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FINAL

Golden Hills Wastewater System Preliminary Engineering Report (PER) / Feasibility Study

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AECOM

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Golden Hills Wastewater System
Preliminary Engineering Report (PER) / Feasibility Study

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Table of Contents

Table of Contents 2
Acronyms and Abbreviations 6
Acknowledgments 7
Executive Summary 8
1.0 Introduction 11
1.1 Purpose 11
1.2 Background 13
1.3 Service Area 14
1.4 Management 19
2.0 Existing Facilities 21
2.1 General 21
2.2 Collection System 21
2.3 Wastewater Treatment Plant 24
2.4 Treated Effluent Conveyance System 27
2.5 Disposal System – Tom Sawyer Lake 27
2.6 Former Water Sources for Tom Sawyer Lake 29
3.0 System Deficiencies 37
3.1 Collection System 37
3.2 Treatment System 47
3.3 Transmission System 53
3.4 Disposal System – Tom Sawyer Lake 53
3.5 Regulatory Compliance Issues 55
3.6 Previous Attempts to Raise Sewer Rates 57
3.7 Funding Issues 58
4.0 Wastewater System Alternatives 59
4.1 Option 1 – Continued Operations 59
4.1.1 General 59
4.1.2 Collection Facilities 60
4.1.3 Rehabilitation of Existing WWTP 60
4.1.4 Transmission Line from Plant to Tom Sawyer Lake 60
4.1.5 Disposal System - Tom Sawyer Lake 60
4.1.6 Operation and Maintenance Expenses 60
4.1.7 Cost Estimates – Option 1A, 1B, and 1C 63
4.2 Option 2 – Construct Force Main 64
4.2.1 General 64
4.2.2 Collection Facilities 69
4.2.3 Decommissioning Existing Wastewater Treatment Plant 69
4.2.4 Discharge Pipeline 70
4.2.5 Treatment and Disposal 72
4.2.6 Cost Estimates – Option 2 72
4.2.7 Division of Water Rights Petition 73
4.3 Improvements Required for Both Options 75

4.3.1 Lift Station Improvements 75
4.3.2 Collection System Improvements....75
4.3.3 Tom Sawyer Lake – Fresh Water System Improvements 77
4.4 Governance Alternatives....82
4.4.1 Existing Management 82
4.4.2 Kern County....84
4.4.3 Golden Hills CSD....84
4.4.4 City of Tehachapi....84
4.4.5 Public Ownership/Contract for Private O&M Service....84
4.4.6 Private Entity 84
4.4.7 Mutual Non-Profit Sewer Company....85
4.4.8 Viable Governance Alternatives....85
4.4.9 218 Protection Highlights....86
4.5 Funding Options 86
5.0 Comparison of Alternatives....88
5.1 Wastewater System Costs Comparison....88
5.2 Management and Funding Comparison 90
5.2.1 Advantages/Disadvantages 91
6.0 Conclusions and Recommendations 93
7.0 Implementation....96
7.1 LAFCo Process....96
7.2 Funding....100
7.3 Payment of Existing Debts....101
7.4 Implementation Schedule....101

List of Figures

Figure 1 – Golden Hills Community Services District Service Area 16
Figure 2 – Golden Hills Sanitation Company Service Area....17
Figure 3 – Existing Organizational Structure Under Receivership 19
Figure 4 – 4A & 4B Existing Sewer Facilities....22
Figure 5 – Wastewater Treatment Plant Site Plan....25
Figure 6 – Process Flow Diagram 26
Figure 7 – Effluent Disposal System 28
Figure 8 – Tom Sawyer Lake is a Wetland....29
Figure 9 – Former Water Sources for Tom Sawyer Lake 30
Figure 10 – Culvert near Willow Trees Apartments 31
Figure 11 – Fountain Lake 31
Figure 12 – Recovery Pond....32
Figure 13 – Surface Water Sources to Brite Creek....33
Figure 14 – Groundwater Sources 34
Figure 15 – Brite Creek Salvage Area....36
Figure 16 – Existing Lift Station....38
Figure 17 – Gravity Sewer Plan and Profile....40
Figure 18 – 18A & 18B Existing Sewer Facilities Identified Problems....42
Figure 19 – 19A & 19B Existing Sewer Facilities Proposed Solutions 44
Figure 20 – GHSC WWTP 47
Figure 21 – Headworks....48
Figure 22 – WWTP Concrete Surfaces 48
Figure 23 – Above Ground Pipe Replacement 49
Figure 24 – Building Modification and Repair 50
Figure 25 – Emergency Generator....50
Figure 26 – 100 Year Floodplain 52
Figure 27 – Fairways for Effluent Irrigation....61
Figure 28 – Option 1: Continued Operations of Existing Wastewater System 62
Figure 29 – Option 2: Convey Wastewater to City of Tehachapi 65
Figure 30 – Force Main/Gravity Sewer to City of Tehachapi Plan and Profile....66
Figure 31 – GHSC to City of Tehachapi Lift Station 67
Figure 32 – City of Tehachapi SSO Locations 71
Figure 33 – Process for Petition 74
Figure 34 – Existing Lift Station Rehabilitation 76
Figure 35 – Proposed Fresh Water System Improvements 78
Figure 36 – New Well....79
Figure 37 – Fountain Lake 80
Figure 38 – Recovery Pond Pump Station 81
Figure 39 – Supply Lake Pump Station (Irrigation Improvements)....83

List of Tables

Table 1 – Existing Connections....14
Table 2 – Future Connections....18
Table 3 – Wall Dimensions and Surface Area to be Rehabilitated....49
Table 4 – GHSC Proposed Cost Increases....58
Table 5 – Continued Operations Cost Summary—Option 1 63
Table 6 – Community Assets Cost Summary—Option 1 64
Table 7 – Force Main to City of Tehachapi Cost Summary—Option 2....72
Table 8 – Force Main to City of Tehachapi Cost Summary—Option 2(Community Assets)....73

Table 9 – Preliminary Opinion of Construction and O&M Costs 75
Table 10 – Capital Costs –Fresh Water Supply.....82
Table 11 – Comparison of Construction Costs 88
Table 12 – Comparison of O&M Costs.....89
Table 13 – Comparison of Wastewater Treatment Plant 90
Table 14 – Summary of Management Options 90
Table 15 – Advantages and Disadvantages.....91

Appendices

Appendix A ..... Capital Cost
Appendix B ..... O&M Costs
Appendix C ..... OWTS Policy
Appendix D ..... Key Correspondence
Appendix E ..... Meeting Notes and Slides
Appendix F ..... Wastewater Treatment Plant
Appendix G ..... Responses to GHCSD Board Comments and Draft Report Comments
Appendix H ..... BSK Work Order A4E2456
Appendix I ..... Sewer Video Inspection Report

Acronyms and Abbreviations

AB	Assembly Bill
AF	Acre-feet
AFY	Acre-feet per Year
APCD	Air Pollution Control District
AWWA	American Water Works Association
Caltrans	State of California Department of Transportation
CDPH	California Department of Public Health (Now part of SWRCB)
CEQA	California Environmental Quality Act
CPUC	California Public Utilities Commission
CRWQCB	California Regional Water Quality Control Board
CSD	Community Services District
CWSRF	Clean Water State Revolving Fund
DFW	Department of Fish and Wildlife
ESPS	Engineering Surveying and Permit Services Department
GHCSD	Golden Hills Community Services District
GHSC	Golden Hills Sanitation Company
GPCD	Gallons Per Capita per Day
GPD	Gallons Per Day
HOA	Home Owners Association
HUD	Housing and Urban Development
IRWMP	Integrated Regional Water Management Plan
IUP	Intended Use Plan
LAFCo	Local Agency Formation Commission
LF	Linear Feet
MCL	Maximum Contaminant Level
MG	Million Gallons
MGD	Million Gallons per Day
MHI	Median Household Income
NEPA	National Environmental Protection Act
O&M	Operations and Maintenance
OWTS	Onsite Wastewater Treatment Systems
PIP	Plastic Irrigation Pipe
PSI	Pounds per Square Inch
PVC	Poly Vinyl Chloride
RAS	Return Activated Sludge
RWQCB	Regional Water Quality Control Board
SGC	Small Community Grant
SHE	Self Help Enterprises
SRF	State Revolving Fund
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids (Salts)
USACE	US Army Corps of Engineers
USDA	United States Department of Agriculture
WAS	Waste Activated Sludge
WDR	Waste Discharge Requirements
WWTP	Wastewater Treatment Plant

Acknowledgments

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Executive Summary

The Community of Golden Hills, and in particular the customers of the GHSC Receivership, is faced with an important decision that has community-wide ramifications. With the receivership under close scrutiny of the Regional Water Quality Control Board (RWQCB), a decision needs to be made on which solution to choose for future operations and maintenance of the wastewater system.

AECOM was selected to prepare an independent engineering feasibility study and environmental analysis to compare "at least two (2) alternative solutions for the sewer needs of the treatment plant customers". In addition to the other alternatives, analysis of a do-nothing or status quo alternative" was included. The alternatives are described below:

- **Option 1 – Continued Operations of Existing Wastewater System.** Repairs and modifications to the existing plant are necessary in order to meet state water quality standards and continue plant operation.

- **Option 2 – Convey Wastewater to City of Tehachapi.** The second option is to close the existing plant and pump the community's sewage to the City of Tehachapi for treatment and disposal.

- **Do Nothing –** Continue sewer service to the community without changes in governance.

The following are key points derived from the comparison:

1. The report analyzed two options to address sewer service for the customers of GHSC Receivership. Within the options discussed are forms of governance. The customers need to decide the option and governance to provide service in the future.

2. The "Do Nothing" option is not viable and will ultimately result in more cost to customers and potentially RWQCB intervention.

3. Currently, the wastewater treatment plant is privately owned and operated under the California Public Utilities Commission (CPUC). Public ownership is needed to access the grant funding necessary to refurbish the existing treatment plant or build the new conveyance system.

4. The mission is to develop a viable and sustainable wastewater solution that results in the least cost to Golden Hills Sewer Customers.

5. Option 2 was recommended by AECOM because it is viable and the least expensive option for the customers.

While the environmental document will also investigate the "Do Nothing" option, this option is not feasible and therefore will not be analyzed to the degree that the other two viable options will be analyzed based on the following rationale:

- The condition of the existing wastewater system requires improvements in order to comply with existing regulations[1]. Some of these existing regulations are contained within the existing Waste Discharge Requirements (Order Number 81-122), while others have been adopted after the original wastewater system was placed into service, in part (as described later in this document), when the wastewater treatment plant was originally commissioned (1989).[2] Specific examples illustrating these improvements include installation of a filter, which the specific manufacturer and model that must be approved by the State, for disinfected tertiary recycled water production, in order to produce recycled water suitable for public contact. More specifically, this will be needed for effluent discharged into Tom Sawyer Lake. Also there is a need to install a second filter (redundant unit) in order to comply with Title 22 regulations. Other examples include the need to provide redundant equipment/units, 450 mg-min/L modal contact time, and storage (Title 22, Article 10 Section 60341, Section 60343, Section 60347, Section 60349 and Section 60351) which may not be required by the RWQCB initially but could be required in the future if additional connections are added to the wastewater system.

- Costs for any option will be significant and will require additional funding sources besides monthly rates which do not cover current expenditures and needs. It is our understanding, based on Dave Warner's[3] slides and presentation, that private ownership is likely to limit or disallow grant funding options. Given this consideration and that the sewer system customers are within a disadvantaged community,[4] there is the need to obtain grant funding in order to make necessary improvements to achieve long-term sustainable regulatory compliance. Based on these considerations there is a need to transfer ownership of the collection system, wastewater treatment plant (Option 1) or collection system and effluent force main (Option 2) to a public agency. [5] Otherwise, grant funding is either limited or cannot be obtained and the wastewater system will continue to operate based on funds collected on a monthly basis.

Since AECOM has been engaged to prepare the study, several favorable events have occurred:

1. Golden Hills CSD purchased the golf course property and thereby completely controls Tom Sawyer Lake and the surrounding property.

2. The RWQCB has decided to explore the rescission of the Cleanup and Abatement Order because of the noted progress in resolving outstanding issues at the facility.

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[1] Currently the effluent discharge into Tom Sawyer Lake from the existing wastewater treatment is not permitted as a terminal holding pond.
[2] The current wastewater treatment plant for GHSC was commissioned and began operation in late November 1989.
[3] Dave Warner works for Self Help Enterprises and is assisting with the project.
[4] Disadvantaged community is based on financial need and low income levels. A community in financial need is limited or there is no ability to raise rates without significant hardship to the community.
[5] Golden Hills CSD is a public agency that could take the wastewater system since the system is within the district boundaries. The CSD owns Tom Sawyer Lake and the irrigation area, and the CSD could take the system without going through a LAFCo process. Kern County could also serve as governance and currently has the expertise to operate and maintain the system; however for Kern County to do this a LAFCo action would be required.

3. Kern County Flood Plain Management has determined that the wastewater plant works and building are out of the 100-year floodplain and that removal of the emergency overflow basin from the floodplain can be done without special streambed permitting. However, the floodplain maps need to be updated to verify that the wastewater treatment plant, and all of its components including all emergency overflow basins, are outside of the 100-year floodplain. [6]

4. Though the project area is within an adjudicated basin, there is groundwater available from the "Salvage Area" that can be taken without impacting any allocation within the adjudicated basin for Golden Hills CSD.

5. Water can be diverted from Brite Creek into Tom Sawyer Lake. This is called an on-stream impoundment. On-stream impoundment is allowed so long as water is not diverted out of the adjudicated basin. However any work that alters stream flow within Brite Creek will require permitting from USACE, DFW and SWRCB.

6. The plant is currently staffed with the required classifications of operators.

7. The results of lake water and lake sediment testing indicate that the water is suitable for aquatic habitat but not for human recreation at this time.

8. AECOM conducted a sewer cleaning and video inspection of the existing system and was able to assess the condition and determine the remedial measures to bring the system to an acceptable state of repair.

We are encouraged with the direction of the community and Solutions Group. There has been a lot of progress on the part of the District and Receiver in moving in the right direction. The momentum needs to continue. Grant funding depends on it and the community needs affordable sewer service.

A decision of which option and governance to provide sewer service is therefore very important in moving forward without delay. Setting thoughts of bias and affect aside and focusing on what will work best over the long term as the least expensive option is the goal of this report. This report will present information needed for that decision.

****

[6] Currently the floodplain map shows the plant, the building and one emergency overflow basin out of the flood zone. It indicates that a small portion of one emergency overflow basin is in the flood zone. The recommended improvements will include relocating that basin completely outside of the flood zone. That can be accomplished without the requirement of permitting with The US Army Corps of Engineers, the Water Resources Control Board or the California Department of Fish and Wildlife since the work will not involve construction activities in the stream.

1.0 Introduction

1.1 Purpose

The purpose of this report is to identify and recommend the most cost effective sewer service option for the existing Golden Hills Sanitation Company customers. Restated as a mission statement, **"To develop a viable sustainable wastewater solution that results in the least cost to Golden Hills sewer customers."** Two options were identified by Kern County to be analyzed by AECOM for this report. AECOM was also tasked to identify and analyze other alternatives with respect to governance structure of the two options. For the study, in order to conform to State requirements, the identified options need to align with governance. Due to that requirement, the report will address the two options with three subsets under each as listed below:

Option 1 – Continued Operations of Existing Wastewater System

- Option 1A – Operations and Maintenance by Kern County (County)
- Option 1B – Operations and Maintenance by Golden Hills Community Services District (GHCSD)
- Option 1C – Operations and Maintenance by a Contractor under GHCSD or County

Option 2 – Convey Wastewater to City of Tehachapi

- Option 2A – Operations and Maintenance by Kern County – Treatment and Disposal by City of Tehachapi
- Option 2B – Operations and Maintenance by GHCSD - Treatment and Disposal by City of Tehachapi
- Option 2C – Operations, Maintenance by City of Tehachapi – Treatment and Disposal by City of Tehachapi

Option Discussion

The first options (Option 1A, 1B and 1C) keep the existing wastewater treatment plant in operation. Option 1B and 1C maintain local control[7] of all wastewater related facilities and retain treated effluent locally. Option 1A retains treated effluent locally, but the County controls its operations and maintenance as opposed to a local entity.

The second options (Options 2A, 2B and 2C) involve decommissioning the existing wastewater treatment plant and sending wastewater for treatment and disposal to the City of Tehachapi - thereby consolidating treatment. Option 2B allows for local control of the collection system and maintains a direct relationship between the customers and GHCSD. Option 2A, the Kern County option, allows for no local control since the service would be managed by a County Service Area (CSA). Option 2C moves all control from the collection system through treatment to the City of Tehachapi. Putting costs aside, all six options are viable and sustainable and

[7] Option 1C provides for either GHCSD or County to serve as governance. For GHCSD, local control is maintained.

have advantages and disadvantages that are discussed in the report. The analysis detailed in this report was prepared for the purpose of determining which option will cost the least to the existing customers specifically.

Do Nothing Option – "Status Quo"

The "Do Nothing" option was previously described in the 27 September 2013 Kern County Draft Study as an option that would result in the eventual decommissioning of the wastewater treatment plant and potentially rendering the residences as unable to be occupied.

The "Status Quo", or "Do Nothing" option would be to continue current operations under a privately owned, privately operated wastewater collection, treatment and disposal system as it does today. Under this option all services provided that relate to the collection system including the lift station, all of the sewer mains, the wastewater treatment plant, and the disposal of effluent using Tom Sawyer Lake would continue under the GHSC receiver.

Under the "Do Nothing" option, it is beneficial for the customers to understand what could happen over the next few years; given the conditions of the wastewater treatment plant, need for improvements to achieve regulatory compliance and inability of the GHSC receiver to collect sufficient funds necessary for the improvements:

1. Meeting (or not meeting) waste discharge requirements (WDR) under its existing permit with the Regional Water Quality Control Board (RWQCB). Though the RWQCB has relaxed its efforts of enforcement actions due to positive actions taken by the Receiver and Kern County, the situation could likely change as financial support from Kern County is discontinued or outstanding debts become due and payable.

2. Increased operations and maintenance (O&M) costs will occur as equipment fails and the GHSC receiver continues to have insufficient funding to proactively maintain and replace equipment. The report identifies deficiencies in the collection system, the wastewater treatment plant, and Tom Sawyer Lake.

3. Currently there is money owed for taxes to the Receiver and to the SWRCB and others as described in Section 7.3 of the report. The reserve fund is inadequate at this time to cover emergencies.

4. A private company is not eligible to obtain most government grant funding for needed system improvements. Based on this, private ownership and operation was assumed to be fatally flawed and not considered further.

It should be noted that under Receivership, progress has been made in satisfying the Regional Board; and the staff doing the work locally should be recognized for the good work that they have done so far. However, they are facing an uphill battle to bring the plant and collection system into compliance at the current rate structure. In additional, under receivership they have not been able financially to address all of the required operations and maintenance of their facilities (collection system, plant or Tom Sawyer Lake) in a pro-active manner. The report identifies many of the deficiencies that need correction. With the deficiencies and without an adequate income or reserve fund, the status quo option is to continue operations with added debt accumulation and deferred maintenance that will ultimately result in higher rates to the customers.

1.2 Background

Golden Hills Community is located in the Tehachapi Mountains immediately west of the City of Tehachapi in Kern County, California. Golden Hills Sanitation Company (GHSC) was formed as a private California corporation to provide wastewater collection and treatment services to Golden Hills Community on September 8, 1980. A Report of Waste Discharge was filed with the California Regional Water Quality Control Board by the GHSC in conjunction with Golden Hills Community Services District (GHCSD) for treatment and disposal of a peak flow rate of 200,000 gallons per day (GPD)[8]. An Agreement to construct the Golden Hills Wastewater Treatment Plant (WWTP) and collection system was executed by GHCSD, GHSC, adjoining landowners, Golden Hills Country Club, County Club Estates, Golden Hills Land Company, and Golden Highlands Manufactured Home Estates on March 22, 1983. The wastewater treatment plant construction was completed in 1989 and has been in service, without significant modifications since then.

GHSC operated the wastewater plant and collection facilities from 1989 until March 2012. Until 2001 the District Agreement anticipated that GHCSD would acquire the wastewater facility. However, in 2001, GHCSD quitclaimed the real property and sewer system to GHSC. [9,10] Since 2001, GHSC has been the sole provider of sewer service in the Golden Hills Community. At the request of the CPUC in 2012, a Receiver was appointed by the Kern County Superior Court.

The average flow at the treatment plant is currently 25,000 GPD. The treatment plant has a maximum 30-day average dry weather flow limit of 0.20 MGD or 200,000 GPD in accordance with waste discharge requirements (WDR) 81-22.

The *Analysis of Continued Sewer Services Options for the Golden Hills Wastewater Treatment Plant Customers* was prepared jointly by the County of Kern (County) Waste Management Department and Engineering, Surveying and Permit Services Department (ESPS) in September 2013 to "evaluate a broad range of continued sewer service options in an effort to identify the most cost effective approach for the GHSC Plant customers." The report concluded that the County staff did not have the time to provide the necessary in-depth analysis and public review that would be necessary to reach a consensus on a single option. As a result of this analysis, the County contracted with AECOM to further evaluate two of the options identified in that report:

Option 1 – Continued Operation of the Existing Golden Hills Wastewater System.

Option 5 – Convey Wastewater to City of Tehachapi (renamed Option 2 in this report).

This report summarizes a more in-depth analysis of the two viable options and provides recommendations for the implementation of the more economical option. In addition, this report describes triggers, or an event or chain of events that could alter the outcome of the comparison of options. An example of a trigger is a significant increase in the number of Golden Hills' sewer connections.

Three public meetings were conducted prior to the preparation of this report to gain stakeholder input and present preliminary results and recommendations. Comments received during these meetings have been incorporated into our analysis. Copies of the workshop presentation and notes are contained in **Appendix E**. Items of concern that must be addressed for either option

[8] The report of Waste Discharge was filed by Golden Hills CSD and Golden Hills Sanitation Company on April 21, 1980.
[9] Decision 10-05-025 May 20, 2010 before the Public Utilities Commission of the State of California
[10] Protest of the Golden Hills Community Services District, Application No. A.08 08 0 11 (filed August 19, 2008 and filed before the CA PUC on August 20, 2009.)

include improvements to the existing wastewater collection system and corrective actions for Tom Sawyer Lake to avoid the continued concentration and accumulation effects of evaporation. Evaporation from Tom Sawyer Lake results in concentrating metals and salts (TDS) which can be problematic from a municipal groundwater supply perspective.

1.3 Service Area

Golden Hills CSD serves potable water to 2,699 residential connections and 98 commercial connections. Conversely, the sewer service area serves 180 customers plus additional standby connections. [11] Since Golden Hills CSD is the only potable water provider in the area, these numbers represent how many customers could potentially be connected to the sewer system with perhaps an exception of those on very large lots in the northern part of the community. Only 180 Golden Hills CSD customers[12] out of 2,797 are actively connected to the sewer system.[13]

There is community concern regarding Assembly Bill (AB) 885 that would require those who are not connected to connect to the sewer system. It was inferred that the requirement would bring enough customers to make Option 1 work from an economy of scale perspective. To address this particular issue, the number of connections to be considered in the project was discussed at the workshops. As described during the presentations, and used in this report, the number of connections is limited to 325 customers comprised of 180 active connections, 30 standby connections, 103 connections that require additional accounting and 12 projected connections.

Currently, the Golden Hills wastewater treatment system provides wastewater collection, treatment, and treated effluent disposal for 180 active service connections. There are 30 future connections that have been paying standby fees. It is projected that twelve (12) more customers will connect prior to the project. There are several future connections that will need to be accounted for, some of which are claiming to have been paying standby charges (see **Table 1 and 2** below). [14]

Table 1

Existing Connections

Classification	Number	Monthly Rate Per Connection	Comments
Single Family Residential	153	$91.29	Active
Apartment	23	$80.73	Active
Motel	4	$88.64	Active
Total Active	**180**[15]		Basis of Alternative Comparison

Table 1 – Existing Connections

[11] Total projected connections including standby is 325.
[12] See Table 1 below. There are 180 active connections.
[13] There are 4,000 total lots in GHCSD.
[14] Information provided by Barbara Miller.
[15] Numbers provided by Barbara Miller.

Highlights of AB 885 as it applies to this project are listed below:

According to the AB 885, existing onsite wastewater treatment systems (OWTS) that are properly functioning (defined as Tier 4) and are not determined to be contributing to an impairment of surface water (described in Tier 3) are automatically included in Tier 0. Tier 0 systems are included in the waiver of waste discharge requirements. Unless there are issues with an existing OWTS, switching to sewer would not be required at this time. The Golden Hills area is not shown to be an Impaired Area (Tier 3) therefore, the requirement to connect would not be mandated. OWTS that fail (Tier 4) could be replaced under Tier 1, provided they meet the specified installation criteria.

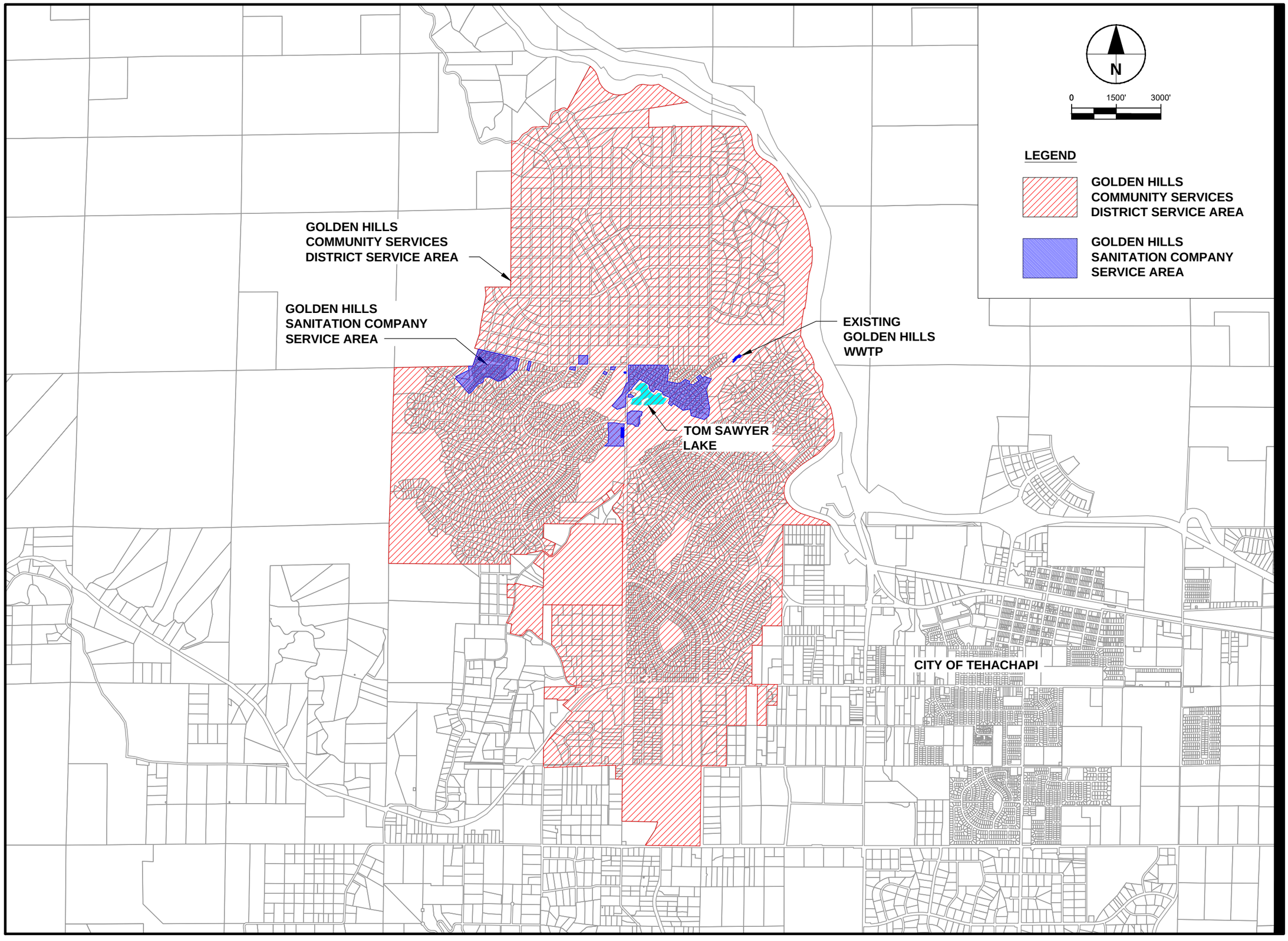
The maintenance of existing systems is addressed in the policy as: "Owners of OWTS are required to maintain their OWTS in good working condition including inspections and pumping of solids as necessary, or as required by local ordinances, to maintain proper function and assure adequate treatment." A report of waste discharge is required if the installation does not meet the Tier 0 or 1 criteria. A complete copy of the OWTS Policy is provided as **Appendix C**.

In conclusion, there would be no impact to existing septic systems at this time because Golden Hills is considered to be Tier 0. As previously described and presented in prior workshops, the number of connections considered in this study is limited to what the existing collection system can accommodate without expansion (180 active plus 145 potential connections for a total of 325 including standby).

It was also noted that the California Plumbing Code requires that a proposed building connect to a public sewer if it is located within 200 feet of the proposed building (which predates AB 885). This issue was raised because of a concern that if the plant was replaced with a 4-inch force main, there would not be adequate capacity in the main to satisfy the Plumbing Code. The proposed force main has the capacity for adding all property within 200 feet of the existing sewer system[16].

The project area is shown in **Figure 1** and the existing service area boundaries are shown on **Figure 2**. **Figure 1** shows the entire project areas that involve either Option 1 or 2. **Figure 2** shows the existing service area of Golden Hills Sanitation Company.

[16] A 4-inch force main operating at minimum velocity could move 150,000 gallons per day. If the same main were upgraded to flow at 5 feet per second, the flow could be about 280,000 gallons per day – greater than the existing Golden Hills Sanitation Company's Wastewater Treatment Plant's permitted flow.



