

US EPA ARCHIVE DOCUMENT

**WORK PLAN
PĀHALA COMMUNITY
LARGE CAPACITY CESSPOOL (LCC) REPLACEMENT PROJECT
ADMINISTRATIVE ORDER OF CONSENT (AOC)
Pāhala, District of Ka‘ū, County of Hawai‘i, Hawai‘i
April 21, 2017**

TABLE OF CONTENTS

I.	Background	2
II.	Purpose	3
III.	Objectives	4
IV.	Methods	4
V.	Project Schedule/Milestones	5
VI.	Project Costs	6
VII.	Performance Evaluation	6
VIII.	Reporting Scheduled to EPA	6
IX.	Project benefits to the Public	6
X.	Attachments	7

I. Background

The majority of the Pāhala Community, a historical sugar farming and processing operation which shut down in 1996, is currently served by two (2) LCCs. C. Brewer previously owned and operated the sugar enterprise and community wastewater systems/infrastructure.

In 2003, C. Brewer requested assistance from the County to close their LCCs. Subsequently, the County held a community meeting to present sewer system replacement alternatives. Voting took place to choose the preferred sewer improvement alternative resulting in 87% of returned ballots in favor of the installation of a new sewer collection, treatment and disposal system to be operated and maintained by the County.

In 2006, C. Brewer asked the County, who agreed by way of a County Council Resolution, to construct and maintain a new and improved community sewer system. In anticipation of C. Brewer's dissolution, C. Brewer proposed, and the County agreed, to enter into a formal agreement to not only construct and maintain a new and improved community sewer system but to assume ownership of the existing system including the LCC's by April 30, 2010.

In 2007, the proposed wastewater treatment and disposal were large capacity septic tanks and conversion of the LCC's to seepage pits. In 2008, the combination of the LCC's being in poor and failing condition, and poor results from soil percolation tests in the field influenced the County to consider looking at larger land to construct a secondary treatment system to fulfill a longer term vision of a higher level of wastewater treatment and options of plant expansion for possible community growth.

Project efforts and therefore the EPA Grant funds were focused on Nā'ālehu because land seemed to be more identifiable. In 2011, time was spent on identifying and exploring thirteen land options and ranked in accordance to least negative impact. The amended Draft Environmental Assessment for the Nā'ālehu Wastewater Transmission, Treatment and Disposal System that was issued in 2013 drew a number of concerns and objections over the proposed land location for the future wastewater treatment and disposal facility.

In July 2016, a meeting was held for the Nā'ālehu Community to provide an update to the conceptual plan for the future wastewater treatment and disposal system including the proposed location. The resulting conclusion was that the County would need to expend additional time and effort to achieve community acceptance of not only the proposed land location, but also the proposed type of wastewater treatment and disposal system.

In September 2016, the County decided that while working on an approach strategy for moving ahead for the Nā'ālehu LCC Closure project, it would be beneficial to restart efforts to identify a suitable site in Pāhala for the installation of a wastewater treatment and disposal system to serve the Pāhala Community. This would enable the closure of the existing LCCs. Similarly to Nā'ālehu, the concept involves constructing a secondary treatment system to fulfill a longer term vision of better treatment and possible growth of the community.

In January 2017, it was proposed by the County in discussion with the EPA to shift the EPA Grant funds from Nā'ālehu to Pāhala as the probability of LCC closure in the latter community would be higher.

The Pāhala Community within the District of Ka'ū in the County of Hawai'i (Figure 1). The District of Ka'ū is situated at the southern tip of the Island and extends across the southern and southeastern flanks of Mauna Loa. With a land area of over 630,000 acres and an estimated population of over 5,000 persons, the District of Ka'ū is relatively isolated and unspoiled. The Pāhala Community is one of two major population centers in the District of Ka'ū with a population of 1,378 according to the year 2000 census. Since the closing of the Ka'ū Sugar Company in 1996, many of the residents within the community are former sugar workers and their descendants.

