulder of Mamalahoa Highway near Orchidland Drive and is shown in **Photo 11-1**. As shown in the photo, parking is available for vehicles along the roadway shoulder. However, the spigot location poses a traffic and pedestrian safety hazard as users slow down to pull up to the spigot, or pull into traffic as they exit the site.

Photo 11-1
Existing Orchidland Drive Spigot

The water consumption records over the past year for these spigots indicate that the maximum average daily demands were approximately 0.0017 mgd and 0.00588 mgd, respectively. The highest average demands occurred in September for both sites. These existing sites are two of six that presently service the Puna district.

Review of the USGS map and USFWS online maps (**Appendix C**) indicate that there are no streams, ponds, lakes or wetlands within or near the proposed site.

Impacts and Mitigative Measures:
The proposed spigot will connect with a meter to the main County waterline within the Kapoho water system. Should the Hawaiian Paradise Park Fire Station be selected as a new water spigot facility site, the DWS and the Mayor's Office may consider using the new facility as a replacement for one of the existing spigot facilities due to the personal and traffic safety hazards the existing facilities currently pose. In this case, the existing spigot would be removed once the proposed facility is in operation. Therefore, the water demand would shift form the existing spigot to the proposed facility. Based on the water consumption records of the nearest existing water spigot, the installation is expected to pose a maximum average demand of approximately 0.0058 million gallons per day. This anticipated demand will not affect the capacity of the water system. If the proposed facility is to be constructed as an additional spigot site, then the anticipated maximum average demand would be approximately 0.002 million gallons per day, similar to the existing demand at Keaau Transfer Station. This anticipated demand will result in a minimal increase in the average daily consumption, and therefore will not affect the capacity of this water system.

This project will not impact the water system capacity in this area. No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated. No mitigation measures are required.

11.1.7 NATURAL HAZARDS

Natural hazards in Hawai'i include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

11.1.7.1 Floods

Description:

The project site is located in an area of "Minimal Tsunami Inundation", as determined by the Federal Emergency Management Agency. Flooding is not anticipated for this area.

The proposed project site is not located in an area which contains estuary, fresh water or coastal waters.

Impacts and Mitigative Measures:

This project site is not within a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigative measures are required.

11.1.7.2 Hurricanes

Description:

The first hurricane officially recorded in Hawai'i (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawai'i, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawai'i remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

Impacts and Mitigative Measures:

Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

11.1.7.3 Volcanic Eruptions

Description:

There are four active volcanoes on the Island of Hawai'i. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.

The project area is located to the north of the Kilauea east rift zone, and is within a lava hazard zone of "3" on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawai'i is presented as **Figure D-2**, in **Appendix D**. Zone 3 areas are generally described as being less gradationally hazardous than Zone 2 areas due to their greater distance from recently active vents and/or their topography decreases the likelihood that flows will cover these areas.

Impacts and Mitigative Measures:
The risk of a volcanic eruption in this area is moderate. It is located downslope of a rift zone of Kilauea volcano, however is protected from a lava flow by either distance or topography. Although the proposed improvements may be damaged in the event of a lava flow in this area, there are no practical mitigative measures currently available. The proposed project will comply with the current regulatory design standards.

11.1.7.3 Earthquakes

Description:
Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active," future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:
Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

11.1.8 FLORA AND FAUNA

Description:
The general project site is currently occupied by an existing fire station and truck garage. The entire site has been previously cleared and graded for the construction and use of the fire station. The Hawai'i Natural Heritage Program (HNHP) was consulted, and a review of their database records determined that no threatened or endangered species have been recorded within the site (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is also provided in **Appendix B**.

Impacts and Mitigative Measures:
Installation of the proposed water spigot will be confined to the immediate spigot location on the indicated parcel, with waterline trenching to meet the County waterline along Paradise Drive. This installation will cause minimal short-term adverse impacts on local vegetation. All of the work associated with the installation will take place in previously cleared and/or paved areas, and will only disturb various grasses. All disturbed grassed areas will be re-vegetated as soon as possible upon completion of the spigot installation to prevent soil erosion and reduce visual impacts.

No endangered wildlife habitats are noted in the EA for the proposed water spigots facility site, and no endangered wildlife habitats are anticipated to exist in the vicinity of the proposed project site. Therefore, no mitigative measures are required.

11.1.9 VISUAL

Description:

The project site is located in a developed area adjacent to the existing Hawaiian Paradise Park Fire Station. It is in the vicinity of the Fire Station's existing one-story house/office building and one-story vehicle shed. The immediate project area is dominated by a fairly level grassed area, with an existing paved driveway. The project site overlooks the existing fire station and several one-story residential dwellings to the *makai* direction, and a dense growth of brush and trees to the immediate mauka direction. A row of community postal boxes and a public pay phone is located between the existing roadway and the proposed site. No relatively tall buildings are located near the site.

Impacts and Mitigative Measures:

The proposed water spigots facility will be constructed in a location that is partially obscured by the existing postal boxes and pay phones in a view from the roadway. The installation will not change the overall view of this developed site.

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. The proposed project will not result in a negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

11.2 SOCIAL

11.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:

According to the State Historic Preservation Department's Hawai'i National Register of Historic Places, no historical or archaeological sites will be affected by the construction of a spigot facility at this project site.

In order to mitigate the possible impact of construction activities upon any potential resources, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas of the transfer station grounds. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs
Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:
The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

11.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:
No fire station closure or operational disruption, road closures, or traffic disruptions are anticipated to take place in conjunction with the construction and operations of the water spigots facility. Access to the fire station, and egress from the garage will be available throughout construction.

A separate water meter is recommended to be considered during the design stage to isolate usage between the spigots and the fire station. The tap into the existing water system will be coordinated with the Fire Department to ensure the temporary disruption does not impact the existing transfer station.

Impacts and Mitigative Measures:
No disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. Therefore, no mitigative measures are required.

11.2.3 NOISE

Description:
The proposed site is located within a residential area along Paradise Drive. The current noise is generated mainly by vehicular movements along Paradise Drive and from the Fire Truck during emergency calls.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor.

Impacts and Mitigative Measures:
Noise generated by construction activities will comply with noise provisions established by the State Department of Health and no further measures are required to mitigate short-term impacts. Construction activities are short-term and localized in nature, therefore no long-term or cumulative impacts are anticipated due to the proposed projects and no other mitigative measures are required.

11.2.4 TRAFFIC

Description:
There are no existing spigots at this location, however, the maximum average visitor rate (based on water consumption records) of the nearest similarly sized existing facility is approximately 120 visitors a day. The introduction of the proposed water spigot facility is expected to attract about the same maximum average visitors per day. There will be minimal, if any, impacts to traffic during the construction and future operation of the water spigots. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place on the site away from the roadway. Similarly, future use of the spigots will not occur on the roadway or access way. The ingress and egress to the spigot facility shall be designed as a separate

driveway from the Fire Station such that emergency operations at the Fire Station are not impeded. Adequate sight distances shall be provided for the emergency vehicles.

Impacts and Mitigative Measures:
No work will be done to the existing roadway and no road closures are expected. Therefore no mitigative measures are required.

11.2.5 RECREATIONAL FACILITIES

Description:
This project site is neither located on nor adjacent to any recreational facilities; however it is located near an existing fire station and will utilize a portion of publicly used lands.

Impacts and Mitigative Measures:
The proposed spigot site is at a location where use and construction are not expected to disrupt the activities at or access to the fire station. The Contractor will be directed to ensure that the fire truck and the fire fighters have clear access to the station at all times. No long-term impacts are anticipated, therefore, no further mitigative measures are required.

11.3 SOCIO-ECONOMIC

11.3.1 DEMOGRAPHICS

Description:
Census information for the Puna district is divided into two CCDs within the area: the Keaau-Mountain View CCD, and the Pahoa-Kalapana CCD. The total population of the district in 2000 was reported as 31,335 people.

According to the 2000 census for the Keaau-Mountain View CCD, the total population of the area is 22,738 people. The population density of the Keaau-Mountain View area is 98.7 (where 22,738 people reside on 230.38 square miles of land). The total population of the Pahoa-Kalapana CCD is 8,597 people, for 269.07 square miles of land. The density of the entire Island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:
The proposed water spigots facility will help provide potable water to the Puna district. It is not anticipated that the facility will induce or reduce population in this area in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

11.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:
The population of the Puna district has significantly increased since 1980. By 2000, the district had seen an average growth of nearly 167% of its population, mostly due to the employment opportunities provided by the district's agriculture industry and the businesses in Hilo, as well as the land affordability offered in Puna (County of Hawai'i, 2005).

The primary economic activity in the Puna district is the agriculture industry, including truck farming, the farming of papaya, anthuriums, orchids and bananas. There is a small tourism industry in this district due to popular attractions such as the Volcanoes National Park; however, visitor accommodations and facilities in Puna are limited to mostly bed and breakfast and vacation rental operations.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the Puna district. While this may not apply to all the communities within the Puna district, it does provide a glimpse of the social environment in the vicinity of the project area. A weighted average was taken for the two CCDs within the district. The median age of the Puna district resident is 56.3 years old. Of the population 16 years and older, 59.6% are employed, while 40.4% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales, farming/fishing/forestry, construction, transportation and agriculture. The median household annual income for residents of the Puna district is $31,040.

Impacts and Mitigative Measures:
The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawaiʻi DWS customers. Therefore, no mitigative measures are required.

11.3.3 ENVIRONMENTAL JUSTICE

Description:
These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawaiʻi DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or areas with open land. The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:
No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

11.4 LAND USES AND OWNERSHIP

11.4.1 LAND USE DESIGNATIONS

The land use designations for TMK: 1-5-040: 065 are as follows:

State Land Use –	Agricultural
Hawaiʻi County General Plan –	Rural
County Zoning –	Agricultural District (A-1a) (min. building site of 1 acre)

This site is also located within a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:
As directed in the Hawaiʻi Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawaiʻi must be consistent with the policies set by the Hawaiʻi Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawaiʻi Coastal Zone (CZM) Management Program.

A summary of the site-specific CZM federal consistency assessment is provided in **Appendix C**. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawai'i CZM Program will be required.

The proposed construction will occur on a designated Agricultural land, but is located on a site that has previously been developed, and is not expected to impact the intended use of the land. This is further discussed in **Section 11.4.4**.

Construction of the proposed project will take place in an area has been previously developed; however installation may require some minor grading and excavation activities. The project site is not located near the coastline, and therefore will not affect coastal ecosystems.

11.4.2 HAWAI'I STATE PLAN

Description:

The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows: **§226-13 (a)(1)** and **(b)(2), §226-14 (b)(1)**, and **§226-16 (b)(5).** Please refer to **Section 5.4.2** for a description of these items.

Impacts and Mitigative Measures:

Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with both of these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

11.4.3 STATE LAND USE LAW

Description:

The project site, located at TMK 1-5-040:065, is classified by the State as agricultural land and is under the joint jurisdiction of the State and the County.

The portion of the Land Use Law which relates to the proposed project site is: **§205-4.5 (a)(7).** Please refer to **Section 5.4.3** for a description of this item.

Impacts and Mitigative Measures:

The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

11.4.4 COUNTY OF HAWAI'I

Description:

Under the County of Hawai'i's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix an din keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific land use objectives for the agricultural land classification within the Puna district include the provision to assist in the further development of agriculture in the district.

The project area land use designation is "Rural."

Impacts and Mitigative Measures:
The proposed project is consistent with the County of Hawai'i's General Plan. Installation of the water spigots facility will not affect the land use or development of agriculture in the district. No short-term or long-term impacts are anticipated; therefore no mitigative measures are required.

11.4.5 PROPERTY OWNERSHIP

Description:
The property affected by the installation of the proposed water spigots facility is identified as 3rd Tax Division TMK: 1-5-040: Parcel 065. This parcel is owned by the County of Hawai'i.

Impacts and Mitigative Measures:
The County of Hawai'i currently owns the property identified by 3rd Tax Division TMK: 1-5-040: Parcel 065. The proposed water spigots facility does not require the use or acquisition of any private lands. Therefore, no mitigative measures are required.

11.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:
The County of Hawai'i Fire Department was consulted to identify possible concerns regarding the proposed project and how it may affect operation of the Hawaiian Paradise Park Fire Station. The Hawaiian Paradise Park Owner's Association was also contacted about the proposed project.

The fire station is currently used as a school bus pick-up and drop-off point, as well as a rural route mail depot with a public pay phone station. Residents constantly stop by the mailboxes and often remain in their vehicles while retrieving their mail. The existing pay phone is also used quite frequently.

The current traffic condition along Paradise Drive makes it potentially hazardous to enter and exit off the main street. The Hawaiian Paradise Park Owner's Association has issued a directive requiring property owners that all driveway entrances should be installed off the side roads rather than the main roads, such as Paradise Drive.

Impacts and Mitigative Measures:
The installation of a water spigots facility at this project site would require discussion and coordination between DWS, the Fire Department, the Hawaiian Paradise Park Owner's Association and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the spigot facility. This plan should outline road/driveway maintenance, facility maintenance, operating hours and procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to any of the participating agencies/organizations. Additionally, the DWS would need to work with the Fire Department to establish a workable plan to ensure the safety of the riders.

All-hour access to the spigot site creates a security concern for both the station and its personnel. The proposed spigots facility will be fenced off from the rest of the fire station site, to minimize access to the fire station or its surrounding areas. Additional lighting should be provided to enhance personal security at the facility. The DWS may consider restricting the spigot operational hours to minimize potential security issues. If restricted hours are not feasible, then additional security personnel may need to be provided to ensure the safety of users and fire station staff. Should the operating hours of the proposed facility be restricted, effort should be made by all affected parties to ensure the longest possible operating hours are provided.

The proposed facility will have a separate, dedicated access driveway. In order to keep the additional vehicular traffic from interfering with the movement of the emergency vehicles, it is proposed to install the driveway entrance off Paradise Drive. The County of Hawai'i may need to obtain permission from the Hawaiian Paradise Park Owner's Association to install the entrance as proposed. Warning signs may be posted along the main road to warn drivers of the entering/existing traffic. This configuration would require the existing mailboxes to be relocated to the other side of the phone booth to provide adequate space for the access driveway. Coordination with the Fire Department and school bus schedule should be conducted to minimize safety hazards to students.

It was observed at other existing spigot locations that spigot users have a tendency to leave their trash at the spigot site. Additionally, users are also inclined to rinse out their water containers before refilling them, and dump the rinse water onto the ground. The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal. Signs shall be posted to outline operating rules and to deter improper use of the site.

Should this site be selected for a spigot facility, then the operations, maintenance and coordination issues described in this section will need to be considered and adequately addressed prior to construction and use. However, it is not anticipated that installation of a facility at this site will pose short-term or long-term environmental impacts.

SECTION 12

SITE H: NANAWALE ESTATES ARENA (TMK: 1-5-004:001)

12 DESCRIPTION OF AFFECTED ENVIRONMENT

12.1 PHYSICAL

12.1.1 LOCATION

The project site is located in the Puna District, and is identified as the State of Hawaiʻi Third Tax Division, Tax Map Key (TMK) 1-5-004:001. Project location and site maps are presented as **Figures 12-1** and **12-2**, respectively. Photographs of the existing site are provided in **Figure 12-3**.

12.1.2 CLIMATE

Description:

The average temperature in Puna is 73.5°F with average minimum and maximum monthly temperatures ranging from 71°F and 76°F, respectively. Annual rainfall averages 112.5 inches.

Located on the windward side of the island, Puna is exposed to the northeasterly trade winds.

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

12.1.3 AIR QUALITY

Description:

In general, air quality at the project site is good. The area around the project site is rural in character and absent of heavy industry. Due to the prevailing tradewinds, the project area is not severely affected by vog. When kona wind conditions occur, the vog becomes a noticeable pollutant.

According to the State of Hawaiʻi Department of Health (DOH) 2004 Annual Summary of Hawaiʻi Air Quality Data, the "air quality in the State of Hawaiʻi continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards." The DOH determined that the State of Hawaiʻi was in attainment for all federal ambient air quality standards in 2004. Please refer to **Table 5-1** for Federal and State Ambient Air Quality Standards.

Impacts and Mitigative Measures:

The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity.

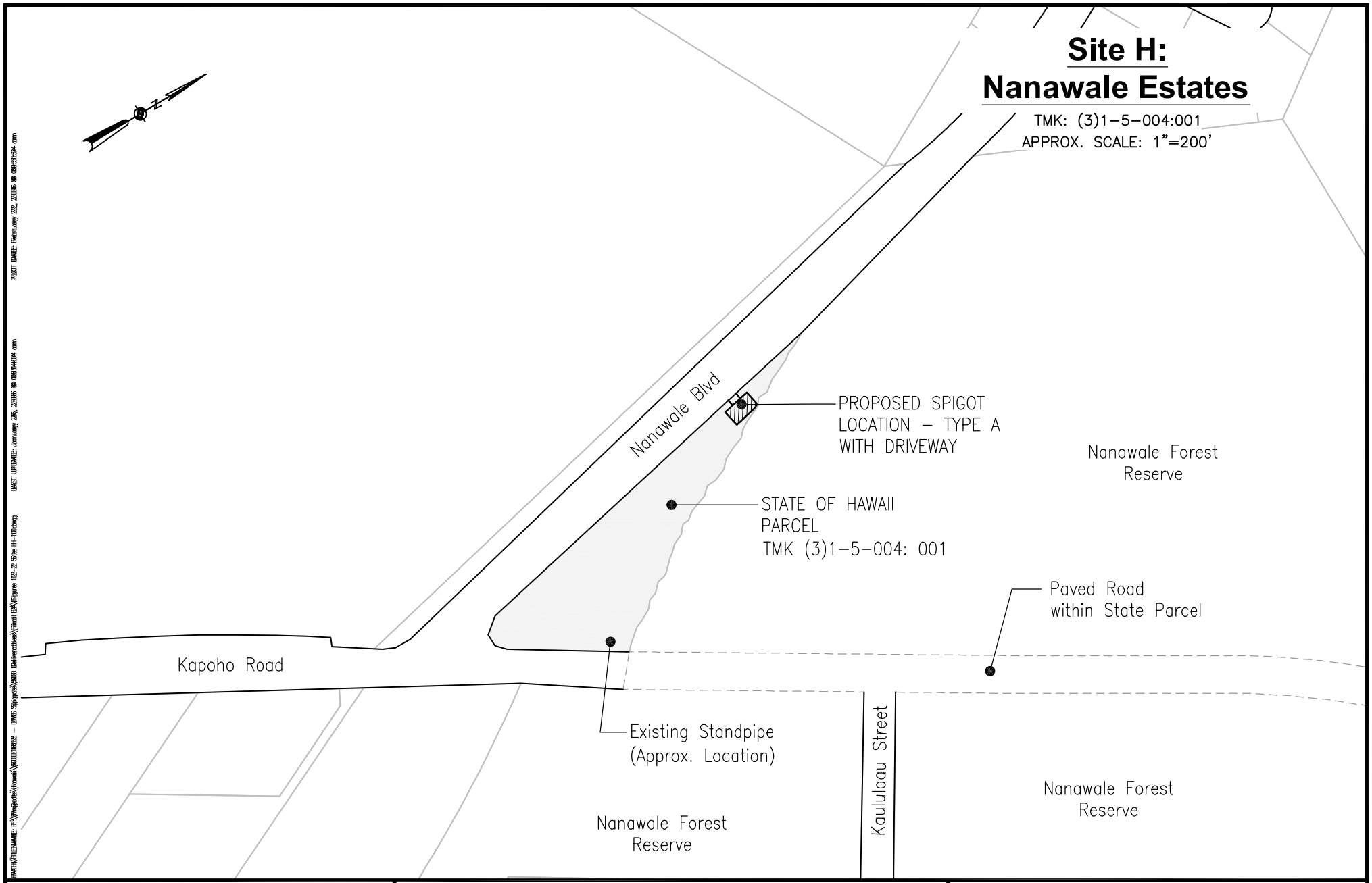

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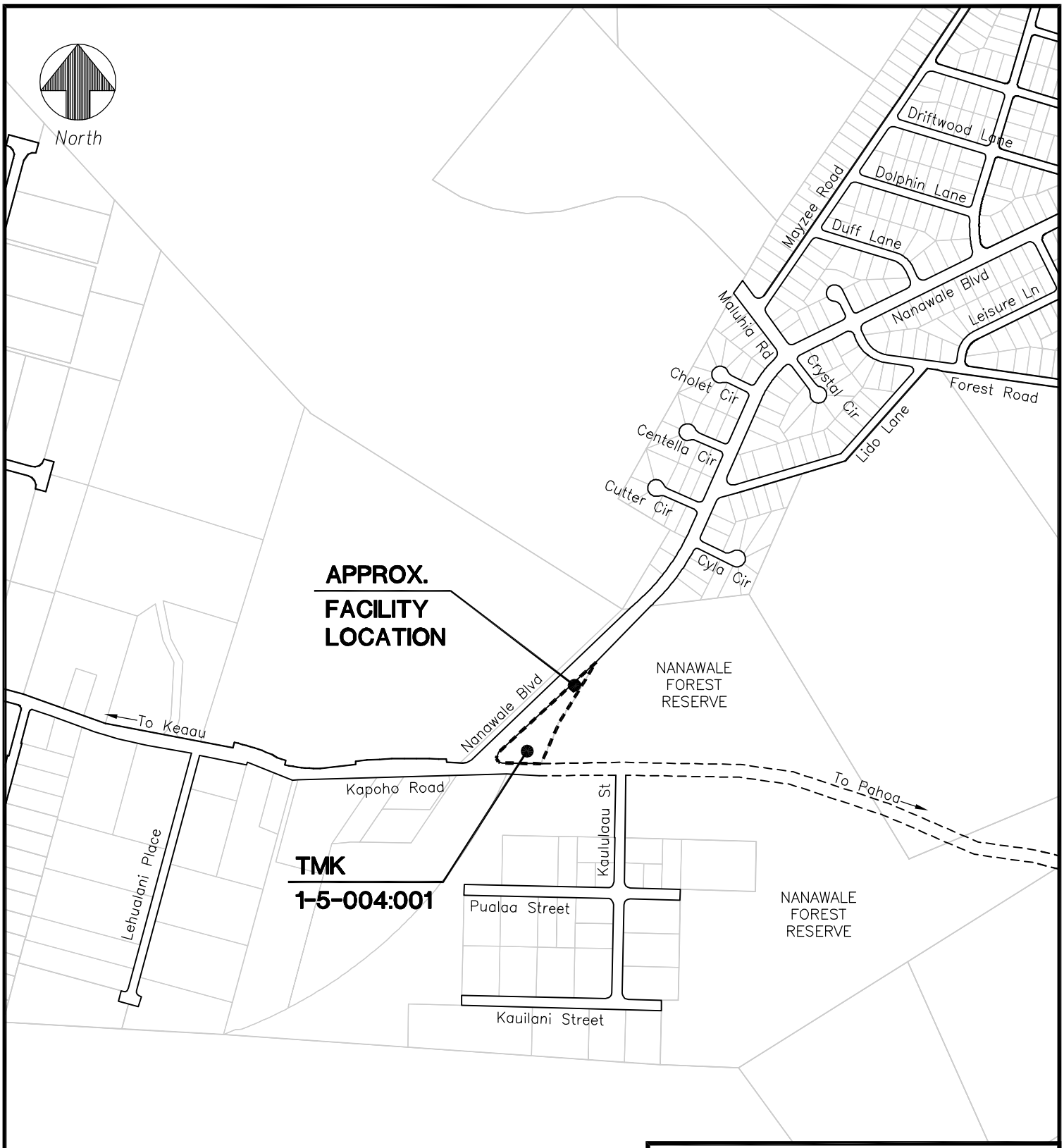
Figure 12-2
Site H Site Map
Nanawale Estates
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006



Site H:
Nanawale Estates

NOT TO SCALE

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Figure 12-1
Site H Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 12-1 Location H-10.dwg LAST UPDATE: January 26, 2006 @ 08:13:22 am PLOT DATE: February 22, 2006 @ 09:42:32 am

Looking at Existing Site

Looking Towards Nanawale Blvd.

Looking at Existing Site

Site H:
Nanawale Estates

TMK: (3)1-5-004:001

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Figure 12-3
Site H Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 12-3 Photo H-10.dwg LAST UPDATE: January 26, 2006 @ 08:20:14 am PLOT DATE: February 22, 2006 @ 09:51:13 am

12.1.4 TOPOGRAPHY

Description:

The project site is located between Pahoa and Kaniahiku Village. The ground elevation at the site is approximately 645'. The land in the area of the proposed spigot site generally slopes from the southwest to the northeast.

Impacts and Mitigative Measures:

No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore no mitigative measures are required.

12.1.5 SOILS

Description:

The Natural Resources Conservation Service of the U.S. Department of Agriculture classifies the soil in the Nanawale area as lava flows, pahoehoe (rLW).

Lava flows, pahoehoe is a miscellaneous land type which has a billowy, relatively smooth glassy surface. The pahoehoe lava has no soil covering and is typically bare of vegetation, although as this site is in an area of higher rainfall scattered ohia trees, ohelo berry, and aalii have gained a foothold in cracks and crevices.

This land type is typically at an elevation ranging from sea level to 13,000 feet.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawai'i (ALISH) maps (**Appendix C**) indicate that the proposed site will not be located on or affect protected farmlands. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

12.1.6 WATER RESOURCES

Description:

The project area lies within the Pahoa aquifer system, which has a sustainable yield of approximately 435 million gallons per day. A map of the aquifer systems and sustainable yields for the Island of Hawai'i is presented as **Figure D-1** in **Appendix D**. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawai'i.

Figures provided in the 2005 County of Hawai'i General Plan indicate that the average consumption of the Pahoa water system is 0.40 mgd. This system has merged with the Kapoho water system, and together they are supplied by Pahoa Battery Well Nos. A & B, and Keonepoko Nui Well Nos. 1 & 2.

Three additional water systems also service the Puna District: the Olaa-Mountain View water system, the Kapoho water system, and the Kalapana water system. The total average consumption of all systems in the district is 1.2 mgd. The Glenwood and Volcano areas are presently not serviced by any public water system. Many of these areas, including most of the Hawaiian Paradise Park subdivision, still depend on individual roof catchment systems. According to estimates obtained by the Fire Department, approximately 75% of households in the Puna district (~8,363 households) are not connected to the County municipal water system (**Figure 3-2**).

An existing 8" DWS waterline runs along the portions of Nanawale Boulevard and Kapoho Road the access road bordering the project area parcel. The reservoir servicing this waterline has an elevation of 844'.

There are no existing water spigots at the project site. The closest spigot facility is the Keonepoko Nui Standpipe facility (approximately 3.3 miles to the northwest). This facility is indicated as Site Reference #6 on **Figures 3-1** and **3-2**. The Keonepoko Nui facility (shown in **Photo 12-1**) is a newly constructed large facility that provides 2 commercial standpipes and 6 water spigot for the community's use. This facility is fence-enclosed, with ample dedicated parking and lighting for users.

Photo 12-1
Existing Keonepoki Nui Spigot Facility

The water consumption records over the past year for this facility indicate that the maximum average daily demand was approximately 0.00869 mgd. The highest average demand occurred in the month of May. This site is one of six that presently service the Puna district.

Reviews of the USGS map and USFWS online maps (**Appendix C**) indicate that there are no streams, ponds, lakes or wetlands within or near the proposed site.

Impacts and Mitigative Measures:
The proposed spigot will connect with a meter to the main County waterline within the Pahoa water system. Based on the water consumption records of the nearest existing water spigot, the installation of the spigot is expected to pose a maximum average demand of approximately 0.0033 mgd as the facility will not be as large as the existing facility. This anticipated demand will result in a minimal increase in the average daily consumption, and therefore will not affect the capacity of this water system.

Should this site be selected as for a water spigot facility upgrade, the County of Hawai'i may consider using the upgraded facility as a replacement for one of the existing spigot facilities due to the personal and traffic safety hazards the other existing facilities currently pose.

This project will not impact the water system capacity in this area. No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated. No mitigation measures are required.

12.1.7 NATURAL HAZARDS
Natural hazards in Hawai'i include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

12.1.7.1 Floods

Description:

The project site is located in an area of "Minimal Tsunami Inundation", as determined by the Federal Emergency Management Agency. Flooding is not anticipated for this area.

The proposed project site is not located in an area which contains estuary, fresh water or coastal waters.

Impacts and Mitigative Measures:

This project site is not within a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigative measures are required.

12.1.7.2 Hurricanes

Description:

The first hurricane officially recorded in Hawaiʻi (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawaiʻi, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawaiʻi remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

Impacts and Mitigative Measures:

Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

12.1.7.3 Volcanic Eruptions

Description:

There are four active volcanoes on the Island of Hawaiʻi. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.

The project area is located just to the northwest of the Kilauea east rift zone, and is within the buffer zone between lava hazard zones "1" and "2" on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawaiʻi is presented as **Figure D-2,** in **Appendix D**.

Zone 1 areas are described as areas where vents have been repeatedly active in historic time. Lava flows originate in Zone 1 locations. Areas within Zone 2 are adjacent to and downslope from Zone 1. As the lava hazard boundaries are merely approximate, the relative hazard within this zone gradually decreases as the distance from Zone 1 areas increase. Therefore, the proximity of the project site to the Zone 1 (east rift zone) boundary would suggest that the site may experience events characteristic of both Zones 1 and 2.

Impacts and Mitigative Measures:

The risk of a volcanic eruption in this area is high, as it is located near a rift zone of Kilauea volcano. The project site is located approximately 20 miles northeast of the

origin of the current eruption, and most likely will not be affected by the lava from that eruption. However, the site is located in an area with vents that have been historically active. Although the proposed improvements may be damaged in the event of a volcanic eruption or lava flow in this area, there are no practical mitigative measures currently available. The proposed project will comply with the current regulatory design standards.

12.1.7.4 Earthquakes

Description:

Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active", future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:

Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

12.1.8 FLORA AND FAUNA

Description:

The proposed project site is currently occupied an overgrowth of vegetation. This site has not been obviously cleared or graded despite the construction of the surrounding Nanawale Boulevard and Kapoho Road. The Hawai'i Natural Heritage Program (HNHP) was consulted, and a review of their database records determined that no threatened or endangered species have been recorded within the site (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is also provided in **Appendix B**.

Impacts and Mitigative Measures:

Installation of the proposed water spigot will be confined to the immediate spigot location on the indicated parcel, with waterline trenching to meet the County waterline along Nanawale Boulevard. This installation will require the clearing and grading of a portion of the parcel, in order to construct the water spigots facility with a paved parking area and driveway. These construction activities are anticipated to cause minimal short-term adverse impacts on local surrounding vegetation. All of the work associated with the installation will only disturb the immediate area, which is overgrown with various grasses, brush and small trees. All disturbed vegetated areas that are outside of the proposed paved regions will be re-vegetated as soon as possible upon completion of the spigot installation to prevent soil erosion and reduce visual impacts.

No endangered wildlife habitats are noted in the EA for the proposed water spigots facility site, and no endangered wildlife habitats are anticipated to exist in the vicinity of the proposed project site. Therefore, no mitigative measures are required.

12.1.9 VISUAL

Description:

This project area is located in an undeveloped parcel just *makai* of the paved Nanawale Boulevard. Development is sparse around project area. No buildings or dwellings are located on or near the project site. The immediate project area is dominated by a densely vegetated area, which overlooks the Nanawale Forest Reserve in the *makai* direction, and a slightly vegetated landscaped area in the *mauka* direction of the parcel.

Impacts and Mitigative Measures:

The proposed water spigots facility will be installed at a location that is offset from the roadway and obscured by the surrounding vegetation.

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. Existing facilities will be protected from construction activities. The proposed project will not result in a negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

12.2 SOCIAL

12.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:

According to the State Historic Preservation Department's Hawai'i National Register of Historic Places, no historical or archaeological sites will be affected by the construction of a spigot facility at this project site.

In order to mitigate the possible impact of construction activities upon any potential resources, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas, apart from the Nanawale Forrest Reserve. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs
Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:

The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

12.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:

Presently, no public operations are located in the proposed area. No road closures, or traffic disruptions are anticipated to take place in conjunction with the construction and operations of the water spigots facility. Access along Nanawale Boulevard will be available throughout construction.

A water meter is recommended to be considered during the design stage for this facility. The tap into the existing water system will be coordinated with Department of Water Supply to ensure the temporary disruption does not impact the neighboring properties.

Impacts and Mitigative Measures:

No disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. Therefore, no mitigative measures are required.

12.2.3 NOISE

Description:

Due to its location in a rural area, the project site is generally quiet as there is no public facility or use on this parcel. The current noise is generated mainly by vehicular movements along Nanawale Boulevard. Residential or commercial activities are located considerably away from this land.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor and is not anticipated to impact the distant neighbors.

Impacts and Mitigative Measures:

Noise generated by construction activities will comply with noise provisions established by the State Department of Health and no further measures are required to mitigate short-term impacts. Construction activities are short-term and localized in nature, therefore no long-term or cumulative impacts are anticipated due to the proposed projects and no other mitigative measures are required.

12.2.4 TRAFFIC

Description:

There are no existing spigots at this location, however, the maximum average visitor rate (based on water consumption records, and adjusted for size) of the nearest existing facility is approximately 108 visitors a day. The introduction of the proposed water spigot facility would attract an estimated maximum average of 82 visitors a day to this site, as indicated in **Table 4-2**.

There will be minimal, if any, impacts to traffic during the construction and future operation of the water spigots. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place on the site away from the roadway and access to the transfer bin. Similarly, future use of the spigots will not occur on the roadway or access way and a separate driveway into the facility shall be designed.

Impacts and Mitigative Measures:
No work will be done to the existing roadway and no road closures are expected. The Nanawale Community Association has requested that sufficient visibility of the spigot entrance be provided for traffic using the yield onto Nanawale Boulevard from Kapoho Road. This will be addressed during the design phase of this project. No further mitigative measures are required.

12.2.5 RECREATIONAL FACILITIES
Description:
This site is neither located on nor adjacent to any recreational facilities nor publicly used land.

Impacts and Mitigative Measures:
This project is not anticipated to impose any short-term or long-term impacts on recreational facilities. Therefore, no mitigative measures are required.

12.3 SOCIO-ECONOMIC
12.3.1 DEMOGRAPHICS
Description:
Census information for the Puna district is divided into two CCDs within the area: the Keaau-Mountain View CCD, and the Pahoa-Kalapana CCD. The total population of the district in 2000 was reported as 31,335 people.

According to the 2000 census for the Keaau-Mountain View CCD, the total population of the area is 22,738 people. The population density of the Keaau-Mountain View area is 98.7 (where 22,738 people reside on 230.38 square miles of land). The total population of the Pahoa-Kalapana CCD is 8,597 people, for 269.07 square miles of land. The density of the entire Island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:
The proposed water spigots facility will help provide potable water to the Puna district. It is not anticipated that the facility will induce or reduce population in this area in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

12.3.2 SOCIO-ECONOMIC ENVIRONMENT
Description:
The population of the Puna district has significantly increased since 1980. By 2000, the district had seen an average growth of nearly 167% of its population, mostly due to the employment opportunities provided by the district's agriculture industry and the businesses in Hilo, as well as the land affordability offered in Puna (County of Hawai'i, 2005).

The primary economic activity in the Puna district is the agriculture industry, including truck farming, the farming of papaya, anthuriums, orchids and bananas. There is a small tourism industry in this district due to popular attractions such as the Volcanoes National Park, however, visitor accommodations and facilities in Puna are limited to mostly bed and breakfast and vacation rental operations.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the Puna district. While this may not apply to all the communities within

the Puna district, it does provide a glimpse of the social environment in the vicinity of the project area. A weighted average was taken for the two CCDs within the district. The median age of the Puna district resident is 56.3 years old. Of the population 16 years and older, 59.6% are employed, while 40.4% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales, farming/fishing/forestry, construction, transportation and agriculture. The median household annual income for residents of the Puna district is $31,040.

Impacts and Mitigative Measures:
The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawaiʻi DWS customers. Therefore, no mitigative measures are required.

12.3.3 ENVIRONMENTAL JUSTICE
Description:
These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawaiʻi DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or in areas where there is open land. The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:
No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

12.4 LAND USES AND OWNERSHIP
12.4.1 LAND USE DESIGNATIONS
The land use designations for TMK: 9-5-005: 001 are as follows:

State Land Use –	Agricultural
Hawaiʻi County General Plan –	Conservation
County Zoning –	Agricultural District (A-1a) (min. building site of 1 acre)

This site is also located within a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:
As directed in the Hawaiʻi Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawaiʻi must be consistent with the policies set by the Hawaiʻi Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawaiʻi Coastal Zone (CZM) Management Program. A summary of the site-specific CZM federal consistency assessment is provided in

Appendix C. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawai'i CZM Program will be required.

The project site is located along off Nanawale Boulevard, however will not be located within the ROW. The proposed construction will occur on a designated Agricultural land, but is located within an area with a paved roadway, and is on a site that has previously been graded. Therefore, this project and is not expected to affect the intended use of the land. This is further discussed in **Section 12.4.4**.

The proposed site is also just outside of a Natural Area Reserve. However, construction and operational activity will be confined to the areas that are already developed, and are not expected to affect the reserve area.

Construction of the proposed project will take place in an area has been previously developed; however installation may require some minor grading and excavation activities. The project site is not located near the coastline, and therefore will not affect coastal ecosystems.

12.4.2 HAWAI'I STATE PLAN

Description:

The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows: **§226-13 (a)(1)** and **(b)(2), §226-14 (b)(1)**, and **§226-16 (b)(5).** Please refer to **Section 5.4.2** for a description of these items.

Impacts and Mitigative Measures:

Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with both of these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

12.4.3 STATE LAND USE LAW

Description:

The project site, located at TMK 1-5-004:001, is classified by the State as agricultural land and is under the joint jurisdiction of the State and the County. The portion of the Land Use Law which relates to the proposed project site is: **§205-4.5 (a)(7).** Please refer to **Section 5.4.3** for a description of this item.

Impacts and Mitigative Measures:

The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

12.4.4 COUNTY OF HAWAI'I

Description:

Under the County of Hawai'i's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County, 2) protect and

encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific land use objectives for the agricultural land classification within the Puna district include the provision to assist in the further development of agriculture in the district.

The project area land use designation is "Conservation."

Impacts and Mitigative Measures:
The proposed project is consistent with the County of Hawai'i's General Plan. Installation of the water spigots facility will not affect the land use or development of agriculture in the district. No short-term or long-term impacts are anticipated; therefore no mitigative measures are required.

12.4.5 PROPERTY OWNERSHIP

Description:
The property affected by the installation of the proposed water spigots facility is identified as 3rd Tax Division TMK: 1-5-4: Parcel 001. This parcel is owned by the State of Hawai'i.

Impacts and Mitigative Measures:
The State of Hawai'i currently owns the property identified by 3rd Tax Division TMK: 1-5-4: Parcel 001. The proposed water spigots facility does not require the taking of any private lands; however installation of the proposed water spigots facility on this site will require an easement or Memorandum of Understanding (MOU) between the appropriate State and County agencies.

12.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:
The State of Hawai'i Department of Transportation (DOT) and the Nanawale Community Association were consulted to identify possible concerns regarding the proposed project.

It was observed at other existing spigot locations that spigot users have a tendency to leave their trash at the spigot site. Additionally, users are also inclined to rinse out their water containers before refilling them, and dump the rinse water onto the ground.

The Nanawale Community Association does not currently have plans for this location, however, would like to work with the County to maintain the aesthetic beauty of the community.

Impacts and Mitigative Measures:
The installation of a water spigots facility at this project site would require discussion and coordination between DWS, the DOT, the Nanawale Community Association and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the spigot facility. This plan should outline road/driveway maintenance, facility maintenance, operating hours and procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to any of the participating agencies/organizations. Restrictions on the operating hours of the proposed facility are not currently anticipated.

The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal. Signs shall be posted to outline operating rules and to deter improper use of the site.

Coordination and consultation with the Nanawale Community Association is recommended to assure the owners that the aesthetics of their community will not be compromised.

Should this site be selected for a spigot facility, then the operations, maintenance and coordination issues described in this section will need to be considered and adequately addressed. However, it is not anticipated that installation of a facility at this site will pose short-term or long-term environmental impacts.

SECTION 13

SITE I: KAPOHO-POHOIKI ROAD JUNCTION (TMK: 1-4-001:002)

13 DESCRIPTION OF AFFECTED ENVIRONMENT

13.1 PHYSICAL

13.1.1 LOCATION

The project site is located in the Puna District, southeast of Hilo, and is in the vicinity of a parcel identified as the State of Hawaiʻi Third Tax Division, Tax Map Key (TMK) 1-4-001:002. The proposed facility will be installed at the intersection of Kapoho and Pohoiki Roads, within the County of Hawaiʻi Right-of-Way (ROW). Project location and site maps are presented as **Figures 13-1** and **13-2**, respectively. Photographs of the existing site are provided in **Figure 13-3**.

13.1.2 CLIMATE

Description:

The average temperature in Puna is 73.5°F with average minimum and maximum monthly temperatures ranging from 71°F and 76°F, respectively. Annual rainfall averages 112.5 inches.

Located on the windward side of the island, Puna is exposed to the northeasterly trade winds.

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

13.1.3 AIR QUALITY

Description:

In general, air quality at the project site is good. The area around the project site is rural in character and absent of heavy industry. Due to the prevailing tradewinds, the project area is not severely affected by vog. When kona wind conditions occur, the vog becomes a noticeable pollutant.

According to the State of Hawaiʻi Department of Health (DOH) 2004 Annual Summary of Hawaiʻi Air Quality Data, the "air quality in the State of Hawaiʻi continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards." The DOH determined that the State of Hawaiʻi was in attainment for all federal ambient air quality standards in 2004. Please refer to **Table 5-1** for Federal and State Ambient Air Quality Standards.

Impacts and Mitigative Measures:

The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity.

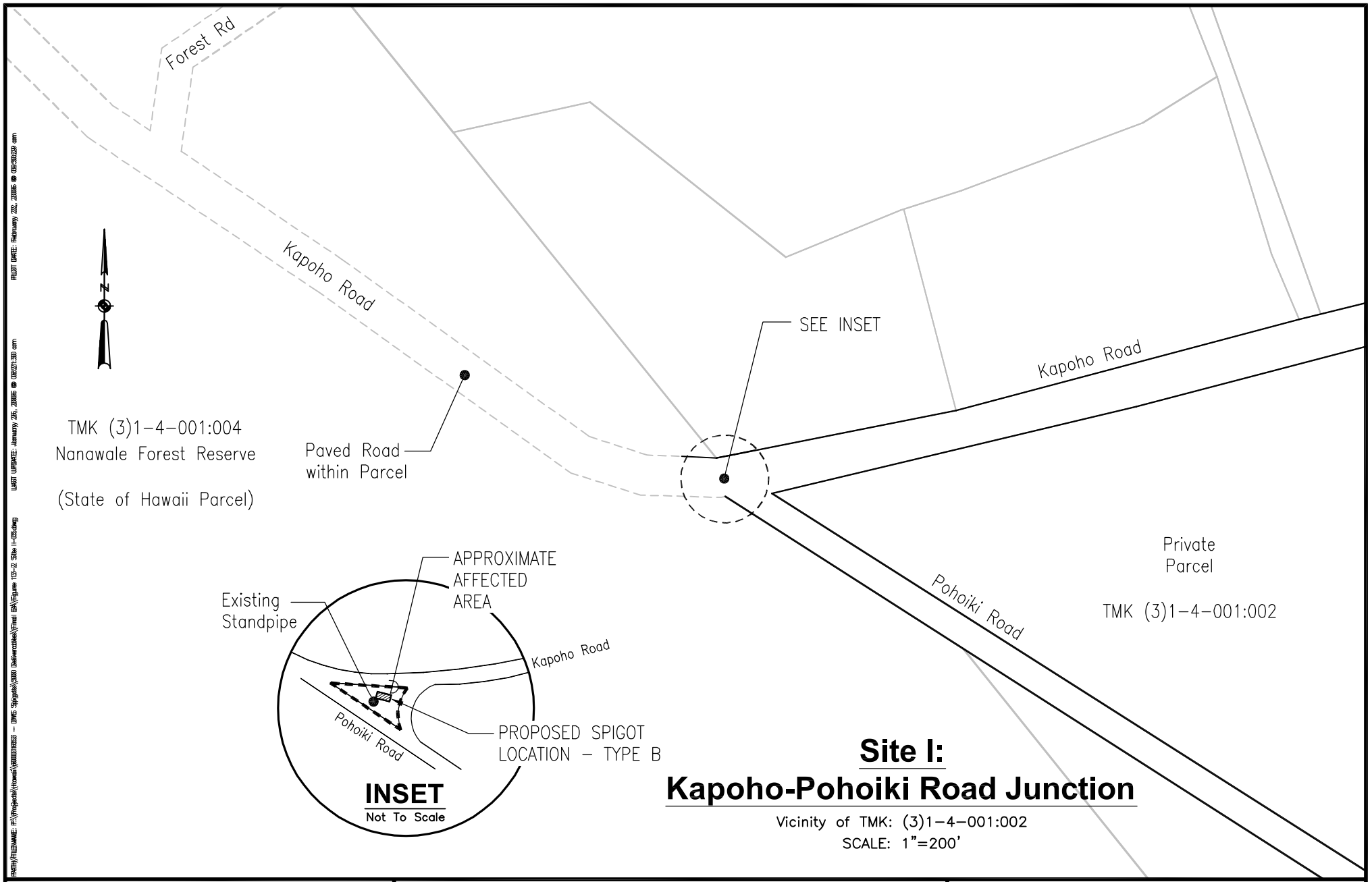

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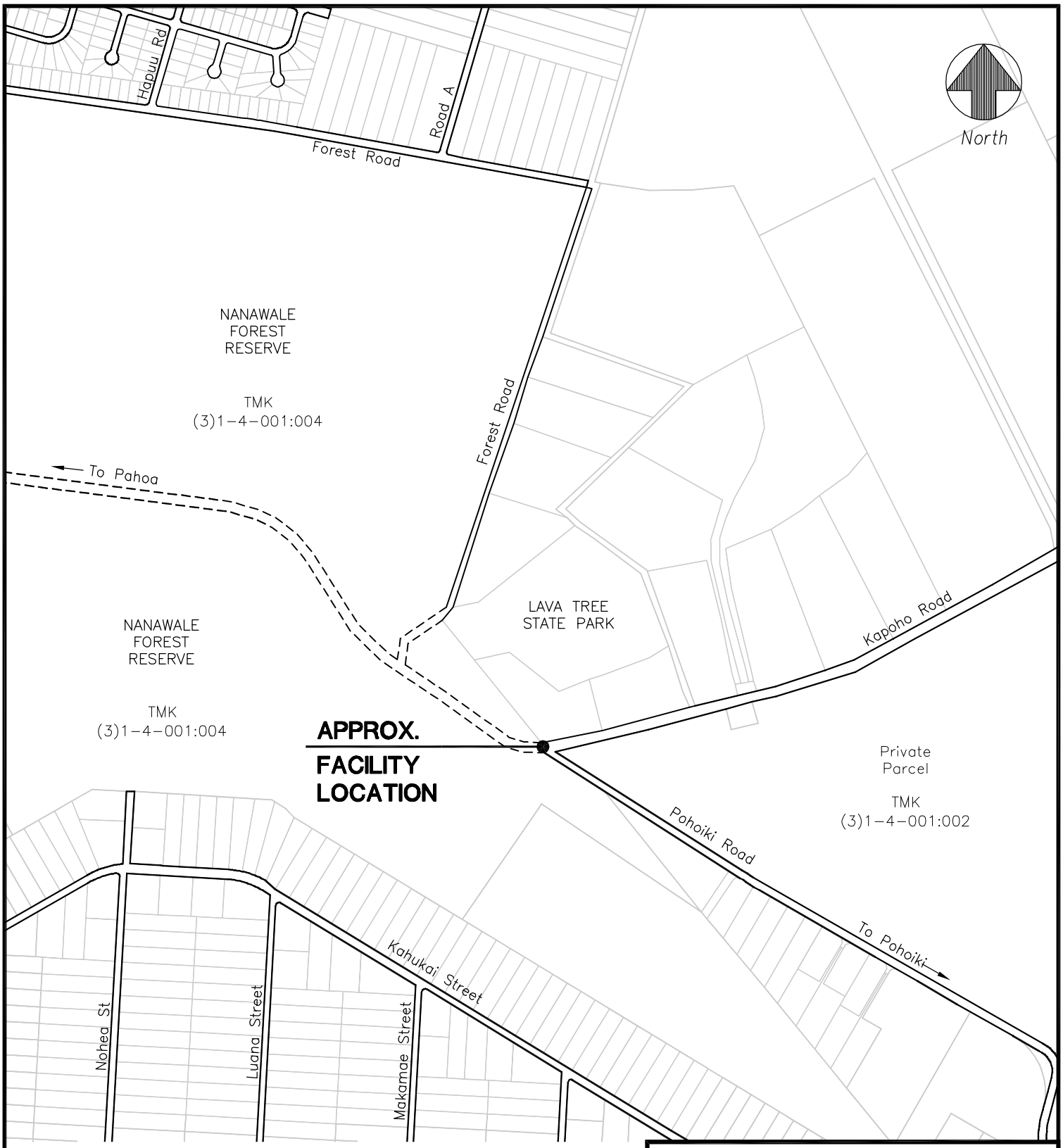
Figure 13-2
Site I Site Map
Kapoho-Pohoiki Road Junction
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006



Site I:
Kapoho-Pohoiki Road Junction

NOT TO SCALE

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Figure 13-1
Site I Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 13-1 Location I-05.dwg LAST UPDATE: January 26, 2006 @ 08:21:02 am PLOT DATE: February 22, 2006 @ 09:50:52 am

Existing Standpipe

Existing Water Boxes

Site I:
Kapoho-Pohiki Road Junction

TMK: (3)1–4–001:002

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Figure 13-3
Site I Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 – DWS Spigots\500 Deliverables\Final EA\Figure 13-3 Photo I-05.dwg LAST UPDATE: January 26, 2006 @ 08:21:54 am PLOT DATE: February 22, 2006 @ 09:50:08 am

13.1.4 TOPOGRAPHY

Description:

The project site is located between Pahoa and the Lava Tree State Park. The ground elevation at the site is approximately 624'. The land in the area of the proposed spigot site generally slopes from the west to the northeast.

Impacts and Mitigative Measures:

No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore no mitigative measures are required.

13.1.5 SOILS

Description:

The Natural Resources Conservation Service of the U.S. Department of Agriculture classifies the soil in the Kapoho-Pohoiki area as lava flows, a'a (rLV).

Lava flows, A'a is a miscellaneous land type which typically has a rough and broken surface. The A'a lava has practically no soil covering and is generally bare of vegetation.

This land type is typically at an elevation ranging from sea level to 13,000 feet. In areas of high rainfall, it contributes substantially to the underground water supply and is used for watershed.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawai'i (ALISH) maps (**Appendix C**) indicate that the proposed site will not be located on or affect protected farmlands. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

13.1.6 WATER RESOURCES

Description:

The project area lies within the Kalapana aquifer system, which has a sustainable yield of approximately 157 million gallons per day. A map of the aquifer systems and sustainable yields for the Island of Hawai'i is presented in **Figure D-1** in **Appendix D**. Figures provided in the 2005 County of Hawai'i General Plan indicate that the average consumption of the Pahoa water system is 0.40 mgd. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawai'i.

Three additional water systems also service the Puna District: the Olaa-Mountain View water system, the Kapoho water system, and the Kalapana water system. The total average consumption of all systems in the district is 1.2 mgd. The Glenwood and Volcano areas are presently not serviced by any public water system. Many of these areas still depend on roof catchment systems. According to estimates obtained by the Fire Department, approximately 75% of households in the Puna district (~8,363 households) are not connected to the County municipal water system (**Figure 3-2**).

An existing water standpipe is currently located at the project site. Photos of the standpipe are provided in **Figure 13-3**. The proposed water spigot will be constructed adjacent to the standpipe facility. The existing standpipe is off the side of the road and

has an undefined pull-up area to accommodate one truck. The standpipe will remain operational during the installation of the water spigots facility.

The nearest existing spigot outlets are the Keonepoko Nui Standpipe facility (approximately 4.8 miles to the northwest) and the Ahia Road water spigot (approximately 9 miles to the southwest). These facilities are indicated as Site Reference #6 & #5 on **Figures 3-1** and **3-2**, respectively. The Keonepoko Nui Standpipe facility is shown in **Photo 12-1**. This newly constructed large facility provides 2 commercial standpipes and 6 water spigot for the community's use. This facility is fence-enclosed, with ample dedicated parking and lighting for users. The Ahia Road spigot (shown in **Photos 13-1** and **13-2**) is located along the shoulder of Mamalahoa Highway, near the end of Pahoa-Kalapana Road on the southeast shore of the island. As shown in **Photo 13-2**, vehicle parking is not available at this location. This spigot site currently poses a traffic safety hazard when vehicles slow to turn into the spigot area or exit the site. Lighting is not provided at this site.

Photo 13-1
Existing Ahia Road Spigot

Photo 13-2
Existing Ahia Road Spigot

The water consumption records over the past year for the existing facilities indicate that the maximum average daily demand was approximately 0.00869 mgd and 0.00153 mgd for the Keonepoko Nui and Ahia Road facilities, respectively. These sites are two of six that presently service the Puna district.

An existing 6" DWS waterline runs along the portion of Kapoho and Pohoiki Roads fronting the project area parcel. The reservoir servicing this waterline has an elevation of 844'.

Reviews of the USGS map and USFWS online maps (**Appendix C**) indicate that there are no streams, ponds, lakes or wetlands within or near the proposed site.

Impacts and Mitigative Measures:
Should the Kapoho-Pohoiki Road Junction be selected as a new water spigot facility site, the DWS and the Mayor's Office may consider using the new facility as a replacement for one of the existing spigot facilities due to the personal and traffic safety hazards the existing facilities currently pose. In this case, the existing spigot will remain in place until the proposed facility is in operation. Therefore, the water demand will shift from the existing spigot to the proposed facility.

The proposed spigot will connect with a meter to the main County waterline within the Kalapana water system. Based on the water consumption records of the nearest existing water spigots, the installation of the spigot is expected to pose a maximum average demand of approximately 0.0033 mgd as the proposed facility will not be as

large as the existing standpipe facility. This anticipated demand will result in a minimal increase in the average daily consumption, and therefore will not affect the capacity of this water system. If the proposed facility is to be constructed as an additional facility, rather than a replacement facility, the resulting demand is anticipated to remain approximately the same. This minimal increase in demand will not affect the capacity of the water system.

This project will not impact the water system capacity in this area. No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated. No mitigation measures are required.

13.1.7 NATURAL HAZARDS

Natural hazards in Hawai'i include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

13.1.7.1 Floods

Description:

The project site is located in an area of "Minimal Tsunami Inundation", as determined by the Federal Emergency Management Agency. Flooding is not anticipated for this area.

The proposed project site is not located in an area which contains estuary, fresh water or coastal waters.

Impacts and Mitigative Measures:

This project site is not within a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigative measures are required.

13.1.7.2 Hurricanes

Description:

The first hurricane officially recorded in Hawai'i (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawai'i, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawai'i remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

Impacts and Mitigative Measures:

Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

13.1.7.3 Volcanic Eruptions

Description:

There are four active volcanoes on the Island of Hawai'i. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.

The project area is located along the Kilauea east rift zone, and is within a lava hazard zone of "1" on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawai'i is presented as **Figure D-2**, in **Appendix D**. Zone 1 areas are described as areas where vents have been repeatedly active in historic time. Lava flows originate in Zone 1 locations.

Impacts and Mitigative Measures:
The risk of a volcanic eruption in this area is high, as it is located in a rift zone of Kilauea volcano. The project site is located approximately 20 miles northeast of the origin of the current eruption, and most likely will not be affected by the lava from that eruption. However, the site is located in an area with vents that have been historically active. Although the proposed improvements may be damaged in the event of a volcanic eruption or lava flow in this area, there are no practical mitigative measures currently available. The proposed project will comply with the current regulatory design standards.

13.1.7.4 Earthquakes
Description:
Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active", future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:
Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

13.1.8 FLORA AND FAUNA
Description:
The general project site is currently occupied by an existing water standpipe. The entire site has been previously cleared and graded for the construction and use of the standpipe, with the exception of two medium-sized trees. The Hawai'i Natural Heritage Program (HNHP) was consulted, and a review of their database records determined that the endangered Hawaiian Hawk was observed within the project parcel, however, the parcel is rather large and the sightings most likely were not within the proposed spigot site (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is also provided in **Appendix B**.

Impacts and Mitigative Measures:
The proposed water spigots facility location is adjacent to an existing water standpipe that is still in use. This installation will cause minimal short-term adverse impacts on local vegetation. All of the work associated with the installation will take place in

previously cleared and/or paved areas, and will only disturb various grasses. Existing trees will be protected from construction activities to the maximum extent possible. All disturbed grassed areas will be re-vegetated as soon as possible upon completion of the spigot installation to prevent soil erosion and reduce visual impacts.

As this project will be located on a site that has previously been disturbed by construction activity, it is highly unlikely that endangered wildlife habitats noted above are anticipated to exist in the affected area of the proposed project site. Construction activities for and operation of the installation will not encroach into uninhabited or undeveloped areas, therefore, no mitigative measures are required.

13.1.9 VISUAL

Description:

The project site is located in a sparsely developed area at the intersection of Kapoho Road and Pohoiki Road. No buildings or dwelling are located on or near the project site. The immediate project area is adjacent to an existing water standpipe, and has been flatly graded with a small grassed area and a medium-sized tree. The project site overlooks a densely vegetated area in the *makai* direction, and the Nanawale Forest Reserve to the *mauka* direction.

Impacts and Mitigative Measures:

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. Existing trees will be protected from construction activities to the maximum extent possible. The proposed project will not result in a negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

13.2 SOCIAL

13.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:

According to the State Historic Preservation Department's Hawai'i National Register of Historic Places, no historical or archaeological sites will be affected by the construction of a spigot facility at this project site.

In order to mitigate the possible impact of construction activities upon any potential resources, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." The area has been previously disturbed and the proposed undertaking will be located primarily within the previously disturbed areas at the junction of Kapoho and Pohoiki. There is an existing spigot (standpipe) facility presently located at this site. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs
Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:
The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

13.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:
Presently, no public operations are located in the proposed area other than and existing water spigot. No road closures, or traffic disruptions are anticipated to take place in conjunction with the construction and operations of the water spigots facility. Travelways along the two roadways will be available throughout construction.

If a water meter for the existing standpipe is not in place, a water meter is recommended to be considered during the design stage for this facility. The tap into the existing water system will be coordinated with Department of Water Supply to ensure the temporary disruption does not impact the neighboring properties.

Impacts and Mitigative Measures:
No disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. Therefore, no mitigative measures are required.

13.2.3 NOISE

Description:
The project site is generally quiet as there is no public facility or use on this parcel. The current noise is generated mainly by vehicular movements along Kapoho and Pohoiki Road. Residential or commercial activities are located considerably away from this junction and the main zoning is agricultural.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor and is not anticipated to impact the distant neighbors.

Impacts and Mitigative Measures:
Noise generated by construction activities will comply with noise provisions established by the State Department of Health and no further measures are required to mitigate short-term impacts. Construction activities are short-term and localized in nature, therefore no long-term or cumulative impacts are anticipated due to the proposed projects and no other mitigative measures are required.

13.2.4 TRAFFIC

Description:

There are no existing spigots at this location, however, the maximum average visitor rate (based on water consumption records, and adjusted for size) of the nearest existing facility is approximately 108 visitors a day. The introduction of the proposed water spigot facility would attract an estimated maximum average of 82 visitors a day to this site, as indicated in **Table 4-2**. There will be minimal, if any, impacts to traffic during the construction and future operation of the water spigots. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place on the site away from the roadway. Similarly, future use of the spigots is in line with current operation of the parcel. While an improved facility may increase the number of users, filling of containers will not occur on the roadways and queuing of vehicle on the either road is prohibited.

Impacts and Mitigative Measures:

As requested by the State of Hawai'i DLNR, the line of sight and sight distances for on-coming vehicles and vehicles turning into and leaving the property will be checked against the road curvature during the design phase of the project.

For safety purposes, temporary traffic controls may be required should construction or utility connection occur adjacent to the roadways. However, even in this event, no road closures are anticipated. Beyond this condition, no significant short-term or long-term impacts are anticipated; therefore, no mitigative measures are required.

13.2.5 RECREATIONAL FACILITIES

Description:

This project site is neither located on nor adjacent to any recreational facilities; it is, however, located near an existing water standpipe and will utilize a portion of publicly used lands.

Impacts and Mitigative Measures:

The proposed spigot site is at a location where use will not affect the activities at or the flow of traffic to the existing standpipe. Construction activities may potentially temporarily disrupt vehicle access to the standpipe, however the Contractor will be directed to maintain access to the transfer station at all times. No further mitigative measures are required.

13.3 SOCIO-ECONOMIC

13.3.1 DEMOGRAPHICS

Description:

Census information for the Puna district is divided into two CCDs within the area: the Keaau-Mountain View CCD, and the Pahoa-Kalapana CCD. The total population of the district in 2000 was reported as 31,335 people.

According to the 2000 census for the Keaau-Mountain View CCD, the total population of the area is 22,738 people. The population density of the Keaau-Mountain View area is 98.7 (where 22,738 people reside on 230.38 square miles of land). The total population of the Pahoa-Kalapana CCD is 8,597 people, for 269.07 square miles of land. The density of the entire Island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:
The proposed water spigots facility will help provide potable water to the Puna district. It is not anticipated that the facility will induce or reduce population in this area in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

13.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:
The population of the Puna district has significantly increased since 1980. By 2000, the district had seen an average growth of nearly 167% of its population, mostly due to the employment opportunities provided by the district's agriculture industry and the businesses in Hilo, as well as the land affordability offered in Puna (County of Hawaiʻi, 2005).

The primary economic activity in the Puna district is the agriculture industry, including truck farming, the farming of papaya, anthuriums, orchids and bananas. There is a small tourism industry in this district due to popular attractions such as the Volcanoes National Park, however, visitor accommodations and facilities in Puna are limited to mostly bed and breakfast and vacation rental operations.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the Puna district. While this may not apply to all the communities within the Puna district, it does provide a glimpse of the social environment in the vicinity of the project area. A weighted average was taken for the two CCDs within the district. The median age of the Puna district resident is 56.3 years old. Of the population 16 years and older, 59.6% are employed, while 40.4% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include management, service, sales, farming/fishing/forestry, construction, transportation and agriculture. The median household annual income for residents of the Puna district is $31,040.

Impacts and Mitigative Measures:
The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawaiʻi DWS customers. Therefore, no mitigative measures are required.

13.3.3 ENVIRONMENTAL JUSTICE

Description:
These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawaiʻi DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or in areas where there is open land. The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:
No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

13.4 LAND USES AND OWNERSHIP

13.4.1 LAND USE DESIGNATION

The land use designations for TMK: 1-4-001: 002 are as follows:

State Land Use –	Agricultural
Hawai'i County General Plan –	Extensive Agriculture
County Zoning –	Agricultural District (A-1a) (min. building site of 1 acre)

This site is also located within a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:

As directed in the Hawai'i Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawai'i must be consistent with the policies set by the Hawai'i Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawai'i Coastal Zone (CZM) Management Program. A summary of the site-specific CZM federal consistency assessment is provided in **Appendix C**. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawai'i CZM Program will be required.

The project site is located along off Nanawale Boulevard, however will not be located within the ROW. The proposed construction will occur on a designated Agricultural land, but is located within an area with a paved roadway, and is on a site that has previously been graded. Therefore, this project and is not expected to affect the intended use of the land. This is further discussed in **Section 13.4.4**.

The proposed site is also just outside of a Natural Area Reserve. However, construction and operational activity will be confined to the areas that are already developed, and are not expected to affect the reserve area.

Construction of the proposed project will take place in an area has been previously developed; however installation may require some minor grading and excavation activities. The project site is not located near the coastline, and therefore will not affect coastal ecosystems.

13.4.2 HAWAI'I STATE PLAN

Description:

The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows: **§226-13 (a)(1)** and **(b)(2), §226-14 (b)(1)**, and **§226-16 (b)(5).** Please refer to **Section 5.4.2** for a description of these items.

Impacts and Mitigative Measures:

Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with both of these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

13.4.3 STATE LAND USE LAW

Description:

The project site, located at TMK 1-4-001:002, is classified by the State as agricultural land and is under the joint jurisdiction of the State and the County. The portion of the Land Use Law which relates to the proposed project site is: **§205-4.5 (a)(7).** Please refer to **Section 5.4.3** for a description of this item.

Impacts and Mitigative Measures:

The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

13.4.4 COUNTY OF HAWAI'I

Description:

Under the County of Hawai'i's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific land use objectives for the agricultural land classification within the Puna district include the provision to assist in the further development of agriculture in the district.

The project area land use designation is "Extensive Agriculture."

Impacts and Mitigative Measures:

The proposed project is consistent with the County of Hawai'i's General Plan. Installation of the water spigots facility will not affect the land use or development of agriculture in the district. No short-term or long-term impacts are anticipated; therefore no mitigative measures are required.

13.4.5 PROPERTY OWNERSHIP

Description:

The proposed project will be installed within the State of Hawai'i and County of Hawai'i Right-of-Ways, in the vicinity of the property identified as 3rd Tax Division TMK: 1-4-001: Parcel 002. This parcel is owned by the Kapoho Land & Development Company.

Impacts and Mitigative Measures:

The property identified by 3rd Tax Division TMK: 1-4-001: Parcel 002 is privately owned. However, the proposed water spigots facility will be installed within the State and County ROWs. The proposed water spigots facility does not require the use or acquisition of any private lands. Therefore, no mitigative measures are required.

13.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:

The State of Hawai'i Department of Transportation (DOT) was consulted to identify possible concerns regarding the proposed project.

It was observed at other existing spigot locations that spigot users have a tendency to leave their trash at the spigot site. Additionally, users are also inclined to rinse out their water containers before refilling them, and dump the rinse water onto the ground.

Impacts and Mitigative Measures:
The installation of a water spigot facility at this project site would require discussion and coordination between DWS, the DOT and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the spigot facility. This plan should outline road/driveway maintenance, facility maintenance, operating procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to any of the participating agencies/organizations. The plan should be established during the design phase of the project, and prior to construction and use of the facility.

The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal. Signs shall be posted to outline operating rules and to deter improper use of the site.

Should this site be selected for a spigot facility, then the operations, maintenance and coordination issues described in this section will need to be considered and adequately addressed. However, it is not anticipated that installation of a facility at this site will pose short-term or long-term environmental impacts. Presently, it is not anticipated that there is a need to restrict operating hours at this site.

SECTION 14

SITE J: WAIOHINU FLOOD CHANNEL (TMK: 9-5-006:002)

14 DESCRIPTION OF AFFECTED ENVIRONMENT

14.1 PHYSICAL

14.1.1 LOCATION

The project site is located in the Ka'u District, north of the southernmost point of the Island of Hawaiʻi, and is identified as the State of Hawaiʻi Third Tax Division, Tax Map Key (TMK) 9-5-006:002. Project location and site maps are presented in **Figures 14-1** and **14-2**, respectively. Photographs of the existing site are provided in **Figure 14-3**.

14.1.2 CLIMATE

Description:

The average temperature in nearby Naalehu, HI is 72.6°F with average minimum and maximum monthly temperatures ranging from 65.8°F and 79.4°F, respectively. Annual rainfall at this site averages 49.4 inches.

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

14.1.3 AIR QUALITY

Description:

In general, air quality at the project site is good. The area around the project site is rural in character and absent of heavy industry. The only significant source of air pollution is from volcanic eruptions.

The Ka'u area often experiences "vog" conditions, because of the prevailing trade winds from the northeast; however, when "kona" winds blow from the southwest, vog conditions do not occur.

According to the State of Hawaiʻi Department of Health (DOH) 2004 Annual Summary of Hawaiʻi Air Quality Data, the "air quality in the State of Hawaiʻi continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards." The DOH determined that the State of Hawaiʻi was in attainment for all federal ambient air quality standards in 2004. Please refer to **Table 5-1** for Federal and State Ambient Air Quality Standards.

Impacts and Mitigative Measures:

The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity.

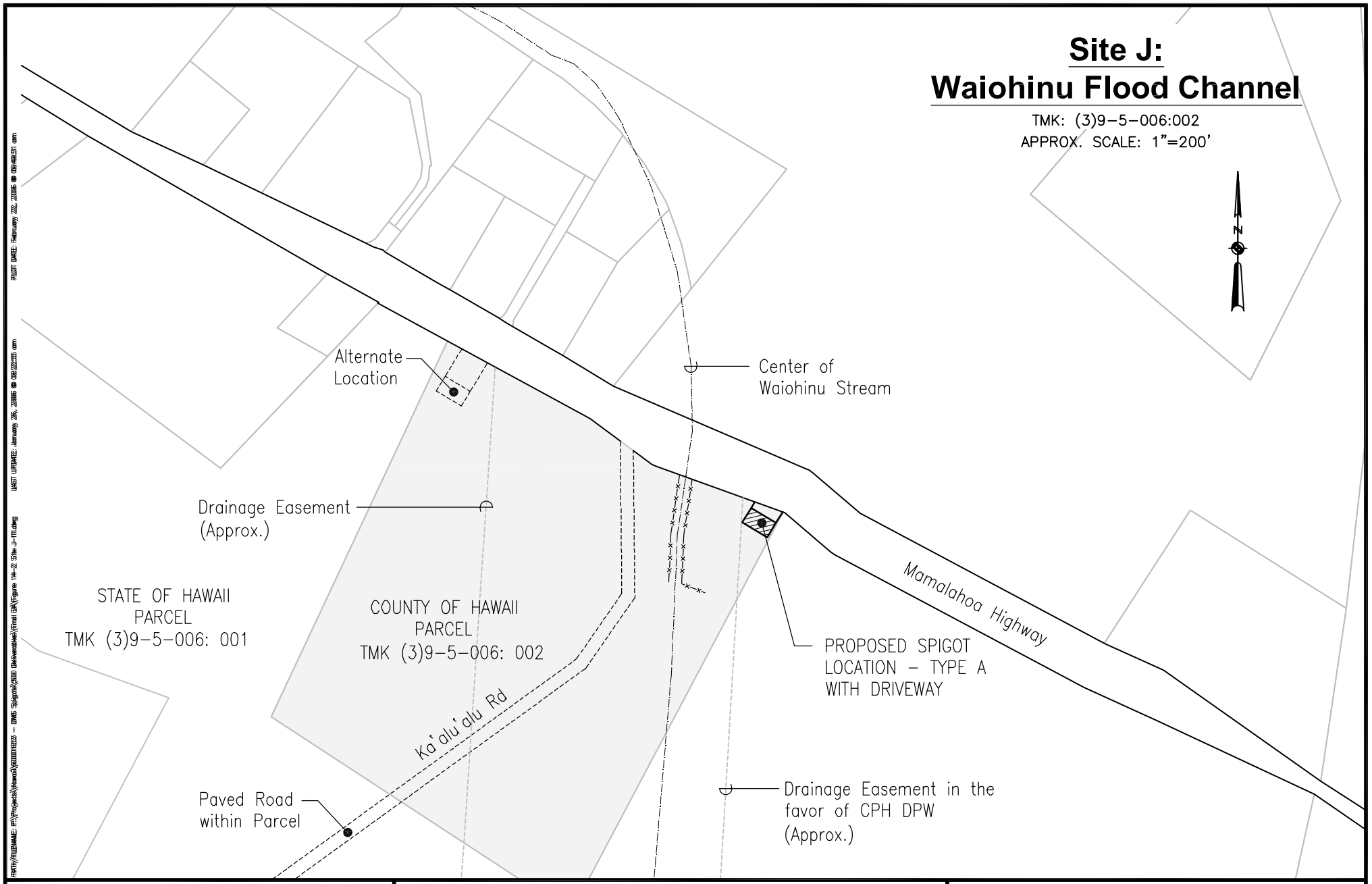

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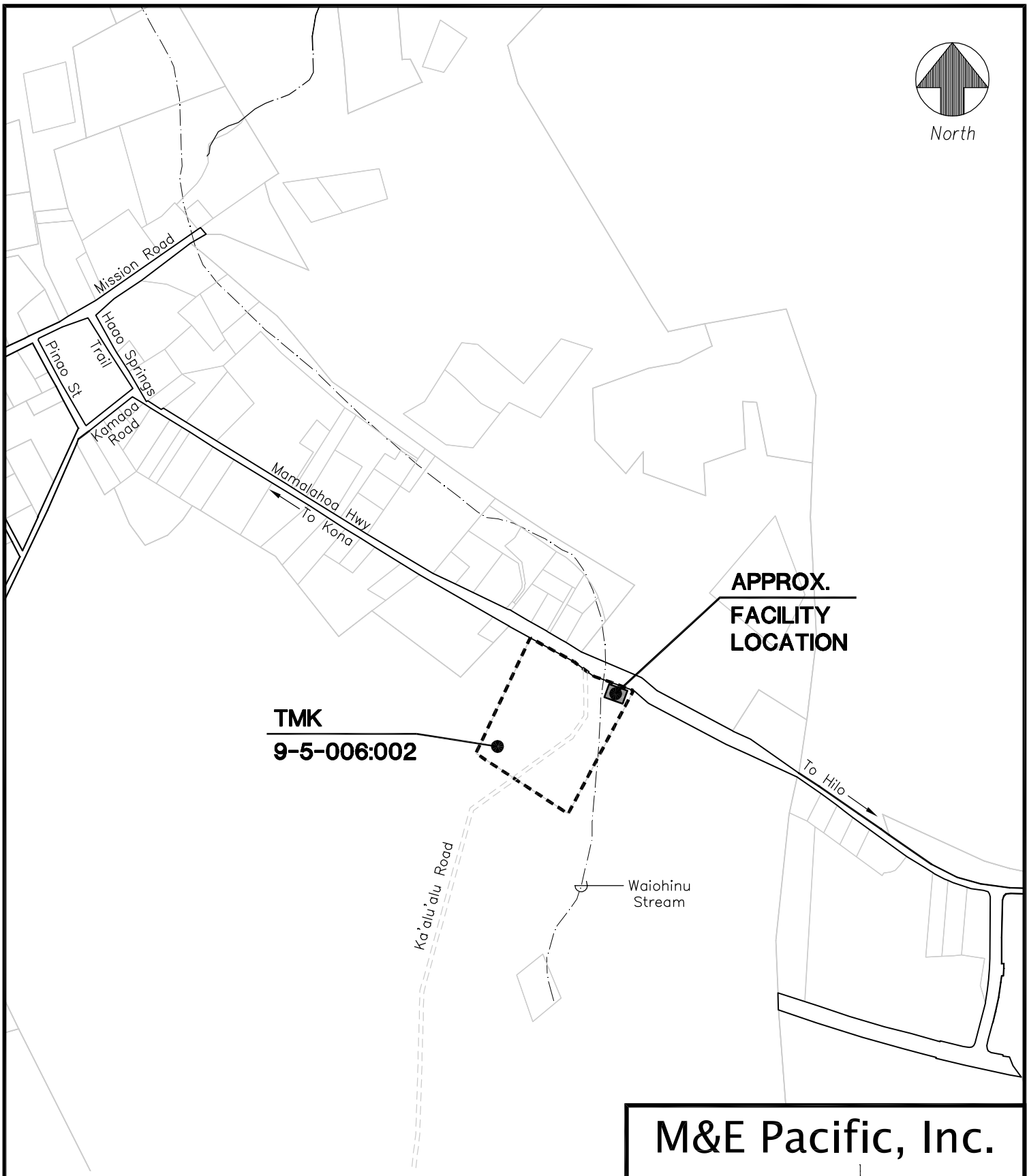
Figure 14-2
Site J Site Map
Waiohinu Flood Channel
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006



Site J:
Waiohinu Flood Channel

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Figure 14-1
Site J Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 14-1 Location J-11.dwg LAST UPDATE: January 26, 2006 @ 08:22:24 am PLOT DATE: February 22, 2006 @ 09:49:49 am

Proposed Location

Existing Flood Channel (Kona-side View)

Existing Flood Channel (Proposed Location)

Site J: Waiohinu Flood Channel

TMK: (3)9–5–6:002

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Figure 14-3
Site J Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
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PATH/FILENAME: P:\Projects\Hawaii\60001653 – DWS Spigots\500 Deliverables\Final EA\Figure 14-3 Photo J-11.dwg LAST UPDATE: January 26, 2006 @ 08:23:18 am PLOT DATE: February 22, 2006 @ 09:49:09 am

14.1.4 TOPOGRAPHY

Description:

The project site is located between Naalehu and Ocean View. The ground elevation at the site is approximately 980'. The land in the area of the proposed spigot site generally slopes from the northwest to the southeast.