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PROJECT

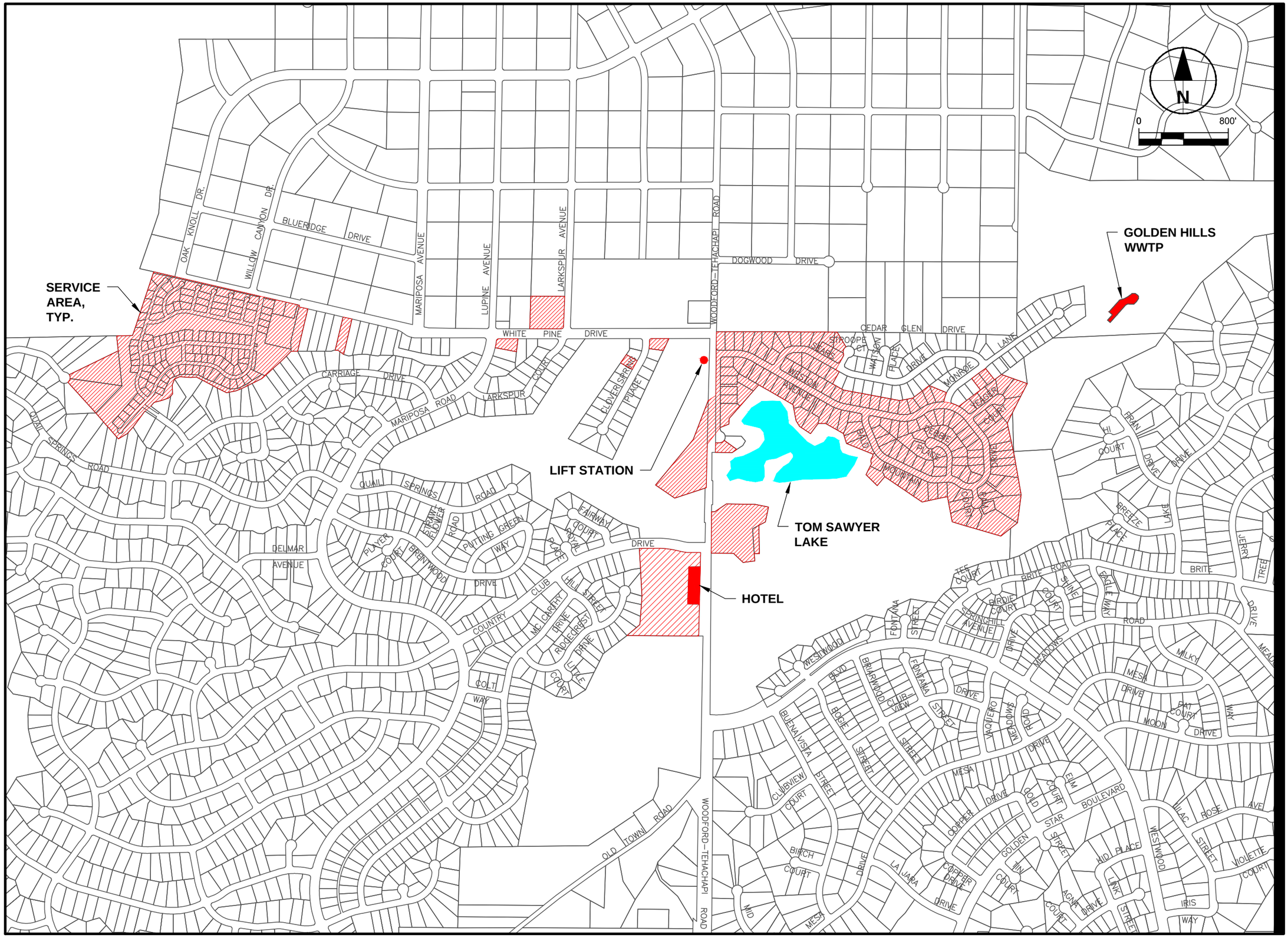
Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

GOLDEN HILLS COMMUNITY SERVICES DISTRICT SERVICE AREA

FIG. 1

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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-1_GHCSD_SERVICE AREA.DWG



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PROJECT

Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

GOLDEN HILLS SANITATION COMPANY SERVICE AREA

FIG. 2

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Table 2

Future Connections

The future connections listed below are for consideration of future plant and force main sizing but are not included in the comparison of alternatives, as the monthly service fee will be based on active connections only.

Future Connection Description	Quantity	Monthly Service Fee	Notes
Standby connections with history of continuous payment	30	$18.12	Customers stated to have made initial connection payment and have been paying a standby fee (Note 1)
Standby connections claimed by GHCSD from 23 May 2014 Ed Borges purchase.	38		(Note 2)
Entitlement Claimed 9.75 Acres west of motel	65	0	Owned by Charlie and Lillian Smith (connection fee commitment to be verified). Not currently paying monthly standby fee. (The estate made an arrangement in 1983) (Note 2)
Total "entitled" future connections (Note 2)	133		
Assumed Growth Prior to Project	12		Projected
Total of all projected connections	325[17]		

Table 2 – Future Connections

Notes:

1. It appears there are 30 customers that have paid connection fees and have been paying a standby fee on a continuous basis. Depending on verification, these customers should not have to pay another connection fee under any subset of Option 2. Eligibility for State funding is being requested for consideration not only to cover payment of connection fees for the 180 active connections, but also for the 30 individual customers on standby.
2. The 38 connections that transferred to GHCSD need to be confirmed for continuous payment of standby fee and for validity in terms of total number. As well, the 65 connections that are stated to be owned by the Carlie Smith Estate need to be verified as to count. According to the CPUC there were 87 entitled connections. Adding 65 to 38 and to 30, equates to 133. Adding 65 to 38 equates to 103. Neither equate to 87. Perhaps the 30 standby services came about after the original agreement. They may have been taken from the 87 without reducing either the 65 or the 38 mentioned. Before a recommendation can be made with regard to the 38 or 65 connections, a thorough accounting and legal analysis of transactions needs to be made. Such an accounting is beyond the scope of this study. For this analysis, the report will assume there is no entitled connection fee for the 38 or 65 connections.[18]

[17] All numbers in Tables 1 and 2 were provided by Barbara Miller.

[18] AECOM requested information from the Receiver regarding accounting for the entitled future connections and was informed that the information was confidential and could not be released. If further information becomes available following accounting and legal review that demonstrates further connection entitlements are justified, then additional grant funding should be provided for Option 2 to pay City of Tehachapi these connection fees.

1.4 Management

The wastewater collection, treatment and disposal system that serves the area described in Figure 2, is under receivership. This is due to GHSC filing to terminate service triggered by insufficient revenue generation and the CPUC dissaproval of GHSC's proposed 3-year successive sewer service rates.[19]

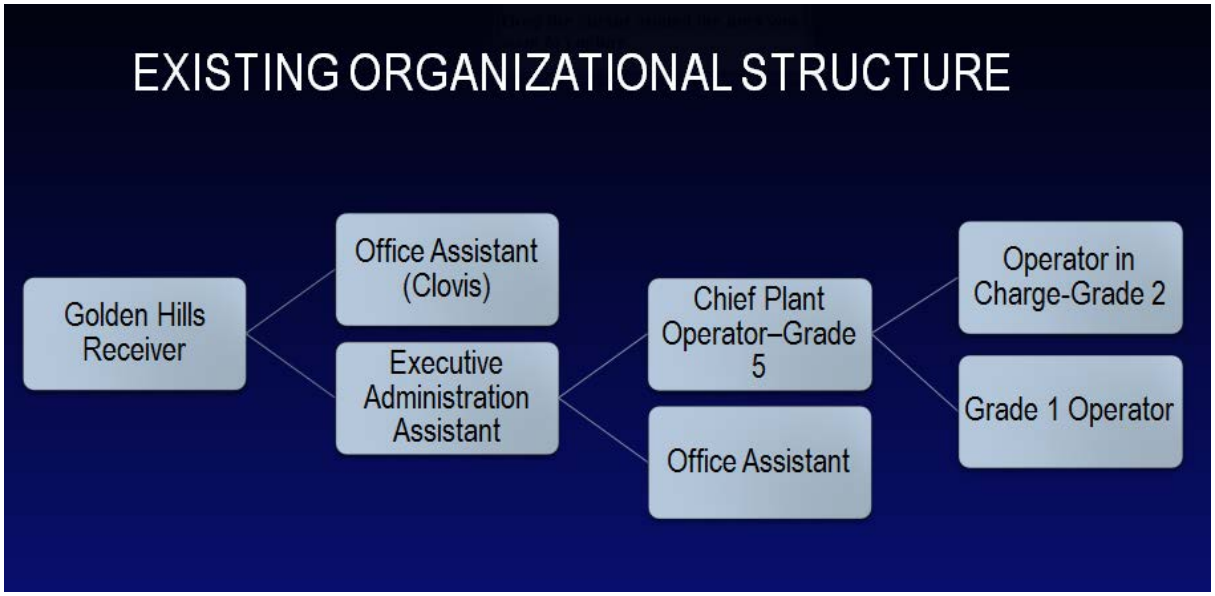


Figure 3 – Existing Organizational Structure Under Receivership

The management structure of the GHSC under receivership, shown in Figure 3, is based on the March 2012 court order appointing Mr. Clifford E. Bressler[20] of Clovis, California, as receiver. Working for Mr. Bressler in Clovis CA is an office secretary who tracks customer billing.

Handling management and administrative functions at the Golden Hills location is the Executive Administration Assistant, Ms. Barbara Miller. Under the Executive Administration Assistant is an Office Assistant. Ms. Miller has taken an active role on the project working closely with AECOM to help coordinate meetings, dialogue with Golden Hills customers and the community at large and providing valuable data and resources which serves as the basis for the operations and maintenance cost estimates described herein. Operation and maintainance (O&M) of the wastewater treatment plant and collection system are performed by a Grade 5 operator, a Grade 2 operator, and a Grade 1 operator. The Grade 5 operator, who works only a few hours per month, was hired to satisfy the minimum RWQCB[21] requirement for plant supervision by a Grade 3 operator.

Under the current management structure, customers are receiving sewer service at a monthly rate of $91.29 per single family connection. The rate has not changed since the receiver began to manage the system in 2012. However this rate has not covered Mr. Bressler's fee, some

[19] The three-year successive rate increase requested was $127 per month in 2012, $197 per month in 2013, and $266 per month in 2014 for a single-family residential equivalent.
[20] Clifford E. Bressler, President, Clifford E. Bressler and Associates, Receiver.Trustee, Financial & Management Consultant, 3237 Jasmine Avenue, Clovis, CA 93611 (559.298.1089)
[21] Regional Board's jurisdiction per conversation on 08/01/14

expenses related to ongoing and routine O&M. The lack of sufficient revenue for O&M is problematic with respect to regulatory compliance given that improvements are necessary and are not included in the budget or O&M costs. Kern County has had to provide funding for some emergency work at the plant. [22] Further, the GHSC is not current on taxes and is six years in arrears in payment of annual permit fees due to the State Water Resources Control Board.[23] Another consideration is that the wastewater collection system has major maintenance and repair issues that were discovered during the recently completed sewer video service.[24]

Under receivership, the system is being managed within a reasonable budget, however the budget has not always covered all necessary expenditures for O&M nor the necessary improvements. Recommendation of the management option to run the system is dependent upon whether Option 1 or Option 2 is chosen. Recommendation of the management option will therefore, come after the preferred option is identified. Potential governance options are discussed later in the report.

****

[22] Kern County has authorized up to $51,700 contribution for specific repairs to the system.
[23] GHSC is $61,928 in arrears to the SWRCB according to an October 13, 2014 comment from SWRCB.
[24] Kern County authorized sewer cleaning and video service for the purpose of assessing the condition of the sewer system. The field work is complete and the video inspection report from the video company is included in this report under **Appendix I**.

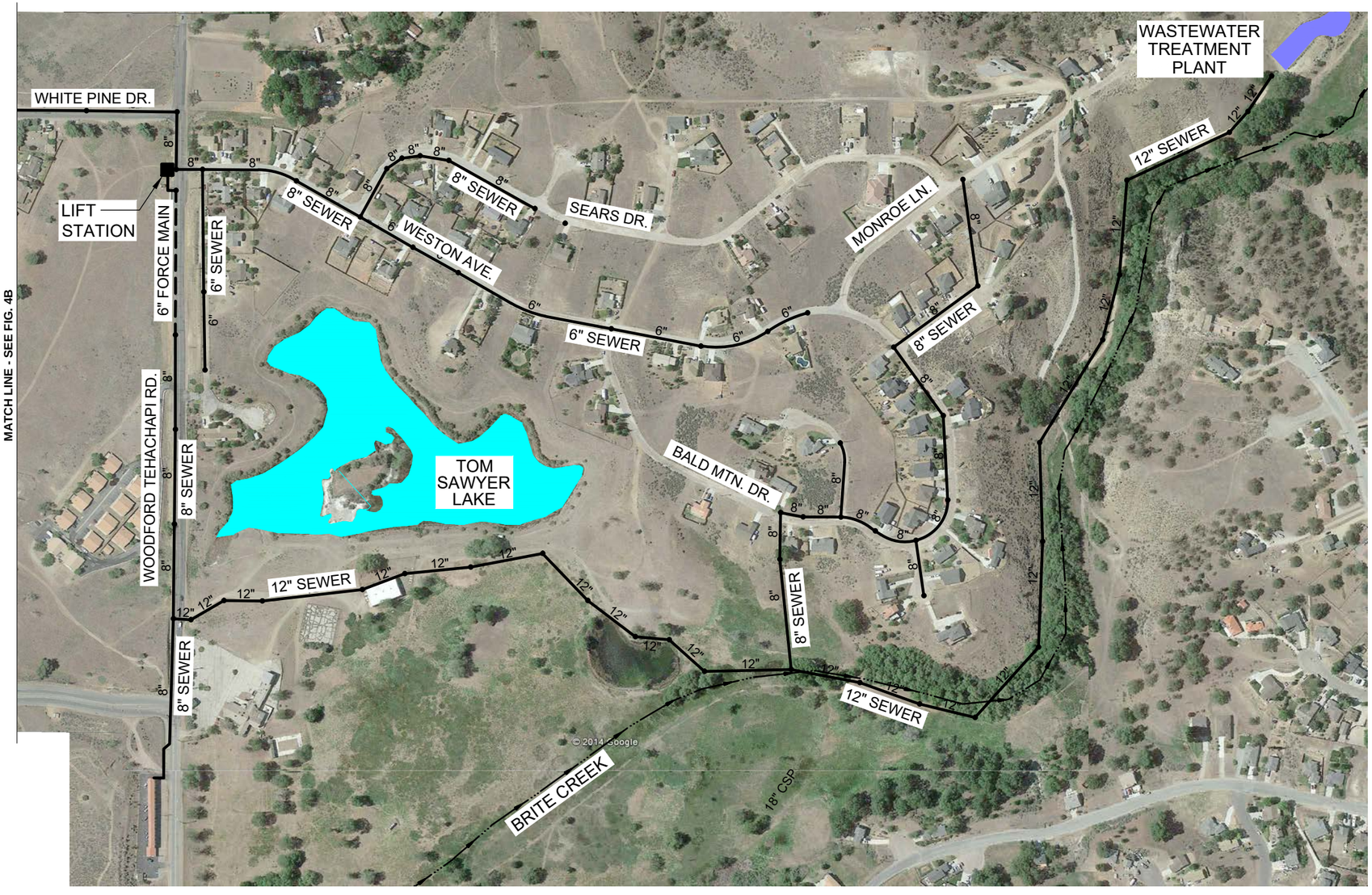
2.0 Existing Facilities

2.1 General

The following are descriptions of the existing wastewater system which is comprised of the collection system, treatment system, effluent conveyance system and effluent disposal system.

2.2 Collection System

The collection system is all PVC pipe and consists of approximately 5,330 lineal feet of 12-inch diameter gravity sewer line, 11,045 feet of 8-inch diameter gravity sewer line, and 9,685 feet of 6-inch diameter gravity sewer totaling 26,060 lineal feet. The collection system is served by a lift station located on Woodford Tehachapi Road just south of White Pine Drive. The station pumps sewage through 535 feet of 6-inch force main in Woodford Tehachapi Road southerly to the 8-inch gravity main also in Woodford Tehachapi Road. The 8-inch gravity main conveys flow to the 12-inch gravity main that flows from Woodford Tehachapi Road across the abandoned golf course to the Wastewater Treatment Plant. Most of the collection system connects to the lift station; however there is a gravity connection to the 12-inch main after the lift station just downstream of Tom Sawyer Lake. Portions of the collection system are shown in **Figures 4A** and **4B.**



MATCH LINE - SEE FIG. 4B

N

0 400' 800'

LEGEND

- GRAVITY SEWER PIPING
- FORCE MAIN
- MANHOLE
- LIFT STATION
- CREEK

12-INCH DIAMETER SANITARY SEWER	5,330± L.F.
8-INCH DIAMETER SANITARY SEWER	11,045± L.F.
6-INCH DIAMETER SANITARY SEWER	9,220± L.F.
6-INCH SEWER FORCE MAIN	535± L.F.

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PROJECT

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SHEET TITLE

EXISTING SEWER COLLECTION SYSTEM

FIG. 4A

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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-4_EXIST SEWER FACILITIES.DWG



MATCH LINE - SEE FIG. 4A

N

0 400' 800'

LEGEND

GRAVITY SEWER PIPING

MANHOLE

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EXISTING SEWER COLLECTION SYSTEM

FIG. 4B

Last saved by: GHILARDUCCID (2014-10-29) Last Plotted: 2014-10-29
Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-4_EXIST SEWER FACILITIES.DWG

2.3 Wastewater Treatment Plant

The plant is permitted as a Class III wastewater treatment facility and is located in a portion of Section 5, T32S, R33E, MDB&M on a 0.53 acre site. The treatment facilities include: a bar screen, two flow equalization basins; twelve extended aeration activated sludge compartments; two sedimentation basins; a wet well; a filter pump station; a vertical pressure automatic backwashing sand filter (which has been out of service); a chlorination disinfection system; and an aerobic digester. (See Site Plan, **Figure 5** and process flow diagram **Figure 6**).

As shown in Figure 6, the flow equalization, extended aeration activated sludge and sedimentation tanks are configured into two treatment trains, each with a rated capacity of 100,000 gallons per day (gpd). However, only one treatment train is currently operable as parts from one train have been used to keep the other train in service. It should be noted that currently only one treatment train is needed for the operation due to influent flow below the train's rated capacity.

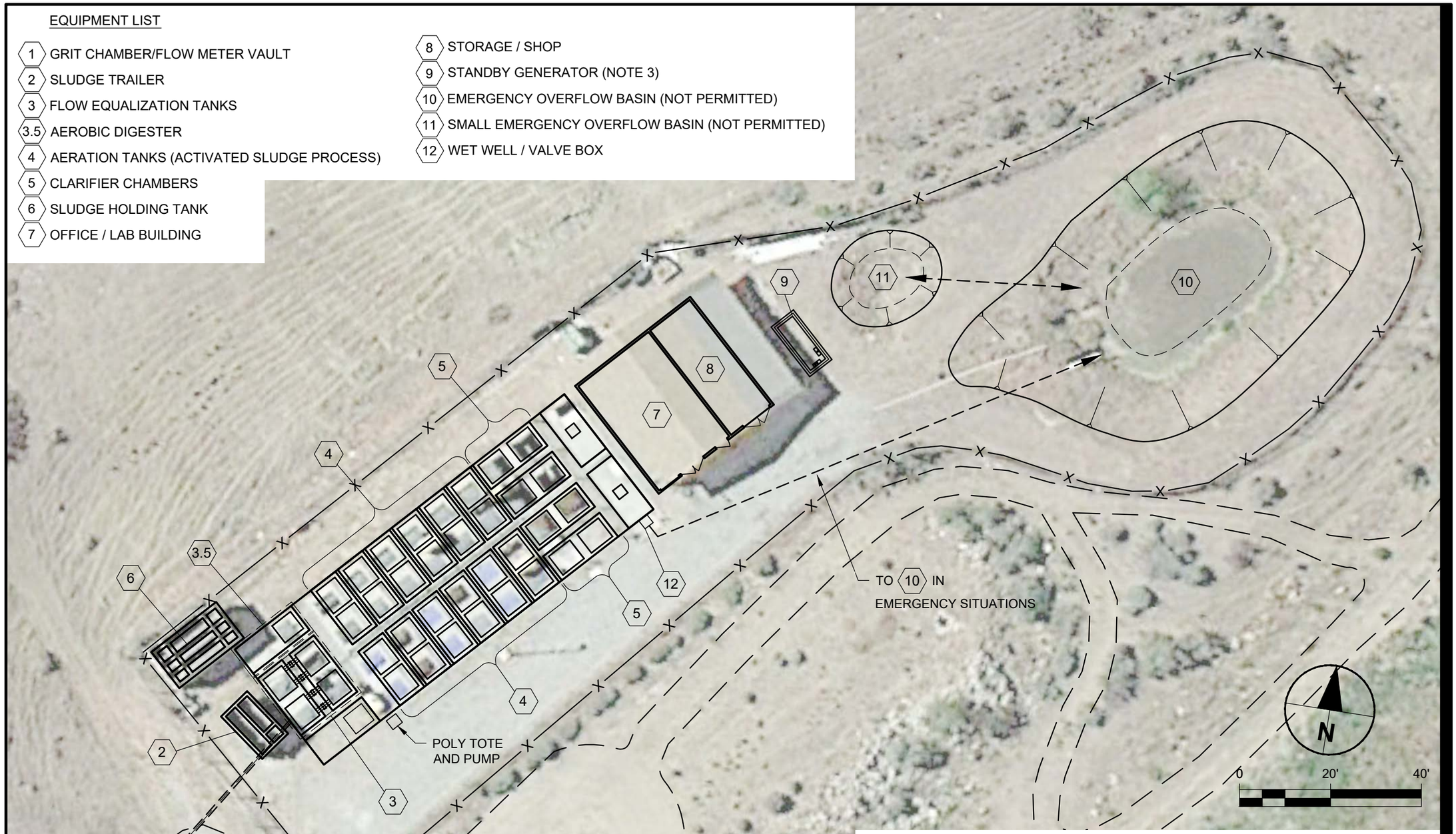
Remaining Plant Capacity: Currently with only 180 active connections, the wastewater treatment plant processes an average of 25,000 gallons per day. The maximum wet weather flow rate or peak historical flow rate was 38,000 gallons per day.[25] This represents an average flow rate of approximately 139 gallons per dwelling unit per day and a peak flow rate of 211 gallons per dwelling unit per day. Since population data was not available for those being served, if two persons are assumed per dwelling unit, then the average per capita rate would be about 70 gallons per capita per day (gpcd) and the peak flow rate would be about 106 gpcd.

The remaining capacity for the wastewater treatment plant is therefore 100,000 – 38,000 gallons per day = 62,000 gallons per day. To determine the number of remaining future connections using Kern County Standards of 2.8 persons per dwelling unit, 100 gallons per day average flow and a peaking factor of 1.8, the design flow for each future connection would be 2.8 x 100 x 1.8 = 504 gallons per dwelling unit per day. 62,000/504 = 123 additional connections. If the capacity was determined based on historical data, the number of additional services possible would be 62,000/211 = 293. Based on general engineering practice, the additional capacity would be based on the more conservative number which would allow 123 additional connections.

[25] Higher flow rates have been reported within the last two months but not confirmed. The higher rates may have been related to the recent cleaning and video activities.

EQUIPMENT LIST

1. GRIT CHAMBER/FLOW METER VAULT
2. SLUDGE TRAILER
3. FLOW EQUALIZATION TANKS
3.5. AEROBIC DIGESTER
4. AERATION TANKS (ACTIVATED SLUDGE PROCESS)
5. CLARIFIER CHAMBERS
6. SLUDGE HOLDING TANK
7. OFFICE / LAB BUILDING
8. STORAGE / SHOP
9. STANDBY GENERATOR (NOTE 3)
10. EMERGENCY OVERFLOW BASIN (NOT PERMITTED)
11. SMALL EMERGENCY OVERFLOW BASIN (NOT PERMITTED)
12. WET WELL / VALVE BOX



NOTES:

1. IN THE PAST, PARTIALLY TREATED EFFLUENT OVERFLOWED INTO 10 AND RETURNED BACK TO 3 USING A PORTABLE PUMP. 3 TO UNDERGO FULL TREATMENT PRIOR TO REUSE.
2. SLUDGE (SOLIDS) ARE WASTED FROM 5 AND SUBSEQUENTLY TREATED IN 3.5. AFTER DIGESTION, BIOSOLIDS ARE STORED IN 5 OR 2. POLYMER IS ADDED TO THE BIOSOLIDS PRIOR TO STORING IN 2.
3. EXISTING GENERATOR IS LOCATED INSIDE BUILDING. WE RECOMMEND RELOCATING IT OUTSIDE.

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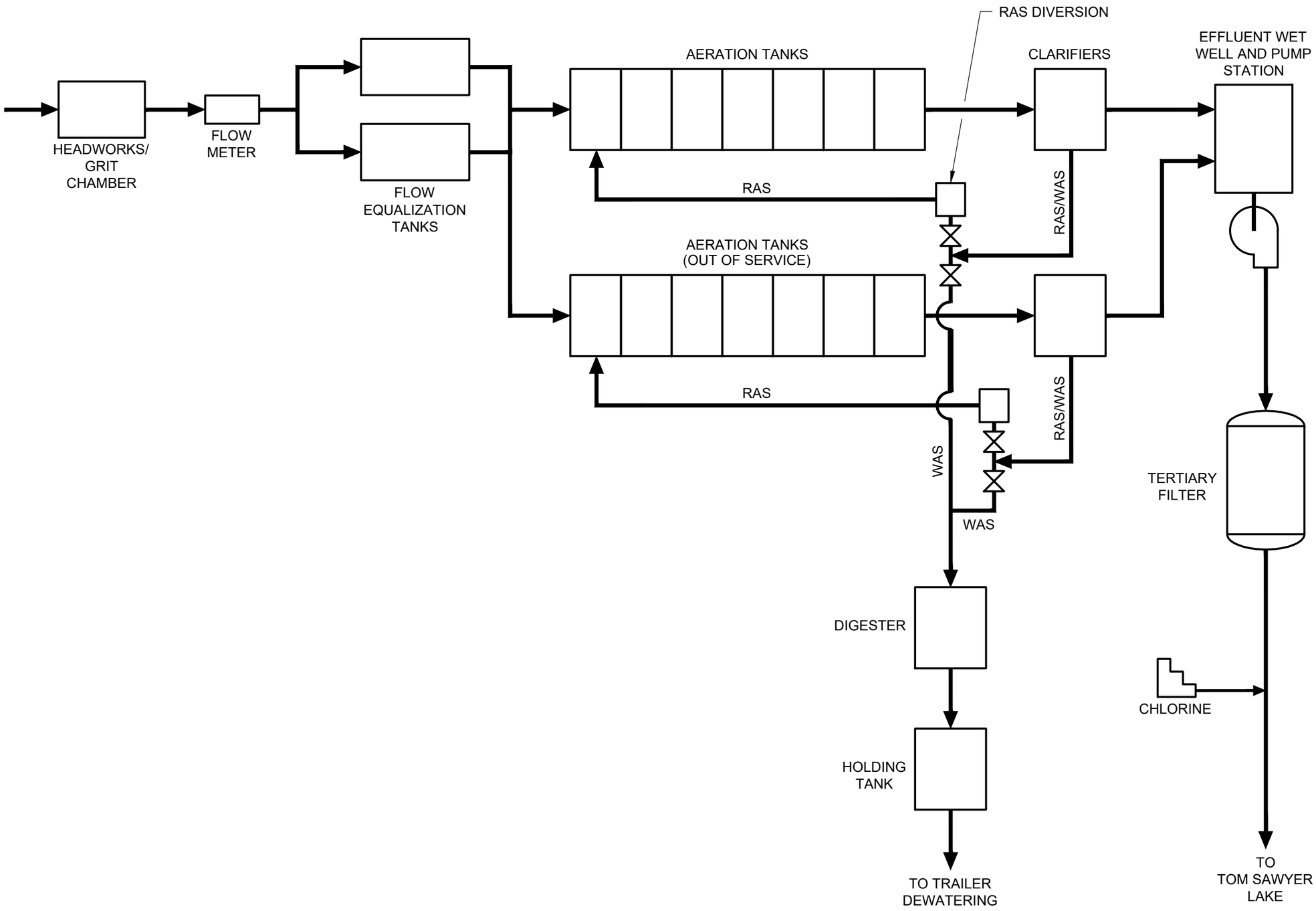
Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

EXIST. WASTEWATER TREATMENT PLANT SITE PLAN

FIG. 5

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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-5_WWTP SITE PLAN.DWG



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SHEET TITLE

PROCESS FLOW DIAGRAM

FIG. 6

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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-6_PROCESS FLOW DIAGRAM.DWG

2.4 Treated Effluent Conveyance System

Treated effluent is currently pumped to Tom Sawyer Lake by one 7.5 horsepower pump through approximately 5,000 feet of 6-inch diameter transmission main. However, two 7.5 horsepower effluent pumps are needed (one duty - one standby in alternating configuration to provide 100% backup). [26] Based on the average annual flow rate of 25,000 gpd, this pipeline provides a theoretical detention time of 420 minutes, which exceeds the minimum detention time of 90 minutes to produce disinfected tertiary recycled water. The force main therefore acts as a chlorine contact vessel. Although the results look promising with respect to meeting current regulations of 450 mg-min/L:5 mg/L max chlorine residual, a tracer study is needed for verification.