The initial site reconnaissance involved exploring possible properties southwest of Pāhala that are currently owned by the Department of Land and Natural Resources and Kamehameha Schools. While the properties would be suitable in size and distance from the town, it was decided that the topographic challenges would make extending the collection system to these areas very cost prohibitive.

Upon further exploration closer to town, it became evident that another property also owned by Kamehameha Schools and currently being leased by a local macadamia nut grower was a strong possibility for a wastewater treatment and disposal facility. The treated effluent would be treated to reuse quality and used to irrigate the macadamia nut trees. The archaeological field inspection conducted in November 2016 showed that while some relevant surface artifacts were found, the property was still considered a strong possibility for siting a wastewater treatment facility. The County has hired a designer who will help the County with acquiring the necessary acreage of property upon completion of further archaeological studies and interfacing with the landowner and concerning agencies.

Since the intent is to shift the federal funds from Nā'ālehu to Pāhala to be utilized in the LCC replacement effort, federal NEPA requirements apply. No construction related to the project can begin until NEPA is completed. A new EA will be done for Pāhala as the 2007 EA does not describe the type of wastewater treatment and disposal system envisioned for Pāhala.

II. Purpose

Per Federal regulations, all existing LCCs must be closed and the Pāhala Community must be serviced by an acceptable wastewater collection, treatment and disposal system. There are no existing County of Hawai'i (County) wastewater treatment plants in the Ka'ū District. The closest County wastewater treatment plant is located in the town of Hilo which is approximately 60 miles north of Nā'ālehu.

The residential community is served by a sewer system comprised of substandard gravity lines that convey sewage to two (2) large capacity cesspools (LCCs) which were previously owned and operated by C. Brewer and Company, Ltd. (C. Brewer) and are approximately 60 years old. Per an agreement between the County and C. Brewer, the

County assumed ownership of the sewer system in 2010. The existing Pāhala Sewer System is as shown in Figure 2 herein.

III. Objectives

The objective is to replace and close two (2) LCCs currently servicing the Pāhala Community.

The existing Pāhala Community sewer system servicing 109 properties will be replaced with a collection system meeting County standards; and a Secondary Wastewater Treatment and Disposal facility meeting State Department of Health standards. An additional 65 properties, including the Pāhala Elementary School, that are not currently being served by the C. Brewer system will be made accessible to the County Sewer system as required by Hawai'i County Code Chapter 21, Sewers, and Hawai'i Administrative Rules (HAR) Section 11-62-06, Wastewater Systems. The result is a total of 174 properties serviced by the new Pāhala Collection, Treatment, and Disposal system. The new Pāhala Collection System is as shown in Figure 3 herein and the new Wastewater Treatment and Disposal System is as shown in Figure 4 herein.

IV. Methods

To meet the objective, the County will contract the services of an engineering design consultant to carry out the requirements of the State of Hawai'i Revised Statutes (HRS) 343; prepare the Environmental Information Document (EID) for EPA's review; prepare a NEPA EIS; plan and design a wastewater treatment and disposal system for the Pāhala Community; and close the existing LCCs after the existing collection system is connected to the wastewater treatment plant.

The sequencing of tasks required to meet the objective is shown on the Project Schedule as Task Nos. 1 through 9 (Table 1). Task No. 7 will be funded by EPA Grant XP-96942401. All tasks with the exception of Task No. 7 are anticipated to be funded by the Clean Water State Revolving Fund Loan Program. The completion of Task No. 7 is contingent upon the progress made in Task Nos. 1 through 6.

The methods specific to accomplishing the objectives include a design that is to address abandonment of the substandard sewer lines that run within private properties, and installing new sewer lines that will reside in the County-owned roadways. The new Wastewater Treatment and Disposal system will be constructed first, which upon completion the existing collection system will be separated from the existing LCCs. The existing collection system will be serviced by the new treatment/disposal system via a new gravity line(s) that will also be installed during the first phase of construction. The separation of the existing collection system will enable expedited closure of the LCCs currently serving the Pāhala Community. The final phase of construction will consist of replacing the existing collection system with approximately 12,000 linear feet (LF) of 8-inch sewer lines with sewer laterals.