Impacts and Mitigative Measures:

No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore no mitigative measures are required.

14.1.5 SOILS

Description:

The Natural Resources Conservation Service of the U.S. Department of Agriculture classifies the soil in the project area are Punalu'u extremely rocky peat, 6 to 20 percent slopes (rPYD).

The Punalu'u series consists of well-drained, thin organic soils over pahoehoe lava bedrock. They are gently sloping to moderately steep and have elevations that range from near sea level to 1000'. These soils are used for pasture. The natural vegetation consists of koa haole, Christmas berry, guineagrass, natal redtop and sand burr.

In a representative profile, the surface layer is black peat about 4 inches thick. The surface layer is underlain by pahoehoe lava bedrock. The soil is medium acid.

The peat is rapidly permeable, while the pahoehoe lava is very slowly permeable. Runoff is slow, and the erosion hazard is slight.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawai'i (ALISH) maps (**Appendix C**) indicate that the proposed site will not be located on or affect protected farmlands. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

14.1.6 WATER RESOURCES

Description:

The project area lies along the border of the Ka Lae and the Naalehu aquifer systems, which has a sustainable yield of approximately 31 and 117 million gallons per day, respectively. A map of the aquifer systems and sustainable yields for the Island of Hawai'i is presented in **Figure D-1** in **Appendix D**. According to the United States Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawai'i.

The Waiohinu and Naalehu water systems are supplied by Haao Springs, Mountain House Tunnel Spring and a deep well in Naalehu. Figures provided in the 2005 County of Hawai'i General Plan indicate that the average consumption of the Waiohinu water system is 0.12 mgd. The Naalehu water system receives its water supply from the Waiohinu water system. The Naalehu deep well has a capacity of 0.54 million gallons per day, and acts as a supplement to the system. The average water consumption is 0.08 mgd. Several large subdivisions within the Ka'u area still depend on individual roof

catchment systems for their household water supply. According to estimates obtained by the Fire Department, approximately 43% of households in the Ka'u district (~954 households) are not connected to the County municipal water system (**Figure 3-2**).

An existing 8" DWS waterline runs along the portion of Mamalahoa Highway fronting the project area parcel.

The non-perennial Waiohinu Stream lies adjacent to this project site. Review of the USGS map and USFWS online maps (**Appendix C**) indicate that there are no other streams, ponds, lakes or wetlands within or near the proposed site.

There are no existing water spigots at the project site. The closest spigot facility is located at Waiohinu Park, approximately 0.2 miles to the northwest. This facility is indicated as Site Reference #15 on **Figures 3-1** and **3-2**. As indicated on the figures, there is only one existing water spigot facility in the Ka'u district to service all the households without municipal water. Currently, residents in this district need to travel a maximum distance of about 30 miles to obtain water from an existing spigot.

The water consumption records over the past year for these spigots indicate that the maximum average daily demand was approximately 0.0048 mgd and occurred in the month of May.

Impacts and Mitigative Measures:
The proposed spigot will connect with a meter to the main County waterline within the Waiohinu water system. Should the Waiohinu Flood Channel be selected as a new water spigot facility site, the DWS and Mayor's Office may consider using the new facility as a replacement for the existing spigot facility. In this case, the existing spigot will remain in place until the proposed facility is in operation. Therefore, the water demand will shift form the existing spigot to the proposed facility. Based upon the water consumption records of the existing water spigot, the installation of the spigot is expected to pose a maximum average demand of approximately 0.005 million gallons per day. This anticipated demand will result in a minimal increase in the average daily consumption, and therefore will not affect the capacity of this water system. If the proposed facility is to be constructed as an additional spigot site, then the anticipated maximum average demand would be about 0.025 million gallons per day (approximately 50% of the demand at the existing spigot site). This anticipated demand will result in a minimal increase in the average daily consumption, and therefore will not affect the capacity of this water system.

Drainage features to appropriately capture and discharge run off from construction activities and everyday use will be included in the design of this spigot facility. The Contractor will be directed to employ standard best management practices to ensure that runoff during construction is prevented from flowing into the stream, and that it is discharged of properly.

No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated. No additional mitigation measures are required.

14.1.7 NATURAL HAZARDS

Natural hazards in Hawaiʻi include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

14.1.7.1 Floods

Description:

The project site is located in Zone X, determined by the Federal Emergency Management Agency. This zone is described as an area that is outside the 500-year flood plain. See the FIRM map, **Figure 14-4**.

The proposed project site is located near an existing dry flood channel, that was constructed to collect and discharge flows from the watershed areas to rock land areas. Although FEMA indicates that the project area is not within a flood plain, it is possible that the drainage analysis for the flood channel was not incorporated. Therefore, consideration should be given to the possibility of flooding in the area during periods of heavy rain.

Impacts and Mitigative Measures:

This project site is not within a flood zone; however some flooding may occur in the immediate area of the existing flood channel. DWS will ensure that the finish floor of the water spigots facility pad is above the flood elevation. No adverse impacts are anticipated for the long-term. Therefore no further mitigative measures are required.

14.1.7.2 Hurricanes

Description:

The first hurricane officially recorded in Hawaiʻi (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawaiʻi, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawaiʻi remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

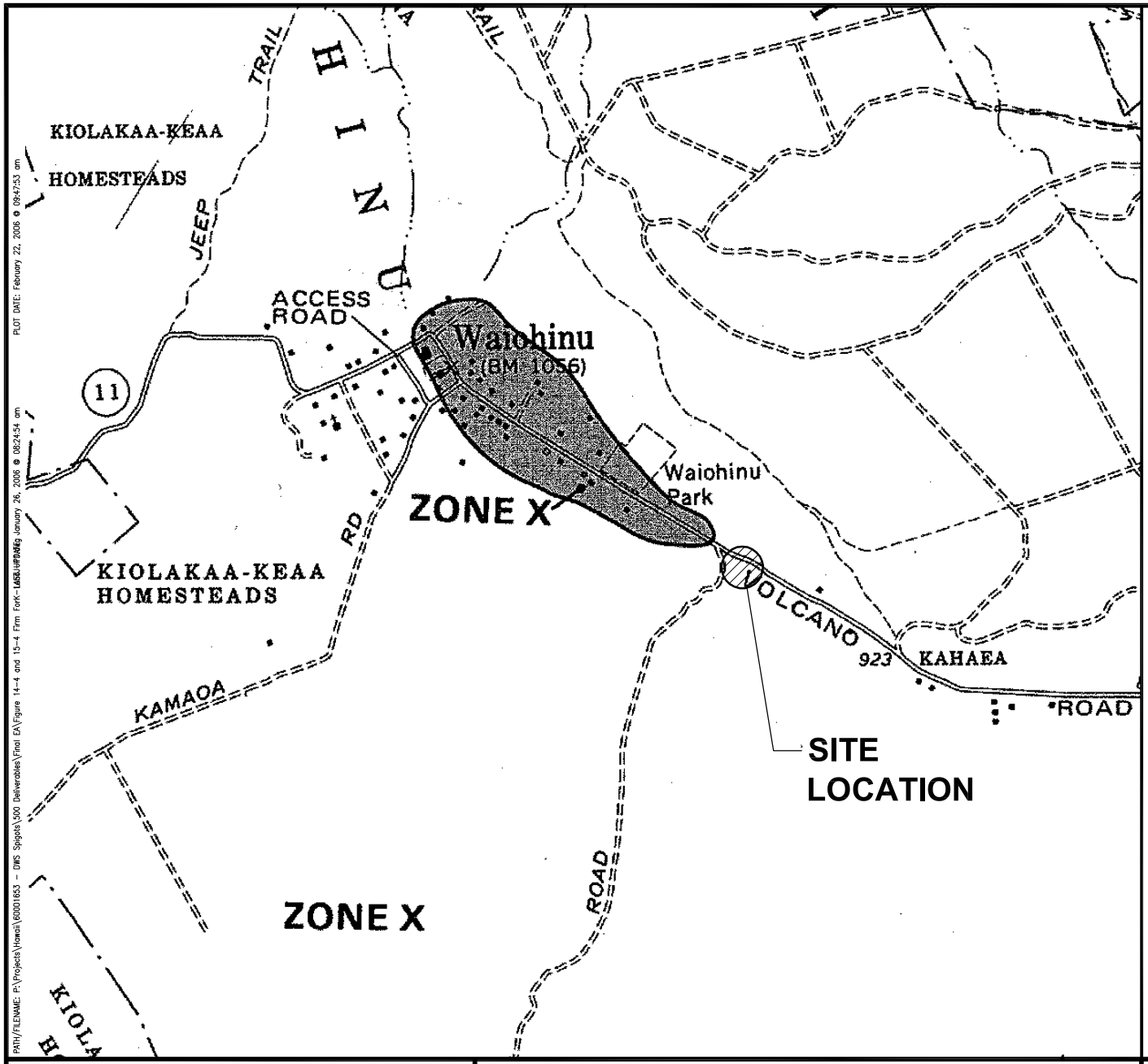
Impacts and Mitigative Measures:

Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

14.1.7.3 Volcanic Eruptions

Description:

There are four active volcanoes on the Island of Hawaiʻi. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.



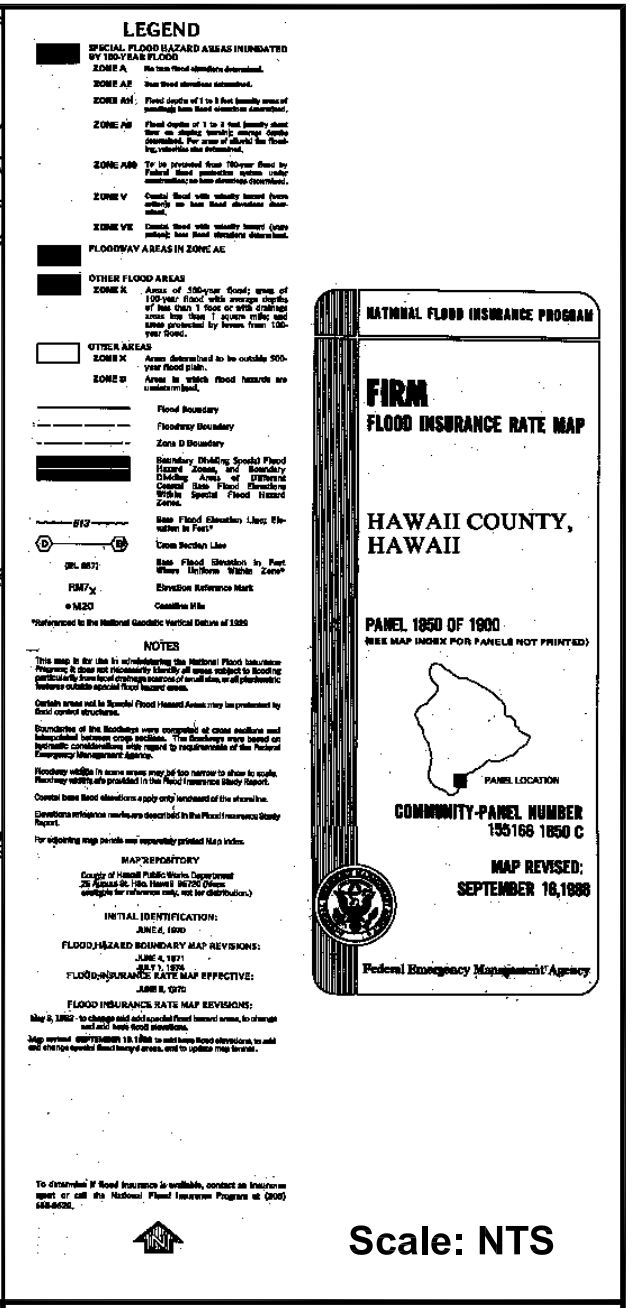


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Figure 14-4
Site J FIRM Map
Waiohinu Flood Channel

Environmental Assessment for the
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The project area is located on the lower south slope of Mauna Loa within a lava hazard zone of "6" on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawai'i is presented as **Figure D-2**, in **Appendix D**. Zone 6 includes areas on Mauna Loa that are protected from rift- or summit-derived lava flows. Per the USGS, the project area is also protected from the southwest rift zone eruptions by a completely faulted topography.

Impacts and Mitigative Measures:
The risk of lava hazards at this site is relatively low, therefore no mitigative measures are required.

14.1.7.4 Earthquakes
Description:
Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active", future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:
Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

14.1.8 FLORA AND FAUNA
Description:
The general project site is currently occupied by an existing concrete flood channel. The entire site has been previously cleared and graded for the construction of the flood channel. The Hawai'i Natural Heritage Program (HNHP) was consulted, and a review of their database records determined that no threatened or endangered species have been recorded within the site. However, the HNHP determined that the endangered Hawaiian Hawk and Hawaiian Hoary Bat were observed in the general vicinity of Waiohinu (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is also provided in **Appendix B**.

Impacts and Mitigative Measures:
Installation of the proposed water spigot will be confined to the immediate spigot location on the indicated parcel, with waterline trenching to meet the County waterline along Mamalahoa Highway. This installation will cause minimal short-term adverse impacts on local vegetation. All of the work associated with the installation will take place in previously cleared and/or paved areas, and will only disturb various grasses. All disturbed areas will be re-vegetated as soon as possible upon completion of the spigot installation to prevent soil erosion and reduce visual impacts.

No endangered wildlife habitats are noted in the EA for the proposed water spigots facility site. Although there have been sightings of endangered species in the general area, construction activities for and operation of the installation will not encroach into uninhabited or undeveloped areas. No short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

14.1.9 VISUAL

Description:

This project area is located in a fairly developed parcel just *makai* of Mamalahoa Highway. No buildings or dwellings are located on or near the project site. The immediate project area is dominated by a gently sloping, cleared and graded grassed area that is adjacent to a County concrete flood channel. The project area has an unobstructed view of the vegetated lower slopes of Mauna Loa in the *mauka* direction, and overlooks a densely vegetated area in the *makai* direction.

Impacts and Mitigative Measures:

The proposed spigot facility is low-lying and is not anticipated to adversely affect the view of Mauna Loa from the project area.

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. Existing facilities will be protected from construction activities. The proposed project will not result in a negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

14.2 SOCIAL

14.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:

According to the SHPD Register, the Ki'i Petroglyphs (Site Number 10-76-3598) occupy an adjacent parcel to the project site, TMK 9-5-006:001. The proposed parcel has been previously cleared and graded for the construction and use of the existing flood channel, therefore, it is anticipated the petroglyphs are not located in the vicinity of the project site.

In order to mitigate the possible impact of construction activities upon any potential resources, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas, apart from the adjacent parcel. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs

Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:
The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

14.2.2 PUBLIC SERVICES AND INFRASTRUCTURE

Description:
Presently, no public operations are located in the proposed area. No road closures or traffic disruptions are anticipated to take place in conjunction with the construction and operations of the water spigots facility. Access along Mamalahoa Highway will be available throughout construction.

A water meter is recommended to be considered during the design stage for this facility. The tap into the existing water system will be coordinated with Department of Water Supply to ensure the temporary disruption does not impact the neighboring properties.

Impacts and Mitigative Measures:
No disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. Therefore, no mitigative measures are required.

14.2.3 NOISE

Description:
Due to its location in a rural area, the project site is generally quiet as there is no public facility or use on this parcel. The current noise is generated mainly by vehicular movements along Mamalahoa Highway. Residential or commercial activities are located across the highway and considerably away from this parcel.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor and is not anticipated to impact the distant neighbors.

Impacts and Mitigative Measures:
Noise generated by construction activities will comply with noise provisions established by the State Department of Health and no further measures are required to mitigate short-term impacts. Construction activities are short-term and localized in nature, therefore no long-term or cumulative impacts are anticipated due to the proposed projects and no other mitigative measures are required.

14.2.4 TRAFFIC

Description:
There are no existing spigots at this location, however, the maximum average visitor rate (based on water consumption records) of the nearest existing facility is approximately 240 visitors a day. The introduction of the proposed water spigot facility would attract an estimated maximum average of 125 visitors a day to this site, as indicated in **Table 4-2**. There will be minimal, if any, impacts to traffic during the construction and future operation of the water spigots. Increased traffic will occur from the movement of

construction vehicles and crews to and from the site. This traffic is anticipated to have little effect on the overall flow of traffic in the area since all of the work will take place on the site away from the roadway and access to the transfer bin. Similarly, future use of the spigots will not occur on the roadway or access way and a separate driveway into the facility shall be designed.

Impacts and Mitigative Measures:
No work will be done to the existing roadway and no road closures are expected. Therefore no mitigative measures are required.

14.2.5 RECREATIONAL FACILITIES

Description:
This site is neither located on nor adjacent to any recreational facilities nor publicly used land.

Impacts and Mitigative Measures:
The proposed project will have no short-term or long-term impacts to recreational facilities; therefore, no mitigative measures are required.

14.3 SOCIO-ECONOMIC

14.3.1 DEMOGRAPHICS

Description:
According to the 2000 census for the Ka'u Census County Division (CCD), the total population of the area is 5,827 people. The population density of the Ka'u district is 6.3 (where 5,827 people reside on 1,200 square miles of land) while that of the entire island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:
The proposed water spigots facility will help provide potable water to the Ka'u district. It is not anticipated that the facility will induce or reduce population in this area in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

14.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:
The population of the Ka'u district has steadily increased since 1980. By 2000, the district had seen an average growth of nearly 58% of its population, mostly due to the establishment of concentrated communities such as Ocean View Estates (County of Hawai'i, 2005).

The primary economic activity in the Ka'u district is the agriculture industry, including the farming of coffee, orchids, vegetables, flowers, cattle and macadamia nuts. There is a small tourism industry in this district, however, visitor accommodations and facilities are limited to small hotels, motels and bed and breakfast inns.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the Ka'u CCD. While this may not apply to all the communities within the Ka'u district, it does provide a glimpse of the social environment in the vicinity of the project area. The median age of the Ka'u district resident is 41.5 years old. Of the population 16 years and older, 53.5% are employed, while 46.5% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include

management, service, sales, farming/fishing/forestry, construction and agriculture. The median household annual income for residents of the Ka'u district is $29,466.

Impacts and Mitigative Measures:
The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawaiʻi DWS customers. Therefore, no mitigative measures are required.

14.3.3 ENVIRONMENTAL JUSTICE

Description:
These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawaiʻi DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or areas with open land. The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:
No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

14.4 LAND USES AND OWNERSHIP

14.4.1 LAND USE DESIGNATIONS

The land use designations for TMK: 9-5-006: 002 are as follows:

State Land Use –	Agricultural
Hawaiʻi County General Plan –	Extensive Agriculture
County Zoning –	Agricultural District (A-20a) (min. building site of 20 acres)

This site is also located within a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:
As directed in the Hawaiʻi Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawaiʻi must be consistent with the policies set by the Hawaiʻi Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawaiʻi Coastal Zone (CZM) Management Program. A summary of the site-specific CZM federal consistency assessment is provided in **Appendix C**. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawaiʻi CZM Program will be required.

The project site is located along off Hawaiʻi Belt Road (Mamalahoa Highway), however will not be located within the ROW. The proposed construction will occur on a designated Agricultural land, but is located within an area with a paved roadway, and is

on a site that has previously been graded. Therefore, this project and is not expected to affect the intended use of the land. This is further discussed in **Section 14.4.4**.

Construction of the proposed project will take place in an area has been previously developed; however installation may require some minor grading and excavation activities. The project site is not located near the coastline, and therefore will not affect coastal ecosystems.

14.4.2 HAWAI'I STATE PLAN

Description:

The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows: **§226-13 (a)(1)** and **(b)(2), §226-14 (b)(1)**, and **§226-16 (b)(5).** Please refer to **Section 5.4.2** for a description of these items.

Impacts and Mitigative Measures:

Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with both of these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

14.4.3 STATE LAND USE LAW

Description:

The project site, located at TMK 9-5-006:002, is classified by the State as agricultural land and is under the joint jurisdiction of the State and the County. The portion of the Land Use Law which relates to the proposed project site is: **§205-4.5 (a)(7).** Please refer to **Section 5.4.3** for a description of this item.

Impacts and Mitigative Measures:

The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

14.4.4 COUNTY OF HAWAI'I

Description:

Under the County of Hawai'i's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific land use objectives for the Ka'u district include the encouragement and support of agriculture in the district.

The project area land use designation is "Extensive Agriculture."

Impacts and Mitigative Measures:
The proposed project is consistent with the County of Hawai'i's General Plan. Installation of the water spigots facility will not affect the land use or development of agriculture in the district. No short-term or long-term impacts are anticipated; therefore no mitigative measures are required.

14.4.5 PROPERTY OWNERSHIP

Description:
The property affected by the installation of the proposed water spigots facility is identified as 3rd Tax Division TMK 9-5-006: Parcel 002. This parcel is owned by the County of Hawai'i.

Impacts and Mitigative Measures:
The County of Hawai'i currently owns the property identified by 3rd Tax Division TMK: 9-5-006: Parcel 002. The proposed water spigots facility does not require the taking of any private lands; therefore no mitigative measures are required.

14.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:
The County of Hawai'i Department of Public Works (DPW) was consulted to identify possible concerns regarding the proposed project. The DPW did not have additional site-specific concerns regarding this location.

It was observed at other existing spigot locations that spigot users have a tendency to leave their trash at the spigot site. Additionally, users are also inclined to rinse out their water containers before refilling them, and dump the rinse water onto the ground.

Impacts and Mitigative Measures:
The installation of a water spigot facility at this project site would require discussion and coordination between DWS, DPW and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the spigot facility. This plan should outline road/driveway maintenance, facility maintenance, operating procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to any of the participating agencies/organizations. It is not currently anticipated that there will be restrictions to the operating hours at this site.

The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal. Signs shall be posted to outline operating rules and to deter improper use of the site.

Should this site be selected for a spigot facility, then the operations, maintenance and coordination issues described in this section will need to be considered and adequately addressed. However, it is not anticipated that installation of a facility at this site will pose short-term or long-term environmental impacts.

SECTION 15

SITE K: WAIOHINU TRANSFER STATION (TMK: 9-5-005:001)

15 AFFECTED ENVIRONMENT

15.1 PHYSICAL

15.1.1 LOCATION

The project site is located in the Ka'u District, north of the southernmost point of the Island of Hawai'i, and is identified as the State of Hawai'i Third Tax Division, Tax Map Key (TMK) 9-5-005:001. Project location and site maps are presented in **Figures 15-1** and **15-2**, respectively. Photographs of the existing site are provided in **Figure 15-3**.

15.1.2 CLIMATE

Description:

Equable temperatures, moderate humidity and persistent breezes characterize Hawai'i's climate. These favorable climatic conditions occur at the project site. According to the National Water and Climate Center (USDA), the average temperature in nearby Naalehu, HI is 72.6°F with average minimum and maximum monthly temperatures ranging from 65.8°F and 79.4°F, respectively (NWCC/USDA). Annual rainfall at this site averages 49.4 inches.

Northeasterly trade winds prevail much of the time throughout the state of Hawai'i. These trades vary in frequency. Often times they last for weeks on end. Other times they are virtually absent. This is the general result of the location of the North Pacific high pressure system. During the summer months, this system is larger, stronger and shifts farther to the north and produces stronger, more persistent trade winds. In the winter months, this high pressure system declines and shifts to the southeast at which time general wind patterns become weaker and more variable.

Impacts and Mitigative Measures:

No short-term or long-term adverse impacts to the climate are anticipated in the project area. Therefore no mitigative measures are required.

15.1.3 AIR QUALITY

Description:

In general, air quality at the project site is good. The general area around the project site is rural in character and absent of heavy industry. The only significant source of air pollution is from volcanic eruptions. Due to the prevailing wind conditions, the area is usually free of vog. Vog can become a noticeable pollutant under unusual meteorological conditions.

According to the State of Hawai'i Department of Health (DOH) 2004 Annual Summary of Hawai'i Air Quality Data, the "air quality in the State of Hawai'i continues to be one of the best in the nation, and criteria pollutant levels remain well below federal ambient air quality standards." The DOH determined that the State of Hawai'i was in attainment for all federal ambient air quality standards in 2004. Please refer to **Table 5-1** for Federal and State Ambient Air Quality Standards.

Site K:
Waiohinu Transfer Station

TMK: (3)9–5–05:001
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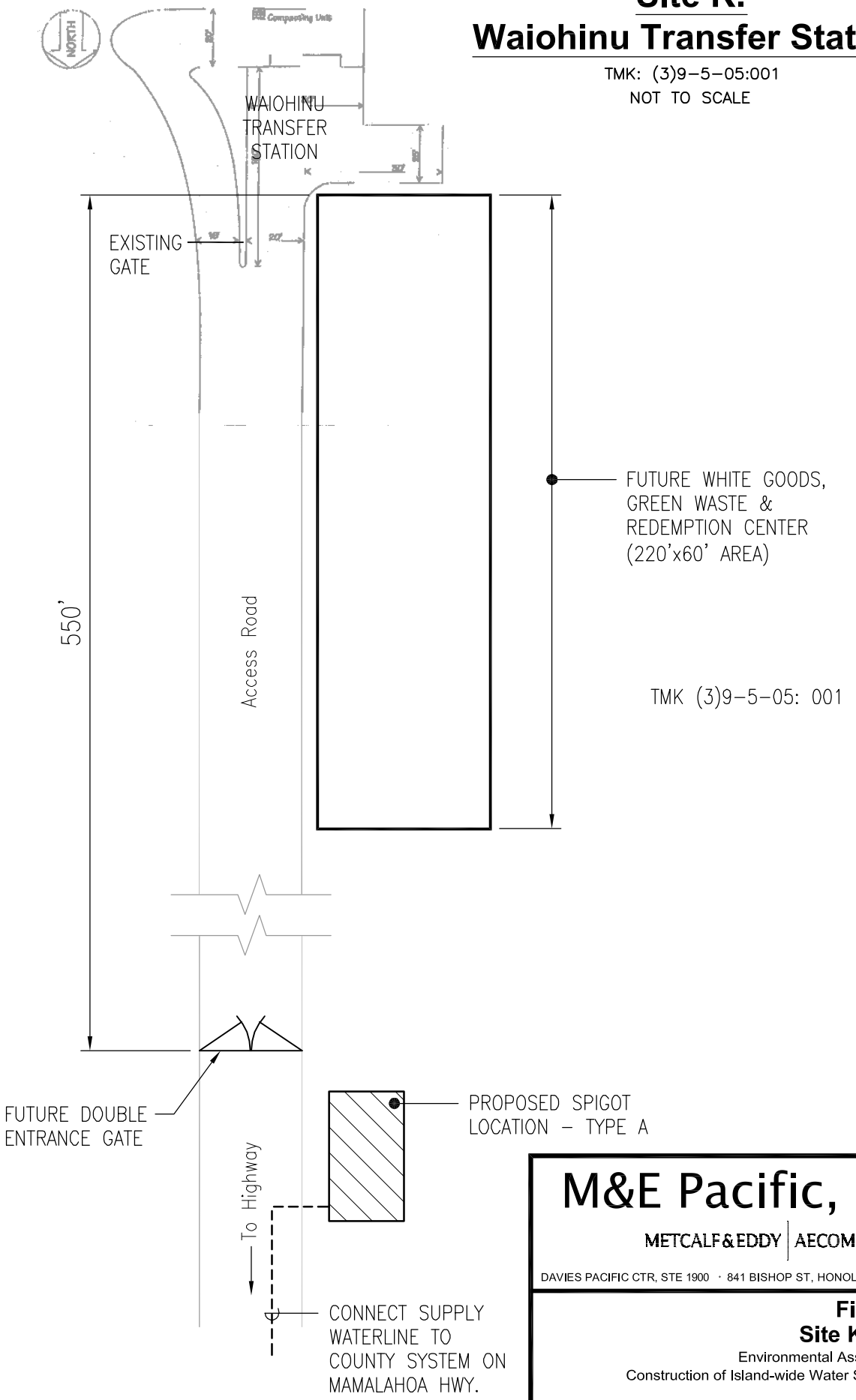

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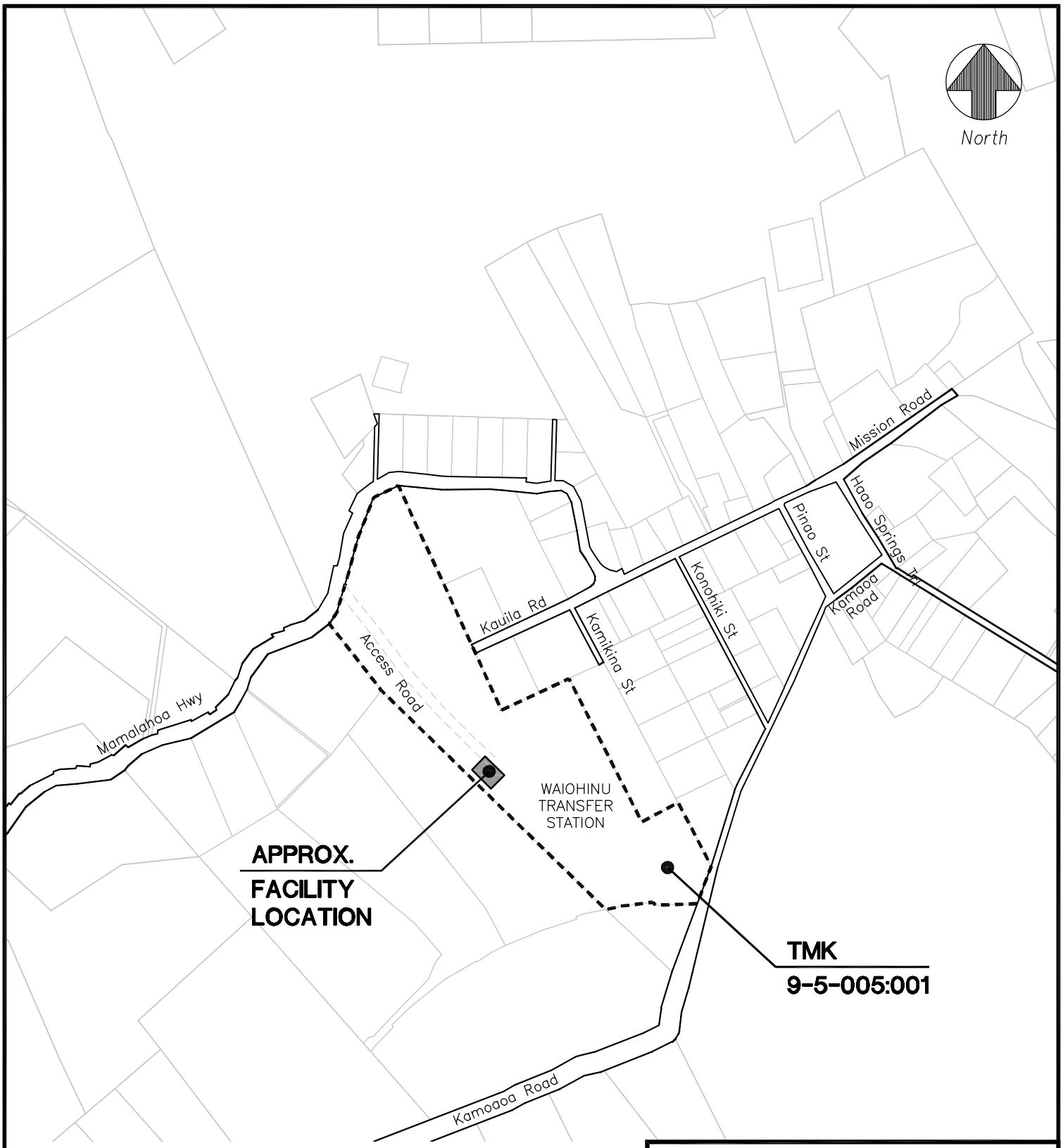
Figure 15-2
Site K Site Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 – DWS Spigots\500 Deliverables\Final EA\Figure 15-2 Site K-01.dwg LAST UPDATE: January 26, 2006 @ 08:24:16 am PLOT DATE: February 22, 2006 @ 09:48:33 am



Site K:
Waiohinu Transfer Station

NOT TO SCALE

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Figure 15-1
Site K Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 15-1 Location K-01.dwg LAST UPDATE: January 26, 2006 @ 08:24:00 am PLOT DATE: February 22, 2006 @ 09:48:51 am

Looking Toward Highway from Transfer Station (Proposed Location)

Looking Toward Transfer Station

Waiohinu Transfer Station

Site K:
Waiohinu Transfer Station

TMK: (3)9-5-05:001

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Figure 15-3
Site K Photos

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure 15-3 Photo K-01.dwg LAST UPDATE: January 26, 2006 @ 08:24:32 am PLOT DATE: February 22, 2006 @ 09:48:15 am

Impacts and Mitigative Measures:
The principle sources of air pollution associated with this project will be fugitive dust emissions resulting from waterline trench excavation or fine grading activities. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity.

15.1.4 TOPOGRAPHY
Description:
The project site is located between Naalehu and Ocean View. The ground elevation at the site is approximately 1060'. The land in the area of the proposed spigot site generally slopes from the northwest to the southeast.

Impacts and Mitigative Measures:
No short-term or long-term effects on topography are anticipated. No significant new grading will take place on the site. Therefore no mitigative measures are required.

15.1.5 SOILS
Description:
The Natural Resources Conservation Service of the U.S. Department of Agriculture classifies the soil at the project site as Punalu'u extremely rocky peat, 6 to 20 percent slopes (rPYD).

The Punalu'u series consists of well-drained, thin organic soils over pahoehoe lava bedrock. They are gently sloping to moderately steep and have elevations that range from near sea level to 1000'. These soils are used for pasture. The natural vegetation consists of koa haole, Christmas berry, guineagrass, natal redtop and sand burr.

In a representative profile, the surface layer is black peat about 4 inches thick. The surface layer is underlain by pahoehoe lava bedrock. The soil is medium acid.

The peat is rapidly permeable, while the pahoehoe lava is very slowly permeable. Runoff is slow, and the erosion hazard is slight.

A review of GIS data and the Agricultural Lands of Importance to the State of Hawai'i (ALISH) maps (**Appendix C**) indicate that the proposed site will not be located on or affect protected farmlands. Consultation with the NRCS has confirmed this finding (see response in **Appendix A**).

Impacts and Mitigative Measures:
No short-term or long-term adverse impacts to the soils are anticipated in the project vicinity. Therefore, no mitigative measures are required.

15.1.6 WATER RESOURCES
Description:
The project area lies along the border of the Ka Lae and the Naalehu aquifer systems, which has a sustainable yield of approximately 31 and 117 million gallons per day (mgd), respectively. A map of the aquifer systems and sustainable yields for the Island of Hawai'i is presented in **Figure D-1** in **Appendix D**. According to the United States

Environmental Protection Agency's "Sole Source Aquifer Designations" (**Appendix C**), there are no sole source aquifers on the Island of Hawai'i.

The Waiohinu and Naalehu water systems are supplied by Haao Springs, Mountain House Tunnel Spring and a deep well in Naalehu. Figures provided in the 2005 County of Hawai'i General Plan indicate that the average consumption of the Waiohinu water system is 0.12 mgd. The Naalehu water system receives its water supply from the Waiohinu water system. The Naalehu deep well has a capacity of 0.54 million gallons per day, and acts as a supplement to the system. The average water consumption is 0.08 mgd. Several large subdivisions within the Ka'u area still depend on individual roof catchment systems for their household water supply. According to estimates obtained by the Fire Department, approximately 43% of households in the Ka'u district (~954 households) are not connected to the County municipal water system (**Figure 3-2**).

An existing 8" DWS waterline runs along the portion of Mamalahoa Highway fronting the project area parcel. The reservoir servicing this waterline has an elevation of 1315'.

The non-perennial Waiohinu Stream lies approximately 0.9 miles to the east of this project site. Review of the USGS map and USFWS online maps (**Appendix C**) indicate that there are no other streams, ponds, lakes or wetlands within or near the proposed site.

There are no existing water spigots at the project site. The closest spigot facility is located at Waiohinu Park, approximately 0.2 miles to the east. This facility is indicated as Site Reference #15 on **Figures 3-1** and **3-2**. As indicated on the figures, there is only one existing water spigot facility in the Ka'u district to service all the households without municipal water. Currently, residents in this district need to travel a maximum distance of about 30 miles to obtain water from an existing spigot.

The water consumption records over the past year for these spigots indicate that the maximum average daily demand was approximately 0.0048 mgd and occurred in the month of May.

Impacts and Mitigative Measures:
The proposed spigot will connect with a meter to the main County waterline within the Waiohinu water system. Should the Waiohinu Transfer Station be selected as a new water spigot facility site, the DWS and Mayor's Office may consider using the new facility as a replacement for the existing spigot facility. In this case, the existing spigot will remain in place until the proposed facility is in operation. Therefore, the water demand will shift form the existing spigot to the proposed facility. Based upon the water consumption records of the existing water spigot, the installation of the spigot is expected to pose a maximum average demand of approximately 0.005 million gallons per day. This anticipated demand will result in a minimal increase in the average daily consumption, and therefore will not affect the capacity of this water system. If the proposed facility is to be constructed as an additional spigot site, then the anticipated maximum average demand would be about 0.025 million gallons per day (approximately 50% of the demand at the existing spigot site). This anticipated demand will result in a minimal increase in the average daily consumption, and therefore will not affect the capacity of this water system.

Due to the distance of the stream from the project site and the topography of the land, runoff from construction activities and everyday use is not anticipated to enter the stream

waterway. The Contractor will be directed to employ standard best management practices to ensure that runoff during construction is prevented from flowing into the stream, and that it is discharged of properly.

No water bodies or channels of water will be affected by this project; therefore no short-term or long-term impacts on fish and wildlife are anticipated. No additional mitigation measures are required.

15.1.7 NATURAL HAZARDS

Natural hazards in Hawai'i include floods, hurricanes, volcanoes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

15.1.7.1 Floods

Description:

The project site is located in Zone X, determined by the Federal Emergency Management Agency. This zone is described as an area that is outside the 500-year flood plain. See the FIRM map, **Figure 15-4**.

The proposed project site is not located in an area which contains estuary, fresh water or coastal waters.

Impacts and Mitigative Measures:

This project site is not within a flood zone. No adverse impacts are anticipated for the long-term. Therefore no mitigative measures are required.

15.1.7.2 Hurricanes

Description:

The first hurricane officially recorded in Hawai'i (Hiki) occurred in 1950. Newspaper accounts and meteorological data collection indicate that storm systems occur more frequently in Hawaiian waters than previously thought (Atlas of Hawai'i, 1998). More recently, Hurricanes Iwa (1982) and Iniki (1992) struck the Hawaiian Islands.

Hawai'i remains vulnerable to hurricanes, although they are rare events. These storms bring very heavy rains that may contribute to soil and slope instability.

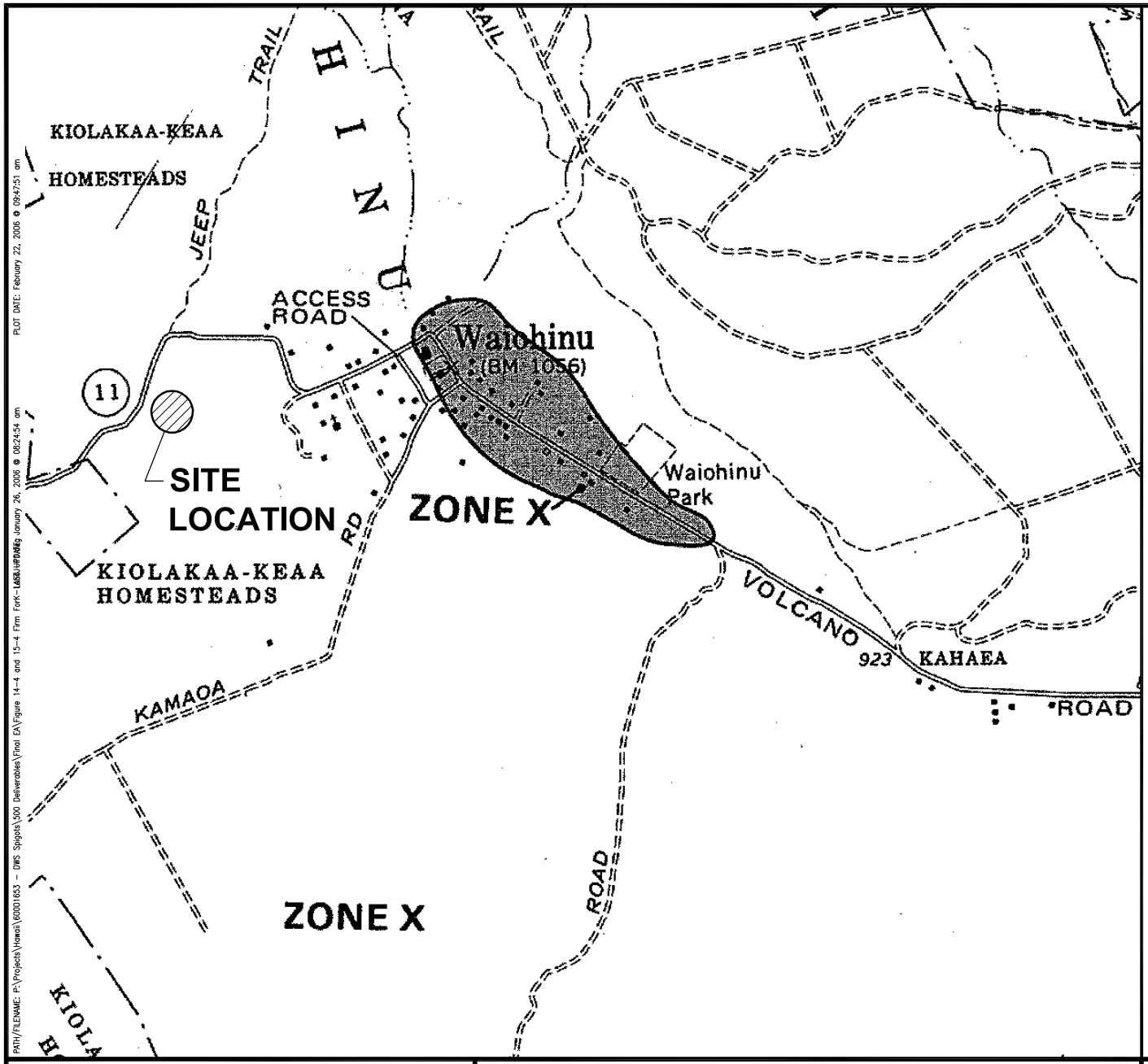
Impacts and Mitigative Measures:

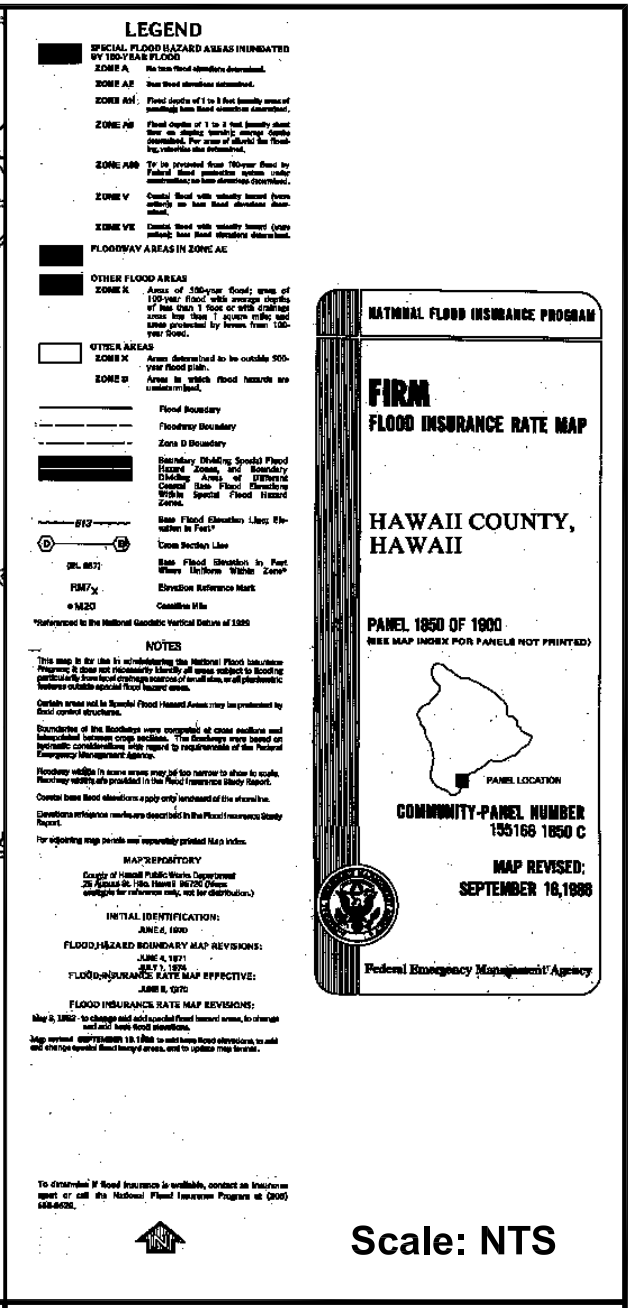
Modifications to the project site will not affect the climate in the vicinity of the project areas. Nor will this project impart any short-term or long-term adverse effects on the local environment. Therefore, no mitigative measures are required.

15.1.7.3 Volcanic Eruptions

Description:

There are four active volcanoes on the Island of Hawai'i. Kilauea is an active volcano that has been continuously erupting since January 1983. Mauna Loa is an active volcano that last erupted in 1984, and is believed to be building for a new eruption within the next few years. The Loihi volcano last erupted in 1996, and Hualalai last erupted in 1801, however is expected to erupt again within the next 100 years.





Scale: NTS

PATH/FILENAME: P:\Projects\Hawaii\60001653 – DWS Spigots\500 Deliverables\Final EA\Figure 14-4 and 15-4 Firm Fork-LASBLUEPRINT.dwg January 26, 2006 @ 08:24:54 am PLOT DATE: February 22, 2006 @ 09:47:51 am

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Figure 15-4
Site K FIRM Map
Waiohinu Transfer Station

Environmental Assessment for the
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The project area is located on the lower south slope of Mauna Loa within a lava hazard zone of "6" on an ascending scale of risk from 9 to 1, as determined by the United States Geological Survey (USGS). A map of the lava hazard zones for the Island of Hawai'i is presented as **Figure D-2**, in **Appendix D**. Zone 6 includes areas on Mauna Loa that are protected from rift- or summit-derived lava flows. Per the USGS, the project area is also protected from the southwest rift zone eruptions by a completely faulted topography.

Impacts and Mitigative Measures:
The risk of lava hazards at this site is relatively low; therefore no mitigative measures are required.

15.1.7.4 Earthquakes
Description:
Earthquakes in Hawai'i typically result from magmatic migration underground. As there are four volcanoes currently classified as "active," future earthquakes associated with underground lava movements are expected. There have been 22 large earthquakes with a magnitude of 6.0 or greater recorded since 1868 (Atlas of Hawai'i, Third Edition, 1998). Large earthquakes of this magnitude can cause structural damage to non-reinforced buildings and can cause coastal subsidence. The entire Island of Hawai'i is designated as Seismic Zone 4, based upon the United Building Code's (UBC) seismic zone criteria that ranges from 0 to 4 (highest risk).

Impacts and Mitigative Measures:
Earthquakes are an ever-present threat, for both the short-term and the long-term, which can potentially devastate an area. Although the proposed improvements do not include vertical structures, the waterlines may be damaged in a high magnitude earthquake. The proposed project will comply with the current regulatory design standards. There are no practical mitigative measures currently available.

15.1.8 FLORA AND FAUNA
Description:
The general project site is currently occupied by an existing transfer station and paved roadway. The entire site has been previously cleared and graded for the construction and use of the transfer station. The Hawai'i Natural Heritage Program (HNHP) was consulted, and a review of their database records determined that no threatened or endangered species have been recorded within the site. However, the HNHP determined that the endangered Hawaiian Hawk and Hawaiian Hoary Bat were observed in the general vicinity of Waiohinu (see **Appendix B**). The U.S. Fish and Wildlife Service (USFWS) was consulted for their review of the project area, and determined that according to their data and information "no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site." A copy of the USFWS response is also provided in **Appendix B**.

Impacts and Mitigative Measures:
Installation of the proposed water spigot will be confined to the immediate spigot location on the indicated parcel, with waterline trenching to meet the County waterline along Mamalahoa Highway. This installation will cause minimal short-term adverse impacts on local vegetation. All of the work associated with the installation will take place in previously cleared and/or paved areas, and will only disturb various grasses. All disturbed areas will be re-vegetated as soon as possible upon completion of the spigot installation to prevent soil erosion and reduce visual impacts.

No endangered wildlife habitats are noted in the EA for the proposed water spigots facility site. Although there have been sightings of endangered species in the general area, construction activities for and operation of the installation will not encroach into uninhabited or undeveloped areas. Therefore, no mitigative measures are required.

15.1.9 VISUAL

Description:

The project site is located along a paved access road at the entrance to an existing transfer station. Development is sparse around the project area. No buildings or dwellings are located on or near the project site. The immediate project area is dominated by gently sloping vegetated and grassed areas, which overlooks a densely vegetated area on the downslope of the parcel.

Impacts and Mitigative Measures:

Construction activities will disrupt aesthetic qualities temporarily. Disruptions will be minor and short-term and will result primarily from activities associated with the installation of the water spigots facility. All disturbed areas will be re-vegetated as soon as possible upon completion of the installation to prevent soil erosion and reduce minor visual impacts. Existing trees will be protected from construction activities to the maximum extent possible. The proposed project will not result in a negative visual impact to the site. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

15.2 SOCIAL

15.2.1 SECTION 106 AND CULTURAL RESOURCES

Description:

Formal consultation for Section 106 of the National Historic Preservation Act (NHPA) is a requirement for projects that receive federal funding. As this project will receive funding through a federal grant, formal consultation was undertaken in order to comply with Section 106 of the NHPA.

According to the State Historic Preservation Department's Hawai'i National Register of Historic Places, no historical or archaeological sites are within the project vicinity or will be affected by construction at this project site.

In order to mitigate the possible impact of construction activities upon any potential resources, SHPD reviewed the proposed work area and has determined that "no historic properties will be affected by this undertaking." The area has been previously altered and disturbed and the proposed undertaking will be located primarily within the previously disturbed areas of the transfer station grounds. Should the Contractor uncover any cultural resources during his construction activities, he will be required to stop work immediately and notify the SHPD of his finds. SHPD will then determine the appropriate treatment of these new finds.

To supplement this finding, the following organizations were contacted. No comments or reservations have been received at this time.

Advisory Council on Historic Preservation
Center for Conservation Research and Training, Hawai'i Natural Heritage Program
Department of Hawaiian Homelands
Office of Hawaiian Affairs
Hui Malama I Na Kupuna 'O Hawai'i

A copy of the information requests and responses received can be found in **Appendix A**.

Impacts and Mitigative Measures:
The proposed project will not result in a negative impact to the site as a historical cultural resource. No significant short-term or long-term impacts are anticipated, therefore, no mitigative measures are required.

15.2.2 PUBLIC SERVICES/INFRASTRUCTURE

Description:
No transfer station closure, road closures or traffic disruptions are anticipated to take place in conjunction with the construction and operations of the water spigots facility. Access to the transfer station will be available throughout construction.

A separate water meter is recommended to be considered during the design stage to isolate usage between the spigots and the transfer station. The tap into the existing water system will be coordinated with Department of Environmental Management, Solid Waste Division personnel to ensure the temporary disruption does not impact the existing transfer station.

Impacts and Mitigative Measures:
No disruption of public infrastructure or services is anticipated from the construction and operation of the spigot facility. Therefore, no mitigative measures are required.

15.2.3 NOISE

Description:
Due to its location in a rural area, the project site is generally quiet when there is no public use of the facility. The current noise is generated mainly by vehicular movements to and from the station and solid waste deposits into the transfer bins. There are no residential subdivisions or commercial activities sited across this side of the transfer station property.

Construction activities will result in temporary elevated noise levels. Typical heavy construction equipment will include but may not be limited to backhoes, front loaders, concrete trucks, flat bed trucks, etc. Typical noise levels generated by this equipment will range from 80-90 decibels (dBA). These will be short-term and minor.

Impacts and Mitigative Measures:
Noise generated by construction activities will comply with noise provisions established by the State Department of Health and no further measures are required to mitigate short-term impacts. Construction activities are short-term and localized in nature, therefore no long-term or cumulative impacts are anticipated due to the proposed projects and no other mitigative measures are required.

15.2.4 TRAFFIC

Description:
There are no existing spigots at this location, however, the maximum average visitor rate (based on water consumption records) of the nearest existing facility is approximately 240 visitors a day. The introduction of the proposed water spigot facility would attract an estimated maximum average of 125 visitors a day to this site, as indicated in **Table 4-2**. There will be minimal, if any, impacts to traffic during the construction and future operation of the water spigots. Increased traffic will occur from the movement of construction vehicles and crews to and from the site. This traffic is anticipated to have

little effect on the overall flow of traffic in the area since all of the work will take place on the site away from the roadway and access to the transfer bin. Similarly, future use of the spigots will not occur on the roadway or access way.

Impacts and Mitigative Measures:
No work will be done to the existing roadway and no road closures are expected. Therefore no mitigative measures are required.

15.2.5 RECREATIONAL FACILITIES

Description:
This project site is neither located on nor adjacent to any recreational facilities. However it is located near an existing waste transfer station and will utilize a portion of publicly used lands.

Impacts and Mitigative Measures:
The proposed spigot site is at a location where use will not affect the activities at or the flow of traffic to the transfer station. Construction activities may potentially cause minor temporary disruption to vehicle movement to the transfer station, however the Contractor will be directed to maintain access to the transfer station at all times. No further mitigative measures are required.

15.3 SOCIO-ECONOMIC

15.3.1 DEMOGRAPHICS

Description:
According to the 2000 census for the Ka'u Census County Division (CCD), the total population of the area is 5,827 people. The population density of the Ka'u district is 6.3 (where 5,827 people reside on 1,200 square miles of land) while that of the entire Island of Hawai'i is 36.9 (as 148,677 people reside on 4,028.02 square miles of land).

Impacts and Mitigative Measures:
The proposed water spigots facility will help provide potable water to the Ka'u district. It is not anticipated that the facility will induce or reduce population in this area in the short-term or long-term beyond that of the Community Plan. Therefore, no mitigative measures are required.

15.3.2 SOCIO-ECONOMIC ENVIRONMENT

Description:
The population of the Ka'u district has steadily increased since 1980. By 2000, the district had seen an average growth of nearly 58% of its population, mostly due to the establishment of concentrated communities such as Ocean View Estates.

The primary economic activity in the Ka'u district is the agriculture industry, including the farming of coffee, orchids, vegetables, flowers, cattle and macadamia nuts. There is a small tourism industry in this district, however, visitor accommodations and facilities are limited to small hotels, motels and bed and breakfast inns.

The 2000 Census provided a profile of the general demographic and socio-economic environment of the Ka'u CCD. While this may not apply to all the communities within the Ka'u district, it does provide a glimpse of the social environment in the vicinity of the project area. The median age of the Ka'u district resident is 41.5 years old. Of the population 16 years and older, 53.5% are employed, while 46.5% are either unemployed or not in the labor force (retired, disabled, etc.) Typical occupations include

management, service, sales, farming/fishing/forestry, construction and agriculture. The median household annual income for residents of the Ka'u district is $29,466.

Impacts and Mitigative Measures:
The socio-economic environment, for all classes, is not expected to be affected by the water spigots facility installation. Work related to the installation is not anticipated to significantly restrict traffic or require the closure of any businesses. This work will also not cause the interruption of water service to current County of Hawaiʻi DWS customers. Therefore, no mitigative measures are required.

15.3.3 ENVIRONMENTAL JUSTICE

Description:
These proposed projects (design and construction) will be funded through an EPA Grant (Grant ID # XP-97951001-0) and by the County of Hawaiʻi DWS. The alternative sites discussed in this document are located on government property where there are either existing spigots or are in areas where there is open land. The construction and use of the spigots will not displace any existing operations or residents. On the contrary, the installation of these spigots will enhance the community with a source of potable water or improve the existing spigot facility to a safer and higher capacity function.

Impacts and Mitigative Measures:
No negative impacts, long-term or cumulative, are anticipated. Therefore, no mitigation measures are required.

15.4 LAND USES AND OWNERSHIP

15.4.1 LAND USE DESIGNATIONS

The land use designations for TMK: 9-5-005: 001 are as follows:

State Land Use –	Agricultural
Hawaiʻi County General Plan –	Extensive Agriculture
County Zoning –	Agricultural District (A-20a) (min. building site of 20 acres)

This site is located within a Coastal Zone Management area.

The project site is not located within or in the vicinity of a designated Wilderness area, as determined from a review of the Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service and the National Park Service Wilderness databases. Refer to **Appendix C**.

Impacts and Mitigative Measures:
As directed in the Hawaiʻi Revised Statues (HRS) Chapter 205A, all federal activities within the State of Hawaiʻi must be consistent with the policies set by the Hawaiʻi Coastal Zone Management Program. This project will not impact any of the ten (10) policy objectives as described under the Hawaiʻi Coastal Zone (CZM) Management Program. A summary of the site-specific CZM federal consistency assessment is provided in **Appendix C**. Those items with a "yes" response are discussed below. Certification of federal consistency with the Hawaiʻi CZM Program will be required.

The project site is located along off Hawaiʻi Belt Road (Mamalahoa Highway), however will not be located within the ROW. The proposed construction will occur on a designated Agricultural land, but is located within an area with a paved roadway, and is

on a site that has previously been graded. Therefore, this project and is not expected to affect the intended use of the land. This is further discussed in **Section 15.4.4**.

Construction of the proposed project will take place in an area has been previously developed; however installation may require some minor grading and excavation activities. The project site is not located near the coastline, and therefore will not affect coastal ecosystems.

15.4.2 HAWAI'I STATE PLAN

Description:

The portions of the Hawai'i State Plan which apply to the proposed spigot project site are as follows: **§226-13 (a)(1)** and **(b)(2), §226-14 (b)(1)**, and **§226-16 (b)(5).** Please refer to **Section 5.4.2** for a description of these items.

Impacts and Mitigative Measures:

Two objectives of the Hawai'i State Plan are the maintenance and pursuit of improved quality in Hawai'i's water quality and the accommodation of Hawai'i's people through coordination of facility systems and capital improvement priorities in agreement with State and County Plans. The proposed actions are consistent with these objectives.

The proposed water spigots facility installation will provide potable water to island residents who do not have an immediate access to safe drinking water. This project addresses the needs of the residents in agreement with the State and County plans. Therefore, no mitigative measures are required.

15.4.3 STATE LAND USE LAW

Description:

The State Land Use Law, Chapter 205 of the HRS, classifies all state lands in one of four categories: urban, rural, agricultural and conservational. Permitted uses for each category are defined in statute. The State assumes sole management responsibility in the conservation district, County governments assume sole responsibility in the urban district and both share responsibilities in the rural and agricultural districts.

The project site, located at TMK 9-5-005:001, is classified by the State as agricultural land, and is under the joint jurisdiction of the State and the County.

The portion of the Land Use Law which relates to the proposed project site is: **§205-4.5 (a)(7).** Please refer to **Section 5.4.3** for a description of this item.

Impacts and Mitigative Measures:

The proposed actions to install a water spigots facility at the project site are consistent with the Hawai'i State Land Use Law. Therefore, no mitigative measures are required.

15.4.4 COUNTY OF HAWAI'I

Description:

Under the County of Hawai'i's General Plan (2005), the main land use objectives are to 1) designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County, 2) protect and encourage the intensive and extensive utilization of the County's important agricultural lands, and 3) protect forest, water, natural and scientific reserves and open areas.

Specific land use objectives for the Ka'u district include the encouragement and support of agriculture in the district.

The project area land use designation is "Extensive Agriculture."

Impacts and Mitigative Measures:
The proposed project is consistent with the County of Hawai'i's General Plan. Installation of the water spigots facility will not affect the land use or development of agriculture in the district. No short-term or long-term impacts are anticipated; therefore no mitigative measures are required.

15.4.5 PROPERTY OWNERSHIP

Description:
The property affected by the installation of the proposed water spigots facility is identified as 3rd Tax Division TMK: 9-5-005: Parcel 001. This parcel is owned by the State of Hawai'i.

Impacts and Mitigative Measures:
The State of Hawai'i currently owns the property identified by 3rd Tax Division TMK: 9-5-005: Parcel 001. The proposed water spigots facility does not require the taking of any private lands, however installation of the proposed water spigots facility on this site will require an easement or Memorandum of Understanding (MOU) between the appropriate State and County agencies.

15.5 OPERATIONS AND OTHER CONSIDERATIONS

Description:
The County of Hawai'i Department of Environmental Management (DEM) was consulted to identify possible concerns regarding the proposed project and how it may affect operation of the Waiohinu Transfer Station.

The transfer station is openly accessible to the public, with the exception of a swing gate at the entrance to the truck access area. The transfer station also serves as a recycling redemption center, with an exchange area located to the west of the access road just before the station's compaction chutes. The DEM currently has plans to improve the transfer station by upgrading the redemption center to a white goods, green waste and redemption center. The upgraded center will be located adjacent to the transfer station, as shown on the Site Plan, **Figure 15-2**. The improvements will also include the installation of a double entry gate approximately 550' before the transfer station. Once the gate is constructed, the transfer station will only be accessible during the business hours of 6:30 a.m. to 6:30 p.m.

At other transfer stations with water spigot outlets, the DEM representatives have noticed that spigot users and other residents tend to pile their trash outside of the entry gates after hours. Additionally, residents have been observed to use the water spigots to wash out their rubbish bins, thus creating the need for additional clean-up efforts at these sites.

Impacts and Mitigative Measures:
In order to allow the water spigots facility to be accessible to the public at all hours, the facility should be placed outside of the planned entry gate. Should the DWS prefer to install the water spigots facility closer to the transfer station due to site conditions or other concerns, the DEM has indicated that it may be possible to relocate the entry gate

towards the transfer station, to a distance of approximately 300' from the existing swing gate.

The installation of a water spigots facility at this project site would require discussion and coordination between DWS, DEM and any other applicable parties to establish a plan identifying their respective roles in operating and maintaining the access road and the spigot facility. This plan should outline road/driveway maintenance, facility maintenance, operating hours and procedures, trash pick-up responsibilities, water metering and usage payment responsibilities, additional security arrangements, possible payment and/or compensation for services provided, and any other related issues of interest to any of the participating agencies/organizations.

The facility design will incorporate drainage features, such as swales, drywells and/or drainage structures to adequately capture and discharge runoff water generated by the spigot facility. The facility will also provide trash receptacles for proper rubbish disposal. Signs shall be posted to outline the facility operating rules and to deter improper use of the site.

Should this site be selected for a spigot facility, then the operations, maintenance and coordination issues described in this section will need to be considered and adequately addressed. However, it is not anticipated that installation of a facility at this site will pose short-term or long-term environmental impacts.

SECTION 16

DETERMINATION

In accordance with Chapter 343, Hawai'i Revised Statutes and the National Environmental Policy Act, this Environmental Assessment characterizes the technical, social and environmental issues related to the Construction of Islandwide Water Spigot Facilities. It identifies potential project impacts to the environment and their significance. It is anticipated that the proposed project will not exert any significant impacts to the environment. Therefore, the County of Hawai'i DWS is issuing a Finding of No Significant Impact (FONSI).

This determination of the FONSI is based upon significance criteria listed in HRS §11-200-12 of the Environmental Impact Statement Rules. The specific criteria used in making this determination are addressed in **Section 17** of this EA.

The U. S. Environmental Protection Agency has evaluated this EA, and has determined that the action proposed in this EA will not have a significant impact on the quality of the human environment. The EPA has proposed a Finding of No Significant Impact. A copy of the unsigned EA is provided in **Appendix A**.

SECTION 17

FINDINGS AND REASONS SUPPORTING PRELIMINARY DETERMINATION OF FINDING OF NO SIGNIFICANT IMPACT

SUMMARY TABLE	SITE										
CRITERIA	A	B	C	D	E	F	G	H	I	J	K
1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource:	No	No	No	No	No	No	No	No	No	No	No
2. Curtails the range of beneficial uses of the environment:	No	No	No	No	No	No	No	No	No	No	No
3. Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions or executive orders:	No	No	No	No	No	No	No	No	No	No	No
4. Substantially affects the economic or social welfare of the community or state:	No	No	No	No	No	No	No	No	No	No	No
5. Substantially affects public health:	No	No	No	No	No	No	No	No	No	No	No
6. Involves secondary impacts, such as population changes or effects on public facilities:	No	No	No	No	No	No	No	No	No	No	No
7. Involves a substantial degradation of environmental quality:	No	No	No	No	No	No	No	No	No	No	No
8. Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger action:	No	No	No	No	No	No	No	No	No	No	No
9. Substantially affects a rare, threatened or endangered species, or its habitat:	No	No	No	No	No	No	No	No	No	No	No
10. Detrimentally affects air or water quality or ambient noise levels:	No	No	No	No	No	No	No	No	No	No	No
11. Affects or is likely to suffer damage by being located in an environmentally sensitive zone such as:											
flood plain	No	No	No	No	No	No	No	No	No	No	No
tsunami zone	No	No	No	No	No	No	No	No	No	No	No
beach	No	No	No	No	No	No	No	No	No	No	No
erosion-prone area	No	No	No	No	No	No	No	No	No	No	No
geologically hazardous land	No	No	No	No	No	No	No	No	No	No	No
fresh water or coastal waters	No	No	No	No	No	No	No	No	No	No	No
12. Substantially affects scenic vistas and view planes identified in county or state plans or studies:	No	No	No	No	No	No	No	No	No	No	No
13. Requires substantial energy consumption:	No	No	No	No	No	No	No	No	No	No	No

1. *Involves an irrevocable commitment to loss or destruction of any natural or cultural resource:*

   Installation of the proposed water spigot facilities will not irrevocably commit to loss or destruction of natural or cultural resources. No cultural resources have been identified in the vicinity of the project sites. The SHPD has not identified any other resources it may be aware of. If previously unknown resources are uncovered during the course of construction, the Contractor will stop work immediately and notify the SHPD who will determine the appropriate treatment.

2. *Curtails the range of beneficial uses of the environment:*

   The proposed actions will not curtail the range of beneficial uses of the environment. The proposed actions that consist of installing or upgrading water spigot facilities will not alter uses of the site or the surrounding area.

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

   The proposed water spigot facilities are consistent with the State's goals and objectives as described in the previous sections of this EA.

4. *Substantially affects the economic or social welfare of the community or state:*

   The proposed actions will not substantially affect the economic or social welfare of the community in a negative manner. The proposed actions will improve the economic and social welfare of the affected communities by providing a safe and accessible source of potable water to residents who rely on individual catchment systems for their general household water supplies.

5. *Substantially affects public health:*

   The proposed activities will not substantially affect public health in a negative manner. Installation of the proposed water spigot facilities will improve public health by providing thousands of residents will a source of safe drinking water for their households.

6. *Involves secondary impacts, such as population changes or effects on public facilities:*

   The water spigot facilities will not lead to secondary impacts such as population changes or effects on public facilities beyond that of the County plan.

7. *Involves a substantial degradation of environmental quality:*

   The water spigot facilities installation will not degrade the environmental quality of the project site or its surroundings. The existing quality of the project sites will remain. The proposed construction will take place within a defined portion of the project sites and will not cause affect the environmental quality of the area.

8. *Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger action:*

Installation of the proposed water spigot facilities will not have a cumulative effect on the environment. The facilities constructed with this project will not require commitment for larger action.

9. *Substantially affects a rare, threatened or endangered species, or its habitat:*

The proposed project will not substantially affect any rare, threatened or endangered species or its habitat. No rare or threatened species were identified in the immediate vicinity of the project sites.

10. *Detrimentally affects air or water quality or ambient noise levels:*

The proposed projects will not substantially degrade environmental quality. Any adverse effects on air and water quality and ambient noise levels will be short-term and construction-related only. Air quality and noise levels will not exceed State DOH standards. This project will not result in long-term adverse effects. Upon completion of construction activities, air and water qualities and ambient noise levels will revert to prior levels.

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

The proposed project sites are not located in an environmentally sensitive zone that is erosion-prone. The proposed project area is not located in a tsunami zone, beach, geologically hazardous land, estuary, fresh water or coastal water. However, one proposed location (Site J – Waiohinu Flood Channel) is located in a potential flood plain. Damage to the spigot facility at this location may be avoided during the design phase by placing the facility pad above the flood elevation.

Several of the project areas are also situated in volcanic hazard zones of 1, 2 and 3 (areas with the highest risk). They are also in one of the more seismically active areas in the world, and are in an area that may be exposed to hurricanes and strong winds. Although damage may occur to the facilities during occasions of severe hurricanes, earthquakes and lava flows, no practical mitigative measures are currently available for a project of this nature. The proposed project will comply with the current regulatory design standards.

12. *Substantially affects scenic vistas and view planes identified in county or state plans or studies:*

Activities associated with the installation of the proposed facilities are not anticipated to change or alter the character of the site. All scenic vistas and view planes will remain as they are.

13. *Requires substantial energy consumption:*

The water spigot facilities will not require energy consumption.