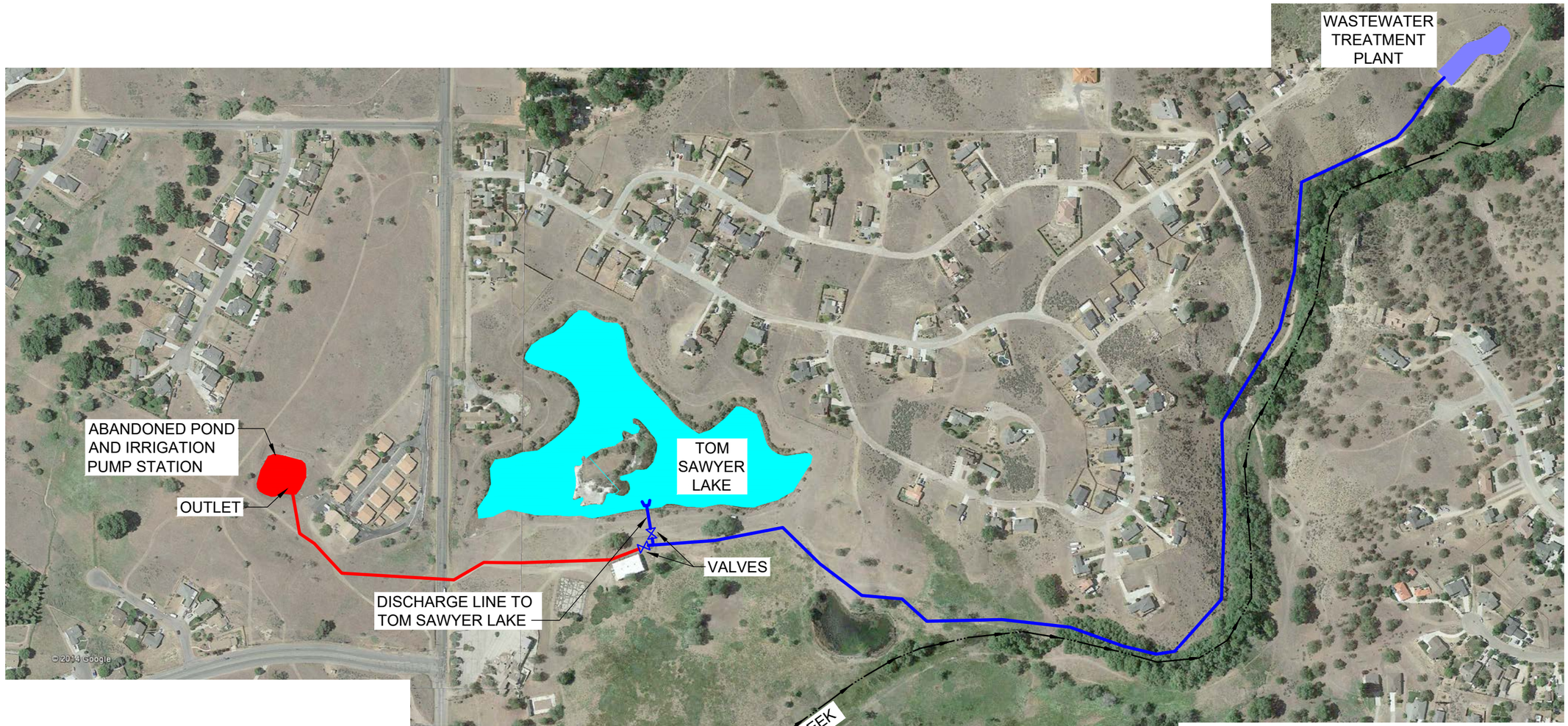
The treated effluent force main generally parallels the existing 12-inch gravity main to the plant along Brite Creek. At this time, it only discharges into Tom Sawyer Lake; however in years past, it also discharged into the pond west of Woodford Tehachapi Road. This pond served as a supply of irrigation water for the back nine fairways of the former golf course. There is a valve structure that allows the operator to route treated effluent to either Tom Sawyer Lake or the pond serving the former golf course.

2.5 Disposal System – Tom Sawyer Lake

The current effluent disposal system is shown in **Figure 7**. [27] Tom Sawyer Lake is a designated wetland as shown in **Figure 8** and has been in existence for many years, even pre-dating the wastewater treatment plant which was installed in 1989. Brite Creek historically flowed through Tom Sawyer Lake. [28] Over time, with construction of Woodford Tehachapi Road, and other man-made improvements such as diversion of water into Indian Lakes, [29] the main flow of Brite Creek was diverted away from Tom Sawyer Lake. As a means of maintaining water in Tom Sawyer Lake, former golf course owners secured other sources of water. These included Fountain Lake and Recovery Pond and to an extent a culvert that drains directly into Tom Sawyer Lake just south of the Willow Trees Apartments. [30] (See **Figure 9**.) Unfortunately these water sources have fallen into disrepair.[31] This situation has resulted in the WWTP effluent as the only continuous water supply to Tom Sawyer Lake. The culvert-drain near Willow Trees Apartments is an intermittent source.

---

[26] Downstream of the pump station, chlorine (Sodium hypochlorite) is injected into the effluent as it leaves the plant.
[27] Disposal into Tom Sawyer Lake has been subject to years of litigation and is not a permitted discharge.
[28] An aerial photograph (Dated 1952) maintained at the Golden Hills CSD shows Brite Creek flowing through Tom Sawyer Lake.
[29] The diversion of flow into Indian Lakes was done in 1914 and is grandfathered as an on-stream impoundment.
[30] The culvert drains the local water shed. It is serviceable but needs to be maintained and kept free of blockage.
[31] The cause of the loss of diversion from Brite Creek to Tom Sawyer Lake was the 1997 El Nino Storm that washed out the Fountain Lake Levee.



LEGEND

- ACTIVE EFFLUENT TRANSMISSION LINE
- INACTIVE EFFLUENT TRANSMISSION LINE
- INACTIVE EFFLUENT DISPOSAL POND

N

0 400' 800'

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SHEET TITLE

EFFLUENT DISPOSAL SYSTEM

FIG. 7

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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-7_FORMER EFFLUENT DISPOSAL.DWG

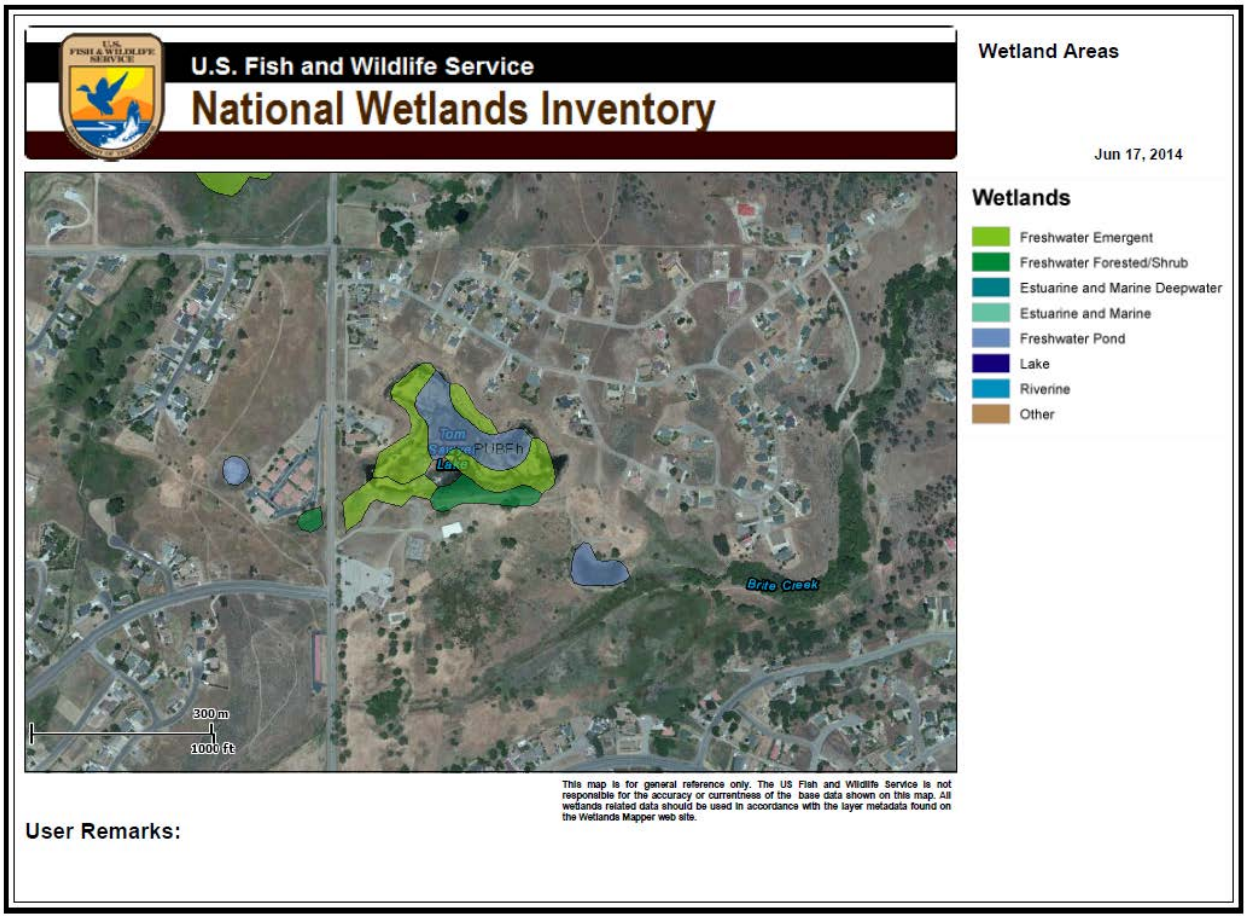
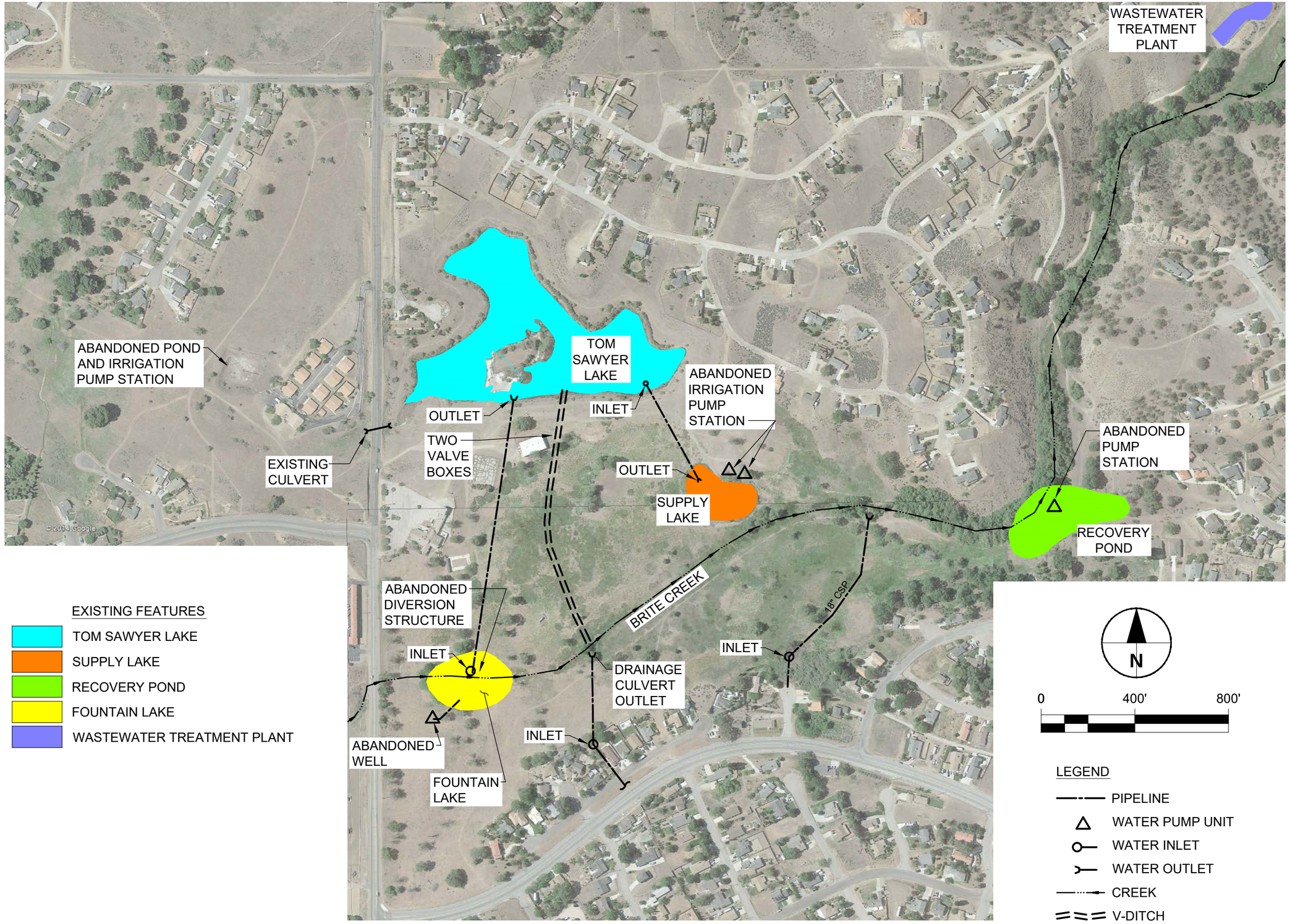


Figure 8 – Tom Sawyer Lake is a Wetland

As described by Golden Hills' residents at the prior workshops, Tom Sawyer Lake is a historical asset to the community of Golden Hills. It has also served as a fire safety function by being a source of water for Cal-Fire helicopters that fight local forest fires. It can also be used as a source of water for the Kern County Fire Department. During the public meetings held at Golden Hills CSD on April 7th 2014 and at the Golden Highlands Community Center on June 23rd 2014, the community expressed concern over the preservation of Tom Sawyer Lake. Based on this information and the fact that Tom Sawyer Lake is a designated wetland, Options 1 and 2 need to address the preservation of Tom Sawyer Lake through the identification of suitable water supplies.

2.6 Former Water Sources for Tom Sawyer Lake

As described above, there were a number of former water sources that supplied water to Tom Sawyer Lake shown on **Figure 9**.



EXISTING FEATURES

- TOM SAWYER LAKE
- SUPPLY LAKE
- RECOVERY POND
- FOUNTAIN LAKE
- WASTEWATER TREATMENT PLANT

N

0 400' 800'

LEGEND

- PIPELINE
- WATER PUMP UNIT
- WATER INLET
- WATER OUTLET
- CREEK
- V-DITCH

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SHEET TITLE

FORMER WATER SOURCES FOR TOM SAWYER LAKE

FIG. 9

Last saved by: GHILARDUCCID(2014-10-22) Last Plotted: 2014-11-03
Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-9_WATER SOURCES.DWG

These water sources were constructed and maintained by the golf course owners prior to development of the existing wastewater treatment plant and are described below:

Willow Trees Apartments Culvert

The culvert conveys water from the west side of Woodford Tehachapi Road to Tom Sawyer Lake. The culvert is immediately south of the Willow Trees Apartments and is maintained by Kern County Roads Department. Pictured below, an upstream view west of Woodford Tehachapi Road (left photograph) shows the culvert nearly blocked. The downstream view (right photograph) shows the discharge into Tom Sawyer Lake. This is an existing and operational water source to Tom Sawyer Lake.



Figure 10 – Culvert near Willow Trees Apartments
Looking left to right- West of Woodford Tehachapi Road to show blocked culvert; East of Woodford Tehachapi Road to show flow into Tom Sawyer Lake.

Fountain Lake

One former water source was Fountain Lake. During large storm events water from Brite Creek would flow into Fountain Lake then to Tom Sawyer Lake via an underground pipeline.[32]



Figure 11 – Fountain Lake

[32] The Ditch was discovered by historical photographs of the project site and discussions with local residents. Ed Borges later constructed the Fountain Lake Levee and a pipeline to Tom Sawyer Lake.

Recovery Pond

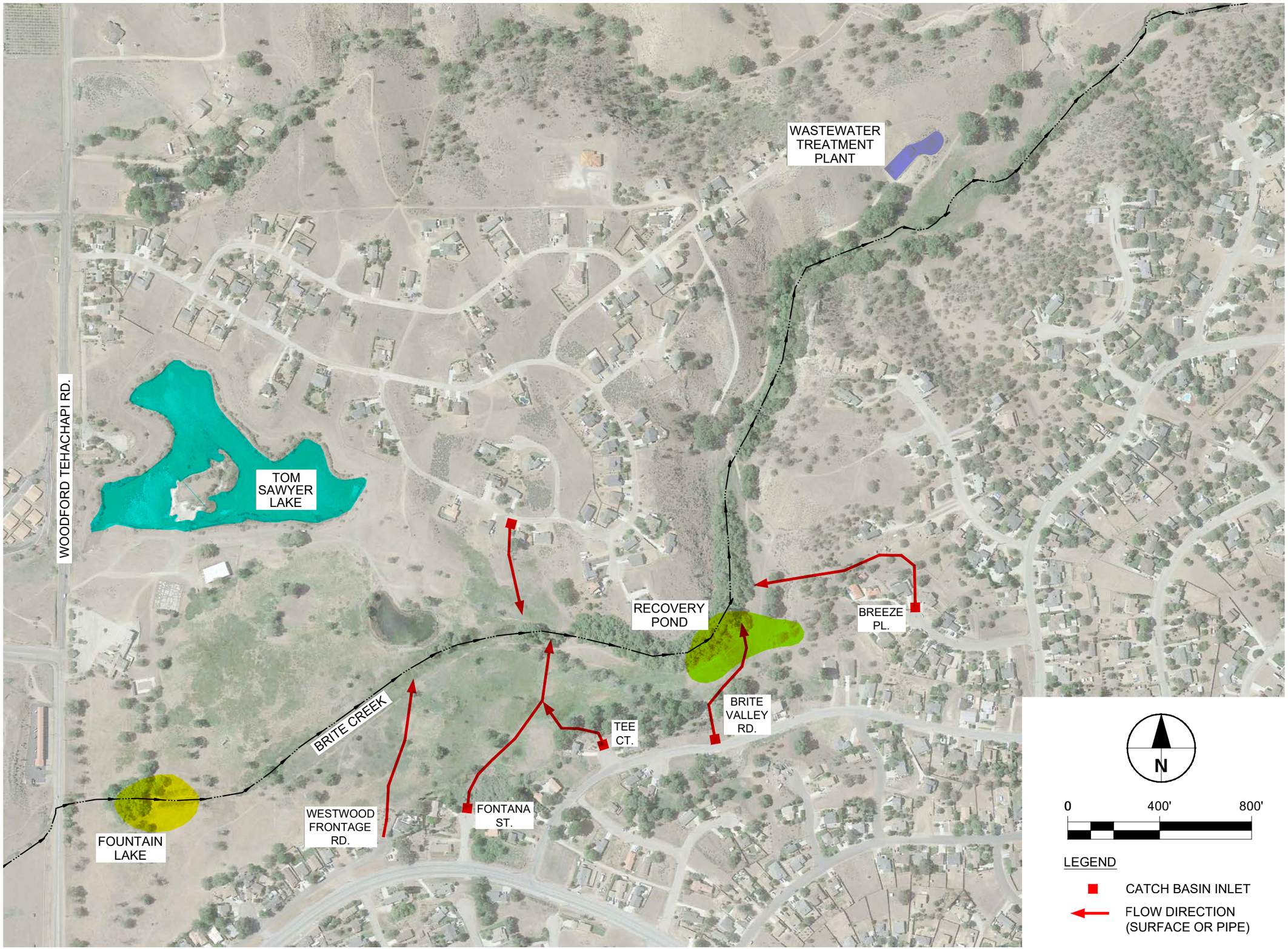
A second former source of water was Recovery Pond formed by a manmade earthen dam. This pond was supplied by the outflow from Fontana Street Pond and other drainage systems from the community to Brite Creek Canyon. The other surface water sources identified in **Figure 12** that contributed to Recovery Pond included:

- Westwood Frontage Rd.
- Brite Valley Rd., East of Birdie Ct.
- Tee Ct.
- Fontana St
- Breeze Pl.

The streets listed above discharge not only storm and nuisance water flow, but in many cases, spring water flow. If water flowed constantly from these streets to Recovery Pond, then Recovery Pond could serve as a year-round source of water for Tom Sawyer Lake. Recovery Pond facilities consists of an earthen levee, a 75-horsepower pump station, and a discharge pipeline to Supply Lake (adjacent to and connected to Tom Sawyer Lake). Currently the intake structure and pump are intact at Recovery Pond, but have fallen into disrepair. The intake structure and pump will need to be replaced if Recovery Pond operations are to continue. The impoundment structure that used to hold water in Recovery Pond is washed out and will need to be restored.



Figure 12 – Recovery Pond



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SHEET TITLE

SURFACE WATER SOURCES TO BRITE CREEK

FIG. 13

Last saved by: GHILARDUCCID(2014-11-24) Last Plotted: 2014-11-24
Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-13_SURFACE WATER SOURCES.DWG

Although Fountain Lake and Recovery Pond were former sources of water for Tom Sawyer Lake, permitting with the USACE, DWF and RWQCB will be necessary if these sources of water are needed to replace or augment treated effluent flows. The issue of on-stream impoundment will also need to be addressed with the Water Master of the Tehachapi-Cummings County Water District (Water Master for Brite Water Adjudicated Basin) prior to construction. It is anticipated that permission for such impoundment will be granted. [33] The primary issue is whether or not Brite Creek is an appropriated stream. In our research with the SWRCB there was no indication of that designation for Brite Creek. Brite Creek is tributary to Caliente Creek which supplies water to the Arvin Edison Water Storage District. When inquiring with that agency, again, there was no indication of such an appropriation.

Ground Water

A third source of water is groundwater. Currently Tehachapi Valley is an adjudicated basin, again under the supervision of the Water Master from Tehachapi-Cummings County Water District, John Martin. John Martin also serves as General Manager of the stated Water District. Several groundwater wells exist in the project area that may have been used in the past and can serve as potential water sources. A pictographic display of the well locations is provided in **Figure 14**. Using well water in the past was a reliable and fairly economical means of filling the lake, as the depth to groundwater is shallow.

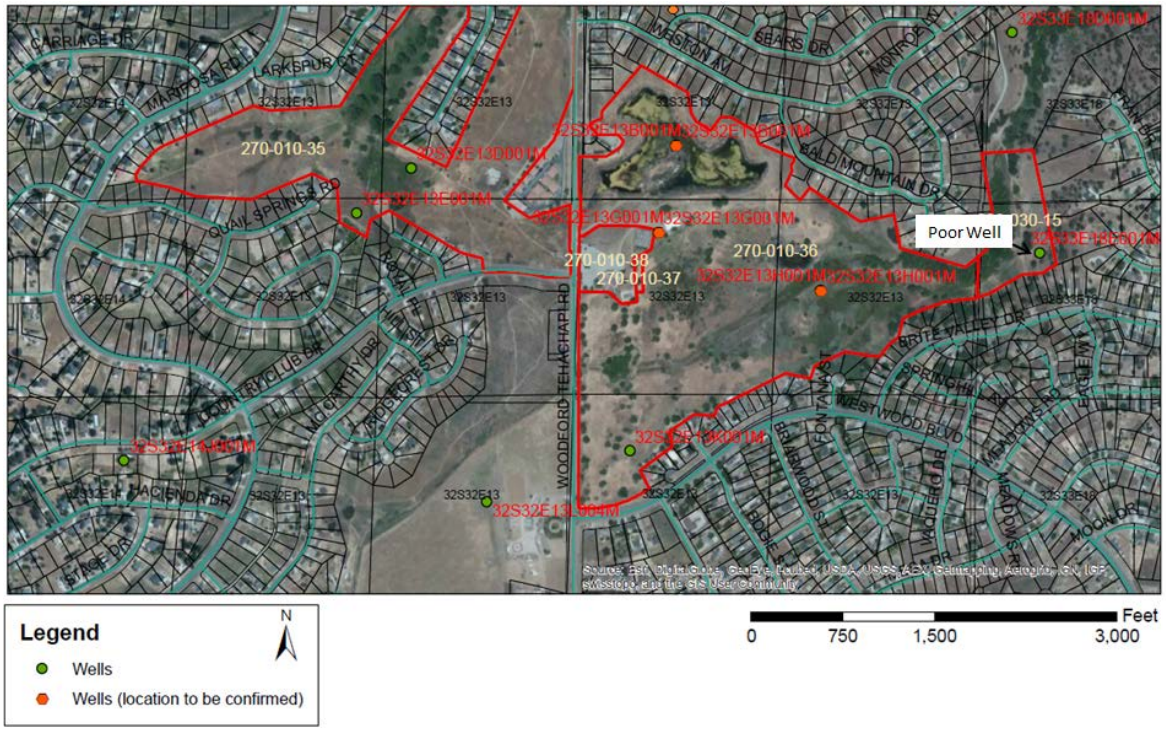


Figure 14 – Groundwater Sources
(The figure shows location of wells within the project area. The wells with confirmed locations are depicted with green dots. The wells with unconfirmed locations are depicted with orange dots.)

[33] Per phone conversation on 21 July 2014 between Bill Black and John Martin (Water Master), on-stream impoundment will be allowed as long as water is not diverted away from the adjudicated basin.

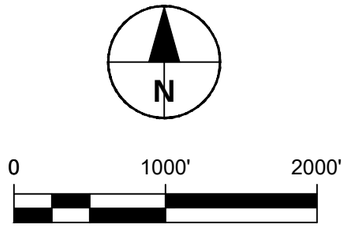
In a phone conversation with John Martin on 21 July 2014, AECOM was told that ground water could be taken from the “Salvage Area” without reducing the allocation of water within the adjudicated water basin for GHCSD. (See **Figure 15** for location of Salvage Area.) It is our understanding that Golden Hills CSD owns and operates a well identified as Poor Well in the salvage area. Poor Well operates for about half of the year (during the warmer months) to serve water to the GHCSD’s water customers and may therefore have capacity during winter months to be used to supply Tom Sawyer Lake. At a flow rate of only 65 gallons per minute, the well is capable of producing more than 50 acre feet per year over a six-month period which is nearly double the volume produced by the existing wastewater treatment plant. Poor Well is located in close proximity to the 6-inch diameter effluent discharge line from the plant to Tom Sawyer Lake, so connection to the well with required backflow devices would be relatively straightforward. According to regulations, however, an air-gap would be necessary to prevent a cross-connection; and since 15-acre feet per year are set aside for existing customers, consideration should be given to construct a new well dedicated to filling Tom Sawyer Lake.

Several options are available for supplying fresh water to Tom Sawyer Lake. The lowest cost option from a construction and O&M perspective appears to be re-establishing the Fountain Lake diversion. Well water appears to be best suited as a reliable dry weather water supply to the lake.

It was noted during all three community workshops that the residents consider Tom Sawyer Lake as an asset and would like to see it preserved and enhanced. It is AECOM’s recommendation, that if additional water, or an alternative water source must be provided to maintain or revitalize Tom Sawyer Lake, it should be for the benefit of the community and that costs for such modification should not be borne solely by sewer service rate payers but rather by the community as a whole.

****





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Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

BRITE CREEK SALVAGE AREA

FIG. 15

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3.0 System Deficiencies

The existing system comprised of the collection, treatment, conveyance and disposal components, was evaluated by AECOM. The results of the evaluation and recommended solutions are included in this section and represent the project need.

The following are descriptions of the existing wastewater system deficiencies along with preliminary opinions of construction cost to address the deficiencies. The intent of the cost opinions is to cover the full cost of each project including planning, permitting, surveying, investigations, design, advertising, construction and construction inspection, site visits by the engineer and construction administration. As a corollary, the intent of each project is to bring each facility to an acceptable standard for a new facility and not merely as a repair or short term maintenance activity. Treating each project equally will also serve as an accurate means to compare alternatives and affect a decision based on equal criteria for every option.

3.1 Collection System

The existing collection system includes gravity mains and the lift station on Woodford Tehachapi Road. Please refer to **Figures 4A** and **4B** for a layout of the existing collection system.

Lift Station Issues: The system has a history of sanitary sewer overflows (SSO's) related to the lift station. Three SSO's were recorded by the GHSC on January 9, 2013, January 31, 2013, and September 13, 2013 and are briefly summarized below. More complete descriptions are included in **Appendix D**.

> January 9, 2013 – Occurred at the intersection of White Pine Drive and Woodford – Tehachapi Rd., estimated volume of 100 gallons and is believed to be caused by a failure of the primary pump at the lift station.
>
> January 31, 2013 – Occurred at the intersection of White Pine Drive and Woodford-Tehachapi Rd., estimated volume of 20 gallons and is believed to be caused due to a failure of the control panel at the lift station.
>
> September 13, 2013 - Occurred at the intersection of White Pine Drive and Woodford-Tehachapi Rd., estimated volume of 50 gallons and is believed to be caused by an interruption of electrical service to the lift station.

According to the Regional Water Quality Control Board, SSO's are classified as a discretionary enforcement action. In a recent conversation with the RWQCB, past incidences of SSO fines have ranged from an enforcement letter to the system all the way to a $1,000,000 fine.[34] Since the GHSC has already had three SSO's occur within the past two years under the new receivership, money should be set aside for any potential enforcement action by the RWQCB. It should be noted that there have been no additional spills since the rehabilitation of one of the pumps in December 2013. The second pump was replaced in October 2014 following the sewer cleaning and video service.
AECOM confirmed the findings of Kern County's evaluation of the existing lift station and agree that a basic rehabilitation is needed to repair the wet well, replace pumps, add a slide rail

[34] The levy of fines will be commensurate with the violation. To date, none of the SSO's generated at Golden Hills would have resulted in a fine of $1 million.

system, upgrade the power and control panel, and clean up the site. These repairs would address immediate but not long-term concerns.

AECOM also looked at two other options; 1) to replace the existing lift station with a new one; or 2) to completely replace the lift station with a gravity main.



Figure 16 – Existing Lift Station

Lift Station. In order to bring the lift station to a "like new" condition so that an apples-to-apples comparison could be made based on a common level of service, AECOM looked at providing a new lift station that would meet with the standards of GHCSD, Kern County, City of Tehachapi or other governance for new construction requirements. Based on the research, a "like new" station would include an emergency generator with fuel storage adequate for three days of operation, a power and control panel with an auto transfer switch, SCADA and auto dialer, all housed in a permanent concrete building structure. The wet well would either be new or a rehabilitation of the existing, and the equipment would be sized for 100% redundancy. The valve vault would be rehabilitated and include new spring-assisted covers, a drain into the wet well and up-to-date safety features. The cost estimate and a sketch of the proposed station layout are located in **Appendix A** and Section 4 respectively. The estimated total cost of a new lift station including design and contract administration is about **$420,000**.

Gravity Main Alternative to new lift station. As an alternative to either repairing or replacing the lift station, AECOM investigated removing the lift station entirely and constructing a gravity main. The existing lift station (**Figure 16**) makes up for about 10 feet of grade difference in the collection system. The station would not have been needed had the initial construction included a deeper main along Woodford Tehachapi Road. If the station is eliminated, and replaced with a gravity main, the new gravity main would be about 3,400 feet long and could be constructed for an approximate total cost of **$685,000** including engineering, surveying and construction administration. The advantage of the gravity main is much lower operations and maintenance expenses and a lower potential for SSO's. Based on the advantages, AECOM recommends removal of the existing lift station and replacing it with a gravity main. A plan and profile of the proposed gravity main is shown on **Figure 17**.