The engineering design consultant will produce the required archaeological documents and flora/fauna inventories to assist the EPA with coordination with the State Historic Preservation Office and the US Fish and Wildlife Service.

V. Project Schedule/Milestones

The Project Schedule (Table 1) shows nine (9) major tasks (Task Nos. 1 through 9) that directly results in closure of LCCs that currently serves the Pāhala Community.

Task 1: Consultant Contract & Additional Archaeological Study

Task 2: Land Acquisition for Wastewater Treatment Plant

Task 3: Preliminary Engineering Report

Task 4: NEPA & HRS 343 Environmental Assessment (EA)

Task 5: Design - Wastewater Treatment and Disposal System

Task 6: Construction - Wastewater Treatment and Disposal System

The County anticipates that this task will be partly funded by EPA Grant XP-96942401.

Task 6.1 Bidding period by Contractors.

Task 6.2 Bid evaluation period by County.

Task 6.3 Bid Award and Contract Execution.

Task 6.4 Construction of the Wastewater Treatment and Disposal System.

Task 6.5 Secure DOH Approval to Operate the new WWTP.

Task 7: (Marker for EPA Grant XP16942401-6 Expiration)

Task 8: Connect Existing Collection System to Wastewater Treatment and Disposal System & Close LCCs

Task 9: Design – New Collection System

Task 10: Design - Connection of Private Properties to New Collection System

Task 11: Construction Contract for New Collection System & Connection of Existing Private Properties

Task 12: Connection of Additional Properties not currently served by LCC's

VI. Project Costs

It is intended that financing under EPA Grant XP-96942401 be utilized for construction of the wastewater treatment and disposal system under Task No. 7. Estimated Costs and proposed funding sources are as provided under Table 2 of Section XI, Attachments unless additional State or Federal funds become available.

The total construction cost of the Pāhala Wastewater Treatment and Disposal System is currently estimated at \$7.2M. The cost for consultant services to perform planning, land acquisition, design services and services during construction is estimated at \$1.84M. Table 2 of Section XI indicates the allocation of funding resources unless additional State or Federal funds become available and Table 3 of Section XI provides Budget Information for Federal Funds to be used for the project.

VII. Performance Evaluation

The following will be used to evaluate the success of the project:

1. Timely completion of the project in accordance with the plans and specifications.
2. Elimination of County-owned large capacity cesspools.
3. Compliance with the EPA regulations, 40 CFR 144 & 145.