SECTION 18

PERMITS AND APPROVALS REQUIRED

FEDERAL

None

STATE

Hawai'i Coastal Zone Management (CZM) Program Federal Consistency Certification
NPDES Permit, Stormwater Discharge during Construction Activities
Permit to Perform Work within a State Highway

COUNTY OF HAWAI'I

Building Permit
Grubbing Permit
Planning Department Plan Approval

SECTION 19

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APPENDIX A

CORRESPONDENCE AND COMMENTS RECEIVED

- **UNSIGNED FONSI FROM THE U.S. EPA**
- **LETTER OF "NO EFFECT" FROM SHPD**
- **CORRESPONDENCE & AGENCY COMMENTS RECEIVED**
- **ANNOTATED COMMENT RESPONSE**

UNSIGNED FONSI

FROM THE
UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Drinking Water Spigots Project

Department of Water Supply, County of Hawaii

The U. S. Environmental Protection Agency (EPA) has awarded $970,000 of federal grant funds to the County of Hawaii Department of Water Supply (DWS), for Water Infrastructure Improvements – Upgrade of Drinking Water System. The DWS will use this funding, in combination with local funds, for two discrete projects: Drinking Water Spigots, and Mamalahoa Highway Water Line Improvements. This FONSI and associated environmental assessment are for the Drinking Water Spigots Project only. The Mamalahoa Highway Water Line Improvement Project has been described and covered in a separate environmental assessment and FONSI issued in June 2004.

Approximately 40-50,000 residents on the Island of Hawaii' presently use rainwater catchment systems for their household water supply, and many must go outside their homes to acquire potable water. Many of these persons obtain their drinking water from public water spigot facilities provided by the DWS. Currently there are fifteen (15) spigot locations. Many of the existing spigots are placed in areas that are unsafe (close to high speed roadways), are in need of maintenance, lack adequate parking and ADA access. The county has identified the greatest need for improvements and/or additional spigot locations in the Puna, Ka'u and South Kona Districts.

The proposed project will allow DWS to construct or improve 6 new or upgraded existing spigot facilities at various locations around the island. These installations will allow for safer conditions and improved access to potable water for persons living in communities which predominantly or exclusively use rainwater catchment systems.

Pursuant to the National Environmental Policy Act (NEPA), EPA has completed an Environmental Assessment (EA), dated February 2006 to evaluate the environmental consequences of the proposed action. The EA includes a discussion of alternatives considered including the no action alternative. Based on information from the draft EA and consultation with State, County and Federal agencies, the EPA has determined the action will not have a significant impact on the quality of the human environment. An Environmental Impact Statement is not required.

The following supports the Finding of No Significant Impact (FONSI):

The project site will be located at 6 discrete areas around the island of Hawaii. Through consultations with the Hawaii DLNR Historic Preservation Divisions and the Hawaii Advisory Council on Historic Preservation, this project is not expected to have any impact on archaeological, historic or cultural resources. Through informal consultation with the US Fish and Wildlife Service it was determined that the project is not expected to have any adverse impact to any listed threatened or endangered species. There are no streams, lakes, or wetlands within the project limits that would be affected by the project. The project should not contribute to growth in the region but will help to meet existing need for drinking water for persons who depend on rainwater catchment for their water, and are not served by existing public water system supplies. As part of the EA, State and/or Federal Agriculture, Transportation, and Education officials were consulted to provide input into the EA (see EA for full list of consulted parties). The EA does identify several areas related to siting, construction, operations, and maintenance that will be addressed in the design and construction phases of the project, including following all required state and county requirements, permitting requirements, etc. The EA identified eleven potential sites of which six will be selected by DWS, in consultation with the Mayor's office and with the community. The EA describes in detail the final site selection criteria and process.

Public Review

The EA is available for public review at Kailua-Kona Public Library, Holualoa Public Library, Department of Water Supply (Hilo), and the Office of Environmental Quality Control (Honolulu) and at the offices of EPA Region 9, 75 Hawthorne Street, San Francisco, CA 94105. Contact Barry Pollock at (415) 972-3563 or via e-mail at pollock.barry@epa.gov.

EPA must receive comments on the FONSI by March 27, 2006, which provides a minimum of 30 calendar days from the date of publication of the Legal Notice of Decision. EPA will take no administrative action on the above-described project prior to expiration of this comment period. Comments should be mailed to:

Barry Pollock
U. S. EPA, Region 9
75 Hawthorne Street (WTR-6)
San Francisco, CA, 94105

or faxed to Mr. Pollock at (415) 947-3549
or submitted by email at pollock.barry@epa.gov

After EPA assesses any comments received, those comments, EPA's responses, and this FONSI will be forwarded to the Regional Administrator for review and signature. If this FONSI is signed by the Regional Administrator, it will not be re-circulated for review, but will be available to any individual upon request.

_____ _____

Wayne Nastri Date
EPA, Regional Administrator

LETTER OF “NO EFFECT”
FROM SHPD

LINDA LINGLE
GOVERNOR OF HAWAII

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

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 9, 2006

Mr. Martin Nakasone
M&E Pacific
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

LOG NO: 2006.0266
DOC NO: 0602MM14
Archaeology

Dear Mr. Nakasone:

SUBJECT: **National Historic Preservation Act, Section 106**
Environmental Assessment for the Construction of Island-wide Spigots
Hamakua, South Hilo, South Kona, Ka`u and Puna Districts, Island of Hawaii
TMK: (3) 1-4-001:002, 1-5-004:001, 1-5-040:065, 1-6-003:065, 1-7-003:019, 1-8-002:049, 1-8-004:030, 3-5-003:088, 8-3-013:021, 8-4-008:002, 9-5-005:001, 9-5-006:002

There are 11 locations island-wide where water spigots for emergency public use will be installed. Locations include: Honaunau School, Honaunau Rodeo Arena, Papa`aloa Gym, Mountain View Gym, Kurtistown Ball Park, Kea`au Transfer Station, Hawaiian Paradise Park Fire Station, Nanawale Estates, Kapoho-Pohokiki Road Junction, Waiohinu Flood Channel and Waiohinu Transfer Station.

We believe that **"no historic properties will be affected"** by this undertaking because:

- ☐ a) intensive cultivation has altered the land
- ☒ b) residential development/urbanization has altered the land
- ☐ c) previous grubbing/grading has altered the land
- ☐ d) an acceptable archaeological assessment or inventory survey found no historic properties
- ☐ e) this project has gone through the historic review process, and mitigation has been completed
- ☒ f) other: *All of the described locations are situated along road sides or heavily altered surfaces adjacent to or within previously developed areas.*

In the event that historic resources, including human skeletal remains, are identified during the construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Division, Hawaii Section, needs to be contacted immediately at (808) 327-3690.

Aloha,

Peter Young, Chair
State Historic Preservation Officer

MM:jen

Post-it® Fax Note 7671	Date	# of pages ▶
To Jamie.	From Jocelyn	
Co./Dept. M&E Pacific	Co.	
Phone #	Phone #	
Fax # 524-0246	Fax #	

CORRESPONDENCE
&
AGENCY COMMENTS RECEIVED

(See Appendix B for Flora & Fauna Responses)

CONSULTATION LIST

AGENCY / ORGANIZATION	SITE										
FEDERAL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Advisory Council on Historic Preservation	X	X	X	X	X	X	X	X	X	X	X
U.S. Environmental Protection Agency	X	X	X	X	X	X	X	X	X	X	X
U.S. Dept. of Transportation, Federal Highway Administration	X	X	X	X	X	X	X	X	X	X	X
U.S. Fish & Wildlife Service, Pacific Region	X	X	X	X	X	X	X	X	X	X	X
STATE OF HAWAII											
State Dept. of Education		X									
State Dept. of Hawaiian Home Lands	X	X	X	X	X	X	X	X	X	X	X
State Dept. of Health	X	X	X	X	X	X	X	X	X	X	X
State DNLR, Forestry and Wildlife Division								X	X		
State DNLR, Historic Preservation Division	X	X	X	X	X	X	X	X	X	X	X
State DNLR, Historic Preservation Division (Hawaii Office)	X	X	X	X	X	X	X	X	X	X	X
State DNLR, State Parks Division									X		
State Dept. of Natural Resources and Environmental Management	X	X	X	X	X	X	X	X	X	X	X
State Dept. of Transportation, Highways Divsion, Traffic Branch								X	X		
Disaibility and Communication Access Board	X	X	X	X	X	X	X	X	X	X	X
Hawaii Natural Heritage Program	X	X	X	X	X	X	X	X	X	X	X
Office of Hawaiian Affairs	X	X	X	X	X	X	X	X	X	X	X
COUNTY OF HAWAII											
COH Dept. of Environmental Management	X	X	X	X	X	X	X	X	X	X	X
COH Dept. of Parks and Recreation	X	X	X	X	X	X	X	X	X	X	X
COH Dept. of Planning	X	X	X	X	X	X	X	X	X	X	X
COH Dept. of Public Works	X	X	X	X	X	X	X	X	X	X	X
COH Dept. of Water Supply	X	X	X	X	X	X	X	X	X	X	X
COH Fire Department							X				
PUBLIC											
Hawaiian Paradise Park Owner's Association							X				
Hui Malama I Na Kupuna O Hawai'i Nei	X	X	X	X	X	X	X	X	X	X	X
Makuu Farmers Association							X				
Nanawale Community Association								X			

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Mr. Don Klima, OFAP Director
Advisory Council on Historic Preservation
Denver Office
12136 West Bayaud Avenue, Suite 330
Lakewood, CO 80228

September 23, 2005

Dear Mr. Klima,

Subject: **Request for Review and Consultation**
Environmental Assessment for the Construction of Islandwide Spigot Facilities, Various Locations on the Island of Hawaii

The County of Hawaii (COH) Department of Water Supply (DWS) is proposing to construct water spigot facilities in various locations around the Island of Hawai'i. Currently, there are several thousand residents on the island who rely on catchment systems for their general water supply. The DWS would like to install new water spigot facilities to provide these residents a safe, accessible source of potable water for their households. Eleven (11) locations around the island have been selected for assessment in this project. A location map, Tax Map Key (TMK) maps, site maps and photos are attached for your information and review. The following TMK numbers encompass the project sites that may be affected by the construction work:

1-4-001: 002	1-8-004: 030
1-5-004: 001	3-5-003: 088
1-5-040: 065	8-3-013: 021
1-6-003: 065	8-4-008: 002
1-7-003: 019	9-5-005: 001
1-8-002: 049	9-5-006: 002

This project will consist of installing water spigot facilities with 5 to 6 water spigot outlets, a concrete apron, paving parking/pull-up areas, security fencing, and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Approximate areas of potential effect are indicated on the attached maps.

In conjunction with the use of federal funds, the proposed project is subject to Section 106 of the National Historical Preservation Act (NHPA) regulations safeguarding against potential effects on historic properties and resources. We are currently in the process of consulting various State Agencies and Native Hawaiian Organizations to determine if there are any potential project impacts to historic sites and archaeological resources. However, from the initial research performed, a Finding of No Significant Impact (FONSI) is anticipated for the proposed project.

According to our research, there are no registered Hawaiian or national Historic Places in the vicinity of all the project sites, with the exception of one site. The Ki'i Petroglyphs are listed on the National and State Register of Historic Places at TMK 9-5-006: 001, a parcel adjacent to the proposed spigot location at the Waiohinu Floodway (Site 11). However, the proposed construction work would be confined to the indicated parcel, and will most likely be placed in an area that has already been cleared and graded for an existing concrete flood channel. Therefore, the proposed project is not expected to impact this historical feature. We have also consulted with the Hawaii Natural Heritage Program, and they have informed us that there are no threatened or endangered species within our project areas.

Based on our investigation, it is anticipated that the proposed project will have no adverse impacts on historical or archaeological resources in the project areas. Pursuant to Section 106, NHPA, we request your comments regarding historical and archeological concerns towards the proposed project. We will assume your office has no knowledge of any historical properties that may be affected by this project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions, please feel free to contact either Ms. Jamie Hikiji or myself via telephone, postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Martin.Nakasone@m-e.aecom.com
Jamie.Hikiji@m-e.aecom.com

Thank you very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Mr. Kent Matsutani
Assistant State Conservationist for Programs
United States Department of Agriculture
Natural Resources Conservation Service
Hawaii State Office
P.O. Box 50004
Honolulu, Hawaii 96850-0050

October 28, 2005

Dear Mr. Matsutani,

Subject: **Request for Review and Consultation**
Environmental Assessment for the Construction of Islandwide Spigot Facilities, Various Locations on the Island of Hawaii

The County of Hawaii Department of Water (DWS) is proposing to construct water spigot facilities in various locations around the island of Hawai'i. This project will be funded using grant money from the Environmental Protection Agency. M&E Pacific, Inc. has been contracted to evaluate eleven (11) proposed sites and prepare an Environmental Assessment (EA) report. This project will consist of installing water spigot facilities with 5 to 6 water spigot outlets, a concrete apron, paved parking/pull-up areas, security fencing and drainage features (drywells, swales, etc.). Construction activities may also include waterline trenching to connect the spigot facility with the main County waterline system. Generally, these spigots will be placed on a site that has already been developed and/or cleared and graded.

A general location map, Tax Map Key (TMK) maps, site map sketches, and GIS layout maps are attached for your review. The approximate areas that will be potentially affected by this project are indicated on the TMK maps. The following TMK numbers encompass the project sites that may be affected by the construction work:

1-4-001: 002 (Vicinity of) Kapoho-Pohoiki Road Junction
1-5-004: 001 Nanawale Estates Arena
1-5-040: 065 Hawaiian Paradise Park Fire Station
1-6-003: 065 Keaau Transfer Station
1-7-003: 019 Kurtistown Ball Park
1-8-002: 049 Mountain View Gym
3-5-003: 035 Papaaloa Gym
8-3-013: 021 Honaunau School
8-4-008: 002 Honaunau Rodeo Arena
9-5-005: 001 Waiohinu Transfer Sta.
9-5-006: 002 Waiohinu Flood Channel

In conjunction with the use of federal funds, the proposed project must comply to the federal "cross-cutter" requirements for EAs, which includes a requirement for a determination of impacts the proposed project will have upon farmland that is protected under the Farmland Protection Policy Act (FPPA). A preliminary research of GIS data and the online ALISH maps indicate that the proposed sites will not be located on or affect protected farmlands, with the exception of Site A (Honaunau School) which has been previously developed. From the initial research performed, a Finding of No Significant Impact (FONSI) is anticipated for the proposed project. However, we would like to confirm this determination with the NRCS.

Therefore, we are seeking your consultation on this project to determine if any of the proposed project sites are located on prime farmland, unique farmland, or farmland of statewide or local importance. Additionally, should any of the sites be found to affect the protected farmland, we would like to request a recommendation on what actions would be required to address the FPPA.

Should you have any questions, please feel free to contact either Ms. Jamie Hikiji or myself via telephone, postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Martin.Nakasone@m-e.aecom.com
Jamie.Hikiji@m-e.aecom.com

Thank you very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Site Maps
(3) TMK Maps
(4) GIS Maps

cc: Project File

NRCS
Natural Resources Conservation Service
P.O. Box 50004
Honolulu, HI 96850
808-541-2600

United States Department of Agriculture

Our People...Our Islands...In Harmony

January 9, 2006

Martin Nakasone
Engineering Manager
M&E Pacific, Inc

Subject: Environmental Assessment for the Construction of island wide Spigot Facilities, Island of Hawaii

After reviewing the 11 sites submitted by your company for the proposed spigot facilities found 10 none prime farmland.

Site C, OoC is property class industrial.

Reviewing ALISH & ALUM and our data and the county tax record do not show any of the 11 sites as prime, statewide importance, or unique farmlands.

The FPPA does not apply for the sites reviewed.

Milton Martinez
Soil Scientist
808-541-2600 *133

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer

ON

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

October 21, 2005

RECEIVED
05 OCT 28 PM 3:16
DEPT OF WATER SUPPLY
COUNTY OF HAWAII

Milton D. Pavao, P.E., Manager
Department of Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, Hawaii 96720

Subject: Review of "Draft Environmental Assessment Construction of Islandwide Spigot Facilities", partially funded by USEPA Grant ID # XP-97951001-0-"County of Hawaii Upgrade of Drinking Water System"

Dear Mr. Pavao:

A copy of the "Draft Environmental Assessment Construction of Islandwide Spigot Facilities", dated September 2005, prepared by M&E Pacific, Inc, was received by our office for review on October 11, under cover letter dated October 3, sent by Martin Nakasone of M&E. This letter and the attached comments describes additional information and clarifications necessary so that this EA can be used to meet the federal NEPA requirements; and discusses next steps and proposed schedule to move forward with both the State and Federal environmental review process.

As you know this project is partially funded from a grant awarded by the United States Environmental Protection Agency (USEPA / EPA) to the County of Hawaii Department of Water Supply (DWS). The grant awards federal funding for this project as well as another project ("Mamalahoa Water line improvements") under the overall name of "County of Hawaii - Upgrade of Drinking Water System". NEPA requires federal environmental review for all federally funded projects. As the funding agency, USEPA is the lead agency for the purposes of compliance with NEPA for this grant. USEPA's NEPA compliance process is based on the NEPA statute; Federal Regulations 40 CFR Part 1500-1508, "Regulations for implementing the procedural provisions of the NEPA", and EPA's regulations 40 CFR Part 6, "Implementation of the Procedures for the National Environmental Policy Act.". As such, USEPA is responsible to ensure that the EA prepared for this project meets all the federal requirements. The regulations allow the lead federal agency to rely on an EA prepared by the applicant or consultant (as in this case); however, we are required to independently review the document, exercise independent judgement and verify that the document meets both general and EPA specific NEPA requirements.

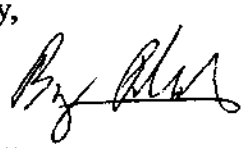
For this project EPA, in consultation with other federal agencies, is responsible for making the formal Federal NEPA determination of whether these projects will have significant environmental effects, in which case an Environmental Impact Statement, or EIS, would be required. If EPA determines that an action will not result in significant impacts, EPA will issue a Federal Finding of No Significant Impact (FNSI). To make the federal FNSI determination, an Environmental Assessment (EA) is required. The EA must be able to stand alone, and provide sufficient information for a member of the public to be able to review it relative to federal NEPA criteria. The draft EA submitted for our review was prepared as required under the environmental review process for the state of Hawaii, in accordance with the Hawaii Revised Statutes and Administrative Rules. DWS was the proposing

agency. The criteria, information and approval process required to satisfy the federal NEPA process are slightly different than for the State process. The attached comments describe additional information and clarifications necessary so that EPA can use this EA as the decision document for our determination of whether an EIS or FNSI is appropriate.

DWS must ensure that Federal, State and local requirements are met. Based on the proposed schedule described in the Meeting Minutes from the June 30, 2005 meeting between DWS, M&E, and HDOH, we understand that you are proposing publishing the draft EA November 23, including issuing a preliminary State FNSI. Unless all our comments are addressed prior to the publication filing date of November 11, **and** we are able to review the document again to ensure that our comments have been addressed, we will not be able to issue a preliminary federal FNSI at that time. The federal regulations require that the preliminary federal FNSI with the supporting documents, i.e., the **final** EA, be circulated to the effected public, and allow for sufficient public review before the FNSI becomes effective. EPA is required to ensure that interested parties may submit comments, and we may not take administrative action on the project for at least thirty (30) calendar days after release of the FNSI. In other words, once the EA is finalized (after you have received comments from the public based on your November 23 notice; and after our comments are addressed to ensure it meets the federal NEPA requirements), EPA will then make its decision as to whether an EIS, or a FNSI is appropriate. Assuming we determine that a FNSI is appropriate, we would then publish the notice of the availability of the **final** EA and the draft federal FNSI. Again, based on the schedule in the minutes, it appears we would do this at the same time as the final EA is published (February 8). We would then need to wait an additional 30 days after the release of the federal FNSI to ensure there are no additional concerns to be addressed. Assuming there are no significant comments that need to be addressed, the project could then move forward 30 days later (early March).

Our specific comments are attached. Section I describes additional background information and clarifications which we are necessary to allow this document to stand alone as a NEPA decision document. In addition, there are specific Federal laws, regulations, and programs which must be addressed under NEPA, known as Federal cross-cutters, which are discussed in Section II of our comments. Please contact me at 415-972-3563 to discuss these comments, or if you have any other questions on the NEPA process or any other aspect of this grant. We look forward to continuing to work with you on this project.

Sincerely,



Barry Pollock, P.E.
Hawaii PWSS Project Officer / USEPA Region 9

Attachment (Comments I and II)

cc: Owen Nishioka, Engineer, DWS, w. attachments
William Wong and Denise Dang, HDOH SDWB, w. attachments

I. Comments and additional information required - "Draft Environmental Assessment Construction of Islandwide Spigot Facilities" - draft EA, dated September, 2005, to allow it to be used as NEPA decision document.

(Note - if the Applicant, or EA preparer/consultant, believes that any of the new information requested below is already provided in the draft EA, please indicate where it can be found).

1. The EA needs to clearly state that due to federal funding, the Federal NEPA / Environmental Assessment process is required for this project; and provide a brief description of that process

It should be made clear that this EA is also being used to address the federal NEPA requirements and will be the decision making document for EPA to determine whether an EIS or a FNSI is appropriate.

Required additional information - Description of Federal NEPA process should be included in the EA

A statement should be added to Section 3.4 explaining that this project, as it is partially funded by a federal/ USEPA grant, is required to follow federal NEPA environmental review and assessment requirements as well as State requirements. We suggest you reference the NEPA statute; Federal Regulations 40 CFR Part 1500-1508, "Regulations for implementing the procedural provisions of the NEPA", and EPA's specific NEPA regulations found at 40 CFR Part 6, "Implementation of the Procedures for the National Environmental Policy Act" A brief summary of the federal NEPA/EPA Environmental Assessment process should be provided.

2. More information on Agencies and Persons Consulted and any issues raised is needed

The EA includes a list of all agencies and persons consulted during preparation of the EA. The list should include names of officials or persons contacted; and any communications sent to and received from these agencies and any private citizens during the EA process. A summary of any issues raised by these agencies and persons should be included in addition to correspondence.

Required additional information - more information on consultations with federal, state, county and public

Please provide more information on consultations in Section 2 or in an Appendix, including a synopsis of the federal, state and local agencies who were contacted; specific persons and contact information (phone #, etc.) and any communications which were sent to or received from these agencies, and any private citizens during the EA process. A summary of any issues raised by these agencies and persons should be included, as well as all correspondence.

3 Additional information on Biological Assessments, "Flora and Fauna", threatened and endangered species (Endangered Species Act requirements)

1. Under Section 7 of the Federal Endangered Species Act, federal agencies are required to consult with the U.S. Fish and Wildlife Service (USFWS) to ensure that activities they authorize, fund, or carry out will not jeopardize listed (threatened or endangered) species. In Sections X.1.8 of each site specific Section, it is stated that USFWS has been contacted for their "consultation". As USEPA is required to consult with USFWS, we will need to see all correspondence to USFWS.

2. Appendix B is described as "Record of Flora and Fauna Investigation". It is not clear how this record

was developed, i.e. whether it is from a database search only, or whether it included site investigations.

Required additional information

1. If not already done, a copy of the draft EA should be forwarded to United States Fish and Wildlife Service (USFWS) Office in Hawaii, for their review. As consultation with USFWS is a requirement for USEPA (as the lead Federal Agency for this project) please provide us with a copy of any correspondence sent to or received from USFWS (including letter, email and/or phone logs). After our review of this correspondence to ensure it is sufficient, it should be included as an appendix in the final EA.

2. Please clarify in the draft EA in more detail, what the "Record of Flora and Fauna Investigation" is.. Is it solely based on a database review, or were there site visits. Please describe how it was developed.

4. Purpose, need, location, and community served - more background needed

The general purpose, need, and locations for this project are covered in Sections 3 and 4 and Table 1.1. Site specific information is provided in the individual Site Sections 5-15. However, we cannot find in this document a clear description and summary of the existing water spigot situation. To evaluate the impact of the new and improved spigots, it is necessary to fully understand the existing situation. How many existing spigot sites are already in place? If it is known, how many people and vehicles currently use the existing spigots? What is the estimated water consumption at existing sites? Nor is there a summary of how many people are anticipated to use the new and/or improved spigots provided by this project.

We believe additional background information on the current spigot use is necessary to evaluate the impacts of this project.

In addition, we believe there is a substantial difference between upgrading an existing spigot site, and creating a new site. We anticipate that the ongoing impacts at new sites may be significantly different than upgrading existing sites. One of the more significant potential impacts which can reasonably be anticipated, is a change in traffic patterns, including potential for increased traffic at the sites, especially new sites. Section 4.1 estimates 100 vehicles per day for each/every site. However, there is no explanation of how this estimate was made. How was this number determined? Is there any existing data on current use (GPD, vehicle/site) of spigots? Are some sites in more heavily populated areas and/or drier areas, and that therefore might anticipate heavier use in the future? Is it anticipated that spigot use will be seasonal (i.e., more use in dry season than rainy season?). We believe these are questions that will be of interest to the general public (for whom the EA process is designed) in the potentially effected areas, particularly those in close proximity to the proposed spigot locations; and should therefore be included in the EA.

Additional information required

1. In order to assess the individual site and cumulative impacts of all the sites, including traffic and other impacts, for this project, we believe it is necessary to get a sense of the population and number of persons (and vehicles) already using the existing spigot sites; including estimated water consumption; and an estimate of how this project will impact future use and traffic patterns, on a site specific and cumulative basis, for both existing and new sites. This should be clearly specified in Sections X.2.4 for each site and summarized in a summary table for all the sites. The summary table should include whether each site is a new sites or upgrading existing sites; and if possible, site specific estimates of

number of vehicles/GPD of water anticipated at each site. There should be some discussion of potential seasonal variation in use patterns (dry vs. rainy seasons) if that is anticipated.

5. Materials disposal

Will any of these site specific projects demolition and/or materials removal and disposal? If so, this should be described.

6. Wetlands

Sections X.1.6 address "Water Resources". There is no mention of whether any streams, ponds, lakes or wetlands are within any of the proposed project location sites. There should be a statement as to whether any of these water bodies will be impacted by any aspect of the project. The method of determining this (visual inspection, maps, contacts with agencies, etc.) should be noted.

7 Air - Are any of these locations in non-attainment basins? If not, it should be so stated.

7. Mailing List for FNSI - The NEPA process for making a federal FNSI requires notification of State, Federal, Local, civic groups, and other entities, especially persons and property owners located adjacent to the project. A list of these groups, and any other entities adjacent to the project, and how to contact them, should be provided as part of the EA.

II. Federal Cross Cutters- Federal Authorities - Analysis of information provided in the EA under review, and additional information and documentation required to satisfy the federal "cross-cutter" requirements.

- Note - for all responses to Required additional information, include from where and/or whom the information used to acquire the information was attained. (i..e. from which State or Federal agency or entity, individual, or other resource used, information was attained).

1. **Archeological and Historic Preservation Act (AHPA)**

Under the Archeological and Historic Preservation Act (AHPA), the State of Hawaii Department of Natural Resources, State Historic Preservation District, (DLNR-SHPD) must be consulted to ensure there are no historical or archeological features of interest which may be impacted by this project. A letter was sent to DLNR-SHPD requesting their review.

Required additional information - The final EA should include the response from DLNR-SHPD.

2. **Clean Air Act**

No statement is made regarding whether this area is an air quality attainment areas.

- Required additional information - State whether this area is in an air quality attainment area as defined by the State of Hawaii DOH Air Program.

3. **Coastal Zone Management Act**

The Hawaii Coastal Zone Management Program (Chapter 205A, HRS), promulgated in 1977 in response to the Federal CZM Act of 1972, established the entire state of Hawaii as CAM area.

-Required additional information - Impacts of this project on any of the 10 policy objectives as described under the Hi CZM Program should be discussed. If no impacts are anticipated it should be so stated.

4. Endangered Species Act

As described above, U.S. Fish and Wildlife Service should be provided with the draft EA to determine if this project may impact threatened or endangered species.

Required additional information

A description of how the determination that there will be no impact on threatened or endangered species was made must be provided. If a literature review was performed, it should be described. If agencies in Hawaii which compile lists of endangered and threatened wildlife and plants were contacted (or the lists obtained) to determine if any listed species are present or likely to be present in these project areas, this should be described. A response from US Fish and Wildlife Service regarding this project is required.

If any listed species may be effected, additional requirements, including preparation of biological assessment, would be required.

5. **Farmland Protection Policy Act** - The FPPA is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures

that—to the extent possible—Federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land. (Note that construction within an existing right-of-way purchased on or before August 4, 1984 is exempt from FPPA).

- Required additional information- Any anticipated impact of this project on farmland as defined under the FPPA should be described. If no impact is anticipated, it should be so stated. The applicant may wish to contact the USDA office in Honolulu to determine what, if any, actions are required to address the FPPA.

6. **Fish and Wildlife Coordination Act** (FWCA) provides the basic authority for the USFWS's involvement in evaluating impacts to fish and wildlife from proposed water resource development projects. It requires that fish and wildlife resources receive equal consideration to other project features. It also requires that Federal agencies that construct, license or permit water resource development projects must first consult with the Fish and Wildlife Service (and the National Marine Fisheries Service in some instances) and State fish and wildlife agency regarding the impacts on fish and wildlife resources and measures to mitigate these impacts. Full consideration is to be given to Fish and Wildlife Service recommendations

- Required additional information - Any anticipated impact of this project on fish and wildlife as defined under the FWCA should be described. If no impact is anticipated, it should be so stated. USFWS in Honolulu may be contacted to determine what, if any actions are required to address FWCA.

7. **Floodplain Management**

- Addressed

- No additional information required -

8. **Safe Drinking Water Act (sole source aquifer)**

- Required additional information - It should be stated if there is any federally designated sole source aquifer present which could be impacted by this project. If there is no sole source aquifer or if there is a ssa which will not be impacted, it should be so stated. USEPA Region 9 Groundwater Office may be contacted to determine if there is a sole source aquifer. Based on the limited nature of this project it appears unlikely that there would be any impact on a sole source aquifer.

9. **Protection of Wetlands**

If there are wetlands on or off the site which could be impacted by this project, additional requirements would apply - including description of wetlands functions, impacts on wetlands functions, alternatives, and measures to mitigate unavoidable impacts to wetland functions.

- Required additional information - A statement should be made for each site as to whether any wetlands may be impacted. US Fish and Wildlife, DLNR, or US Army Corps of Engineers; or other appropriate sources may be used to attain this information.

10. **Wild and Scenic Rivers Act (NPS)**

A communication between DOH and NPS indicate that there are currently no designated Wild and Scenic Rivers in Hawaii. The EA indicates that there was a listing compiled for "Candidate Streams for Protection" in the Hawaii Stream Assessment, (State CWRM 1990), and there are 4 candidate streams for protection on the Hamakua/Hilo Coast, but none are in the vicinity of these projects.

- No further information required

11. **Wilderness Act**

The draft EA states that all sites are located on land zoned as Agricultural or Urban. No statement is made regarding designated wilderness area in the vicinity of these projects.

- Required additional information - It should be stated whether any of the proposed sites occur within or adjacent to a designated wilderness area, or whether the project has the potential to impact a designated wilderness area in the vicinity.

12. **Coastal Barriers Resource Act** - According to a communication transmitted to us between Hi DOH and USFWS, the CBRA is currently not applicable in Hawaii as no formally identified "coastal barriers" are known to exist in the State of Hawaii

- No further information required.

Hikiji, Jamie

From: Pollock.Barry@epamail.epa.gov
Sent: Friday, October 28, 2005 5:53 AM
To: Hikiji, Jamie; Denise Dang
Cc: Nakasone, Martin; onishioka@hawaiidws.org
Subject: Re: DWS Construction of Islandwide Spigot Facilities - EA

Thanks Jamie and Denise. My responses to Jamie's questions:

1. USFWS review question - I reviewed the letter from FWS attached to Jamie's email, and assuming FWS had received information on the locations of all the proposed sites, that is sufficient for purposes of consulting with FWS, and should be included as an attachment to the draft EA . As a courtest when you publish the draft EA you may want to send a copy to FWS (or ask them if they want a copy).

2. Per my comment: "The NEPA process for making a federal FNSI requires notification of State, Federal, Local, civic groups, and other entities, especially persons and property owners located adjacent to the project. A list of these groups, and any other entities adjacent to the project, and how to contact them, should be provided as part of the EA"

In other words, I need a list of all entities as described above, that will be notified of the existense of the Federal FNSI (including the EA), and how they will be notified (via publication in OEQC, local newspapers, letters to effected persons, etc.). This should include a description of where the EA/FNSI will be made available to the public (typically such places as public libraries in the vicinity of the project, etc.). Again, this list is for the Federal FNSI publication, which is anticipated in February.

3. A letter is not necessary if you can adequately document how you came to that conclusion (for example clearly reference (including the date of the document, the source, etc.) the document, or map, that shows that there is no SSA effected. Generally it is preferable to request a letter (or document a phone converstaion, including the name/title of person consulted, date, etc.) and include that if possible. .

Please feel free to contact me directly if you have any more questions or want clarifications about my comments. I will be in the office until November 3, in HDOH Honolulu office NOv 4, than on travel toGuam and Saipan till Nov. 28.

I will be checking voice and emails through Nov. 18 or so, but it would be preferable to contact me next week if you have any more questions.

Sincerely

Barry Pollock, P.E., MPH
Hawaii, Guam, CNMI PWSS Program Project Officer USEPA Region 9 Drinking Water Office / WTR-6
75 Hawthorne St
SF, CA 94105

ph 415-972-3563
fax 415-947-3549
Pollock.Barry@EPA.Gov

Hikiji, Jamie

From: Pollock.Barry@epamail.epa.gov
Sent: Monday, February 06, 2006 1:27 PM
To: Nishioka, Owen; Hikiji, Jamie; Nakasone, Martin; Manuel, Denise M
Cc: Denise Dang
Subject: Draft EPA comments on Draft Final EA

Attachments: SpigotdraftEAEPAcomltrFebruary2006.doc; DraftCommentsFebdraftEA.doc

SpigotdraftEAEPAcomltrFebruary... DraftCommentsFebdraftEA.doc (3...

Owen, Jamie, Martin and Denise - Please consider the attached my draft/unofficial comments, but the final version will look very much like this, and should be done by tomorrow. I wanted to get you draft comments today due to the upcoming Friday deadline for submitting publications to OEQC to get in the Feb 23 env. notice, and because there are still 3 issues which need to be clarified /changed/added into the draft EA prior to its submittal and publication, which are described in the attachments. .

The 3 issues are:

1. funding clarification,
2. Inclusion of a (brief) alternatives analysis section, 3,. A description/clarification of how the final decision as to which 6 sites will be selected.

They're described in more detail in the attached draft comments.
Assuming all 3 of these changes can be made to the draft final EA by Friday (and I would like to review the proposed changes to the document by Wednesday or Thursday to make sure they're ok), we can go ahead and publish this in OEQC EN as the draft final EA. At the same time, we (EPA) will issue our draft, unsigned FNSI.

We'll need your help in publicizing the draft final EA and the draft unsigned FNSI. I will provide language to you as to what needs to be published in local newpapers. Please contact me to discuss how to go forward with the publicizing.

Thanks. Pls. contact me at any time if you have questions or to discuss. I should get you the final, official comments by tomorrow at the latest.

Barry

(See attached file: SpigotdraftEAEPAcomltrFebruary2006.doc)(See attached file: DraftCommentsFebdraftEA.doc)

.....

Barry Pollock, P.E.
Hawaii, Guam, CNMI PWSS Program Project Officer USEPA Region 9 Drinking Water Office / WTR-6
75 Hawthorne St
SF, CA 94105

ph 415-972-3563
fax 415-947-3549
Pollock.Barry@EPA.Gov

Detailed comments, and clarifications required,- Draft for Review (1/26/06) Final Environmental Assessment Construction of Islandwide Spigot Facilities.

We have reviewed the Draft for Review (1/26/06) Final Environmental Assessment Construction of Islandwide Spigot Facilities. The following are our comments and clarifications. These comments need to be addressed prior to the publication of this document and the issuance of the unsigned draft Federal FNSI.

1. **The Funding of this project (partial federal, partial County/DWS) needs to be clarified**. This project ("Spigots") and a second project ("Mamalahoa Highway Waterline Project") are covered under a single grant from USEPA together (the Federal Grant is referred to as "Upgrade of Drinking Water Systems"). These two projects are only partially funded under the Federal Grant- there is a 45% match requirement for the recipient (County/ DWS) for this grant.

The EA needs to clearly indicate this funding arrangement. We have the following suggested language for the EA. (This or similar language must be used in the final, published EA for public review):

3.3 - This project, along with the Mamalahoa Highway Water Line Improvements Project (covered under a separate Environmental Assessment and FONSI issued in 2004) are together partially funded by a Federal Grant from the Environmental Protection Agency called "Upgrade of Drinking Water System" via EPA Grant ID#..... . This grant was awarded to County of Hawaii Department of Water Supply (DWS, Grant Recipient). There is a 45% match requirement on the Grant Recipient. . The design.....

4.2 - This project, along with the Mamalahoa Highway Water Line Improvements Project is partially funded by a Federal Grant from the Environmental Protection Agency (Grant ID#)..... , and partially funded by the Grant Recipient, the County of Hawaii Department of Water Supply (DWS). Federal grant recipients under this program are required to provide a 45% match for Projects funded by these grants.

2. **There needs to be an alternatives analysis associated with the proposed action discussion**. Under NEPA Section 102(2)(E), Federal EA's are required to discuss the proposed action and alternatives. A brief "Alternatives Analysis" section must be included. Alternatives must always include a discussion of the "No action alternative" (see below, suggested language to address comments #2 and #3).

3. **Final site selection decision making process must be described** The draft Final EA does not specifically identify the 6 sites to be developed, but lays out in an organized fashion, issues associated with 11 sites. There must be language in this document, that describes how the final site selection cision will be made - i.e., who and how will the final decision be made as to which 6 sites are to be selected.

Suggested language to address comments #2 and #3 - Include an "Alternatives Analysis" Section (in or near the "proposed action" section:

4. Coordination of publication for Final EA; notification of the public; and issuance of Unsigned Federal FONSI

Alternatives Analysis

1. No-action alternative - The no-action alternative would result in no improvement or changes to the existing water spigot situation. There is a clearly identified need to improve and increase access to potable water from watering points ("spigots") for persons who do not have a connection to the public water system. The benefits from providing improved and/or new spigot locations are greater than any

negative issues identified in this EA. Therefore the no-action alternative is not the preferred alternative.

2. Proposed Action - 6 spigot sites. The proposed action/ preferred alternative is to provide the public with a minimum of six safe and sanitary water spigot sites to obtain potable water for domestic use. This EA identifies 11 possible spigot sites *(comment - add the language from existing Proposed Action section, page 2).* This EA also identifies specific issues and concerns for the different sites. The final decision for the 6 sites to be constructed will be made by __*(add language describing how the final decision for the 6 sites to be selected will be made)*_____. Concerns and issues raised in the EA will be addressed in the final site selection decisions and in the next phase of the project (design).

4. General Comment - EPA notes that several commentors on the previous draft EA noted potentially serious public health and safety concerns for one of the sites, the Honauna school. Both the Department of Education and the School Principal indicated serious safety and other concerns to the students at this school.

EPA echoes the concerns related to safety and health of students and others at the school, and urges the County and the DWS to seriously consider these concerns in their final decision.

Conclusion

Based on the information in the Draft Final EA, EPA believes that the project as described, does not have the potential to cause significant environmental effects, and therefore a Federal should not be required. EPA believes a Finding of No Significant Impact (FONSI) will be appropritate for this project.

However, it should be noted that there have not yet been public meetings on this project. It is possible additional concerns may be raised during the public meeting process. Public meetings must be held, and any comments or concerns raised at these meetings addressed prior to EPA issuing the final, signed FONSI.

Therefore, assuming comments 1-4 above are addressed, EPA will issue an "unsigned" FONSI at the same time the EA is published. After the Final EA is published (with a minimum 30 day comment period), and public meetings are held (during that 30 day period) if no additional significant issues are raised, EPA will sign the FONSI and the project may proceed forward.

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Ms. Kainani Kraut
US Department of Transportation
Federal Highway Administration
Hawaii Division
Box 50206
300 Ala Moana Boulevard, Room 3-306
Honolulu, HI 96850

September 22, 2005

Dear Ms. Kraut,

Subject: **Request for Review and Consultation**
Environmental Assessment for the Construction of Islandwide Spigot Facilities, Various Locations on the Island of Hawaii

The County of Hawaii (COH) Department of Water Supply (DWS) is proposing to construct water spigot facilities in various locations around the Island of Hawai'i. Currently, there are several thousand residents on the island who rely on catchment systems for their general water supply. The DWS would like to install new water spigot facilities to provide these residents a safe, accessible source of potable water for their households. Eleven (11) locations around the island have been selected for assessment in this project. A location map, Tax Map Key (TMK) maps, site maps and photos are attached for your information and review. The following TMK numbers encompass the project sites that may be affected by the construction work:

1-4-001: 002	1-8-004: 030
1-5-004: 001	3-5-003: 088
1-5-040: 065	8-3-013: 021
1-6-003: 065	8-4-008: 002
1-7-003: 019	9-5-005: 001
1-8-002: 049	9-5-006: 002

This project will consist of installing water spigot facilities with 5 to 6 water spigot outlets, a concrete apron, paving parking/pull-up areas, security fencing, and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Approximate areas of potential effect are indicated on the attached maps.

In conjunction with the use of federal funds, the proposed project is subject to Section 4F of the United States Department of Transportation (USDOT) Act of 1966 regulations safeguarding against potential effects on publicly used lands. However, from the initial research performed, a Finding of No Significant Impact (FONSI) is anticipated for the proposed project.

Based on our investigation, it is anticipated that the proposed project will have no adverse impacts on publicly used lands or facilities in the project areas, and we hope to pursue a Programmatic 4F for each site. The lands within the project areas are not anticipated to exceed 10% of the publicly used land, and will continue to be used publicly. Pursuant to Section 4F, USDOT, we request your comments regarding concerns towards the proposed project. We will assume your office has no concerns regarding any of the sites that may be affected by this project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions, please feel free to contact either Ms. Jamie Hikiji or myself via telephone, postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Martin.Nakasone@m-e.aecom.com
Jamie.Hikiji@m-e.aecom.com

Thank you very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

U.S. Department
of Transportation
**Federal Highway
Administration**

Hawaii Division
Box 50206
300 Ala Moana Boulevard, Room 3-306
Honolulu, HI 96850

October 26, 2005

In Reply Refer To:
HEC-HI

Martin Nakasone
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, HI 96813

Dear Mr. Nakasone:

Subject: Review and Consultant
Environmental Assessment for the Construction of Islandwide Spigot Facilities,
Various Locations on the Island of Hawaii

Thank you for your letter dated September 22, 2005, regarding the impacts of the subject project on Section 4(f) lands protected under the United States Department of Transportation (USDOT) Act of 1966. Our understanding is that this project is not being funded by USDOT funds, therefore is not subject to Section 4(f).

Should you have any questions, please feel free to contact me at (808) 541-2700 extension 311.

Sincerely yours,

Richelle M. Takara, P.E.
Territorial Representative

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Mr. Patrick Leonard, Field Supervisor
US Fish & Wildlife Service
Pacific Islands Fish & Wildlife Office
300 Ala Moana Boulevard, #3-122
Box 50088
Honolulu, HI 96850

September 26, 2005

Dear Mr. Leonard,

Subject: **Request for Review and Consultation**
Environmental Assessment for the Construction of Islandwide Spigot Facilities, Various Locations on the Island of Hawaii

The County of Hawaii (COH) Department of Water Supply (DWS) is proposing to construct water spigot facilities in various locations around the Island of Hawai'i. Currently, there are several thousand residents on the island who rely on catchment systems for their general water supply. The DWS would like to install new water spigot facilities to provide these residents a safe, accessible source of potable water for their households. Eleven (11) locations around the island have been selected for assessment in this project. A location map, Tax Map Key (TMK) maps, site maps and photos are attached for your information and review. The following TMK numbers encompass the project sites that may be affected by the construction work:

1-4-001: 002	1-8-004: 030
1-5-004: 001	3-5-003: 088
1-5-040: 065	8-3-013: 021
1-6-003: 065	8-4-008: 002
1-7-003: 019	9-5-005: 001
1-8-002: 049	9-5-006: 002

This project will consist of installing water spigot facilities with 5 to 6 water spigot outlets, a concrete apron, paving parking/pull-up areas, security fencing, and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Approximate areas of potential effect are indicated on the attached maps.

We have consulted with the Hawaii Natural Heritage Program (HNHP) at the University of Hawaii at Manoa Center for Conservation Research and Training, and were informed that no rare or endangered species reside within any of the spigot facility sites. From the initial research performed, a Finding of No Significant Impact (FONSI) is anticipated for the proposed project.

Based on our investigation and the information from HNHP, it is anticipated that the proposed project will have no adverse impacts on rare or endangered species in the project areas. Pursuant to Section 7, Endangered Species Act, we request your comments regarding concerns towards the proposed project. We will assume your office has no knowledge of any rare or endangered species that may be affected by this project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions, please feel free to contact either Ms. Jamie Hikiji or myself via telephone, postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Martin.Nakasone@m-e.aecom.com
Jamie.Hikiji@m-e.aecom.com

Thank you very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawai'i 96850

In Reply Refer To:
1-2-2005-TA-438 to 450

OCT 18 2005

RECEIVED
OCT 19 2005
M & E PACIFIC, INC.

Mr. Martin Nakasone
Engineering Manager
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawai'i 96813

Dear Mr. Nakasone:

Thank you for your email dated September 26, 2005, requesting a list of threatened and endangered species that may occur in the vicinity of the project areas at eleven locations along major roads on the island of Hawai'i. We received your letter on September 28, 2005. The proposed project is to construct water spigot facilities (spigots, concrete aprons, paved parking and pull up area, security fences and drainage features) at the Wai' Ohinu Transfer Station, Mountain View Gym, Mountain View Park, Kurtistown Ball Park, Kea'au Transfer Station, Kapoho-Pohoiki Road Junction, Honaunau Rodeo Arena, Hawaiian Paradise Park Fire Station Site, Honoaunau School, Papa'aloa Gym, Nanawale Estates Arena, and the Waiohinu Flood Channel. Your letter states that the lead agency for this work is the County of Hawai'i Department of Water Supply.

We reviewed the information you provided and pertinent information in our files, including data compiled by the Hawai'i Natural Heritage Program. To the best of our knowledge, no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site.

We appreciate your efforts to conserve endangered species. If you have questions, please contact Assistant Field Supervisor Gina Shultz (phone: 808/792-9400; fax: 808/792-9581).

Sincerely,

Patrick Leonard
Field Supervisor

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Mr. Patrick Leonard, Field Supervisor
US Fish & Wildlife Service
Pacific Islands Fish & Wildlife Office
300 Ala Moana Boulevard, #3-122
Box 50088
Honolulu, HI 96850

November 15, 2005

Dear Mr. Leonard,

Subject: **Draft Environmental Assessment for the Construction of Islandwide Spigot Facilities, Various Locations on the Island of Hawaii**

Thank you very much for your review of the subject project for threatened and endangered species in the proposed project areas. An advance copy of the Draft Environmental Assessment is enclosed for your information and review. The Draft EA is scheduled to be published on November 23, 2005.

As a follow-up to the initial review, we would like to request a confirmation that fish and wildlife resources in the vicinity of the proposed sites will not be affected by the project, in compliance with the Fish and Wildlife Coordination Act. Our research and evaluation thus far indicates no impacts are expected due to the proposed work. A Finding of No Significant Impact (FONSI) is anticipated for the proposed project.

Should you have any questions, please feel free to contact either Ms. Jamie Hikiji or myself via telephone, postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Martin.Nakasone@m-e.aecom.com
Jamie.Hikiji@m-e.aecom.com

Thank you very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Draft Environmental Assessment, Advance Copy

cc: Project File

Hikiji, Jamie

From: Nakasone, Martin
Sent: Thursday, November 17, 2005 2:04 PM
To: Hikiji, Jamie
Subject: DEA for Construction of Islandwide Spigot Facilities, Island of Hawaii

From: Michael_Molina@fws.gov [mailto:Michael_Molina@fws.gov]
Sent: Thursday, November 17, 2005 1:18 PM
To: Nakasone, Martin
Subject: DEA for Construction of Islandwide Spigot Facilities, Island of Hawaii

Mr: Nakasone:

We received a copy of the Draft Environmental Assessment for Construction of Islandwide Spigot facilities, Various Locations on the Island of Hawaii (DEA), on November 15, 2005. Based on the DEA, some of the proposed sites are near streams. We recommend that standard best management practices be employed to avoid or minimize the introduction of sediment and other pollutants into these streams as a result of the project. Provided this measure is incorporated, the Fish and Wildlife Service agrees that fish and wildlife resources in the vicinity of the proposed sites are not anticipated to be adversely affected by the proposed project. Accordingly, we would support a Finding of No Significant Impact for the proposed project.

Thank you for coordinating with the Fish and Wildlife Service on the proposal.

Michael Molina
Environmental Review Coordinator
U.S. Fish and Wildlife Service, Pacific Islands 300 Ala Moana Blvd., Room 3122, Box 50088 Honolulu, Hawaii 96850
Tel: (808) 792-9440 Fax: (808) 792-9581
Email: michael_molina@fws.gov

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Patricia Hamamoto
Superintendent
Hawaii State Department of Education
P.O. Box 2360
Honolulu, HI 96804

September 22, 2005

Dear Ms. Hamamoto,

Subject: **Request for Review of Proposed Spigot Facility Location at Honaunau School, TMK (3) 8-3-013:021**

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) for the construction of water spigots in various locations on the Island of Hawai'i. This project consists of installing water spigot facilities with 5 to 6 water spigots, paved parking/pull-up areas, security features and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Eleven (11) locations around the island have been selected for assessment in this project. One of the locations selected for study is Honaunau School.

We are seeking your consultation on this project to identify potential effects this project may have to the Honaunau school or surrounding community, or any concerns the Department may have with the proposed spigot location. Please find attached to this letter, the project description and site maps of the proposed locations. Please note that the spigot locations shown on the figures are for discussion purposes only; and may not be placed at those particular locations during the design phase. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246. Thank you for your assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

Hikiji, Jamie

From: Hikiji, Jamie
Sent: Monday, October 03, 2005 12:16 PM
To: 'heidi_meeker@notes.k12.hi.us'
Cc: Nakasone, Martin
Subject: DWS Construction of Islandwide Water Spigot Facilities: Honaunau School Information
Attachments: Honaunau School Spigot Site.pdf

Ms. Meeker,

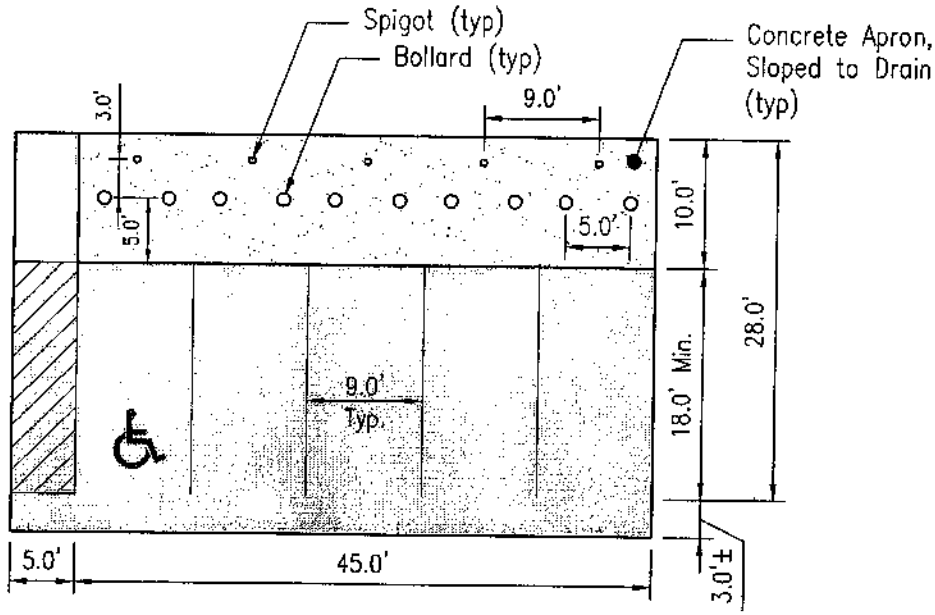
A copy of the proposed spigot site information for Honaunau School is attached as requested.
The information includes a copy of the proposed spigot layout, the location map, site map, and site photos for the proposed spigot location at Honaunau School. Please note that the proposed layout and site map are for discussion purposes only. The actual size, arrangement and facility location will be determined during the design phase of this project.

Should you have any questions, or require additional information, please feel free to contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com.

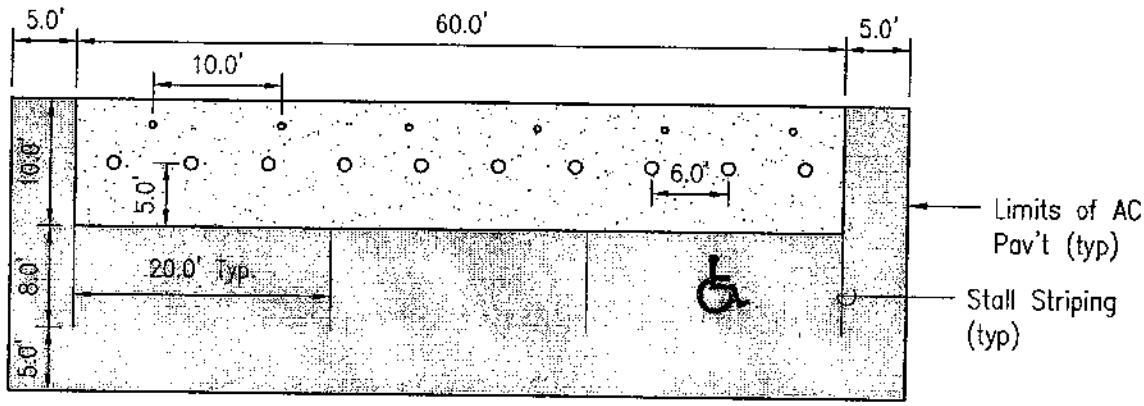
Thank you,

Jamie Hikiji
M&E Pacific, Inc.
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

808.521.3051 (Voice)
808.524.0246 (Fax)
Jamie.Hikiji@m-e.aecom.com



TYPE A:
PERPENDICULAR



TYPE B:
PARALLEL

Notes:
1. Number of spigots dependent on available space and final design.
2. Layouts proposed are for general sizing and siting purposes only. The actual layout will be determined during the design phase.

Possible Spigot Facility Layouts

NOT TO SCALE

M&E Pacific, Inc.

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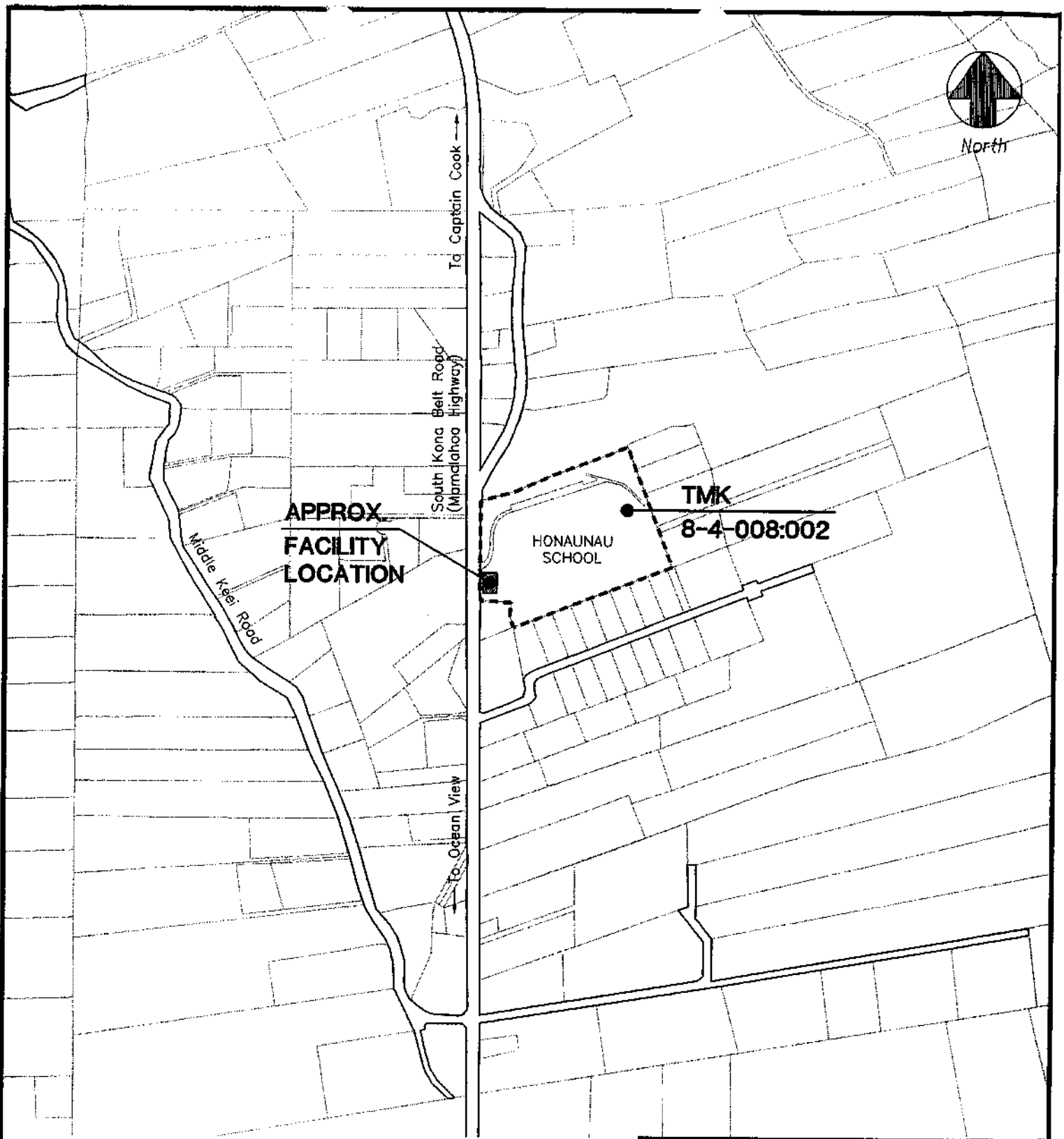
DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure 4-1
Possible Spigot Layouts
Environmental Assessment for the Construction of Island-wide Water Spigots Facilities
September 2005



Site B:
Honaunau School

NOT TO SCALE

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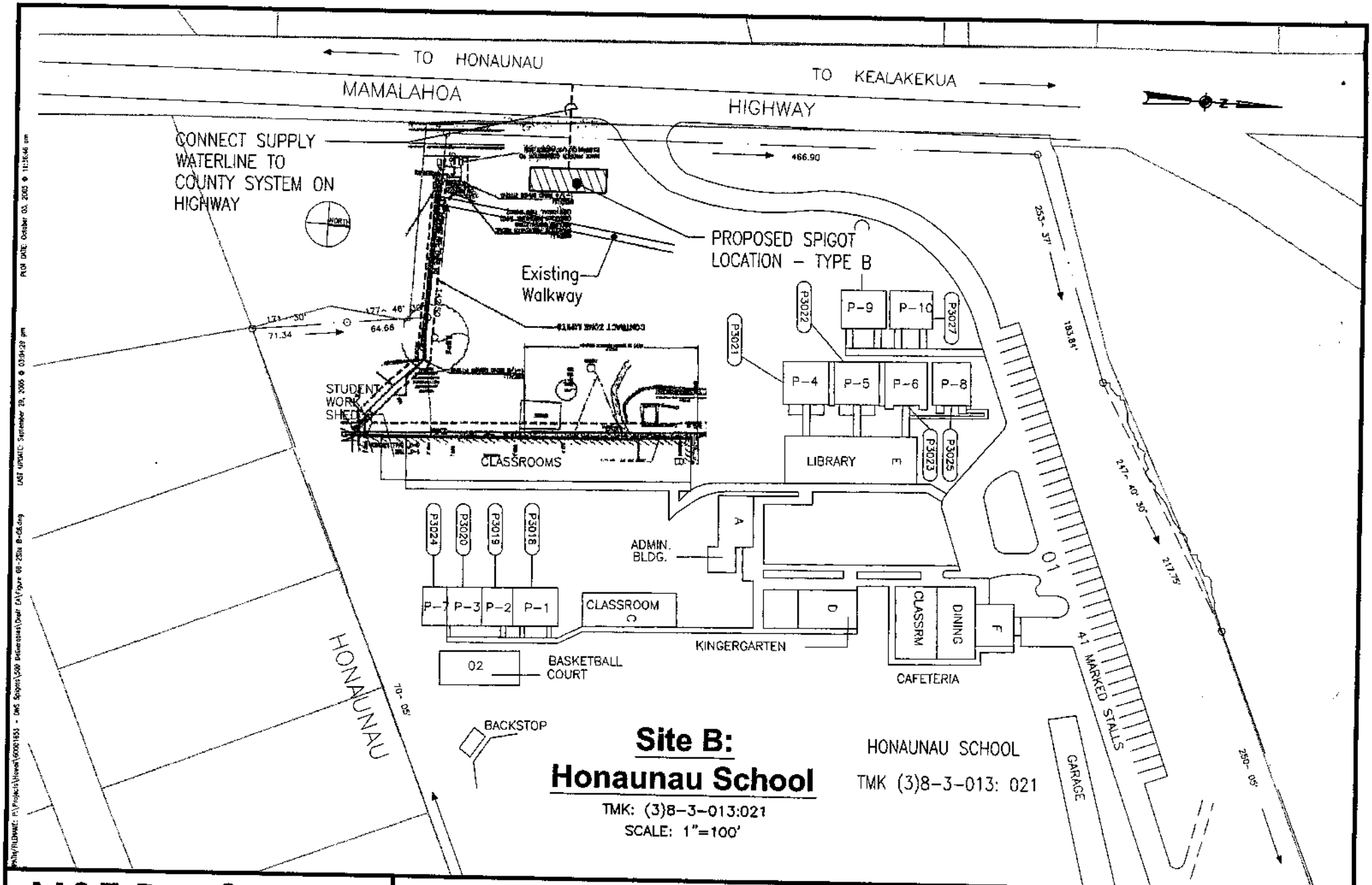
Figure 6-1
Site B Location Map
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
September 2005



M&E Pacific, Inc.

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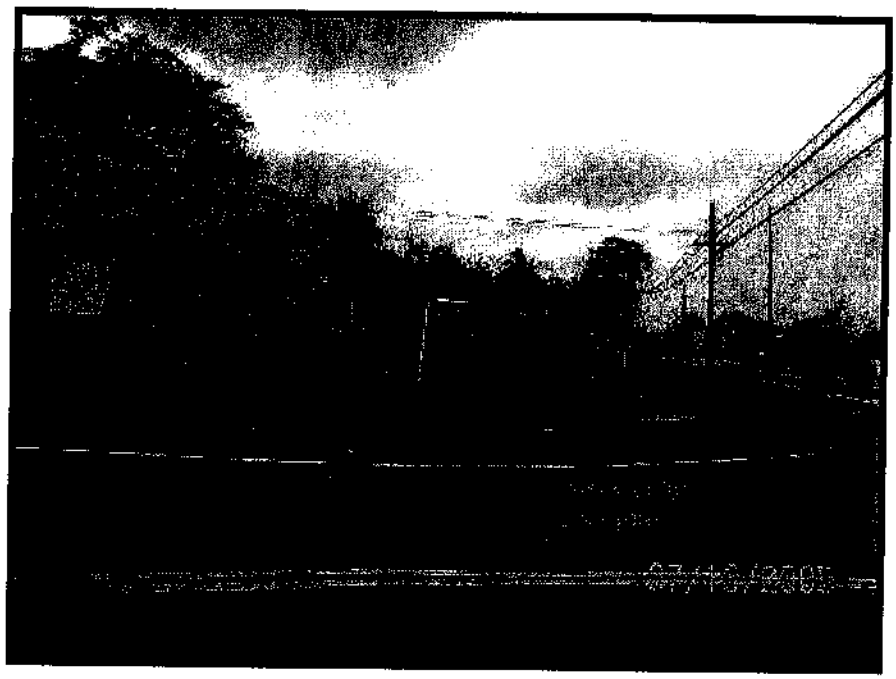
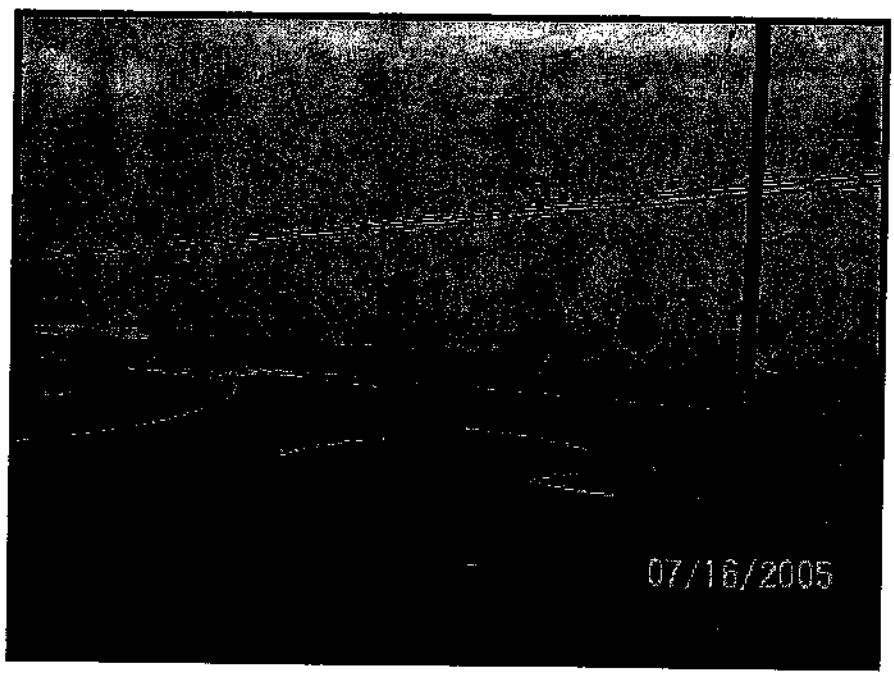
DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure 6-2
Site B Site Map
Honaunau School
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
September 2005



Driveway Entrance - Proposed Location



Driveway Intersection with Highway

Site B:
Honaunau School

TMK: (3)8-3-013:021

M&E Pacific, Inc.

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DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure 6-3
Site B Photos
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
September 2005

LINDA LINGLE
GOVERNOR

PATRICIA HAMAMOTO
SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI'I 96804

OFFICE OF THE SUPERINTENDENT

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OCT 13 2005
M & E PACIFIC, INC.

October 7, 2005

Mr. Martin Nakasone, Engineering Manager
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawai`i 96813

Dear Mr. Nakasone:

SUBJECT: Pre-assessment Consultation, Water Spigot Facility, Honaunau
Island of Hawaii, TMK: 8-3-013:021

The Department of Education (DOE) is concerned about the effects of locating a 10-spigot water facility on the campus of Honaunau Elementary School. The facility would be a site where people and their cars could congregate at any hour of the day and remain there for sometime without arousing suspicion. The DOE is legally responsible for anything that might happen within its campus but would have no control over the spigot area. The plans will also require two driveways to the facility, taking up more than the 1,610 square feet indicated in your diagram.

The area proposed for the facility is where parents drop their children off and where they wait to pick them up. This proposed facility would disrupt school use and could be disrupted by the crowd of cars twice a day.

There is an additional problem with noise. Presently, highway noise is already a problem in the classrooms. The facility will serve as an informal gathering place and people will not be aware of how clearly their voices will carry up to the classrooms. The noise will definitely be a disruption to class work.

Primarily on the basis of student safety, the DOE has serious reservations about the facility being located on the elementary school site.

If you have any questions, please call Rae Loui, Assistant Superintendent at 586-3444 or Heidi Meeker of the Facilities Development Branch at 733-4862.

Very truly yours,

Clayton Fujie
for Patricia Hamamoto
Superintendent

PH:ly

cc: Rae Loui, Asst. Supt., Office of Business Services
Art Souza, CAS, Honokaa/Kealakehe/Kohala/Konawaena Complex Areas

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 18, 2005

Ms. Patricia Hamamoto
Superintendent
Hawaii State Department of Education
P.O. Box 2360
Honolulu, HI 96804

Dear Ms. Hamamoto,

Subject: **Proposed Spigot Facility Location at Honaunau School, TMK (3) 8-3-013:021**
Response to Draft EA Pre-Consultation Letter

Thank you for your review and comments to our pre-consultation letter for the subject project. We have reviewed the comments listed in your October 7, 2005 letter and would like to offer the following responses:

1. Comment: "The facility would be a site where people and their cars could congregate at any hour of the day and remain there for sometime without arousing suspicion."

   Response: This concern has been included in the Draft Environmental Assessment (EA) as a possible impact and site selection consideration.

2. Comment: "The area proposed for the facility is where parents drop their children off and where they wait to pick them up. This proposed facility would disrupt school use and could be disrupted by the crowd of cars twice a day."

   Response: The proposed facility site has been relocated across the school access road to avoid the pick-up/drop-off area. However, this location is for discussion purposes only. We are only evaluating the site at this time. The payout for any given site will take place during the pre-design phase if the site is selected.

3. Comment: "Presently, highway noise is already a problem in the classrooms. The facility will serve as an informal gathering place and people will not be aware of how clearly their voices will carry up to the classrooms. The noise will definitely be a disruption to class work."

   Response: The noise generated by the site is not expected to exceed ambient traffic noise level. However, this concern has been included in the Draft EA for site selection consideration.

Please note that Honaunau School is only one of eleven sites being studied as a possible water spigot facility location. The final site selection will be done by the County of Hawai'i Mayor's Office and the Department of Water Supply upon approval of the Final EA. Their selection will include consideration of the issues and concerns discussed in the assessment.

Further discussion of the environmental impacts that the proposed project may have to the existing site is available in the Draft EA, to be formally published on November 23, 2005. A copy of the Draft EA is enclosed for your review and information.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

LINDA LINGLE
GOVERNOR

PATRICIA HAMAMOTO
SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
HONAUNAU SCHOOL
83-5360 MAMALAHOA HIGHWAY
CAPTAIN COOK, HAWAII 96704

ON

KW
KO

2005 DEC 19 PM 3:38
DEPT. OF WATER SUPPLY
COUNTY OF HAWAII
RECEIVED

December 15, 2005

Owen Nishioka, Project Manager
Department of Water Supply
County of Hawaii
345 Kekuanaoa Street
Hilo, Hawai'i 96720

Dear Mr. Nishioka,

Subject: Draft Environmental Assessment for Spigot Facilities – Honaunau Site, South Kona, Hawaii County, TMK: 8-3-013: 021

As principal of Honaunau Elementary School, I would like to respond to the Draft Environmental Assessment (DEA) which proposes to put a water spigot for public use on Honaunau Elementary's land along the Mamalahoa Highway.

The proposal to relocate the spigot site from the area south of the school's driveway to an area north of the driveway does not eliminate the concerns of the school for locating a public facility with approximately 50 visitors a day, adjacent to Honaunau Elementary. Those concerns were first outlined in an October 7, 2005 letter from Department of Education Superintendent Patricia Hamamoto to Martin Nakasone of M&E Pacific, Inc.

The school's primary concern is for student safety. That safety would be jeopardized by the addition of 50 vehicles pulling off the highway in the vicinity of the school's driveway and drop-off area. A 10-spigot facility would also permit people to congregate and linger on school property at all hours of the day.

The suggestion that the facility be limited to off-peak traffic hours seems highly impractical and unenforceable.

The new proposed location will still pose noise problems for the school. To say that the site would create no more noise than the existing highway traffic is ignoring the fact that the site will become a gathering place for the general public. Voices, racing car engines, and car horns would all be heard in the classrooms nearby.

The DEA fails to address who would maintain the spigot site. The area would have to be maintained on a regular basis. The school and the DOE would be unwilling to accept any ongoing legal responsibility for the site.

The Honaunau staff and our School Community Council feel strongly that a spigot on our property does not serve the best interest of our students and the noise would interfere with learning. Our School Community Council and I ask that you consider one of the other identified sites for spigot location.

Please understand that Honaunau School serving as a public water facility is totally unacceptable. An alternate site in South Kona must be considered. If you have any questions, I can be reached at 328-2727.

Very truly yours,

C. Faye Ogilvie

C. Faye Ogilvie
Principal

c: Rae M. Loui, OBS

M&E Pacific, Inc.