Detailed construction and O&M cost opinions for the collection system are included under **Appendix A** and **Appendix B** respectively.

Gravity Main Issues. Prior to commencement of the study, the entire collection system was assumed to convey flow to the lift station on Woodford Tehachapi Road. From there, the flow

was assumed to pass through a force main and gravity main to the existing plant without any added gravity connections following the lift station.

Based on subsequent field investigations and further research, AECOM found that there are additional major gravity connections beyond the existing lift station. The connections include an 8-inch sewer connection to the 12-inch gravity main that begins on the west side of Woodford Tehachapi Road and terminates at the wastewater treatment plant. This 8-inch main serves the existing motel and was constructed to serve future development behind the motel. A second connection found originates on Bald Mountain Drive immediately west of Debbie Place.

An accurate representation of connections to the gravity main that convey flow to the wastewater treatment plant is needed to determine where the Option 2 lift station should be located. The station will need to be located to intercept all gravity flow to the wastewater treatment plant. If the station connects upstream of the last connection, an additional lift station would be necessary.

AECOM conducted a field review of the existing collection system including the lift station on Woodford Tehachapi Road. Based on initial findings, the collection system does not appear to have been cleaned or maintained for several years. If these issues are left unchecked, they would result in more SSO's and fines for GH sewer system customers. The manner in which sewer customers and the GHSC receiver react to these findings will determine whether this field assessment resulted in the avoidance of future and significant SSO's. Listed below are highlights of the collection system findings:

- The manhole downstream of Tom Sawyer Lake that aligns with the second connection (originating from Bald Mountain Drive and Debbie Place), was filled to within 3-feet of the cover with dirt and roots. If left unchecked, it is likely that these issues will result in SSO's.

- Immediately downstream of that manhole, the sewer crosses Brite Creek. At the crossing, Brite Creek has experienced considerable erosion and it appears that the erosion may have scoured down to the sewer pipeline crossing. If left unchecked, it is likely that these issues will result in SSO's.

- The sewer crosses Brite Creek at another downstream location. At that location one of the manholes could not be confirmed. Basic access to all manholes should be available and any clearing of brush or debris to provide that access should be part of the maintenance activity. If left unchecked, it is likely that these issues will result in SSO's.

- The manhole located near the service building immediately south of Tom Sawyer Lake was filled with cobble-sized rocks. If left unchecked, it is likely that these issues will result in SSO's.

- At the Golden Highlands Community area, there are no manholes-only cleanouts.

- Many of the manholes investigated had root intrusion which will lead to eventual sewer blockages or breaks and result in SSO's. If left unchecked, it is likely that these issues will result in SSO's.

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Filename: S:\KERN COUNTY\603017952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-30_FORCE MAIN.DWG
Project Management Initials: Designer: Checked: Approved: ANSI A 8.5" x 11"

ENGINEERING FEASIBILITY STUDY FOR THE GOLDEN HILLS WASTEWATER TREATMENT PLANT CUSTOMERS

Project No.: 60317952

GRAVITY SEWER PLAN AND PROFILE FROM EXISTING LIFT STATION TO EXISTING G.H. WWTP

AECOM

FIG. 17

Video Survey. Kern County authorized a cleaning and video inspection of the existing collection system as an amendment to the Feasibility Study contract. In September and October 2014, Pro-Pipe performed the cleaning and video service and provided the results to AECOM on October 15, 2014. The purpose of the video survey was to determine the condition of the system and to confirm system configuration.[35] Results of the video inspection are shown graphically on **Figures 18A** and **18B** and recommended remedial actions are shown on **Figures 19A** and **19B**.

The cleaning and video survey confirmed that the last connection to the 12 – inch gravity main is the 8 – inch main that originates on Bald Mountain Drive immediately west of Debbie Place. Therefore, the location assumed for the Option 2 Lift Station will remain the same as determined in the draft report.

During the conduct of the video survey, three maintenance related issues were discovered. The first was that several of the manholes had been paved over which resulted in extra work needed to locate and expose the manholes. The second issue was that ready access to all manholes in the Brite Creek area was not available without clearing with chainsaw and heavy equipment. The third issue was that within the Golden Highlands gated community, there were no manholes - rather a series of chimneys for sewer main access.

Ready access to sanitary sewer manholes is a must and needs to be a priority to any governance that will operate the system. The first maintenance issue was a result of prior management not adjusting manholes to grade following overlaying activities. It is the responsibility of the utility and not the County, to assure access to their facilities following an overlay. Currently this responsibility, along with the operations and maintenance, resides with the Receiver. With regard to clearing an access-way to manholes within the Brite Creek area, again this was an issue inherited by the Receiver, but is also an issue that needs to be addressed. Access to all manholes is essential for operating a sewer system.

Within the Golden Highlands gated Community, ready access to all lines is important. The video crew could not access all of the lines due to the inability of locating the respective cleanouts. Therefore, the survey does not include all of the lines within the community. AECOM recommends installing manholes to provide for ready access and maintenance of the system in the future. **Figure 19B** displays the proposed placement locations of manholes needed (27 total new manholes).

[35] System Configuration is needed because the available information does not accurately show pipe sizes or where all sewer mains inter-connect. In order to provide a more in-depth evaluation of the system, the configuration and mapping of the system needed to be better defined.

MATCH LINE - SEE EXHIBIT 2

WHITE PINE DR.

LIFT STATION

FORCE MAIN

WOODFORD TEHACHAPI RD.

SEARS DR.

WESTON AVE.

MONROE LN.

BALD MTN. DR.

BRITE CREEK

TOM SAWYER LAKE

MANHOLE LOCATIONS NOT VERIFIED, TYP

WASTEWATER TREATMENT PLANT

OPTIONS 1 & 2

OPTION 1

OPTIONS 1 & 2

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LEGEND

- GRAVITY SEWER PIPING
- FORCE MAIN
- SEWER RUNS NOT VIDEOED OR CLEANED
- 414 MANHOLE AND MANHOLE NUMBER
- 11 CLEANOUT AND CLEANOUT NUMBER
- LATERAL TAP FACTORY MADE / CAPPED
- LATERAL TAP BREAK-IN / CAPPED
- DEPOSITS ATTACHED GREASE/SETTLED FINES/GRAVEL
- SAG IN PIPE
- FRACTURE IN PIPE
- JOINT SEPARATION
- TREE ROOT INTRUSION

0 150' 300'

N

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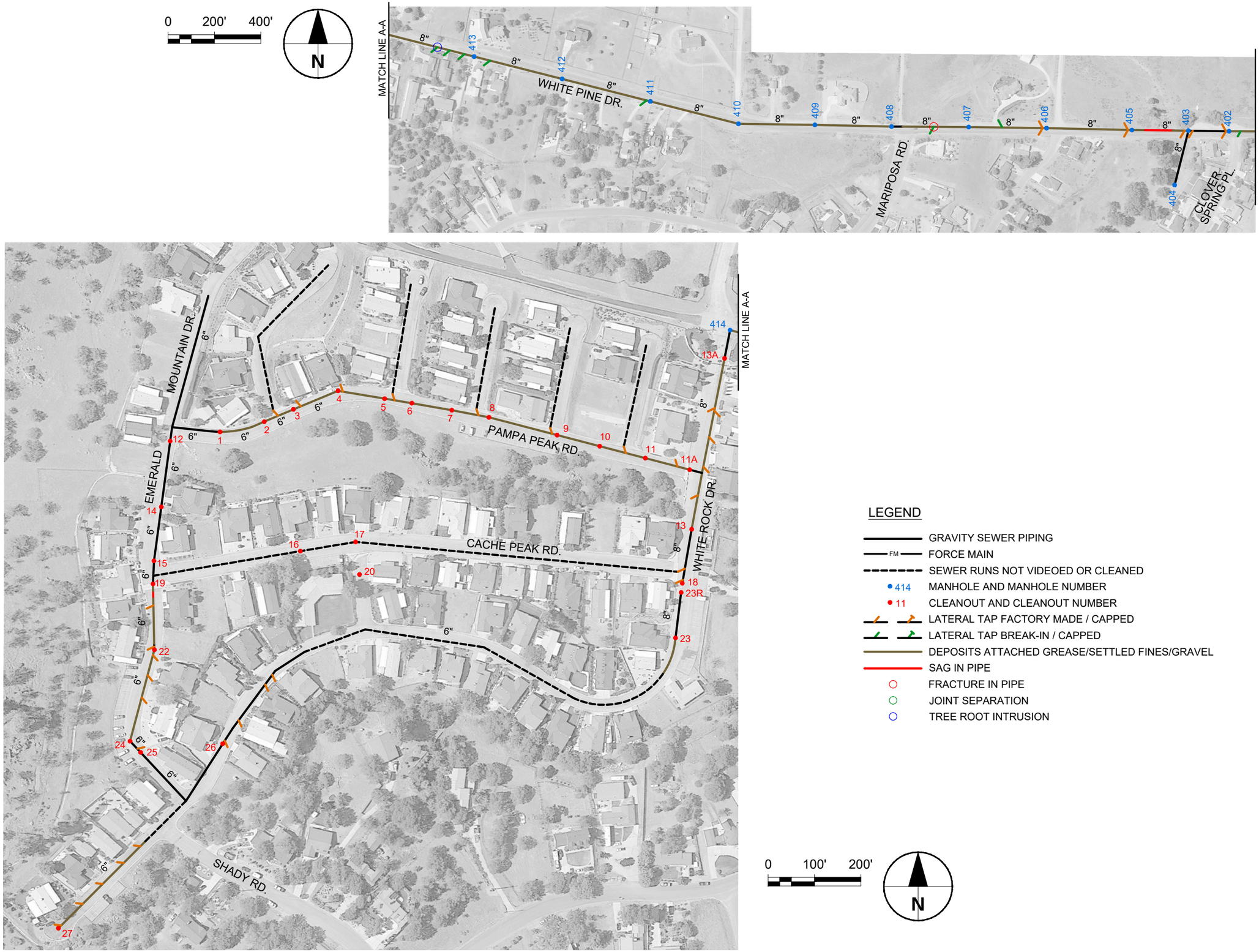
Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

EXISTING SEWER FACILITIES IDENTIFIED PROBLEMS

FIG. 18A

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PROJECT

Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

EXISTING SEWER FACILITIES IDENTIFIED PROBLEMS

FIG. 18B

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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-18_19_EXIST SEWER CLEANING.DWG

MATCH LINE - SEE EXHIBIT 2

WHITE PINE DR.

LIFT STATION

FORCE MAIN FM

WOODFORD TEHACHAPI RD.

WESTON AVE.

SEARS DR.

MONROE LN.

BALD MTN. DR.

BRITE CREEK

TOM SAWYER LAKE

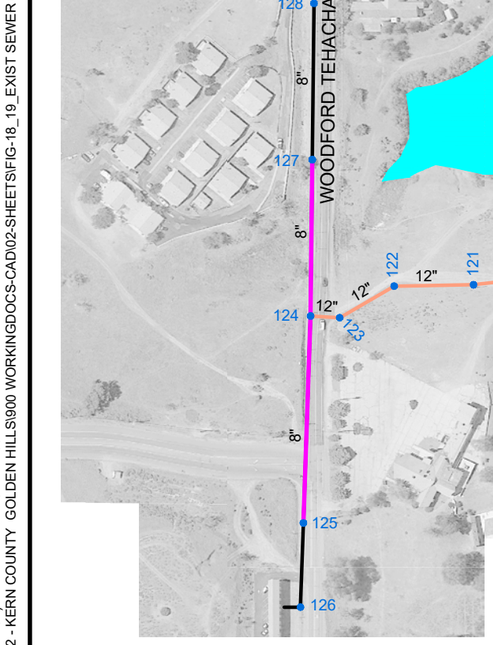
MANHOLE LOCATIONS NOT VERIFIED, TYP

WASTEWATER TREATMENT PLANT

OPTIONS 1 & 2

OPTION 1

OPTIONS 1 & 2



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LEGEND

- GRAVITY SEWER PIPING
- FM — FORCE MAIN
- SEWER RUNS NOT VIDEOED OR CLEANED
- 414 MANHOLE AND MANHOLE NUMBER
- 11 CLEANOUT AND CLEANOUT NUMBER
- PROPOSED NEW SEWER PIPING
- PROPOSED NEW MANHOLE
- EXISTING SEWER PIPING TO BE CLEANED
- TREE ROOT GRINDING

COLLECTION SYSTEM REPAIR & REPLACEMENT QUANTITIES

	OPTION 1	OPTION 2
12"	610'±	0'
8"	1830±	1830'±
6"	585'±	585'±
MH	27	27

PIPE CLEANING QUANTITIES

	OPTION 1	OPTION 2
12"	2530'±	1375'±
8"	6180'±	6180'±
6"	2145'±	2145'±

0 150' 300'

N

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PROJECT

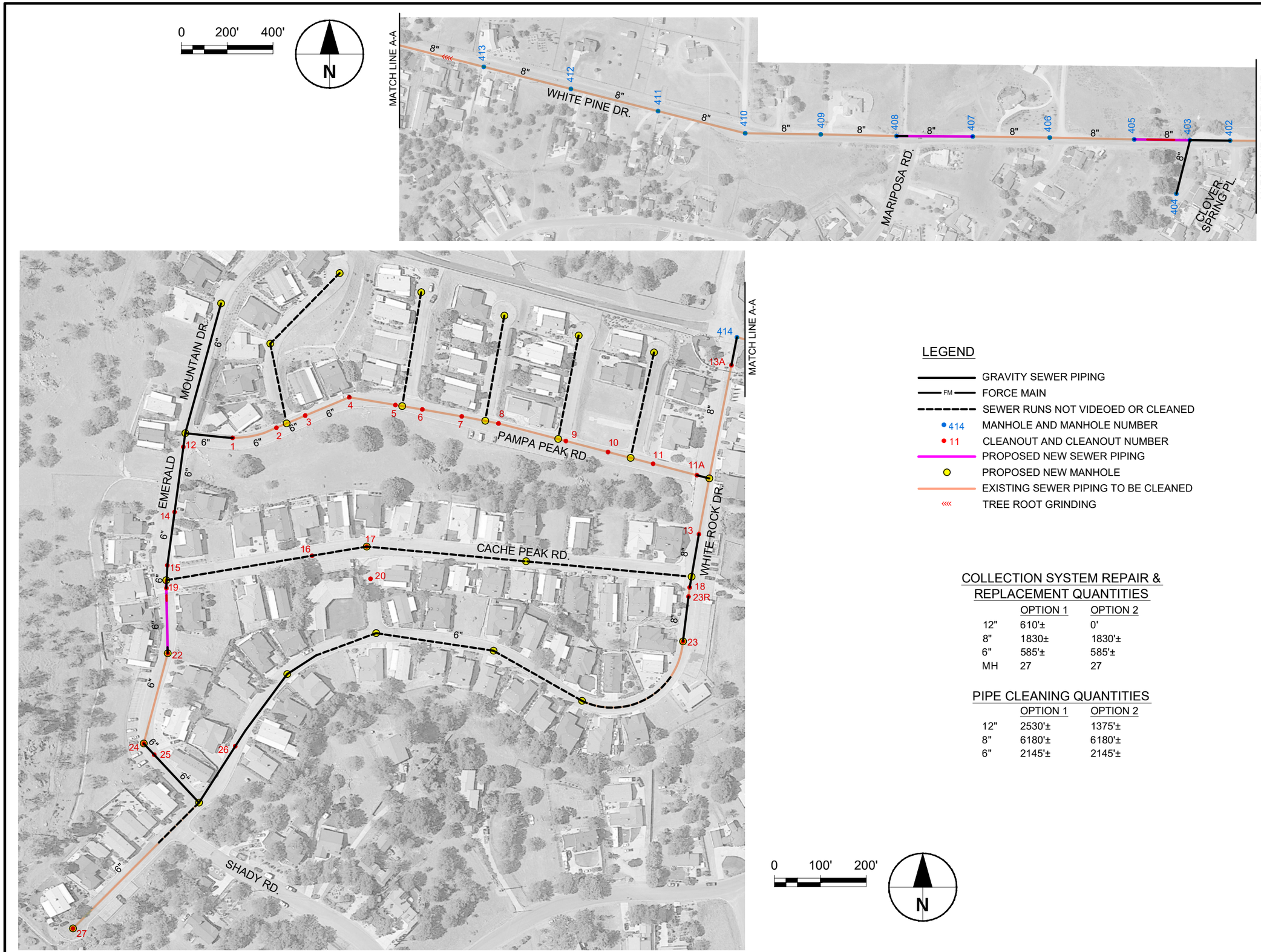
Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

EXISTING SEWER FACILITIES PROPOSED SOLUTIONS

FIG. 19A

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LEGEND

- GRAVITY SEWER PIPING
- FM FORCE MAIN
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COLLECTION SYSTEM REPAIR & REPLACEMENT QUANTITIES

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Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

EXISTING SEWER FACILITIES PROPOSED SOLUTIONS

FIG. 19B

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A management issue of the Golden Highlands system was identified during the study. While Golden Highlands is a private gated community with privately maintained roads, grounds and water system, each dwelling unit within the community is a separate and distinct customer of GHSC. Compounding that are two connections uphill of Golden Highlands that are connected to the Golden Highlands sewer main system. This has potential of becoming problematic to new governance in managing the system. If, for example, sewer bills are not paid, a remedy could be to discontinue water service. For the Golden Highlands community, which is served by a single water service, this remedy could not be used. It would also be very difficult to transfer ownership of the pipelines to Golden Highlands Community Home Owners Association (HOA) with the offsite sewer service. Furthermore, since the community is gated and the streets are private, there could be added liability of possible lack of access and damage to the private roads.

For these reasons, AECOM recommends that prior to transferring operation of the GHSC system to new governance; Golden Highlands must provide easements over all of the internal collection system to the Golden Hills Sanitation Company so that if maintenance activities are required, GHSC or the new governance will have legal access to the mains. It is also recommended that sewer service be collected as part of the property tax instead of monthly or bi-monthly collections. This will provide the governance with enforcement actions in the event of non-payment and also minimize the administrative costs related to sewer service fee collection.

Video Results. The field work for the video survey was completed in September 2014 and the results were provided to AECOM in mid-October. Please refer to **Appendix I** for the written sewer video report. An electronic copy of the survey is available at Kern County Engineering Survey and Permit Services Department. Prior to running the video camera, Pro-Pipe cleaned the system twice for the purpose of enabling an accurate video survey. Complete “deep” cleaning was beyond their scope of services and would actually misrepresent the purpose of the survey which was to locate system deficiencies.

The video survey identified several deficiencies in the system that will require attention in the very near future. If the deficiencies are not corrected or addressed, it is likely they will lead to SSO’s. Those deficiencies included:

1. Deposits of grease, settled fines and gravel;
2. Sag in the pipe;
3. Fracture in the pipe;
4. Tree root intrusion;
5. Joint separation; and
6. Laterals tapped to the main without a wye.

The remedy for deficiencies 1, 4 and 6 is to order a thorough cleaning and to follow up with a flushing program and more frequent video surveys. These areas need to be monitored closely as they could fail in the near future. Deficiencies 2, 3 and 5 are failures in the pipe and require reconstruction. Please refer again to **Figures 18A** and **18B** for sewer video results and to **Figures 19A** and **19B** for the recommended actions.

It should be noted that the cost of recommended actions was different for Options 1 and 2. Option 1 included more than 3,000 linear feet of additional 12 - inch sewer, all within the Brite Creek area, and of that, 600 feet is recommended for replacement. The costs for rehabilitating the existing collection system are estimated at $1,104,000 for Option 1 and $1,022,000 for Option 2. Please refer to **Appendix A** for additional cost opinion detail.

3.2 Treatment System

The existing treatment system (See **Figure 20**) is about 30 years old and has suffered in the past from lack of consistent maintenance. The typical useful life of wastewater treatment equipment and facilities is about 10 to 20 years for mechanical (moving) equipment and 30 to 50 years for structures (depending on material, environment, and how the structure has been maintained) before significant repairs and or replacement are required. Additionally, only one of the two existing treatment trains is operable due to lack of funding.

Critical treatment facilities require replacement; therefore, the addition of a second unit (e.g., tertiary filter) is necessary to insure continuous and uninterrupted service as well as the replacement of the existing filter which has been out of service since the beginning of this study. Many of the other facilities such as the hypochlorite pump and blowers have no backup and thus must operate continuously for the WWTP to be in compliance (in addition to providing the ability for automatic switch over).[36] Redundant units specific to critical facilities/equipment are necessary, and often required by regulations such as Title 22, to ensure continuous and uninterrupted wastewater service, as well as to provide the ability for operators to take a specific facility or piece of equipment out of service for routine maintenance.



Figure 20 – GHSC WWTP

AECOM conducted a review of the existing wastewater treatment plant on several occasions, to assess the needed repairs and rehabilitation required for continued operations in the future. We have confirmed the work described previously by Kern County and concur that that work would be required to address immediate issues to keep the wastewater treatment plant operational. We also looked at the plant from a long-term perspective to operate in the current regulatory environment and highlighted the recommendations below.

Costs for these recommendations are itemized in **Appendix A** and are based on all recommended plant remediation work being accomplished under a single contract by a licensed California contractor. Therefore the costs below represent costs from the estimate that includes contingencies or soft costs associated with engineering, inspection or contract administration. Please refer to the construction cost estimate in **Appendix A** for the total cost of the wastewater treatment plant project.

[36] The lack of redundant or backup equipment has been problematic for past operation of the plant.

Headworks

The existing headworks system (**Figure 21**) does not have an automatic bar screen or a redundant manual unit to remove screenings and other large materials such as rocks or items of clothing that could damage downstream processes. The plant does not have a means of accurately measuring influent flows. Furthermore, the concrete appears to be in a state of disrepair as shown in **Figure 21** and **Figure 22**. It is recommended that the headworks be upgraded to include a structure that houses one automatic bar screen (1/4 to ½ inch openings), one manual (bypass) screen, and a flow measuring device such as a Parshall flume or influent sewer magnetic flow meter. Routine maintenance of these units includes daily wash-down and cleaning of the entire structure and screens, as well as routine (e.g., annual) calibration of the influent flow measuring device.



Figure 21 – Headworks

The grit chamber needs to be rehabilitated by relining the concrete and providing a new cover. AECOM recommends $77,000 be budgeted for the improvements described above.

General Concrete Restoration

During our site visits, several of the concrete surfaces (**Figure 22**) were noted as being in a state of disrepair. Though most of the disrepair was at the east end of the first treatment train, it was apparent that the problem was migrating westerly and needed to be addressed. Listed below in **Table 3** are the surface area dimensions used to calculate the areas to be rehabilitated:



Figure 22 – WWTP Concrete Surfaces

Table 3

Wall Dimensions and Surface Area to be Rehabilitated

Type	Number of Wetted Faces	Length (ft.)	Width (ft.)	Height (ft.)	Angled (ft.)	Subtotal (sf)
A	4		38	14.67		2,230
B	4	63		14.67		3,695
C	20		19	14.67		5,575
D	2	63	38			4,790
E	32	6			6.3	1,210
F	1					
Total						17,500

Table 3 – Wall Dimensions and Surface Area to be Rehabilitated

Our experience gained from similar projects, indicates that the costs associated with restoring concrete surfaces is in the range of $50 to $100/sf depending on severity. Assuming all concrete needs to be rehabilitated, the cost is expected to be in the $875,000 to $1,750,000 range. Based on the field evaluation, however, most of the concrete appeared to be sound condition and that approximately 6% of the concrete would need to be rehabilitated if the work was done within a relatively short timeframe (3-5 years). It is best and more cost effective to address concrete rehabilitation prior to advanced deterioration. AECOM therefore recommends a minimum of $155,000 be budgeted for concrete rehabilitation to account for the aeration basin/clarifier and other concrete structures.

Activated Sludge Equipment Rehabilitation

The plant operators identified deficiencies in the plumbing and equipment used for processing activated sludge and received a quote to provide the replacement parts from Noreweco. The recent “Norewco” plumbing/equipment package quote provided for the existing wastewater treatment plant was $81,000. This quote does not include freight or installation. A rule of thumb for developing planning level estimates is that the complete installation of equipment costs about 2.5 times the equipment costs for public municipal bid contractors. Based on this approach, it is estimated that approximately $200,000 is required to replace the existing plumbing and equipment associated with the activated sludge, sedimentation, and digester process. With contingencies, engineering and other soft costs included, the recommended budget to rehabilitate the activated sludge equipment is approximately $310,000.

Above Ground Piping Replacement

We recommend an allocation of $8,000 be provided for above-ground piping (**Figure 23**), valves, instrumentation, etc. used to convey raw wastewater to the overflow ponds.



Figure 23 – Above Ground Pipe Replacement

Building Modification and Repair

Based on field evaluations by AECOM, it was determined that with continued and aggressive maintenance, the existing building should last for another 20-30 years. It is currently somewhat cramped for space and it is AECOM's opinion that if the emergency generator was relocated outside the building that space requirements would be met (e.g. room for a second filter, pump, table, etc.) Improvements will need to be made to the building and roof to better serve the operator.



Figure 24 – Building Modification and Repair

An example of a building improvement is the chemical room used to store and meter sodium hypochlorite. Kern County correctly identified this as an issue and recommended remedial work to correct it in terms of immediate actions. In terms of building requirements, however, the room (**Figure 24**) will need to be expanded, ventilation will need to be added, two metering pumps will be required (one duty, one standby), and a larger sodium hypochlorite tank will be needed with secondary containment. These changes will result in the need for more space and a significant modification to the building.
Other work will include painting to bring the building to near new condition. Building modifications and roof repair costs can range between $50 and $100/sf depending on materials. We recommend a minimum of $62,000 be allocated for building modifications and roof rehabilitation.

Emergency Generator



Figure 25 – Emergency Generator

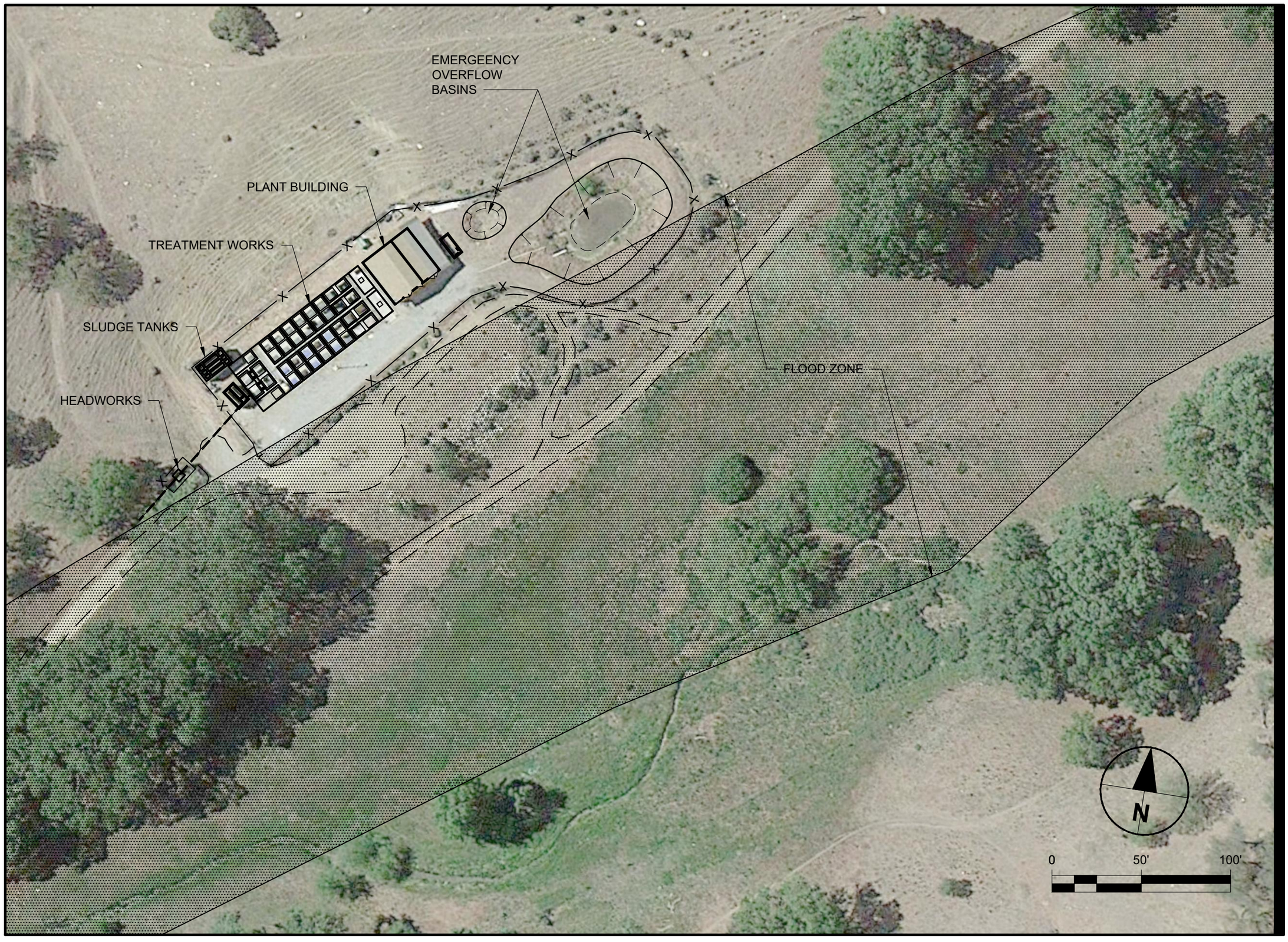
The existing 75 kilowatt (kW) emergency generator (**Figure 25**) was placed into service close to 30 years ago and is currently in the plant office collocated with the operations staff. The generator controls were identified as being in a state of disrepair and the generator did not have a large enough fuel tank to support a three-day emergency event. We recommend budgeting for replacing the generator with one that is set up for outdoor operations. We recommend a minimum of $62,000 be allocated for the purchase of the generator with a weather resistant enclosure, new controls, automatic transfer switch, concrete pad, and site and electrical work needed for the reconfiguration. The generator could be relocated outside of the building at the northeast corner. A new generator will require a new APCD permit.

