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June 20, 2019

Mr. Jade Butay, Director
State of Hawai'i
Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Nā'ālehu Large Capacity Cesspools Closure Project
Nā'ālehu, Ka'u, Island of Hawai'i
TMK: 9-5-007:016, 9-5-022:001, and 9-5-021:015 and Various Parcels in
the Community
Request for Comment

Dear Mr. Butay:

Wilson Okamoto Corporation is preparing a Draft Environmental Assessment (EA) for the County of Hawai'i Department of Environmental Management Nā'ālehu Large Capacity Cesspools Closure, Nā'ālehu, Ka'u, Island of Hawai'i project. The Nā'ālehu Large Capacity Cesspools Closure project may be funded by the State of Hawai'i Clean Water State Revolving Fund (CWSRF) loan program. The project will encompass three CWSRF projects: Nā'ālehu Wastewater Collection System, Nā'ālehu Sewage Pump Station and Force Main, and Nā'ālehu Wastewater Treatment and Disposal System and Drainage Modification. A project summary sheet and location map are enclosed for your information.

As part of the Draft EA pre-assessment consultation process, we are soliciting comments you may have on the proposed the Nā'ālehu Large Capacity Cesspools Closure project. Please submit your comments to:

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawai'i 96826
Attn: Earl Matsukawa, AICP

We would appreciate your written comments by July 20, 2019. If you have any questions or require additional information, please contact me by phone at (808) 946-2277.

Earl Matsukawa, AICP
Project Manager

Enclosures

cc: D. Beck, DEM (w/o encl.)
C. Lekven, PE, BC (w/o encl.)

PROJECT SUMMARY

Nā'ālehu Large Capacity Cesspools Replacement Project Nā'ālehu, Ka'u, Island of Hawai'i

TMK: 9-5-007:016, 9-5-022:001, and 9-5-021:015 and Various Parcels in the Community

1. Introduction

Nā'ālehu is located about 64 miles southwest of Hilo in the Ka'u district of the Island of Hawai'i; see Figure 1. The community of Nā'ālehu is situated north and south of Māmalahoa Highway (State Route 11) between mile markers 63 and 64. Most of the community lies about 1.75 miles from the shoreline between 760 feet above mean sea level (msl) on the northern end and 640 feet above msl on the southern end. The population of the Nā'ālehu was approximately 866 according to the 2010 census.

The existing wastewater system servicing the mauka portion of the community was privately built, owned, and operated by C. Brewer & Co. Wastewater is collected by a system of 8-inch, 6-inch and 4-inch diameter pipelines, predominately found in private properties, that gravity flow and discharge into three large capacity cesspools (LCCs) located within the community.

In 1998, the U.S. Environmental Protection Agency (EPA) enacted regulations that required the elimination of all existing LCCs by April 5, 2005. In 2003, C. Brewer requested assistance from the County to close their LCCs. Subsequently, ownership of the collection, treatment and disposal systems was transferred to the County of Hawai'i Department of Environmental Management (DEM). Prior to the transfer, a vote by those serviced by the LCCs favored installation a new sewer collection, treatment and disposal system that would be owned, operated and maintained by the County.

In 2007, the County proposed a new collection system routed on the public streets and improvements to the treatment and disposal system, which included use of large capacity septic tanks and conversion of the existing LCCs into seepage pits for disposal of the treated effluent. Subsequently, several issues arose that made this treatment and disposal option infeasible. Thus, the County is proposing to replace the existing system with new sewer collection, transmission, treatment, and disposal systems.

2. Project Description

The County of Hawai'i DEM is proposing to construct wastewater system improvements to replace the existing collection, treatment and disposal systems that service Nā'ālehu. The wastewater system improvements would allow the County to comply with EPA regulations requiring closure of the LCCs and to construct a new system meeting current State of Hawai'i Department of Health (DOH) and DEM design guidelines for the collection, treatment and disposal of the community's wastewater. The projects would route the new collection and transmission systems primarily in the right-of-way, with easements where that isn't feasible or practical, and would provide a treatment and disposal system to allow closure the three LCCs to meet EPA requirements.