METCALF & EDDY | AECOM

Facsimile Transmittal

10/7/05

To: Mr. Ken Taguchi Information & Community Relations Dept. of Hawaiian Home Lands 1099 Alakea Street, Suite 2000 Honolulu, Hawaii 96813	**From:** Jamie Hikiji M&E Pacific, Inc. Davies Pacific Center 841 Bishop Street, Suite 1900 Honolulu, Hawai'i 96813
Phone Number: (808) 586-3842	**Date Transmitted:** October 7, 2005
Fax Number: (808) 586-3843	**Project Number:** 36802908.00340
Subject: **EA for the Construction of Islandwide Spigot Facilities – Request for List of Native Hawaiian Organizations**	**Total Number of Pages:** **2**

Remarks:

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) to evaluate eleven (11) sites around the Island of Hawaii to construct water spigot facilities. Currently, there are several thousand residents on the island who rely on catchment systems for their general water supply. The DWS would like to install new water spigot facilities to provide these residents a safe, accessible source of potable water for their households. As a part of the assessment process, we would like to consult any Native Hawaiian organizations who may have a knowledge of or interest in the project sites. Would the Department of Hawaiian Home Lands have a listing of organizations in the affected areas? A general location map is attached for your reference. The TMKs affected by this project are listed below.

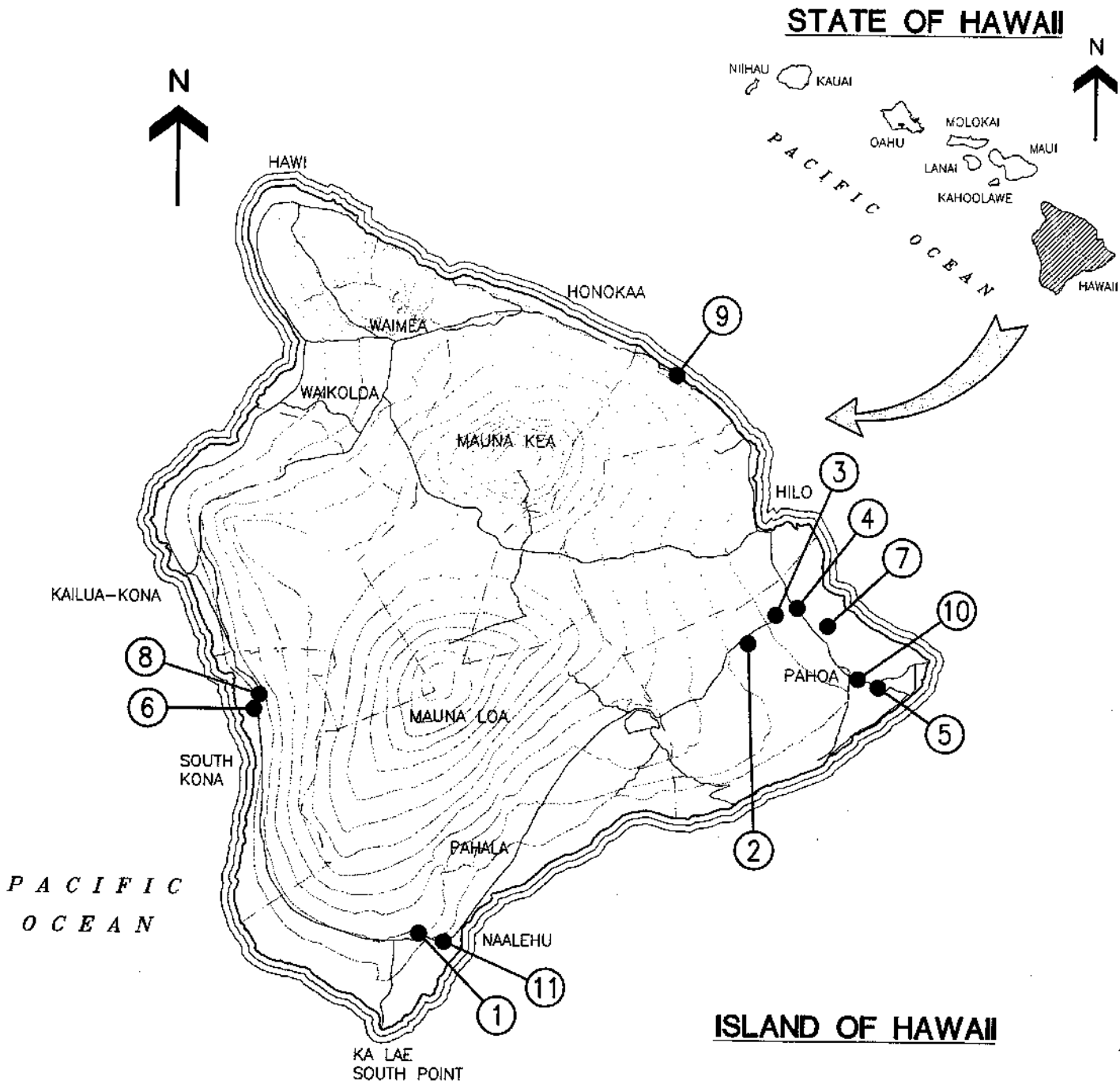
1-4-001: 002 - Kapoho-Pohoiki Road Junction (Pahoa)
1-5-004: 001 - Nanawale Estates Arena (Pahoa)
1-5-040: 065 - Hawaiian Paradise Park Fire Station (Keaau)
1-6-003: 065 - Keaau Transfer Station (Keaau)
1-7-003: 019 - Kurtistown Ball Park (Kurtistown)
1-8-002: 049 - Mountain View Gym (Mountain View)
1-8-004: 030 - Mountain View Park (Mountain View)
3-5-003: 088 - Papaaloa Gym (Papaaloa)
8-3-013: 021 - Honaunau School (South Kona)
8-4-008: 002 - Honaunau Rodeo Arena (South Kona)
9-5-005: 001 - Waiohinu Transfer Station (Waiohinu)
9-5-006: 002 - Waiohinu Flood Channel (Waiohinu)

If there are any questions or comments, please contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com. Thank you very much for your time and assistance.

Sincerely,

Jamie Hikiji
Project Engineer

COPY TO: **Project File**



ISLAND OF HAWAII

LOCATION MAP

NOT TO SCALE

SPIGOT LOCATIONS		
NO	TMK	LOCATION
1	9-5-005: 001	Wai' Ohinu Transfer Station
2	1-8-002: 049 &	Mountain View Gym
(2)	1-8-004: 030	Mountain View Park
3	1-7-003: 019	Kurtistown Ball Park
4	1-6-003: 065, 075	Kea'au Transfer Station
5	1-4-001: 002	Kapoho-Pohoiki Road Junction
6	8-4-008: 002	Honaunau Rodeo Arena
7	1-5-040: 065	Hawaiian Paradise Park Fire Station Site
8	8-3-013: 021	Honaunau School
9	3-5-003: 088	Papa'aloa Gym
10	1-5-004: 001	Nanawale Estates Arena
11	9-5-006: 002	Waiohinu Flood Channel

M&E Pacific, Inc.

METCALF & EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Location Map

Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
County of Hawaii, Department of Water Supply
September, 2005

PATH/FILENAME: P:\Projects\Hawaii\60001653 – DWS Spigots\400 Tech\Maps\Location Map.dwg LAST UPDATE: September 22, 2005 @ 01:30:50 pm PLOT DATE: September 22, 2005 @ 02:10:31 pm

M&E Pacific, Inc.

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Record of Telephone Conversation

DATE:	October 11, 2005	**TIME:**	3:00 p.m.
PERSON:	Mr. Ken Taguchi	**PHONE:**	(808) 586-3842
COMPANY	Department of Hawaiian Home Lands	☐ Incoming	☒ Outgoing ☐ Conference
PROJECT:	DWS Construction of Islandwide Spigot Facilities		
PROJECT NO.:	60001653.00300		
SUBJECT:	Native Hawaiian Organizations		
COPIES:	Project File		

REQUIRED RESPONSE OR ACTIONS: None.

DISCUSSION ITEMS:

Site 7 – Hawaiian Paradise Park Fire Station
Makuu Farmer's Association
President Paula Kekahuna
makuu@interpac.net

DHHL had no further information regarding any other Hawaiian organizations to contact.
Mr. Taguchi did not mention any DHHL comments in reply to our fax.

ACTION(S) REQUIRED & TAKEN:

None.

FOLLOW-UP:

None.

SIGNED: Shelle Silva 10/13/05
Shelle Silva DATE

M&E Pacific, Inc.
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawai'i 96813

Voice: (808) 521-3051
Fax: (808) 524-0246

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to:
EMD/SDWB

October 19, 2005

Mr. Milton D. Pavao
Manager
Department of Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, Hawaii 96720

Dear Mr. Pavao:

SUBJECT: GRANT ID #XP-97951001-0
WATER INFRASTRUCTURE - UPGRADE OF DRINKING WATER SYSTEM
COMMENTS REGARDING THE DRAFT ENVIRONMENTAL ASSESSMENT
CONSTRUCTION OF ISLANDWIDE SPIGOT FACILITIES
SEPTEMBER 2005

We have reviewed the Draft Environmental Assessment Report for the Construction of Islandwide Spigot Facilities, dated September 2005 and have the following comments.

- Section 5, Operations (for each site): Please provide a through discussion which includes how the water spigot locations are proposed to be operated and also how the operation of the water spigot will affect the owner's current and future operations.

- Appendix C, Consultant Summary and Sample Request, last sentence in the second to the last paragraph in the Sample Request letter: Please note that for National Environmental Protection Act (NEPA) requirements, a letter of no finding or no comment may be required from various agencies. Please check with the Environmental Protection Agency (EPA) for further assistance as needed.

If you have any questions, please feel free to contact Denise Dang Manuel, the HDOH representative at (808) 586-4258, Barry Pollock, the EPA Project Officer at (415) 972-3563, or Susan Chiu, the EPA Grants Specialist at (415) 972-3674.

Sincerely,

FOR THOMAS E. ARIZUMI, P.E., CHIEF
Environmental Management Division

DM:slm

c: ✓Mr. Glenn Ahuna, HDWS
Mr. Owen Nishoka, HDWS
Mr. Barry Pollock, USEPA
Ms. Susan Chiu, USEPA
Mr. Martin Nakasone, M&E Pacific, Inc.
(Davies Pacific Center, 841 Bishop Street, Suite 1900, Honolulu, HI 96813)

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 18, 2005

Mr. Thomas E. Arizumi, P.E., Chief
Environmental Management Division
State of Hawaii Department of Health
P.O. Box 3378
Honolulu, HI 96801-3378

Dear Mr. Arizumi,

Subject: **Construction of Islandwide Water Spigots Facilities, Response to Preliminary Draft EA**

Thank you for your review and comments to the preliminary copy of the Draft Environmental Assessment (EA) for the subject project. We have reviewed the comments listed in your October 19, 2005 letter and would like to offer the following responses:

1. Comment: "Section 5, Operations (for each site): Please provide a thorough discussion which includes how the water spigot locations are proposed to be operated and also how the operation of the water spigot will affect the owner's current and future operations."

   Response: A discussion on possible impacts to each site owner, and the operation of their respective facilities, is included in the Draft EA.

2. Comment: "Please note that for National Environmental Protection Act (NEPA) requirements, a letter of no finding or no comment may be required from various agencies. Please check with the Environmental Protection Agency (EPA) for further assistance as needed."

   Response: All responses received to the consultation requests are provided in Appendix A and Appendix B of the Draft EA. All appropriate correspondence for NEPA requirements will be provided with the Final EA.

The Draft EA has been revised to address consultation and review comments received, and will be published on November 23, 2005. A copy of the publication Draft EA was sent to Ms. Denise Dang Manuel for DOH review.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Paul Conry, Administrator
State of Hawaii, Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 325
Honolulu, Hawai'i 96813

September 26, 2005

Dear Mr. Conry,

Subject: **Request for Review of Proposed Spigot Facility Location at Kapoho - Pohoiki Road Junction, TMK (3) 1-4-001:002, and Nanawale Estates Arena, TMK (3) 1-5-004:001**

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) for the construction of water spigots in various locations on the Island of Hawai'i. This project consists of installing water spigot facilities with 5 to 6 water spigots, paved parking/pull-up areas, security features and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Eleven (11) locations around the island have been selected for assessment in this project. Two of the locations selected for study are the Kapoho - Pohoiki Road Junction and Nanawale Estates Arena.

We are seeking your consultation on this project to identify potential effects this project may have to the Nanawale Forest Reserve, or any concerns your office may have with the proposed spigot location. Please find attached to this letter, the project description and site maps of the proposed locations. Please note that the spigot locations shown on the figures are for discussion purposes only; they may not be placed at those particular locations during the design phase. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246. Thank you for your assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Ms. Melanie A. Chinen, Administrator
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, HI 96707

September 22, 2005

Dear Ms. Chinen,

Subject: **Request for Review and Consultation**
Environmental Assessment for the Construction of Islandwide Spigot Facilities, Various Locations on the Island of Hawaii

The County of Hawaii (COH) Department of Water Supply (DWS) is proposing to construct water spigot facilities in various locations around the Island of Hawai'i. Currently, there are several thousand residents on the island who rely on catchment systems for their general water supply. The DWS would like to install new water spigot facilities to provide these residents a safe, accessible source of potable water for their households. Eleven (11) locations around the island have been selected for assessment in this project. A location map, Tax Map Key (TMK) maps, site maps and photos are attached for your information and review. The following TMK numbers encompass the project sites that may be affected by the construction work:

1-4-001: 002	1-8-004: 030
1-5-004: 001	3-5-003: 088
1-5-040: 065	8-3-013: 021
1-6-003: 065	8-4-008: 002
1-7-003: 019	9-5-005: 001
1-8-002: 049	9-5-006: 002

This project will consist of installing water spigot facilities with 5 to 6 water spigot outlets, a concrete apron, paving parking/pull-up areas, security fencing, and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Approximate areas of potential effect are indicated on the attached maps.

In conjunction with the use of federal funds, the proposed project is subject to Section 106 of the National Historical Preservation Act (NHPA) regulations safeguarding against potential effects on historic properties and resources. We are currently in the process of consulting various State Agencies, and Native Hawaiian Organizations to determine if there are any potential project impacts to historic sites and archaeological resources. However, from the initial research performed, a Finding of No Significant Impact (FONSI) is anticipated for the proposed project.

According to our research, there are no registered Hawaiian or national Historic Places in the vicinity of all the project sites, with the exception of one site. The Ki'i Petroglyphs are listed on the National and State Register of Historic Places at TMK 9-5-006: 001, a parcel adjacent to the proposed spigot location at the Waiohinu Floodway (Site 11). However, the proposed construction work would be confined to the indicated parcel, and will most likely be placed in an area that has already been cleared and graded for an existing concrete flood channel. Therefore, the proposed project is not expected to impact this historical feature. We have also consulted with the Hawaii Natural Heritage Program, and they have informed us that there are no threatened or endangered species within our project areas.

Based on our investigation, it is anticipated that the proposed project will have no adverse impacts on historical or archaeological resources in the project areas. Pursuant to Section 106, NHPA, we request your comments regarding historical and archeological concerns towards the proposed project. We will assume your office has no knowledge of any historical properties that may be affected by this project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions, please feel free to contact either Ms. Jamie Hikiji or myself via telephone, postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Martin.Nakasone@m-e.aecom.com
Jamie.Hikiji@m-e.aecom.com

Thank you very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Site Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

Hikiji, Jamie

From: Hikiji, Jamie
Sent: Tuesday, September 13, 2005 2:07 PM
To: 'MaryAnne.B.Maigret@hawaii.gov'
Subject: Request for listing of Native Hawaiian Organizations for EA consultation

Hello Ms. Maigret,

I am working with the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) for the construction of water spigot facilities at eleven (11) locations on the island of Hawaii. As part of the assessment process, I would like to consult any Native Hawaiian Organizations who may have a knowledge of or interest in the project sites. Would the SHPD have such a listing available? A general location map is attached for your reference. The TMKs affected by this project are listed below.

1-4-001: 002 - Kapoho-Pohoiki Road Junction (Pahoa)
1-5-004: 001 - Nanawale Estates Arena (Pahoa)
1-5-040: 065 - Hawaiian Paradise Park Fire Station (Keaau)
1-6-003: 065 - Keaau Transfer Station (Keaau)
1-7-003: 019 - Kurtistown Ball Park (Kurtistown)
1-8-002: 049 - Mountain View Gym (Mountain View)
1-8-004: 030 - Mountain View Park (Mountain View)
3-5-003: 088 - Papaaloa Gym (Papaaloa)
8-3-013: 021 - Honaunau School (South Kona)
8-4-008: 002 - Honaunau Rodeo Arena (South Kona)
9-5-005: 001 - Waiohinu Transfer Station (Waiohinu)
9-5-006: 002 - Waiohinu Flood Channel (Waiohinu)

Should you have any questions, please feel free to contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com.

Thank you for your time and assistance.

Sincerely,

Jamie Hikiji
M&E Pacific, Inc.
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

808.521.3051 (Voice)
808.524.0246 (Fax)
Jamie.Hikiji@m-e.aecom.com

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Ms. Melanie A. Chinen, Administrator
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, HI 96707

February 8, 2006

Dear Ms. Chinen,

Subject: Environmental Assessment for the Construction of Islandwide Spigot Facilities, Various Locations on the Island of Hawaii

A letter of request for review and consultation was submitted to the State Historic Preservation Division (SHPD) during the pre-consultation phase of the subject project (letter dated September 22, 2005). This project proposes to construct water spigot facilities in various location around the Island of Hawai'i, and will be performed by the County of Hawai'i Department of Water Supply. Eleven (11) locations around the island were selected for assessment in this project. The proposed project will be funded by the County of Hawai'i Department of Water Supply, and through a grant from the U.S. Environmental Protection Agency.

We will assume that the SHPD has no knowledge of any historical properties that may be affected by the sites listed in this project as the 30-day review period has concluded without correspondence from your office. As a reference, the project sites are located at the following TMK numbers:

1-4-001: 002	1-6-003: 065	1-8-004: 030	8-4-008: 002
1-5-004: 001	1-7-003: 019	3-5-003: 088	9-5-005: 001
1-5-040: 065	1-8-002: 049	8-3-013: 021	9-5-006: 002

A Final Environmental Assessment (EA) for the subject project is being completed, and will be submitted to the State of Hawai'i Office of Environmental Quality Control on Friday, February 10, 2006 for publication in *The Environmental Notice*. Formal publication of this document is scheduled for February 23, 2006. As this project will be partially funded by a federal grant, the Final EA document will also serve as the Federal Draft EA to satisfy the requirements of the National Environmental Policy Act (NEPA). The EPA has issued an unsigned Finding of No Significant Impact (FONSI) for the EA.

The Final EA (Federal Draft EA) and the unsigned FONSI will be available for review at the Department of Water Supply (Hilo), the Office of Environmental Quality Control (Honolulu) and at the following libraries: Holualoa Public Library, Kailua-Kona Public Library, Keaau Public & School Library, Kealakekua Public Library, Laupahoehoe Public & School Library, Mountain View Public & School Library, Naalehu Public Library and the Pahoa Public & School Library.

Public comments to the EA and unsigned FONSI will be accepted from the date of publication through March 27, 2006.

Should you have any questions, please feel free to contact either Ms. Jamie Hikiji or myself via telephone, postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Martin.Nakasone@m-e.aecom.com
Jamie.Hikiji@m-e.aecom.com

Thank you very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Mr. Owen Nishioka, County of Hawai'i DWS
Ms. Denise Dang Manuel, State of Hawai'i Department of Health
Project File

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Daniel Quinn, Administrator
State of Hawaii
Department of Land and Natural Resources
Division of State Parks
1151 Punchbowl Street, Room 310
Honolulu, Hawai'i 96813

September 26, 2005

Dear Mr. Quinn,

Subject: **Request for Review of Proposed Spigot Facility Location at Kapoho - Pohoiki Road Junction, TMK (3) 1-4-001:002**

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) for the construction of water spigots in various locations on the Island of Hawai'i. This project consists of installing water spigot facilities with 5 to 6 water spigots, paved parking/pull-up areas, security features and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Eleven (11) locations around the island have been selected for assessment in this project. One of the locations selected for study is the Kapoho - Pohoiki Road Junction.

We are seeking your consultation on this project to identify potential effects this project may have to the Lava Tree State Park, or any concerns your office may have with the proposed spigot location. Please find attached to this letter, the project description and site map of the proposed location. Please note that the spigot location shown on the figure is for discussion purposes only; it may not be placed at that particular location during the design phase. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246. Thank you for your assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

LINDA LINGLE
GOVERNOR OF HAWAII

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

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF STATE PARKS
POST OFFICE BOX 936
HILO, HI 96721-0936

October 20, 2005

RECEIVED
OCT 26 2005
M & E PACIFIC, INC.

Mr. Martin Nakasone
Engineering Manager
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, HI 96813

Dear Mr. Nakasone:

Subject: Request for Review of Proposed Spigot Facility Location at Kapoho Pohoiki Road Junction, TMK: (3) 1-4-001:002

Reference is made to your consultation letter of September 26, 2005, seeking potential effects the subject project may have to the Lava Tree State Monument. As we discussed, our only concerns deal with line of sight and sight distances for on-coming vehicles and vehicles turning into and leaving the property because of the road curvature at the subject property.

Should there be any questions, please call me at (808) 974-6206.

Sincerely,

Glenn Y. Taguchi
Hawaii Parks District Superintendent

c: Daniel S. Quinn, Parks Administrator
Steve Thompson, Parks Prgm. Mngr.
Lava Tree State Monument

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 18, 2005

Mr. Glenn Taguchi
Hawaii Parks District Superintendent
State of Hawaii
Department of Land and Natural Resources
Division of State Parks
Post Office Box 936
Hilo, Hawai'i 96721-0936

Dear Mr. Taguchi,

Subject: **Proposed Spigot Facility Location at Kapoho-Pohoiki Road Junction, Response to Draft EA Pre-Consultation Letter**

Thank you for your review and comment to our pre-consultation letter for the subject project. We have reviewed the comment listed in your October 20, 2005 letter and would like to offer the following response:

Comment: "Our only concerns deal with line of sight and sight distances for on-coming vehicles and vehicles turning into and leaving the property because of the road curvature at the subject property."

Response: This concern has been included in the Draft Environmental Assessment (EA). Should this site be selected for a water spigot facility, sufficient sight distances will be provided during the design phase of the project.

The Draft EA has been revised to address consultation and review comments received, and will be published on November 23, 2005. A copy of the Draft EA is enclosed for your review and information.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

Hikiji, Jamie

From: Hikiji, Jamie
Sent: Thursday, September 22, 2005 5:08 PM
To: 'macomber@hawaii.edu'
Subject: Request for estimate of Big Island residents using catchment systems

Ms. Macomber,

I am working with the Department of Water Supply to prepare an Environmental Assessment (EA) for a project to install water spigot facilities at various locations on the Island of Hawaii. As part of the EA, I would like to discuss the purpose of this project, which is mainly to provide those residents who rely on catchment systems with a safe, accessible source of potable water for their households. Do you have a general estimate of Big Island residents who currently utilize catchment systems? If this information is available, I would like to include it in the EA to underline the need for this project.

Thank you very much for your assistance.

If there are any questions, please contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com.

Thank you,

Jamie Hikiji
M&E Pacific, Inc.
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
808.521.3051 (Voice)
808.524.0246 (Fax)
Jamie.Hikiji@m-e.aecom.com

Hikiji, Jamie

From: Trisha Macomber [macomber@hawaii.edu]

Sent: Friday, September 23, 2005 12:33 PM

To: Hikiji, Jamie

Subject: RE: Request for estimate of Big Island residents using catchment systems

Hi Jamie,

We estimated 50,000 – 60,000 people for the state about 5 years ago. It's hard to get an exact count. I would guess it's about 40,000 people on this island currently are using rainwater catchment systems.

5 years ago we had 39,101 people on Hawaii island who were not on municipal water according to an EPA water use database. Subtract well users and add the huge population growth, and I'm guessing 40,000 people

I hope that helps. Let me know if not. Good luck with your project.

Trisha

****

Trisha Macomber – MPH
Educational Specialist
University of Hawaii at Manoa (UHM)
College of Tropical Agriculture and Human Resources (CTAHR)
Department of Natural Resources and Environmental Management (NREM)
875 Komohana Street
Hilo, HI 96720
(808) 981-5199
Fax: (808) 981-5211
macomber@hawaii.edu

Hikiji, Jamie

From: Trisha Macomber [macomber@hawaii.edu]
Sent: Thursday, January 12, 2006 10:53 AM
To: Hikiji, Jamie
Subject: RE: Request for estimate of Big Island residents using catchment systems

Hi Jamie,

I found the article. (If you could see my office you would consider that a miracle!) It was in the Hawaii Tribune Herald, May 26th 2005. The article was written by Dave Smith and the source of the information that I gave you was the Hawaii Fire Department.
Aloha,
Trisha

From: Hikiji, Jamie [mailto:Jamie.Hikiji@m-e.aecom.com]
Sent: Thursday, January 12, 2006 9:57 AM
To: Trisha Macomber
Subject: RE: Request for estimate of Big Island residents using catchment systems

Hi Trisha,

Thank you so much for the information! This is just what we are looking for. I've been checking the Honolulu papers, and haven't come up with anything so far, but will continue searching. I'll let you know if I come up with something.

Thanks again!
Jamie

From: Trisha Macomber [mailto:macomber@hawaii.edu]
Sent: Wednesday, January 11, 2006 9:33 AM
To: Hikiji, Jamie
Subject: RE: Request for estimate of Big Island residents using catchment systems

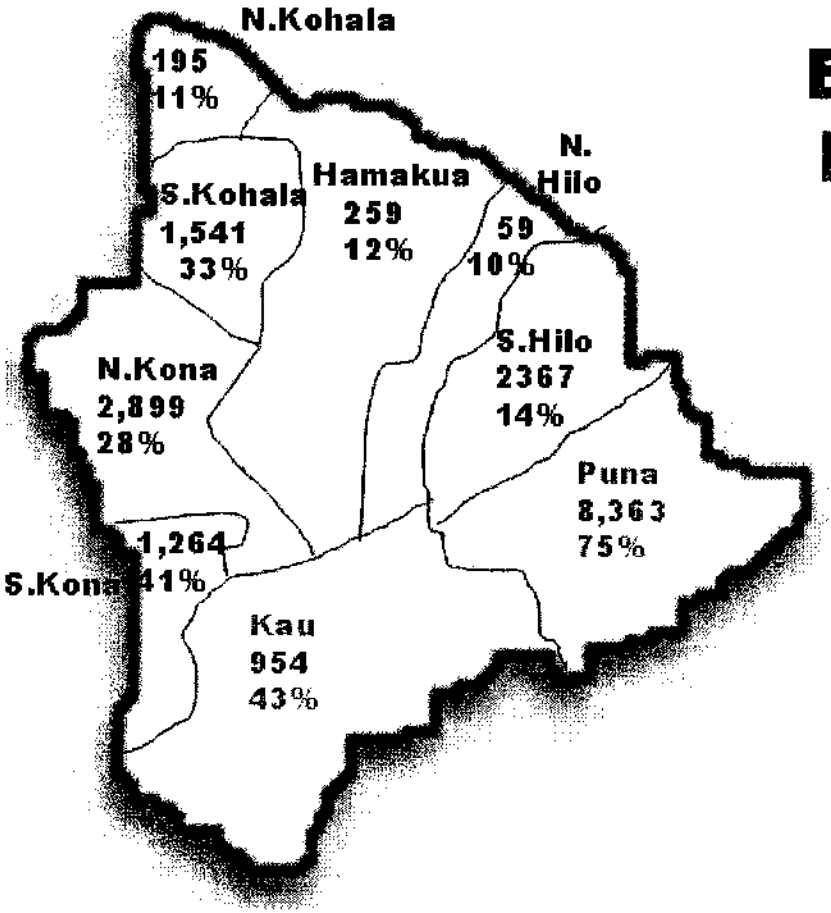
Hi Jamie,

Happy New Year to you too!

I remembered I had this slide from a presentation I did last July. I honestly can't remember the source of this data. It may have been a newspaper report but if it was I should have the source of that report someplace. Let me do a little searching and see what I can come up with. I'm going to be tied up with meetings most of today starting in about 30 minutes so I'll probably start digging tomorrow.

This data would include households on wells.

(I wonder if we could Google the newspapers and see if this info ran in the Honolulu papers. I'm not sure if Hawaii Trib. has an archive system)
Trisha



Big Island Districts:

Number of households without municipal water

Percentage of households without municipal water

From: Hikiji, Jamie [mailto:Jamie.Hikiji@m-e.aecom.com]
Sent: Tuesday, January 10, 2006 4:17 PM
To: Trisha Macomber
Subject: RE: Request for estimate of Big Island residents using catchment systems

Hello Trisha,

Happy New Year!

The reviewers of our water spigot facility Environmental Assessment have requested additional information on current water spigot/catchment users. Do you happen to have any information regarding an estimated distribution of residents using catchment systems, or a breakdown of estimated users by area/district? If not, where would you recommend that I request or research this kind of information? Any guidance that you could provide would be greatly appreciated.

Thank you for your assistance!
Jamie Hikiji
M&E Pacific, Inc.

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808 524 0246 www.m-e.aecom.com

Alvin Takeshita, Engineering Program Manager
US Department of Transportation
Highways Division, Traffic Branch
601 Kamokila Boulevard, Room 602
Kapolei, HI 96707

September 22, 2005

Dear Mr. Takeshita,

Subject: **Request for Review of Proposed Spigot Facility Locations at Kapoho-Pohoiki Road Junction, TMK (3) 1-4-001:002, and Nanawale Estates Arena, TMK (3) 1-5-004:001**

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) for the construction of water spigots in various locations on the island of Hawai'i. This project consists of installing water spigot facilities with 5 to 6 water spigots, paved parking/pull-up areas, security features and drainage features. Construction activities may also include waterline trenching to connect to the main county waterline system. Eleven (11) locations around the island have been selected for assessment in this project. Two of the locations selected for study are the Kapoho-Pohoiki Road Junction and the Nanawale Estates Arena.

We are seeking your consultation on this project to identify potential effects this project may have to the Kapoho, Pohoiki and Nanawale communities, or any concerns the Department may have with the proposed spigot location. We would also like to inquire about any future plans the Department may have regarding the portions of Kapoho-Pahoa Road or Pohoiki Road fronting the Kapoho-Pohoiki Road junction, and the portions of the Government Main Road or Nanawale Boulevard fronting the Nanawale Estates Arena. Please find attached to this letter, the project description and site maps of the proposed locations. Please note that the spigot locations shown on the figures are for discussion purposes only; and may not be placed at those particular locations during the design phase. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246. Thank you for your assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

M&E Pacific, Inc.

METCALF & EDDY | AECOM

Record of Telephone Conversation

DATE:	November 4 & 8, 2005	**TIME:**	3:00 p.m. / 9:30 a.m.
PERSON:	Curtis	**PHONE:**	(808) 586-8121
COMPANY	Disability & Communication Access Board (DCAB)	☐ Incoming	☒ Outgoing ☐ Conference
PROJECT:	EA for the Construction of Islandwide Water Spigots Facilities		
PROJECT NO.:	60001653.00320		
SUBJECT:	Conformance to ADAAG Section 4.3		
COPIES:	Project File		

REQUIRED RESPONSE OR ACTIONS: None.

DISCUSSION ITEMS:

(11/4/05) Contacted DCAB is inquire whether the proposed spigot sites would need to conform with ADAAG Section 4.3 (accessible route required to connect to other elements within the same site) if it is a facility with its own dedicated parking and a use that is not related to the main activities at the site (for example, recreational activities at a County park).

In response, DCAB stated that any new element on a site would need to conform to the ADAAG. The only way that an accessible route would not need to be provided is if it could be proven that the spigot site is a separate site from the park. For example, if the spigot site had a separate entry/access road that the entrance to the park, then the spigot site may possibly be considered to be a separate site, though it is on County property. Otherwise, all elements on the site will need to be connected by an accessible route.

(11/8/05) Contacted Curtis at DCAB for clarification on the discussion above. Using a County park as an example, he clarified that should the spigot facility be installed on the same parcel as a County park, then it would be subject to conform to ADAAG Section 4.3. One possible approach to conform to this section without providing an accessible route to other elements while still on public property would be if the spigot facility had its own entrance off the ROW, which is separate from the entrance to other elements at the park. However, Curtis stated that even in that case, it may be difficult to prove that the facility is a separate site when it is on County land.

Curtis further clarified that there is an interpretive opinion indicating that should a new building is installed on a site then an accessible route would need to be provided to connect to other *accessible* building on the same site. Or, an accessible route would not need to be provided if other buildings on the site are not accessible (Interpretive Option on ADAAG 4.1.2(2), Accessible Sites and Exterior Facilities, from the Architectural Access Committee). He stated that he felt the same interpretation could be applied to facility installation on a site.

ACTION(S) REQUIRED & TAKEN:

None.

FOLLOW-UP:

None

SIGNED: Jamie T. Hikiji — 11/8/05

Jamie Hikiji — DATE

M&E Pacific, Inc.
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawai'i 96813

Voice: (808) 521-3051
Fax: (808) 524-0246

ARCHITECTURAL ACCESS COMMITTEE

919 Ala Moana Boulevard, Honolulu, HI 96814, Ph. 586-8128, FAX 586-8129

INTERPRETIVE OPINION

Pursuant to §103-50, Hawaii Revised Statutes (HRS), all buildings and facilities constructed by, or on behalf of the State or any county, shall conform to the Americans with Disabilities Act Accessibility Guidelines (ADAAG). In accordance to HRS §103-50.5 and Chapter 11-217, Hawaii Administrative Rules, the Architectural Access Committee (Committee) has the authority to issue interpretive opinions to HRS §103-50 design standards.

Docket: **AAC 95-45:** Interpretive Opinion on ADAAG 4.1.2. Are accessible routes connecting accessible elements required on a non "program accessible" site when new construction or alteration to existing buildings are undertaken?

Summary: The Committee does not have the authority to issue an interpretive opinion on program accessibility because it is a rule established under title II of the Americans with Disabilities Act.

Accessible routes are required by 4.1.2(2) to connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site. The guidelines do not require connecting accessible buildings to inaccessible buildings.

New construction and alterations to existing buildings and facilities shall comply with 4.1. These activities increases the number of accessible buildings, elements, and spaces provided on the same site that shall comply with 4.1.2.

> *EXAMPLE:* A school has no accessible existing buildings, facilities, elements or spaces on campus. A new Library is designed and constructed to comply with 4.1. An accessible route connecting the Library to other inaccessible buildings is not required. Later, the existing Cafetorium and Parking Lot undergo alterations and are constructed to comply with 4.1. ADAAG 4.1.2 requires at least one accessible route is required to connect the Library, Cafetorium, and accessible Parking stalls.

Ruling: For buildings or facilities subject to HRS §103-50,

> **ADAAG 4.1.2(2) Accessible Sites and Exterior Facilities.**
>
> An accessible route is required to connect accessible buildings, facilities, elements, and spaces on the same site. An accessible route is not required to connect accessible buildings to inaccessible buildings, facilities, elements, and spaces on the same site.
>
> [Eff: 10/95] (Auth: HRS §103-50.5) (Imp: HRS §103-50)

ıg, please call us at 586-8128.

:TURAL ACCESS COMMITTEE

Post-it® Fax Note 7671	Date 11-8-05	# of pages ▶ 1
To Jamie	From Curtis	
Co./Dept. M&E Pacific	Co. DCAB	
Phone #	Phone # 586-8121	
Fax # 524-0240	Fax #	

FAXED 11/3/05 3:30pm

- DATE: 11/3/05
- TO: Disability and Communication Access Board (Fax number 586-8129) (2 pages)
- FROM: JAMIE HIEWI FIRM: M&E PACIFIC, INC.
- PHONE: 521-3051 ext 229 FAX: 524-0246
- SUBJ: REQUEST FOR TECHNICAL ASSISTANCE ON FACILITY ACCESS/DESIGN

The information that you receive is not legal advice. It is merely informal guidance that will not be given in writi The technical information does not constitute a determination by the Disability and Communication Access Boarc of your rights or responsibilities and is not binding on this agency. Fill in all applicable information to expedite the response. A response can usually be provided within 2-3 working days.

- Project Ownership: X State/County ____ Federal ____ Private or Non-Profit
- Project Funding: ____ State/County X Federal ____ Private
- Project Type: ? X New construction ____ Addition ____ Alteration
- Other: ____ Historic ____ Transition Plan ____ Religious ____ Per Legal Settlement ____ ABR
- Type of building, facility, or site? SPIGOT FACILITY.
  (e.g.: office, restaurant, library, church, classroom, auditorium, playground, park, apartment bldg., etc.)
- DCAB Project Number, if applicable: n/a
- This question relates to design criteria under the:

X Americans with Disabilities Act Accessibility Guidelines (ADAAG) issued by the U.S. Access Board

____ Current ADAAG Adult Dimensions or Elements

____ Current ADAAG Children's Dimensions or Elements

X Other ADAAG, please specify BUILDINGS AND FACILITIES

____ Residential Housing Accessibility Guidelines issued by the State Disability & Communication Access Boar

____ Uniform Federal Accessibility Standards (UFAS) issued by the U.S. Access Board

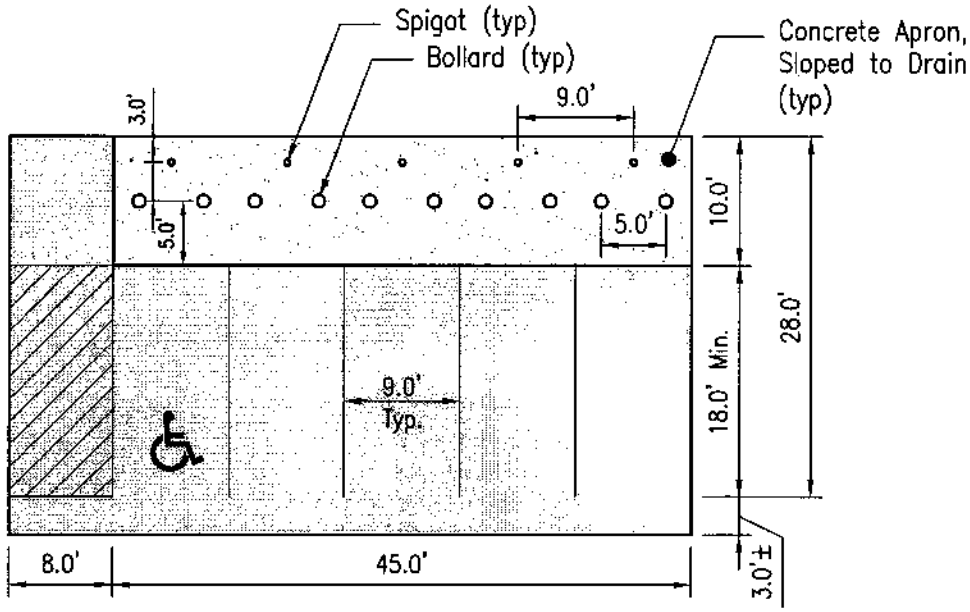
____ Federal Fair Housing Design Guidelines issued by the U.S. Dept. of Housing & Urban Development

- Please cite the appropriate section(s) of the design guidelines or standards on which you are requesting information. Include the question and any sketches/drawings which may clarify the question.

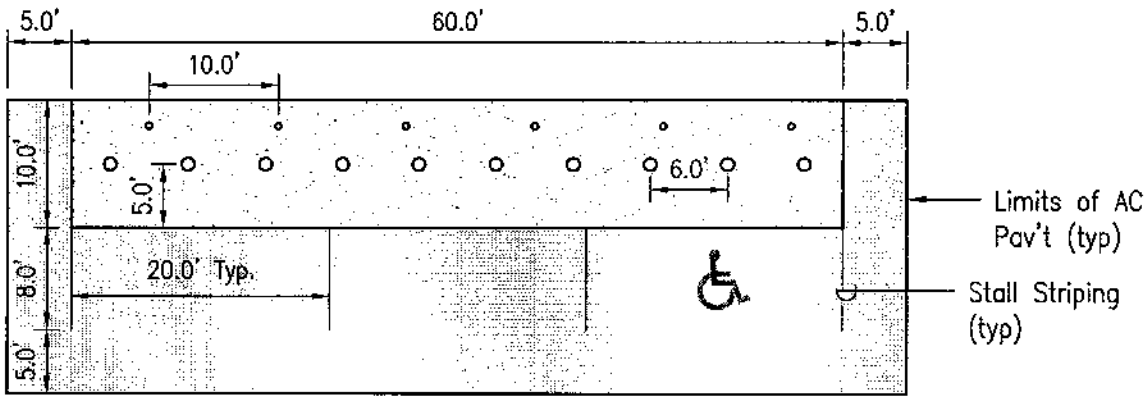
Section: 4.3

Question:

The County of Hawaii Dept. of Water Supply is proposing to install water spigot facilities at various locations on the Island of Hawaii to provide a source of potable water for residents on private catchment systems. Some of the locations that are being considered are at County parks that have existing recreational facilities (gym, ball park, etc.). The facilities are being planned to have their own dedicated parking stalls, with at least one accessible stall. Generally, we expect the spigot facilities to be a "stand-alone" facility whose function is not related to the main activity centers within each site. If these facilities (preliminary sketch attached) are installed with the County park sites, will the County then be required to provide an accessible route connecting the spigot facility, with the other buildings, elements and spaces that are on the site as per ADAAG 4.3?



TYPE A:
PERPENDICULAR



TYPE B:
PARALLEL

Notes:
1. Number of spigots dependent on available space and final design.
2. Layouts proposed are for general sizing and siting purposes only. The actual layout will be determined during the design phase.

Possible Spigot Facility Layouts

NOT TO SCALE

M&E Pacific, Inc.

METCALF & EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure 4-1
Possible Spigot Layouts
Environmental Assessment for the Construction of Island-wide Water Spigots Facilities
September 2005

Hikiji, Jamie

From: Hikiji, Jamie
Sent: Tuesday, September 13, 2005 1:05 PM
To: 'rkam@hawaii.edu'
Subject: County of Hawaii Dept. of Water Supply Water Spigot Facilities
Attachments: COH DWS Spigots.pdf

Hello Mr. Kam,

Thank you very much for returning my phone call this morning. As suggested, please see the attached pdf file for the sites that may be affected by this project.

To give you some background information, the project description is as follows:

The County of Hawaii Department of Water (DWS) is proposing to construct water spigot facilities in various locations around the island of Hawai'i. This project will be funded using grant money from the Environmental Protection Agency. M&E Pacific has been contracted to evaluate the eleven (11) proposed sites and prepare an Environmental Assessment report. This project will consist of installing water spigot facilities with 5 to 6 water spigot outlets, a concrete apron, paved parking/pull-up areas, security fencing and drainage features (drywells, swales, etc.). Construction activities may also include waterline trenching to connect the spigot facility with the main County waterline system. Generally, these spigots will be placed on a site that has already been developed and/or cleared and graded.

We are seeking your consultation on this project to identify any endangered or threatened species within or in the vicinity of the project sites. A general location map, Tax Map Key maps, and site map sketches are provided in the attached file for your information and review. The approximate areas that will be potentially affected by this project are indicated in red on the TMK maps. The TMKs that may be affected by this project include:

1-4-001: 002
1-5-004: 001
1-5-040: 065
1-6-003: 065
1-7-003: 019
1-8-002: 049
1-8-004: 030
3-5-003: 035
8-3-013: 021
8-4-008: 002
9-5-005: 001
9-5-006: 002

We would like to request a listing of those endangered or threatened species, if any, that may be impacted by this project.

Should you have any questions, please feel free to contact either Mr. Martin Nakasone or myself via telephone, postal mail, electronic mail or facsimile.

Thank you very much for your time and assistance.

Sincerely,

Jamie Hikiji
M&E Pacific, Inc.
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

808.521.3051 (Voice)
808.524.0246 (Fax)
Jamie.Hikiji@m-e.aecom.com

Hikiji, Jamie

From: Roy Kam [rkam@hawaii.edu]

Sent: Friday, September 16, 2005 2:39 PM

To: Hikiji, Jamie

Subject: Rare Species Data for Water Spigot Facilities (email 1 of 3)

Attachments: Coverletter.pdf; site01_tmk090505001.jpg; site02_tmk010802049.jpg; site03_tmk010703019.jpg; site04_tmk010603065.jpg

Jamie,

Attached is the information you requested for the County of Hawaii, Water Spigot Sites. The cover letter summarizes each site if there are or aren't any rare species. A jpeg map for the 11 sites with rare species locations (if any) are also attached. Maps of sites 1-4 are attached. The other maps will come through separate emails. Please let me know that you received this email and the attachments.

The invoice for this data request will be mailed to you separately. If you need further information, you may contact me at 587-8602.

Notice
The Hawaii Natural Heritage Program database is dependent on the research and observations of many scientists and individuals. In most cases this information is not the result of comprehensive site-specific field surveys, and is not confirmed by the Heritage staff. Many areas in Hawaii have never been thoroughly surveyed, and new plants and animals are still being discovered. Database information should never be regarded as final statements or substituted for on-site surveys required for environmental assessments. Data provided by the Heritage Program do not represent a position taken by The Center for Conservation Research and Training or The Nature Conservancy of Hawaii. Heritage information is only for the intended use of the individual or organization who requested it. It may not be distributed in any way without the consent of the Hawaii Natural Heritage Program.

Please cite the Heritage Program and primary sources in all documentation and reports.
Hawaii Natural Heritage Program, Center for Conservation Research and Training, University of Hawaii at Manoa 677 Ala Moana Boulevard, Suite 705, Honolulu, Hawaii 96813

Roy Kam
Database Manager
Hawaii Natural Heritage Program
University of Hawaii at Manoa
677 Ala Moana Blvd. Suite 705
Honolulu, Hawaii 96813
Ph: 808-587-8602 Fax: 808-587-8599

Hawaii Natural Heritage Program

University of Hawaii at Manoa
Center for Conservation Research and Training

677 Ala Moana Boulevard, Suite 705, Honolulu, Hawaii 96813 Ph: (808) 587-8602 Fax: (808) 587-8599

September 16, 2005

Rare Species Information for Hawaii County, Dept. of Water Spigot Facilities

Site 1 TMK: 09-05-05-001
No rare species recorded within TMK. Recording of Hawaiian Hawk and Hawaiian Hoary Bat was observed within the general vicinity.

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Belt Hwy. near Waiohinu.
Accuracy: S
ObservationDate: 1970-02-05
Data: 1 observed

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Several sitings throughout area: Waiohinu 1500 ft; Meinecke home; Near church; and Waiohinu Park, 1050 ft
Accuracy: S
ObservationDate: 1966-04-27

Site 2 TMK: 01-08-02-049 and 01-08-04-30
No rare species recorded within TMK. Recording of Hawaiian Hawk and Hawaiian Hoary Bat was observed along Highway 11. But sightings were not near site.

Site 3 TMK: 01-07-03-019
No rare species recorded within TMK. Recording of Hawaiian Hawk and Hawaiian Hoary Bat was observed along Highway. But sightings were not near site.

Site 4 TMK: 01-06-03-065
No rare species recorded in vicinity or within TMK site.

Site 5 TMK: 01-01-01-002
Recording of Hawaiian Hawk was observed within TMK. Although, most likely not within Spigot site.

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Kapoho, near Puu Honuaula/ many sightings within an area with a 1 mile radius of Puu Honualua
Accuracy: M
ObservationDate: 1986-04-28
Data: A total of 5-7 birds estimated and 3 nests (1 active, 1 nestling raised) observed on 1986-04-28 and on 1986-07-15, and between 1985-06-04 and 1985-07-15
Comment: Location not accurate. Approximately 1.5 mile radius (medium) from point location.

Site 6 TMK: 08-04-08-002
No rare species within site. Hawaiian Hawk observed within vicinity of TMK site.

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Honaunau, ca. 0.5 mi north of Honaunau rodeo area
Accuracy: S
ObservationDate: 1990-12-29
Comment: Location Specific. Within 0.33 mile radius from point location

Site 7 TMK: 01-05-40-065
No rare species recorded in vicinity or within TMK site.

Site 8 TMK: 08-03-13-021
No rare species recorded in vicinity or within TMK site.

Site 9 TMK: 03-05-03-088
No rare species recorded within TMK. Recording of Hawaiian Continuous Perennial Stream within vicinity.

Scientific Name: HAWAIIAN CONTINUOUS PERENNIAL STREAM
Federal Status:
Location Description: Kaiwilahilahi Stream
Accuracy: S
ObservationDate: 1980-??-??
Comment: Ranked "OutStanding" by State of Hawaii, Hawaii Stream Assessment.

Site 10 TMK: 01-05-04-001
No rare species recorded in vicinity or within TMK site.

Site 11 TMK: 09-05-06-002

No rare species recorded within TMK. Recording of Hawaiian Hawk and Hawaiian Hoary Bat was observed within the general vicinity.

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Belt Hwy. near Waiohinu.
Accuracy: S
ObservationDate: 1970-02-05
Data: 1 observed

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Several sitings throughout area: Waiohinu 1500 ft; Meinecke home; Near church; and Waiohinu Park, 1050 ft
Accuracy: S
ObservationDate: 1966-04-27

Roy Kam
Database Manager
Hawaii Natural Heritage Program

Notice

The Hawaii Natural Heritage Program database is dependent on the research and observations of many scientists and individuals. In most cases this information is not the result of comprehensive site specific field surveys, and is not confirmed by the Heritage staff. Many areas in Hawaii have never been thoroughly surveyed, and new plants and animals are still being discovered. Database information should never be regarded as final statements or substituted for on-site surveys required for environmental assessments. Data provided by the Heritage Program do not represent a position taken by The Center for Conservation Research and Training or The Nature Conservancy of Hawaii. Heritage information is only for the intended use of the individual or organization who requested it. It may not be distributed in any way without the consent of the Hawaii Natural Heritage Program.

Please cite the Heritage Program and primary sources in all documentation and reports.

Hawaii Natural Heritage Program, Center for Conservation Research and Training, University of Hawaii at Manoa
677 Ala Moana Boulevard, Suite 705, Honolulu, Hawaii 96813

LINDA LINGLE
GOVERNOR OF HAWAII

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186
E-mail: oeqc@health.state.hi.us

RECEIVED
DEC 23 2005
M & E PACIFIC, INC.

December 19, 2005

Mr. Milton D. Pavao, Manager
Department of Water Supply
345 Kekuanaoa Street, Suite 20
Hilo, Hawai'i 96720

Dear Mr. Pavao:

Subject: Draft EA for the Islandwide Water Spigots, Hawai'i

Thank you for the opportunity to review and comment on the subject project. We have the following comments.

1. Pursuant to HRS 342G-44 please print the final environmental assessment double-sided.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Genevieve Salmonson
Director

c: M&E

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524 0246 www.m-e.aecom.com

Ms. Ululani Sherlock, Community Resource Coordinator
Office of Hawaiian Affairs
Island of Hawai'i
162-A Baker Avenue
Hilo, Hawai'i 96720

September 22, 2005

Dear Ms. Sherlock,

Subject: Request for Review of Proposed Spigot Facility Locations

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) for the construction of water spigots in various locations on the Island of Hawai'i. This project consists of installing water spigot facilities with paved parking/pull-up areas, security features and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Eleven (11) locations around the island have been selected for assessment in this project. The Tax Map Key numbers affected by this project are as listed:

1-4-001: 002	1-8-004: 030
1-5-004: 001	3-5-003: 088
1-5-040: 065	8-3-013: 021
1-6-003: 065	8-4-008: 002
1-7-003: 019	9-5-005: 001
1-8-002: 049	9-5-006: 002

We are seeking your consultation on this project to identify potential impacts, if any, on Native Hawaiian peoples or practices. Please find attached to this letter, the project description and site maps of the proposed locations. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051, fax (808) 524-0246 or e-mail at Martin.Nakasone@m-e.aecom.com or Jamie.Hikiji@m-e.aecom.com. Thank you for your assistance

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

FAXED 9/22/05 3:10pm

M&E Pacific, Inc.

METCALF & EDDY | AECOM

Facsimile Transmittal

To: **Office of Hawaiian Affairs** **162-A Baker Avenue** **Hilo, Hawaii 96720**	**From:** Jamie Hikiji M&E Pacific, Inc. Davies Pacific Center 841 Bishop Street, Suite 1900 Honolulu, Hawai'i 96813
Phone Number: (808) 920-6418	**Date Transmitted:** September 22, 2005
Fax Number: **(808) 920-6421**	**Project Number:** 36802908.00340
Subject: **EA for the Construction of Islandwide Spigot Facilities – Request for List of Native Hawaiian Organizations**	**Total Number of Pages:** **2**

Remarks:

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) to evaluate eleven (11) sites around the Island of Hawaii to construct water spigot facilities. Currently, there are several thousand residents on the island who rely on catchment systems for their general water supply. The DWS would like to install new water spigot facilities to provide these residents a safe, accessible source of potable water for their households. As a part of the assessment process, we would like to consult any Native Hawaiian organizations who may have a knowledge of or interest in the project sites. Would the Office of Hawaiian Affairs have a listing of organizations in the affected areas? A general location map is attached for your reference. The TMKs affected by this project are listed below.

1-4-001: 002 - Kapoho-Pohoiki Road Junction (Pahoa)
1-5-004: 001 - Nanawale Estates Arena (Pahoa)
1-5-040: 065 - Hawaiian Paradise Park Fire Station (Keaau)
1-6-003: 065 - Keaau Transfer Station (Keaau)
1-7-003: 019 - Kurtistown Ball Park (Kurtistown)
1-8-002: 049 - Mountain View Gym (Mountain View)
1-8-004: 030 - Mountain View Park (Mountain View)
3-5-003: 088 - Papaaloa Gym (Papaaloa)
8-3-013: 021 - Honaunau School (South Kona)
8-4-008: 002 - Honaunau Rodeo Arena (South Kona)
9-5-005: 001 - Waiohinu Transfer Station (Waiohinu)
9-5-006: 002 - Waiohinu Flood Channel (Waiohinu)

If there are any questions or comments, please contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com. Thank you very much for your time and assistance.

Sincerely,

Jamie Hikiji
Project Engineer

COPY TO: **Project File**

UNIVERSITY OF HAWAI'I

Environmental Center

DECEMBER 22, 2005

Mr. Martin Nakasone
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawai'i 96813

Dear Mr. Nakasone,

Draft Environmental Assessment
Construction of Islandwide Spigot Facilities
Island of Hawai'i, Hawai'i

The County of Hawai'i (COH) Department of Water Supply proposes to construct water spigot facilities in varying locations around the Island of Hawai'i. The cost of the proposed actions is provided by EPA Federal Grant (Grant ID number XP-97951001-0). The candidate sites are on state and county lands and are identified by following Tax Map Key (TMK) numbers and Island of Hawai'i districts

Honaunau Rodeo Arena	8-4-008:002	South Kona District
Honaunau School	8-3-013:021	South Kona District
Papa'aloa Gym	3-5-003:088	North Hilo District
Mountain View Gym	1-8-002:049	Puna District
Kurtistown Ball Park	1-7-003:019	Puna District
Kea'au Transfer Station	1-6-003:065	Puna District
Hawaiian Paradise Park Fire Station	1-5-040:065	Keaau
Nanawale Estates Arena	1-5-004:001	Puna District
Kapoho-Pohoiki Road Junction	1-4-001:002	Puna District
Waiohinu Flood Channel	9-5-006:002	Ka'u District
Waiohinu Transfer Station	9-5-005:001	Ka'u District

The proposed action generally involves construction of new water spigots within a concrete apron, runoff drainage features, and paved parking. Construction at most sites will also include installation of a waterline to connect the spigot facility to existing County of Hawai'i water lines. The facility design has not yet been determined.

This review was conducted with the assistance of Amelia Hicks of the Environmental Center.

General Comments

Our reviewers find that the Draft Environmental Assessment for the Construction of Islandwide Spigot Facilities generally is well planned and gives sufficient consideration to the potential environmental and social impacts. In regard to the eleven sites assessed in this DEA, our reviewers find that the proposed sites appear to be largely located on pre-developed land, and thus the need for drastic alteration of the environment is abated.

The proposed facilities primarily are intended to serve households lacking County water supply connections, and proposed locations should maximize accessibility for such residents. The draft EA generally indicates broad areas where residential communities lacking water infrastructure are located (i.e., in the Puna, Ka'u, and Hamakua districts.) However, specific information regarding limits of existing water supply infrastructure, compared with residential population distribution conspicuously is lacking from the document. In view of the large number of potential clients for these systems (an estimate of 40,000 people on catchment systems was provided by an educational specialist with the UH CTAHR), we suggest that some effort be made in the Final EA to graphically quantify distribution and population size of potential water spigot clients, in order to better assess the suitability of the proposed locations. We further note that some discussion of costs and benefits of extending existing County water lines to areas of developing residential communities, along with analyses of population growth projections, would be appropriate in the context of this document.

Specific Comments

Project Overview and Description (§3.2, Page 14)

While the applicant intends that the proposed project will maximize the accessibility of water to its users, our reviewers note that the applicant states "in some cases, sites are located on gated property, and access to the facilities will have to be granted by the property owner prior to the construction and use" (§3.2Page 14). Our reviewers feel that this contingency may impede on users' accessibility to such water spigots. If accessibility is at all inhibited based on location, our reviewers feel alternate sites should be selected; namely those which are optimally accessible. For ease in the public review process, please clarify the meaning of the statement discussed herein.

The proposed project includes plans to construct parking areas for each of the candidate water spigot facilities. For each of these eleven sites, our reviewers request that a diagram of the proposed parking areas be included for those sites where no designated parking area exists.

Site B: Honaunau School (§6.2.4, Page 46)

Our reviewers note that the proposed site identified by TMK number 8-3-013:021 is located in an area prone to heavy traffic. Superintendent Hamamoto, on behalf of the Department of Education (DOE), previously expressed her concern that the selection of the site will cause undesired perturbations to students and staff at Honaunau School. In particular, she noted that added noise level and added traffic will create disturbances not conducive to an optimal learning environment. Our reviewers would like to know what measures are proposed to ensure that use of this site will not cause either noise disturbances or crowded traffic areas for the school's students, staff, and their families?

Site D: Kurtistown Ball Park (§9.0, Pages 81)

The document lists both the Mountain View Gym site and Kurtistown Ball Park site as "Site D". Kuristown Ball Park site should be listed as "Site E" and Mountain View Gym site is correctly labeled "Site D".

Thank you for the opportunity to review this Draft EA.

Sincerely,

John T. Harrison Ph.D
Environmental Coordinator

cc: Owen Nishioka
OEQC
James Moncur
Amelia Hicks

2500 Dole Street, Krauss Annex 19, Honolulu, Hawaii 96822
Phone: (808) 956-7361
AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION INSTITUTION

M&E Pacific, Inc.

METCALF & EDDY · AECOM

Facsimile Transmittal

FAXED 9/10/05 2:30pm

To: **Mr. Nelson Ho** **County of Hawaii** **Dept. of Environmental Management** **25 Aupuni Street, Room 210** **Hilo, Hawaii 96720**	**From:** Jamie Hikiji M&E Pacific, Inc. Davies Pacific Center 841 Bishop Street, Suite 1900 Honolulu, Hawai'i 96813
Phone Number: (808) 961-8965	**Date Transmitted:** September 10, 2005
Fax Number: **(808) 961-8086**	**Project Number:** 36802908.00340
Subject: **EA for the Construction of Islandwide Spigot Facilities**	**Total Number of Pages:** **4**

Remarks:

Hello Nelson,

Please see the attached for approximate proposed spigot locations for the Keaau and Waiohinu Transfer Stations. These locations were selected based upon our site investigations, in order to provide a more focused project site assessment for the EA. Please review the sketches and provide any comments that you may have.

We have begun preparing the draft EA, and have some questions regarding the existing transfer station use.

For both transfer stations, would you or the station operators have any information on the current level of usage, current level of traffic, and be able to indicate if there are vehicle queues at the existing spigots at Keaau?

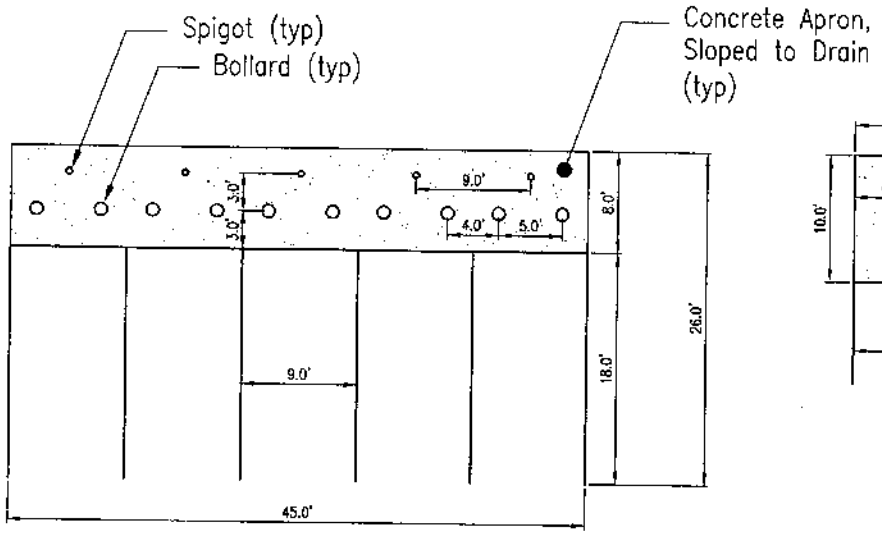
With regard to the Keaau Transfer station, we have proposed to locate a spigot layout in the same general location as the existing spigot (please see attached sketch). However, during our site visit, we noticed that there is an open, level paved area just beyond the entrance gate. This area would easily accommodate a larger spigot layout, and would provide a greater measure of traffic safety for spigot users. Do you have any information on this paved area, or know if this area is available to be used for the proposed spigots? If this location is available, we would indicate that the existing entrance gate should be relocated to allow 24-hour access to the proposed spigots.

If there are any questions or comments, please contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com. Thank you very much for your assistance.

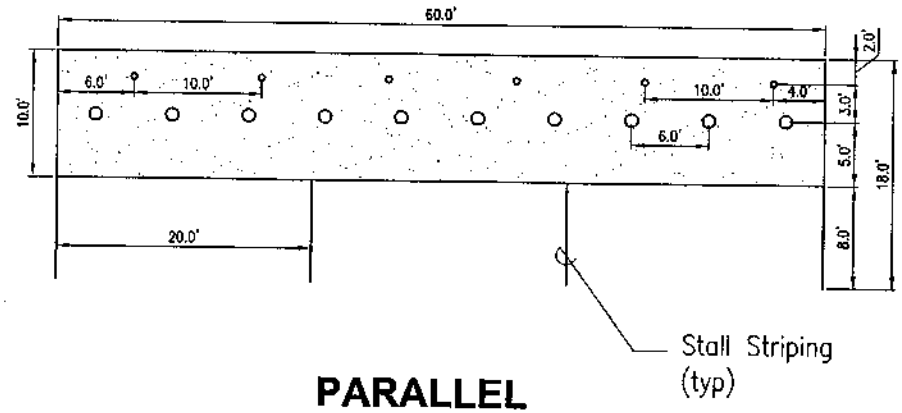
Thank You,
Jamie Hikiji

COPY TO: **Project File**

PROPOSED SPIGOT LAYOUTS



PERPENDICULAR TYPE A



PARALLEL TYPE B

Notes:

1. Number of spigots dependent on available space and final design.
2. Layouts proposed are for general sizing and siting purposes only. The final layout constructed will be dependent on the final design.

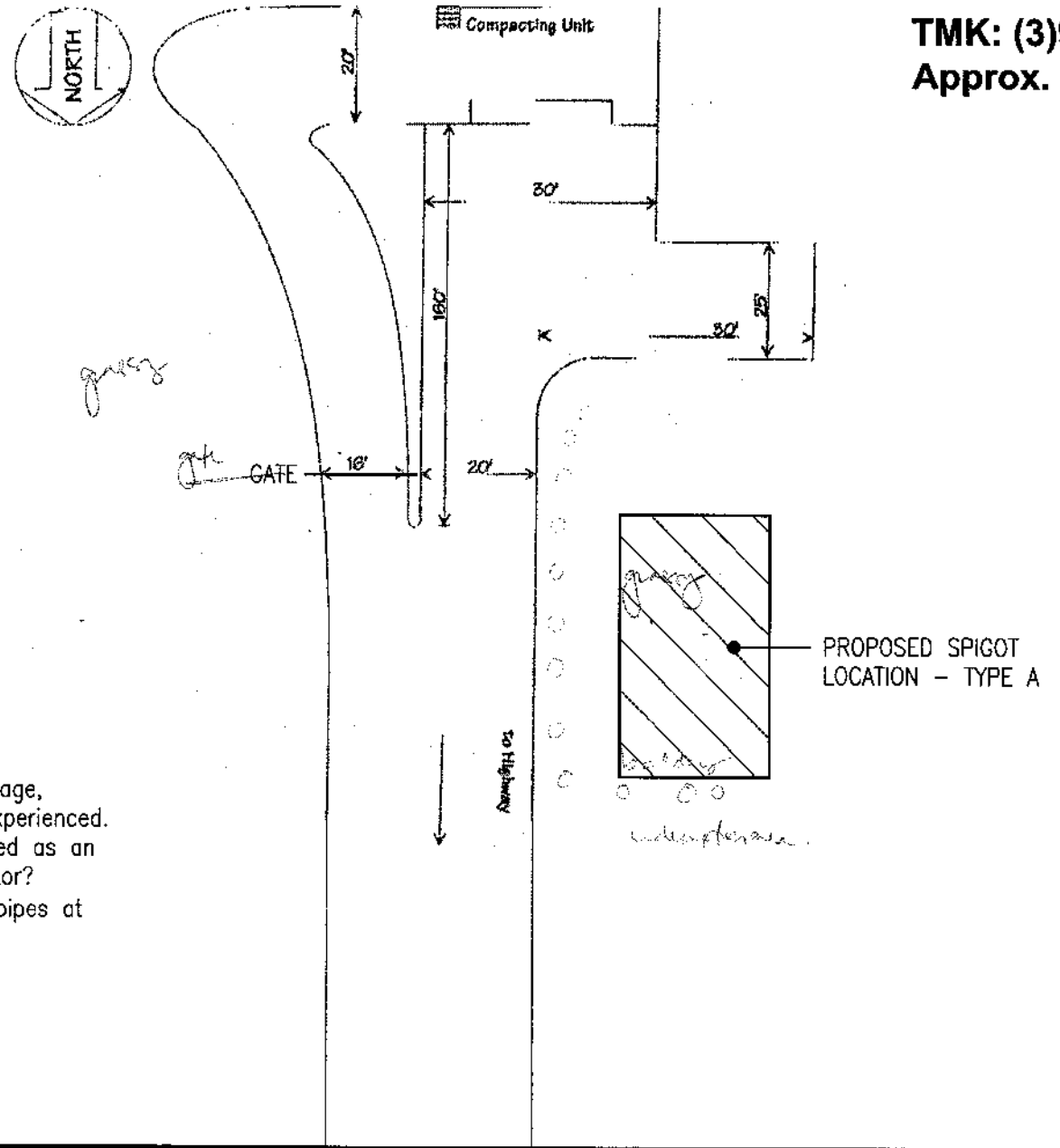
M&E Pacific, Inc.

METCALF & EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure
PROPOSED LAYOUTS
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF ISLAND-WIDE SPIGOT FACILITIES
VARIOUS LOCATIONS, HAWAII

SEPTEMBER, 2005



TMK: (3)9-5-05: 001
Approx. Scale: 1"=30'

Notes:
1. Information needed on usage, traffic, existing queues experienced.
2. Would the spigot be viewed as an unncessary traffic generator?
3. No existing spigots/standpipes at this location.

PATH/FILENAME: P:\Projects\Waiohinu\8000165S – DWS Spigots\100 Tech\01.dwg LAST UPDATE: September 10, 2005 @ 02:13:10 pm PLOT DATE: September 10, 2005 @ 02:13:15 pm

M&E Pacific, Inc.
METCALF & EDDY | AECOM
DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

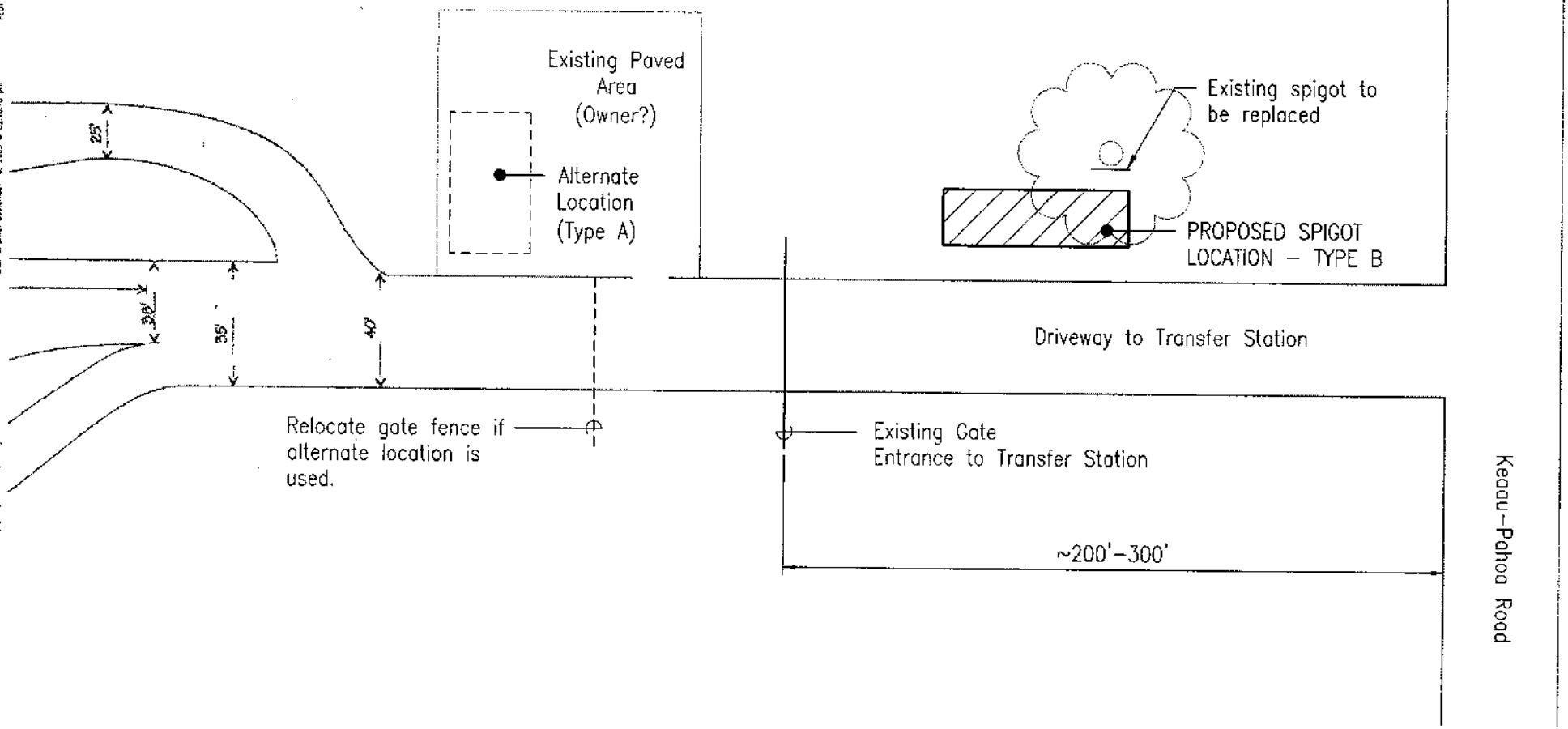
Site 1
WAIOHINU TRANSFER STATION
ENVIRONMENTAL ASSESSMENT FOR THE
CONSTRUCTION OF ISLAND-WIDE SPIGOT FACILITIES
KA'U, HAWAII

SEPTEMBER, 2005

Notes:

1. Does the paved area belong to COH/State of Hawaii? If it is available for use, would be preferable location for a Type A spigot.
2. Information needed on current spigot usage, traffic, existing queues.
3. Is the existing spigot viewed by operators as an unnecessary traffic generator?

TMK: (3)3-5-03: 088
Approx. Scale: 1"=50'



M&E Pacific, Inc.

METCALF & EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Site 4
KEAAU TRANSFER STATION
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF ISLAND-WIDE SPIGOT FACILITIES
PUNA, HAWAII

SEPTEMBER, 2005

DEPART ENT OF ENVIRONMENT L MANAGEMENT

SOLID WASTE DIVISION

COUNTY OF HAWAII – 108 RAILROAD AVENUE – HILO, HI 96720

HILO (808) 961-8339 WAIMEA (808) 887-3018 KONA (808) 327-3507

Memo

To: Nelson Ho

From: Mike Dworsky

Date: 09/19/05

Re: Island Wide Spigot Facilities letter From M&E Pacific dated Sept. 10, 2005

The Solid Waste Division has reviewed the proposed drinking water spigot locations at the Keaau and Waiohinu transfer stations. We are happy to work with DWS and will do our best to accommodate them at these locations. However, we are concerned about rubbish accumulating at or near these sites. The Pahoa Water facility usually has one or more bags of garbage left either inside the fence or thrown just over the fence.