Improvements needed to address flooding

A portion of the wastewater treatment plant is shown on the Flood Insurance Rate Map (FIRM) as located in the 100-year floodplain (**Figure 26**). In a discussion with Aaron Leicht, PE Supervising Engineer for Kern County[37], he confirmed that the Kern County GIS shows the wastewater treatment plant and plant building out of the floodplain and that no mitigation for the plant would be necessary. In terms of the emergency overflow basin, which would be necessary to comply with current Title 22 regulations, the 100-year floodplain maps show a portion of it lying within the floodplain. Therefore the emergency basin must be modified and moved outside of the floodplain, and the map updated if the RWQCB requests proof that the wastewater treatment plant and all of its necessary components are located outside of the 100-year floodplain. The use of the emergency pond would also need to be approved by the RWQCB.

In a subsequent documented E-mail from Mr. Leicht, it was confirmed that if the basin is shifted closer to the hillside so that no portion is within the floodplain, regulatory requirements would be satisfied. The recommended improvements therefore will include relocating that basin completely outside of the flood zone. This could involve construction of earthen improvements between the basin and flood zone for protection. That work would be included during design and construction of the recommended improvements and is not within the scope of this study.

[37] Phone conversation 11 July 2014 between Aaron Leicht and Bill Black regarding the location of the existing Golden Hills wastewater plant in the 100-year floodplain.



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Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

100 YEAR FLOOD PLAIN

FIG. 26

Last saved by: GHILARDUCCID (2014-08-19) Last Plotted: 2014-11-04
Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-26_FLOODPLAIN.DWG

Emergency Overflow Basin

The emergency overflow basin located downstream of the plant may require lining in addition to relocation as previously discussed. The estimated cost of addressing the overflow basin includes lining the pond with 60-mil HDPE lining material. We recommend that $100,000 be allocated to relocate the basin out of the flood zone and to provide lining.

Other Items

The following is a listing of other recommended equipment and improvements. These improvements are necessary to provide redundancy and continuous monitoring of the treatment process:

Instrumentation and control- $39,000
Utility Improvements - $23,000
Cover replacements with aluminum - $46,000
Eyewash - $8,000
SCADA software replacement - $20,000
Redundant effluent pump - $15,000
Add second tertiary filter and piping- $100,000
Site work (security, lighting, etc.) - $15,000
Sludge Handling - two new blowers - $30,000

A detailed construction cost estimate for the treatment system is included in **Appendix A**.

3.3 Transmission System

Following treatment at the plant, the system pumps treated effluent to Tom Sawyer Lake using one 7.5 horsepower pump through approximately 5,000 feet of 6-inch main. The system appears to be functioning; however one of the noted deficiencies is the absence of a second pump. If this pump were to become inoperable, there would likely be significant consequences given the inability to automatically route flow to another location besides Tom Sawyer Lake and limited storage in the flow equalization basin. The transmission pipeline follows the 12-inch gravity line alignment and therefore may experience some latent issues where it crosses Brite Creek. Due to the low volume of effluent, such a defect could go unnoticed for a long period of time. AECOM recommends routine quarterly inspection of the pipeline and treated effluent pump operation (e.g., recording discharge pressure and horsepower draw) to assure proper operation. Plant operators should see a change in pump operations (i.e. lower or high pressure) if there is a leak or break, or if the line is blocked.

A construction cost estimate for the transmission system is located in **Appendix A**.

3.4 Disposal System – Tom Sawyer Lake

The existing wastewater treatment plant disposes treated effluent into Tom Sawyer Lake. The original plan for effluent disposal included blending the treated effluent with surface water from Brite Creek to irrigate the golf course. Blending in this manner and using mixed water for irrigation is ideal for maintaining reasonable concentrations of total dissolved solids in the lake water. Unfortunately, irrigation of the golf course stopped in 1992, and in 1997 a storm washed out the earthen diversion structure (Fountain Lake) on Brite Creek that was used to divert water into Tom Sawyer Lake.

The earthen structure and other facilities once used by the golf course operators to provide fresh water to the lake (Fountain Lake, Recovery Pond, water wells and the Willow Trees Apartment culvert) are in disrepair. Consequently, the only steady source of water into the lake since 1997 has been treated effluent from the wastewater treatment plant. Over time the lake has accepted the effluent and has had no means of discharge. Consequently, the water in Tom Sawyer Lake has become stagnant, continues to increase in concentration of minerals and TDS, and infiltrates into ground water.

Many of the violations listed in the next section are due to odors which are a result of stagnant water conditions in Tom Sawyer Lake. Improvements at Tom Sawyer Lake will be required regardless of the option selected to avoid future odor issues.

On May 29, 2014, AECOM tested the water and sediments at Tom Sawyer Lake, treated effluent entering the lake, and the potable water serving Golden Hills Community for metals and TDS. The soils and water samples were taken at four distinct locations around the lake. The treated effluent was sampled directly from the discharge pipeline. The potable water sample was taken from a sampling spigot within the water distribution system. The results of the tests are listed below[38]:

1. No metals exceeded standards for aquatic habitat in either water or sediments.

2. TDS Results

a.	Potable Water	0.30 parts per thousand	300 mg/L
b.	Treated Effluent into Lake	0.70 parts per thousand	700 mg/L
c.	Lake Water	7.00 parts per thousand	7,000 mg/L
d.	Sediments	12.00 parts per thousand	12,000 mg/L
e.	Seawater for comparison	35.00 parts per thousand	35,000 mg/L

The results indicate the following:

1. High Salt load to lake – No standards to judge against.

2. Sediments appear to be uncontaminated except for excessive salts. High salt loading can be problematic for groundwater.

3. Further testing may be needed to prepare a future mitigation plan.

4. Vibrant wetlands community, but periodic eutrophication and anoxia.

[38] Refer to **Appendix H** – BSK Work Order A4E2456, dated June 13, 2014.

The recommended mitigation measure is to bio-remediate the lake with the following activities:

- Put recycled water, surface water and/or ground water into the lake to reduce/eliminate the concentrations of identified nutrients by diluting the existing concentration levels.[39]

- Take water from the lake to create a flow-through rather than stagnant condition and thereby reduce concentration levels of nutrients and salts.

- Selectively "harvest" wetland plants to remove salts and nutrients.

- Water taken from the lake to create the flow-through condition can be used for irrigation purposes may eventually be used for irrigation of not only grass but perhaps a community garden.

By following this procedure, the adverse impacts will eventually be reduced to negligible levels.

3.5 Regulatory Compliance Issues

The GHSC has a history of documented regulatory compliance issues and enforcement actions. Most of these violations occurred before the receiver took over operations. A complete list has been provided below in chronological order.

Golden Hills Sanitation Company – Violations Timeline (Accounting for violations since 2000)

- January 18, 2000 – Requirement of Californian Regional Water Quality Control Board (CRWQCB) that by November 14, 2000 a technical report be submitted documenting flow meter calibration and including any missing monthly monitoring data.

- June 21, 2000 - Notice of Violation by CRWQCB regarding illegal discharges of disinfected plant effluent, odor and vector problems, and oxygen deficient conditions in Tom Sawyer Lake.

- June 14, 2001 - Notice of Violation by CRWQCB for nuisance odor conditions. Requires a technical report by July 5, 2001 describing the measures that GHSC plans to implement to abate the nuisance odor conditions.

- July 3, 2001 - A Cleanup and Abatement Order by the California Environmental Protection Agency following frequent unauthorized waste discharges into a pond authorized only for emergency use and requiring two reports related to finding a permanent solution to the odor and nuisance problems of Tom Sawyer Lake.

- December 19, 2001 – Notice of Violation issued by CRWQCB in regards to an onsite inspection of the GHSC WWTP on November 6, 2011.

[39] Recycled water specifically would come from the existing wastewater plant if Option 1 is used. If only wastewater is used and recommendations for flow-through are followed, the lake would experience intermittent periods of being dry since water pumped out would remove more water from the lake than the lake experiences with evaporation alone. In order to keep the lake water at a reasonable level, additional sources of water will be needed such as ground water and surface water. This will be the case if either option is implemented. All sources of water added to the lake would enhance the lake and therefore would serve as a community asset.

- April 29, 2003 - Notice of Violation issued by CRWQCB for Self-Monitoring Reports (SMRs) that have not been submitted or are grossly inadequate.

- June 29, 2004 – Notice of Violation issued by CRWQCB in regards to an inspection made of the Golden Hills WWTP on February 23, 2004 and summarizing unresolved issues since the previous inspection report.

- July 7, 2004 - Stipulated agreement between Golden Hills Sanitation Company and AB Land Company, as a result of a Civil Nuisance Action by the Kern County District Attorney's Office, to dilute the effluent sent to Tom Sawyer Lake, aerate the lake, and irrigate the golf course grounds.

- September 22, 2004 – Notice of Violation from CRWQCB to AB Land Development, Inc. requiring a technical report by November 5, 2004 containing documentation to remediate salts present in Tom Sawyer Lake and to prove why Tom Sawyer Lake qualifies as a man-made lake.

- October 18, 2004 - Letter from CRWQCB's Executive Officer to GHSC requiring a Report of Waste Discharge be submitted by December 20, 2004 regarding WWTP repairs/upgrades and technical analyses of treatment and disposal operations.

- August 3, 2005 - Notice of Violation issued by CRWQCB to GHSC for violations of Waste Discharge Requirements (WDRs) resulting from the spill of untreated sewage from a collection system manhole. Required a technical report be submitted by September 5, 2005 outlining actions to be taken to prevent future spills.

- July 14, 2008 - Notice of Violation issued by CRWQCB to GHSC for failure to submit a signatory statement, failure to submit self-monitoring reports timely, and exceeding the maximum discharge limit for total coliform organisms.

- February 5, 2009 – Raw sewage discharge from a manhole at the intersection of White Pine and Mariposa was reported to the CRWQCB by GHCSD.

- February 24, 2009 - In a letter to the Kern County Environmental Health Services Department, GHSC admits to pumping storm water that had accumulated in an emergency pond onto GHCSD property.

- July 6, 2010 - Notice of Violation issued by CRWQCB to GHSC and AB Land Co. for violation of Cleanup and Abatement Order and Waste Discharge Requirements. Two reports are noted to be delinquent: (1) a technical report due 16 July, 2001, describing measures implemented to permanently abate nuisance odor conditions created by discharges to Tom Sawyer Lake; and (2) a technical report due 30 July 2001, identifying specific permanent measures and a schedule of implementation. A review of SMRs for the period 1 January 2007 through 31 August 2009 determined 65 violations.

- July 14, 2010 - Email from GHSC to CRWQCB in response to Notice of Violation issued on July 6, 2010.

- July 21, 2010 - Letter from CRWQCB to GHSC & AB Land Co. noting lack of compliance with Cleanup and Abatement Order (CAO).

- July 22, 2010 - Letter from CRWQCB to GHSC advising of change in reporting schedule.

- August 12, 2010 - Letter from attorney for AB Land to CRWQCB arguing that the problems associated with Tom Sawyer Lake are the responsibility of GHSC.

- October 12, 2010 - Email from CRWQCB to GHSC advising GHSC of $3.3 million fine (civil liability).

- October 25, 2010 – Letter from CRWQCB responding to the Sanitation Company's apparent intent not to fulfill its obligations to address the Cleanup and Abatement Order to permanently resolve the issues surrounding Tom Sawyer Lake. The CRWQCB indicated that a fine of $3.3 million could be imposed for failing to comply.

- March 3, 2014 – Notice of Violation from the CRWQCB to Clifford Bressler detailing an inspection of the Golden Hills WWTP facilities that took place on August 9, 2013 to determine compliance with WDR 81-122.

- Of the violations listed above only Clean up and Abatement Order R5-01-717 issued on July 3, 2001 that required the discharger to submit two technical reports, one describing the measures implemented to permanently abate nuisance odor conditions created by discharges to Tom Sawyer Lake, and the other identifying specific permanent measures and a schedule for the implementation of measures that would ensure long-term compliance with WDR R4-81-122 has not been met as of August 1, 2014 and the CAO remains in effect.[40] Due to the significant progress made on correcting outstanding issues, the Board is considering a rescission of the Order.[41]

Development of a plan for improvements to the existing WWTP facilities for Option 1 will need to address the violations and bring the facility into compliance with the WDR's and CAO. More importantly, and due to the long list of documented compliance issues, it is likely that the RWQCB will scrutinize and pay special attention to the recommended option and its proposed form of governance. It is, therefore, imperative that a long-term regulatory compliant option be recommended in this report; otherwise, the RWQCB may take it upon themselves to do so.

3.6 Previous Attempts to Raise Sewer Rates

Prior to abandoning service, GHSC proposed a three-year successive rate increase to the monthly service rates to cover insufficient revenue for plant and collection operation (see **Table 4** below). The GHSC is operating under an interim increased rate which an adjusted rate is being evaluated by the CPUC. Subsequently a receiver, Clifford Bressler, was appointed in March 2012 to maintain ongoing critical sewer service to the community. Under Mr. Bressler's direction, service has been provided at no rate increase. However, additional funding sources are being sought to cover the costs of major maintenance and equipment needs, and for future projects such as the Tom Sawyer Lake remediation.

[40] Per Conversation with Daniel Benas (RWQCB) on August 1, 2014
[41] Regional Water Quality Control Board (RWQCB) comments on September 4, 2014 AECOM Draft Golden Hills Wastewater System Preliminary Engineering Report (PER)/Feasibility Study.

Table 4
GHSC Proposed Cost Increases
(Denied by CPUC Prior to Receivership)

Connections	Sewer Service Class	Year 2012 Monthly Rate Per Connection	Year 2013 Monthly Rate Per Connection	Year 2014 Monthly Rate Per Connection
142	Single Family Residence	$127	$197	$266
22	Apartment	$116	$179	$243
4	Hotel	$124	$191	$258
87	Service	$22	$34	$46
Total = 255				

Table 4 – GHSC Proposed Cost Increases

3.7 Funding Issues

Although basic treatment operations are currently being performed under management of the receivership, current revenues have been insufficient to cover the receivership's operating, administrative and maintenance costs. If vacant properties connected to the system were developed, expenses could be spread over more property owners thereby lowering the effective rate per parcel. The Golden Hills Collection System serves 145 existing vacant sewer connections available for development[42]. However, build-out of these lots is not expected to occur in the near future.

Many of the GHSC's costumers are on low fixed-income budgets and the community has been designated as economically disadvantaged. Accordingly, there is a desire to develop in the most cost effective alternative for providing wastewater collection, treatment, and disposal to existing GHSC sewer system customers. All funding for operating the wastewater treatment plant currently comes from sewer service customer fees and the fees would need to be increased significantly to cover all proposed expenses. An external funding source for the capital projects shown within this report will be necessary. Possible funding sources are discussed later in this study.

****

[42] Refer to Tables 1 and 2, Existing and Future Connections, respectively of this report.

4.0 Wastewater System Alternatives

This Section describes the two options proposed for the Golden Hills Wastewater System.

4.1 Option 1 – Continued Operations

4.1.1 General

As previously stated, Option 1 is presented under three governance alternatives as described below:

Option 1 – Continued Operations of Existing Wastewater System

- Option 1A – Operations and Maintenance by Kern County
- Option 1B – Operations and Maintenance by Golden Hills CSD
- Option 1C – Operations and Maintenance by a Contractor under Golden Hills CSD or Kern County

The construction costs would be the same for each option, however there would be differences in costs for Operations and Maintenance and for easement acquisition.

This option (See **Figure 28**) is based on continued operations of existing wastewater system as it currently exists and includes the related collection, treatment, transmission and disposal improvements necessary to make a complete and viable solution. Under this option, rehabilitation of the existing collection system, plant, transmission pipeline, and disposal systems must be addressed. In addition, an irrigation system and additional water source are needed to improve water quality in Tom Sawyer Lake. The construction work identified will require an environmental review in conformance with the California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA) if federal grant funding is obtained. There are several reasons why this option should begin with a completely rehabilitated collection system, plant and disposal system:

- It increases the potential that one of the governance alternatives would be willing to accept or purchase the asset.
- For purposes of comparing Options 1 and 2, plant operations moving forward should be with a plant that is in “near new” condition. This allows for an equal comparison between the two options with respect to the level of service.
- If grant money is available for this option, it would be wise to begin with a refurbished plant to the extent reasonably needed rather than defer refurbishment until there is an emergency. This will also lower monthly service payments required for inclusion in a reserve fund.
- Although the WWTP is still in operating condition, additional proposed steps for rehabilitation have been given due to the concern regarding potentially costly improvements after the new governance has taken over.

AECOM’s recommendation is therefore, that the rehabilitation work be done immediately with Option 1.

4.1.2 Collection Facilities

For either Option 1 or 2, the condition of the collection facilities will need to be addressed in a similar manner. The collection system includes gravity mains and a lift station (See **Figures 4A** and **4B**). AECOM evaluated the collection system and prepared preliminary construction cost opinions to address the gravity mains and lift station. For the lift station AECOM looked at either refurbishing the lift station or replacing it with a gravity main and recommended that the gravity main be implemented. Detailed construction cost estimates for the collection system may be found in **Appendix A**. Operations and Maintenance cost opinions may be found in **Appendix B**.

4.1.3 Rehabilitation of Existing WWTP

A description and an assessment of the existing wastewater treatment plant are provided in Sections 2 and 3 of this report. Cost opinions for construction and O&M are under **Appendices A and B** respectively. The O&M estimate includes a budget for repair and replacement of moving equipment recommended by USDA, but that part of the estimate does not include a reserve fund. AECOM added a reserve fund to set aside money for maintenance, repair or replacement of the permanent facilities (building and concrete structures). AECOM reviewed budgets of well managed wastewater treatment systems of similar size and found that reserve funds were being maintained for that purpose[43].

4.1.4 Transmission Line from Plant to Tom Sawyer Lake

A description and an assessment of the existing 6 – inch transmission main from the existing plant to Tom Sawyer Lake are included in Section 3 of this report. Cost estimates for construction and O&M are under **Appendices A and B** respectively.

4.1.5 Disposal System - Tom Sawyer Lake

A description and assessment of the existing disposal system into Tom Sawyer Lake are included in Section 3 of this report Cost opinions for construction and O&M are under **Appendices A and B** respectively.

Under Option 1, treated effluent from the existing wastewater treatment plant would continue to be discharged into Tom Sawyer Lake. Eventually the water would be used to irrigate the former golf course grounds. An assumed future treatment plant flow of 36,000 gallons per day[44] could irrigate approximately 6 to 8 acres of grass. Two of the existing golf course fairways could be irrigated with treated effluent as shown in **Figure 27**.

4.1.6 Operation and Maintenance Expenses

For Option 1, this report considered operating the plant and collection system with either public works staff from Kern County (Option 1A), a public agency, GHCSD (Option 1B), a public agency, or with private staff under contract to the public agency (Option 1C). The cost opinions for O&M in **Table 5 and 6** below show the three sub-options. With private labor under contract, there appears to be a savings.

---

[43] One example: Calaveras County provided information of several tertiary plants of similar size to AECOM that support a reserve fund to cover replacement of permanent facilities such as buildings and concrete basins.
[44] 36,000 gpd was selected to account for growth prior to the project up to 260 connections.



LEGEND

9 FAIRWAY NUMBER
× TEE LOCATION
⚑ GREEN LOCATION

TOTAL POTENTIAL IRRIGATION AREA = 7.6 ACRES

N

0 400' 800'

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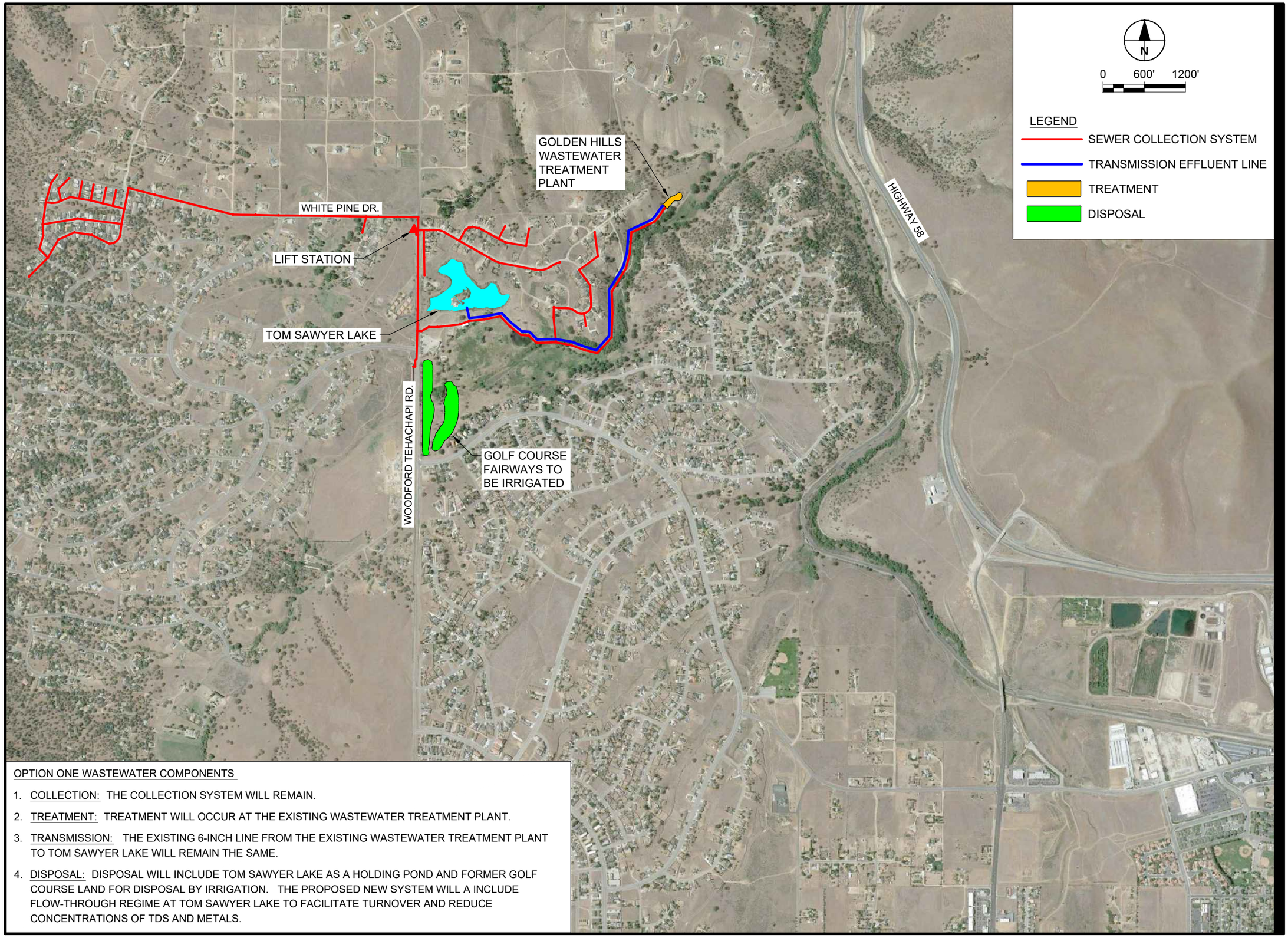
Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

FAIRWAYS FOR EFFLUENT IRRIGATION

FIG. 27

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OPTION ONE WASTEWATER COMPONENTS

1. COLLECTION: THE COLLECTION SYSTEM WILL REMAIN.
2. TREATMENT: TREATMENT WILL OCCUR AT THE EXISTING WASTEWATER TREATMENT PLANT.
3. TRANSMISSION: THE EXISTING 6-INCH LINE FROM THE EXISTING WASTEWATER TREATMENT PLANT TO TOM SAWYER LAKE WILL REMAIN THE SAME.
4. DISPOSAL: DISPOSAL WILL INCLUDE TOM SAWYER LAKE AS A HOLDING POND AND FORMER GOLF COURSE LAND FOR DISPOSAL BY IRRIGATION. THE PROPOSED NEW SYSTEM WILL A INCLUDE FLOW-THROUGH REGIME AT TOM SAWYER LAKE TO FACILITATE TURNOVER AND REDUCE CONCENTRATIONS OF TDS AND METALS.

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OPTION 1 - CONTINUED OPERATION OF EXISTING WASTEWATER SYSTEM

FIG. 28

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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-28_EXHIBIT OPT 1.DWG

4.1.7 Cost Estimates – Option 1A, 1B, and 1C

A summary of the cost estimates associated with Option 1 below:

Table 5 [45]

Preliminary Opinion of Construction and O&M Costs
Cost Summary
Option 1(A, B, or C) – Continued Operations

Component	1A, 1B or 1C Construction Costs	1A Annual O&M Costs (Kern County)	1B Annual O&M Costs (GHCSD)	1C Annual O&M Costs (GHCSD or Kern County/ Contractor
Collection System Repair	$1,104,000	$45,000	$45,000	$45,000
Gravity Main	685,000			
Treatment Plant	1,268,000	376,000	342,000	243,000
Discharge Piping		6,000	6,000	6,000
Easements[46]	301,000			
Value of Treated Effluent (28 AFY @$250/AF)[47]		(7,000)	(7,000)	(7,000)
Value of Standby Payments[48]		(6,000)	(6,000)	(6,000)
Total to Only Sewer Rate Payers	**$3,358,000**	**$414,000**	**$380,000**	**$281,000**

Table 5 – Continued Operations Cost Summary—Option 1

[45] Refer to **Appendix B** for details on the presented numbers or summarized in Table 5.
[46] Golden Hills CSD stated that there would be no charge for easements on land that they own; however, a cost for easements remains in the event there is a change in their position.
[47] Water supplied to Tom Sawyer Lake is valued at $250/AF based on rates charged by Tehachapi Cummings Water District of $453/AF rounded to the nearest $100. Since the water is treated effluent and would need to be mixed with fresh water for recharge purposes, the value is assumed to be half of the value of fresh water or $250/AF. It is understood that the value may change in the future. Therefore, the value of treated effluent delivered to the lake on an annual basis is 28 AF x $250=$7,000.
[48] Under a public governance, the standby charge is not recommended; however, to maintain the right to connect in the future without paying additional money, the report will maintain standby payments for 30 connections at $18 per month.

Table 6

Preliminary Opinion of Construction and O&M Costs Cost Summary
Option 1(A, B or C) – Community Assets

Component	1A, 1B or 1C Construction Costs	1A Annual O&M Costs (Kern County)	1B Annual O&M Costs (GHCSD)	1C Annual O&M Costs (GHCSD/ Contractor)
Effluent Disposal (Community Asset)	$325,000[49]	$24,000[50]	$24,000	$24,000
Reliable Water Sources to Tom Sawyer Lake (Fountain Lake and Well)	669,000	21,000	21,000	21,000
Value of Treated Effluent (28 AFY @$250/AF)		7,000	7,000	7,000
Total to Community	**$994,000**	**$52,000**	**$52,000**	**$52,000**

Table 6 – Community Assets Cost Summary—Option 1

4.2 Option 2 – Construct Force Main

4.2.1 General

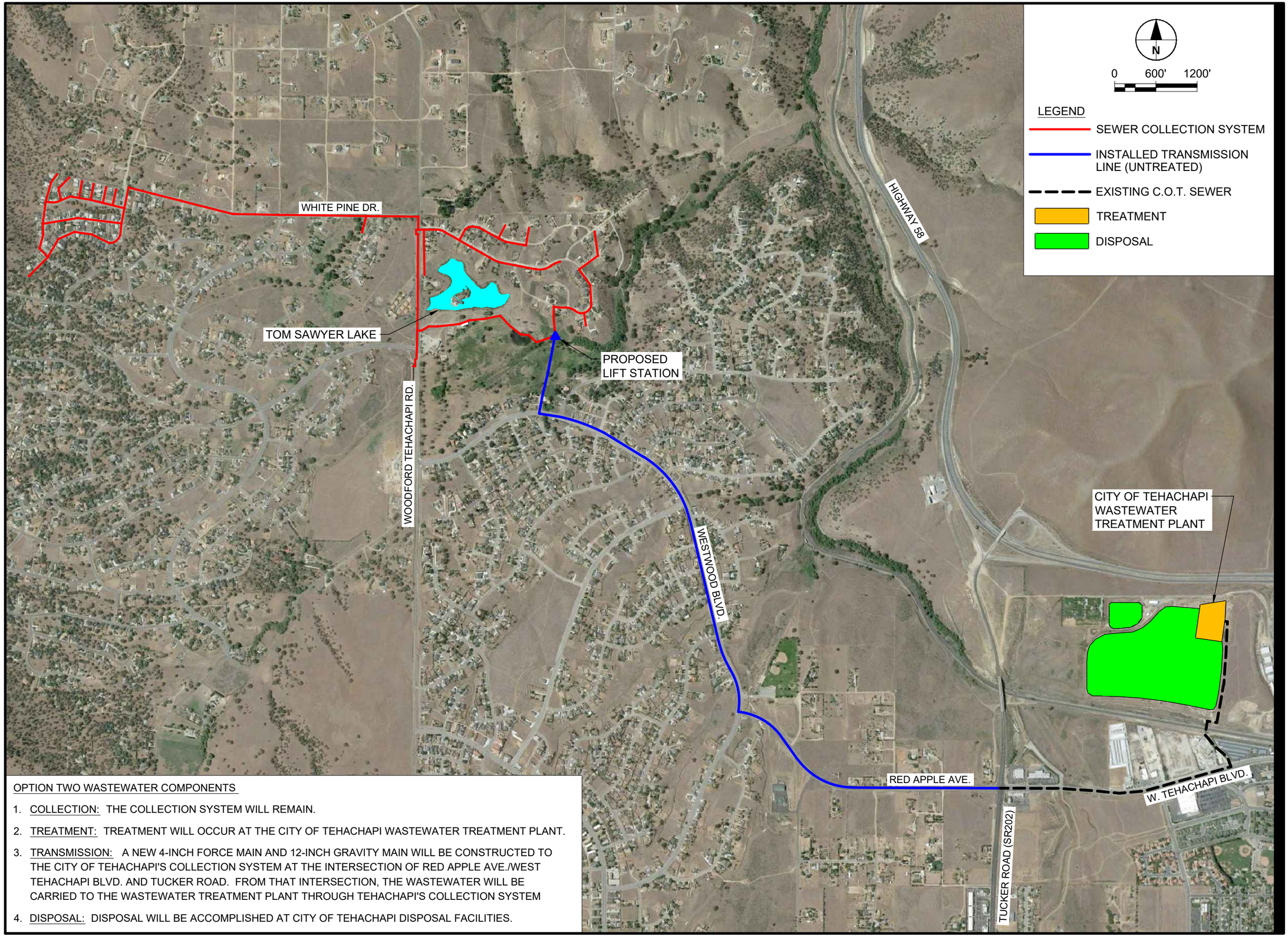
As previously stated, Option 2 is presented under three governance alternatives as described below:

Option 2 – Convey Wastewater to City of Tehachapi

- Option 2A – Operations and Maintenance by Kern County – Treatment and Disposal by City of Tehachapi
- Option 2B – Operations and Maintenance by Golden Hills CSD - Treatment and Disposal by City of Tehachapi
- Option 2C – Operations, Maintenance by City of Tehachapi – Treatment and Disposal by City of Tehachapi

Option 2 requires construction of a pump station and 4-inch diameter force main to transport wastewater to the City of Tehachapi for treatment and disposal as shown in **Figure 29**. **Figure 30** shows the plan and profile for the proposed pipeline alignment which would connect to the City of Tehachapi system at Tucker Road (SR 202) and Red Apple Avenue. **Figure 31** shows the layout of the proposed lift station facility. The viability of this option is contingent upon costs and the City of Tehachapi's acceptance of the force main tie-in and the proposed additional wastewater flow to its wastewater treatment plant.