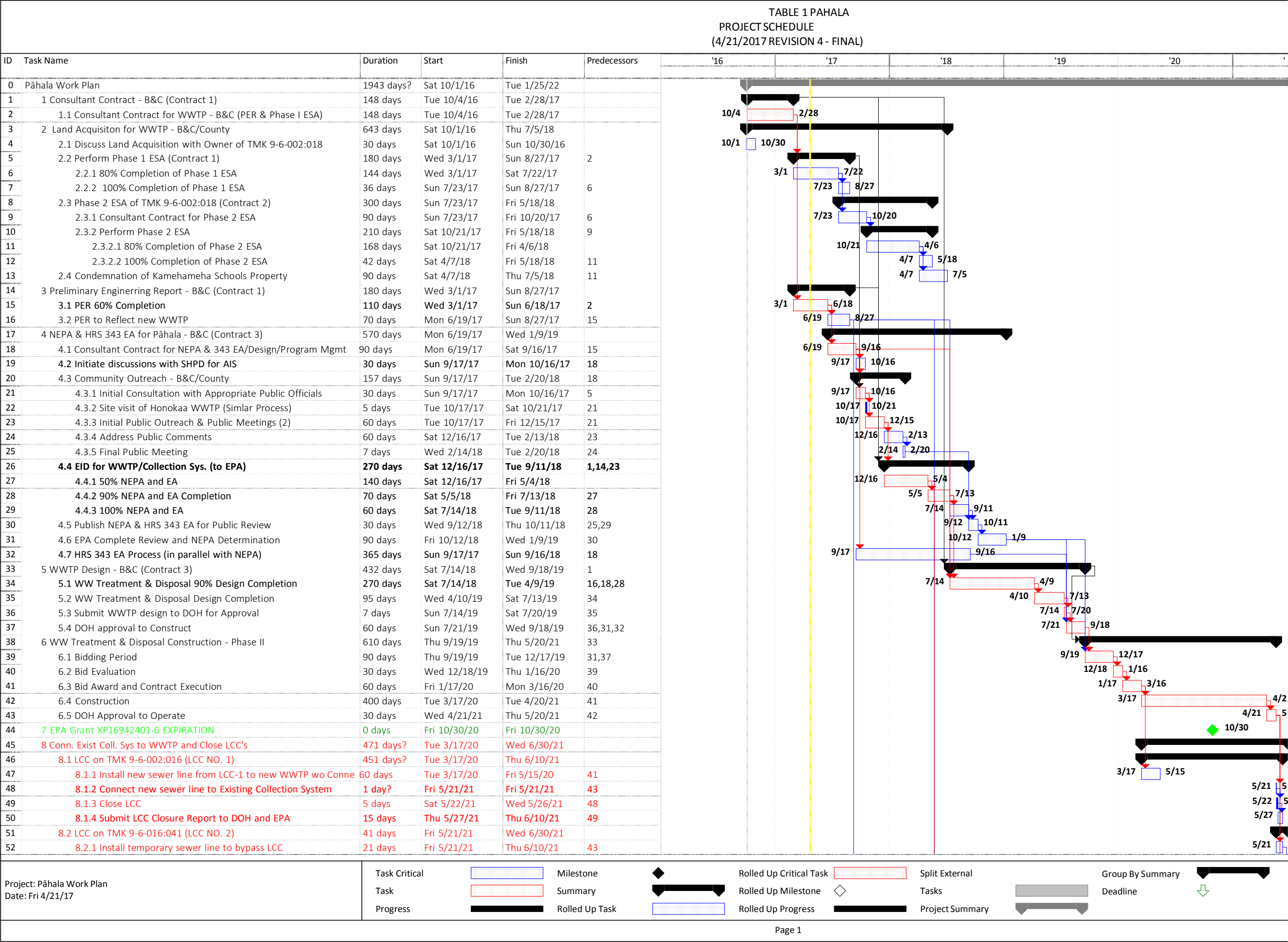
VIII. Reporting Schedule to EPA

The County will participate in quarterly meetings with the USEPA in order to provide updates to the project and will provide semi-annual reports regarding project status.

IX. Project Benefits to the Public

The expected output and outcome is a design and construction project that will produce a new wastewater collection system that will replace C. Brewer's Sugar Plantation Sewer System consisting of 60-year old sewer lines and LCCs that are in poor condition. The benefit is to the Pāhala residents will no longer need to be concerned about the reliability of their sewer system from a health and welfare standpoint. Dependable sewer service will be available to 109 residential properties currently served by the existing sewer system in the Pāhala Community, and to an additional 65 properties that are not currently being served by the existing sewer system will receive the new sewer service.