We are currently in the process of gating Waiohinu and the Keaau site is already gated. In our experience, when the gate is set back from the road and out of the public eye, individuals dump their rubbish in front of the gate. If the entrance road is designed as shared use for the water spigots and the transfer station, there is an increased potential for rubbish after hours at the spigot locations, when the water spigot is located outside the closed fence. On the other hand, if the water spigots are located inside the fence, the operating hours for obtaining water, may be limited to the hours the transfer stations are open and operating. Currently this is from 6:30 am to 6:30 pm at Keaau.

There is also the likelihood that the public would use the water spigots to wash out their rubbish bins at the drinking water spigots. This is currently the practice at the Keaau water spigot. Signs may help to deter this, but additional clean-up efforts would likely be required as a result of this activity.

Additionally it is import that we define the respective rolls of the DWS and DEM crews. This would help to circumvent any misunderstandings about the necessary repair and maintenance of the access road and the spigot facility and to provide for public safety.

If the DWS still wishes to proceed at these sites we are confident that the concerns noted above can be addressed with good design and cooperation and we look forward to working out the details with DWS.

As to the details of the layout and the questions posed in the letter and sketches from M&E, we have the following specific comments:

Waiohinu Transfer Station

- There is a current repair/enhancement project at this site – see attached sketch.
- The transfer station site is to be gated out by the road approximately 500-ft from the existing swing gate at the truck exit. However, this location is flexible if DWS prefers that the spigots remain

7482

available at all hours. The gates can be brought back in towards the transfer station facility, approximately 300-ft from the existing swing gate.

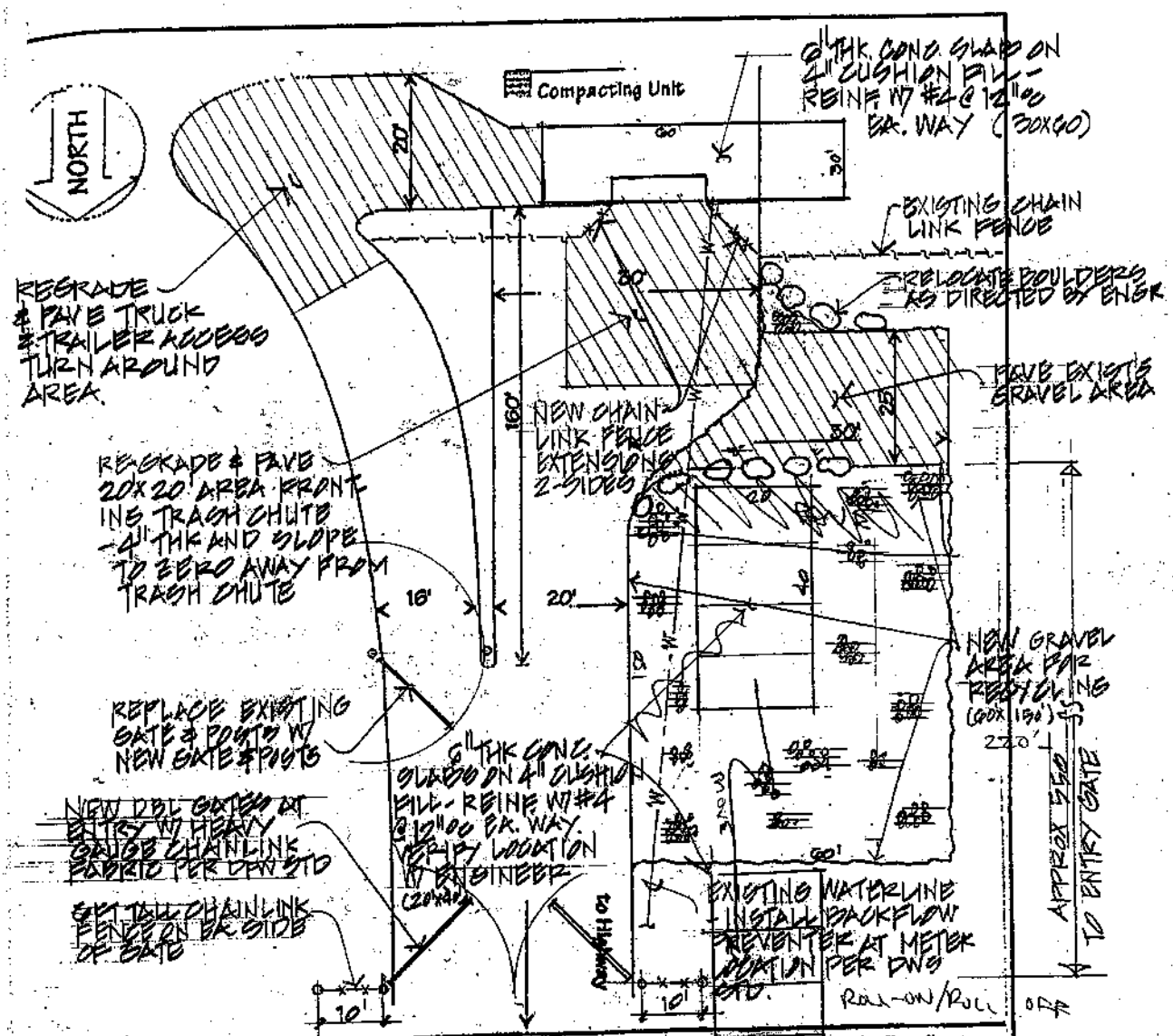
- Part of the enhancement project provides for a redemption center along with a white goods, and a green waste clearing which is shown on the attached sketch, adjacent and immediately to the west of the road at the transfer station. The dimensions of this improvement are approximately 60' x 220'.
- Since the proposed spigot location cannot be at the same location as the white goods, green waste and redemption center – an alternative site can be cleared further to the north to provide for spigot area.
- If we move the new gate in towards the transfer station, there would be an area outside the gate for the spigot area. If the choice was to place the spigot area inside the transfer station gate, we could leave the gate at the original location. Either way there would be approximately 200 ft along the road on both the West, and East side for a spigot location.
- If the project will use the existing 1.5" line it will require the installation of a backflow prevention assembly. The existing line is cast iron and placed on top of the ground. It was installed for fire prevention, but is currently used for occasional/rare washing. Improvements at the site will need to ensure that there is a feasible/stable water source for the transfer station.
- This site has the trailer changed nearly daily but we do not have traffic counts. This is an active transfer station, but does not receive any where near as much traffic as Keaau.

Keaau Transfer Station

- Traffic flow can be as high as 110 cars per hour, with anticipated escalating traffic usage.
- The current small water spigot is used for some water hauling, and for washing out garbage cans which are dumped on the site. Any water spigot improvements need to face the real possibility of the site being used for washing garbage cans and other containers.
- The alternate location is currently used for mulching Christmas trees. However if the DWS clears another area on the site for this purpose the proposed alternate location is acceptable. The Solid Waste Division is happy to work with M&E/DWS in this matter.
- The property boundaries may need to be reestablished to avoid encroaching on the property to the southeast.
- There is currently a polyethylene pipe that provides water from the existing spigot to the transfer station site. Improvements at the site will need to ensure that there is a feasible/stable water source for the transfer station.
- If the water spigots are built on the alternate location (existing Christmas tree mulch area), the fences for the transfer station may need to be relocated. This would be required if the intention is to keep the water spigots available to the public and open all hours. If the intention is to have the water spigots available just during daylight hours, and operation of the transfer station, than the use of the alternate location would not require relocation of the existing gate.
- Finally if the proposed spigot location (at the site of the existing spigot) is developed, then the existing gate would not have to be relocated. The water spigot would remain outside the transfer station fencing.

For both locations, the drainage of any water wasted should not impact the existing transfer station. The State of Hawaii, Department of Health, Solid Waste Permits, require that surface water entering the transfer stations site be minimized, and surface water originating on site, be appropriately confined and treated.

If or when M&E or others require more information, or would like to visit the sites, our staff will be available to coordinate activities. Please contact Mike Dworsky at 961-8515.


NORTH
Compacting Unit
6" THK. CONC. SLAB ON 4" CUSHION FILL - REINF W/ #4 @ 12" o.c. EA. WAY (30X60)
EXISTING CHAIN LINK FENCE
RELOCATE BOULDERS AS DIRECTED BY ENGR
REGRADE & PAVE TRUCK & TRAILER ACCESS TURN AROUND AREA.
MOVE EXISTG GRAVEL AREA
NEW CHAIN LINK FENCE EXTENSIONS 2-SIDES
REGRADE & PAVE 20X20' AREA FRONT INS TRASH CHUTE - 4" THK AND SLOPE TO ZERO AWAY FROM TRASH CHUTE
NEW GRAVEL AREA FOR RECYCLING (60X150')
REPLACE EXISTING GATE & POSTS W/ NEW GATE & POSTS
6" THK CONC. SLABS ON 4" CUSHION FILL - REINF W/ #4 @ 12" o.c. EA. WAY. VERIFY LOCATION W/ ENGINEER
NEW DBL GATES AT ENTRY W/ HEAVY GAUGE CHAINLINK FABRIC PER DWG STD
SET TALL CHAINLINK FENCE ON BACK SIDE OF GATE
EXISTING WATERLINE - INSTALL BACKFLOW PREVENTER AT METER LOCATION PER DWG STD.
APPROX BLD TO ENTRY GATE
ROLL-ON/ROLL OFF
REVISIONS/COMMENTS:
DATE:
SOLID WASTE DIVISION: department of public works, county of hawaii
Location/description:
Waiohinu Transfer Station
SK#1
4/20/05
District:
SHEET 1 OF ___ SHEETS
Prepared by: DH
Checked by:
Date:

Harry Kim
Mayor

Barbara Bell
Director

Nelson Ho
Deputy Director

County of Hawaii

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252
(808) 961-8083 • Fax (808) 961-8086

MEMORANDUM

Date : October 21, 2005

To : Milton D. Pavao, P.E.
Manager, Department of Water Supply

From: Barbara Bell, Director

RECEIVED
05 OCT 24 AM 9:07
DEPT. OF WATER SUPPLY
COUNTY OF HAWAII

Subject: ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF THE ISLANDWIDE WATER SPILOT FACILITIES DEPARTMENT OF WATER SUPPLY, JOB NO. 2004-841

We offer the following comments on the subject Draft Environmental Assessment Report dated September 2005.

TECHNICAL SERVICES COMMENTS: There is no existing county sewer in the area.

SOLID WASTE COMMENTS:
Kea`au:

1. Section 10; Site F: Kea`au Transfer Station; 10.2.4 Traffic

   The site access road intersects a busy highway. Due to traffic flow on the highway, vehicles attempting to turn left from the site are delayed. This delay can cause vehicles to back up along the transfer station access road and in turn may block the spigot facility. Further consideration of channelization and perhaps a left turn holding lane may be appropriate depending on the anticipated daily usage.

   If, after analyzing the traffic flow, engineering solutions are deemed unnecessary, then at a minimum the Solid Waste Division recommends that the traffic flow be monitored to ensure that it functions well following the construction.

2. Section 10; Site F: Kea`au Transfer Station; 10.5 Operations; Impacts and Mitigative Measures

   Issues regarding accumulating rubbish and improper use of the water spigot facility are noted in the "Operations" portion of the EA. These issues should be addressed in the "Impacts and Mitigative Measures" portion.

   The Solid Waste Division recommends that signs be installed to deter the improper use of the site and that a monitoring and maintenance plan be established to address the anticipated improper use.

Waiohinu:

3. Section 15; Site K: Waiohinu Transfer Station; 15.5 Operations; Impacts and Mitigative Measures

   Issues regarding accumulating rubbish and improper use of the water spigot facility are noted in the "Operations" portion of the EA. These issues should be addressed in the "Impacts and Mitigative Measures" portion.

   The Solid Waste Division recommends that signs be installed to deter the improper use of the site and that a monitoring and maintenance plan be established to address the anticipated improper use.

Thank you for allowing us the opportunity to review the DEA

cc: SWD,WWD, TSS

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawaii 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 18, 2005

Ms. Barbara Bell, Director
County of Hawaii
Department of Environmental Management
25 Aupuni Street, Room 210
Hilo, HI 96720-4252

Dear Ms. Bell,

Subject: Environmental Assessment for the Construction of Islandwide Spigot Facilities, Response to Preliminary Draft EA

Thank you for your review and comments to the preliminary Draft EA for the subject project. We have reviewed the comments listed in your October 21, 2005 letter and would like to offer the following responses:

Keaau Transfer Station

1. Comment: "The site access intersects a busy highway. Due to traffic flow on the highway, vehicles attempting to turn left from the site are delayed. This delay can cause vehicles to back up along the transfer station access road and in turn may block the spigot facility. Further consideration of channelization and perhaps a left turn holding lane may be appropriate depending on the anticipated daily usage."

   Response: This issue was included in the Draft EA. However, it is noted that this is an existing condition that is unlikely to worsen with the proposed upgrade. A suggestion was included in the Draft EA that should this site be selected, DWS may need to determine if a traffic impact analysis is warranted.

2. Comment: "If, after analyzing the traffic flow, engineering solutions are deemed unnecessary, then at a minimum the Solid Waste Division recommends that the traffic flow be monitored to ensure that it functions well following the construction."

   Response: This recommendation was included in the Draft EA.

3. Comment: "Issues regarding accumulating rubbish and improper use of the water spigot facility are noted in the "Operations" portion of the Draft EA. These issues should be addressed in the "Impacts and Mitigative Measures" portion."

   Response: The Draft EA was revised as requested.

4. Comment: "The Solid Waste Division recommends that signs be installed to deter the improper use of the site and that a monitoring and maintenance plan be established to address the anticipated improper use."

   Response: This recommendation was included in the Draft EA.

Waiohinu Transfer Station

1. Comment: "Issues regarding accumulating rubbish and improper use of the water spigot facility are noted in the "Operations" portion of the Draft EA. These issues should be addressed in the "Impacts and Mitigative Measures" portion."

   Response: The Draft EA was revised as requested.

2. Comment: "The Solid Waste Division recommends that signs be installed to deter the improper use of the site and that a monitoring and maintenance plan be established to address the anticipated improper use."

   Response: This recommendation was included in the Draft EA.

The Draft EA has been revised to address consultation and review comments received, and will be published on November 23, 2005. A copy of the Draft EA was sent to the Department of Water Supply for distribution to the Department of Environmental Management.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

Harry Kim
Mayor

Barbara Bell
Director

Nelson Ho
Deputy Director

County of Hawaii

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252
(808) 961-8083 • Fax (808) 961-8086

MEMORANDUM

Date : November 25, 2005

To : Milton D. Pavao, P.E.
Manager, Department of Water Supply

From: Barbara Bell, Director

Subject: **DRAFT ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF THE ISLANDWIDE WATER SPIGOT FACILITIES DEPARTMENT OF WATER SUPPLY, JOB NO. 2004-841**

Thank you for offering the Department of Environmental Management the opportunity to review the November 2005 Draft Environmental Assessment.

We find that our comments were incorporated correctly and we have no further comments.

cc: SWD (w/Draft EA)

RECEIVED
05 NOV 28 AM 11:05
DEPT. OF WATER SUPPLY
COUNTY OF HAWAII

Hikiji, Jamie

From: JKOMATA@co.hawaii.hi.us
Sent: Thursday, July 14, 2005 11:34 AM
To: Hikiji, Jamie
Cc: Tulang, Dennis; PMizuno@co.hawaii.hi.us
Subject: COH-DWS Water Spigots _ P&R Sites
Attachments: DWSwaterspigts.zip

Ms. Hikiji,

Attached are the site plans for the P&R Sites under consideration for the subject project – they are not very good and they're all we have – but should be good enough to start discussions I would think.

P2520 – Kurtistown
P1710 – Mt. View Park
B2737 – Honaunau Rodeo Arena

I understand from Dennis Tulang that you may also need Papa'aloa Park. Please let me know if you need that, too.

If there's anything else you need of our department, please call or email me and I will try to help you with this.

FYI – your surveyors may have some topo information of all these county sites that could be useful to you by way of the county's LCC Conversion Projects which Dennis is the lead on for M&E.

James M. Komata, Park Planner
ph.961.8531 fx.961.8411
Department of Parks and Recreation
County of Hawai'i
101 Pauahi Street; Suite 6
Hilo, Hawai'i 96720

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M&E Pacific, Inc.

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Facsimile Transmittal

FAXED 9/12/05 4:02pm

To: **Mr. James Komata** **County of Hawaii** **Dept. of Parks and Recreation** **101 Pauahi Street, Suite 6** **Hilo, Hawaii 96720**	**From:** Jamie Hikiji M&E Pacific, Inc. Davies Pacific Center 841 Bishop Street, Suite 1900 Honolulu, Hawai'i 96813
Phone Number: (808) 961-8531	**Date Transmitted:** September 10, 2005
Fax Number: **(808) 961-8411**	**Project Number:** 36802908.00340
Subject: **EA for the Construction of Islandwide Spigot Facilities**	**Total Number of Pages:** **7**

Remarks:

Hello Mr. Komata,

Please see the attached for approximate proposed spigot locations for the Mountain View Gym, Kurtistown Ball Park, Honaunau Rodeo Arena, and Papa'aloa Gym sites. These locations were selected based upon our site investigations, in order to provide a more focused project site assessment for the EA. Please review the sketches and provide any comments that you may have.

We are currently preparing the draft EA, and have some questions regarding the various sites.

Site 2 – Mountain View Gym/Park

We currently propose to site the spigots at the edge of the existing paved area parking area behind the gym. This area is level, open, and will provide sufficient drainage for the spigot runoff.

- Is the grassy area adjacent to the pavement also within the County of Hawaii parcel, and is it available to be used for the spigots?

Site 3 – Kurtistown Ball Park

We currently propose to site the spigots along the existing fence in the parking area. It has been suggested that the fence height in that area should be increased to protect users from foul balls.

- Per discussion with one of the gym users, ADA improvements are planned for this area. Would you be able to determine what improvements will be made and the areas affected?
- In addition, we noticed that there is a new County of Hawaii facility located above the park. Does the County of Hawaii anticipate that the entering/existing traffic to this facility will cross through the parking area of the park?

Site 6 – Honaunau Rodeo Arena

During our site visits to this location, it was noted that the arena did not have any visitors or activity.

- Is there any available information on the frequency of use of the arena, or the level of traffic this is typically experienced at this location?

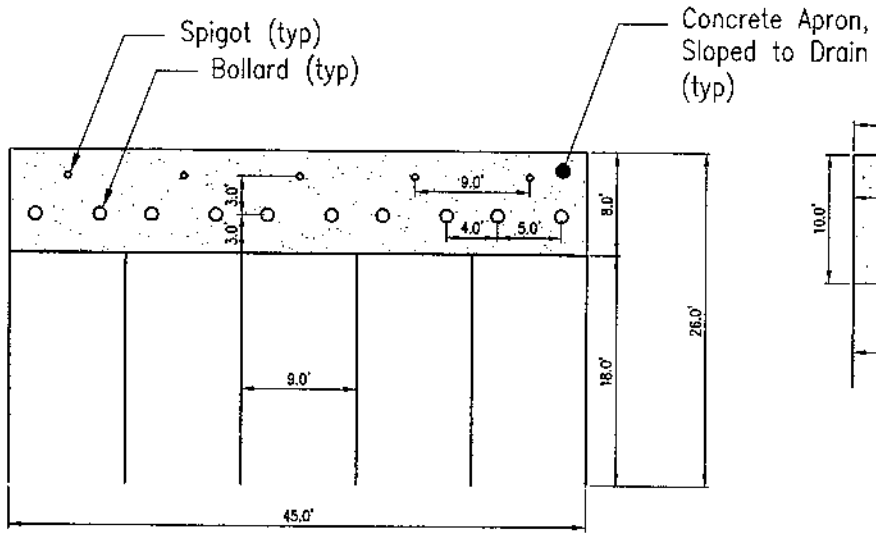
Site 9 – Papa'aloa Gym
The proposed spigots would most likely be placed at the location of the existing spigot. We have confirmed with Owen Nishioka (DWS) that the correct TMK for this location should be (3)3-5-003: 088. No questions regarding this site.

If there are any questions or comments, please contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com. Thank you very much for your assistance.

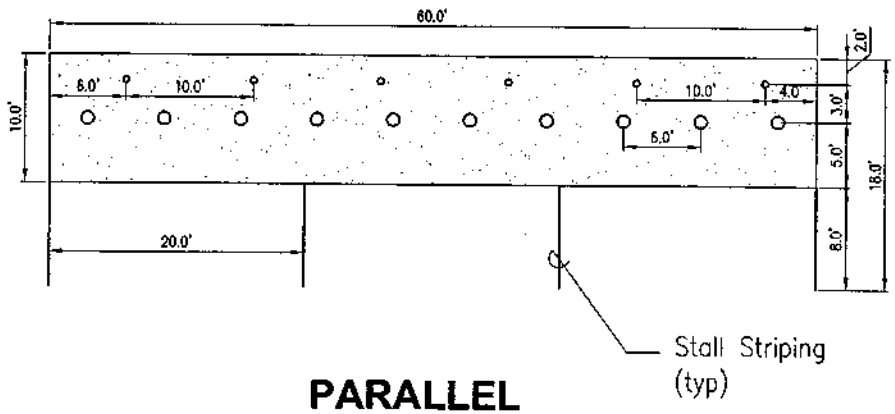
Thank You,
Jamie Hikiji

COPY TO: Project File

PROPOSED SPIGOT LAYOUTS



PERPENDICULAR TYPE A



PARALLEL TYPE B

Notes:

1. Number of spigots dependent on available space and final design.
2. Layouts proposed are for general sizing and siting purposes only. The final layout constructed will be dependent on the final design.

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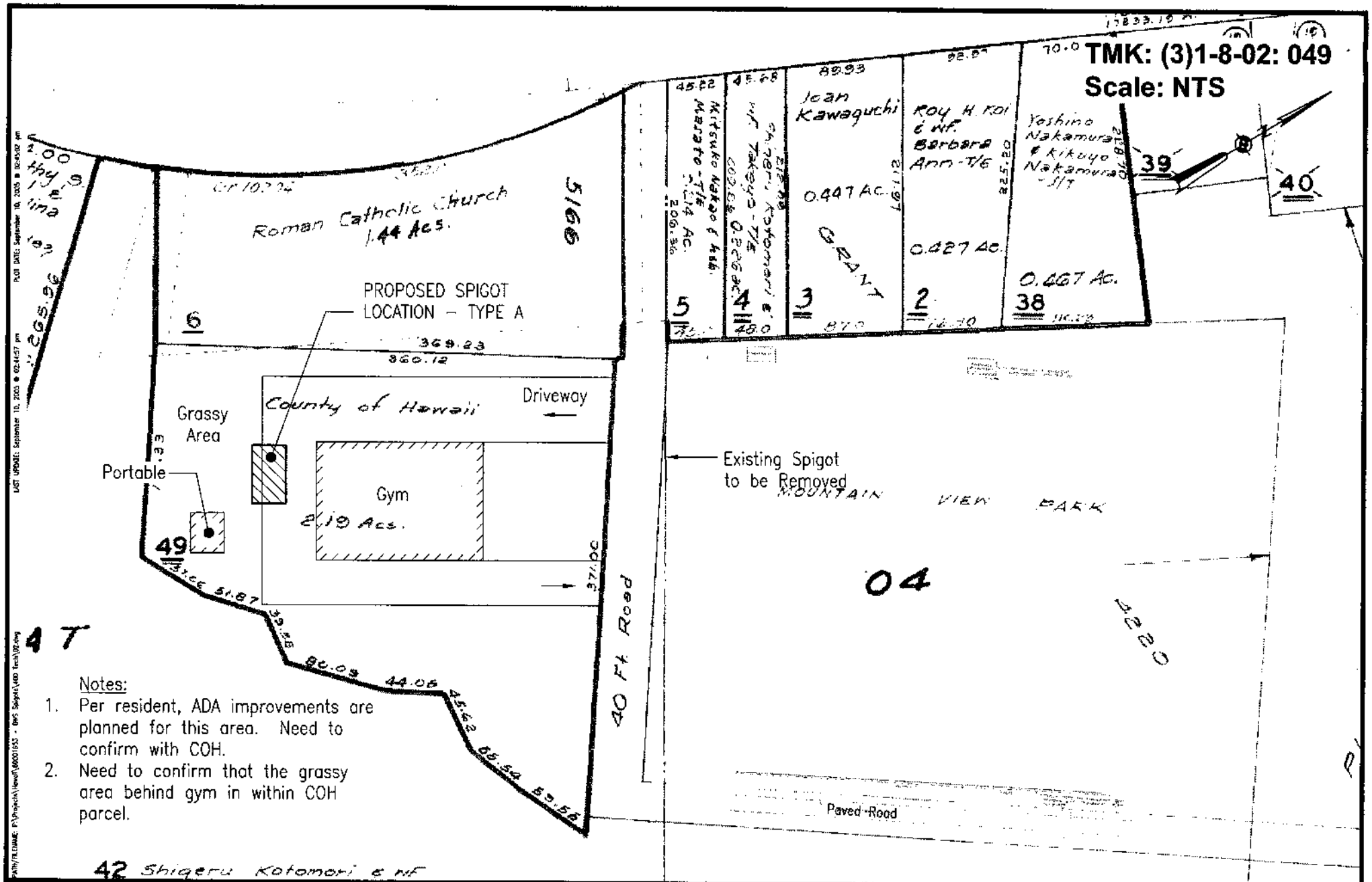
Figure
PROPOSED LAYOUTS
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF ISLAND-WIDE SPIGOT FACILITIES
VARIOUS LOCATIONS, HAWAII

SEPTEMBER, 2005



Notes:

1. Per resident, ADA improvements are planned for this area. Need to confirm with COH.
2. Need to confirm that the grassy area behind gym in within COH parcel.

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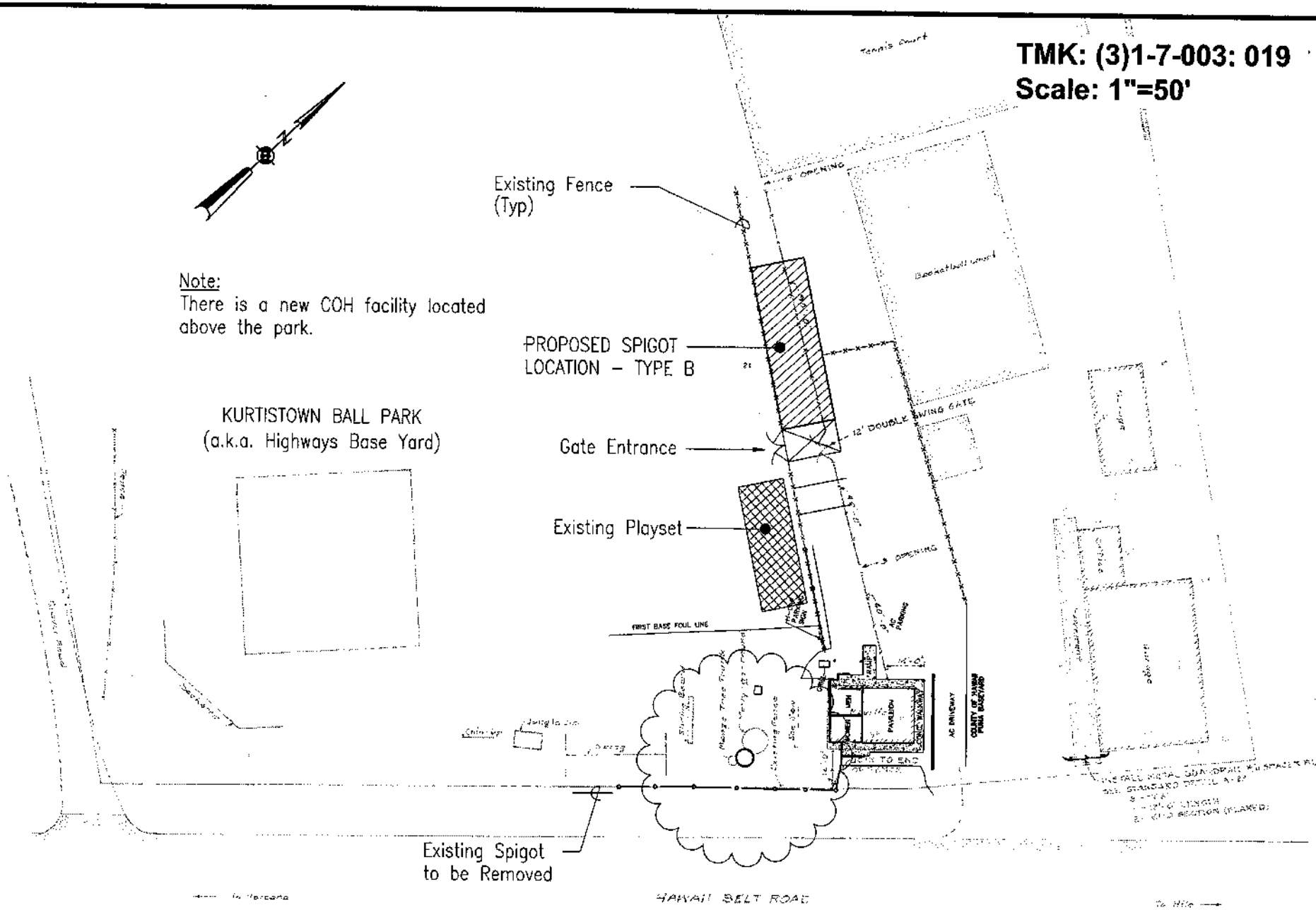
Site 2

MOUNTAIN VIEW GYM / PARK

ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF ISLAND-WIDE SPIGOT FACILITIES
PUNA, HAWAII

SEPTEMBER, 2005



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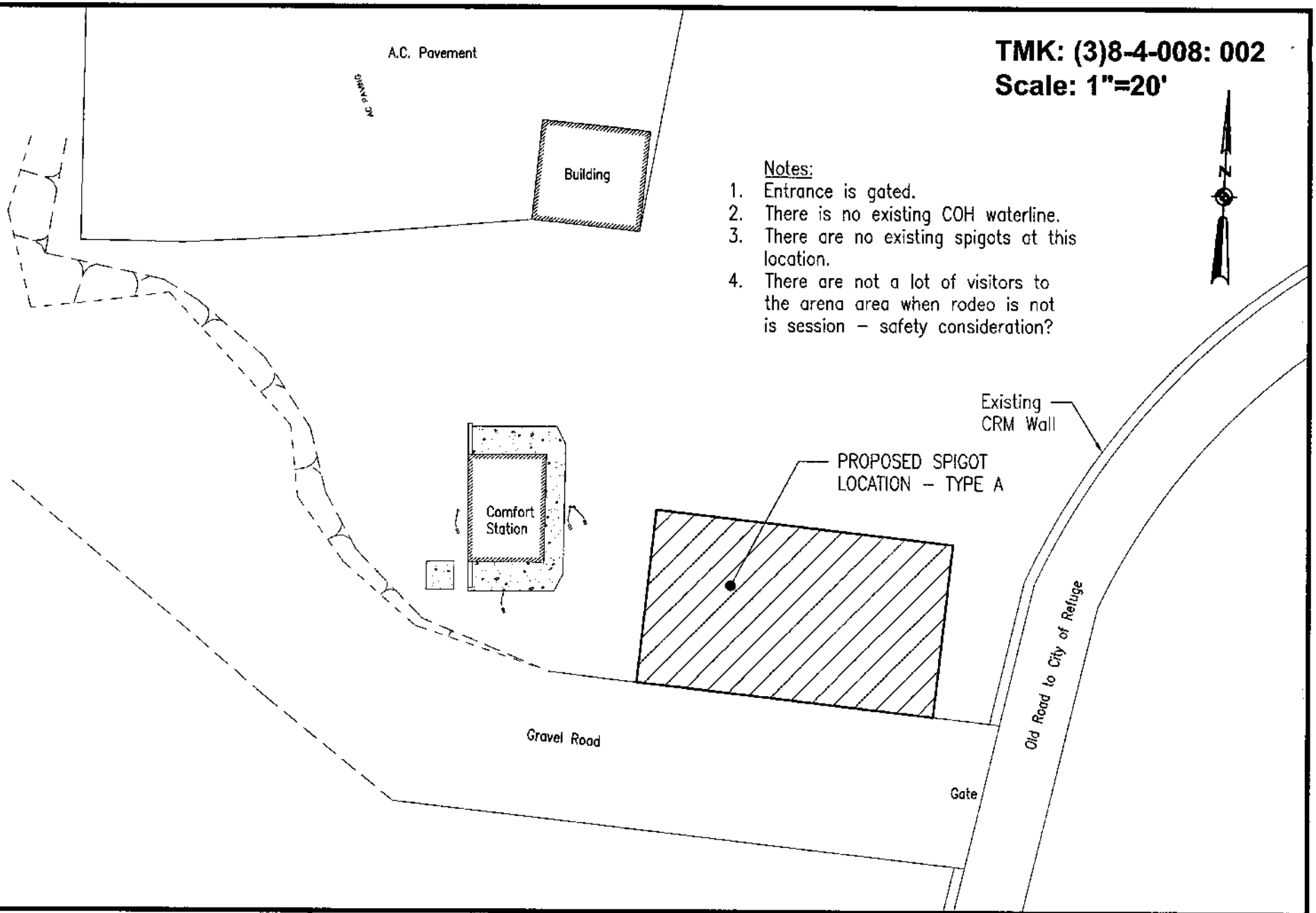
Site 3

KURTISTOWN BALL PARK

TRAFFIC IMPACT ANALYSIS REPORT
BIG ISLAND CANDIES EXPANSION
KURTISTOWN, HAWAII

SEPTEMBER, 2005



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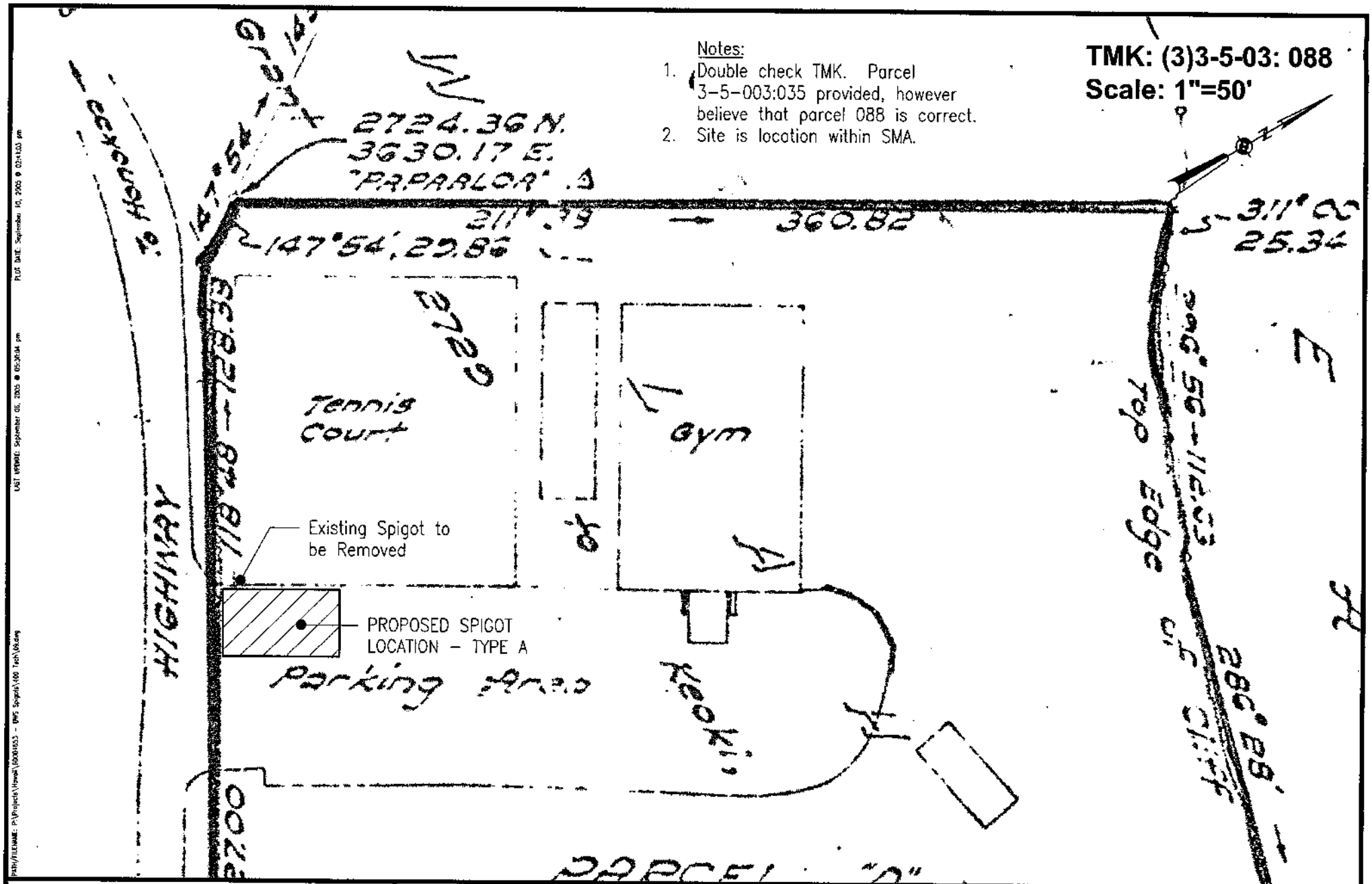
Site 6

HONAUNAU RODEO ARENA

ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF ISLAND-WIDE SPIGOT FACILITIES
SOUTH KONA, HAWAII

SEPTEMBER, 2005



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Site 9
PAPA'ALOA GYM
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF ISLAND-WIDE SPIGOT FACILITIES
NORTH HILO, HAWAII

SEPTEMBER, 2005

Harry Kim
Mayor

Patricia G. Engelhard
Director

Pamela N. Mizuno
Deputy Director

County of Hawai'i

DEPARTMENT OF PARKS AND RECREATION
101 Pauahi Street, Suite 6 • Hilo, Hawai'i 96720
(808) 961-8311 • Fax (808) 961-8411

RECEIVED
05 OCT 20 AM 11:02
DEPT OF WATER SUPPLY
COUNTY OF HAWAII

October 19, 2005

Milton D. Pavao, P.E., Manager
Department of Water Supply
County of Hawai'i
345 Kekuanaoa Street, Suite 20
Hilo, HI 96720

Dear Mr. Pavao:

Subject: **Draft Environmental Assessment for Construction of Islandwide Water Spigot Facilities Department of Water Supply, Job No. 2004-841**

In response to your solicitation of comments from us regarding the proposed project and its impacts to our sites, we offer the following for your consideration:

General

1. It is not indicated how the waterlines that supply the water spigot facilities would be metered; if they would be tied-in to the existing sites' waterlines, provided dedicated meters, submetered and then factored into the water bill for the site, or not metered at all making the landowner responsible for all or none of the cost. We understand from earlier discussions with your department that water usage was to be paid for by the Department of Public Works. If that has changed, there could be significant operational cost impacts if we were to assume payment of all water consumed at the spigots located at our sites.
2. It is not indicated who would be responsible for the maintenance and operation of the water spigot facilities after they are installed. There would be some operational cost impacts if we were to assume responsibility for maintenance and repairs of the facilities at our sites.
3. The increased generation of refuse at water spigot facilities, identified in the report, will have a relatively minor, but persistent and perpetual impact on our Parks Maintenance Division which is responsible for the regular clean up and refuse removal at each of our sites. The increased workload, although not envisioned to be significant, will still reduce effort currently applied elsewhere.
4. The Type B spigot/parking configuration (Figure 4-1) does not provide a corresponding number of dedicated parking stalls (3) as water spigots (6). Please ensure that sufficient parking stalls are provided so as to not promote improper parking or detract from parking available to other park site users.
5. The installation of these new water spigot facilities at any site will require them to be tied-in to the respective sites accessible site circulation. Whereas existing facilities at the same site can be acceptably accessed by vehicle via strategically placed accessible parking amenities, the ADAAG requires that new site improvements be connected by an accessible route to all other site features, facilities and amenities.

This will have a tremendous impact on this project as there is no mention of accessible work. DCAB should be consulted to verify the project's accessibility obligations. If we need to connect our parks to these improvements under our forthcoming Transition Plan projects, it will have definite cost impacts to our operations.

6. Construction of the water spigot facilities probably will impact our ability to make accessibility improvements at each of the sites or will at least influence them. At Mountain View, our consultant is almost completed with his Transition Plan related accessibility design, adding in the scope to connect to the new improvements will cost us additional funds. At Honaunau Rodeo Arena, the location and final elevation at which the improvements are made will impact how the comfort station is tied in to the balance of the site because the water spigots will be in between the restroom facility and the balance of the site and the proposed area would be the preferred location for an accessible parking stall(s) dedicated to the arena usage.
7. All County parks, unless specifically modified otherwise, are closed from 11 PM and reopen to the public at 6 AM. Individuals that enter a park during those hours can be charged with camping, a violation of P&R's rules, and subject to prosecution. The location of the water spigot facilities within park sites, especially when not located at the periphery of a site and if intended to remain open for public use between 11 PM – 6 AM, could cause confusion for the police department, which is responsible for enforcement of this rule.

Site A - Honaunau Rodeo Arena: We have several concerns over the incompatible use of the site as proposed and the possible impacts to our operations as detailed hereinafter:

1. Upon review of the description of work, it appears that the water spigots will be supplied via the existing polyethylene, surface run, private waterline fed by a 5/8-inch meter that currently services the arena's facilities as well as the adjacent landowners that have agreements with Kamehameha Schools. Depending upon the popularity of the proposed facility, the water needs of area residents and the future intensity of use of the surrounding lands, and without increasing the capacity of the meter and waterline, it would seem that there could be competing uses for a restricted amount of resources. Increased water usage not related to the arena's function could negatively impact our ability to automatically sprinkler the arena as a dust control measure should that need arise. The need may come sooner rather than later as we have been approached recently by Kamehameha Schools that they are interested in developing a community center and other amenities adjacent to the arena that they will then turn over to the County for us to operate.
2. Location of the proposed water spigot facility inside the existing site access gate adjacent to Old Honaunau Road will have a negative impact to our site. Currently, this gate is only used for maintenance purposes or in conjunction with specific events or uses of the arena; it is not opened and closed on a regular basis. In order to locate the spigots as shown, the area around the spigots needs to be secured to prevent unauthorized vehicular access further into the site yet still allow authorized access. Then, we may need to hire security to lock and unlock the existing gate depending on the impacts the facility has on our site (vandalism, unauthorized access, etc.).
3. The proposed improvements are located between the site access gate and the rodeo arena improvements. This could prove problematic in allowing sufficient access to the arena by trucks hauling livestock trailers depending on actual space constraints and configuration of the improvements. There is also the potential for conflict between arena users and water spigot users, especially on days where rodeo events are held at the site.
4. We have the following additional concerns regarding use of the site, as proposed: (a) There is no nighttime lighting at the site for security or site access purposes; (b) The Old Honaunau Road is a substandard, effectively single lane, winding, unlit road that may not be advisable for the associated increase in vehicular traffic; (c) the remoteness of the site and its not being on a heavily used public roadway make security at the site (personal and property) a real concern; and (d) aesthetically, the water spigots will definitely detract from the pastoral, agrarian and old-time paniolo feel of the rodeo arena site –

not that the comfort station doesn't already do that, but, it is a necessity related to the site's function whereas the water spigots are totally unrelated.

Site C - Papa'aloa Park: The park currently serves as a water spigot site and its continued use would appear to be compatible with the recreational functions administered at the site due to the location of the spigots adjacent to the Old Mamalahoa Highway, the generous amounts of existing paved driveway/parking area, and the rather low-level recreational use occurring at the site. At this time we can foresee no negative impacts on the site or on our operations not already addressed in the general statements above.

Site D - A. J. Watt (Mountain View) Gymnasium Site: The location proposed for the water spigot facility, at the rear of the gym near the relatively new building is very problematic to our current and future operation and use of the site.

1. The area adjacent to the new building will soon be expanded with another restroom/kitchen/meeting room facility and will be the permanent home for the Mountain View seniors and our related Elderly Activities Division's functions. The governor recently approved the release of state funds for design and construction of the expansion to the facility and locating the water spigots here would be detrimental to the use of the site as a senior center due to competition for parking, increased site traffic and the generation of noise during senior center functions.
2. Locating the water spigot facility at the rear of the site precludes or restricts us from installing gates at the vehicular entrances/exits of the site in the event that they are needed. The current trend for our park sites is to secure the park perimeter via locking gates to prevent or deter after-hours miscreant and damaging behavior levied against park facilities. Locating the water spigot facility at the rear of the site, hidden from view from the public roadway by the gymnasium, would only provide access and opportunity for acts of vandalism or worse.
3. The site currently hosts concurrent gymnasium, recreation rooms and senior center users, adding an additional use while reducing available parking is not appropriate site administration.

Site E - Kurtistown Park: The proposed use of the site may have some impacts on our operations:

1. The existing parking lot is already barely large enough to accommodate use of the pavilion for parties, not to mention heavier use of the ball field and concurrent use of the new playground equipment recently installed at the site. Reducing general onsite parking in favor of a new, non-park related use will only cause park users to occupy on-street parking currently utilized by water spigot users. Although the water spigots are used on an almost constant basis whereas the park is used less frequently, the outcome should be weighed against the time when the park is used by numerous people and parking becomes a public issue.
2. Although it is noted that the water spigots are located so as to retain maintenance access to the field via the current gate, it should be noted that the general public has little regard for preserving maintenance access. Also, when the park is utilized fully, the parking lot becomes a mess and access to the spigots will become problematic.

In addition to the comments specific to the sites under our purview, we have the following comments on other aspects of the Draft EA for your consideration, as well:

A. Granted the two spigot facility layouts (Type 'A' and 'B') were provided for discussion purposes only, it should be noted that the accessible stalls in both configurations do not meet ADA requirements for an accessible parking stall. The proposed design in Type B appears to satisfy the requirements for an accessible loading zone which presumes the disabled individual is only a passenger in a vehicle as opposed to the unassisted operator of the vehicle utilizing the facility. In order to be compliant, the stall needs to have an acceptable access aisle width and signage. The proposed design in Type A assumes a van-

accessible stall is provided elsewhere on the site or is not required which doesn't seem a logical assumption. Also, the Planning Department's regulations should be verified to ensure compliance with their accessible parking stall requirements.

B. If the water spigot facility is required (or proposed) to be accessible by virtue of the accessible parking stall shown on the layouts, are there considerations being made for compliance with ADAAG 4.2, 4.3, 4.4, 4.5, 4.6, 4.27 and other applicable sections?

C. At Site B, Honaunau School, the potential for conflict between vehicular access to the proposed water spigot facility versus to the school and residential area appears to be downplayed. It would seem that locating the improvement at the southeast corner of the intersection of Mamalahoa Highway with the primary access road to Honaunau School could have potential for congestion during peak school traffic hours - something to consider.

D. It is noted in your Consultation List that the Department of Public Works is not being asked to comment on the proposed use of the Kurtistown Park site. It may be advisable to solicit their comment specifically on this site.

Finally, there is no mention in the document as to what will happen to existing sites that serve as current water spigot facilities, such as Waiohinu Park and Greenwell Park. Will they be closed or allowed to continue without modification? Also, parks islandwide are convenient venues for individuals to collect drinking water for personal use. Parks employees constantly witness the taking of water for personal use and, sometimes, abuse. Are these proposed facilities envisioned to have a positive effect on the otherwise illegal use of P&R's water?

Thank you for the opportunity to review and comment on the proposed project. Should you have any questions on our response, or wish to discuss it in greater detail, please contact our park planner, James Komata, at 961-8531.

Sincerely,

Pat Engelhard

Patricia G. Engelhard
Director

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 18, 2005

Ms. Patricia G. Engelhard, Director
County of Hawaii
Department of Parks and Recreation
Aupuni Center
101 Pauahi Street, Suite 6
Hilo, HI 96720

Dear Ms. Engelhard,

Subject: Environmental Assessment for the Construction of Islandwide Spigot Facilities, Response to Preliminary Draft EA

Thank you for your review and comments to the preliminary Draft EA for the subject project. We have reviewed the comments listed in your October 19, 2005 letter and would like to offer the following responses on the attached summary sheet.

The Draft EA has been revised to address consultation and review comments received, and will be published on November 23, 2005. A copy of the Draft EA was sent to the Department of Water Supply for distribution to the Department of Parks and Recreation.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosure: Annotated Comment Summary Sheet

cc: Project File

COUNTY OF HAWAII

County of Hawaii Department of Parks & Recreation - Response Letter dated 10/19/05		
Contact:	Ms. Patricia G. Engelhard	
Address:	101 Pauahi Street, Suite 6	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8531 - James Komata, Park Planner	
No.	**Comments**	**Response**
General		
1.	It is not indicated how the waterlines that supply the water spigot facilities would be metered; if they would be tied-in to the existing sites' waterlines, provided dedicated meters, submetered and then factored into the water bill for the site. Or not metered at all making the landowner responsible for all or none of the cost. We understand from earlier discussions with your department that water usage was to be paid for by the Department of Public Works. if that has changed, there could be significant operational cost impacts if we were to assume payment of all water consumed at the spigots located at our sites.	*Facilities are currently recommended to each have a dedicated meter. Currently, the DWS maintains the existing spigot facilities. Per DWS, Civil Defense currently takes care of the water usage payments, however DPW will take over this responsibility. Recommendation was included in the Draft EA that all applicable parties establish an operations and maintenance plan/agreement outlining each agency's and/or organization's responsibilities.*
2.	It is not indicated who would be responsible for the maintenance and operation of the after spigot facilities after they are installed. There would be some operational cost impacts if we were to assume responsibility for maintenance and repairs of the facilities at our sites.	*See response to Comment No. 1.*
3.	The increased generation of refuse at water spigot facilities, identified in the report, will have a relatively minor, but persistent and perpetual impact on our Parks Maintenance Division which is responsible for the regular clean up and refuse removal at each of our sites. The increased workload, although not envisioned to be significant, will still reduce effort currently applied elsewhere.	*See response to Comment No. 1. Noted, and concern is included in the Draft EA.*
4.	The Type B spigot/parking configuration does not provide a corresponding number of dedicated parking stalls (3) as water spigots (6). Please ensure that sufficient parking stalls are provided so as to not promote improper parking or detract from parking available to other park site users.	*Revised to show 3 stalls with 4 outlets. The additional outlet was provided for those vehicles with multiple users. No parking signs should be posted to deter improper parking.*
5.	The installation of these new water spigot facilities at any site will require them to be tied-in to the respective sites accessible site circulation. Whereas existing facilities at the same site can be acceptably accessed by vehicle via strategically placed accessible parking amenities, the ADAAG requires that new site improvements be connected by an accessible route to all other site features, facilities and amenities. This will have a tremendous impact on this project as there is no mention of accessible work. DCAB should be consulted to verify the projects accessibility obligations. If we need to connect our parks to these improvements under our forthcoming Transition Plan projects, it will have definite cost impacts to our operations.	*Per DCAB, if the facility is installed within the site, then the site is subject to follow the requirements of ADAAG section 4.3, despite intent of facility use. According to a DCAB interpretive opinion that may apply here, an accessible route would need to be provided to other accessible elements on the same site. This will only affect transition plan design if the facility is installed before transition plan construction. Refer to Appendix A for telecom with DCAB. This issue was included in the Draft EA for site selection consideration.*
6.	Construction of the water spigot facilities probably will impact our ability to make accessibility improvements at each of the sites or will at least influence them. At Mountain View, our consultant is almost completed with his Transition Plan related accessibility design, adding in the scope to connect to the new improvements will cost us additional funds. At Honaunau Rodeo Arena, the location and final elevation at which the improvements are made will impact how the comfort station is tied in to the balance of the site because the water spigots will be in between the restroom facility and the balance of the site and proposed area would be the preferred location for an accessible parking stall(s) dedicated to the arena usage.	*Noted. The location indicated on the figures are for discussion purposes only. The Draft EA discusses the general location on the site in its description. The final location of the facility, should a site be selected, will be determined during the design phase. The determination will include coordination with the appropriate agencies and will consider current/future improvement plans for each site.*

COUNTY OF HAWAII

County of Hawaii, Department of Parks & Recreation, Response Date: 10/19/05	
Contact:	Ms. Patricia G. Engelhard
Address:	101 Pauahi Street, Suite 6
	Hilo, Hawaii 96720
Phone:	(808) 961-8531 - James Komata, Park Planner

No.	Comments	Response
7.	All County parks, unless specifically modified otherwise, are closed from 11 pm to 6 am. Individuals that enter a park during those hours can be charged with violating P&R's rules, and are subject to prosecution. The location of the after spigot facilities within park sites, especially when not located at the periphery of a site and if intended to remain open for public use between 11 and 6, could cause confusion for the police department, which is responsible for enforcement of this rule.	*Noted. Provision made within the Draft EA that access to the spigot facilities may need to be restricted to follow posted park operating hours. A sign should be posted to alert users of the facilities access hours, if restricted.*
8.	The accessible stalls shown in the possible facility layouts do not meet ADA requirements for an accessible parking stall.	*Possible facility layouts revised.*
9.	If the water spigot facility is required or proposed to be accessible, are there considerations being made for compliance with ADAAG 4.2, 4.3, 4.4, 4.5, 4.6, 4.27 and other applicable sections?	*Yes. These issues will be addressed during the facility design phase. The access route issue will be considered during the site selection phase.*
10.	At Site B, Honaunau School, the potential for conflict between vehicular access to the proposed water spigot facility versus to the school and residential area appears to be downplayed. It would seem that locating the improvement at the southeast corner of the intersection of Mamalahoa Highway with the primary access road to Honaunau School could have potential for congestion during peak school traffic hours.	*Noted. Possible traffic impacts further discussed in Section 6.2.4.*
11.	It is noted in your Consultation List that the Department of Public Works is not being asked to comment on the proposed use of the Kurtistown Park Site. It may be advisable to solicit their comment specifically on this site.	*The DPW was provided with a copy of the preliminary Draft EA for their review and comment. The consultation list was updated.*
SITE A: Honaunau Rodeo Arena		
1.	It appears the water spigot will be supplied via the existing polyethylene, surface run, private waterline fed by a 5/8-inch meter that currently services the arena's facilities as well as the adjacent landowners that have agreements with Kamehameha Schools. Depending upon the popularity of the proposed facility, the water needs of area residents and the future intensity of use of the surrounding lands, and without increasing the capacity of the meter and waterline, it would seem that there could be competing uses for a restricted amount of resources. Increased water usage not related to the arena's function could negatively impact our ability to automatically sprinkler the arena as a dust control measure should that need arise. We have been approached recently by KS that they are interested in developing several amenities adjacent to the arena that they will then turn over to the County for operations.	*Noted. Discussion of possible increase in water demand included in the Draft EA. Possible mitigation strategies include an upsize of the water meter and/or pipeline, or to extend the DWS waterline to connect to the rodeo site.*
2.	Location of the proposed water spigot facility inside the existing site access gate adjacent to Old Honaunau Road will have a negative impact to our site. Currently, this gate is only used for maintenance purposes or in conjunction with specific events or uses of the arena; it is not opened and closed on a regular basis. In order to locate the spigots as shown, the area around the spigot needs to be secured to prevent unauthorized vehicular access further into the site yet still allow authorized access. Then we may need to hire security to lock and unlock the existing gate depending on the impacts the facility has on our site.	*Noted. Irregular gate hours, unauthorized access prevention discussion included in the Draft EA. Possible strategies include providing fencing to restrict access to other parts of the arena. Locating the facility outside of the gate may be infeasible due to the narrow width of the road and available space along the shoulder.*

COUNTY OF HAWAII

County of Hawaii Department of Parks & Recreation Response Matrix dated 10/19/05	
Contact:	Ms. Patricia G. Engelhard
Address:	101 Pauahi Street, Suite 6
	Hilo, Hawaii 96720
Phone:	(808) 961-8531 - James Komata, Park Planner

No.	Comments	Response
3.	The proposed improvements are located between the site access gate and the rodeo arena improvements. This could prove problematic in allowing sufficient access to the arena by trucks hauling livestock trailers depending on actual space constraints and configuration of the improvements. There is also the potential for conflict between arena users and water spigot users, especially on days where rodeo events are held at the site.	*Noted. Discussion of these concerns included in the Draft EA for consideration during the site selection phase. Should this site be selected, the final facility location on the site will be coordinated with improvement plans and existing/future operational plans.*
4.	There is no nighttime lighting at the site	*Noted. Recommendation made to consider the installation of lighting at this site.*
5.	The Old Honaunau Road is a substandard, single lane winding, unlit road that may not be advisable for the associated increase in vehicular traffic	*Noted.*
6.	The remoteness of the site and its location on a lightly used public roadway make security at the site a concern.	*Noted. Issue included in EA for consideration.*
7.	Aesthetically the water spigot will detract form the pastoral, agrarian and old-time paniolo feel of the rodeo arena site.	*Noted in the Draft EA.*
SITE C: Papaaloa Park		
1.	The park currently serves as a water spigot site and its continued use would appear to be compatible with the recreational functions administered at the site due to the location of the spigots adjacent to the Old Mamalahoa Highway, the generous amounts of existing paved driveway/parking area, and the rather low-level recreational use occurring at the site. At this time we can foresee no negative impacts on the site or on our operations not already addressed in the general statements.	*Noted.*
SITE D: Mountain View Gym		
1.	The area adjacent to the new building will soon be expanded with another restroom/kitchen/meeting room facility and will be the permanent home for the Mountain View seniors and our related Elderly Activities Division's functions. The governor recently approved the release of state funds for design and construction of the expansion to the facility and locating the water spigots here would be detrimental to the use of the site as a senior center due to competition for parking, increased site traffic and the generation of noise during senior center functions.	*Noted. The proposed spigot facility location moved to the end of the access road, across from the ball park. Please refer to the revised site plan in Section 8.*
2.	Locating the water spigot facility at the rear of the site precludes or restricts us from installing gates at the vehicular entrances/exits of the site in the event that they are needed. The current trend for our park sites is to secure the park perimeter via locking gates to prevent or deter after-hours miscreant and damaging behavior levied against park facilities. Locating the water spigot facility at the rear of the site, hidden from view from the public roadway by the gym, would only provide access and opportunity for act of vandalism or worse.	*Noted. Site relocated.*
3.	The site currently hosts concurrent gym, recreation rooms and senior center users, adding an additional use while reducing available parking is not appropriate site administration.	*Noted. Site relocated.*

COUNTY OF HAWAII

County of Hawaii Department of Parks and Recreation Response to Karen Cox 10/19/05		
Contact:	Ms. Patricia G. Engelhard	
Address:	101 Pauahi Street, Suite 6	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8531 - James Komata, Park Planner	
No.	**Comments**	**Response**
SITE E: Kurtistown Ball Park		
1.	The existing parking lot is already barely large enough to accommodate use of the pavilion for parties, not to mention heavier use of the ball field and concurrent use of the new playground equipment recently installed at the site. Reducing general onsite parking in favor of a new non-park relocated use will only cause park users to occupy on-street parking currently utilized by water spigot users. Although the water spigots are used on an almost constant basis whereas the park is used less frequently, the outcome should be weighed against the time when the park is used by numerous people and parking becomes a public issue.	*Noted. Proposed spigot facility site has been relocated to the other side of the ball park. Please refer to the revised site plan in Section 9.*
2.	Although it is noted that the water spigots are located so as to retain maintenance access to the field via the current gate, it should be noted that the general public has little regard for preserving maintenance access. Also, when the park is utilized fully, the parking lot becomes a mess and access to the spigots will become problematic.	*Noted. Site relocated.*

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Mr. Chris Yuen
Department Head
County of Hawaii Planning Department
Aupuni Center
101 Pauahi Street, Suite 3
Hilo, HI 96720

September 23, 2005

Dear Mr. Yuen,

Subject: **Request for Review and Consultation**
Environmental Assessment for the Construction of Islandwide Spigot Facilities, Various Locations on the Island of Hawaii

The County of Hawaii (COH) Department of Water Supply (DWS) is proposing to construct water spigot facilities in various locations around the island of Hawai'i. Currently, there are several thousand residents on the island who rely on catchment systems for their general water supply. The DWS would like to install new water spigot facilities to provide these residents a safe, accessible source of potable water for their households. Eleven (11) locations around the island have been selected for assessment in this project. A location map, Tax Map Key (TMK) maps, site maps and photos are attached for your information and review. The following TMK numbers encompass the project sites that may be affected by the construction work:

1-4-001: 002	1-8-004: 030
1-5-004: 001	3-5-003: 088
1-5-040: 065	8-3-013: 021
1-6-003: 065	8-4-008: 002
1-7-003: 019	9-5-005: 001
1-8-002: 049	9-5-006: 002

This project will consist of installing water spigot facilities with 5 to 6 water spigot outlets, a concrete apron, paving parking/pull-up areas, security fencing, and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Approximate areas of potential effect are indicated on the attached maps.

We are seeking your consultation on this project to identify any comments or concerns that your office may have with locating the proposed spigots on the project sites. Please find attached to this letter, the project description and site maps of the proposed locations. Please note that the spigot locations shown on the figures are for discussion purposes only; they may not be placed at those particular locations during the construction phase. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions, please feel free to contact either Ms. Jamie Hikiji or myself via telephone, postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Martin.Nakasone@m-e.aecom.com
Jamie.Hikiji@m-e.aecom.com

Thank you very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

Harry Kim
Mayor

Christopher J. Yuen
Director

Roy R. Takemoto
Deputy Director

County of Hawaii

PLANNING DEPARTMENT
Aupuni Center • 101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720
Phone (808) 961-8288 • Fax (808) 961-8742

October 18, 2005

RECEIVED
2005 OCT 20 AM 11:02
DEPT OF WATER SUPPLY
COUNTY OF HAWAII

Mr. Milton D. Pavao, P.E.
Manager
Department of Water Supply
County of Hawai'i
345 Kekūanaō'a St., Suite 20
Hilo, HI 96720

Dear Mr. Pavao:

Subject: Environmental Assessment (EA) for the Construction of Islandwide Spigot Facilities
County of Hawai'i, Department of Water Supply
Job No. 2004-841

This is in response to your letter dated October 12, 2005 requesting our comments on the above-referenced DEA no later than October 21, 2005.

Eleven (11) sites on the island will be evaluated prior to construction of spigots, drainage features, concrete aprons and/or other safety features around the spigots. These water facility upgrades will benefit island residents who do not have an immediate access to safe drinking water by improving the accessibility of potable water and the safety and flow of traffic while spigots are in use.

We have the following comments to offer:

1. Table 1.1 on page 1 lists the proposed project sites and their State and County land designations. Mountain View Gym (TMK:1-8-002:049) has correct land use designations in the table. However, Mountain View Park (TMK:1-8-004:030) has *"Agricultural"* State Land Use Classification and *"Open"* County Zoning. The majority of that parcel is *"Low Density Urban"* (ldu) and a small portion is *"Medium Density Urban"* (mdu) in the County General Plan of 2005.

2. According to the Hawai'i County Zoning Code, the proposed spigots and associated improvements would be permitted after obtaining a Plan Approval from this department for each of the sites, regardless of the County zoning involved.

   "Public uses, structures and buildings and community buildings are permitted uses in any district, provided that the director has issued plan approval for such use." (Section 25-4-11(c), Zoning Code)

   "Public use," "public building" and "public structure" mean a use conducted by or a structure or building owned or managed by the federal government, the State of Hawai'i or the County to fulfill a governmental function, activity or service for public benefit and in accordance with public policy. Excluded are uses which are not purely a function, activity or service of government and structures leased by government to private entrepreneurs or to nonprofit organizations." (Section 25-1-5(b), Zoning Code)

3. The Papa`aloa Gym site is the only parcel listed in Table 1.1 that is in the SMA with a portion of the parcel in Conservation SLU Designation. As long as the proposed improvements are confined to the existing spigot location which is clearly outside of the Conservation SLU, the project will not need a Conservation District Use Permit from the Department of Land and Natural Resources.

4. According to Chapter 205A-22, Hawaii Revised Statutes, and Planning Commission Rule No. 9-4(10)(B), "development" does not include the following:

   (iv) *"Repair and maintenance of utility lines, including but not limited to water, sewer, power, and telephone and minor appurtenant structures such as pad mounted transformers and sewer pump stations;"*

   (vi) *"Repair, maintenance, or interior alterations to existing structures or relating to existing uses;"*

   (vii) *"Demolition or removal of structures, except those structures located on any historic site as designated in national or state registers or those listed in the Historic Sites Element of the General Plan;"*

Therefore we have determined that removal and replacement of the existing two (2) water spigots with an upgraded facility that includes designated parking areas in an existing, paved parking area and improved drainage to properly discharge runoff from the proposed spigots, is exempt from the definition of development.

Since all improvements will be located at considerable distance from the coastline, no certified shoreline survey is
required. The mitigative measures described in the EA will ensure that the proposed activities will not have a substantial effect on the environment.

While further review of the construction of the proposed project against the Special Management Area rules and regulations will not be required, all other applicable Planning Department requirements, i.e. Plan Approvals, must be satisfied.

Should you have questions, please call Deborah Chang of this department at 961-8288, extension 254.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

DLC:cd
P:\public\WPWIN60\Deborah\EA\LIslandwideSpigotFacilities.doc

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 18, 2005

Mr. Christopher J. Yuen, Planning Director
County of Hawaii
Planning Department
Aupuni Center
101 Pauahi Street, Suite 3
Hilo, HI 96720

Dear Mr. Yuen,

Subject: Environmental Assessment for the Construction of Islandwide Spigot Facilities, Response to Preliminary Draft EA

Thank you for your review and comments to the preliminary Draft EA for the subject project. We have reviewed the comments listed in your October 18, 2005 letter and would like to offer the following responses:

1. Comment: "Table 1.1, Page 1: Mountain View Park (TMK: 1-8-004: 030), majority of the parcel is "Low Density Urban" (ldu) and a small portion is "Medium Density Urban" (mdu) per the County Plan 2005."

   Response: The classification has been revised as noted.

2. Comment: "Per the Hawaii County Zoning Code, the proposed spigots and associated improvements would be permitted after obtaining a Plan Approval from this department for each of the sites, regardless of the County zoning involved."

   Response: Planning Department plan approval has been included in the list of required permits and approvals (Section 18).

3. Comment: "The Papaaloa Gym site is the only parcel listed in Table 1.1 that is in the SMA with a portion of the parcel in Conservation SLU Designation. As long as the proposed improvements are confined to the existing spigot location which is clearly outside of the Conservation SLU, the project will not need a Conservation District Use Permit from the Department of Land and Natural Resources."

   Response: This determination has been included in the Draft EA

4. Comment: "The removal and replacement of the existing two (2) water spigots with an upgraded facility that included designated parking areas in an existing, paved parking area and improved drainage to properly discharge runoff from the proposed spigots is exempt from the definition of development."

   Response: This determination is so noted.

5. Comment: "All improvements will be located at considerable distance from the coastline, no certified shoreline survey is required. The mitigative measures described in the Draft EA will ensure that the proposed activities will not have a substantial effect on the environment."

Response: This determination is so noted.

The Draft EA has been revised to address consultation and review comments received, and will be published on November 23, 2005. A copy of the Draft EA was sent to the Department of Water Supply for distribution to the Planning Department.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

LB

Harry Kim
Mayor

Christopher J. Yuen
Director

Roy R. Takemoto
Deputy Director

LB FM WA SK JH

County of Hawaii

PLANNING DEPARTMENT

Aupuni Center • 101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720
Phone (808) 961-8288 • Fax (808) 961-8742

GB

December 9, 2005

Mr. Milton D. Pavao, P.E.
Manager
Department of Water Supply
County of Hawai`i
345 Kekūanaō`a St., Suite 20
Hilo, HI 96720

Dear Mr. Pavao:

Subject: Draft Environmental Assessment (EA) for the Construction of Islandwide Spigot Facilities County of Hawai`i, Department of Water Supply Job No. 2004-841

We have reviewed the Draft EA dated November 2005 and note that our comments on the preliminary Draft EA dated September 2005 have been incorporated.

The Draft EA correctly notes that the Papa`aloa Gym site is located in the Special Management Area (SMA), and Section 18 (page 188) states that a SMA Use Permit is required at that site. However, we have determined that an SMA Use Permit will not be required for the Papa`aloa Gym site.

The proposed work at the Papa`aloa Gym site is exempt from the definition of "development" according to Chapter 205A-22, Hawaii Revised Statutes, and Planning Commission Rule No. 9-4(10)(B) which state that "development" does not include the following:

(iv) "Repair and maintenance of utility lines, including but not limited to water, sewer, power, and telephone and minor appurtenant structures such as pad mounted transformers and sewer pump stations;"

(vi) "Repair, maintenance, or interior alterations to existing structures or relating to existing uses;"

> *(vii) "Demolition or removal of structures, except those structures located on any historic site as designated in national or state registers or those listed in the Historic Sites Element of the General Plan;"*

Therefore, based on the information provided in the Draft EA, we have determined that replacement of the existing water spigot with the proposed upgrades to the facility will not have adverse effects on the environment or coastal resources and will require no further review against the SMA rules and regulations.

Please be advised that like all of the other proposed spigot sites, the Papa`aloa Gym site will need a Plan Approval issued by this office.

If you have questions, please contact Deborah Chang at 961-8288, extension 254.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

DLC:cd
P:\public\WPWIN60\Deborah\Letters\IslandwideSpigotFacilitiesDEAComments.doc

M&E Pacific, Inc.

METCALF & EDDY | AECOM

Facsimile Transmittal

FAXED 9/12/05 1:21pm

To: **Mr. Bruce McClure, P.E., Director** **County of Hawaii** **Dept. of Public Works** **Aupuni Center** **101 Pauahi Street, Suite 7** **Hilo, Hawaii 96720**	**From:** Jamie Hikiji M&E Pacific, Inc. Davies Pacific Center 841 Bishop Street, Suite 1900 Honolulu, Hawai'i 96813
Phone Number: (808) 961-8321	**Date Transmitted:** September 12, 2005
Fax Number: **(808) 961-8630**	**Project Number:** 36802908.00340
Subject: **EA for the Construction of Islandwide Spigot Facilities**	**Total Number of Pages:** **4**

Remarks:

Hello Mr. McClure,

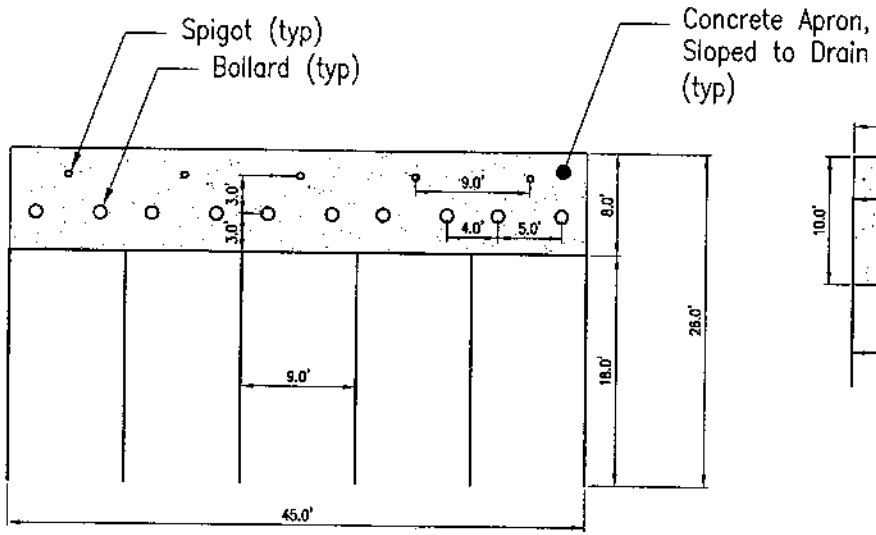
Please see the attached for approximate proposed spigot locations for the Waiohinu Floodway site (TMK 9-5-006: 002) and the Hawaiian Paradise Park Fire Station site (TMK 1-5-040: 065). These locations were selected based upon our site investigation, in order to provide a more focused project site assessment for the EA. Please review the sketches and provide any comments or concerns that you may have.

If there are any questions or comments, please contact me at (808) 521-3051, fax (808) 524-0246 or e-mail Jamie.Hikiji@m-e.aecom.com. Thank you very much for your assistance.