[49] GHCSD indicated that higher costs should be allocated for construction of the irrigation system to allow for a building to house the power and control panel, fencing, SCADA and access to the irrigation pump station equipment.
[50] $24,000 is based on the O&M expenses needed for the proposed irrigation system. Refer to **Appendix B** for detailed estimates of O&M expenses.



OPTION TWO WASTEWATER COMPONENTS

1. COLLECTION: THE COLLECTION SYSTEM WILL REMAIN.
2. TREATMENT: TREATMENT WILL OCCUR AT THE CITY OF TEHACHAPI WASTEWATER TREATMENT PLANT.
3. TRANSMISSION: A NEW 4-INCH FORCE MAIN AND 12-INCH GRAVITY MAIN WILL BE CONSTRUCTED TO THE CITY OF TEHACHAPI'S COLLECTION SYSTEM AT THE INTERSECTION OF RED APPLE AVE./WEST TEHACHAPI BLVD. AND TUCKER ROAD. FROM THAT INTERSECTION, THE WASTEWATER WILL BE CARRIED TO THE WASTEWATER TREATMENT PLANT THROUGH TEHACHAPI'S COLLECTION SYSTEM
4. DISPOSAL: DISPOSAL WILL BE ACCOMPLISHED AT CITY OF TEHACHAPI DISPOSAL FACILITIES.

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OPTION 2 - CONVEY WASTEWATER TO CITY OF TEHACHAPI

FIG. 29

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EXISTING TREATMENT PLANT
TO BE DECOMMISSIONED

EXISTING LIFT STATION

0+00.00
PROPOSED
PUMP STATION

9+94.10
ANGLE POINT

28+30.35
AIR RELEASE VALVE

51+11.12
AIR RELEASE VALVE

65+38.74
ANGLE POINT

88+43
END 4" FORCE MAIN
BEGIN 12" GRAVITY SEWER

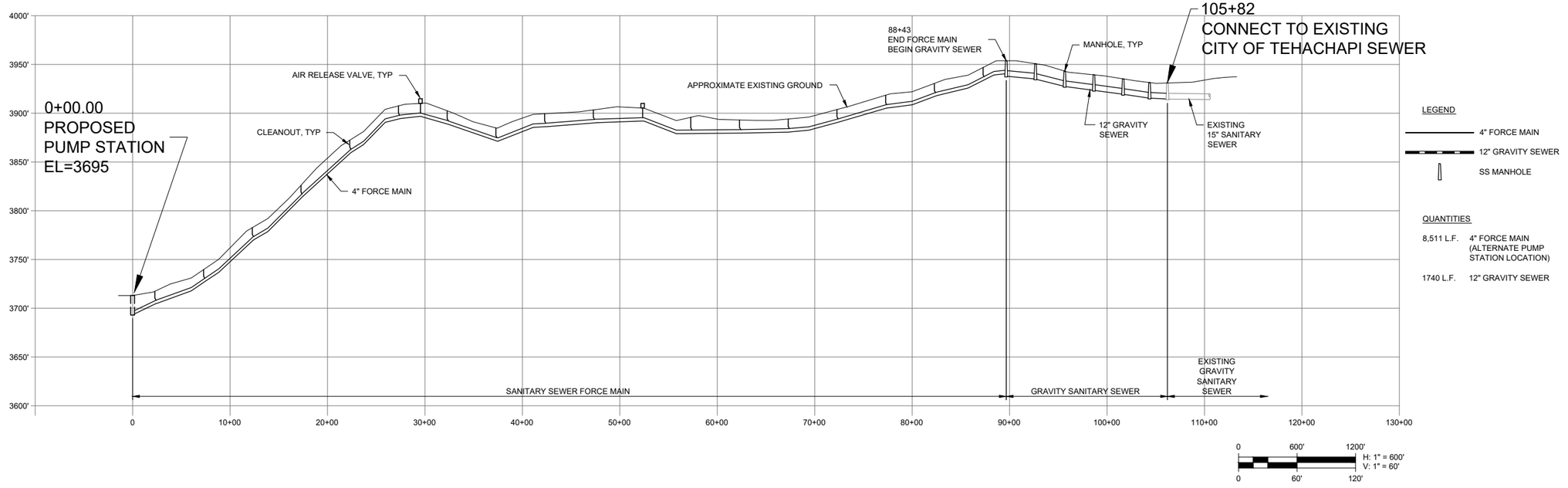
12" FORCE MAIN

15" SWR

EXISTING
LIFT STATION

105+82
CONNECT TO EXISTING
CITY OF TEHACHAPI SEWER

0 600' 1200'



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PROJECT

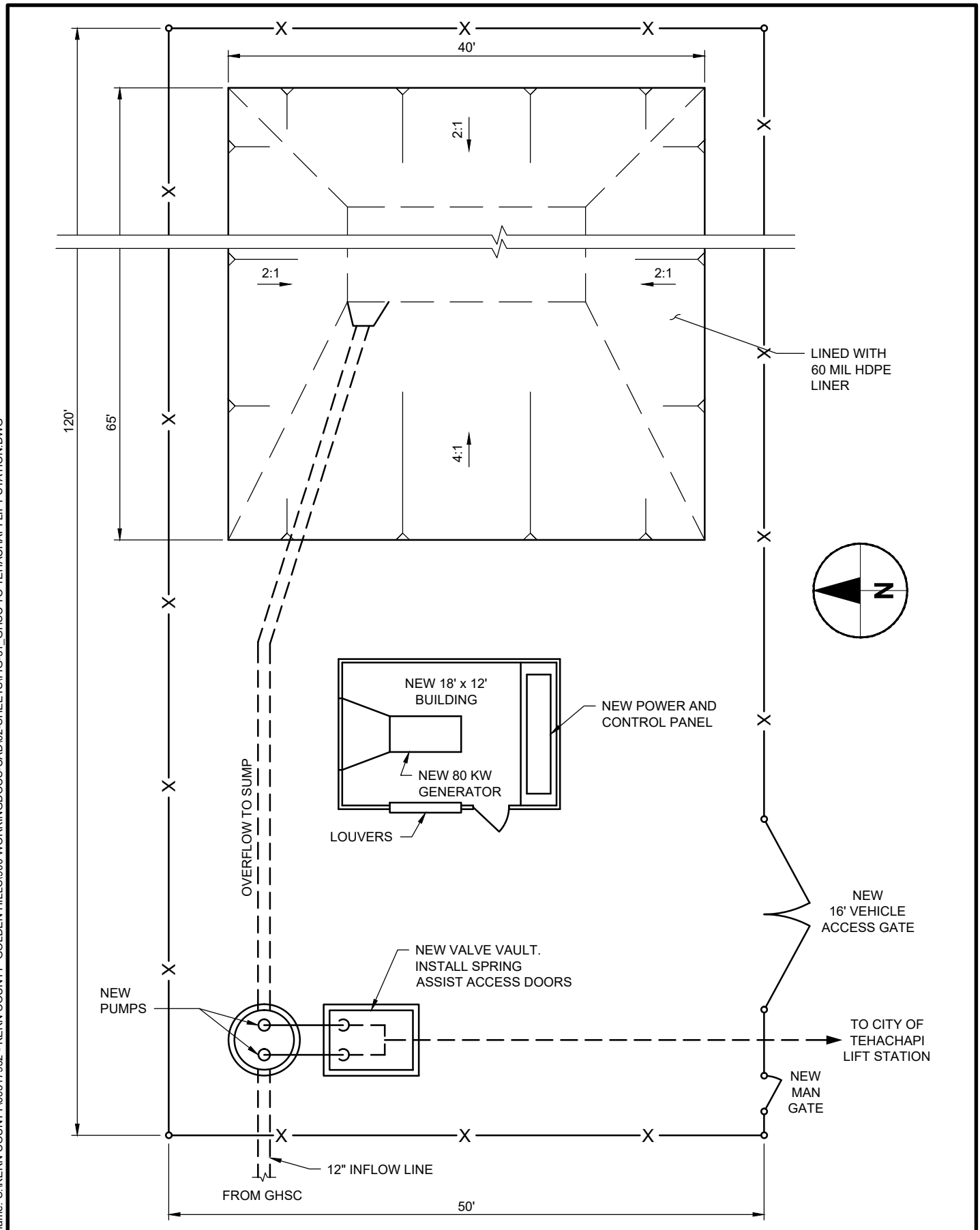
Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

FORCE MAIN / GRAVITY SEWER TO CITY OF TEHACHAPI PLAN AND PROFILE

FIG. 30

Last saved by: GHILARDUCCID (2014-11-04) Last Plotted: 2014-11-06
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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-31_GHSC TO TEHACHAPI LIFT STATION.DWG
Project Management Initials: Designer: DG Checked:AN ApprovedWB ANSI A 8.5" x 11"

ENGINEERING FEASIBILITY STUDY FOR THE GOLDEN HILLS WASTEWATER TREATMENT PLANT CUSTOMERS

Project No.: 60317952

GHSC TO CITY OF TEHACHAPI LIFT STATION

AECOM

FIG. 31

Preliminary review of the City's existing 15-inch diameter pipeline in Red Apple Avenue indicates that there is sufficient capacity for the projected build-out flow from the GHSC system. An analysis of the pipeline system from the connection point to the treatment plant has been conducted and has been found to be reasonable from an engineering perspective.[51]

Construction of a force main will require an environmental review in conformance with the CEQA and NEPA if federal grant funding is obtained. With the recent purchase of the golf course property by Golden Hills CSD, much if not all of the easements previously required for the force main and lift station will not be needed if GHCSD takes the system.[52] The route now appears to be entirely within either GHCSD property or public right of way.[53] The estimated construction costs for improvements proposed for this option are shown in **Appendix A.** Included in the costs are the soft costs of surveying, engineering, preparation of plans and specifications, and coordination with the various agencies that have jurisdiction (Caltrans, Kern County and City of Tehachapi).

For this option, GHSC customers would be required to pay a connection fee to the City of Tehachapi, which is currently $7,259 per Equivalent Single Family Dwelling Unit (EDU).[54] This fee may be eligible for grant funding. Additionally, the thirty owners of lots who have been paying standby charges may also be eligible for grant money to pay for their connection fees.[55] The costs in **Table 4** include connection fees for the 180 active connections. The cost of 30 single family dwelling unit connections adds to $217,770. The connection fees for the 180 active connections and 30 standby connections may be eligible for grant funding.

A community concern expressed during the public meetings, was the loss of local water resources (treated effluent from the existing plant) into Tom Sawyer Lake. Since WWTP effluent from the City of Tehachapi plant is secondary effluent, disposal into Tom Sawyer Lake from the City of Tehachapi would not be an option from a regulatory compliance or economics standpoint.[56] Additional improvements would be required to mitigate the loss of effluent to Tom Sawywer Lake as discussed in Section 1.6.4. For comparison purposes, the value of recycled water was assumed to be $250/acre-foot.[57] Therefore, if Option 2 is implemented, the value of water conveyed to the City of Tehachapi would be about $7,000 for 28 acre-feet per year.

---

[51] See **Appendix D** – Letter from City of Tehachapi, dated October 22, 2014.

[52] If the system is taken by Kern County or by the City of Tehachapi, easements will be required for the collection system, the lift station and force main and access roads to each of these facilities within the GHCSD area.

[53] Where the force main leaves the CSD land and enters street right-of-way, a short segment may cross private property, and accordingly an easement would be required. The cost said easement would be minimal and is accounted for in **Appendix A**.

[54] Equivalent Dwelling Unit (EDU) is a single family equivalent dwelling unit. It is the fee charged to a single family customer for connection. There are other fees for different types of connections such as commercial, but since most of the connections in the service area are single family, the EDU for single family was used for purposes of comparison. This method of comparison is usual practice for engineering reports.

[55] AECOM requested information from the Receiver regarding accounting for the entitled future connections and was informed that the information was confidential and could not be released. If further information becomes available following accounting and legal review that demonstrates further connection entitlements are justified, then additional grant funding should be provided for Option 2 to pay City of Tehachapi these connection fees.

[56] The cost of constructing and operating a return treated effluent line would be prohibitive.

[57] Water supplied to Tom Sawyer Lake was valued at $250 per acre-foot for purposes of this study. The number is based on rates charged by Tehachapi Cummings Water District of $453 per acre-foot rounded to $500 and divided by two to account for the fact that it would need to be mixed with fresh water if used for recharge. It is understood that the value may change in the future. Therefore, the value of treated effluent to the lake is worth $7,000 based on 28 acre-feet delivered annually.

Another community concern expressed during the public meetings was excessive SSO's at the proposed City of Tehachapi point of connection. City of Tehachapi SSO locations are shown in **Figure 32**. The concern was that the number is excessive and would eventually result in higher rates to Golden Hills Customers if Option 2 is selected.

Since 2008 there have been only three SSO's within the City of Tehachapi. These incidences occurred on 126 East J Street, 208 W. Tehachapi Blvd, and 212 S. Green Street. Following verification with the City's model, AECOM determined that none of these SSO's occurred at the proposed inter-tie location to the City of Tehachapi or had any hydraulic influence on the proposed tie-in location.

4.2.2 Collection Facilities

As previously stated for either Option 1 or 2, collection facilities will need to be addressed. The collection system includes gravity mains and the existing lift station on Woodford Tehachapi Road.[58] A description and an assessment of the collection system and treatment system are in Sections 3.1 and 3.2 respectively. AECOM has prepared preliminary construction cost and O&M cost opinions for the gravity mains based on experience. Based on the video survey results, a cost estimate for current system repair is provided in the report and listed in **Appendix A**. It should be noted, that costs related to the collection system will be nearly the same for either option[59]; therefore, the costs of maintaining the collection system will have little or no effect on the selected option.

4.2.3 Decommissioning Existing Wastewater Treatment Plant

The existing wastewater treatment plant will need to be decommissioned for permitting and liability reasons. Decommissioning will include the following requirements:

A) County Requirements
1. Remove upper foot of concrete and backfill.
2. Any concrete removed must be taken to a certified concrete recycler.
3. A demolition permit must be obtained.
4. If greater than 50 cubic yards of dirt is moved a grading permit will be required.

B) Regional Water Quality Control Board (RWQCB) Requirements
1. Any leftover bio-solids in the plant must be removed and handled with an approved plan and transported to a permitted composting facility.
2. No soil sampling is necessary underneath the plant.
3. Due to the loss of a water source at Tom Sawyer Lake, a management plan may need to be submitted for any potential water quality issues.

C) Air Pollution Control District (APCD) Requirements
1. Demolition phase of the plant will require an asbestos survey notification.

The cost to decommission the existing wastewater treatment plant is provided in **Appendix A**.

---

[58] AECOM recommends removal of the existing lift station. Therefore, the reconstruction or operations and maintenance expenses for the existing lift station will not be analyzed in the comparison of options.
[59] Option One has roughly 3,000 feet more of 12-inch main than Option Two, which accounts for the gravity main between the proposed lift station and the existing wastewater treatment plant.

4.2.4 Discharge Pipeline

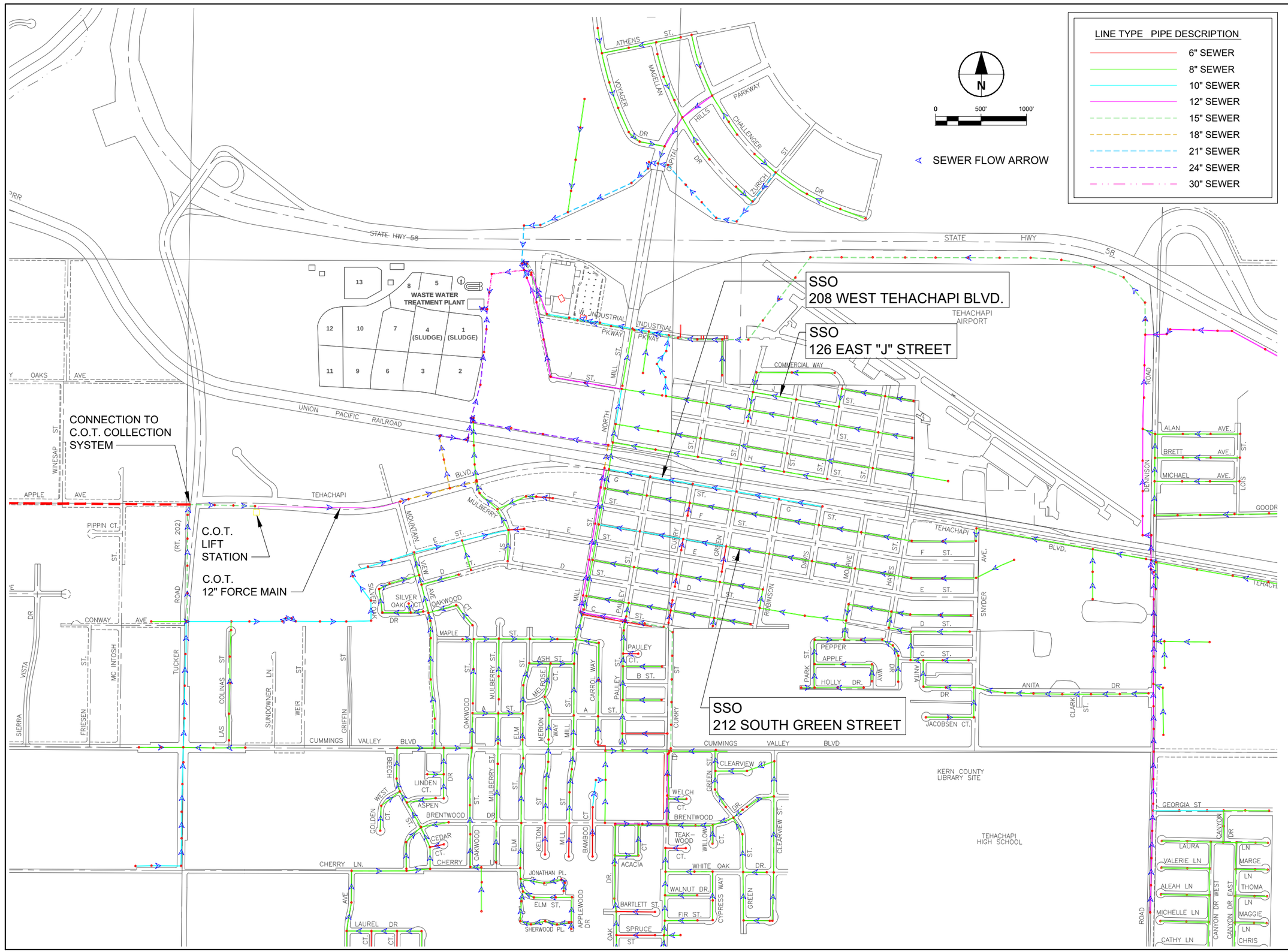
This component includes the lift station, force main and gravity main connection to the City of Tehachapi. The lift station will be constructed just east of Tom Sawyer Lake to collect all gravity services upstream of the existing plant. It appears that the last gravity connection to the 12-inch gravity line to the plant is from the manhole south of Debbie Place and Bald Mountain Drive. The lift station will include a duplex pumping system, an emergency generator and power/control panel housed in a permanent structure, lighting, fencing, an emergency overflow basin (to capture overflows in the event of an interruption in service) and a gravel access road.

From the lift station, the pipeline will be routed across Golden Hills CSD property to Fontana Street, then to Westwood Boulevard, and then to Red Apple Avenue. Approximately 1,740 feet west of Tucker Road, the force main will connect to a gravity sewer main and continue to flow by gravity to the proposed point of connection at Tucker Road and Red Apple/Tehachapi Boulevard[60]. The construction will require permitting with Kern County, Caltrans and the City of Tehachapi. Since most of the discharge pipeline is within Golden Hills CSD property or public right of way[61], the cost for easement acquisition should be minimal. Easements would be required for vehicular access to the lift station and force main within the Golden Hills CSD property, and a short segment between two private properties that front Fontana Street[62] and the remaining portion would be within public right of way. The construction cost is detailed in **Appendix A** and the O&M costs are detailed in **Appendix B**.

[60] A land developer is currently proposing a development tract that will extend sewer service from the proposed point of connection on Tucker Road to the west along Red Apple Avenue. If that development occurs prior to the proposed force main project, then the connection will not involve construction across Tucker Road (SR 202) and result in a cost savings.

[61] Work within a public right of way will need to be done under an encroachment permit. The improvement may occupy the right of way under a franchise agreement.

[62] That segment is already encumbered by a drainage easement, so the cost of the easement would be minimal.



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Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

SHEET TITLE

CITY OF TEHACHAPI
SSO LOCATIONS

FIG. 32

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4.2.5 Treatment and Disposal

Effluent treatment disposal will be conducted by the City of Tehachapi. Currently the City disposes of 0.94 mgd on 53 acres of farmland. During 2013 total WWTP influent was approximately 1,060 acre-ft. The total rated capacity of the plant is 1.25 mgd and currently the WWTP treats 0.9 mgd. So the permitted treatment and disposal capacity for the City of Tehachapi WWTP will not be exceeded. The capital cost for disposal will be paid with connection fees, currently at $7,259 per single family equivalent dwelling unit and a monthly service fee of $36.86 per single family equivalent dwelling unit. [63] The connection fees and monthly service fees differ based on land use. Details of those differences are included in **Appendix A** and **B** and summarized in **Table 7 and 8** below.

4.2.6 Cost Estimates – Option 2

A summary of the cost estimates associated with Option 2 (A, B and C) are shown in **Table 7 – Force Main to City of Tehachapi Cost Summary** below:

Table 7

Preliminary Opinion of Construction and O&M Costs
Cost Summary
Option 2 (A, B, or C) – Force Main to City of Tehachapi

Component	2A, 2B, or 2C Construction Costs (Kern County, COT, or GHCSD)	2A Annual O&M Costs (Kern County)	2B Annual O&M Costs (GHCSD)	2C Annual O&M Costs (COT)
Collection System	$1,022,000	$42,000	$42,000	$42,000
Gravity Main	685,000			
Treatment Plant (Decommission)	75,000			
Discharge Piping	1,981,000	119,000	92,000	59,000
Effluent Disposal	1,395,000	78,000	78,000	78,000
Easements	*119,000			
Value of standby payments		(6,000)	(6,000)	(6,000)
Total to Only Sewer Rate Payers or grant funding	**$5,277,000**	**$233,000**	**$206,000**	**$173,000**

Table 7 – Force Main to City of Tehachapi Cost Summary—Option 2

***Additional money for easements may be required for sewer mains within private roads.**

[63] This information was provided by City of Tehachapi in their letter RE: Golden Hills Wastewater Feasibility Study, dated June 4, 2014.

Table 8

Preliminary Opinion of Construction and O&M Costs
Cost Summary (Community Assets)
Option 2 (A, B, or C) – Force Main to City of Tehachapi

Component	2A, 2B, or 2C Construction Costs (Kern County, COT, or GHCSD)	2A Annual O&M Costs (Kern County)	2B Annual O&M Costs (GHCSD)	2C Annual O&M Costs (COT)
Reliable water Source to Tom Sawyer Lake (Fountain Lake and a well)	$669,000	$21,000	$21,000	$21,000
Irrigation System	325,000	24,000	24,000	24,000
Total to Golden Hills Community	**$994,000**	**$45,000**	**$45,000**	**$45,000**

Table 8 – Force Main to City of Tehachapi Cost Summary—Option 2(Community Assets)

Note: Neither option required that the cost of placing water into Tom Sawyer Lake rest solely with the sanitary sewer customers. Placing water into the lake and providing a means of turnover through irrigation is an overall benefit to the Community of Golden Hills; however, since it is recommended to remediate the water, AECOM recommends that capital costs to install these improvements be eligible for grant funding.

4.2.7 Division of Water Rights Petition

For Option 2, the governance may need to coordinate with the Division of Water Rights regarding filing of a petition for change—needed anytime a project will eliminate a discharge to surface water. This does not appear to apply in this case, due to the discharge into Tom Sawyer Lake not being legal. To approve a wastewater change petition, the State Water Resources Control Board (State Water Board) must be able to find that the proposed change will not injure other legal users of water, will not unreasonably harm in-stream uses, and is not contrary to public interest.

Additionally, if the proposed project has the potential to impair the water supply of other legal users of water or in-stream beneficial uses, the Division will require further notice of petition. Protestants may raise concerns about protecting their water rights, or may raise public trust concerns. A protest sets forth the protestant's objections to approval of the petition. The procedures for addressing protests are set forth in tit. 23, CCR §1701.3, et seq. Evaluation of whether water is needed to serve in-basin water rights focuses on whether the discharges result from natural flows. Natural flows do not include imported or stored water.

The actual link to the change petition is located here.
http://www.waterboards.ca.gov/waterrights/publications_forms/forms/docs/pet_change.pdf
If the proposed project has the potential to impair the water supply of other legal users of water or in-stream beneficial uses, the attached flow chart (**Figure 33**) must be followed.

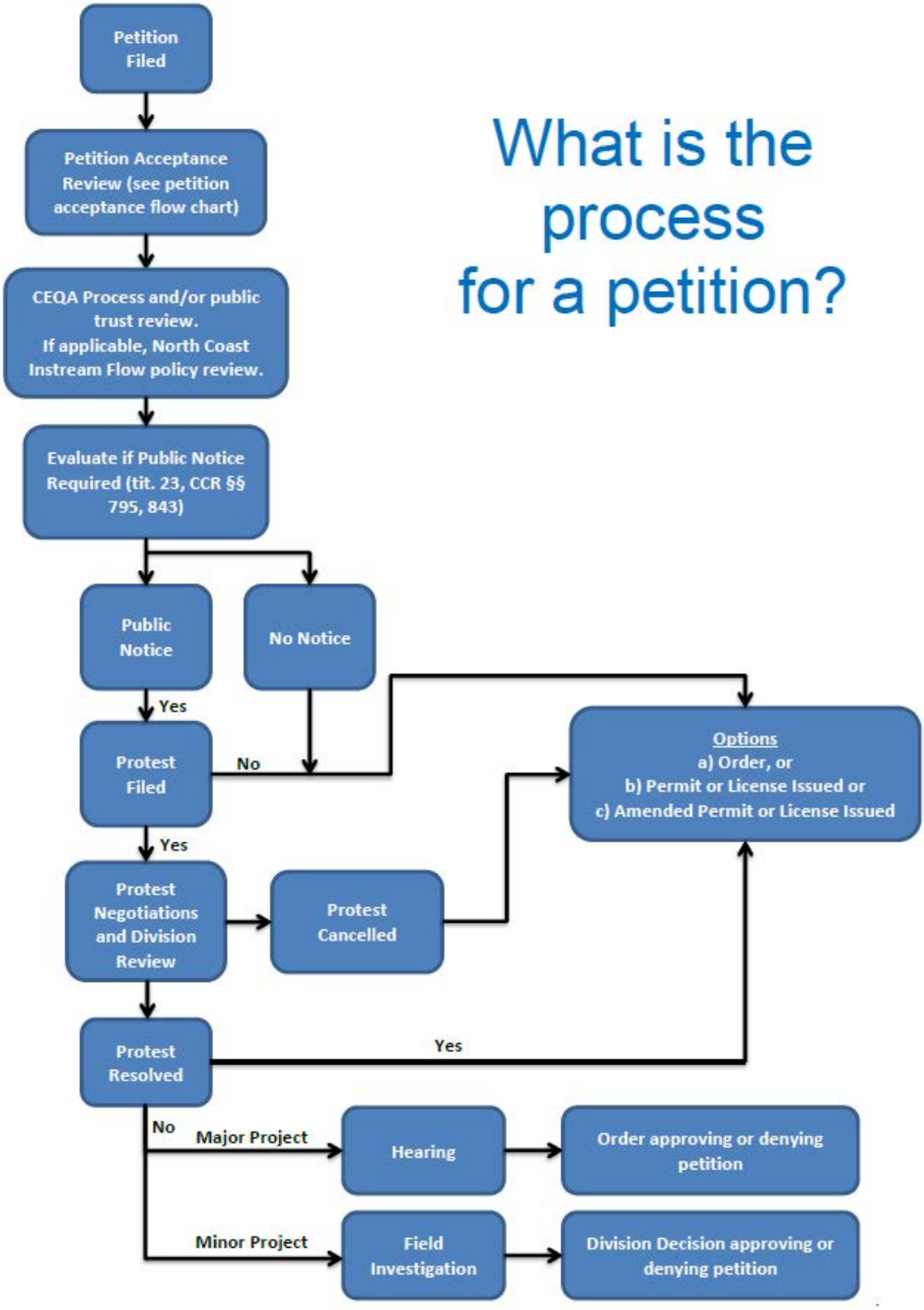


Figure 33 – Process for Petition

4.3 Improvements Required for Both Options

The following are descriptions of improvements required for both options.