The wastewater collection system in the residential area would be located primarily within eight public streets: 'Ōhai Road, Kukui Road, Milo Road, Melia Street, Opukea Street, Kilika Street, Lokelani Street, and Nahele Street. These streets primarily serve the mauka residential area and have two travel lanes with unpaved shoulders and no improved sidewalks. The collection system would consist of approximately 8,000 to 13,000 linear feet of pipelines ranging from 8 to 10 inches in diameter that would convey wastewater to a pump station and pipeline that would convey the wastewater to the treatment and disposal facility. The number of manholes in the system will be determined during the detail design phase. The County's sewer standards show the trenches for gravity sewer lines would require at least 4 feet of cover from the top of the pipe to grade and 6 inches below the line. Typical sewer trenches will be 2 to 3 feet wide and at least 6 feet deep. Easements through private property may be needed. The collection system will not be designed to collect stormwater runoff.

In addition, to connect the system on these streets with the treatment and disposal facility, approximately 5,400 linear feet of 10-inch diameter pipeline would be routed along Mamalohoa Highway, which has a sidewalk on the south (makai) side of the roadway, and Nā'ālehu Spur Road. The 10-inch pipeline will need to cross Kuki Bridge and the unnamed stream that flows below the

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Nā‘ālehu Large Capacity Cesspools Replacement Project
Nā‘ālehu, Ka‘u, Island of Hawai‘i
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bridge. Commercial properties abut both Mamalahoa Highway and Nā‘ālehu Spur Road. This portion of the collection system would consist of gravity lines, a pump station, and a force main to convey flows to the treatment and disposal facility. The pump station location and the location of manholes will be determined during the design phase.

The treatment and disposal facility and associated drainage modification would be located southwest of the residential community on portions of three currently privately-owned parcels. The County would acquire portions of two of the parcels and acquire an easement for the third parcel. The treatment and disposal facility would require an approximate 18.1-acre portion of TMK 9-5-007:016, a 2013-acre parcel, and an approximately 2.8-acre portion of TMK 9-5-022:001, a 26.5-acre parcel. In addition, a 1.0-acre portion of TMK: 9-5-021:015, a 16-acre parcel, would be needed to accommodate the drainage improvements which would be located within an easement. Easements through private property will be required for access and utilities.

It is necessary to site the treatment and disposal facility on two parcels to take advantage of existing soil condition suitable for disposal of the treated effluent. A portion of the third parcel is needed to construct the drainage improvement to divert flows from mauka areas away from the treatment and disposal facility. Presently, the parcels are used as undeveloped agricultural land, consisting of an area used for cattle ranch land with trees and brush or remnant cane fields.