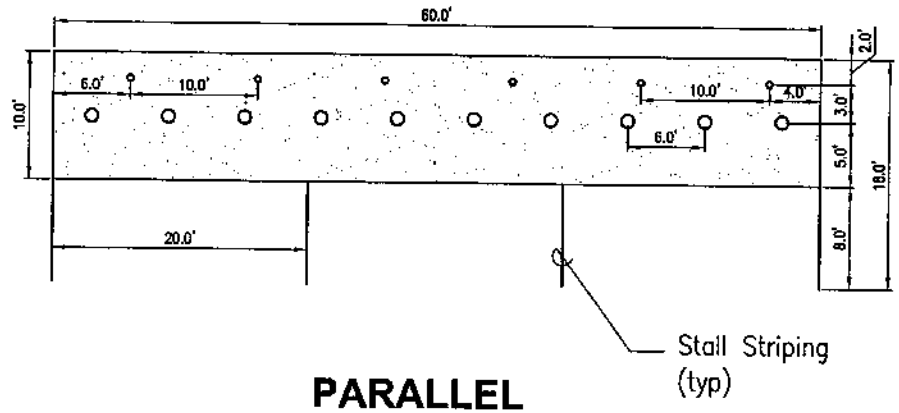
Thank You,
Jamie Hikiji

COPY TO: **Project File**

PROPOSED SPIGOT LAYOUTS



PERPENDICULAR TYPE A



PARALLEL TYPE B

Notes:

1. Number of spigots dependent on available space and final design.
2. Layouts proposed are for general sizing and siting purposes only. The final layout constructed will be dependent on the final design.

M&E Pacific, Inc.

METCALF & EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

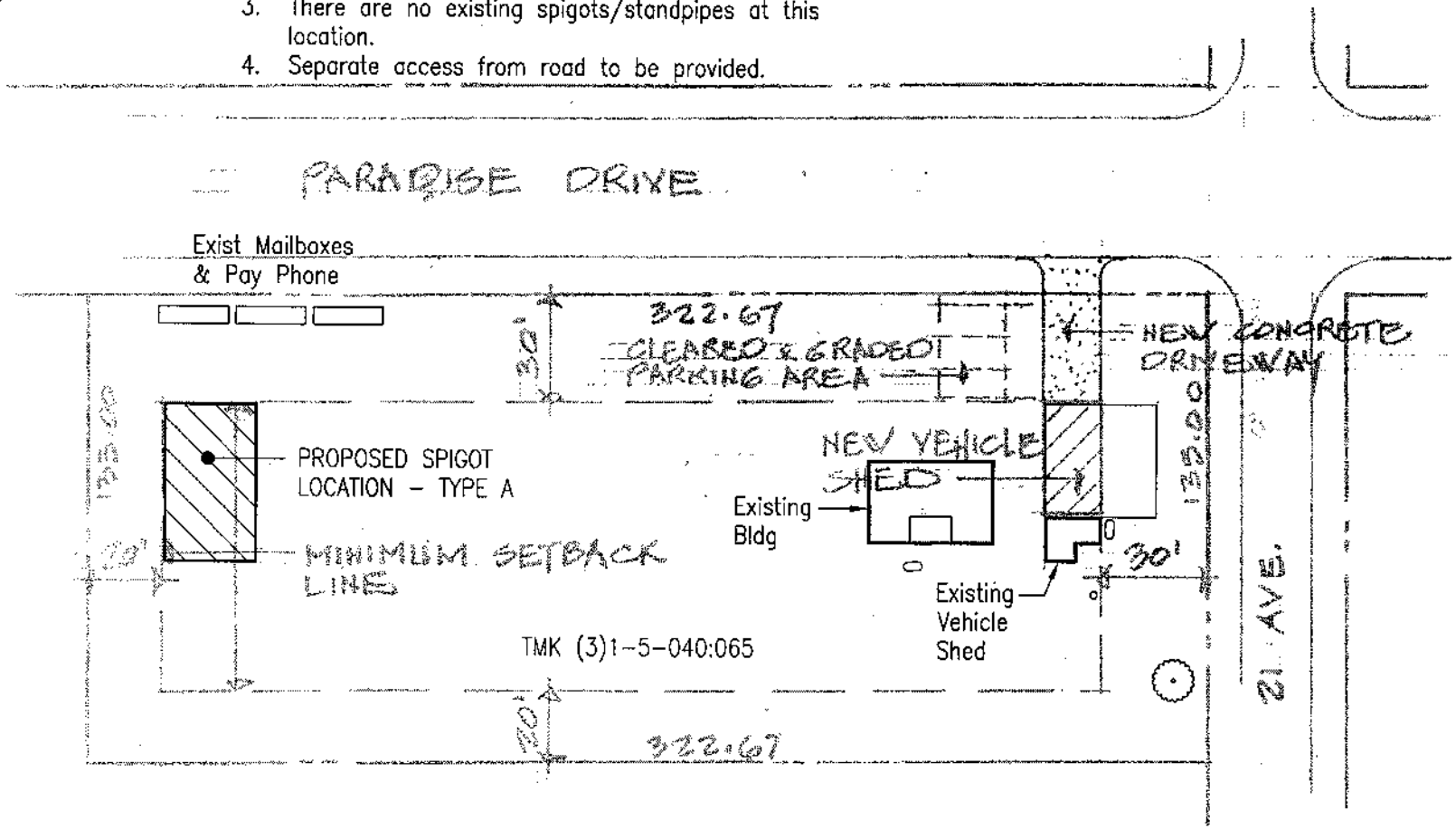
Figure
PROPOSED LAYOUTS
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF ISLAND-WIDE SPIGOT FACILITIES
VARIOUS LOCATIONS, HAWAII

SEPTEMBER, 2005

Notes:

1. Per discussion with fire fighter, the association plans to resurface and widen the road. Will confirm with Assn.
2. Need to contact Fire Station directly with regard to proposed spigot location?
3. There are no existing spigots/standpipes at this location.
4. Separate access from road to be provided.

TMK: (3)1-5-040: 065
Scale: 1"=50'



M&E Pacific, Inc.

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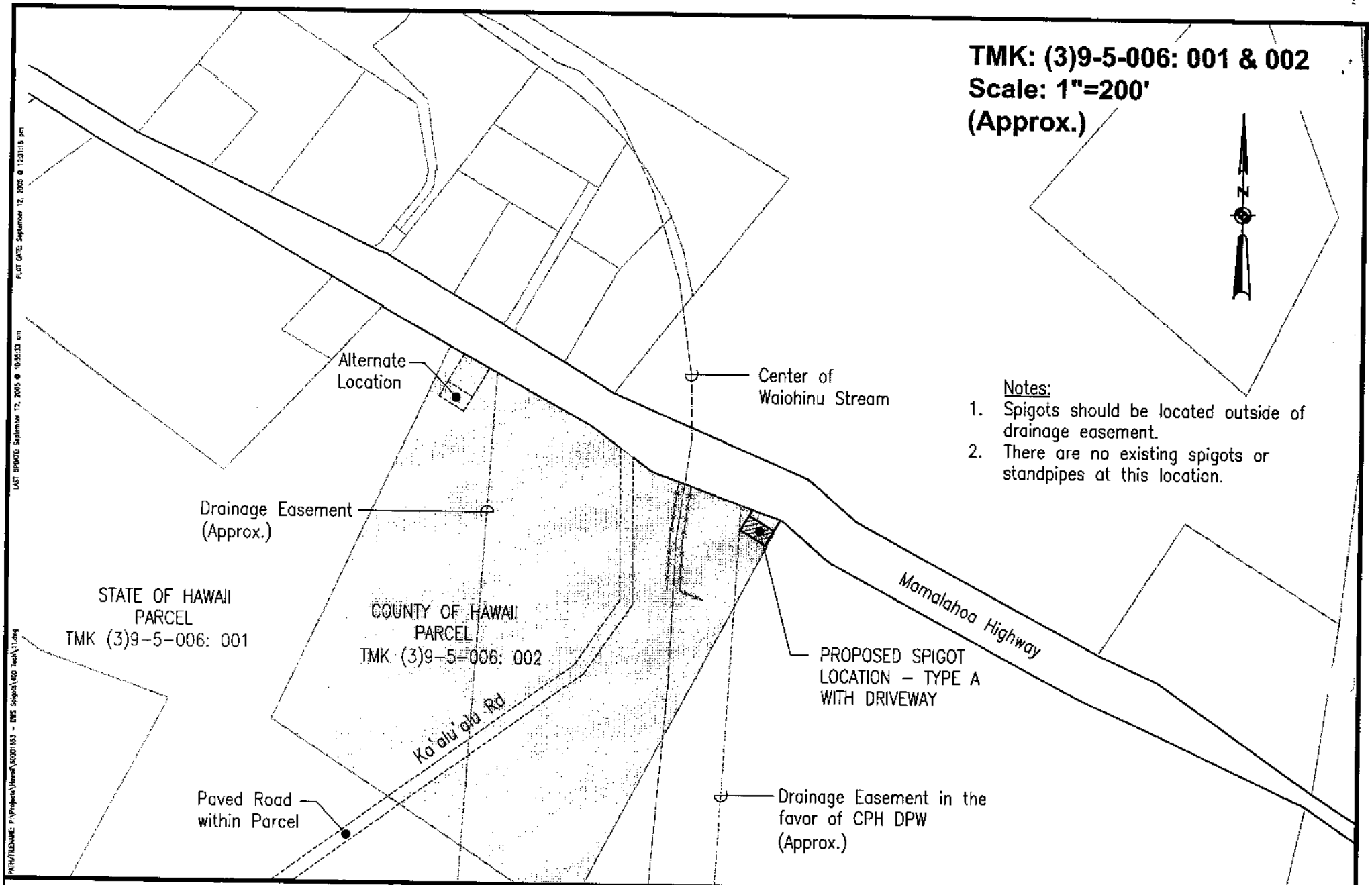
DAVIES PACIFIC CTR, STE 1900 - 841 BISHOP ST, HONOLULU, HAWAII 96813

Site 7
HAWAIIAN PARADISE PARK FIRE STN
ENVIRONMENTAL ASSESSMENT FOR THE
CONSTRUCTION OF ISLAND-WIDE SPIGOT FACILITIES
NORTH HILO, HAWAII

SEPTEMBER, 2005



Notes:
1. Spigots should be located outside of drainage easement.
2. There are no existing spigots or standpipes at this location.

PATH/FILENAME: P:\Projects\Hawaii\60001853 - BWS Spigots\100 Tech\11.dwg
LAST UPDATE: September 12, 2005 @ 10:55:33 am
PLOT DATE: September 12, 2005 @ 12:31:18 pm

M&E Pacific, Inc.
METCALF & EDDY | AECOM
DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Site 11
WAIOHINU FLOODWAY
ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF ISLAND-WIDE SPIGOT FACILITIES
WAIOHINU, HAWAII

SEPTEMBER, 2005

Harry Kim
Mayor

Bruce C. McClure
Director

Jiro A. Sumada
DeputyDirector

County of Hawai'i
DEPARTMENT OF PUBLIC WORKS

Aupuni Center
101 Pauahi Street, Suite 7 · Hilo, Hawai'i 96720-4224
(808) 961-8321 · Fax (808) 961-8630

October 24, 2005

RECEIVED
05 OCT 24 PM 3:30
DEPT OF WATER SUPPLY
COUNTY OF HAWAII

GR

Michelle Yamamoto
M & E Pacific, Inc.
100 Pauahi Street, Suite 207
Hilo, Hawaii 96720

Dear Ms. Yamamoto:

SUBJECT: ENVIRONMENTAL ASSESSMENT
CONSTRUCTION OF ISLAND-WIDE SPIGOTS

In response to your October 17, 2005 transmittal letter providing the subject Environmental Assessment, the following comments are provided.

1) From an operational perspective, who is responsible for operating and maintaining these spigots? Who pays the water bill and who makes repairs to the piping, parking stalls, who picks up rubbish, etc.

2) Spigot sites in low areas should include drainage improvements to ensure ponding does not occur potentially damaging parking stalls or forcing users to wade through standing water.

3) Why are there two spigot locations for Waiohinu? Was this based on a study of past usage?

If you have any questions regarding the above comments, please respond directly to our Highway Maintenance Superintendent, Mr. Stanley Nakasone, at 961-8349.

JIRO A. SUMADA
Deputy Director

cc: √Milton Pavao, DWS
Bruce C. McClure, DPW
Stanley Nakasone, HWY

County of Hawai'i is an Equal Opportunity Provider and Employer.

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M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 18, 2005

Mr. Jiro A. Sumada, Deputy Director
County of Hawaii
Department of Public Works
Aupuni Center
101 Pauahi Street, Suite 7
Hilo, HI 96720-4224

Dear Mr. Sumada,

Subject: Environmental Assessment for the Construction of Islandwide Spigot Facilities, Response to Preliminary Draft EA

Thank you for your review and comments to the preliminary Draft EA for the subject project. We have reviewed the comments listed in your October 24, 2005 letter and would like to offer the following responses:

1. Comment: "From an operational perspective, who is responsible for operating and maintaining these spigots? Who pays for the water bill and who makes repairs to the piping, parking stalls, who picks up rubbish, etc.?"

   Response: Currently, the Department of Water Supply (DWS) maintains the existing spigot facilities. Per DWS, Civil Defense currently takes care of the water usage payments, however it is their understanding that DPW will soon take over this responsibility. A recommendation that all applicable parties establish an operations and maintenance plan/agreement outlining each agency's and/or organization's responsibilities was included in the Draft EA.

2. Comment: "Spigot sites in low areas should include drainage improvements to ensure ponding does not occur potentially damaging parking stalls or forcing users to wade through standing water."

   Response: Specific drainage issues will be addressed during the design phase of this project. Additional language was incorporated into the Draft EA to clarify that drainage features will be installed with the facilities to ensure adequate drainage at each site.

3. Comment: "Why are there two spigot locations for Waiohinu? Was this based on a study of past usage?

   Response: The second Waiohinu site (Site J, Waiohinu Flood Channel) was included into this study based upon the anticipation that it may not be feasible to install a water spigot facility at the Waiohinu Transfer Station (Site K). The purpose of this EA is to the evaluate the environmental impacts the installation of a facility may have to these sites. A maximum 6 sites of the 11 described here will be selected as a spigot facility location, based upon the environmental impacts and administrative considerations.

The Draft EA has been revised to address consultation and review comments received, and will be published on November 23, 2005. A copy of the Draft EA was sent to the Department of Water Supply for distribution to the Department of Public Works.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Mr. Milton Pavao
Department Head
County of Hawaii Department of Water Supply
345 Kekuanaoa St., Suite 20
Hilo, HI 96720

September 23, 2005

Dear Mr. Pavao,

Subject: **Request for Review and Consultation**
Environmental Assessment for the Construction of Islandwide Spigot Facilities, Various Locations on the Island of Hawaii

The County of Hawaii (COH) Department of Water Supply (DWS) is proposing to construct water spigot facilities in various locations around the island of Hawai'i. Currently, there are several thousand residents on the island who rely on catchment systems for their general water supply. The DWS would like to install new water spigot facilities to provide these residents a safe, accessible source of potable water for their households. Eleven (11) locations around the island have been selected for assessment in this project. A location map, Tax Map Key (TMK) maps, site maps and photos are attached for your information and review. The following TMK numbers encompass the project sites that may be affected by the construction work:

1-4-001: 002	1-8-004: 030
1-5-004: 001	3-5-003: 088
1-5-040: 065	8-3-013: 021
1-6-003: 065	8-4-008: 002
1-7-003: 019	9-5-005: 001
1-8-002: 049	9-5-006: 002

This project will consist of installing water spigot facilities with 5 to 6 water spigot outlets, a concrete apron, paving parking/pull-up areas, security fencing, and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Approximate areas of potential effect are indicated on the attached maps.

We are seeking your consultation on this project to identify any comments or concerns that your office may have with locating the proposed spigots on the project sites. Please find attached to this letter, the project description and site maps of the proposed locations. Please note that the spigot locations shown on the figures are for discussion purposes only; they may not be placed at those particular locations during the construction phase. We will assume that your office has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any questions, please feel free to contact either Ms. Jamie Hikiji or myself via telephone, postal mail, electronic mail or facsimile. Electronic mailings should be sent to either of the following two addresses:

Martin.Nakasone@m-e.aecom.com
Jamie.Hikiji@m-e.aecom.com

Thank you very much for your time and assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Mr. Darryl J. Oliveira, Fire Chief
County of Hawaii Fire Department
25 Aupuni Street, Room 103
Hilo, Hawaii 96720

September 22, 2005

Dear Fire Chief Oliveira,

Subject: Request for Review of Proposed Spigot Facility Location at Hawaiian Paradise Park Fire Station, TMK (3)1-5-040:065

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) for the construction of water spigots in various locations on the Island of Hawai'i. This project consists of installing water spigot facilities with 5 to 6 water spigots, paved parking/pull-up areas, security features and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Eleven (11) locations around the island have been selected for assessment in this project. One of the locations selected for study is the Hawaiian Paradise Park Fire Station.

We are seeking your consultation on this project to identify any comments or concerns that the Fire Department may have with locating the proposed spigot on the fire station site. Please find attached to this letter, the project description and site maps of the proposed locations. Please note that the spigot location shown on the figure is for discussion purposes only; it may not be placed at that particular location during the construction phase. We will assume that the Fire Department has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051, fax (808) 524-0246 or e-mail at Martin.Nakasone@m-e.aecom.com or Jamie.Hikiji@m-e.aecom.com. Thank you for your assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

Harry Kim
Mayor

Darryl J. Oliveira
Fire Chief

Desmond K. Wery
Deputy Fire Chief

County of Hawai'i
FIRE DEPARTMENT
25 Aupuni Street • Suite 103 • Hilo, Hawai'i 96720
(808) 961-8297 • Fax (808) 961-8296

October 5, 2005

RECEIVED
OCT 17 2005
M & E PACIFIC, INC.

Mr. Martin Nakasone
Engineering Manager
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, HI 96813

Dear Mr. Nakasone,

RE: REQUEST FOR REVIEW OF PROPOSED SPIGOT FACILITY LOCATION AT HAWAIIAN PARADISE PARK FIRE STATION, TMK: (3)1-5-040:065

I would like to take this opportunity to provide comments on the proposed spigot facility location at the Hawaiian Paradise Park Fire Station. I would like to also thank you for the opportunity to participate in the planning phase of this project to assure that the community is served in the best and safest possible manner.

Based on the following items, I would like to recommend that the Hawaiian Paradise Fire Station site not be utilized for a Spigot Facility:

- As one of the more active fire and emergency response units in the Puna District, the movement of emergency vehicles both responding to and returning from incidents may be adversely affected by private vehicles accessing the spigot facility. This may include line of sight and sight distance concerns, sight obstructions, etc. These issues are of significant concern when considering the site's proximity to the intersection of Paradise Drive and 21st Avenue.

- The placement of a Spigot Facility on this site would raise security concerns for our station and personnel. As the spigot would be intended to be available around the clock for public access, the security of our station premises may be impacted and require the installation of alternative measures. It would be our goal to minimize transient activities around the fire station to minimize any security threat or compromise.

- The present site is currently utilized for both a school bus pick up and drop off point as well as a rural route mail depot which is creating use and access issues that may be exacerbated by the installation of a Spigot Facility. Recognizing the safety concerns associated with the school bus operations, the Fire Department is presently exploring measures to continue the support of such activities and provide for the safety of the riders. We would like to focus our pursuits on this project and establish facilities to address the safety of the children in the area. The further expansion of the "mixed use" of this site may adversely affect our objectives and goal attainment.

- The proposed site, as located off the main highway and travel route, may be less accessible and less visible thereby possibly reducing its benefit to the community at large.

I am confident that you can appreciate my concerns and recommendations based on our shared desire to effectively and safely serve the community. I am also hopeful that the information provided will assist in your project development process, and I look forward to the opportunity to continue to work together in the future.

Sincerely,

DARRYL OLIVEIRA
Fire Chief

DO:lk

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 18, 2005

Mr. Darryl J. Oliveira, Fire Chief
County of Hawaii Fire Department
25 Aupuni Street, Suite 103
Hilo, Hawaii 96720

Dear Mr. Oliveira,

Subject: Proposed Spigot Facility Location at Hawaiian Paradise Park Fire Station, TMK (3)1-5-040:065 – Response to Draft EA Pre-Consultation Letter

Thank you for your review and comments to our pre-consultation letter for the subject project. We have reviewed the comments listed in your October 5, 2005 letter and would like to offer the following responses:

1. Comment: "As one of the more active fire and emergency response units in the Puna District, the movement of emergency vehicles both responding to and returning from incidents may be adversely affected by private vehicles accessing the spigot facility. This may include line of sight and sight distance concerns, sight obstructions, etc. These issues are of significant concern when considering the site's proximity to the intersection of Paradise Drive and 21st Avenue."

   Response: The proposed spigot facility location was adjusted to confine movement to the spigot area via fencing and a separate driveway entrance. However, this location is for discussion purposes only. We are only evaluating the site at this time. The layout for any given site will take place during the pre-design phase if the site is selected.

2. Comment: "The placement of a spigot facility on this site would raise security concerns for our station and personnel. As the spigot would be intended to be available around the clock for public access, the security of our station premises may be impacted and require the installation of alternative measures. It would be our goal to minimize transient activities around the fire station to minimize any security threat or compromise."

   Response: These concerns included in the Draft EA for site consideration. Possible mitigation measures include limiting spigot access hours, and providing security fencing around the spigot site. A recommendation was included in the Draft EA for the establishment of a maintenance and operation plan/agreement between DWS and all other applicable parties. This plan should address maintenance responsibilities as well as operational and security concerns.

3. Comment: "The present site is currently utilized for both a school pick-up and drop-off point as well as a rural route mail depot which is creating use and access issues that may be exacerbated by the installation of a spigot facility. Recognizing the safety concerns associated with the school bus operations, the Fire Department is presently exploring measures to continue the support of such activities and provide for the safety of the riders. We would like to focus their pursuits on this project and establish facilities to address the safety of the children in the area. The further expansion of the 'mixed use' of this site may adversely affect our objectives and goal attainment."

   Response: These concerns included in the Draft EA for site consideration. Possible mitigation measures include limiting spigot access hours. The recommendation made that if this site is selected, coordination should be performed between access hours and the Fire Department and school bus schedules.

4. Comment: "The proposed site, as located off the main highway and travel route may be less accessible and less visible thereby possibly reducing its benefit to the community at large."

   Response: This issue is so noted.

The Draft EA has been revised to address consultation and review comments received, and will be published on November 23, 2005. A copy of the Draft EA is enclosed for your review and information.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

Harry Kim
Mayor

Dixie Kaetsu
Managing Director

Peter L. Hendricks
Deputy Managing Director

County of Hawai'i
25 Aupuni Street, Room 215 • Hilo, Hawai'i 96720-4252 • (808) 961-8211 • Fax (808) 961-6553
KONA: 75-5706 Kuakini Highway, Suite 103 • Kailua-Kona, Hawai'i 96740
(808) 329-5226 • Fax (808) 326-5663

RECEIVED
2005 NOV 29 PM 3:22
DEPT OF WATER SUPPLY
COUNTY OF HAWAII

November 27, 2005

Milton Pavao, P.E.
Manager
Department of Water Supply
County of Hawai'i
345 Kekūanaō'a Street
Hilo, Hawai'i 96720

Re: Environmental Assessment for the Construction of the Islandwide Water Spigot Facilities
Department of Water Supply, Job No. 2004-841

Dear Mr. Pavao:

Thank you for the opportunity to review and comment on the draft environmental assessment referenced above.

A review of this document indicates that it would not be feasible to allow 24-hour-a-day service at some of the sites under consideration. This is due to either the location or other activities already conducted at the sites.

It is understood that many different factors will be considered in selecting the six sites (out of eleven being evaluated) where new or upgraded water spigot facilities will be constructed. It must be kept in mind that one important factor is the allowable hours of operation, to make it convenient for residents to draw water when they can. Ideally, the facilities would be open 24 hours a day. If this is not possible, then the longest possible hours of operation must be planned.

I truly appreciate the work you and your department are doing on this project, and look forward to getting this project completed.

Aloha,

Harry

Harry Kim
MAYOR

much Thanks
milton for your work.

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Mr. Frank Annin, President
Hawaiian Paradise Park Owners Association
HC 3 Box 11000
Keaau, Hawaii 96749

September 22, 2005

Dear Mr. Annin,

Subject: Request for Review of Proposed Spigot Facility Location at Hawaiian Paradise Park Fire Station, TMK (3)1-5-040:065

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) for the construction of water spigots in various locations on the Island of Hawai'i. This project consists of installing water spigot facilities with 5 to 6 water spigots, paved parking/pull-up areas, security features and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Eleven (11) locations around the island have been selected for assessment in this project. One of the locations selected for study is the Hawaiian Paradise Park Fire Station.

We are seeking your consultation on this project to identify potential effects this project may have to the Hawaiian Paradise Park community, or any concerns the Association may have with the proposed spigot location. We would also like to inquire about any future plans the Association may have regarding the portions of Paradise Drive or 21st Avenue fronting this location. Please find attached to this letter, the project description and site maps of the proposed locations. Please note that the spigot location shown on the figure is for discussion purposes only; it may not be placed at that particular location during the design phase. We will assume the association has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246. Thank you for your assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

Hawaiian Paradise Park Owners Association

October 20, 2005

RECEIVED
OCT 24 2005
M & E PACIFIC, INC.

M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
Jamie Hikiji and Martin Nakasone

Aloha Jamie,

Mr. Annin passed your package on to me October 17, 2005 when he returned from holiday.

I am impressed by the professional and clear presentation of this proposed study for Spigot Facilities here on the Big Island. You did a very nice job.

I believe the addition of public spigots would be a definite asset to our community. There is an existing water line on the Kea'au side of Paradise Drive which services the Fire Station and properties that abut Paradise. I imagine your study will determine if the existing pipeline is sufficient to also service public spigots.

As we are private property with public access, I have three concerns regarding the installation of public spigots.

1. Safety on the roads is our primary concern. There is a serious safety hazard in having people coming off or onto Paradise Drive. I have included a Board Directive regarding this situation pertaining to driveways. Access to the spigots would fall under this Directive. Having access to the spigots off 21st is the safest way to direct traffic to the site. Per the drawing included in your package, the spigots would be behind the post boxes and pay phones. People pull up to the mailboxes and frequently remain in their cars to retrieve mail. Vehicles will also be at the phones for extended periods of time.
2. There is inevitable trash that seems to collect at these sights. I would want to see ample rubbish bins at the sight as our Road Maintenance crew and possibly interested lot owners, would be the ones cleaning the area.

Hawaiian Paradise Park Owners Association
HC 3 Box 11000 • Kea'au, Hawaii 96749-9204
Phone (808) 966-4500 • Fax (808) 982-5198
http://www.hawaiianparadisepark.org
hppoa@interpac.net

3. This would certainly increase traffic on Paradise Drive. As noted above, we are private property and responsible for maintenance and paving of the over 135 miles within Hawaiian Paradise Park. Who would maintain the paved parking/pull up areas after the site has been created and spigots installed? Do you have any idea when construction would begin after the studies have been complete? One year, 3 years, 5 or more years? I realize you are at the beginning of this project, yet an estimate would be appreciated.

I look forward to seeing how this study and subsequent use of the information gathered will be used to our community. If I can be of any service, please don't hesitate to contact me at the numbers noted below.

Sincerely,

Bobbi Stutsman
General Manager

Hawaiian Paradise Park Owners Association
HC 3 Box 11000 • Kea'au, Hawaii 96749-9204
Phone (808) 966-4500 • Fax (808) 982-5198
http://www.hawaiianparadisepark.org
hppoa@interpac.net

Hawaiian Paradise Park Owners Association

DIRECTIVE TO LOT OWNERS WHOSE PROPERTY ABUTS SHOWER, KALOLI, PARADISE OR MAKU'U

Aloha Lot Owners,

New building and population in Hawaiian Paradise Park has increased dramatically in the last year and a half. With this increase, there is an even greater need for safe ingress and egress to the main roads of Shower, Kaloli, Paradise and Maku'u Drives.

With the exception of 3 lots on Kaloli and 2 on Paradise, all the lots that abut the main roads have access from side roads. For obvious safety reasons, it is imperative that the driveways to these lots are situated on it's associated side road.

The roads here in Hawaiian Paradise Park are private, with public access and under the authority of the Hawaiian Paradise Park Owner's Association Board of Directors.

For the safety of all drivers and residents using the main roads here in Hawaiian Paradise Park, the Board of Directors as of April 1, 2005, require that lots which abut Shower, Kaloli, Paradise or Maku'u Drives have their driveway(s) (entrance to and exit from property), on that lots' associated side road.

Respectfully,

Bobbi Stutsman

Bobbi Stutsman
General Manager

Hawaiian Paradise Park Owners Association
HC 3 Box 11000 • Keaau, Hawaii 96749-9204
Phone (808) 966-4500 • Fax (808) 982-5198
http://www.hawaiianparadisepark.org
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METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 18, 2005

Ms. Bobbi Stutsman, General Manager
Hawaiian Paradise Park Owners Association
HC 3 Box 11000
Keaau, Hawaii 96749-9204

Dear Ms. Stutsman,

Subject: Proposed Spigot Facility Location at Hawaiian Paradise Park Fire Station, TMK (3)1-5-040:065 – Response to Draft EA Pre-Consultation Letter

Thank you for your review and comments to our pre-consultation letter for the subject project. We have reviewed the comments listed in your October 20, 2005 letter and would like to offer the following responses:

1. Comment: "There is a serious safety hazard in having people coming off or onto Paradise Drive. Having access to the spigots off 21st is the safest way to direct traffic to the site. Per the drawing, the spigots would be behind the post boxes and pay phones. People pull up to the mailboxes and frequently remain in their cars to retrieve mail. Vehicles will also be at the phones for extended periods of time."

   Response: This issue has been included in the Draft EA and will be considered during the site selection process. Due to concerns regarding impacts to emergency vehicle movements, the proposed driveway entrance is shown along Paradise Drive. The recommendation was made to obtain permission from the Hawaiian Paradise Park Owner's Association to place the driveway as proposed.

2. Comment: "There is inevitable trash that seems to collect at these sites. I would want to see ample rubbish bins at the site as our Road Maintenance crew and possibly interested lot owners would be the ones cleaning the area."

   Response: Currently, the DWS assumes responsibility of facility maintenance for existing water spigots facilities. The recommendation was made for the DWS, DPW, and all other applicable parties (including the HPP Owner's Association) to establish an operations and maintenance plan or agreement to define each party's responsibilities on these issues.

3. Comment: "This would certainly increase traffic on Paradise Drive. As noted, we are private property and responsible for maintenance and paving of the over 135 miles within Hawaiian Paradise Park. Who would maintain the paved parking/pull-up areas after the site has been created and spigots installed? Do you have any idea when construction would begin after the studies have been complete?"

Response: Please refer to the response to item #2 above. Per the DWS, a construction schedule has not yet been determined. However, based on a preliminary estimate, construction could start in the beginning of 2007 at the earliest. Construction would probably take 8-9 months. Please note that construction for this project includes the installation of six total sites, and the installation would be spread out during the indicated time period.

Please note that the Hawaiian Paradise Park Fire Station is only one of eleven sites being studied as a possible water spigot facility location. Six of these sites will be selected by the County of Hawai'i Mayor's Office and the Department of Water Supply upon approval of the Final EA. Their selection will include consideration of the issues and concerns discussed in the assessment.

Further discussion of the environmental impacts that the proposed project may have to the existing site is available in the Draft EA, to be formally published on November 23, 2005. A copy of the Draft EA is available for public review and comment at the Keaau and Pahoa Public & School Libraries.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246. Thank you once again for your assistance and cooperation.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Mr. Edward Halealoha Ayau
Hui Malama I Na Kupuna O Hawaii Nei
Post Office Box 190
Haleiwa, HI 96712

September 22, 2005

Dear Mr. Ayau,

Subject: Request for Review of Proposed Spigot Facility Locations

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) for the construction of water spigots in various locations on the Island of Hawai'i. This project consists of installing water spigot facilities with paved parking/pull-up areas, security features and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Eleven (11) locations around the island have been selected for assessment in this project. The Tax Map Key numbers affected by this project are as listed:

1-4-001: 002	1-8-004: 030
1-5-004: 001	3-5-003: 088
1-5-040: 065	8-3-013: 021
1-6-003: 065	8-4-008: 002
1-7-003: 019	9-5-005: 001
1-8-002: 049	9-5-006: 002

We are seeking your consultation on this project to identify potential impacts, if any, on Native Hawaiian peoples or practices. Please find attached to this letter, the project description and site maps of the proposed locations. We will assume that your organization has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051, fax (808) 524-0246 or e-mail at Martin.Nakasone@m-e.aecom.com or Jamie.Hikiji@m-e.aecom.com. Thank you for your assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Ms. Paula Kekahuna
Maku'u Farmers Association
P.O. Box 1357
Pahoa, Hawai'i 96778

October 13, 2005

Dear Ms. Kekahuna,

Subject: Request for Comments to the Proposed Spigot Facility Location at Hawaiian Paradise Park Fire Station, TMK (3)1-5-040:065

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply (DWS) to prepare an Environmental Assessment (EA) for the construction of water spigot facilities in various locations on the Island of Hawai'i. This project consists of installing water spigot facilities with 5 to 6 water spigots, paved parking/pull-up areas, security features and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Eleven (11) locations around the island have been selected for assessment in this project. One of the locations selected for study is the Hawaiian Paradise Park Fire Station. In discussion with the Department of Hawaiian Homes Lands, it was suggested that the Maku'u Farmers Association may be interested in providing their comments to the proposed work on this site.

Therefore, we are seeking your consultation on this project to identify potential effects this project may have on Native Hawaiian peoples or practices that you may be aware of, or any concerns your organization may have with the proposed spigot location. Please find attached to this letter, a location map, site map and site photos of the project site. Please note that the proposed layout and location shown on the figure is for discussion purposes only; the actual size, layout and facility location will be determined during the design phase of this project. We will assume your organization has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246. Thank you for your assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Vicinity Map
(2) Project Location Map – Site G
(3) Project Site Map – Site G
(4) Site Photos – Site G

cc: Project File

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

Liz Selfen
Nanawale Community Association
14-855 Kehau Street
RR3 Box 2250
Pahoa, HI 96778

September 22, 2005

Dear Ms. Selfen,

Subject: Request for Review of Proposed Spigot Facility Location at Nanawale Estates Arena, TMK (3) 1-5-004:001

M&E Pacific, Inc. has been contracted by the County of Hawaii Department of Water Supply to prepare an Environmental Assessment (EA) for the construction of water spigots in various locations on the Island of Hawai'i. This project consists of installing water spigot facilities with 5 to 6 water spigots, paved parking/pull-up areas, security features and drainage features. Construction activities may also include waterline trenching to connect to the main County waterline system. Eleven (11) locations around the island have been selected for assessment in this project. One of the locations selected for study is the Nanawale Estates Arena.

We are seeking your consultation on this project to identify potential effects this project may have to the Nanawale community, or any concerns the Association may have with the proposed spigot location. We would also like to inquire about any future plans the Association may have regarding the portions of Pahoa-Kapoho Road or Nanawale Boulevard fronting this location. Please find attached to this letter, the project description and site maps of the proposed locations. Please note that the spigot location shown on the figure is for discussion purposes only; it may not be placed at that particular location during the design phase. We will assume that the association has no comments on the proposed project if we receive no correspondence within 30 days from the date of this letter.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246. Thank you for your assistance.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

Enclosures: (1) Project Location Map
(2) Project Vicinity Maps
(3) TMK Maps
(4) Site Photos

cc: Project File

NANAWALE COMMUNITY ASSOCIATION, INC.
RR #4 BOX 2250 • PAHOA, HAWAII 96778-9703 • TELEPHONE (808) 965-8080

Working to keep Nanawale the Big Island's most beautiful community.

October 13, 2005

Martin Nakasone
Engineering Manager
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, HI 96813

Subject: Request for Review of Proposed Spigot Facility Location at Nanawale Estates Arena, TMK (3) 1-5-004:001

Dear Mr. Nakasone:

The Nanawale Community Association acknowledges receipt of your letter dated September 22, 2005 regarding the proposed spigot facility.

The Nanawale Community Association held its 45th Annual Membership meeting on October 1, 2005. At this meeting a display of your enclosures was presented, there was only support by the members attending this meeting. The Nanawale Community Association held its monthly Board Meeting on October 12, 2005 and the Board offers their complete support of the project.

The only concern voiced was to allow sufficient site visibility for traffic using the yield onto Nanawale Blvd. from Kapoho Road. The Nanawale Community Association would like to offer our knowledge of the particular piece of property. There exist a driveway and a bulldozed flat area about ½ ways down near the "do not litter" sign. When the Albezia trees were cut, a bulldozer pushed the trees to the back of the lot. This flatten area would be a perfect site for the spigot. Staff of Nanawale Community Association will be available to assist your firm at a site visit.

The Nanawale Community Association does not have plans for the proposed area but would like to work with the State and County to keep the area beautiful and hopefully free from Albezia Trees. The Nanawale Community Association feels that this project would benefit our community for most of our residents do not have access to Department of Water Supply water.

If you have any questions, please do not hesitate to contact the office at 808-965-8080 or fax 808-965-6664.

Sincerely,

Elizabeth Salfen
General Manager
Nanawale Community Association

RECEIVED
OCT 17 2005
M & E PACIFIC, INC.

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawai'i 96813
T 808.521.3051 F 808.524.0246 www.m-e.aecom.com

November 18, 2005

Ms. Elizabeth Salfen, General Manager
Nanawale Community Association, Inc.
14-855 Kehau Street
RR4 Box 2250
Pahoa, HI 96778-9703

Dear Ms. Selfen,

Subject: Proposed Spigot Facility Location at Nanawale Estates Arena, TMK (3) 1-5-004:001 – Response to Draft EA Pre-Consultation Letter

Thank you for your review and comments to our pre-consultation letter for the subject project, and for allowing us a visit to your suggested spigot location. Based upon our field visit earlier this week, it appears that the proposed site could most likely accommodate the proposed spigot facility. The facility location provided in the Draft Environmental Assessment (EA) has been revised to indicate the suggested site.

We have reviewed the comments listed in your October 13, 2005 letter and would like to offer the following responses:

1. Comment: "The only concern voiced was to allow sufficient site visibility for traffic using the yield onto Nanawale Blvd. from Kapoho Road."

   Response: Should this site be selected, sufficient sight distance will be provided at the facility during the design phase of the project. This concern was included in the Draft EA.

2. Comment: "The Nanawale Community Association does not have plans for the proposed area but would like to work with the State and County to keep the area beautiful and hopefully free from Albezia Trees."

   Response: A recommendation was made for the DWS to consult and coordinate with the Nanawale Community Association to ensure that the aesthetics of the community is not compromised by this project.

Please note that the Nanawale Estates Arena is one of eleven sites being studied as a possible water spigot facility location. The final site selection will be done by the County of Hawai'i Mayor's Office and the Department of Water Supply upon approval of the Final EA. Their selection will include consideration of the issues and concerns discussed in the assessment. Although the Department of Water has not yet established a construction schedule for this project, they have tentatively estimated that construction of the six facilities could begin in early 2007. The construction phase is expected to last approximately 8 or 9 months.

Further discussion of the environmental impacts this project may have to the existing site is provided in the Draft EA, to be formally published on November 23, 2005. A copy of the Draft EA is available for public review at the Pahoa Public & School Library.

Should you have any further questions or comments, please contact either Ms. Jamie Hikiji or myself at (808) 521-3051 or fax (808) 524-0246. Thank you once again for your assistance and cooperation.

Sincerely,

M&E PACIFIC, INC.

Martin Nakasone
Engineering Manager

cc: Project File

ANNOTATED COMMENT REPONSES
TO ALL COMMENTS RECEIVED

FEDERAL

United States Environmental Protection Agency		
Contact:	Mr. Barry Pollock, Hawaii PWSS Project Officer / USEPA Region 9	
Address:	Drinking Water Office / WTR-6	
	75 Hawthorne Street	
	San Francisco, CA 94105	
Phone:	(415) 972-3563	
No.	**Comments**	**Response**
GENERAL		
1.	**The EA needs to clearly state that due to federal funding, the Federal NEPA / Environmental Assessment process is required for this project; and provide a brief description of that process.**	
	A statement should be added to Section 3.4 explaining that his project, as it is partially funded by a federal/USEPA grant, is required to follow federal NEPA environmental review and assessment requirements as well as State requirements. We suggest you reference the NEPA statue; Federal Regulations 40 CFR Part 1500-1508, "Regulations for implementing the procedural provisions of the NEPA", and EPA's specific NEPA regulations found at 40 CFR Part 6, "Implementation of the Procedures for the National Environmental Policy Act". A brief summary of the federal NEPA/EPA Environmental Assessment process should be provided.	*Statement and NEPA process description provided as requested.*
2.	**More information on Agencies and Persons Consulted and any issues raised is needed.**	
	Please provide more information on consultations in Section 2 or in an Appendix, including a synopsis of the federal, state and local agencies who were contacted; specific persons and contact information (phone #, etc.) and any communications which were sent to or received from these agencies, and any private citizens during the EA process. A summary of any issues raised by these agencies and persons should be included, as well as all correspondence.	*Contact information and communication summary provided in Section 2. Copies of correspondence provided in Appendix A & B. Annotated comment response provided in Appendix A.*
3.	**Additional information on Biological Assessments, "Flora and Fauna", threatened and endangered species (Endangered Species Act requirements) .**	
	If not already done, a copy of the draft EA should be forwarded to United States Fish and Wildlife Service (USFWS) Office in Hawaii, for their review. As consultation with USFWS is a requirement for USEPA (as the lead Federal Agency for this project) please provide us with a copy of any correspondence sent to or received from USFWS (including letter, email and/or phone logs). After our review of this correspondence to ensure it is sufficient, it should be included as an appendix in the final EA.	*As per consultation with EPA, letter of no finding received from USFWS is sufficient. When available, a copy of the published Draft EA will be sent to USFWS for their information and review.*
	Please clarify in the draft EA in more detail, what the "Record of Flora and Fauna Investigation" is. Is it solely based on a database review, or were there site visits. Please describe how it was developed.	*Clarified.*
4.	**Purpose, need, location, and community served - more background needed**	
	1. In order to assess the individual site and cumulative impacts of all the sites, including traffic and other impacts, for this project, we believe it is necessary to get a sense of the population and number of persons (and vehicles) already using the existing spigot sites; including estimated water consumption; and an estimate of how this project will impact future use and traffic patterns, on a site specific and cumulative basis, for both existing and new sites.	*Noted. Although counts of existing spigot use is not available, estimates were made based upon water consumption records. Summary table provided as requested. Additional discussion of traffic impacts included in the Draft EA.*
	This should be clearly specified in Sections X.2.4 for each site and summarized in a summary table for all the sites. The summary table should include whether each site is a new sites or upgrading existing sites; and if possible, site specific estimates of number of vehicles/GPD of water anticipated at each site. There should be some discussion of potential seasonal variation in use patterns (dry vs. rainy seasons) if that is anticipated.	*(Complied.)*

FEDERAL

United States Environmental Protection Agency		
Contact:	Mr. Barry Pollock, Hawaii PWSS Project Officer / USEPA Region 9	
Address:	Drinking Water Office / WTR-6	
	75 Hawthorne Street	
	San Francisco, CA 94105	
Phone:	(415) 972-3563	
No.	**Comments**	**Response**
5.	**Materials Disposal**	
	Will any of these site specific projects demolition and/or materials removal and disposal? If so, this should be described.	*Installation of the water spigot facilities may include demolition/removal of existing spigot assemblies and existing AC pavement. Discussion provided in Section 4.1.*
6.	**Wetlands**	
	Sections X.1.6 address "Water Resources". There is no mention of whether any streams, ponds, lakes or wetlands are within any of the proposed project location sites. There should be a statement as to whether any of these water bodies will be impacted by any aspect of the project. The method of determining this (visual inspection, maps, contacts with agencies, etc.) should be noted.	*Complied. Streams/water resources in the vicinity of the project sites are identified, determination method also indicated.*
7.	**Air**	
	Are any of these locations in non-attainment basins? If not, it should be so stated.	*Compiled. Statement provided.*
8.	**Mailing List for FNSI**	
	The NEPA process for making a federal FNSI requires notification of State, Federal, Local, civic groups, and other entities, especially persons and property owners located adjacent to the project. A list of these groups, and any other entities adjacent to the project, and how to contact them, should be provided as part of the EA.	*List is being compiled and will be included with the Final EA.*
FEDERAL CROSS-CUTTERS		
9.	**Archeological and Historic Preservation Act (AHPA)**	
	Under the Archeological and Historic Preservation Act (AHPA), the State of Hawaii Department of Natural Resources, State Historic Preservation District, (DLNR-SHPD) must be consulted to ensure there are no historical or archeological features of interest which may be impacted by this project. A letter was sent to DLNR-SHPD requesting their review. The final EA should include the response from DLNR-SHPD.	*Noted. A copy of the response from DLNR-SHPD will be provided with the Final EA.*
10.	**Clean Air Act**	
	No statement is made regarding whether this area is an air quality attainment areas. State whether this area is in an air quality attainment area as defined by the State of Hawaii DOH Air Program.	*Statement provided.*
11.	**Coastal Zone Management Act**	
	The Hawaii Coastal Zone Management Program (Chapter 205A, HRS), promulgated in 1977 in response to the Federal CZM Act of 1972, established the entire state of Hawaii as CAM area. Impacts of this project on any of the 10 policy objectives as described under the Hi CZM Program should be discussed. If no impacts are anticipated it should be so stated.	*Complied. Federal consistency assessment performed for the 10 policy objectives. Items requiring additional discussion are included in Section X.4.1. Assessment summary is provided in Appendix C.*

FEDERAL

United States Environmental Protection Agency		
Contact:	Mr. Barry Pollock, Hawaii PWSS Project Officer / USEPA Region 9	
Address:	Drinking Water Office / WTR-6	
	75 Hawthorne Street	
	San Francisco, CA 94105	
Phone:	(415) 972-3563	
No.	**Comments**	**Response**
12.	**Endangered Species Act**	
	As described above, U.S. Fish and Wildlife Service should be provided with the draft EA to determine if this project may impact threatened or endangered species. A description of how the determination that there will be no impact on threatened or endangered species was made must be provided. If a literature review was performed, it should be described. If agencies in Hawaii which compile lists of endangered and threatened wildlife and plants were contacted (or the lists obtained) to determine if any listed species are present or likely to be present in these project areas, this should be described. A response from US Fish and Wildlife Service regarding this project is required.	*Complied.*
	If any listed species may be affected, additional requirements, including preparation of biological assessment, would be required.	*Noted.*
13.	**Farmland Protection Policy Act -**	
	Any anticipated impact of this project on farmland as defined under the FPPA should be described. If no impact is anticipated, it should be so stated. The applicant may wish to contact the USDA office in Honolulu to determine what, if any, actions are required to address the FPPA.	*Complied. A review of available GIS information, as well as the online ALISH maps from DBEDT indicate that the project sites (with the exception of Site A) are located in protected farmland. Consultation with the NCRS has been initiated to confirm this finding.*
14.	**Fish and Wildlife Coordination Act (FWCA)**	
	Any anticipated impact of this project on fish and wildlife as defined under the FWCA should be described. If no impact is anticipated, it should be so stated. USFWS in Honolulu may be contacted to determine what, if any actions are required to address FWCA.	*Complied. Statement provided that no impact to fish and wildlife are anticipated for this project. No streams or waterbodies will be affected by this project.*
15.	**Floodplain Management**	
	Addressed.	*Noted.*
16.	**Safe Drinking Water Act (sole source aquifer)**	
	It should be stated if there is any federally designated sole source aquifer present which could be impacted by this project. If there is no sole source aquifer or if there is a ssa which will not be impacted, it should be so stated. USEPA Region 9 Groundwater Office may be contacted to determine if there is a sole source aquifer. Based on the limited nature of this project it appears unlikely that there would be any impact on a sole source aquifer.	*Complied. Statement provided that project sites are not within or in the vicinity of a sole source aquifer. Per the EPA's "Sole Source Aquifer Designations in EPA, Region 9", there are no sole source aquifers on the Island of Hawaii.*
17.	**Protection of Wetlands**	
	A statement should be made for each site as to whether any wetlands may be impacted. US Fish and Wildlife, DLNR, or US Army Corps of Engineers; or other appropriate sources may be used to attain this information.	*Complied. Statement provided that project sites are not within or in the vicinity of designated wetland areas. Determination made from USFWS Online Wetland Map.*
18.	**Wild and Scenic Rivers Act (NPS)**	
	A communication between DOH and NPS indicate that there are currently no designated Wild and Scenic Rivers in Hawaii. The EA indicates that there was a listing compiled for “Candidate Streams for Protection” in the Hawaii Stream Assessment, (State CWRM 1990), and there are 4 candidate streams for protection on the Hamakua/Hilo Coast, but none are in the vicinity of these projects. No further information required.	*Noted.*

FEDERAL

United States Environmental Protection Agency		
Contact:	Mr. Barry Pollock, Hawaii PWSS Project Officer / USEPA Region 9	
Address:	Drinking Water Office / WTR-6	
	75 Hawthorne Street	
	San Francisco, CA 94105	
Phone:	(415) 972-3563	
No.	**Comments**	**Response**
19.	**Wilderness Act**	
	The draft EA states that all sites are located on land zoned as Agricultural or Urban. No statement is made regarding designated wilderness area in the vicinity of these projects. It should be stated whether any of the proposed sites occur within or adjacent to a designated wilderness area, or whether the project has the potential to impact a designated wilderness area in the vicinity.	*Complied. Statement provided that project sites are not within or in the vicinity of designated Wilderness areas. Determination made from data review of BLU, NPS, USFWS, NFS wilderness listings.*
20.	**Coastal Barriers Resource Act**	
	According to a communication transmitted to us between Hi DOH and USFWS, the CBRA is currently not applicable in Hawaii as no formally identified "coastal barriers" are known to exist in the State of Hawaii. No further information required.	*Noted.*

United States Environmental Protection Agency - Comment Letter dated 2/7/06		
Comments to Preliminary Final EA		
1.	The Funding of this project (partial federal, partial County/DWS) needs to be clarified. This project ("Spigots") and a second project ("Mamalahoa Highway Waterline Project") are covered under a single grant from USEPA together (the Federal Grant is referred to as "Upgrade of Drinking Water Systems"). These two projects are only partially funded under the Federal Grant- there is a 45% match requirement for the recipient (County/ DWS) for this grant. The EA needs to clearly indicate this funding arrangement.	*Revised to include funding information.*
2.	There needs to be an alternatives analysis associated with the proposed action discussion. Under NEPA Section 102(2)(E), Federal EA's are required to discuss the proposed action and alternatives. A brief "Alternatives Analysis" section must be included.	*Revised to include discussion of alternatives. See Section 3.*
3.	Final site selection decision making process must be described There must be language in this document, that describes how the final site selection decision will be made - i.e., who and how will the final decision be made as to which 6 sites are to be selected.	*Revised to include site selection information.*
4.	EPA notes that several commentors on the previous draft EA noted potentially serious public health and safety concerns for one of the sites, the Honaunau school. Both the Department of Education and the School Principal indicated serious safety and other concerns to the students at this school.	*Noted.*

FEDERAL

United States Department of Transportation, Federal Highway Administration, Hawaii Div.		
Contact:	Ms. Kainani Kraut	
Address:	U.S. Department of Transportation	
	Federal Highway Administration, Hawaii Division	
	300 Ala Moana Boulevard, #3-306	
	Box 50206	
No.	**Comments**	**Response**
1.	As the project is not being funded by USDOT funds, it is not subject to Section 4(f).	*Noted.*

United States Fish & Wildlife Service, Pacific Region		
Contact:	Mr. Patrick Leonard, Field Supervisor	
Address:	U.S. Fish & Wildlife Service, Pacific Region	
	Pacific Islands Fish & Wildlife Service	
	300 Ala Moana Boulevard, #3-122	
	Box 50088	
	Honolulu, HI 96850	
No.	**Comments**	**Response**
1.	No endangered or threatened species known at or near the indicated project sites.	*Noted.*
Comment Letter dated 11/15/05		
Contact:	Mr. Michael Molina, Environmental Review Coordinator	
Address:	Same as above	
1.	We recommend that standard best management practices be employed to avoid or minimize the introduction of sediment and other pollutants into these streams as a result of the project. Provided this measure is incorporated, the Fish and Wildlife Service agrees that fish and wildlife resources in the vicinity of the proposed sites are not anticipated to be adversely affected by the proposed project. Accordingly, we would support a Finding of No Significant Impact for the proposed project.	*Noted.*

United States Department of Agriculture, Natural Resources Conservation Service, dated 1/9/06		
Contact:	Mr. Milton Martinez	
Address:	Natural Resources Conservation Service	
	P.O. Box 50004	
	Honolulu, HI 96850	
No.	**Comments**	**Response**
1.	After reviewing the 11 sites submitted by your company for the proposed spigot facilities found 10 none prime farmland. Site C, Ooc is property class industrial. Reviewing ALISH & ALUM and our data and the county tax record do not show any of the 11 sites as prime, statewide importance, or unique farmlands. The FPPA does not apply for the sites reviewed.	*Noted.*

STATE OF HAWAII

State of Hawaii Department of Education, Response Letter dated 10/7/05		
Contact:	Ms. Patricia Hamamoto, Superintendent	
Address:	P.O. Box 2360	
	Honolulu, Hawaii 96804	
Phone:	586-3444 - Rae Loui, Asst. Superintendent	
	733-4862 - Heidi Meeker, Facilities Development Branch	
No.	**Comments**	**Response**
1.	The DOE has concerns about students' safety should the facility be located at the elementary school. The facility would be a site where people and their cars could congregate at any hour of the day and remain there for sometime without arousing suspicion.	*Noted. This concern has been included in the Draft EA as a possible impact and site selection consideration.*
2.	Proposed facility location is a drop-off/pick-up area for parents and children. The facility would disrupt school use and could be disrupted by the crowd of cars twice a day.	*Noted. The proposed facility site has been relocated across the school access road to avoid the pick-up/drop-off area.*
3.	Facility would create additional noise. Highway noise is presently a problem, as people will gather at the facility their voices will carry up to the classroom. The noise will definitely be a disruption to class work.	*Noted. The noise generated by the site is not expected to exceed ambient traffic noise. This concern has been included in the Draft EA.*
Comment Letter dated 12/15/05		
Contact:	Ms. C Faye Ogilvie, Honanunau School Principal	
Address:	83-5360 Mamalahoa Highway	
	Captain Cook, Hawaii 96704	
Phone:	328-2727	
1.	The school's primary concern is for student safety. That safety would be jeopardized by the additional of 50 vehicles pulling off the highway in the vicinity of the school's driveway and drop-off area. A 10-spigot facility would also permit people to congregate and linger on school property at all hours of the day.	*Noted. The safety concerns expressed have been incorporated into the Final EA. The actual configuration (i.e. number of spigots provided) will be determined during the design phase, should this site be selected for a new spigot facility. (However, due to the available space at this site, it is highly unlikely that the facility will provide 10 water spigots for use.) Therefore, some of the safety and noise concerns may be lessened by reducing the number of spigots and parking spaces at this facility. While the 50 additional vehicles will be spread out throughout the day, it was recommended in the EA that the DWS consider further traffic study to evaluate the construction of another driveway in this area. Other possible mitigative actions include additional security personnel to ensure personal safety and the proper use of the facility.*
2.	The suggestion that the facility be limited to off-peak traffic hours seems highly impractical and unenforceable.	*The EA suggests a possible mitigative action of providing a fence enclosure around the proposed facility, which would be closed after operating hours.*

STATE OF HAWAII

State of Hawaii Department of Education, Comment Letter dated 12/15/05 Cont'd		
No.	**Comments**	**Response**
3.	The new proposed location will still pose noise problems for the school. To say that the site would create no more noise than the existing highway traffic is ignoring the fact that the site will become a gathering place for the general public. Voices, racing car engines, and car horns would all be heard in the classrooms nearby.	*Noted. This concern has been included in the EA as a consideration during the site selection phase. Please also refer to the response to comment #1. Reducing the number of spigots/parking spaces may lessen the impact of the concerns regarding the facility as a gathering location. It is not anticipated that the occurrence of racing car engines will increase or decrease due to the construction or use of a facility at this location.*
4.	The DEA fails to address who would maintain the spigot site. The area would have to be maintained on a regular basis. The school and the DOE would be unwilling to accept any ongoing legal responsibility for the site.	*It is stated in the DEA that the DWS, along with the DOE and any other applicable parties are to discuss and establish an operating and maintenance plan prior to the facility's construction and use. This plan is to adequately address all the concerns each party may have over the use of this site. Additional language has been included in the Final EA to point out that the COH Civil Defense Agency currently maintains the existing spigot sites, and while it is unknown at this time if the CDA will assume responsibility for the new facilities, maintenance responsibility will need to be assigned during the establishment of the plan previously described. It has been stated in Final EA that the DOE and the school is unwilling to accept maintenance responsibility for the site. Should this site be selected, all of the issues and concerns will need to be adequately addressed by the County of Hawaii.*
5.	The Honaunau staff and our School Community Council feel strongly that a spigot on our property does not service the best interest of our students and the noise would interfere with learning. Our School community Council and I ask that you consider one of the other identified sites for the spigot location.	*Noted. The concerns expressed have been incorporated into the Final EA for consideration during the site selection process. Note that the function of the EA is not to recommend or eliminate any of the indicated proposed spigot sites, but rather to evaluate and present the environmental impacts anticipated by installing a spigot facility at the various proposed locations. The County of Hawaii will base their site selections in part on the information provided by the EA.*

STATE OF HAWAII

State of Hawaii, Department of Health - Response Letter dated 10/19/05		
Contact:	Mr. Thomas E. Arizumi, P.E., Chief	
Address:	P.O. Box 3378	
	Honolulu, Hawaii 96801	
Phone:	(808) 586-4258 - Denise Dang Manuel, HDOH representative	
	(415) 972-3563 - Barry Pollock, EPA Project Manager	
	(415) 972-3674 - Susan Chu, EPA Grants Specialist	
No.	**Comments**	**Response**
1.	Section 5, Operations (for each site): Please provide a thorough discussion which includes how the water spigot locations are proposed to be operated and also how the operation of the water spigot will affect the owner's current and future operations.	*Discussion on possible impacts to each site owner is included in the Draft EA.*
2.	Appendix C, Consultant Summary and Sample Request, last sentence in the second to the last paragraph in the Sample Request letter: Please note that for National Environmental Protection Act (NEPA) requirements, a letter of no finding or no comment may be required from various agencies. Please check with the Environmental Protection Agency (EPA) for further assistance as needed.	*Noted. Refer to Appendix A and Appendix B for responses received. All appropriate correspondence for NEPA requirements will be provided with the Final EA.*

State of Hawaii, Dept. of Land and Natural Resources, Div. of State Parks - Response Letter dated 10/20/05		
Contact:	Mr. Glenn Y. Taguchi	
Address:	P.O. Box 936	
	Hilo, Hawaii 96721	
Phone:	(808) 974-6206	
No.	**Comments**	**Response**
SITE I: Kapoho-Pohoiki Road Junction		
1.	Line of sight and sight distances for on-coming vehicles and vehicles turning into and leaving the property should be checked, due to the road curvature.	*Noted. Issue incorporated into the Draft EA.*

State of Hawaii, Office of Environmental Quality Control - Comment Letter dated 12/19/05		
Contact:	Ms. Genevive Salmonson, Director	
Address:	235 South Beretania Street, Suite 702	
	Honolulu, HI 96813	
Phone:	(808) 586-4185	
No.	**Comments**	**Response**
1.	Pursuant to HRS 342G-44 please print the final EA double-sided.	*Noted.*

STATE OF HAWAII

University of Hawaii Environmental Center, Comment Letter dated 12/22/05	
Contact:	Dr. John T. Harrison, Environmental Coordinator
Address:	2500 Dole Street
	Krauss Annex 19
	Honolulu, HI 96822
Phone:	(808) 956-7361

No.	Comments	Response
1.	In regard to the eleven sites assessed in this DEA our reviewers find that the proposed sites appear to be largely located on pre-developed land, and thus the need for drastic alteration of the environment is abated.	*Noted*
2.	The DEA generally indicates broad areas where residential communities lacking water infrastructure are located (i.e. in the Puna, Kau and Hamakua districts.) However, specific information regarding limits of existing water supply infrastructure, compared with residential population distribution conspicuously is lacking form the document. In view of the large number of potential clients for these systems we suggest that some effort be made in the Final EA to graphically quantify distribution and population size of potential water spigot clients, in order to better assess the suitability of the proposed locations. We further note that some discussion of costs and benefits of extending existing County water lines to areas of developing residential communities, along with analyses of population growth projections would be appropriate in the context of this document.	*Additional information on the distribution of the estimated spigot user population has been provided. Some information on extending the County water system has been included in the project description portion of the EA. Specific analysis and detailed estimates are beyond the scope of this EA.*
3.	While the applicant intends that the proposed project will maximize the accessibility of water to its users, our reviewers note that the applicant states "in some cases, sites are located on gated property, and access to the facilities will have to be granted by the property owner prior to the construction and use". (Section 3.2, Page 14). Our reviewers feel that this contingency may impede on users' accessibility to such water spigots. If accessibility is at all inhibited based on location, our reviewers feel alternate sites should be selected; namely those which are optimally accessible. For ease in the public review process, please clarify the meaning of the statement discussed herein.	*Clarified to indicate that for those sites located within gated properties, the existing gates will need to be relocated/adjusted, or coordinated with the owners and operators of the site to provide unrestricted access to the facilities to the maximum extent possible.*
4.	The proposed project includes plans to construct parking areas for each of the candidate water spigot facilities. For each of these eleven sites, our reviewers request that a diagram of the proposed parking areas be included for those sites where no designated parking area exists.	*The proposed facility sites indicated in the DEA are for discussion purposes only, as a means to evaluate the impacts a facility may have to each site. Should a particular site be selected, the final location, size and configuration of the facility within the site will be determined during the design phase of this project. The parking areas will also be tied down and designed at that time. For a general indication of a possible parking configuration, please refer to Figure 4-1. A paved parking area will be provided for each spigot facility.*

STATE OF HAWAII

University of Hawaii Environmental Center, Comment Letter dated 12/22/05 Cont'd		
No.	**Comments**	**Response**
SITE B: Honaunau School		
5.	Our reviewers note that the proposed site identified by TMK 8-3-013: 021 is located in an area prone to heavy traffic. Superintendent Hamamoto, on behalf of the Department of Education (DOE), previously expressed her concern that the selection of the site will cause undesired perturbations to students and staff at Honaunau School. In particular, she noted that added noise level and added traffic will create disturbances not conducive to an optimal learning environment. Our reviewers would like to know what measures are proposed to ensure that use of this site will not cause either noise disturbances or crowded traffic areas for the school's students, staff and their families.	*Please refer to the responses to the DOE comment letter.*
SITE D: KURTISTOWN BALL PARK		
6.	The document lists both the Mountain View Gym site and Kurtistown Ball Park site as "Site D". Kurtistown Ball Park site should be listed as "Site E" and Mountain View Gym site is correctly labeled "Site D".	*The Section header has been revised.*

COUNTY OF HAWAII

County of Hawaii, Department of Parks & Recreation - Response Letter dated 10/19/05		
Contact:	Ms. Patricia G. Engelhard	
Address:	101 Pauahi Street, Suite 6	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8531 - James Komata, Park Planner	
No.	**Comments**	**Response**
General		
1.	It is not indicated how the waterlines that supply the water spigot facilities would be metered; if they would be tied-in to the existing sites' waterlines, provided dedicated meters, submetered and then factored into the water bill for the site. Or not metered at all making the landowner responsible for all or none of the cost. We understand from earlier discussions with your department that water usage was to be paid for by the Department of Public Works. if that has changed, there could be significant operational cost impacts if we were to assume payment of all water consumed at the spigots located at our sites.	*Facilities are currently recommended to each have a dedicated meter. Currently, the DWS maintains the existing spigot facilities. Per DWS, Civil Defense currently takes care of the water usage payments, however DPW will take over this responsibility. Recommendation was included in the Draft EA that all applicable parties establish an operations and maintenance plan/agreement outlining each agency's and/or organization's responsibilities.*
2.	It is not indicated who would be responsible for the maintenance and operation of the after spigot facilities after they are installed. There would be some operational cost impacts if we were to assume responsibility for maintenance and repairs of the facilities at our sites.	*See response to Comment No. 1.*
3.	The increased generation of refuse at water spigot facilities, identified in the report, will have a relatively minor, but persistent and perpetual impact on our Parks Maintenance Division which is responsible for the regular clean up and refuse removal at each of our sites. The increased workload, although not envisioned to be significant, will still reduce effort currently applied elsewhere.	*See response to Comment No. 1. Noted, and concern is included in the Draft EA.*
4.	The Type B spigot/parking configuration does not provide a corresponding number of dedicated parking stalls (3) as water spigots (6). Please ensure that sufficient parking stalls are provided so as to not promote improper parking or detract from parking available to other park site users.	*Revised to show 3 stalls with 4 outlets. The additional outlet was provided for those vehicles with multiple users. No parking signs should be posted to deter improper parking.*
5.	The installation of these new water spigot facilities at any site will require them to be tied-in to the respective sites accessible site circulation. Whereas existing facilities at the same site can be acceptably accessed by vehicle via strategically placed accessible parking amenities, the ADAAG requires that new site improvements be connected by an accessible route to all other site features, facilities and amenities. This will have a tremendous impact on this project as there is no mention of accessible work. DCAB should be consulted to verify the projects accessibility obligations. If we need to connect our parks to these improvements under our forthcoming Transition Plan projects, it will have definite cost impacts to our operations.	*Per DCAB, if the facility is installed within the site, then the site is subject to follow the requirements of ADAAG section 4.3, despite intent of facility use. According to a DCAB interpretive opinion that may apply here, an accessible route would need to be provided to other accessible elements on the same site. This will only affect transition plan design if the facility is installed before transition plan construction. Refer to Appendix A for telecom with DCAB. This issue was included in the Draft EA for site selection consideration.*
6.	Construction of the water spigot facilities probably will impact our ability to make accessibility improvements at each of the sites or will at least influence them. At Mountain View, our consultant is almost completed with his Transition Plan related accessibility design, adding in the scope to connect to the new improvements will cost us additional funds. At Honaunau Rodeo Arena, the location and final elevation at which the improvements are made will impact how the comfort station is tied in to the balance of the site because the water spigots will be in between the restroom facility and the balance of the site and proposed area would be the preferred location for an accessible parking stall(s) dedicated to the arena usage.	*Noted. The location indicated on the figures are for discussion purposes only. The Draft EA discusses the general location on the site in its description. The final location of the facility, should a site be selected, will be determined during the design phase. The determination will include coordination with the appropriate agencies and will consider current/future improvement plans for each site.*

COUNTY OF HAWAII

County of Hawaii, Department of Parks & Recreation - Response Letter dated 10/19/05		
Contact:	Ms. Patricia G. Engelhard	
Address:	101 Pauahi Street, Suite 6	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8531 - James Komata, Park Planner	
No.	**Comments**	**Response**
7.	All County parks, unless specifically modified otherwise, are closed from 11 pm to 6 am. Individuals that enter a park during those hours can be charged with violating P&R's rules, and are subject to prosecution. The location of the after spigot facilities within park sites, especially when not located at the periphery of a site and if intended to remain open for public use between 11 and 6, could cause confusion for the police department, which is responsible for enforcement of this rule.	*Noted. Provision made within the Draft EA that access to the spigot facilities may need to be restricted to follow posted park operating hours. A sign should be posted to alert users of the facilities access hours, if restricted.*
8.	The accessible stalls shown in the possible facility layouts do not meet ADA requirements for an accessible parking stall.	*Possible facility layouts revised.*
9.	If the water spigot facility is required or proposed to be accessible, are there considerations being made for compliance with ADAAG 4.2, 4.3, 4.4, 4.5, 4.6, 4.27 and other applicable sections?	*Yes. These issues will be addressed during the facility design phase. The access route issue will be considered during the site selection phase.*
10.	At Site B, Honaunau School, the potential for conflict between vehicular access to the proposed water spigot facility versus to the school and residential area appears to be downplayed. It would seem that locating the improvement at the southeast corner of the intersection of Mamalahoa Highway with the primary access road to Honaunau School could have potential for congestion during peak school traffic hours.	*Noted. Possible traffic impacts further discussed in Section 6.2.4.*
11.	It is noted in your Consultation List that the Department of Public Works is not being asked to comment on the proposed use of the Kurtistown Park Site. It may be advisable to solicit their comment specifically on this site.	*The DPW was provided with a copy of the preliminary Draft EA for their review and comment. The consultation list was updated.*
SITE A: Honaunau Rodeo Arena		
1.	It appears the water spigot will be supplied via the existing polyethylene, surface run, private waterline fed by a 5/8-inch meter that currently services the arena's facilities as well as the adjacent landowners that have agreements with Kamehameha Schools. Depending upon the popularity of the proposed facility, the water needs of area residents and the future intensity of use of the surrounding lands, and without increasing the capacity of the meter and waterline, it would seem that there could be competing uses for a restricted amount of resources. Increased water usage not related to the arena's function could negatively impact our ability to automatically sprinkler the arena as a dust control measure should that need arise. We have been approached recently by KS that they are interested in developing several amenities adjacent to the arena that they will then turn over to the County for operations.	*Noted. Discussion of possible increase in water demand included in the Draft EA. Possible mitigation strategies include an upsize of the water meter and/or pipeline, or to extend the DWS waterline to connect to the rodeo site.*
2.	Location of the proposed water spigot facility inside the existing site access gate adjacent to Old Honaunau Road will have a negative impact to our site. Currently, this gate is only used for maintenance purposes or in conjunction with specific events or uses of the arena; it is not opened and closed on a regular basis. In order to locate the spigots as shown, the area around the spigot needs to be secured to prevent unauthorized vehicular access further into the site yet still allow authorized access. Then we may need to hire security to lock and unlock the existing gate depending on the impacts the facility has on our site.	*Noted. Irregular gate hours, unauthorized access prevention discussion included in the Draft EA. Possible strategies include providing fencing to restrict access to other parts of the arena. Locating the facility outside of the gate may be infeasible due to the narrow width of the road and available space along the shoulder.*

COUNTY OF HAWAII

County of Hawaii, Department of Parks & Recreation - Response Letter dated 10/19/05		
Contact:	Ms. Patricia G. Engelhard	
Address:	101 Pauahi Street, Suite 6	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8531 - James Komata, Park Planner	
No.	**Comments**	**Response**
3.	The proposed improvements are located between the site access gate and the rodeo arena improvements. This could prove problematic in allowing sufficient access to the arena by trucks hauling livestock trailers depending on actual space constraints and configuration of the improvements. There is also the potential for conflict between arena users and water spigot users, especially on days where rodeo events are held at the site.	*Noted. Discussion of these concerns included in the Draft EA for consideration during the site selection phase. Should this site be selected, the final facility location on the site will be coordinated with improvement plans and existing/future operational plans.*
4.	There is no nighttime lighting at the site	*Noted. Recommendation made to consider the installation of lighting at this site.*
5.	The Old Honaunau Road is a substandard, single lane winding, unlit road that may not be advisable for the associated increase in vehicular traffic	*Noted.*
6.	The remoteness of the site and its location on a lightly used public roadway make security at the site a concern.	*Noted. Issue included in EA for consideration.*
7.	Aesthetically the water spigot will detract form the pastoral, agrarian and old-time paniolo feel of the rodeo arena site.	*Noted in the Draft EA.*
SITE C: Papaaloa Park		
1.	The park currently serves as a water spigot site and its continued use would appear to be compatible with the recreational functions administered at the site due to the location of the spigots adjacent to the Old Mamalahoa Highway, the generous amounts of existing paved driveway/parking area, and the rather low-level recreational use occurring at the site. At this time we can foresee no negative impacts on the site or on our operations not already addressed in the general statements.	*Noted.*
SITE D: Mountain View Gym		
1.	The area adjacent to the new building will soon be expanded with another restroom/kitchen/meeting room facility and will be the permanent home for the Mountain View seniors and our related Elderly Activities Division's functions. The governor recently approved the release of state funds for design and construction of the expansion to the facility and locating the water spigots here would be detrimental to the use of the site as a senior center due to competition for parking, increased site traffic and the generation of noise during senior center functions.	*Noted. The proposed spigot facility location moved to the end of the access road, across from the ball park. Please refer to the revised site plan in Section 8.*
2.	Locating the water spigot facility at the rear of the site precludes or restricts us from installing gates at the vehicular entrances/exits of the site in the event that they are needed. The current trend for our park sites is to secure the park perimeter via locking gates to prevent or deter after-hours miscreant and damaging behavior levied against park facilities. Locating the water spigot facility at the rear of the site, hidden from view from the public roadway by the gym, would only provide access and opportunity for act of vandalism or worse.	*Noted. Site relocated.*
3.	The site currently hosts concurrent gym, recreation rooms and senior center users, adding an additional use while reducing available parking is not appropriate site administration.	*Noted. Site relocated.*