4.3.1 Lift Station Improvements

Proposed improvements to rehabilitate the existing lift station are shown schematically in **Figure 34.** Estimated capital[64] and O&M costs for these improvements are presented in detail in **Appendices A** and **B** respectively. An option to replace the lift station with a gravity pipeline was investigated and determined to be have higher capital costs than rehabilitating and operating the existing lift station and force main. However the O&M expenses for the gravity main would be less as well as the relative level of SSO risk. For those benefits, AECOM recommends the gravity main option. Improvement and O&M costs are summarized below.

Table 9

Preliminary Opinion of Construction and O&M Costs
Cost Summary
Comparison between Rebuilding Existing Lift Station and a Gravity Main

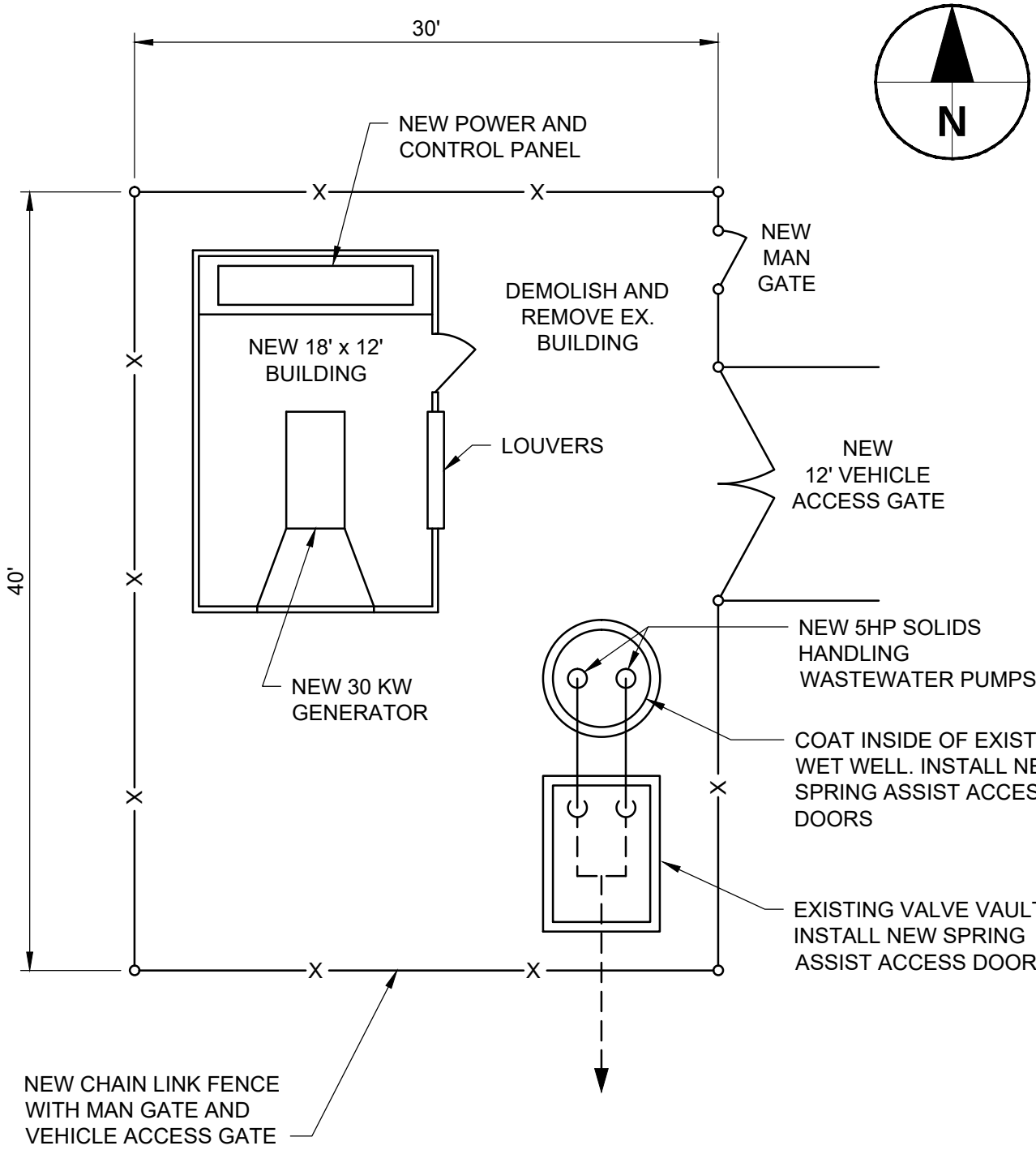
Component	Construction Costs	Annual O&M Costs	30-Year Life Cycle Costs[65]
Lift Station Improvements	$420,000	$15,000	$679,400
Gravity Main	$685,000	$1,000	$702,300

Table 9 – Preliminary Opinion of Construction and O&M Costs

4.3.2 Collection System Improvements

As stated earlier in Section 2 of the report, the collection system consists of about 5 miles of PVC gravity sewer main, a lift station and a 535 lineal foot long force main. In Section 3, the condition of the existing collection system was assessed based on a video survey and cost opinions were prepared to rehabilitate the system to an acceptable condition. The cost of collection system improvements for either option are similar with Option 1 being slightly higher due to having about 3,000 feet of additional 12-inch main beyond the point of connection recommended for the Option 2 force main lift station.

[64] Capital costs include construction and all soft costs (survey, environmental, design, permitting, inspection, testing, construction administration, engineering assistance during construction, and general administration).
[65] Life Cycle Costs are based on 4% interest rate applied to the $15,000 annuity and added to the construction cost of the lift station; and $1,000 annuity is added to the construction cost of the gravity main. If the construction costs are paid by grant funding, the savings to the community in terms of O&M is potentially very large.



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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-34_EXIST LIFT STATION REHAB.DWG
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Project No.: 60317952

EXISTING LIFT STATION REHABILITATION

AECOM

FIG. 34

4.3.3 Tom Sawyer Lake – Fresh Water System Improvements

As stated earlier in the report, lake water, effluent discharge into the lake, and sediments around the lake were sampled and tested in May 2014 for metals and total dissolved solids (TDS) or salts. The results of the sampling indicated although the salt levels (TDS) were high, and the metals were present, they did not exceed the standards for aquatic habitat.

The preferred mitigation plan for Tom Sawyer Lake is to provide fresh water to the lake either with or without the treated effluent, and to operate the lake in a flow-through condition to reduce nutrients and salt concentrations. Selective wetland plants can also be used to remove salts and nutrients. Potential freshwater sources include local groundwater and surface runoff. The Golden Hills area overlies an adjudicated groundwater basin, so approval for groundwater pumping operations within that basin would require an application and approval process. As previously mentioned groundwater is available from the Salvage Area and is close enough to the lake to serve as a viable groundwater source.

The proposed fresh water system improvements are shown in **Figure 35** and include the following:

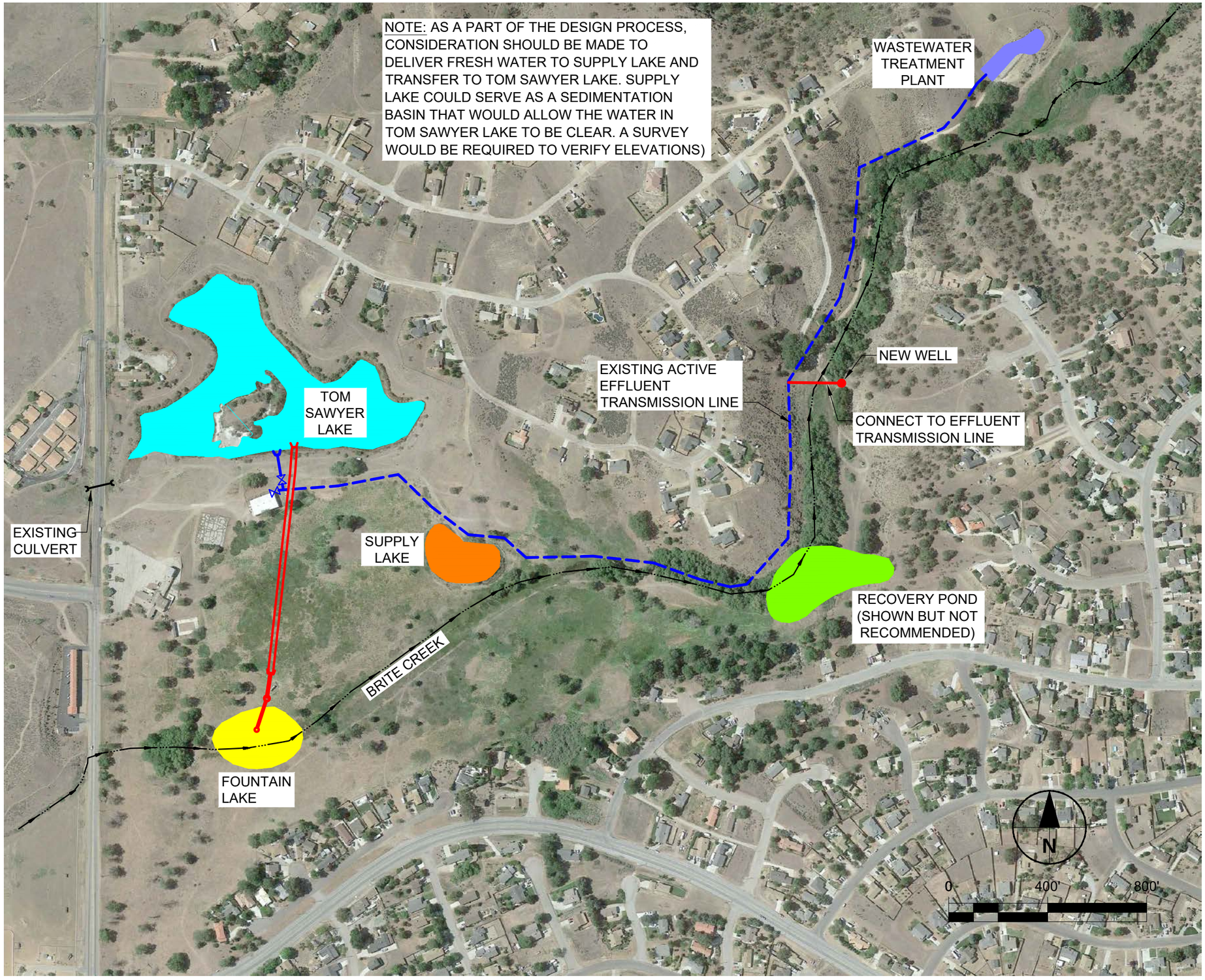
1. **Culvert South of Willow Trees Apartments.** This is a Kern County maintained culvert that needs occasional maintenance to keep clear. No estimates for construction or O&M are provided because the costs for maintenance of the culvert rest with Kern County. This is described because it is a viable source of intermittent water that should be documented.

2. **New Well**. (See **Figure 36**) This would involve construction of a new well in the Salvage Area (or area so determined by the Water Master) and connecting it to the existing 6-inch force main from the existing wastewater treatment plant to Tom Sawyer Lake. The project would include piping, valves and an approved backflow preventer. A well within the Salvage Area can deliver reliable uninterrupted water supply to Tom Sawyer Lake at a rate of approximately four times the rate provided by the existing wastewater treatment plant. Costs for construction of this well and for its operation and maintenance are included in **Appendix A and B** respectively.

3. **Fountain Lake**. Fountain Lake improvements include a berm on Brite Creek with a swale outlet to Tom Sawyer Lake (See **Figure 37**). The cost estimate summarized below provides the cost of a formally executed contract involving design, environmental work, permitting, inspection, testing, etc. In the past Fountain Lake was constructed by a simply moving earth and forming a pond and pipe system. With engineering, the system would be designed to withstand the occasional El Nino storm without washing out.[66]

4. **Recovery Pond.** (See **Figure 38**) Though Recovery Pond was used in the past, it appears there may be a more economical way of providing a reliable dry weather water source to Tom Sawyer Lake. The cost information for re-establishing Recovery Pond is provided; however, it is not recommended due to cost.

[66] Fountain Lake improvements will require permitting for stream bed alteration and will require permission from the Water Master.



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PROJECT

Engineering Feasibility Study for the Golden Hills Wastewater Treatment Plant Customers

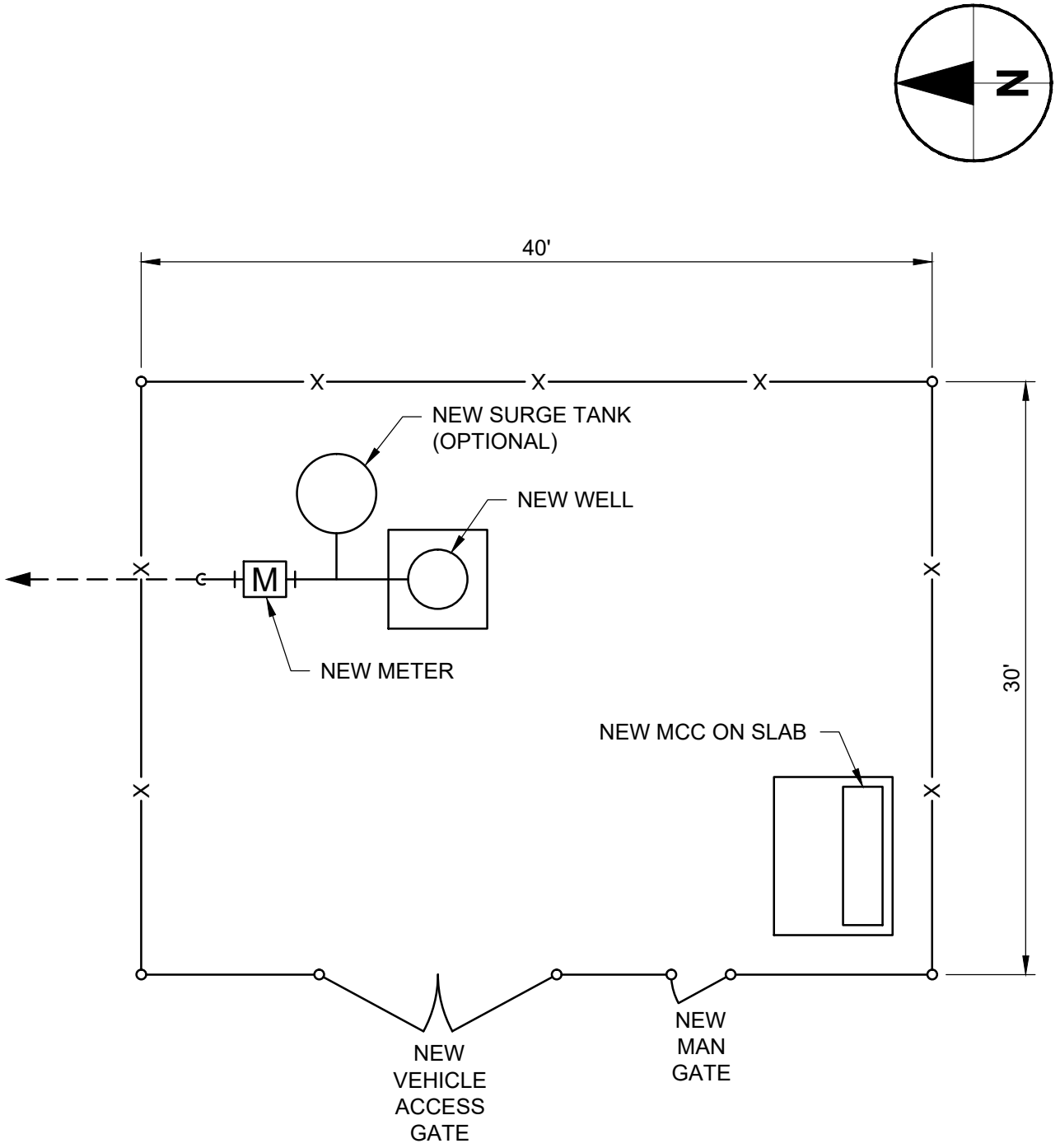
SHEET TITLE

PROPOSED FRESH WATER SYSTEM IMPROVEMENTS

FIG. 35

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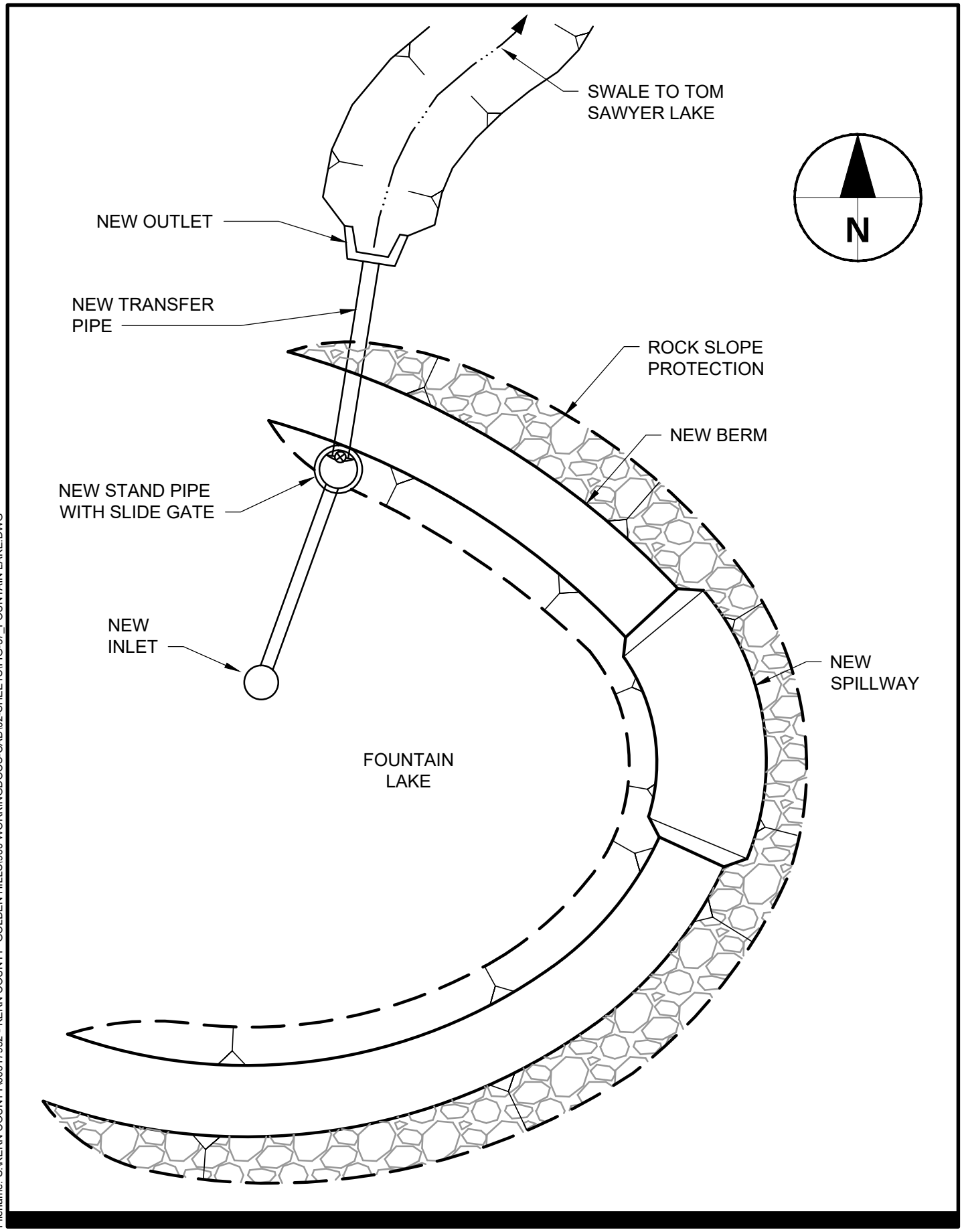


ENGINEERING FEASIBILITY STUDY FOR THE GOLDEN HILLS WASTEWATER TREATMENT PLANT CUSTOMERS
Project No.: 60317952

NEW WELL

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FIG. 36



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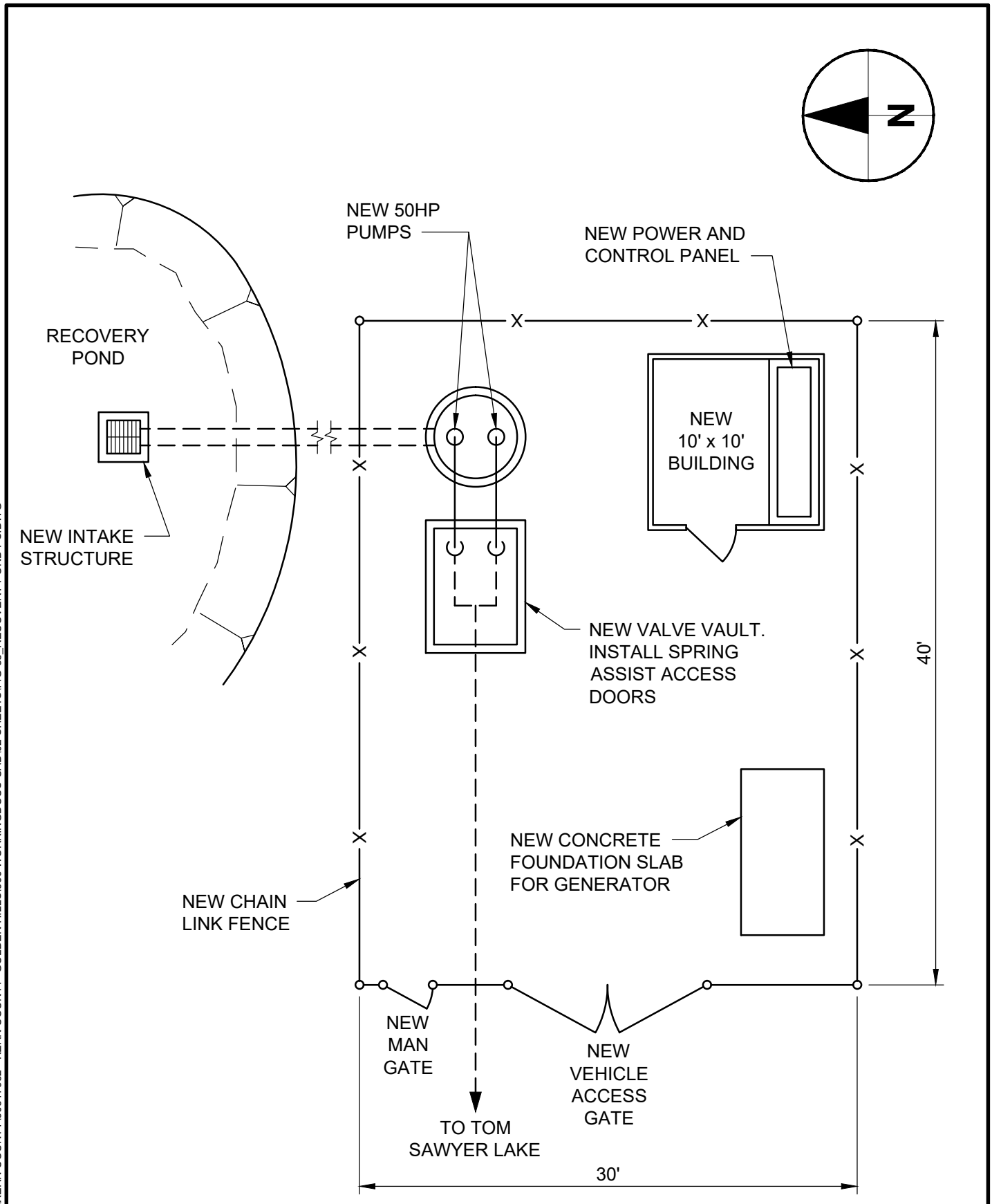
ENGINEERING FEASIBILITY STUDY FOR THE GOLDEN HILLS WASTEWATER TREATMENT PLANT CUSTOMERS
Project No.: 60317952

FOUNTAIN LAKE

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FIG. 37

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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-38_RECOVERY POND PS.DWG
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ENGINEERING FEASIBILITY STUDY FOR THE GOLDEN HILLS WASTEWATER TREATMENT PLANT CUSTOMERS
Project No.: 60317952

RECOVERY POND PUMP STATION

AECOM

FIG. 38

5. **Irrigation System Improvements.** (See **Figure 39**) The improvements recommended for Supply Lake can either be located at the lake where the existing pump station is located or at Tom Sawyer Lake. The improvements include an irrigation booster pump system and an irrigation piping and sprinkler head system on about 6 to 8 acres of the former golf course. The cost estimate provided assumes all new equipment will be needed. If portions of the existing irrigation system may still be serviceable, there may be a cost savings to use it.

Schematics for the new well, Fountain Lake, Recovery Pond, Supply Lake, and irrigation improvements are provided in **Figures 36 through 39**. Construction and O&M costs for the proposed fresh water system improvements are summarized in **Table 10** and detailed in **Appendices A & B** respectively.

Table 10

Engineer's Opinion of Probable Construction Costs
Fresh Water System Improvements

Water Supply Component	Capital Costs	O&M Costs	Net Present Value
Willow Trees Apartments Culvert[67]	$0	$0	$0
New Water Well **(Figure 36)**	398,000	14,000	640,000
Fountain Lake Improvements **(Figure 37)**	271,000	7,000	392,000
Recovery Pond Improvements **(Figure 38)**	683,000	42,000	1,409,000
Irrigation System Improvements **(Figure 39)**	325,000	24,000	740,000

Table 10 – Capital Costs –Fresh Water Supply

4.4 Governance Alternatives

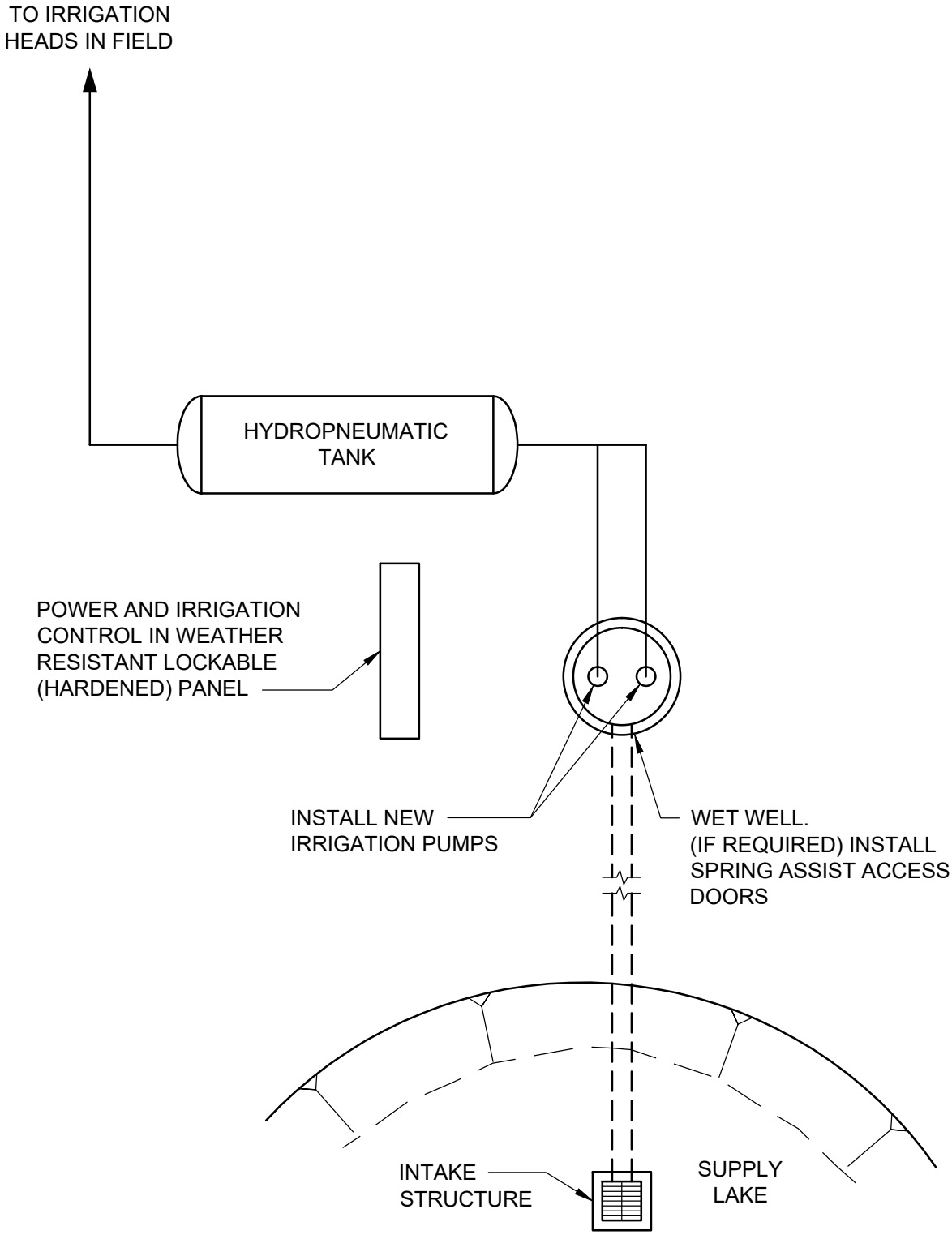
4.4.1 Existing Management

The wastewater treatment system is currently operated by GHSC under receivership. Under order of the CPUC, the receiver is appointed. During the term of the receivership, the receiver owns all of the assets. Under the receivership, the management structure is temporary and will be replaced by one or more of the following options following a transfer of ownership. In addition to the maintenance of the wastewater treatment plant, the current management is responsible for maintaining the existing collection system and lift station.

For the management and ownership responsibilities to transfer from the receiver to a new governance, the receiver would need to file an application with the California Public Utilities Commission (CPUC) and the entity taking over ownership would do the same. The receiver would also have to seek Kern County Superior Court's approval of the transfer.

[67] The culvert is owned and maintained by Kern County.

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Filename: S:\KERN COUNTY\60317952 - KERN COUNTY GOLDEN HILLS\900 WORKINGDOCS-CAD\02-SHEETS\FIG-39_SUPPLY LAKE PS.DWG
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ENGINEERING FEASIBILITY STUDY FOR THE GOLDEN HILLS WASTEWATER TREATMENT PLANT CUSTOMERS
Project No.: 60317952

SUPPLY LAKE PUMP STATION

AECOM

FIG. 39

4.4.2 Kern County

Ownership of the wastewater system could be accomplished with formation of a new County Service Area or a new Sanitation District. Continued operations at the plant could be conducted by County wastewater certified employees or a contracted private firm. Creation of a new district would require LAFCo approval. Since Kern County staff would operate and maintain the system under either option they would need to travel, the cost of time and travel would be included in either option where Kern County would be used. This would increase costs that would be passed onto the rate payers.