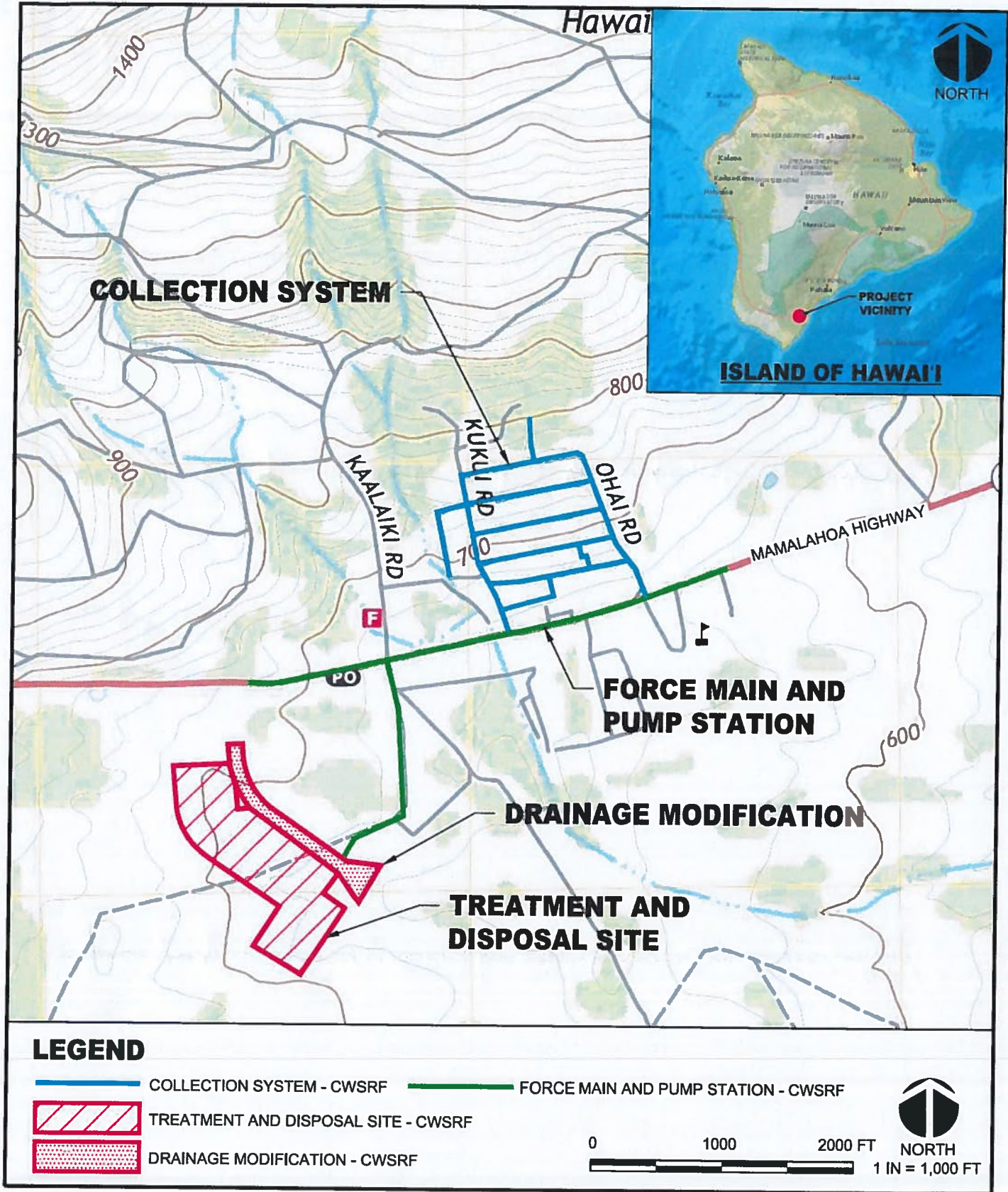
The treatment and disposal system would be a land-based system designed to treat average dry weather flows of approximately 225,000 gallons per day. The treatment and disposal system would consist of headworks with screens to remove debris and an odor control unit, four lined aerated lagoons of about 0.7 acres each, an operations building with disinfection system to remove pathogens, an onsite pumping station to convey wastewater between treatment processes, a subsurface flow constructed polishing wetland to remove nitrogen and four slow rate (SR) land treatment basins surrounded by berms on all four sides. SR land treatment involves irrigation of land and vegetation with the treated effluent. Significant additional treatment is provided as water percolates through the soil. The vegetation uptakes the nutrients in the effluent as fertilizer and transpires a portion of the applied water. A security fence will be constructed along the perimeter of the treatment and disposal facility site and diversion drainage channel.

The existing LCCs located on three County-owned parcels (TMK: 9-5-024:010; 9-5-024:011 and 9-5-024:001) will be closed in accordance with State requirements.

The Naalehu Large Capacity Cesspool Closure may be funded by the State of Hawai‘i Department of Health Clean Water State Revolving Fund (CWSRF) Program encompassing the following CWSRF projects: Nā‘ālehu Wastewater Collection System, Nā‘ālehu Sewage Pump Station and Force Main, Nā‘ālehu Wastewater Treatment and Disposal System and Drainage Modification.

3. Anticipated Impacts

Project impacts would be primarily related to field investigations and construction of the trenches for placement of the collection system lines and construction of the sewage pump station and the treatment and disposal facility. These construction activities would disrupt traffic flow and create dust and noise while work occurs in the streets and in the area of the land treatment and disposal system, which will include removal of vegetation and grading within the 21.9-acre project site and surrounding areas. As the collection system is constructed, the streets will be restored for vehicle travel. Upon completion of the treatment and disposal facilities, the project will operate without the need for DEM employees to be on-site full-time. Weekly monitoring visits will be sufficient to ensure proper operation of the systems and a telemetry system will be used alert DEM employees of abnormal conditions to allow timely response when they occur.



**FIGURE 1
LOCATION AND VICINITY MAP**

NĀ'ĀLEHU LARGE CAPACITY CESSPOOL REPLACEMENT PROJECT
COUNTY OF HAWAII DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