COUNTY OF HAWAII

County of Hawaii, Department of Parks & Recreation - Response Letter dated 10/19/05		
Contact:	Ms. Patricia G. Engelhard	
Address:	101 Pauahi Street, Suite 6	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8531 - James Komata, Park Planner	
No.	**Comments**	**Response**
SITE E: Kurtistown Ball Park		
1.	The existing parking lot is already barely large enough to accommodate use of the pavilion for parties, not to mention heavier use of the ball field and concurrent use of the new playground equipment recently installed at the site. Reducing general onsite parking in favor of a new non-park relocated use will only cause park users to occupy on-street parking currently utilized by water spigot users. Although the water spigots are used on an almost constant basis whereas the park is used less frequently, the outcome should be weighed against the time when the park is used by numerous people and parking becomes a public issue.	*Noted. Proposed spigot facility site has been relocated to the other side of the ball park. Please refer to the revised site plan in Section 9.*
2.	Although it is noted that the water spigots are located so as to retain maintenance access to the field via the current gate, it should be noted that the general public has little regard for preserving maintenance access. Also, when the park is utilized fully, the parking lot becomes a mess and access to the spigots will become problematic.	*Noted. Site relocated.*

COUNTY OF HAWAII

County of Hawaii, Planning Department - Response Letter dated 10/18/05		
Contact:	Mr. Christopher J. Yuen, Planning Director	
Address:	Aupuni Center	
	101 Pauahi Street, Suite 3	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8288 - Deborah Chang, Planning Dept.	
No.	**Comments**	**Response**
1.	Table 1.1, Page 1: Mountain View Park (TMK: 1-8-004: 030), majority of the parcel is "Low Density Urban" (ldu) and a small portion is "Medium Density Urban" (mdu) per the County Plan 2005.	*Revised.*
2.	Per the Hawaii County Zoning Code, the proposed spigots and associated improvements would be permitted after obtaining a Plan Approval from this department for each of the sites, regardless of the County zoning involved.	*County of Hawaii Planning Dept. Plan Approval has been included in the list for required permits and approvals.*
3.	The Papaaloa Gym site is the only parcel listed in Table 1.1 that is in the SMA with a portion of the parcel in Conservation SLU Designation. As long as the proposed improvements are confined to the existing spigot location which is clearly outside of the Conservation SLU, the project will not need a Conservation District Use Permit from the Department of Land and Natural Resources.	*Noted.*
4.	The removal and replacement of the existing two (2) water spigots with an upgraded facility that included designated parking areas in an existing, paved parking area and improved drainage to properly discharge runoff from the proposed spigots is exempt from the definition of development.	*Noted.*
5.	All improvements will be located at considerable distance from the coastline, no certified shoreline survey is required. The mitigative measures described in the Draft EA will ensure that the proposed activities will not have a substantial effect on the environment.	*Noted.*
Comment Letter dated 12/9/05		
1.	Our comments on the preliminary Draft EA dated September 2005 have been incorporated.	*Noted.*
2.	The Draft EA correctly notes that the Papa'aloa Gym site is located in the Special management Area (SMA), and Section 18 (pg 188) states that a SMA Use Permit is required at that site. However, we have determined that an SMA Use Permit will not be required for the Papa'aloa gym site.	*Noted.*
3.	The proposed work at the Papa'aloa Gym site is exempt from the definition of "development" according to Chapter 205A-22, Hawaii Revised Statutes, and Planning Commission Rule No. 9-4(10)(B).	*Noted.*
4.	Therefore, based on the information provided in the Draft EA, we have determined that replacement of the existing water spigot with the proposed upgrades to the facility will not have adverse effects on the environment or coastal resources and will require no further review against the SMA rules and regulations.	*Noted. EA revised.*
5.	Like all of the other proposed spigot sites, the Papa'aloa Gym site will need a Plan Approval issued by the Planning Office.	*Noted.*

COUNTY OF HAWAII

County of Hawaii, Department of Environmental Management - Response Letter dated 10/21/05		
Contact:	Ms. Barbara Bell, Director	
Address:	25 Aupuni Street, Room 210	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8083	
No.	**Comments**	**Response**
SITE F: Keaau Transfer Station		
1.	The site access intersects a busy highway. Due to traffic flow on the highway, vehicles attempting to turn left from the site are delayed. This delay can cause vehicles to back up along the transfer station access road and in turn may block the spigot facility. Further consideration of channelization and perhaps a left turn holding lane may be appropriate depending on the anticipated daily usage.	*Noted. Issue included in the Draft EA. However, it is noted that this is an existing condition, that is unlikely to worsen with the proposed upgrade. Suggest that should this site be selected, DWS may need to determine if a traffic impact analysis is warranted.*
2.	If, after analyzing the traffic flow, engineering solutions are deemed unnecessary, then at a minimum the Solid Waste Division recommends that the traffic flow be monitored to ensure that it functions well following the construction.	*Noted.*
3.	Issues regarding accumulating rubbish and improper use of the water spigot facility are noted in the "Operations" portion of the Draft EA. These issues should be addressed in the "Impacts and Mitigative Measures" portion.	*Complied.*
4.	The Solid Waste Division recommends that signs be installed to deter the improper use of the site and that a monitoring and maintenance plan be established to address the anticipated improper use.	*Complied. Recommendation included in the Draft EA.*
SITE K: Waiohinu Transfer Station		
1.	Issues regarding accumulating rubbish and improper use of the water spigot facility are noted in the "Operations" portion of the Draft EA. These issues should be addressed in the "Impacts and Mitigative Measures" portion.	*Complied.*
2.	The Solid Waste Division recommends that signs be installed to deter the improper use of the site and that a monitoring and maintenance plan be established to address the anticipated improper use.	*Complied. Recommendation included in the Draft EA.*
Comment Letter dated 11/25/05		
1.	We find that our comments were incorporated correctly and we have no further comments.	*Noted.*

COUNTY OF HAWAII

County of Hawaii, Department of Public Works - Response Letter dated 10/24/05		
Contact:	Mr. Jiro A. Sumada, Deputy Director	
Address:	101 Pauahi Street, Suite 7	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8349 - Mr. Stanley Nakasone, Highway Maintenance Superintendent	
No.	**Comments**	**Response**
1.	From an operational perspective, who is responsible for operating and maintaining these spigots? Who pays for the water bill and who makes repairs to the piping, parking stalls, who picks up rubbish, etc.?	*Currently, the DWS maintains the existing spigot facilities. Per DWS, Civil Defense currently takes care of the water usage payments, however DPW will take over this responsibility. Recommendation was included in the Draft EA that all applicable parties establish an operations and maintenance plan/agreement outlining each agency's and/or organization's responsibilities.*
2.	Spigot sites in low areas should include drainage improvements to ensure ponding does not occur potentially damaging parking stalls or forcing users to wade through standing water.	*Specific drainage issues will be addressed during the design phase of this project. Additional language incorporated into the Draft EA to clarify that drainage features will be installed with the facilities to ensure adequate drainage at each site.*
3.	Why are there two spigot locations for Waiohinu? Was this based on a study of past usage?	*The second Waiohinu site (Site J, Waiohinu Flood Channel) was included into this study based upon the anticipation that it may not be feasible to install a water spigot facility at the Waiohinu Transfer Station. The purpose of this EA is to the evaluate the environmental impacts the installation of a facility may have to these sites. A maximum 6 sites of the 11 described here will be selected as a spigot facility location, based upon the environmental impacts and administrative considerations.*

COUNTY OF HAWAII

County of Hawaii, Fire Department - Response Letter dated 10/5/05		
Contact:	Fire Chief Darryl Oliveira	
Address:	25 Aupuni Street, Suite 103	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8297	
No.	**Comments**	**Response**
1.	As one of the more active fire and emergency response units in the Puna District, the movement of emergency vehicles both responding to and returning from incidents may be adversely affected by private vehicles accessing the spigot facility. This may include line of sight and sight distance concerns, sight obstructions, etc. These issues are of significant concern when considering the site's proximity to the intersection of Paradise Drive and 21st Avenue.	*Noted. The proposed spigot facility location adjusted to confine movement to the spigot area. Please refer to the site map in Section 11.*
2.	The placement of a spigot facility on this site would raise security concerns for the station and personnel. As the spigot would be intended to be available around the clock for public access, the security of our station premises may be impacted and require the installation of alternative measures. It would be our goal to minimize transient activities around the fire station to minimize any security threat or compromise.	*Noted. These concerns included in the Draft EA for site consideration. Possible mitigation measures include limiting spigot access hours, and providing security fencing around the spigot site.*
3.	The present site is currently utilized for both a school pick-up and drop-off point as well as a rural route mail depot which is creating use and access issues that may be exacerbated by the installation of a spigot facility. Recognizing the safety concerns associated with the school bus operations, the Fire Department is presently exploring measures to continue the support of such activities and provide for the safety of the riders. The Fire Department would like to focus their pursuits on this project and establish facilities to address the safety of the children in the area. The further expansion of the "mixed use" of this site may adversely affect our objectives and goal attainment.	*Noted. These concerns included in the Draft EA for site consideration. Possible mitigation measures include limiting spigot access hours. Recommendation made that if this site is selected, coordination should be done with the Fire Department and school bus schedules.*
4.	The proposed site, as located off the main highway and travel route nay be less accessible and less visible thereby possibly reducing its benefit to the community at large.	*Noted.*

County of Hawaii, Mayor's Office - Comment Letter dated 11/27/05		
Contact:	Mayor Harry Kim	
Address:	25 Aupuni Street, Room 215	
	Hilo, Hawaii 96720	
Phone:	(808) 961-8211	
No.	**Comments**	**Response**
1.	A review of this document indicates that it would not be feasible to allow 24-hour-a-day service at some of the sites under consideration. This is due to either the location or other activities already conducted at the sites.	*Noted.*
2.	It is understood that many different factors will be considered in selecting the six sites (out of eleven being evaluated) where new or upgraded water spigot facilities will be constructed. It must be kept in mind that one important factor is the allowable hours of operation, to make it convenient for residents to draw water when they can. Ideally, the facilities would be open 24 hours a day. If this is not possible, then the longest possible hours of operation must be planned.	*Noted. Additional discussion included to indicate the measures needed to allow for 24 hour access at each facility. Where operating hours may need to be restricted, it is specified that effort should be made to provide the longest possible hours.*

COMMUNITY

Hawaiian Paradise Park Owners Association - Reponses Letter dated 10/20/05		
Contact:	Ms. Bobbi Stutsman, General Manager	
Address:	HC 3 Box 11000	
	Keaau, Hawaii 96749-9204	
Phone:	(808) 966-4500	
E-mail:	hppoa@interpac.net	
No.	**Comments**	**Response**
SITE G: Hawaiian Paradise Park Fire Station		
1.	There is a serious safety hazard in having people coming off or onto Paradise Drive. Having access to the spigots off 21st is the safest way to direct traffic to the site. Per the drawing, the spigots would be behind the post boxes and pay phones. People pull up to the mailboxes and frequently remain in their cars to retrieve mail. Vehicles will also be at the phones for extended periods of time.	*Noted. Mention of the directive has been included in the Draft EA and will be considered during the site selection process. Due to concerns regarding impacts to emergency vehicle movements, the proposed driveway entrance is shown along Paradise Drive. The recommendation was made to obtain permission from the Hawaiian Paradise Park Owner's Assn to place the driveway as proposed.*
2.	There is inevitable trash that seems to collect at these sites. HPPOA would want to see ample rubbish bins at the site as their Road Maintenance crew and possibly interested lot owners would be the ones cleaning the area.	*Noted. Currently, the DWS assumes responsibility of facility maintenance. Recommendation was made for the DWS, DPW, and all other applicable parties (including the HPP Owner's Association) to establish an operations and maintenance plan or agreement to define each party's responsibilities on these issues.*
3.	This would certainly increase traffic on Paradise Drive. As noted, we are private property and responsible for maintenance and paving of the over 135 miles within Hawaiian Paradise Park. Who would maintain the paved parking/pull-up areas after the site has been created and spigots installed? Do you have any idea when construction would begin after the studies have been complete?	*Noted. Please see response to item #2 above. Per the DWS, a construction schedule has not yet been determined. Based on a preliminary estimate, construction could start in the beginning of 2007 at the earliest. Construction would probably take 8-9 months. Please note that construction for this project includes the installation of six total sites, and the installation would be spread out during the indicated time period.*

Nanawale Community Association, Inc. - Response Letter, dated 10/13/05		
Contact:	Ms. Elizabeth Salfen	
Address:	RR 4 Box 2250	
	Pahoa, Hawaii 96778-9703	
Phone:	(808) 965-8080	
No.	**Comments**	**Response**
1.	The Nanawale Community Association Board is in complete support of this project.	*Noted.*
2.	Need to allow sufficient visibility for traffic using the yield onto Nanawale Blvd from Kapoho Road.	*Noted. This concern has been included in the Draft EA.*
3.	There is an existing driveway and a bulldozed flat area about halfway down near the "do not litter" sign. When the Albezia trees were cut, a bulldozer pushed the trees to the back of the lot. This flattened area would be a perfect site for the spigot.	*Noted. The proposed location has been relocated to the indicated spot.*
4.	The Nanawale Community Associated does not have plans for the proposed area but would like to work with the State and County to keep the area beautiful and hopefully free from albezia trees.	*Noted. Recommendation included in the Draft EA to consult the community association to ensure the beauty of the community is not compromised.*

APPENDIX B

RECORD OF FLORA AND FAUNAL CONSULTATION

- **HAWAIʻI NATURAL HERITAGE PROGRAM**
- **UNITED STATES FISH AND WILDLIFE SERVICE, PACIFIC REGION**

Hawaii Natural Heritage Program

University of Hawaii at Manoa
Center for Conservation Research and Training

•677 Ala Moana Boulevard, Suite 705, Honolulu, Hawaii 96813 Ph: (808) 587-8602 Fax: (808) 587-8599

September 16, 2005

Rare Species Information for Hawaii County, Dept. of Water Spigot Facilities

Site 1 TMK: 09-05-05-001
No rare species recorded within TMK. Recording of Hawaiian Hawk and Hawaiian Hoary Bat was observed within the general vicinity.

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Belt Hwy. near Waiohinu.
Accuracy: S
ObservationDate: 1970-02-05
Data: 1 observed

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Several sitings throughout area: Waiohinu 1500 ft; Meinecke home; Near church; and Waiohinu Park, 1050 ft
Accuracy: S
ObservationDate: 1966-04-27

Site 2 TMK: 01-08-02-049 and 01-08-04-30
No rare species recorded within TMK. Recording of Hawaiian Hawk and Hawaiian Hoary Bat was observed along Highway 11. But sightings were not near site.

Site 3 TMK: 01-07-03-019
No rare species recorded within TMK. Recording of Hawaiian Hawk and Hawaiian Hoary Bat was observed along Highway. But sightings were not near site.

Site 4 TMK: 01-06-03-065
No rare species recorded in vicinity or within TMK site.

Site 5 TMK: 01-01-01-002
Recording of Hawaiian Hawk was observed within TMK. Although, most likely not within Spigot site.

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Kapoho, near Puu Honuaula/ many sightings within an area with a 1 mile radius of Puu Honualua
Accuracy: M
ObservationDate: 1986-04-28
Data: A total of 5-7 birds estimated and 3 nests (1 active, 1 nestling raised) observed on 1986-04-28 and on 1986-07-15, and between 1985-06-04 and 1985-07-15
Comment: Location not accurate. Approximately 1.5 mile radius (medium) from point location.

Site 6 TMK: 08-04-08-002
No rare species within site. Hawaiian Hawk observed within vicinity of TMK site.

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Honaunau, ca. 0.5 mi north of Honaunau rodeo area
Accuracy: S
ObservationDate: 1990-12-29
Comment: Location Specific. Within 0.33 mile radius from point location

Site 7 TMK: 01-05-40-065
No rare species recorded in vicinity or within TMK site.

Site 8 TMK: 08-03-13-021
No rare species recorded in vicinity or within TMK site.

Site 9 TMK: 03-05-03-088
No rare species recorded within TMK. Recording of Hawaiian Continuous Perennial Stream within vicinity.

Scientific Name: HAWAIIAN CONTINUOUS PERENNIAL STREAM
Federal Status:
Location Description: Kaiwilahilahi Stream
Accuracy: S
ObservationDate: 1980-??-??
Comment: Ranked “OutStanding” by State of Hawaii, Hawaii Stream Assessment.

Site 10 TMK: 01-05-04-001
No rare species recorded in vicinity or within TMK site.

Site 11 TMK: 09-05-06-002

No rare species recorded within TMK. Recording of Hawaiian Hawk and Hawaiian Hoary Bat was observed within the general vicinity.

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Belt Hwy. near Waiohinu.
Accuracy: S
ObservationDate: 1970-02-05
Data: 1 observed

SpeciesName: Buteo solitarius, Hawaiian Hawk, `Io
Federal Status: Listed Endangered
Location Description: Several sitings throughout area: Waiohinu 1500 ft; Meinecke home; Near church; and Waiohinu Park, 1050 ft
Accuracy: S
ObservationDate: 1966-04-27

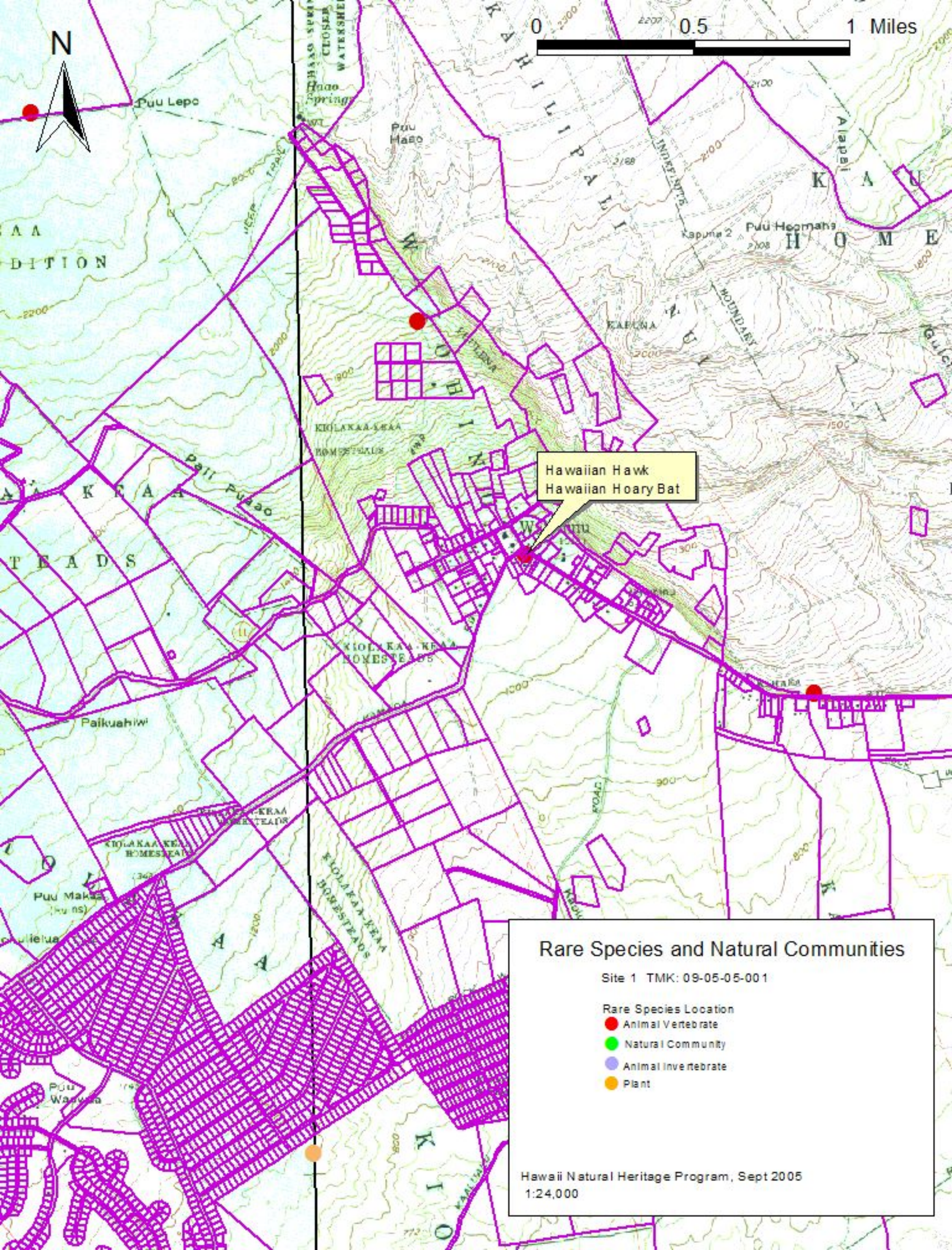
Roy Kam
Database Manager
Hawaii Natural Heritage Program

Notice

The Hawaii Natural Heritage Program database is dependent on the research and observations of many scientists and individuals. In most cases this information is not the result of comprehensive site-specific field surveys, and is not confirmed by the Heritage staff. Many areas in Hawaii have never been thoroughly surveyed, and new plants and animals are still being discovered. Database information should never be regarded as final statements or substituted for on-site surveys required for environmental assessments. Data provided by the Heritage Program do not represent a position taken by The Center for Conservation Research and Training or The Nature Conservancy of Hawaii. Heritage information is only for the intended use of the individual or organization who requested it. It may not be distributed in any way without the consent of the Hawaii Natural Heritage Program.

Please cite the Heritage Program and primary sources in all documentation and reports.

Hawaii Natural Heritage Program, Center for Conservation Research and Training, University of Hawaii at Manoa
677 Ala Moana Boulevard, Suite 705, Honolulu, Hawaii 96813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Puu Lepo
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Rare Species and Natural Communities
Site 1 TMK: 09-05-05-001
Rare Species Location
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Natural Community
Animal Invertebrate
Plant
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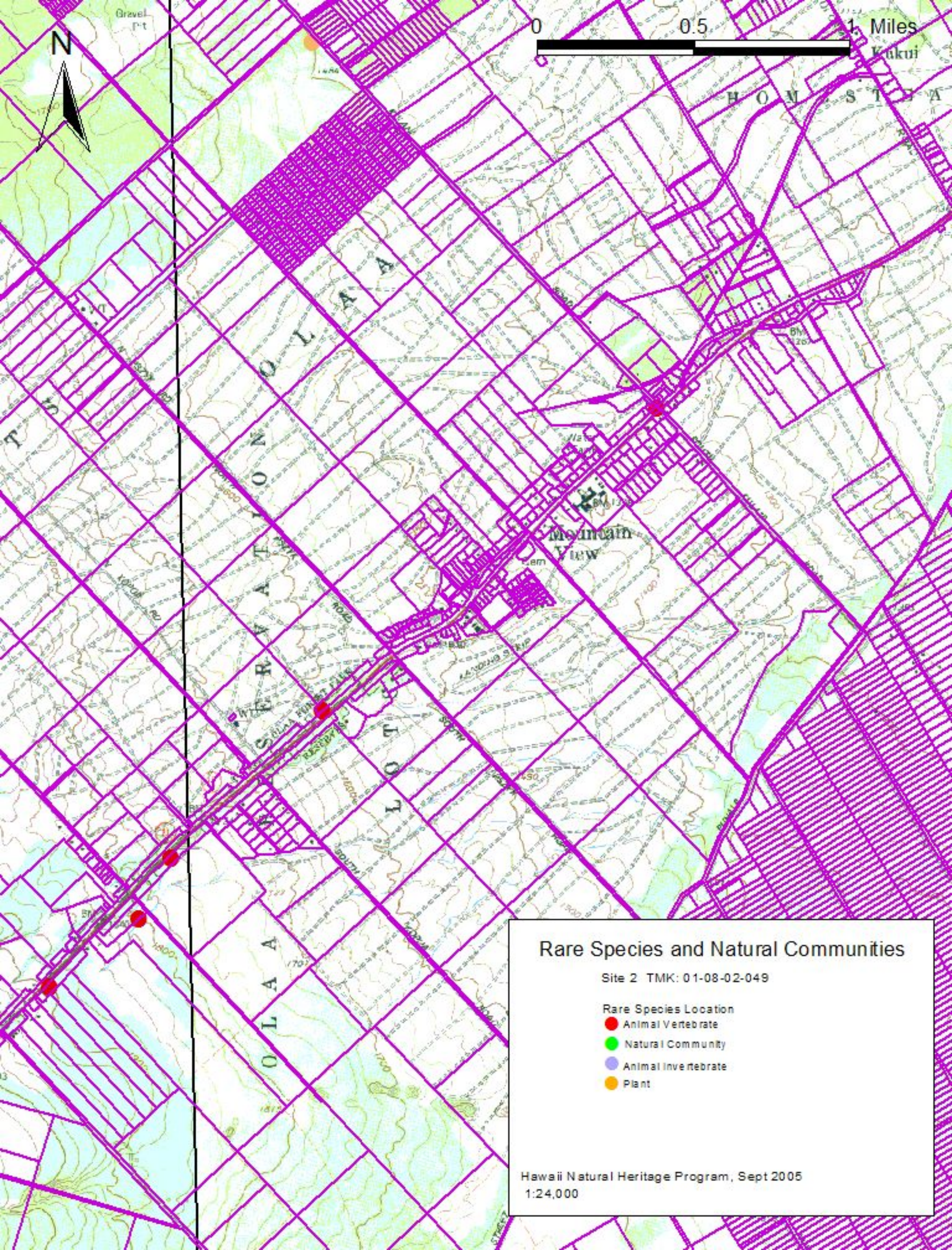
1:24,000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Kukui
HOMESTEA
TUNOLAA
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HALOTT
OLAA
Mountain View
Gravel Pit
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Natural Community
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Plant
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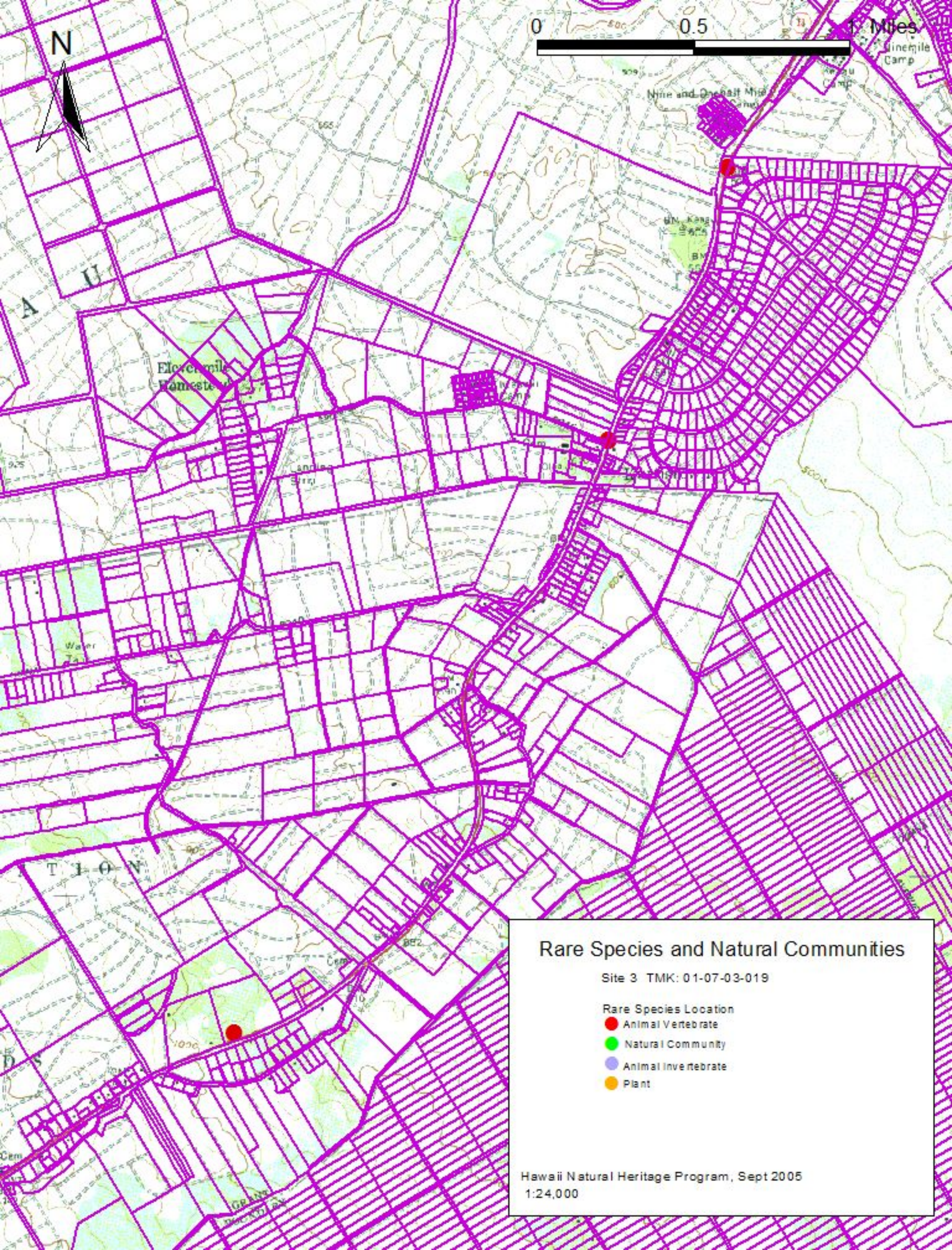
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Animal Vertebrate
Natural Community
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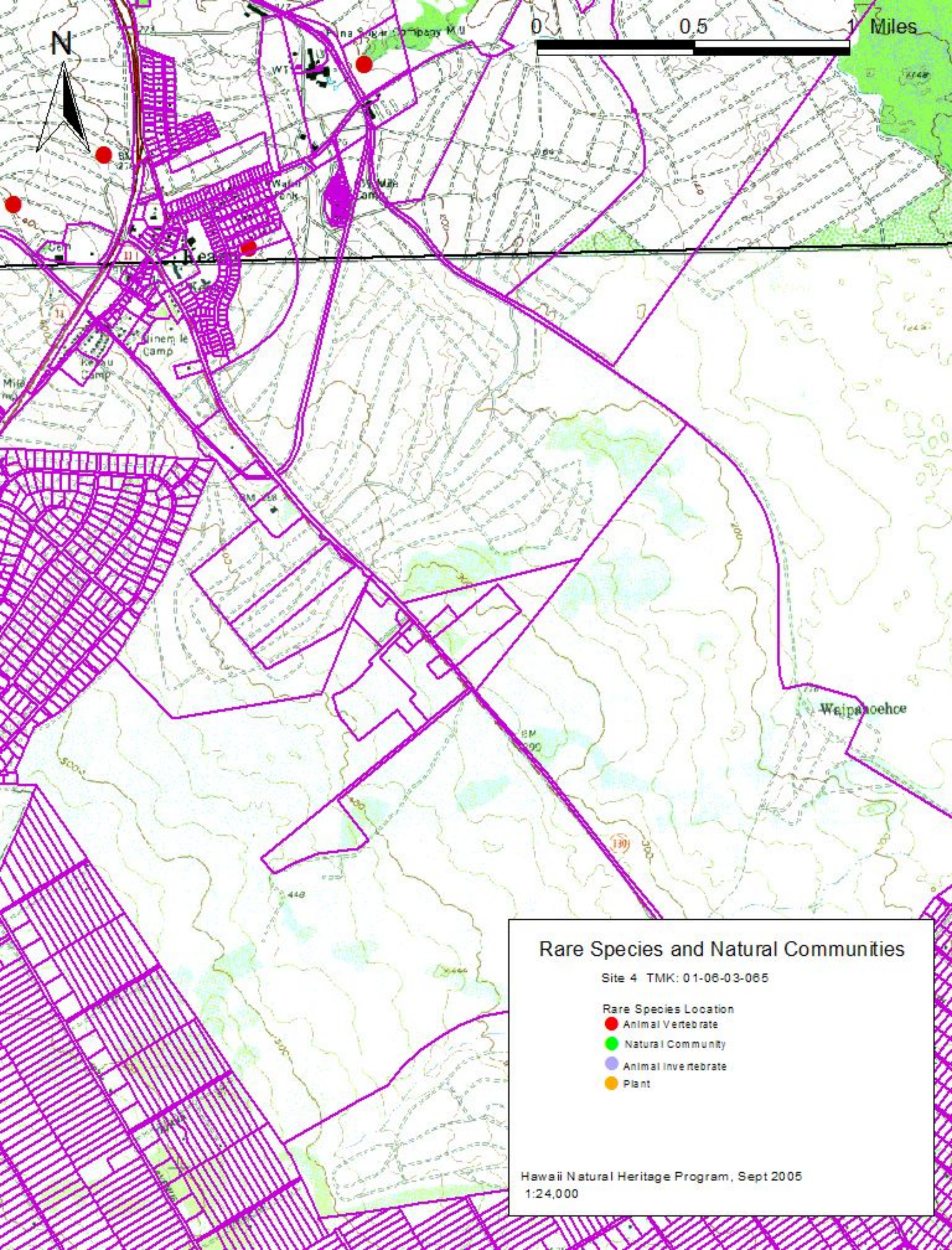
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Natural Community
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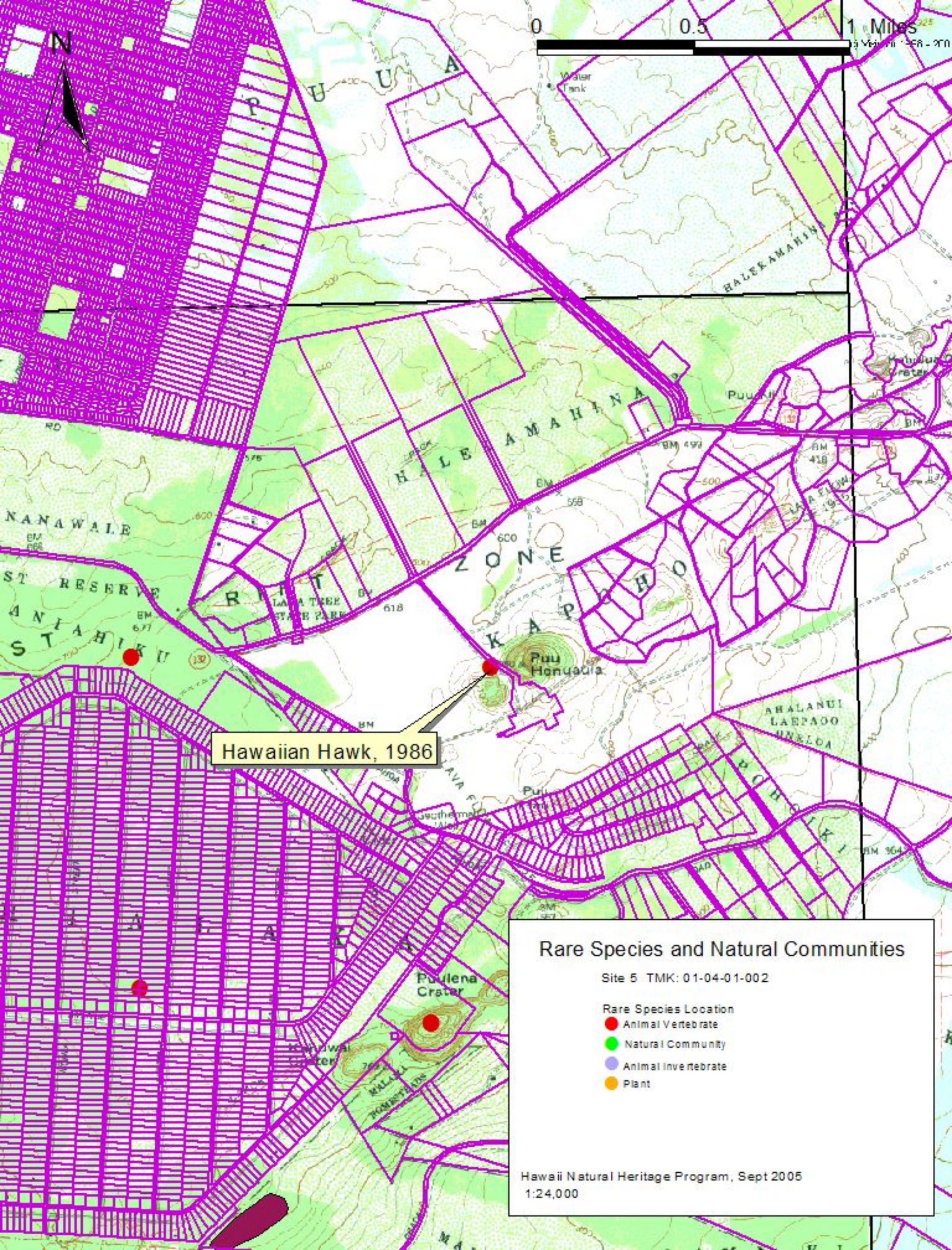
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Puu Honuaula
Puulena Crater
Rare Species and Natural Communities
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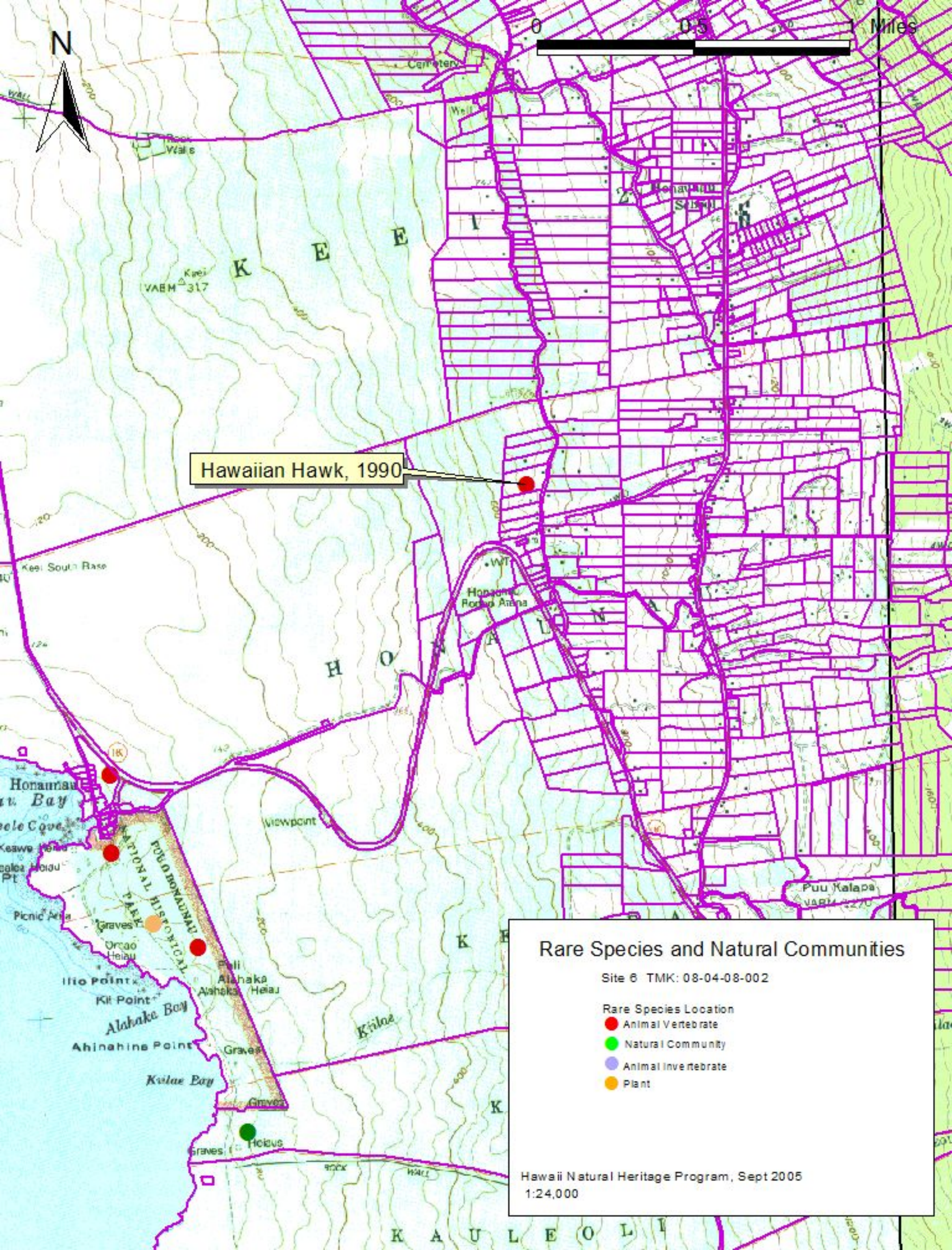
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Rare Species and Natural Communities
Site 6 TMK: 08-04-08-002
Rare Species Location
Animal Vertebrate
Natural Community
Animal Invertebrate
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Hawaii Natural Heritage Program, Sept 2005
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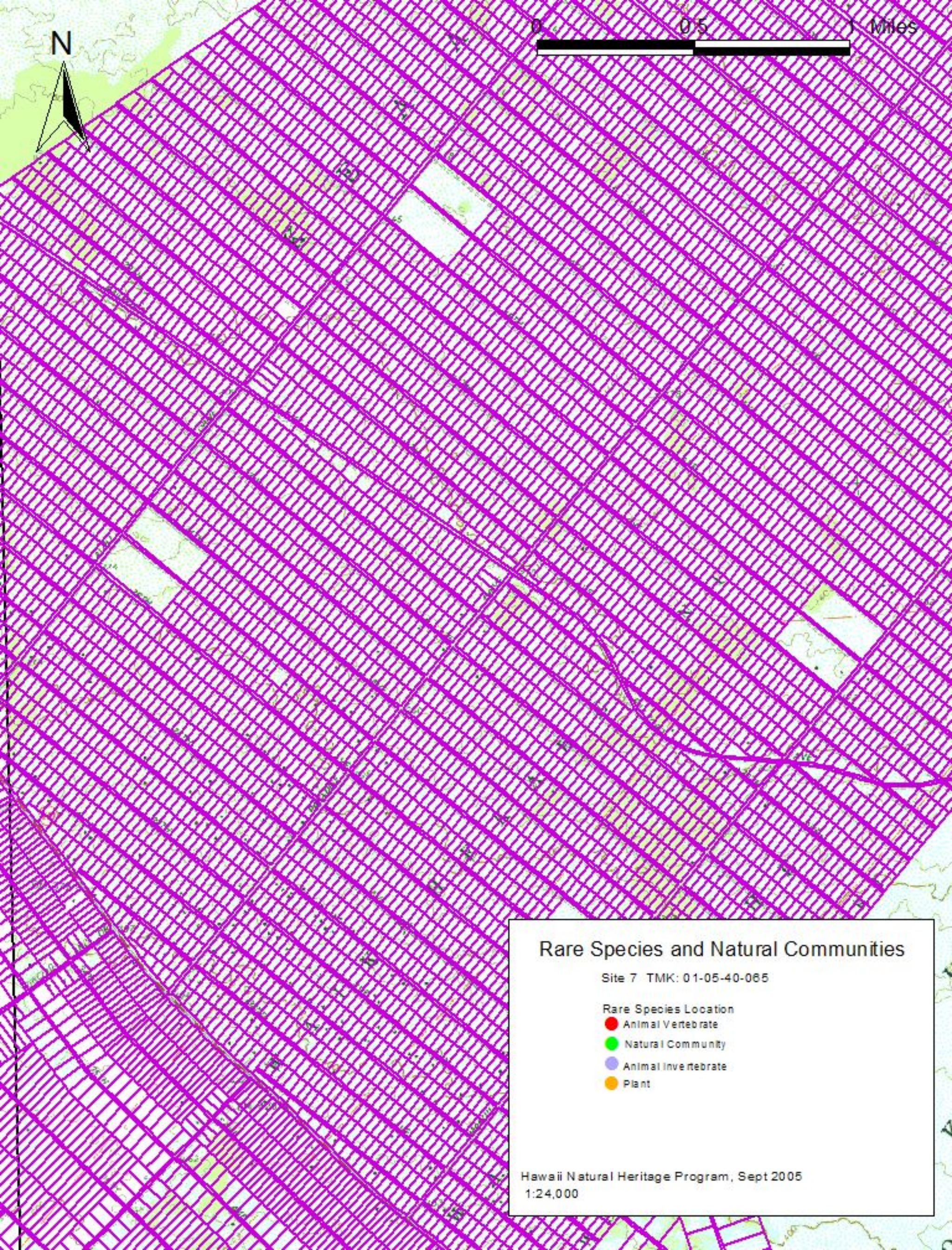
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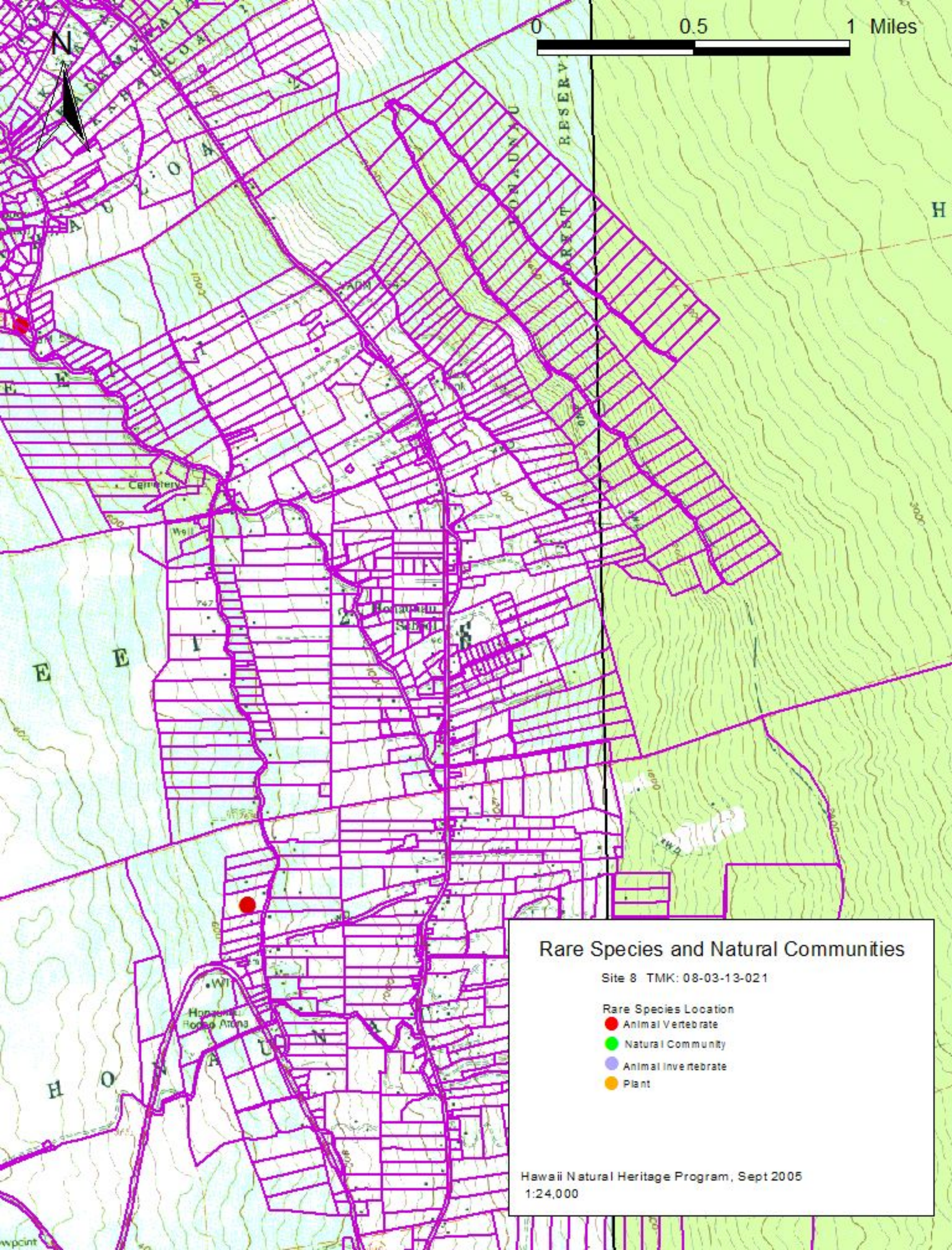
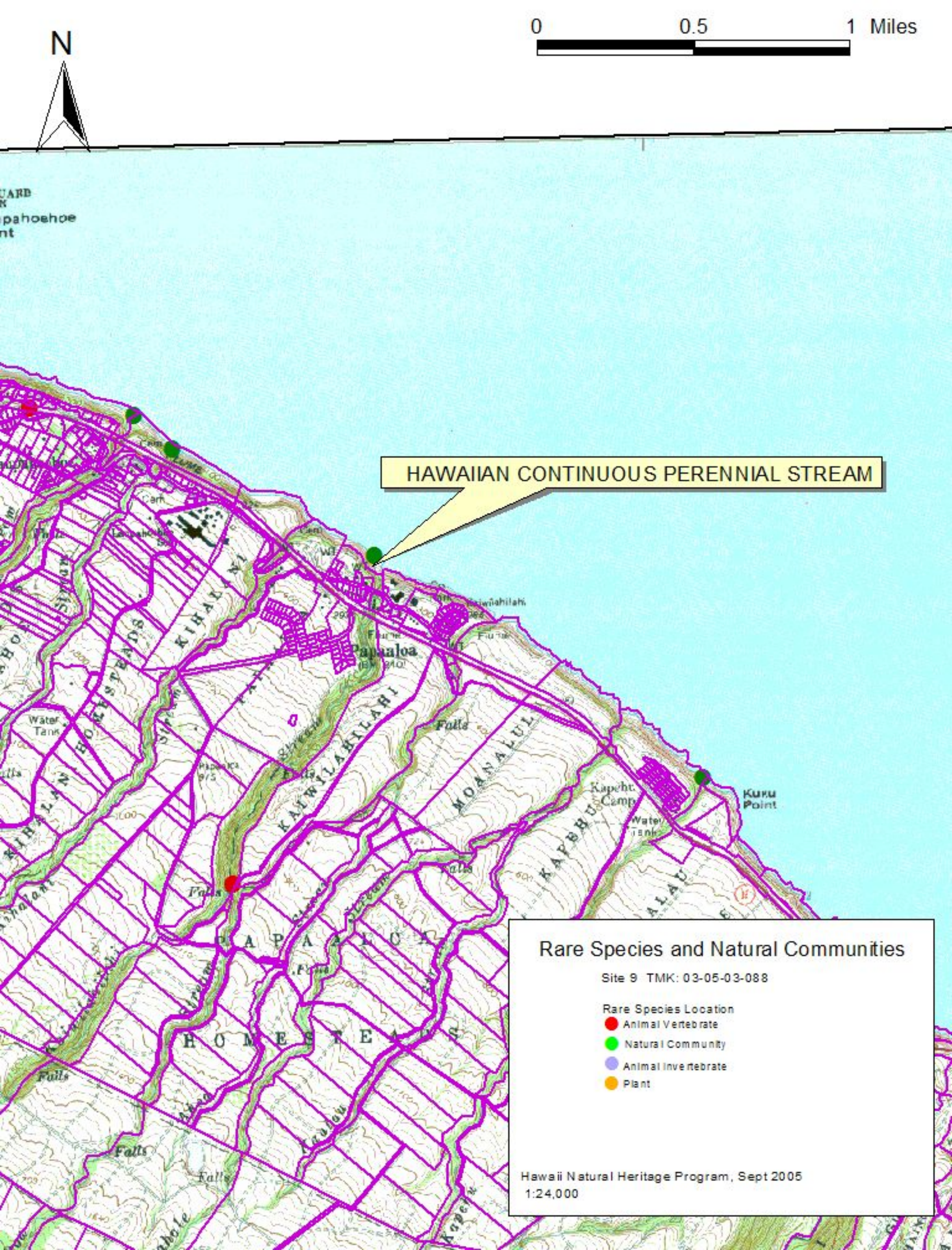
1 Miles
Rare Species and Natural Communities
Site 7 TMK: 01-05-40-065
Rare Species Location
Animal Vertebrate
Natural Community
Animal Invertebrate
Plant
Hawaii Natural Heritage Program, Sept 2005
1:24,000


N
0
0.5
1 Miles
Rare Species and Natural Communities
Site 8 TMK: 08-03-13-021
Rare Species Location
Animal Vertebrate
Natural Community
Animal Invertebrate
Plant
Hawaii Natural Heritage Program, Sept 2005
1:24,000


N
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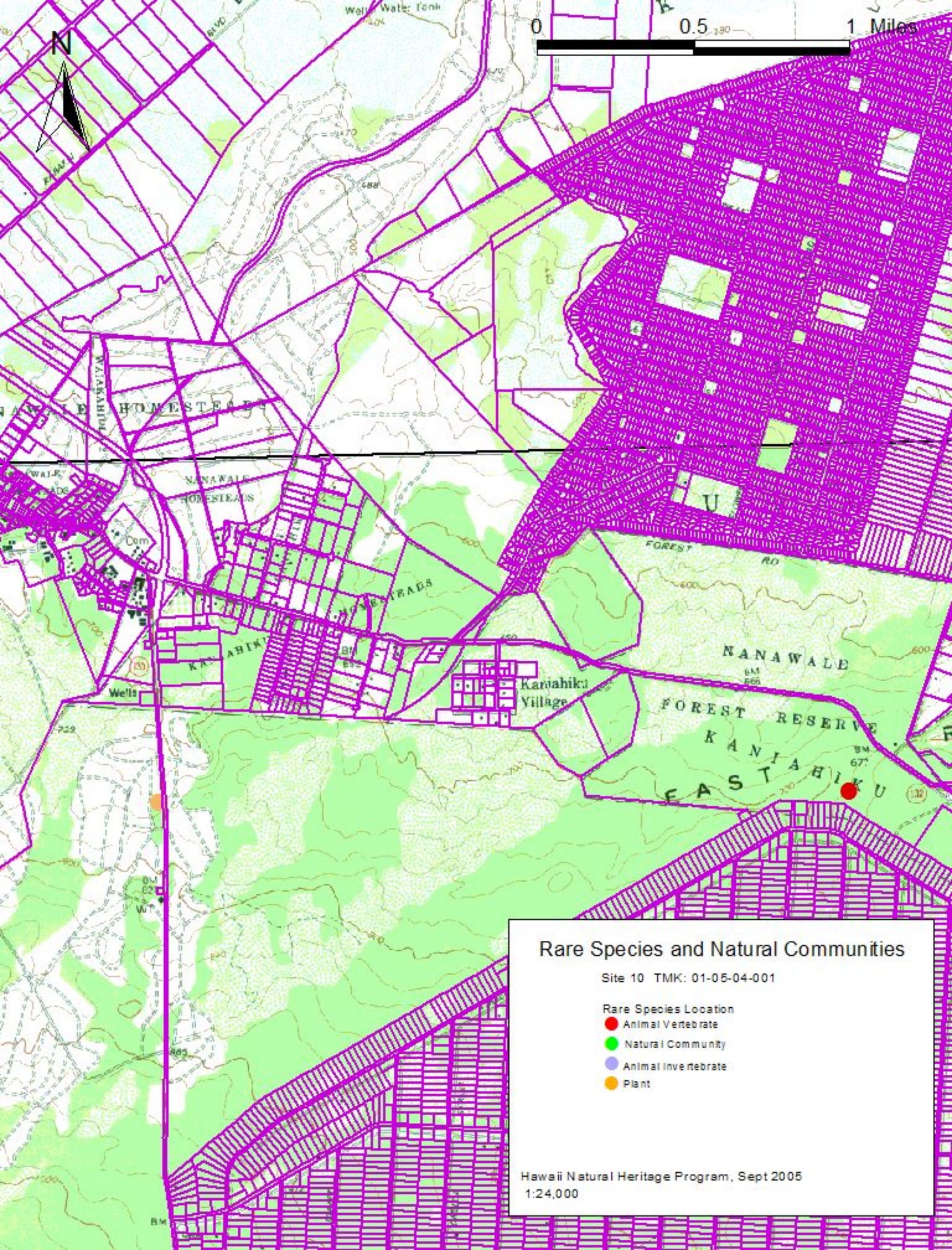
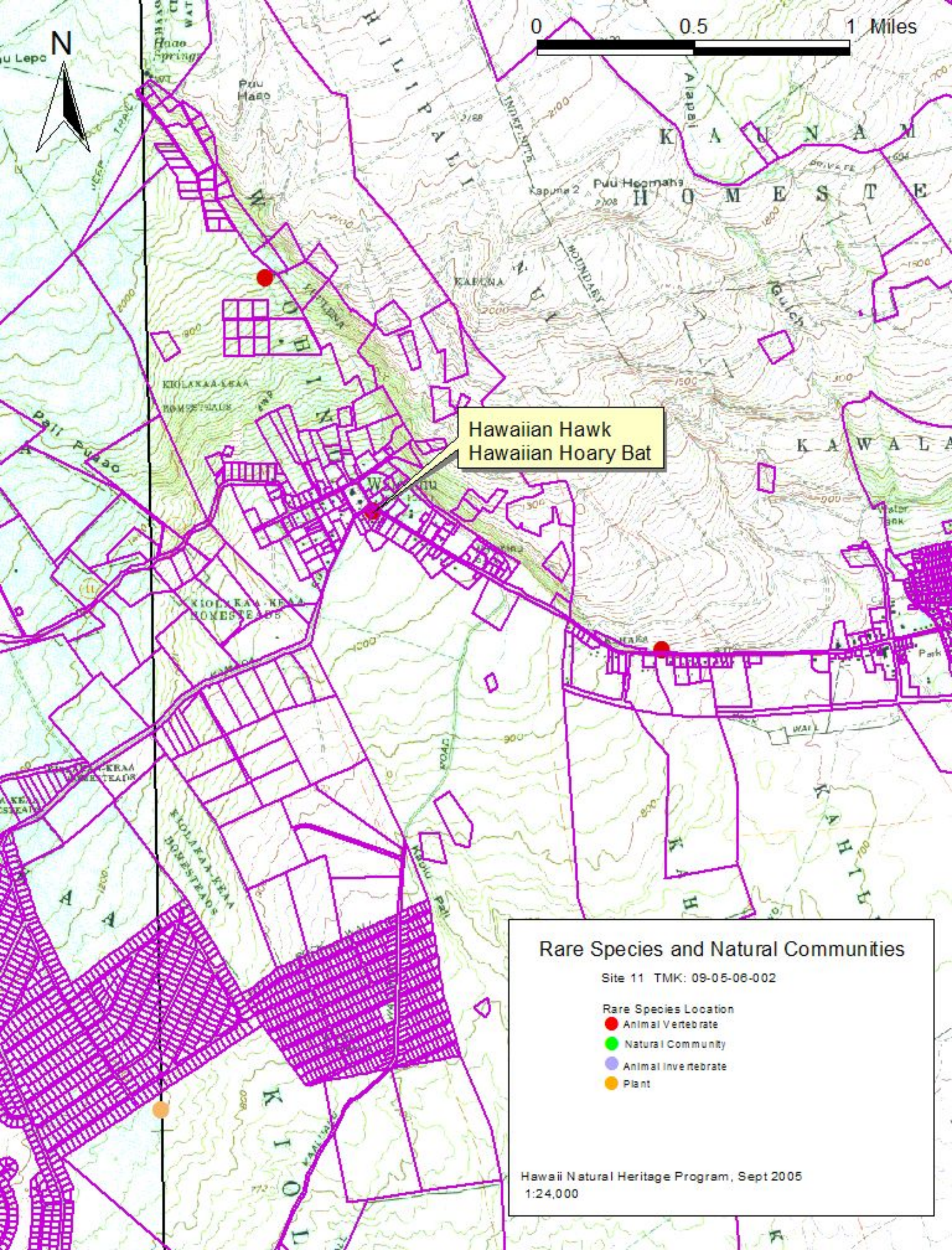
0.5
1 Miles
HAWAIIAN CONTINUOUS PERENNIAL STREAM
Papaaloa
KAIWILAHILAHI
MOANALUL
Kuku Point
Water Tank
Falls
Rare Species and Natural Communities
Site 9 TMK: 03-05-03-088
Rare Species Location
Animal Vertebrate
Natural Community
Animal Invertebrate
Plant
Hawaii Natural Heritage Program, Sept 2005
1:24,000


N
0
0.5
1 Miles
Well
Water Tank
NANAWALE HOMESTEADS
Com
Wells
Kaniahiki Village
NANAWALE
FOREST RESERVE
KANIAHIKU
FOREST RD
U
Rare Species and Natural Communities
Site 10 TMK: 01-05-04-001
Rare Species Location
Animal Vertebrate
Natural Community
Animal Invertebrate
Plant
Hawaii Natural Heritage Program, Sept 2005
1:24,000


N
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0.5
1 Miles
Hawaiian Hawk
Hawaiian Hoary Bat
Rare Species and Natural Communities
Site 11 TMK: 09-05-06-002
Rare Species Location
Animal Vertebrate
Natural Community
Animal Invertebrate
Plant
Hawaii Natural Heritage Program, Sept 2005
1:24,000

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawai'i 96850

In Reply Refer To:
1-2-2005-TA-438 to 450

OCT 18 2005

RECEIVED
OCT 19 2005
M & E PACIFIC, INC.

Mr. Martin Nakasone
Engineering Manager
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawai'i 96813

Dear Mr. Nakasone:

Thank you for your email dated September 26, 2005, requesting a list of threatened and endangered species that may occur in the vicinity of the project areas at eleven locations along major roads on the island of Hawai'i. We received your letter on September 28, 2005. The proposed project is to construct water spigot facilities (spigots, concrete aprons, paved parking and pull up area, security fences and drainage features) at the Wai' Ohinu Transfer Station, Mountain View Gym, Mountain View Park, Kurtistown Ball Park, Kea'au Transfer Station, Kapoho-Pohoiki Road Junction, Honaunau Rodeo Arena, Hawaiian Paradise Park Fire Station Site, Honoaunau School, Papa'aloa Gym, Nanawale Estates Arena, and the Waiohinu Flood Channel. Your letter states that the lead agency for this work is the County of Hawai'i Department of Water Supply.

We reviewed the information you provided and pertinent information in our files, including data compiled by the Hawai'i Natural Heritage Program. To the best of our knowledge, no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site.

We appreciate your efforts to conserve endangered species. If you have questions, please contact Assistant Field Supervisor Gina Shultz (phone: 808/792-9400; fax: 808/792-9581).

Sincerely,

Patrick Leonard
Field Supervisor

TAKE PRIDE® IN AMERICA

Hikiji, Jamie

From: Nakasone, Martin
Sent: Thursday, November 17, 2005 2:04 PM
To: Hikiji, Jamie
Subject: FW: DEA for Construction of Islandwide Spigot Facilities, Island of Hawaii

-----Original Message-----
From: Michael_Molina@fws.gov [mailto:Michael_Molina@fws.gov]
Sent: Thursday, November 17, 2005 1:18 PM
To: Nakasone, Martin
Subject: DEA for Construction of Islandwide Spigot Facilities, Island of Hawaii

Mr: Nakasone:

We received a copy of the Draft Environmental Assessment for Construction of Islandwide Spigot facilities, Various Locations on the Island of Hawaii (DEA), on November 15, 2005. Based on the DEA, some of the proposed sites are near streams. We recommend that standard best management practices be employed to avoid or minimize the introduction of sediment and other pollutants into these streams as a result of the project. Provided this measure is incorporated, the Fish and Wildlife Service agrees that fish and wildlife resources in the vicinity of the proposed sites are not anticipated to be adversely affected by the proposed project. Accordingly, we would support a Finding of No Significant Impact for the proposed project.

Thank you for coordinating with the Fish and Wildlife Service on the proposal.

Michael Molina
Environmental Review Coordinator
U.S. Fish and Wildlife Service, Pacific Islands 300 Ala Moana Blvd., Room 3122, Box 50088 Honolulu, Hawaii 96850
Tel: (808) 792-9440 Fax: (808) 792-9581
Email: michael_molina@fws.gov

APPENDIX C

SELECTED FEDERAL CROSS-CUTTER RESEARCH INFORMATION

- **COASTAL ZONE MANAGEMENT ACT**
- **PROTECTION OF WETLANDS**
- **FARMLAND PROTECTION POLICY**
- **SAFE DRINKING WATER ACT**
- **WILDERNESS ACT**

COASTAL ZONE MANAGEMENT ACT

CZM ASSESSMENT SUMMARY

Hawaii CZM Program - Federal Consistency Assessment

		SITE										
RECREATIONAL RESOURCES		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
1.	Will the proposed action involve or be near a dedicated public right-of-way?	Y	Y	Y	N	Y	Y	N	Y	Y	Y	N
2.	Does the project site abut the shoreline?	N	N	N	N	N	N	N	N	N	N	N
3.	Is the project site near a State or County park?	Y	N	Y	Y	Y	N	N	N	N	N	N
4.	Is the project site near a perennial stream?	N	N	N	N	N	N	N	N	N	N	N
5.	Will the proposed action occur in or affect a surf site?	N	N	N	N	N	N	N	N	N	N	N
6.	Will the proposed action occur in or affect a popular fishing area?	N	N	N	N	N	N	N	N	N	N	N
7.	Will the proposed action occur in or affect a recreational or boating area?	Y	N	Y	Y	Y	N	N	N	N	N	N
8.	Is the project site near a sandy beach?	N	N	N	N	N	N	N	N	N	N	N
9.	Are there swimming or other recreational uses in this area?	Y	N	Y	Y	Y	N	N	N	N	N	N
HISTORIC RESOURCES		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
1.	Is the project site within a historic/cultural district?	N	N	N	N	N	N	N	N	N	N	N
2.	Is the project site listed on or nominated to the Hawaii or National register of historic places?	N	N	N	N	N	N	N	N	N	N	N
3.	Does the project site include undeveloped land which has not been surveyed by an archeologist?	N	N	N	N	N	N	N	N	N	N	N
4.	Has a site survey revealed any information on historic or archaeological resources?	N	N	N	N	N	N	N	N	N	N	N
5.	Is the project site within or near a Hawaiian fishpond or historic settlement area?	N	N	N	N	N	N	N	N	N	N	N
SCENIC AND OPEN SPACE RESOURCES		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
1.	Does the project site abut a scenic landmark?	N	N	N	N	N	N	N	N	N	N	N
2.	Does the proposed action involve the construction of a multi-story structure or structures?	N	N	N	N	N	N	N	N	N	N	N
3.	Is the project site adjacent to undeveloped parcels?	N	N	N	N	N	N	N	N	Y	N	N
4.	Does the proposed action involve the construction of structures visible between the nearest coastal roadway and the shoreline?	N	N	N	N	N	N	N	N	N	N	N
5.	Will the proposed action involve construction in or on waters seaward of the shoreline? On or near a beach?	N	N	N	N	N	N	N	N	N	N	N
COASTAL ECOSYSTEMS		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
1.	Does the proposed action involve dredge or fill activities?	N	N	N	N	N	N	N	N	N	N	N
2.	Is the project site within the Shoreline Setback Area (20 to 40 feet inland of the shoreline)?	N	N	N	N	N	N	N	N	N	N	N
3.	Will the proposed action require some form of effluent discharge into a body of water?	N	N	N	N	N	N	N	N	N	N	N
4.	Will the proposed action require earthwork beyond clearing and grubbing?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5.	Will the proposed action include the construction of special waste treatment facilities, such as injection wells, discharge pipes or cesspools?	N	N	N	N	N	N	N	N	N	N	N
6.	Is an intermittent or perennial stream located on or near the project site?	N	N	N	N	N	N	N	N	N	N	N
7.	Does the project site provide habitat for endangered species of plants, birds or mammals?	N	N	N	N	N	N	N	N	N	N	N
8.	Is any such habitat located nearby?	Y	N	N	N	N	N	N	N	N	N	N

Hawaii CZM Program - Federal Consistency Assessment

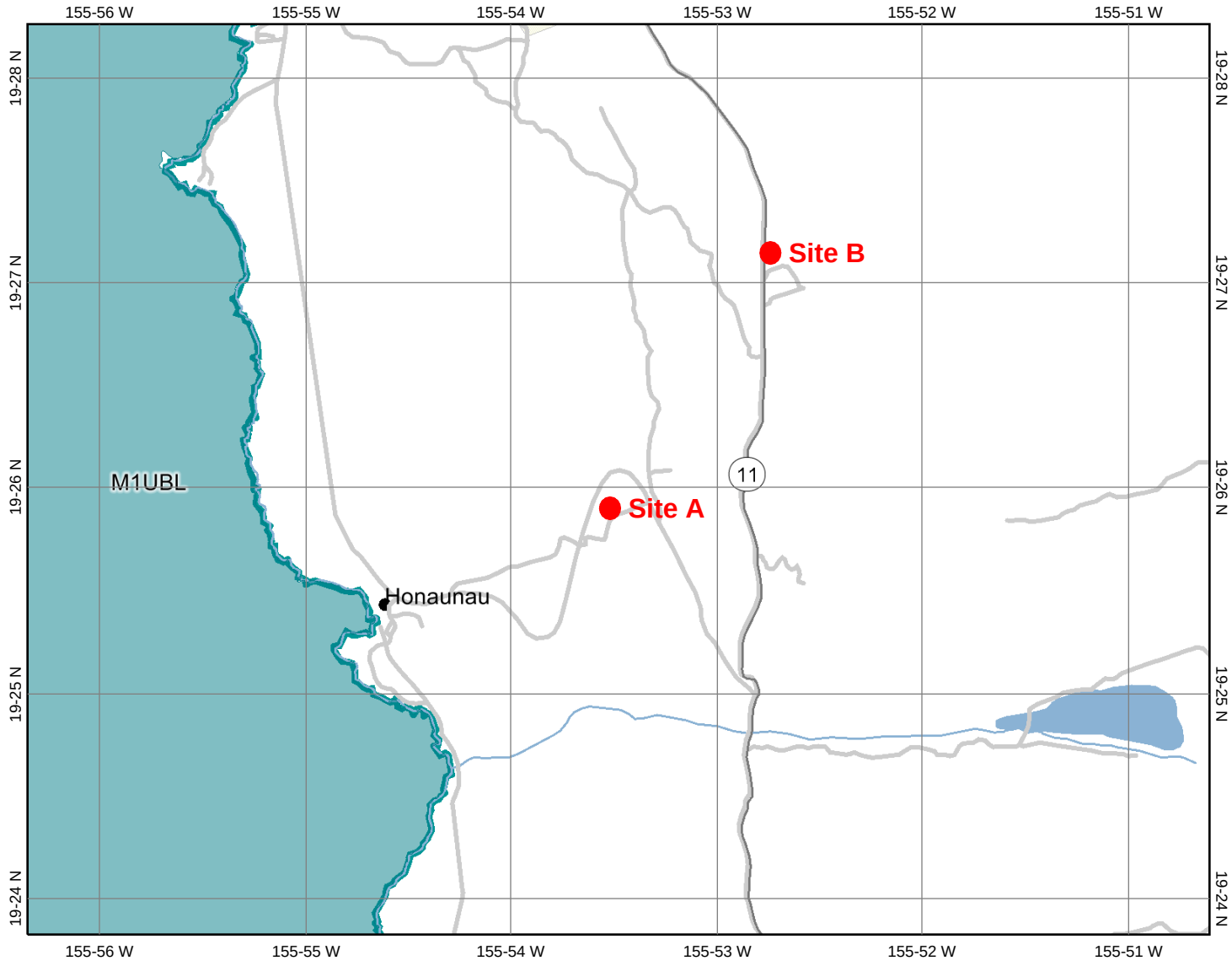
		SITE										
9.	Is there a wetland on the project site?	N	N	N	N	N	N	N	N	N	N	N
10.	Is the project site situated in or abutting a Natural Area Reserve?	N	N	N	N	N	N	N	Y	Y	N	N
11.	Is the project site situated in or abutting a Marine Life Conservation District?	N	N	N	N	N	N	N	N	N	N	N
12.	Is the project site situated in or abutting an estuary?	N	N	N	N	N	N	N	N	N	N	N
ECONOMIC USES		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
1.	Does the project involve a harbor or port?	N	N	N	N	N	N	N	N	N	N	N
2.	Is the project site within a designated tourist destination area?	N	N	N	N	N	N	N	N	N	N	N
3.	Does the project site include agricultural lands or lands designated for such use?	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y
4.	Does the proposed activity relate to commercial fishing or seafood production?	N	N	N	N	N	N	N	N	N	N	N
5.	Does the proposed activity relate to energy production?	N	N	N	N	N	N	N	N	N	N	N
6.	Does the proposed activity relate to seabed mining?	N	N	N	N	N	N	N	N	N	N	N
COASTAL HAZARDS		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
1.	Is the project site on or abutting a sandy beach?	N	N	N	N	N	N	N	N	N	N	N
2.	Is the project site within a potential tsunami inundation area as depicted on the National Flood Insurance Program flood hazard map?	N	N	N	N	N	N	N	N	N	N	N
3.	Is the project site within a potential flood inundation area according to a flood hazard map?	N	N	N	N	N	N	N	N	N	N	N
4.	Is the project site within a potential subsidence hazard area according to a subsidence hazard map?	N	N	N	N	N	N	N	N	N	N	N
5.	Has the project site or nearby shoreline areas experienced shoreline erosion?	N	N	N	N	N	N	N	N	N	N	N
MANAGING DEVELOPMENT		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
1.	Will the proposed activity require more than two (2) permits or approval? *	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2.	Does the proposed activity conform with the State and County land use designations for the site?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3.	Has or will the public be notified of the proposed activity?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4.	Has a draft or final environmental impact statement or an environmental assessment been prepared?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PUBLIC PARTICIPATION		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
	The public will be informed about this project via written requests for consultation and this EA.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
BEACH PROTECTION		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
	This project is not located withiin or near any beach areas.	N	N	N	N	N	N	N	N	N	N	N
MARINE RESOURCES		**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
	This project is not located near the ocean and will not impact the ocean resources management plan.	N	N	N	N	N	N	N	N	N	N	N

* A list of the permits needed for construction are listed in Section 18 of this EA. The permits will be obtained during the design & construction phase of this project.