X. Attachments



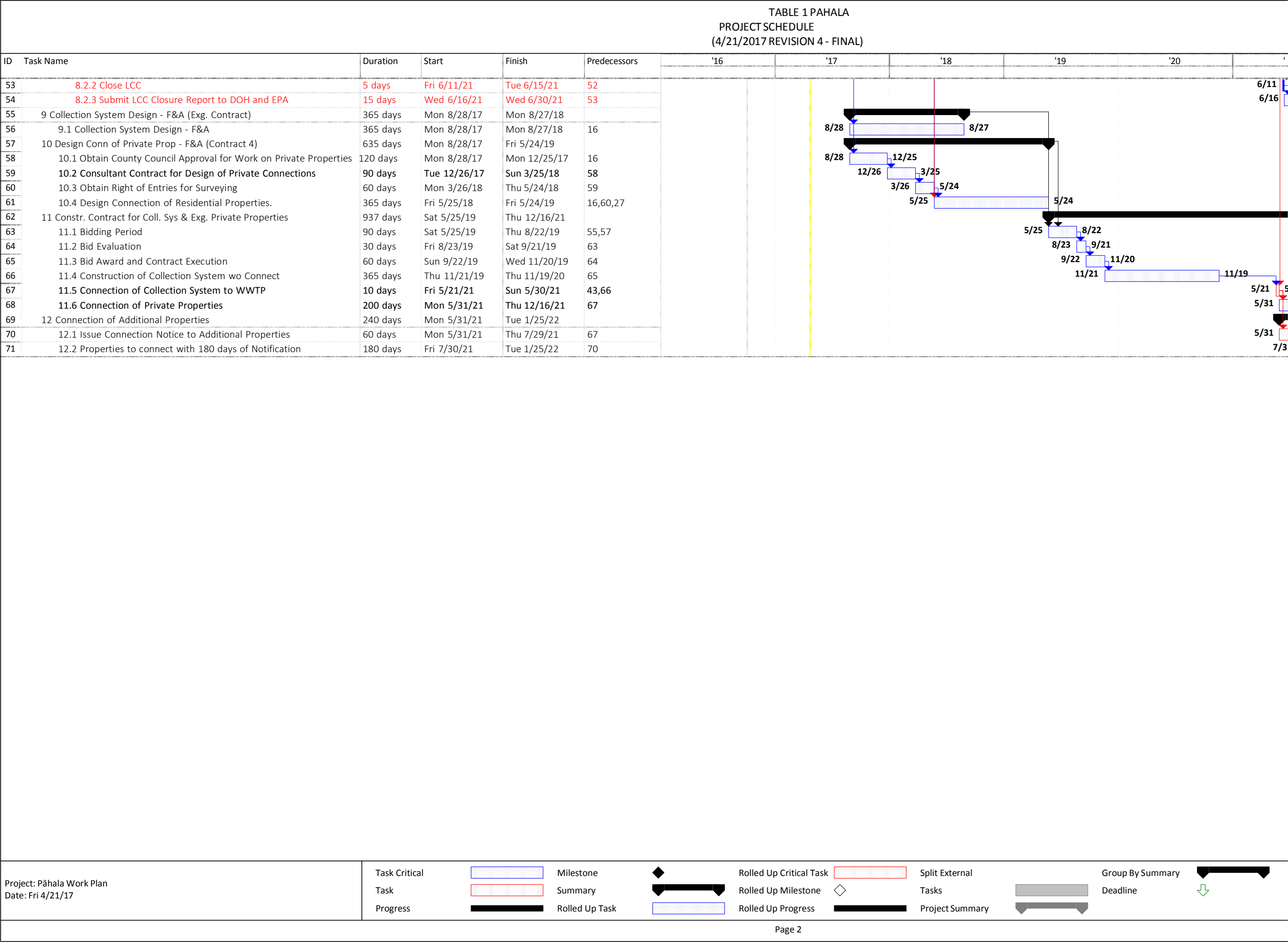
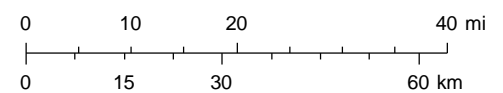


Figure 1 - Project Area Map



January 31, 2017

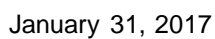
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- Towns
- Major Roads

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- ## Naalehu-Pahala Sewer Lines

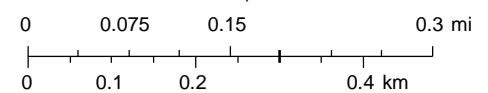
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Figure 3 - New Pahala Collection System