PROTECTION OF WETLANDS

U.S. FISH AND WILDLIFE SERVICE
WETLANDS ONLINE MAPPER

Honaunau



Map center: 19° 26' 3" N, 155° 53' 29" W

Legend

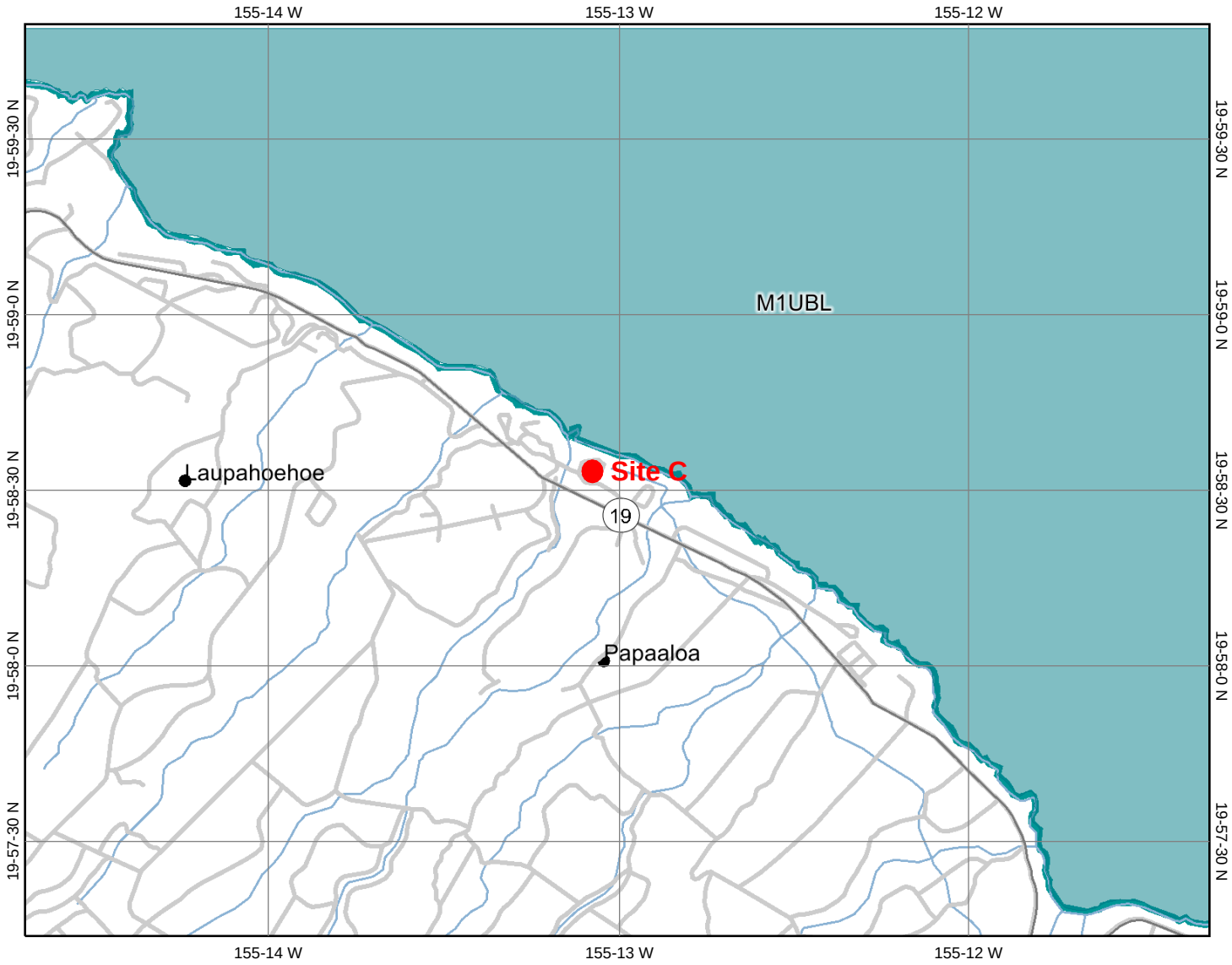
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Hawaii Cities
- HI Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- NHD Waterbodies
- NHD Streams
- Urban Areas 300K
- Hawaiian Islands 100K

N

Scale: 1:76,611

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Papaaloa



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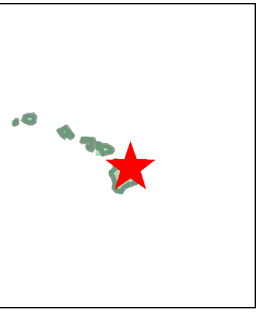

Legend

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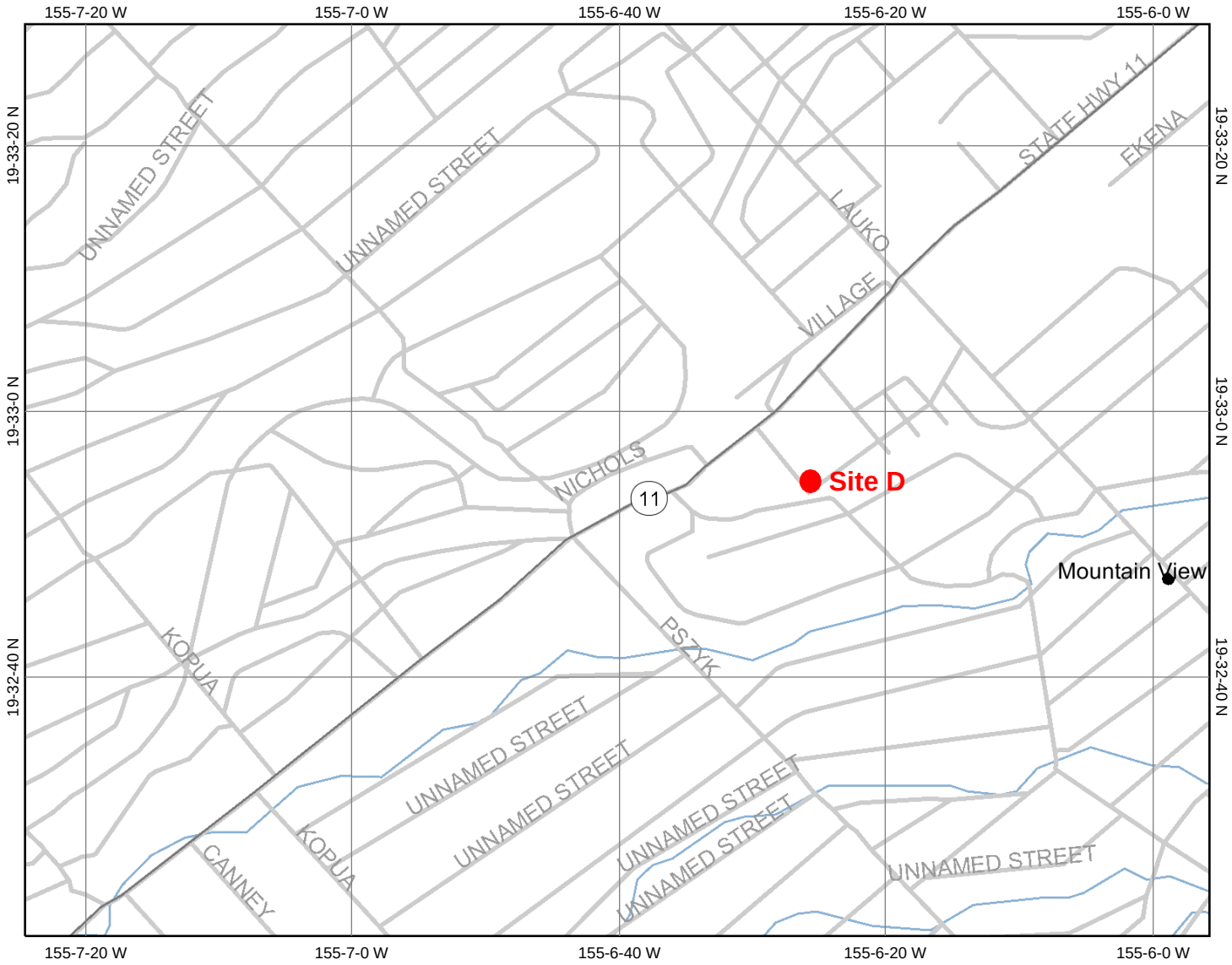
N

Scale: 1:45,012

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Mountain View



Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
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- HI Wetland Polygons
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- NHD Waterbodies
- NHD Streams
- Urban Areas 300K
- Hawaiian Islands 100K

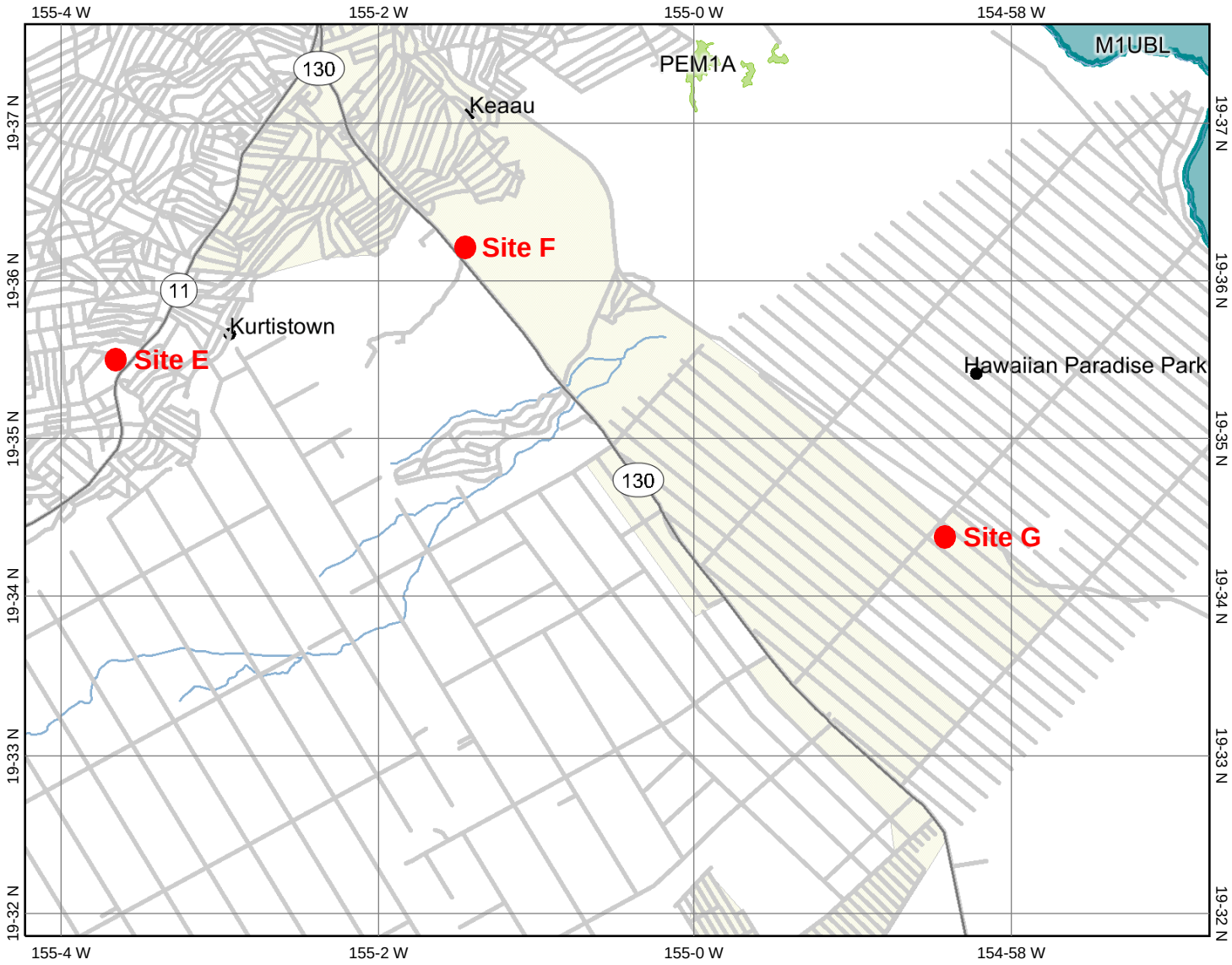
N

Scale: 1:19,712

Map center: 19° 32' 55" N, 155° 6' 40" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Keaau



Map center: 19° 34' 44" N, 155° 0' 29" W

Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Hawaii Cities
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- Lake
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- Riverine
- NHD Waterbodies
- NHD Streams
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- Hawaiian Islands 100K

N

Scale: 1:99,786

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Pahoa

Map center: 19° 29' 19" N, 154° 55' 4" W

Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Hawaii Cities
- HI Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
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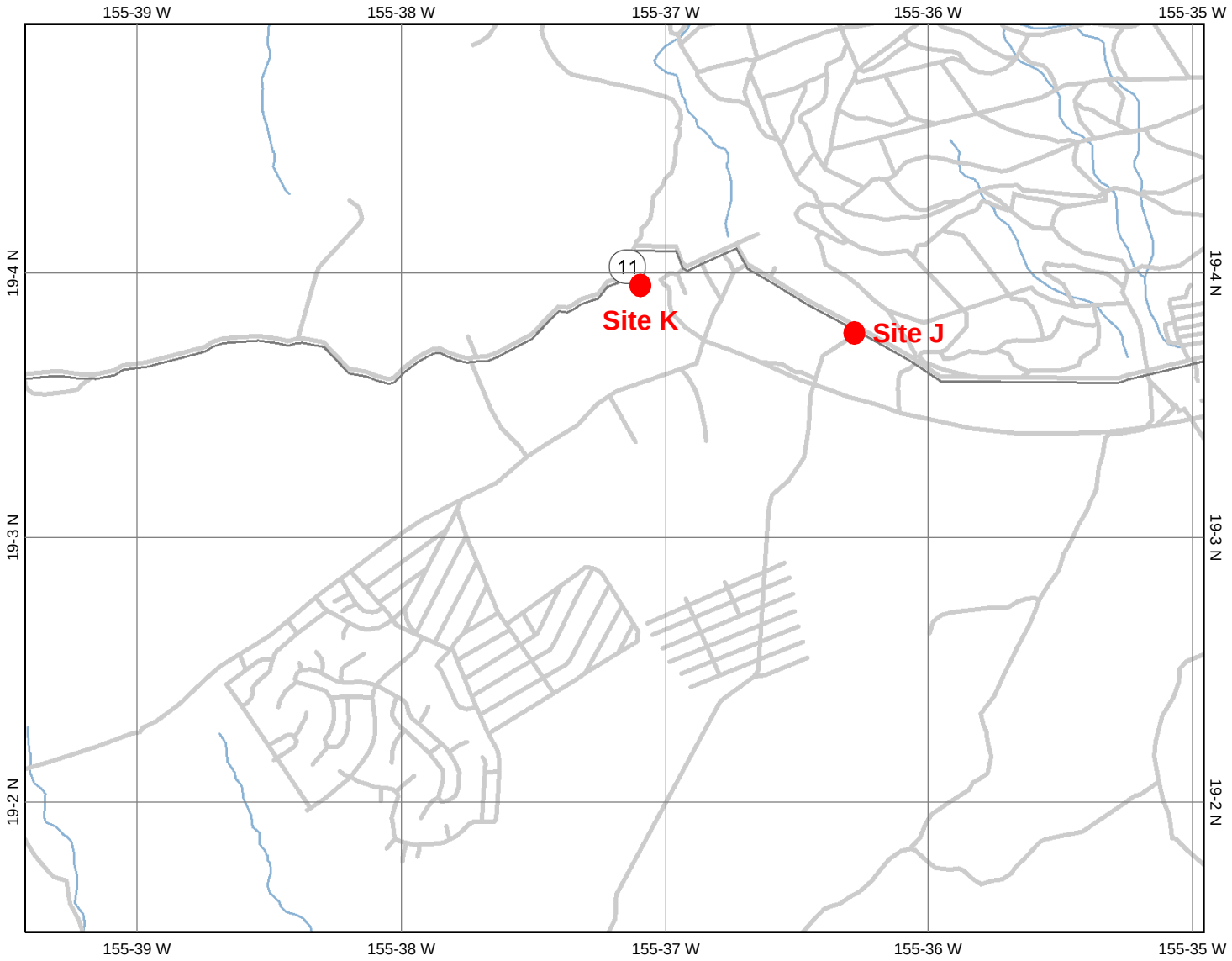
N

Scale: 1:99,786

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Kau



Map center: 19° 3' 14" N, 155° 37' 12" W

Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
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- Riverine
- NHD Waterbodies
- NHD Streams
- Urban Areas 300K
- Hawaiian Islands 100K

N

Scale: 1:59,424

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

FARMLAND PROTECTION POLICY ACT

ALISH MAPS
GIS MPS

Island of Hawaii

ALISH

- Prime
- Unique
- Other
- Major Roads

Hawi
Honokaa
Kawaihae
Waimea
Laupahoehoe
Mauna Kea
Hilo
Kailua-Kona
Keaau
Pahoa
Captain Cook
Mauna Loa
Volcano
Milolii
Naalehu

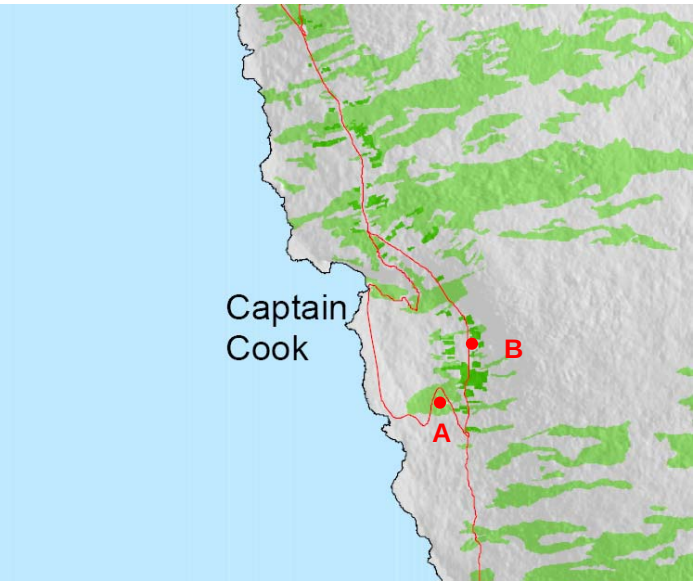
N
W E
S

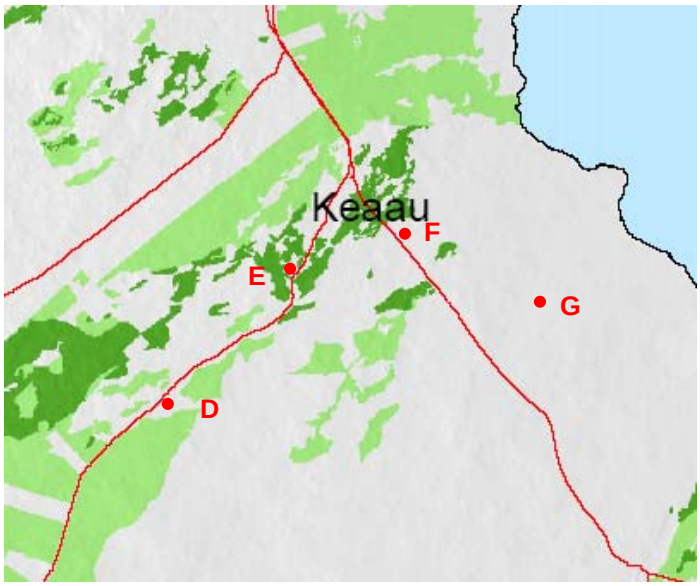
0 5 10 20 Miles

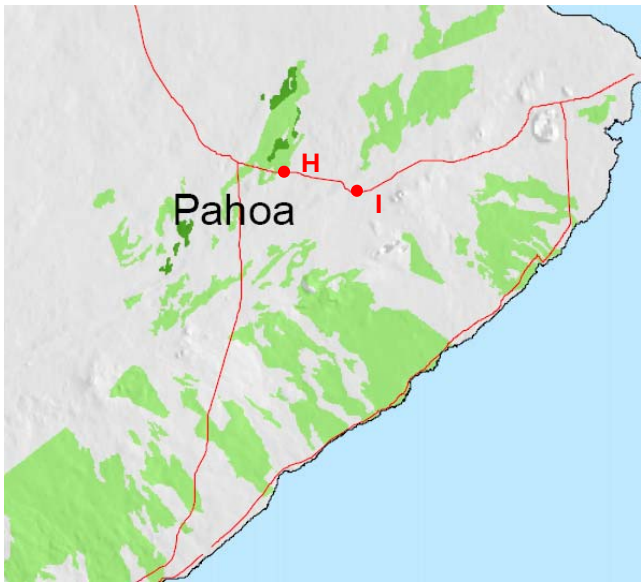
This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.

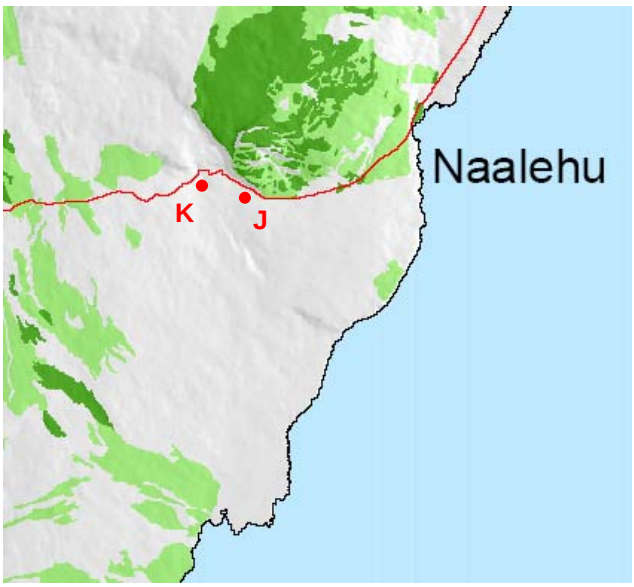
Sources:
ALISH (Agricultural Lands of Importance to the State of Hawaii) - State Dept. of Agriculture, 1977.
Major Roads - USGS, 1983.

PROJECT SITES ON ALISH MAP



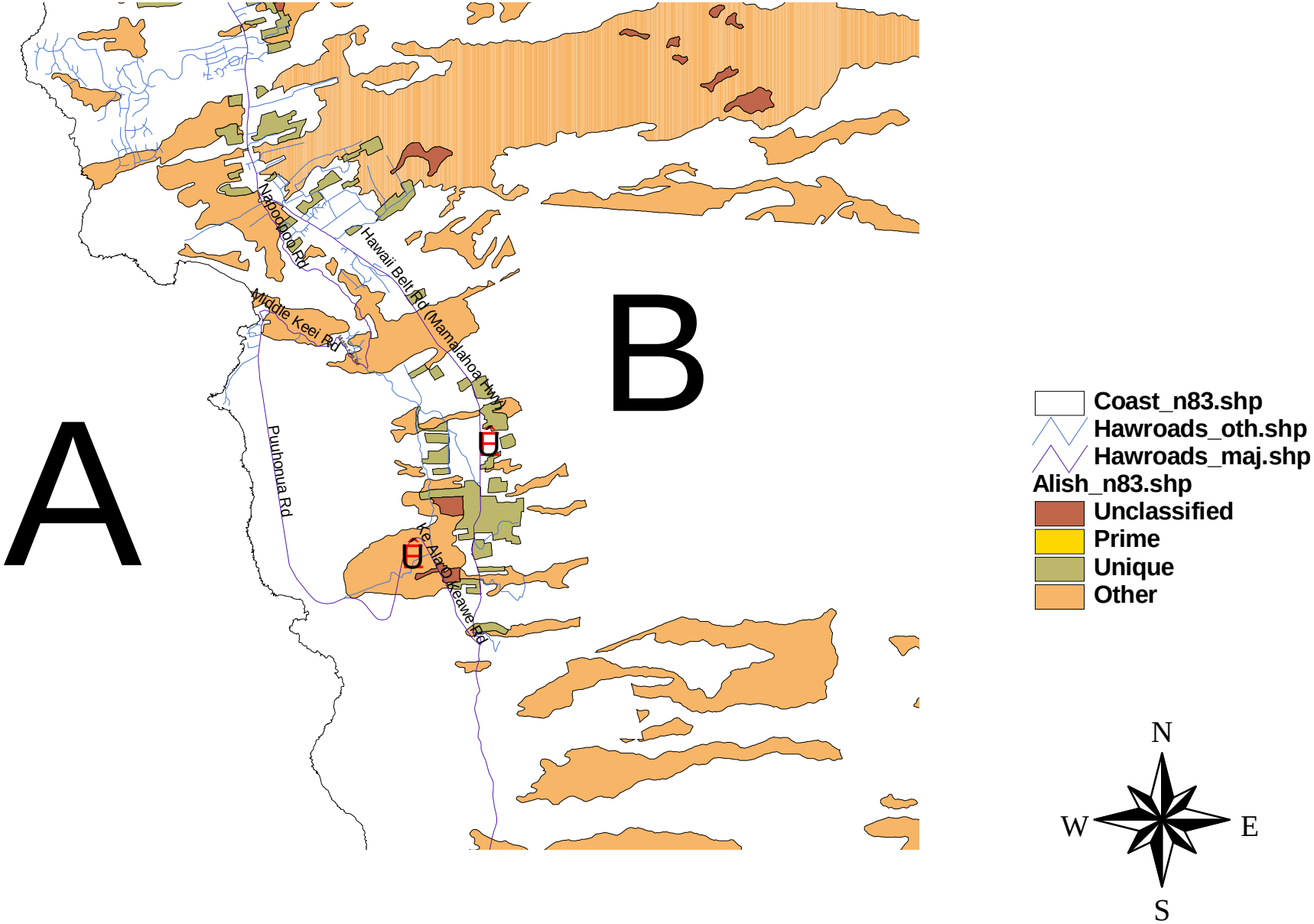




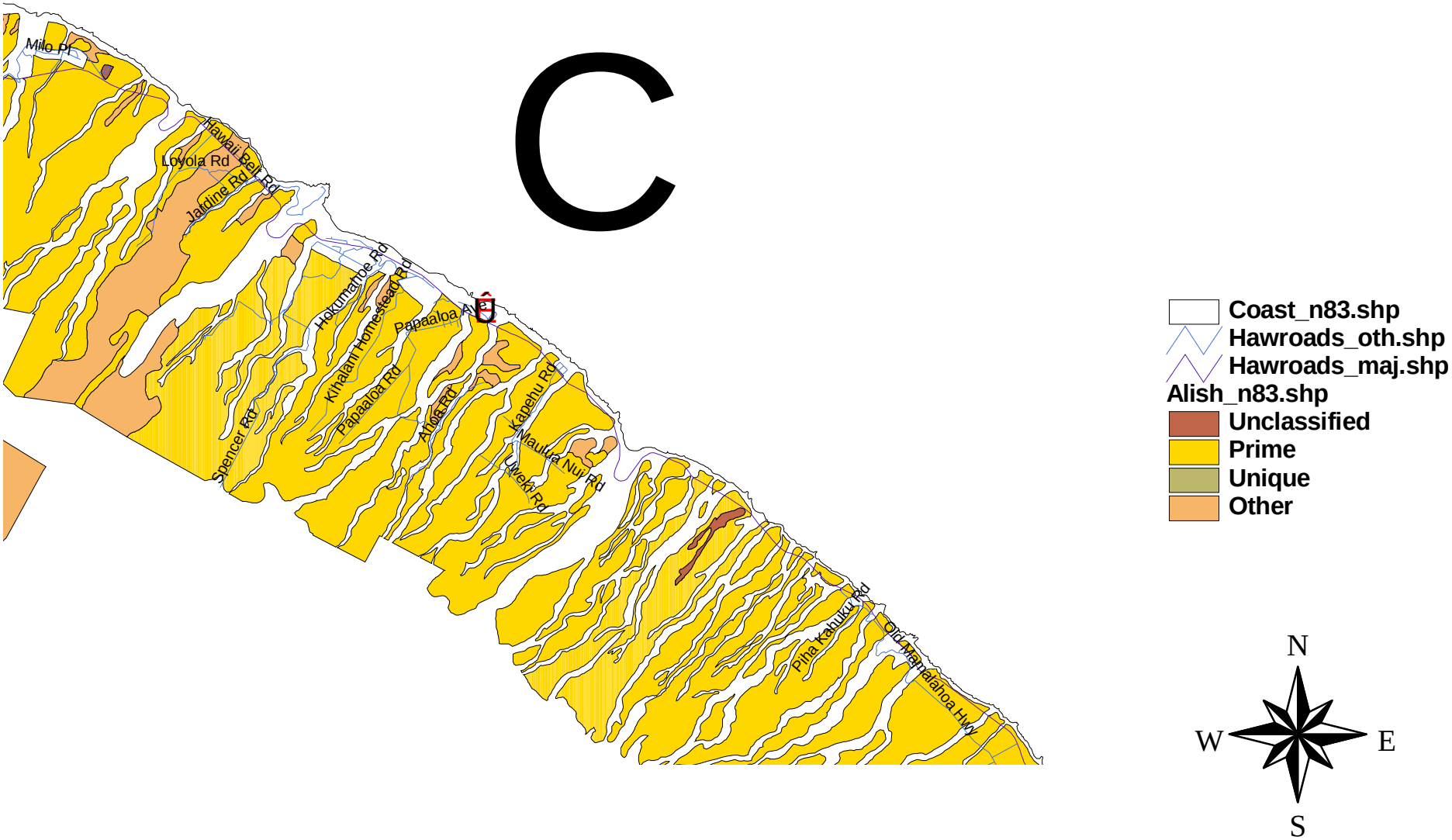


ALISH MAP
Source: Office of Planning, Department of Business, Economic Development, and Tourism

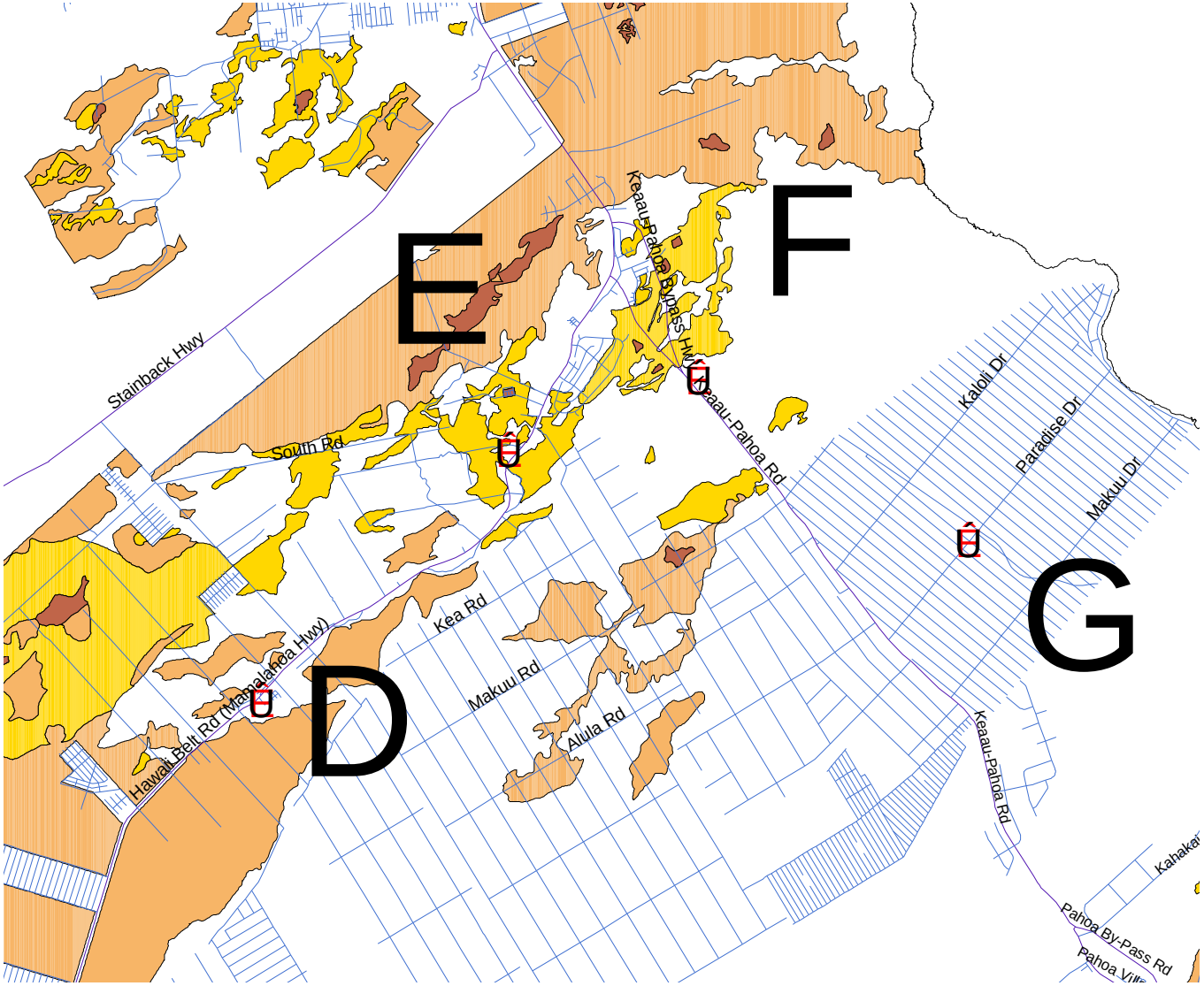
Honaunau Sites



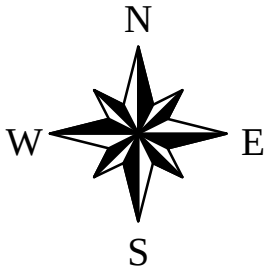
Papaaloa Site



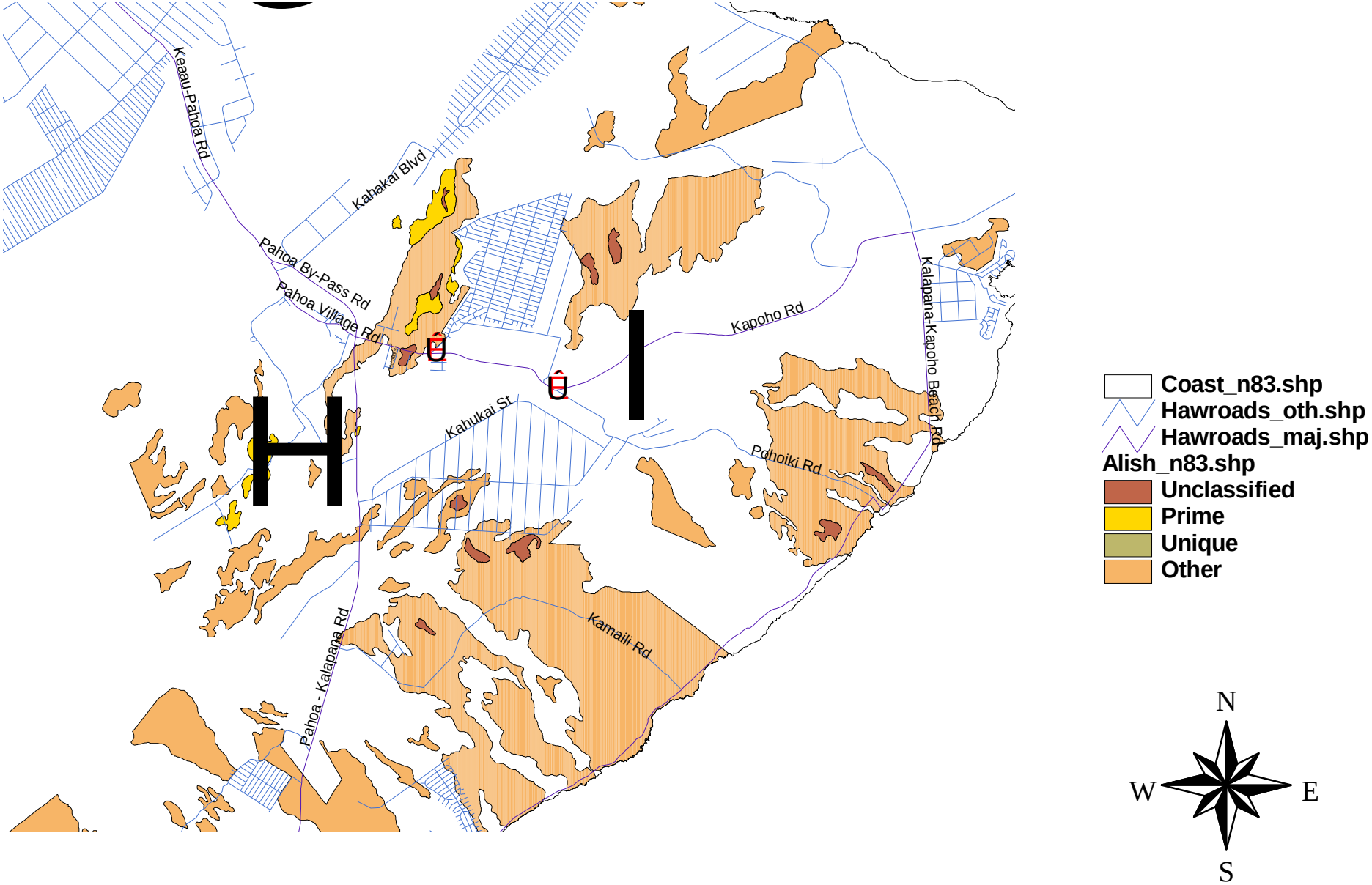
Keaau Sites



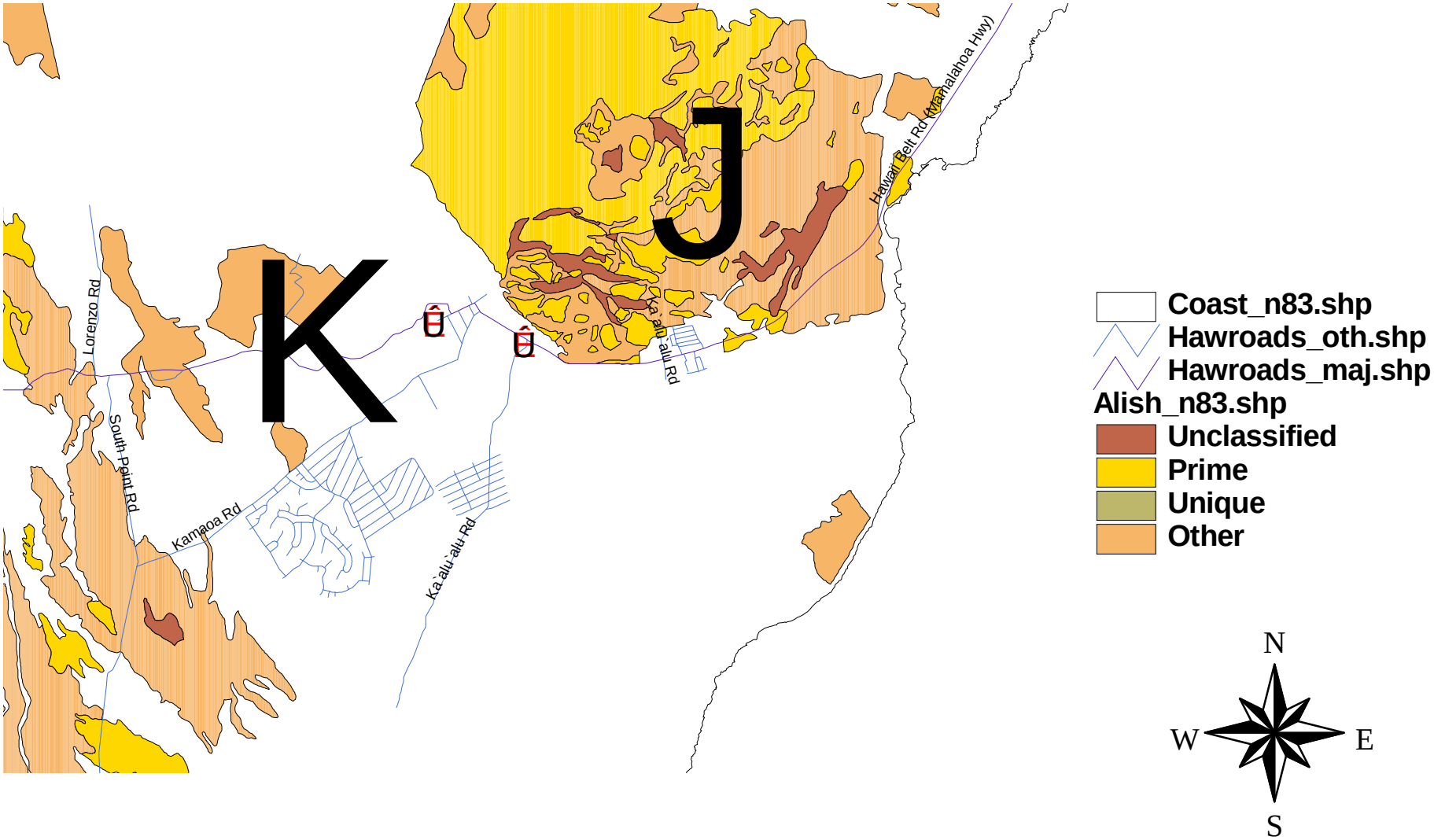
Coast_n83.shp
Hawroads_oth.shp
Hawroads_maj.shp
Alish_n83.shp
Unclassified
Prime
Unique
Other



Pahoa Sites


Keaau-Pahoa Rd
Kahakai Blvd
Pahoa By-Pass Rd
Pahoa Village Rd
Kapoho Rd
Kalapana-Kapoho Beach Rd
Kahukai St
Pohoiki Rd
Kamaili Rd
Pahoa - Kalapana Rd
Coast_n83.shp
Hawroads_oth.shp
Hawroads_maj.shp
Alish_n83.shp
Unclassified
Prime
Unique
Other
N
W
E
S

Ka'u Sites


J
K
Lorenzo Rd
South Point Rd
Kamaoa Rd
Ka`alu`alu Rd
Ka`alu`alu Rd
Hawaii Belt Rd (Mamalahoa Hwy)
Coast_n83.shp
Hawroads_oth.shp
Hawroads_maj.shp
Alish_n83.shp
Unclassified
Prime
Unique
Other
N
W
E
S

SAFE DRINKING WATER ACT

EPA SOLE SOURCE AQUIFER DESIGNATIONS

United States
Environmental
Protection Agency

Region 9 Ground Water
Office (WTR-9)

JUNE 2000

Sole Source Aquifer Designations in EPA, Region 9

The U.S. EPA's Sole Source Aquifer Program was established under Section 1424(e) of the U.S. Safe Drinking Water Act (SDWA.) Since 1977, it has been used by communities to help prevent contamination of groundwater from federally-funded projects. It has increased public awareness of the vulnerability of groundwater resources.

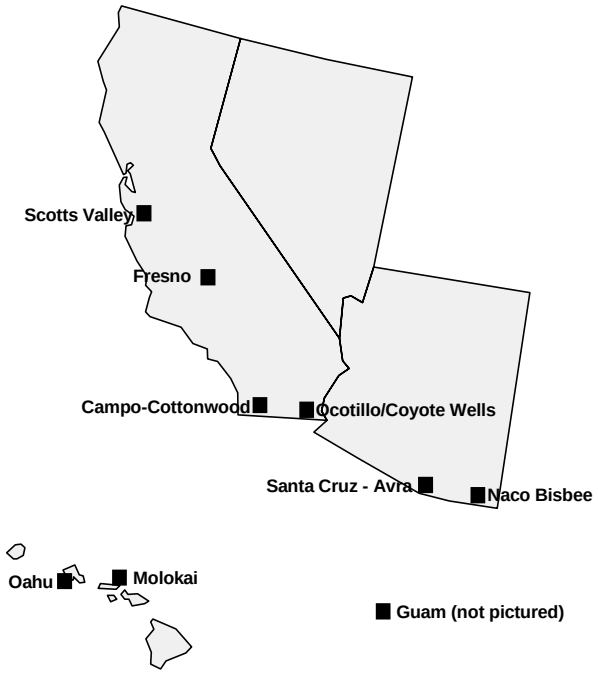
How did this program start? SDWA regulations implementing the sole source aquifer statute were first proposed in 1977 for the Edwards Underground Reservoir in San Antonio, Texas. These regulations guided U.S. EPA in the subsequent designation of 64 sole source aquifers across the United States.

What does the Sole Source Aquifer Program do? The Sole Source Aquifer program allows for EPA environmental review of any project which is financially assisted by federal grants or federal loan guarantees. These projects are evaluated to determine whether they have the potential to contaminate a sole source aquifer. If there is such a potential, the project should be modified to reduce or eliminate the risk, or federal financial support may be withdrawn. This doesn't mean that the Sole Source Aquifer program can delay or stop development of landfills, roads, publicly owned wastewater treatment works or other facilities. Nor can it impact any direct federal environmental regulatory or remedial programs, such as permit decisions.

The Sole Source Aquifer Program's review authority extends only to projects funded with **federal assistance** that are to be implemented in designated sole source aquifer areas. (For regulations applicable to new private development, you should consult with your local, county or state environmental health agency.)

Typical projects reviewed by the U.S. EPA include housing projects undertaken by Housing and Urban Development, and highway construction and expansion projects undertaken by the Federal Highway Administration. In 1991, the U.S. EPA reviewed 152 federal assistance projects totaling $571 million; of these projects, 25 had to be modified to prevent contamination of sole source aquifers. Modifications included the redesign of bridges and highways to prevent spills of hazardous materials.

How do you designate an aquifer as a "Sole Source" Aquifer? As the name implies, only a "sole source" aquifer can qualify for the program. To be a sole source, the aquifer must supply more than 50% of a community's drinking water. Any individual, corporation, association, or federal, state or local agency may petition the U.S. EPA for sole source aquifer designation, provided the petition includes sufficient hydrogeologic information. An outline describing how such petitions should be prepared is contained in *The Sole Source Aquifer Designation Petitioner Guidance*, copies of which are available at EPA Regional offices (see contact information below.)



What about Boundaries? Determination of sole source aquifer boundaries is a difficult aspect of the designation process since the "designated area includes the surface area above the aquifer and its recharge area." Thus, some sole source aquifers extend across state boundaries. The 10,000 square-mile Eastern Snake River Aquifer, for example, includes portions of Idaho, Nevada, Utah, and Wyoming.

In Region 9: nine sole source aquifers have been designated in the following areas as shown on the map: Upper Santa Cruz and Avra Basin Aquifer, covering parts of Pima, Pinal, and Santa Cruz Counties, Arizona; Naco-Bisbee Aquifer, Arizona; Ocotillo-Coyote Wells, Imperial County, California; Fresno Aquifer, California; Scotts Valley Aquifer, Santa Cruz County, California; Campo-Cottonwood Aquifer, San Diego County, California; Northern Guam Aquifer, Guam; Southern Oahu Aquifer, Hawaii; and Molokai Aquifer, Hawaii.

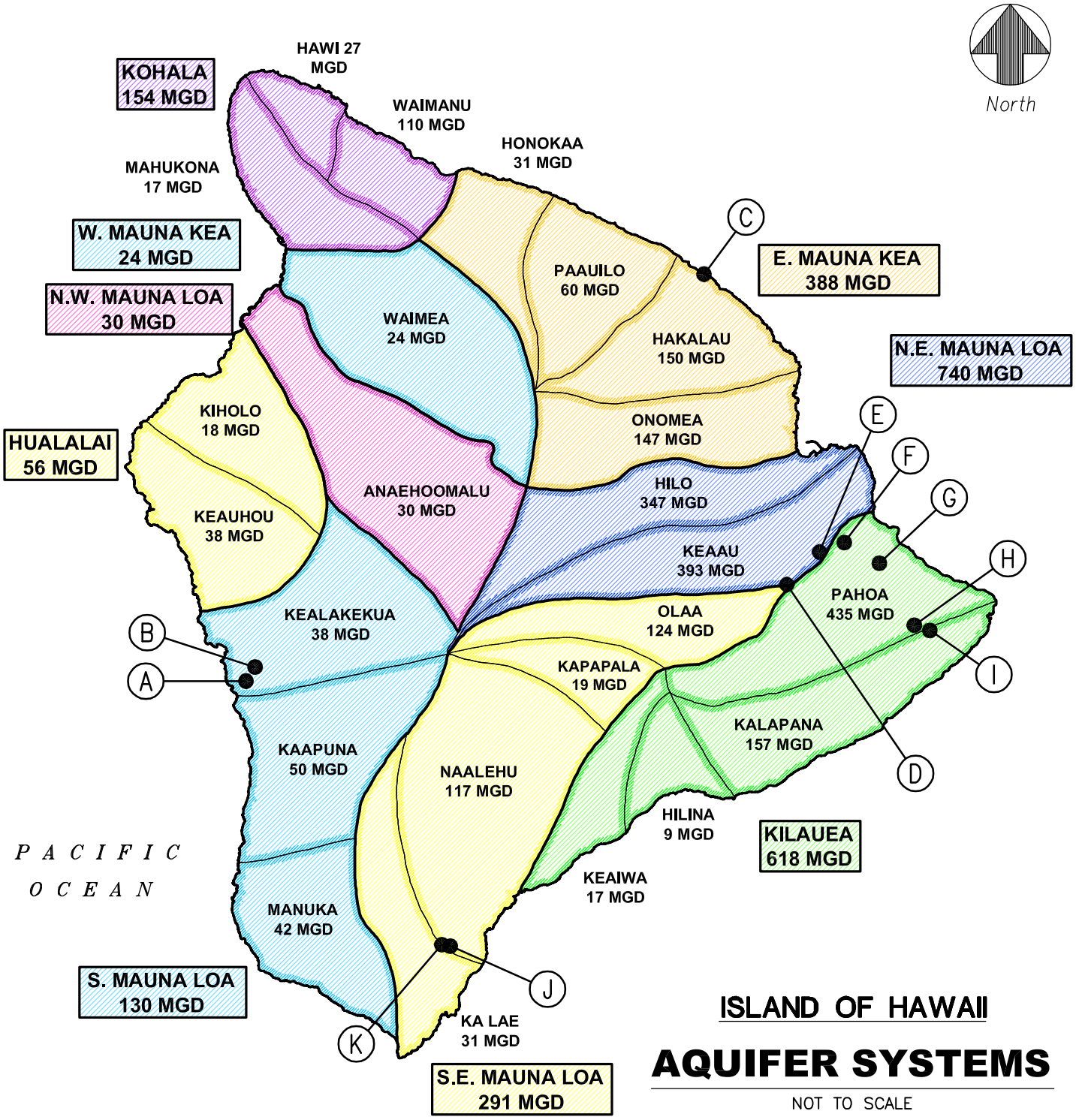
Region 9 SSA maps are on the web at www.epa.gov/safewater/ssanp.html. For more information about SSA designation and project reviews, please call David Albright, manager of the Ground Water Office, at (415) 972-3971 or email albright.david@epa.gov.

WILDERNESS ACT

DATABASE RESULTS:
BUREAU OF LAND MANAGEMENT
U.S. FISH & WILDLIFE SERVICE
FOREST SERVICE
NATIONAL PARK SERVICE

APPENDIX D

AQUIFER SYSTEM & LAVA HAZARD FIGURES



ISLAND OF HAWAII

AQUIFER SYSTEMS

NOT TO SCALE

ISLAND OF HAWAII
TOTAL = 2,431 MGD

HYDROLOGIC UNITS
Aquifer System & Sustainable Yields

Source:
State Department of Land and Natural Resources, GIS Map

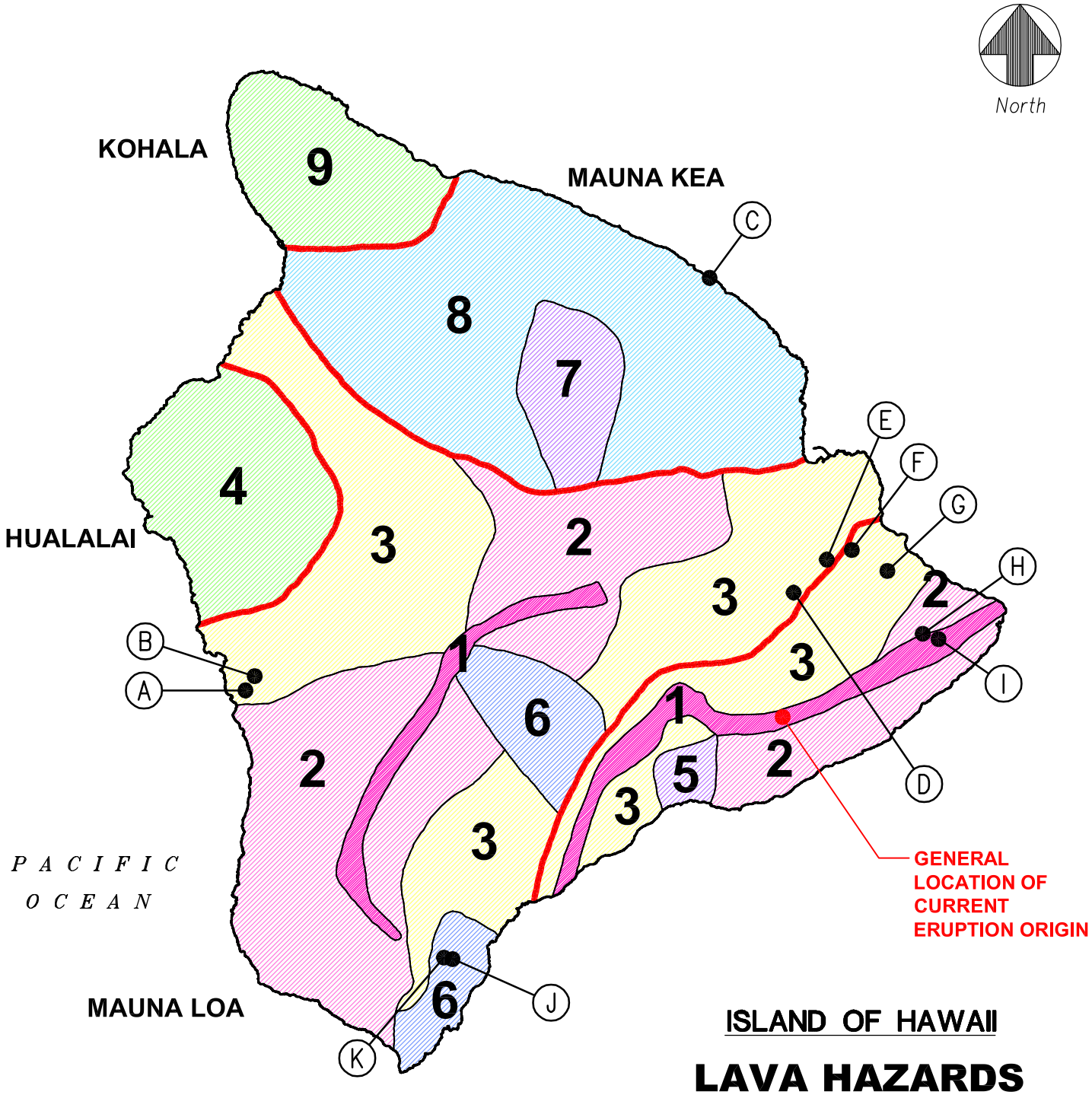
M&E Pacific, Inc.

METCALF&EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure D-1
Island of Hawaii Aquifer Systems
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure D-1.dwg LAST UPDATE: January 26, 2006 @ 08:25:21 am PLOT DATE: February 22, 2006 @ 09:47:29 am



ISLAND OF HAWAII

LAVA HAZARDS

NOT TO SCALE

Hazard Zones are ranked from 1 (highest risk) to 9 (lowest risk)

Source:
U.S. Department of the Interior,
GIS Map, 1991

M&E Pacific, Inc.

METCALF&EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 · 841 BISHOP ST, HONOLULU, HAWAII 96813

Figure D-2
Island of Hawaii Lava Hazards
Environmental Assessment for the
Construction of Island-wide Water Spigots Facilities
February 2006

PATH/FILENAME: P:\Projects\Hawaii\60001653 - DWS Spigots\500 Deliverables\Final EA\Figure D-2.dwg LAST UPDATE: January 26, 2006 @ 08:25:42 am PLOT DATE: February 22, 2006 @ 09:47:09 am

APPENDIX E

COMMUNITY NOTIFICATION LIST FOR FEDERAL FONSI

COMMUNITY NOTIFICATION LIST

TMK	Site Address	OWNER First last	Address	City	State	Zip
SITE A: HONAUNAU RODEO						
8-4-008: 001	N/A	B P Bishop Estate	P.O. Box 3466	Honolulu	HI	96801
8-4-008: 003	N/A	B P Bishop Estate	P.O. Box 3466	Honolulu	HI	96801
8-4-008: 037	N/A	B P Bishop Estate	P.O. Box 3466	Honolulu	HI	96801
8-4-009: 010	N/A	B P Bishop Estate	P.O. Box 3466	Honolulu	HI	96801
8-4-009: 010	N/A	Charles T & Gwendolyn H Onaka	P.O. Box 588	Honaunau	HI	96726
SITE B: HONAUNAU SCHOOL						
8-3-010: 039	83-5349 Mamalahoa Highway	Wallace M Matsuda	45 513 Laulea Pl	Kaneohe	HI	96744
8-3-010: 039	83-5349 Mamalahoa Highway	Paula Kimiko Kawamoto	83-5349 Mamalahoa Highway			
8-3-010: 039	83-5349 Mamalahoa Highway	Carrie H Nakagawa	83-5349 Mamalahoa Highway			
8-3-010: 039	83-5349 Mamalahoa Highway	Karen Fumiko Kawamoto	83-5349 Mamalahoa Highway			
8-3-010: 039	83-5349 Mamalahoa Highway	Lisa Akiko Kitaoka	P.O. Box 1538	Kealakekua	HI	96750
8-3-010: 040	83-5329 Mamalahoa Highway	Kenneth M & Sachi Joesting	Joesting Kenneth/Sachi P.O. Box 298	Captain Cook	HI	96704
8-3-010: 062	83-5345 Mamalahoa Highway	Tsutomu & Alice Kawamoto	83-5345 Mamalahoa Hwy	Captain Cook	HI	96704
8-3-010: 086	83-5327 Mamalahoa Highway	Randall H F Chun	P.O. Box 1119	Captain Cook	HI	96704
8-3-010: 087	83-5325 Mamalahoa Highway	Melvin & Nancy Concepcion	P.O. Box 1773	Kealakekua	HI	96750
8-3-010: 088	N/A	Larry V & Marianne U Cagampang	83-5323 Mamalahoa Hwy	Captain Cook	HI	96704
8-3-010: 088	N/A	Blanche M Upton	83-5323 Mamalahoa Hwy	Captain Cook	HI	96704
8-3-013: 019	83-5352 Mamalahoa Highway	Timothy J & Makiki Y Alspach	P.O. Box 4645	Kailua Kona	HI	96745
8-3-013: 023	N/A	Sharman R Tr Elison	764 Mokapu Road	Kailua	HI	96734
8-3-013: 024	83-5354 B Mamalahoa Highway	Phyllis M Sakamoto Trust	P.O. Box 284	Captain Cook	HI	96704
8-3-013: 024	83-5354 B Mamalahoa Highway	Cindy Lynn E Minor	P.O. Box 284	Captain Cook	HI	96704
8-3-013: 027	83-5354 Mamalahoa Highway	Richard I Sasaki Trust	P.O. Box 587	Captain Cook	HI	96704
8-3-013: 027	83-5354 Mamalahoa Highway	Grace S Sasaki Trust	P.O. Box 587	Captain Cook	HI	96704
8-3-013: 028	N/A	Gary I & Irene S Higashi	P.O. Box 178	Captain Cook	HI	96704
8-3-013: 030	N/A	Rodney & Edyth M Maeda	P.O. Box 576	Captain Cook	HI	96704
8-3-013: 031	83-1021 Mamalahoa Highway	James K Sato	P.O. Box 421	Captain Cook	HI	96704
8-3-013: 031	83-1021 Mamalahoa Highway	Mieko Sato	P.O. Box 421	Captain Cook	HI	96704
8-3-013: 031	83-1021 Mamalahoa Highway	Dayle S Sato	P.O. Box 421	Captain Cook	HI	96704
8-3-013: 034	N/A	William Puou, III	P.O. Box 504	Honaunau	HI	96726
8-3-013: 034	N/A	Lavainia S Puou	P.O. Box 504	Honaunau	HI	96726
8-3-013: 037	N/A	Toyoko Trust Kadooka	c/o Koadooka,Toyoko Trs P.O. Box 183	Captain Cook	HI	96704
8-3-013: 047	N/A	Walter E Denis	P.O. Box 23	Honaunau	HI	
8-3-013: 059	N/A	Frances J Schobel	P.O. Box 127	Honaunau	HI	
8-3-013: 066	N/A	Abraham K C & Melanie T Moses	P.O. Box 288	Captain Cook	HI	96704
8-3-013: 067	N/A	Walter E Denis	P.O. Box 23	Honaunau	HI	96726
8-3-013: 072	N/A	Yoshio Hayama	P.O. Box 197	Captain Cook	HI	96704
8-3-013: 072	N/A	Ritsue Hayama	P.O. Box 197	Captain Cook	HI	96704
8-3-013: 072	N/A	Roy E Hayama	P.O. Box 197	Captain Cook	HI	96704
8-3-013: 072	N/A	Lorraine S Uchimura				
8-3-013: 072	N/A	Helen S Park				
8-3-013: 072	N/A	Dora Y Sakamoto				

COMMUNITY NOTIFICATION LIST

TMK	Site Address	OWNER First last	Address	City	State	Zip
8-3-013: 072	N/A	June K Gokan				
8-3-013: 076	83-5354 A Mamalahoa Highway	Wayne & Sharon Sakamoto	P.O. Box 215	Honaunau	HI	96726
SITE C: PAPAALOA GYM						
3-5-003: 035	N/A	County Of Hawaii				
3-5-003: 049	35-1981 Old Mamalahoa Highway	County Of Hawaii				
3-5-003: 049	35-1981 Old Mamalahoa Highway	Papaaloa Housing, Inc	106 Kinoole St	Hilo	HI	96720
3-5-003: 049	35-1981 Old Mamalahoa Highway	Big Island Housing	106 Kinoole St	Hilo	HI	96720
3-5-003: 065	35-1960 Mamalahoa Highway	Hamakua Housing Corp	P.O. Box 279	Paauilo	HI	96776
3-5-009: 001	N/A	Mary K Reyes	P.O. Box 160	Papaaloa	HI	96780
3-5-009: 002	35-1982 Old Mamalahoa Highway	Caroline Ah Puck	P.O. Box 114	Papaaloa	HI	96780
3-5-009: 002	35-1982 Old Mamalahoa Highway	Darcy Ah Puck	P.O. Box 114	Papaaloa	HI	96780
3-5-009: 003	N/A	Herbert Awazu	P.O. Box 128	Papaaloa	HI	96780
3-5-009: 004	N/A	Jerry & Darlene Domingo	P.O. Box 86	Papaaloa	HI	96780
3-5-009: 005	N/A	Sisters of 3rd Franciscan Order	c/o Prekaski,Terry P.O. Box 313	Laupahoehoe	HI	96764
3-5-009: 006	N/A	Brian N Frasco	1560 C Kilauea Ave	Hilo	HI	96720
3-5-009: 006	N/A	Michelle L Manalo	1560 C Kilauea Ave	Hilo	HI	96720
SITE D: MOUNTAIN VIEW GYM						
1-8-002: 006	18-1355 Volcano Road	Roman Catholic Church	c/o Hawaiian Trust Co Ltd Real Prop Tax Spec-Box 3170	Honolulu	HI	96802
1-8-004: 098	Volcano Road	Glenn Y Toyama	Box 5	Mountain View	HI	96771
1-8-004: 098	Volcano Road	Ivan K Toyama	Box 5	Mountain View	HI	96771
1-8-004: 105	18-1393 Volcano Road	Roy R & Phoebe P Thompson	P.O. Box 7001	Hilo	HI	96720
SITE E: KURTISTOWN BALL PARK						
1-7-003: 017	17-400 Volcano Road	James Francis Helenihi	P.O. Box 321	Kurtistown	HI	96760
1-7-003: 017	17-400 Volcano Road	Amfac Property Dev Corp	P.O. Box 321	Kurtistown	HI	96760
1-7-003: 020	Huina Road	Richard Y/Rosy F Tr Koga	P.O. Box 271	Kurtistown	HI	96760
1-7-003: 029	17-372 Volcano Road	Ivan M Torigoe	Box 102	Kurtistown	HI	96760
1-7-003: 029	17-372 Volcano Road	Toshio Etal Torigoe	Box 102	Kurtistown	HI	96760
1-7-003: 029	17-372 Volcano Road	Yuriko Torigoe	Box 102	Kurtistown	HI	96760
1-7-003: 029	17-372 Volcano Road	Toshio Torigoe	Box 102	Kurtistown	HI	96760
1-7-003: 042	17-4079 Huina Road	Stanley Koga	75-5707 Alii Dr	Kailua Kona	HI	96740
1-7-003: 042	17-4079 Huina Road	Robert Tokumi Koga	75-5707 Alii Dr	Kailua Kona	HI	96740
1-7-003: 042	17-4079 Huina Road	Gayle Kajiyama	75-5707 Alii Dr	Kailua Kona	HI	96740
1-7-003: 042	17-4079 Huina Road	Michael Sadao Koga	75-5707 Alii Dr	Kailua Kona	HI	96740
SITE F: KEAAU TRANSFER STATION						
1-6-003: 002	16-863 Keaau Pahoa Road	W H Shipman Ltd	Box 950	Keaau	HI	96749
1-6-003: 002	16-863 Keaau Pahoa Road	Paul S O'Leary				
1-6-003: 002	16-863 Keaau Pahoa Road	American Pac Ind Leasing In				
1-6-003: 002	16-863 Keaau Pahoa Road	Gregory H Nielsen				
1-6-003: 074	16-873 Keaau Pahoa Road	Hawaii Island Humane Soc	74-5225 Queen Kaahumanu Hwy	Kailua Kona	HI	96740
1-6-004: 055	N/A	W H Shipman Ltd	P.O. Box 950	Keaau	HI	96749
1-6-004: 056	N/A	W H Shipman Ltd	P.O. Box 950	Keaau	HI	96749

COMMUNITY NOTIFICATION LIST

TMK	Site Address	OWNER First last	Address	City	State	Zip
SITE G: HAWN PARADISE PARK FIRE STATION						
1-5-040: 043	Paradise Drive	Ernesto O Jr Gascon	P.O. Box 942	Keaau	HI	96749
1-5-040: 044	15-1755 21St Avenue	James K & June R Ogilvie	HCR 2 Box 6892	Keaau	HI	96749
1-5-040: 045	21St Avenue	Kuang Ming & Milagros Jove Liu	c/o Lou,Kuang Ming/Milagros Jove 638 Kani Ahe St	Wahiawa	HI	96786
1-5-040: 064	15-1762 21St Avenue	Katherine Ann Crumpton	118 Poloke Pl	Honolulu	HI	96822
1-5-040: 066	15-1580 Paradise Drive	Robert Charles & Deborah Laura Nichols	524 Chateau La Salle Dr	San Jose	CA	95111
1-5-040: 089	15-1794 Paradise Drive	Nicholas Pungi	2221 Bellevue Ave Apt 302	Los Angeles	CA	90026
1-5-040: 089	15-1794 Paradise Drive	Virginia Lococo	18532 Covina St	Hesperia	CA	92345
1-5-040: 090	Paradise Drive	Sadaji & Noriko Tahara	c/o Eden Corporation 11-11 Shinsen-Cho, Shibuya-Ku Tokyo	Japan		
1-5-040: 091	22Nd Avenue	William Michael Curoso	19681 Matsonia Ln	Huntington Beach	CA	92646
SITE H: NANAWALE ESTATES ARENA						
1-4-001: 004	Pahoa-Kapoho Road	State Of Hawaii				
1-5-003: 043	Pahoa-Kapoho Road	State Of Hawaii				
1-5-004: 002	Kapoho Road	Michael & Tammy Moser	425 East Dahlia Ste L	Palmer	AK	99645
1-5-004: 002	Kapoho Road	Daniel & Nancy Dryden				
SITE I: KAPOHO-POHOIKI JUNCTION						
1-4-001: 002	14-3860 Kapoho Pahoa Road	Kapoho Land & Dev Co Ltd	Box 374	Hilo	HI	96720
1-4-001: 002	14-3860 Kapoho Pahoa Road	Kapoho Land Partnership	Box 374	Hilo	HI	96720
1-4-001: 004	Pahoa-Kapoho Road	State Of Hawaii				
1-4-001: 086	Kapoho Road	Anderson Martin	P.O. Box 3196	Honolulu	HI	96801
1-4-001: 087	14-3719 Kapoho Pahoa Road	James P & Sally Jo Daly	P.O. Box 962	Pahoa	HI	96778
SITE J: WAIOHINU FLOOD CHANNEL						
9-5-001: 001	95-5989 Mamalahoa Highway	Carlina C Tr Galimba	P.O. Box 77	Naalehu	HI	96772
9-5-001: 040	95-5971 Mamalahoa Highway	Guy Galimba	P.O. Box 77	Naalehu	HI	96772
9-5-001: 040	95-5971 Mamalahoa Highway	Eleanor E Galimba	P.O. Box 77	Naalehu	HI	96772
9-5-001: 040	95-5971 Mamalahoa Highway	Guy Etal Galimba	P.O. Box 379	Naalehu	HI	96772
9-5-001: 040	95-5971 Mamalahoa Highway	Guy Etal Galimba	P.O. Box 379	Naalehu	HI	96772
9-5-001: 040	95-5971 Mamalahoa Highway	Eleanor E Etal Galimba	P.O. Box 55	Papaikou	HI	96781
9-5-001: 050	95-5966 Mamalahoa Highway	Louis H Jr Peterson	P.O. Box 153	Kailua	HI	96734
9-5-001: 051	95-5962 Mamalahoa Highway	Gordon G Buck	P.O. Box 96	Naalehu	HI	96772
9-5-001: 051	95-5962 Mamalahoa Highway	Leslie H O'Toole Buck	P.O. Box 96	Naalehu	HI	96772
9-5-001: 052	N/A	Edward K Davis III	P.O. Box 571	Naalehu	HI	96772
9-5-005: 003	N/A	State Of Hawaii				
9-5-005: 003	N/A	Daleico	C/O P.O. Box 195	Naalehu	HI	96772
9-5-006: 001	N/A	State Of Hawaii				
9-5-006: 001	N/A	Kuahiwi Contractors	P.O. Box 55	Papaikou	HI	96781
9-5-006: 001	N/A	Onipa'a Ranch Corp	2508 Aeo Place	Pearl City	HI	96782
SITE K: WAIOHINU TRANSFER STATION						
9-4-003: 009	94-6284 Kamaoa Road	James S/Reba I Fam Tr Adams	70 Rockinghorse Rd	Rancho Palos Verdes	CA	90275
9-4-003: 010	94-6260 Kamaoa Road	Aa Aluminum Products Inc	P.O. Box 1021	Naalehu	HI	96772
9-4-003: 012	94-6259 Government Main Road	Thomas G & Rebecca E Favara	P.O. Box 870	Naalehu	HI	96772
9-4-003: 013	94-6256 Government Main Road	Ron Beeson	Box 571	Captain Cook	HI	96704

COMMUNITY NOTIFICATION LIST

TMK	Site Address	OWNER First last	Address	City	State	Zip
9-5-002: 001	N/A	State Of Hawaii				
9-5-002: 003	N/A	State Of Hawaii				
9-5-002: 009	N/A	State Of Hawaii				
9-5-002: 011	N/A	State Of Hawaii				
9-5-002: 028	N/A	State Of Hawaii				
9-5-002: 029	N/A	State Of Hawaii				
9-5-002: 045	95-1573 Kamaoa Road	Scott Andrew McFadden	P.O. Box 729	Naalehu	HI	96772
9-5-002: 045	95-1573 Kamaoa Road	David A McFadden	P.O. Box 729	Naalehu	HI	96772
9-5-002: 045	95-1573 Kamaoa Road	Deana A McFadden	P.O. Box 729	Naalehu	HI	96772
9-5-005: 002	N/A	Hawaiian Home Lands				
9-5-005: 002	N/A	Walter D & Mary Jane Andrade	P.O. Box 74	Naalehu	HI	96772
9-5-005: 018	N/A	State Of Hawaii				
9-5-005: 019	N/A	State Of Hawaii				