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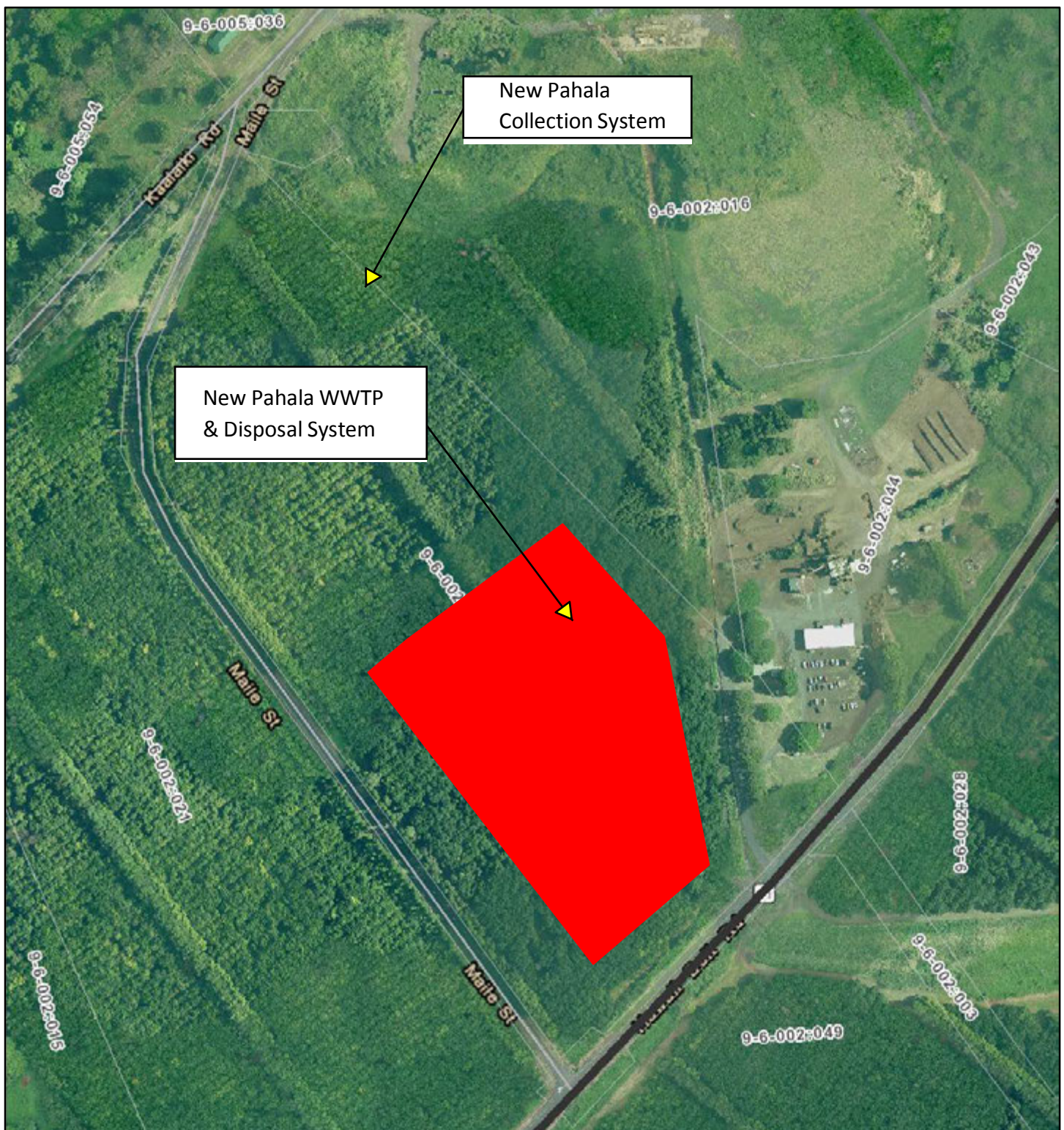
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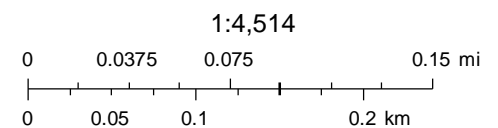
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Figure 4 - New Pahala WWTP & Disposal System



January 31, 2017

- Major Roads
- Other Roads
- * TMK Number Labels
- Parcels



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