4.4.3 Golden Hills CSD

GHCSD currently provides potable water supplies to customers within the service area. Golden Hills is authorized to provide sewer service to the community without LAFCo approval. They also have a billing system in place for the service area and have existing staff that could be used to assist in the operation and maintenance of the sewer system. GHCSD has expressed concern that if they are to take on responsibility for providing sewer service to the community, that the wastewater system by itself must be financially viable on its own, and not subsidized.

4.4.4 City of Tehachapi

The City of Tehachapi has expressed the willingness to consider accepting GHSC wastewater into their system for treatment at their wastewater plant. The City of Tehachapi is not interested in the maintenance of the Golden Hills sewer collection system or for billings and collections for areas located outside of City limits, however, that option is considered in this study. If the City of Tehachapi were to serve as governance of the sewer system, the area to be served would not need to be annexed into the City. If annexation were considered, however, LAFCo approval would be required. It appears unlikely that an annexation is viable at this time.

4.4.5 Public Ownership/Contract for Private O&M Service

A public/private partnership is another feasible option and may provide some flexibility as a public entity would be required in order to obtain grant funding for the project while a private entity may be able to contract some of the work at a lower cost. The issue is whether or not it would be sustainable over time. The current operation of the plant managed under receivership is providing sewer service to customers at a reasonable rate. However the rate generated so far is not paying for the receiver's fee and does not appear adequate to cover such items as repairs, staff training for certification, proper maintenance of the collection system, etc. It also appears that maintenance of the collection system has been deferred. The team handling the plant is hard-working and provides good value, however if the leadership changes there is uncertainty that the good service they provide would continue. In general, there are very few contractors available in Kern County to operate and maintain a wastewater treatment plant, and local talent may not be readily available over the long term.

4.4.6 Private Entity

It is unlikely that a private entity would be interested in purchasing the GHSC due to the cost of upgrades that will need to be completed on the plant in order to comply with the Clean Up and Abatement Orders issued by the Regional Water Quality Control Board. A private company is

not eligible to obtain most government grant funding for needed system improvements. Based on this, private ownership and operation was assumed to be fatally flawed and not considered further.

4.4.7 Mutual Non-Profit Sewer Company

Under this governance option, the company would need to incorporate as a non-profit corporation, develop by-laws and elect a board of directors. Each connected customer would own a share and the corporation would operate independently. Under this option, the customers would not be protected by the 218 process and the corporation could not lien properties for non-payment. Customers would still vote on rates and representation. Mutual non-profit companies would not be eligible for SRF funding. This option will therefore not be considered for further evaluation.

4.4.8 Viable Governance Alternatives

Of the above governance alternatives, it appears only three are viable over the long term; Golden Hills CSD, City of Tehachapi and Kern County. Listed below each alternative are corresponding governance considerations:

<u>Golden Hills CSD</u>

1. Original planned operator – 1983 agreement, Waste Discharge Permit.
2. Control operations until unilateral declaration of breach in 2001.
3. Only agency with Sewer Powers in service area.
4. No LAFCo process.
5. No possibility of forced LAFCo election.
6. Billing consolidation – cost savings.
7. No need for easements in “old golf course area”. Easements would be required on private land and in private streets.
8. Staff is on site. No expense to transport.
9. Owns Lake – needs effluent water.
10. Local control greatest – voter count issues.
11. Claims to own 38 connection rights ($273,000) – (Only affects Option 2).
12. Roughly 6 ½% of the CSD customers are also GHSC customers.

<u>City of Tehachapi</u>

1. Annexation to City not required – Government Code 56133.
2. Annexation may come from customer petition.
3. City objections are not determinative of annexation. – Disadvantage. *Ferrini vs. San Luis Obispo (1983) 150 Cal.App.3d 239*
4. Staff is on site.
5. One entity control – cost savings.
6. Proposition 218 issues alleviated.
7. Local control is diminished.
8. Easements would be required in golf course area, on private land and in private streets.

<u>County Service Area</u>

1. LAFCo process required.
2. LAFCo will not allow without sufficient revenue.
3. Must have sufficient revenue – Government Code 25211.4.
4. BOS must agree with the formation – Government Code 25211.4.

5. Majority protest rejection possible – Government Code 25211.4.
6. Voter approval required for formation and fees - Government Code 25211.4.
7. Local control is diminished (Only 1:5,000 votes will these customers have if in the County). *Rodeo Sanitary Dist. vs. Board of Supervisors (1999) 71 Cal.App.4th 1443*
8. Easements would be required in golf course area, on private land and in private streets.

4.4.9 218 Protection Highlights

Customers are protected by the 218 process under all three governance alternatives with Options 1 or 2. However, under Option 2, the protection is not extended to Kern County or Golden Hills CSD for rates charged by City of Tehachapi. Stated otherwise, rate increases by the City of Tehachapi can be accomplished without a 218 election by the Golden Hills customers. This could create a challenging issue for Kern County or Golden Hills CSD with the implementation of Option 2.

4.5 Funding Options

Potential funding for the project is available from many sources. The following is a list of representative governmental funding sources. The low to moderate income level in the project area makes it eligible for funding from a variety of sources. The "owner" of the project (County, City, GHCSD or other public agency) can and should apply for as many sources of funding as possible. A privately owned sewer company is not eligible for this funding.

Based on the Community Income survey documenting a Median Household Income (MHI) of $31,603, the Golden Hills Sanitation Company service area's community MHI is 54% of the State's 2012 MHI of $58,553. This qualifies the area as a Severely Disadvantaged Community with the following points:

- 180 Equivalent Dwelling Units, Population is less than 20,000.
- Existing O&M costs = 3.4% of MHI.
- Project Options O&M costs range from 4.5% to 4.8% of MHI.
- Project costs: Option 1) $4,352,000; Option 2) $6,271,000.

Note: Grant funding may be available, however it is often limited and up to the funding agency to determine, based on a variety of factors. It is recommended that the governance apply for as many grants as possible. Listed below are some of the grant sources to consider:

1. Clean Water State Revolving Fund (CWSRF): Currently, wastewater projects for communities that have a population <20,000, a community median household income (MHI) <80% of the statewide MHI, and wastewater rates at least 1.5 percent of community MHI, may receive 50 percent of eligible project costs, not to exceed $4 million in principal forgiveness (PF)/Small Community Grant (SCG). If wastewater rates are more than 2.0 percent of the community MHI, these projects may receive 75 percent of eligible costs, not to exceed $6 million in PF/SCG financing. And if a credit review shows that the community has inadequate revenues to finance the remaining eligible costs, the disadvantaged community may receive PF/SCG financing up to 100 percent of eligible costs, not to exceed $6 million. The criteria to qualify for PF/SCG funding are

provided in the Clean Water State Revolving Fund Intended Use Plan (IUP). The IUP is updated each year. The criteria listed above are for the 2013 Federal Fiscal Year (October 1, 2013 – September 30, 2014), and may change with future IUP updates.

2. State Bond Money (Grant): *Existing; None. Future unknown at this time.*

3. Federal: Loan & Grant: USDA/Rural Development (Loan & Grant) – Maximum grant up to $1 million.

4. Integrated Regional Water Management Plan (IRWMP) money (Grant): Potential funding, but limited amounts and irregular application phases,

5. Infrastructure Bank (Loan): Funds available, but a loan repayment would increase already high user rates.

6. Kern County: Block Grant (Loan and Grant) – The income survey has not been approved by HUD at this time and has very limited funds.

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5.0 Comparison of Alternatives

5.1 Wastewater System Costs Comparison

Table 11 presents a summary of the recommended wastewater system component improvements and estimated construction costs for Options 1 and 2. Collection system improvements and modifications to the irrigation system for Tom Sawyer Lake have been included in both options.

As described previously in the report, some of the costs shown in **Table 11** are associated with the existing sewer customers. Whereas some as viewed at this time are a community benefit and are therefore community costs. Subsequent tables describing the costs associated with Option 1 and 2 show estimated total, sewer system customer, and community costs.

Table 11

Comparison of Construction Costs

Component	Required Improvements		Capital Costs	
	Option 1 Continued Op	**Option 2 FM to Tehachapi**	**Option 1 Continued Op**	**Option 2 FM to Tehachapi**
Collection System	Rehabilitate	Rehabilitate	$1,104,000	$1,022,000
Gravity Main	Construct	Construct	685,000	685,000
Treatment Plant	Repair & Rehab	Decommission	1,268,000	75,000
Discharge Pipeline	Repair & Rehab	FM and Lift Station, Connection Fees	0	1,981,000
Easements[68]	Kern County (1A)	Kern County (2A) and COT (2C)	301,000[68]	119,000[68]
Fresh Water + Irrigation	Construct	Construct	994,000	994,000
Effluent Disposal	Tom Sawyer Lake, as it exists	One-time COT Connection fee payment	0	1,395,000
TOTAL COST			**$4,352,000**	**$6,271,000**

Table 11 – Comparison of Construction Costs

While the initial construction costs for Option 2 (A, B, and C) are higher, the operations and maintenance (O&M) costs of Option 2 (A, B, and C) are lower as shown in **Table 12.** Since the mission of this study is to develop a viable and sustainable wastewater solution that results in the lowest cost to Golden Hills sewer customers, the importance of the initial capital cost is minimal and should be considered secondary to the rate payer's needs. The rate payers are in a severely disadvantaged community in terms of income. Anything that can be done to

[68] Easement costs in the total only apply to options that do not include GHCSD in the governance. However, if there are costs for easements within private property or private streets, all forms of governance should be eligible for reimbursement of funds needed to secure said easements including appraisal, engineering and legal fees.

minimize the impact of sewer service rates should be embraced. Therefore the alternative comparison will be analyzing Operations and Maintenance costs.

Table 12

Comparison of O&M Costs (180 Connections)

Component	Annual O&M Costs					
	Option 1A Continued Op. (Kern County)	**Option 1B Continued Op. (GHCSD)**	**Option 1C Continued Operation (GHCSD or Kern County + Contractor)**	**Option 2A Force Main to COT (Kern County)**	**Option 2B Force Main to COT (GHCSD)**	**Option 2C Force Main to COT (COT)**
Collection System	$45,000	$45,000	$45,000	$42,000	$42,000	$42,000
Treatment Plant	376,000	342,000	243,000	0	0	0
Discharge Pipeline	6,000	6,000	6,000	119,000	92,000	59,000
Effluent Disposal[69]	0	0	0	78,000	78,000	78,000
Value of Treated Effluent[70]	-7,000	-7,000	-7,000	0	0	0
Value of Standby Payments (30)	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000
Total Cost	**$414,000**	**$380,000**	**$281,000**	**$233,000**	**$206,000**	**$173,000**
Calculated Monthly Rate	**$192**	**$176**	**$130**	**$108**	**$95**	**$80**[71]
Net Present Value (in millions)[72]	**$11.5**	**$10.9**	**$9.2**	**$10.3**	**$9.8**	**$9.3**

Table 12 – Comparison of O&M Costs

The O&M costs of smaller wastewater tertiary plants were investigated by AECOM. One plant was in Kern County and three were in Calaveras County. The purpose of the investigation was to compare the service charges, connection fees and reserve funds for smaller sized wastewater tertiary treatment plants with the numbers presented for the Golden Hills Sanitation Company in this report. See **Table 13** for the comparison of wastewater treatment plant service charges, connection fees and reserve funds.

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[69] Annual service cost to City of Tehachapi is included **Appendix B**.

[70] Water supplied to Tom Sawyer Lake is valued at $250/acre-foot based on rates charged by Tehachapi Cummings Water district of $453/AF rounded to the nearest $100 and divided by 2 to account for the fact that this water would need to be diluted with fresh water to be considered for recharge credits. It is understood that the value may change in the future. Therefore, the value of treated effluent to the Lake is 28 AF X $500/2 = $7,000.

[71] The possible range of monthly service charges for this option is $60 to $80 depending on how user fees are determined. Specifically, the monthly user fee charged per single family residential connection now stands at $36.86. That user fee for City of Tehachapi residents covers the costs of collection, treatment and disposal of wastewater. If, for example, administrative expense and maintenance expense for the collection system are not charged, the monthly service fee could be lowered to about $60.00 and still leaves money to maintain the pump station and force main.

[72] 30-year net present value of construction and O&M (4%). If construction is covered by the grant money, the NPV number will be decreased by the construction cost in each case.

Table 13

Comparison of Wastewater Treatment Plant
Service Charges, Connection Fees and Reserve Funds

Components	Bear Valley CSD	CCWD (SW)	CCWD (West Point)	CCWD (Vallecito)
Number of Connections	467	56	165	254
Type of Treatment	Tertiary	Tertiary	Tertiary	Tertiary
Monthly Service Charge per EDU	$76.16	$86.16	$86.16	$86.16
Connection Fee	Approximately $15,000	$5,500 plus installation	$5,500	$12,265
Reserve Fund	33% of the 2013-2014 revenue	Yes, undisclosed	Yes, undisclosed	Yes, undisclosed

Table 13 – Comparison of Wastewater Treatment Plant

At a cost per equivalent single family dwelling unit served between $75 and $90 per month it would appear that the monthly service charges shown above are considerably less than those calculated for the GHSC plant. It should be noted however that the plant with the lowest operating cost per unit served, happened to be the largest, Bear Valley CSD. The three from Calivares County all have the same monthly service charge because the operating labor is shared among the three plants – in essence the three have an economic base as a single larger plant serving 475 units. This demonstrates that there is an economic advantage to size.

Smaller plants become prohibitively expensive to operate because they have the same labor and administrative burdon as slightly larger plants but are supported by a smaller customer base. The plants listed above serve nearly three times the customers as the Golden Hills Sanitation Company and therefore will realize a considerably lower cost per unit due to economy of scale.

5.2 Management and Funding Comparison

A comparison of management and funding issues associated with the two options is shown in **Table 14.** A summary of requirements for the various management options is also included with respect to the LAFCo process.

Table 14

Summary of Management Options

No LAFCo Process Required	LAFCo Process Required	No LAFCo (CPUC) + Grant Funding Limitations
Golden Hills CSD	Kern County (new agency)	Private Company
	City of Tehachapi	

Table 14 – Summary of Management Options

For Option 1, management could be under the GHCSD, a newly formed County service area or sanitation district. Under Option 2, management of the treatment facilities would be provided by

the City of Tehachapi. The management of the collection system and billing services could be provided by GHCSD, Kern County or City of Tehachapi.

Table 15 contains a comparison of relative advantages and disadvantages of Option 1 versus Option 2.

Table 15

Advantages and Disadvantages

Option	Advantages	Disadvantages
Option 1	• Lower overall construction costs • Less complicated to manage	• Higher O&M cost • Higher liability • More sensitive to changes in utility or construction costs in the future.
Option 2	• Lower O&M cost • More resilient to changes in energy or construction costs with costs spread over a wider base.	• Higher construction costs

Table 15 – Advantages and Disadvantages

5.2.1 Advantages/Disadvantages

Option 1

Advantages

- Keeps the entire wastewater system under local control.
- Continuous sewer service is retained within the community.
- Is compatible with existing WDR 81-122.
- Maximize return on investment for existing infrastructure.
- Allows for continued reuse of treated effluent for the benefit of the community.
- As customers are added, the cost per customer could have a notable decrease.
- Option has the most apparent community support as presented in the public meetings.
- Option can accommodate a significant number of septic system conversions if the need arises.
- Water is retained in the area for local use.

Disadvantages

- Greatest rate impact to existing sewer system customers; highest cost option with respect to O&M.
- Degraded condition of Tom Sawyer Lake over time unless additional water sources are diverted to Tom Sawyer Lake.
- Remediation of Tom Sawyer Lake may be necessary to avoid additional RWQCB scrutiny.
- Long-term interest of private operator is not guaranteed.
- Rate increase may be necessary to fund on-going major maintenance, administration and reserve fund.
- Without a complete refurbishment, long-term viability of aging plant is unknown.
- Presents greater risk financially.
- More sensitive to changes to electrical utility costs. I.e. if the price of electricity doubles, Option 1 increases the annual cost of O&M by about $16,500 which adds nearly eight

dollars to the monthly rate. A doubling of power occurs with Option 2, the annual increase in O&M is $9,000 which adds just over four dollars to the monthly rate.

- More sensitive to changes to cost of concrete repair. If for example, a seismic retrofit is required or concrete deteriorates more than expected and the price of repair triples, the $200,000 difference not covered by grant money would result in an annual addition to the O&M budget of approximately $14,500 to cover a 20-year loan at 4%.

Option 2

Advantages

- Replaces aging Golden Hills Wastewater Treatment Plant.
- Eliminates future effluent discharges into Tom Sawyer Lake.
- Consolidation opportunity, usually favored by Regional Board.
- A good option for long term stability.
- Existing management in place for treatment.
- Option 2 is the option that has the potential to achieve a sustainable rate that does not exceed the current rate.
- Tom Sawyer Lake is filled with other clean sources of water. The lake could eventually afford the community with other activities such as boating, fishing and swimming.

Disadvantages

- Rates are not controlled locally. The improvement district outside of the City of Tehachapi may be subject to higher rates than are charged to City of Tehachapi residents.
- Tom Sawyer Lake will still require remediation.
- Higher capital cost if grant funding doesn't become available.
- Water leaves area and is not available for local use.

****

6.0 Conclusions and Recommendations

In conclusion, the recommended option needs to be based on the mission, "**To develop a viable and sustainable wastewater solution that results in the least cost to Golden Hills' sewer customers."** Previously noted, the statement has 3 components (1) viable and sustainable wastewater system (financially stable), (2) least-cost, and (3) Golden Hills sewer customers. The report demonstrates that there are two options, each with three governance alternatives (six options for discussion purposes). Given all six options are viable and sustainable in providing sewer service to the Golden Hills sewer customers, AECOM's recommendation will be based on the lowest cost option. The third component, Golden Hills' sewer customers, will be key in determining which option to implement.[73]

Setting thoughts of bias and affect aside and focusing on what will work best and most cost effective over the long term is the goal of this report. The option recommended is therefore Option 2C—Force Main to Tehachapi operated by the City of Tehachapi. Option 2C can be provided for between $60 and $80 per month which is the lowest cost of all options and is even less that than the amount paid currently by customers being served under receivership. It also has the advantage of being the most stable in terms of monthly sewer service costs due to larger scale.

A brief review of the option selection follows:

Option 1 This option allows local control of the system (GHCSD Options only 1B and 1C; 1A, the Kern County option, diminishes local control) and offers the most apparent support from the community, the receiver and possible future governance (GHCSD)[74]; however there are uncertainties of support from the RWQCB and perspective of long-term sustainability. It is also unknown what the opinion of the non-vocal rate payer is if this option is more expensive than Option 2.

Option 2 Is the simpler of both options studied in terms of management of facilities but more complicated in terms of management by new governance (Options 2A and 2B)[75]. For Option 2C where the governance is City of Tehachapi, management would be simplest. With Option 2, operations and maintenance will be for the collection system, lift station and force main system. There are no treatment or disposal requirements for Golden Hills' customers with Option 2. Option 2 also appears to be the lowest cost option.

From those who have been active in the community, however, this option appears not to be favored. This disfavor is based on a variety of concerns listed below:

[73] It is understood that the recommendations derived from the analyses presented in this report will have community-wide implications. However these are secondary to the mission statement.

[74] AECOM received an e-mail from Ed Kennedy, President of the Golden Hills CSD Board, Titled AECOM: REQUEST FOR ADDITIONAL SOLUTIONS ANALYSIS dated 23 July 2014 that stated, "Please be advised GHCSD will not consider any option which does not allow for the retention of tertiary treated wastewater to remain in GHCSD." Based on that e-mail it is very clear that no matter how the numbers calculate, the District currently does not support Option 2 C. There appears to be a recent change in that position, however.

[75] Option 2A and 2B do not afford 218 protection between GHCSD or Kern County and COT.

- Concern about Tom Sawyer Lake and the notion that if the plant is removed, so does the only source of water for Tom Sawyer Lake. – This concern has been addressed in the report and alternative suitable water supplies have been identified.

- Value in treated effluent that will be lost if it is transported to City of Tehachapi. – This is addressed in the report and included in the financial analysis.

- A trust issue with the City of Tehachapi and uncertainty about being connected financially with the City. – Acknowledged.

- If the City of Tehachapi Plant is upgraded to tertiary, would a portion of that cost be placed onto the Golden Hills customers and if so, how much? – Subject to 218 process with City of Tehachapi residents only for Options 2A and 2B and includes Golden Hills Customers with Option 2C.

Option 2 provides the most feasible long-term solution for the Community of Golden Hills in terms of O&M costs. As demonstrated, with 180 active customers, the O&M projected monthly customer rates are less than Option 1. In fact the City of Tehachapi Governance Option offers a rate that is less than what is currently paid by the users. It should be noted that a reserve was assumed for all options. Though public support at the workshops appears to favor Option 1, AECOM's mission is again, to report the lowest cost option. Therefore AECOM recommends Option 2C based on the following reasons:

- Grant funding will only pay for improvements (construction costs); NOT ongoing operations and maintenance (O&M) costs.

- If grant funding is unavailable or limited, the costs associated with either Options 1 or 2 may require sewer rates to be increased beyond the current level of $91.20/month.

- Golden Hills is a financially disadvantaged community and thus has a good opportunity of receiving grant funding for improvements (construction costs).

- Although Option 1 is significantly lower with respect to capital cost, it is significantly higher with respect to O&M costs.

- Preliminary O&M cost estimates for Option 2 indicate the potential to reduce sewer rates significantly below the $91.20/month. In fact the O&M for Option 2C could fall in a range of $60 to $80 per month.

Given the primary objective is to reduce or maintain current sewer rates over the long term, AECOM recommends Option 2 with a preference to 2C.

The recommended physical project is the one where the wastewater is pumped to the City of Tehachapi through a force main. The project will consist of the following components:

1. Collection System: The collection system improvements include repairing and replacing the sewer collection mains, adding manholes in the Golden Highlands community and replacing the existing lift station and force main located on Woodford Tehachapi Road with a gravity main system to reduce O&M expenses and eliminate the related SSO's.

2. Treatment System: Decommissioning the existing wastewater treatment plant and using the City of Tehachapi's wastewater treatment plant to treat the sewage. This would also

serve as a consolidation effort preferred by the Regional Board. To use the City of Tehachapi's wastewater treatment plant, however a connection fee would be necessary for every Golden Hills Sanitation Company active and viable standby connection. Payment of the connection fee would therefore be a part of this component.

3. Transmission System: For this option, the transmission system would be construction of a pump station and force main/gravity main from the Golden Hills Community to City of Tehachapi.

4. Disposal System: With this option, the disposal responsibility would rest with the City of Tehachapi; however there would be responsibility to remediate Tom Sawyer Lake. With about 30 years of treated waste discharge into the lake, the nutrient and salt load is higher than allowed for human contact. Remediation is a necessary mitigation and one that is within the responsibility of the new governance. The remediation recommended includes adding fresh water into the lake and using irrigation to turn the water over in the lake. Fresh water would be added using a diversion facility downstream of Fountain Lake to capture intermittent stream flows and a well to continue the flow of water into the lake during dry weather.

AECOM recommends that grant funding be provided for all four of these components in order to transfer responsibility for maintenance to the new governance without an undue financial burden transferred to the rate payers.

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7.0 Implementation

This section describes the process moving forward with Option 2, "Convey Wastewater to City of Tehachapi". In this section, the following will be covered:

1. The LAFCo process necessary for the City of Tehachapi to provide sewer service;
2. Funding source application process;
3. How the existing system debts will be addressed; and
4. Schedule of implementation

7.1 LAFCo Process

A LAFCo process is not required under Government Code 56133(e) if Golden Hills CSD works as governance directly with the customers and pays the City of Tehachapi for taking the treated wastewater.

A LAFCo process is required if the sewage is conveyed from the Golden Hills Sanitation Company (GHSC) customers to the City of Tehachapi where City of Tehachapi serves as governance[76]. Under Government Code 56133 the City of Tehachapi will need to request and obtain LAFCo approval of any new or extended services outside the agency's existing boundaries. For LAFCo to approve the request, the area to be served must be within the sphere of influence of the agency, and annexation of the territory anticipated unless there is a threat to public health and safety.

Since the GHSC customers are in an area outside of the City of Tehachapi's sphere of influence the process would move forward only on the basis of a threat to public health. Approval for an out of agency agreement by LAFCo is a discretionary action. As such this approval is subject to CEQA. The process would include the following steps:

1. The City of Tehachapi, County of Kern and Golden Hills CSD should meet to discuss the details of their roles concerning governance and responsibilities for delivering the service;
2. A letter should be sent to all customers who will receive the service. This is an important step, since the constituents have the most power in determining the outcome of this process;
3. There should be a community meeting that involves the customers. During the meeting the property owners and residents who will receive the service should sign a petition requesting service from the City of Tehachapi.
4. The City of Tehachapi should prepare an application resolution to LAFCo along with the following attachments:

[76] A LAFCo process is required for the City of Tehachapi to serve Golden Hills residents if the City acts as governance. A LAFCo process is not required if Golden Hills CSD acts as governance since GHCSD has powers of sewer service in their area of operation.

a. Environmental Review (EIR and NEPA)
b. The Preliminary Engineering Report
c. Separate Project Vicinity Map showing customers served,
d. City Sphere of Influence Map
e. Exhibit showing proposed infrastructure
f. Agreement or contract
g. Proof of public health risk

5. Following receipt of the application resolution, the LAFCo Board will meet for approval. Once it is approved, the customers may be served. A copy of the LAFCo application is on the following page.

6. The LAFCo process takes from 3 to 6 months to complete.

7. The next step is to secure funding.

APPLICATION

LOCAL AGENCY FORMATION COMMISSION OF KERN COUNTY
5300 Lennox Ave. Suite 303
Bakersfield, CA 93309
Office: (661) 716-1076 Fax: (661) 716-1080

APPLICATION INFORMATION

Agency seeking LAFCo Approval: _____

Contact Person: _____ Phone: _____

Address: _____

Property Owner: _____ Phone: _____

Property Address: _____

Mailing Address: _____

PROJECT INFORMATION

Please provide the following information. You may attach additional sheets as needed.

1. Type of service to be provided:

   _____

   _____

2. Reason for out of agency service contract:

   _____

   _____

3. Project area within agency's Sphere of Influence? Yes ____ No ____.
   If not, a sphere amendment should be requested concurrent with this application. If an amendment is not being requested, provide documentation of existing or impending threat to public health or safety.

   _____

4. Please explain why annexation is not being considered as an alternative to providing services outside the agency's jurisdictional boundaries at this time.

   _____

   _____

5. Is annexation of the project area anticipated in the future? If yes, what are the agency's plans and timelines for it? Please provide relevant information, which demonstrates that the service contract

is in anticipation of a future annexation.

_____

_____

_____

6. If development is proposed on the property, please provide a description of the proposed project.

_____

_____

_____

_____

7. Please provide a detailed description of how services are to be extended to the property/properties (e.g., distance to water or sewer connections, cost of improvements, method of financing, etc.)

_____

_____

_____

8. How is financing to occur?

_____

_____

_____

ENVIRONMENTAL REVIEW

Please include a copy of environmental review conducted for the project. If exempt, please provide a copy of the Notice of Exemption.

MAPS

Please provide a vicinity map showing the property, district or city boundary, district or city sphere, and relevant proposed and existing infrastructure.

AGREEMENT/CONTRACT

Please attach a copy of the proposed agreement or contract.

Date Completed: _____

By: _____

7.2 Funding

Application for funding should occur after LAFCo approval has concluded. Funding Options were discussed in Section 4 of this report and included six sources: SW/SRF; State Bond money; USDA; IRWMP; Infrastructure Bank Loan and CDBG.

The two sources that have the greatest potential of being funded are SW/SRF and USDA. The Safe Water State Revolving Loan Fund (SW/SRF) can provide grant funding for projects up to $6 million. USDA can grant up to $1 million. The application process for each of these sources follows:

USDA Application Process

- Pre-application
- Application
- Underwriting / NEPA Environmental Assessment
- Letter of Conditions Issued and agreed upon
- Approval of loan/grant
- Client starts meeting Letter of Conditions including design & bidding

Approximate amount of time for approval process to be completed

- It takes two months from the time a complete application is submitted until funding may be provided.

When Can I apply?

- Applications are accepted year-round.

SRF Application Process

- Submit 1 copy of the application and the plans and specifications to the District office and 1 copy of the application and the plans and specifications to dwpfunds@waterboards.ca.gov or mail a CD and/or hard copy to:

State Water Resources Control Board
Division of Financial Assistance
Attn: Marketing Unit – DWSRF Project
1001 I Street, 17th Floor, Sacramento, CA 95814
P.O. Box 944212
Sacramento, CA 94244-2120

- Application content and instructions can be found at the following uniform resource locater (url): http://www.waterboards.ca.gov/drinking_water/services/funding/documents/srf/dwsrf_policy/appendix_h.pdf

Approximate amount of time for approval process to be completed:

- It takes 6 to 12 months from the time the application is submitted until funding may be provided.

When Can I apply?

- Applications are accepted year-round.

7.3 Payment of Existing Debts

There are several possible debts that will need to be addressed prior to transfer of ownership from the Receiver. The debts that we are aware of are listed below:

Description	Amount Owed	Status or Action
Taxes	Unknown	Unpaid. Debt likely to accumulate over time.
State Water Resources Control Board	$61,928	Unstated by Receiver. Debt likely to accumulate over time.
Notices of Violation	About $4 Million	Board currently exploring rescission of cleanup and abatement order.
PUC Fees	Under $1,000	PUC considering foregiveness of debt.
Receiver's compensation	About $65,000	Unknown how it will be paid. Debt likely to accumulate over time.
Carlie Smith and Lillian Smith against Golden Hills Sanitation Co.	$894,000	Currently in litigation before the PUC. Intervenor testimony to be served January 17,2015; RebuttalTestimony to be served Jan 30, 2015. Unknown if any of this matter will transfer to new owner until the results of the litigation are determined.
Borton Petrini Lawsuit	Approximately $500,000	Borton Petrini is suing GHSC for unpaid fees (currently in litigation)

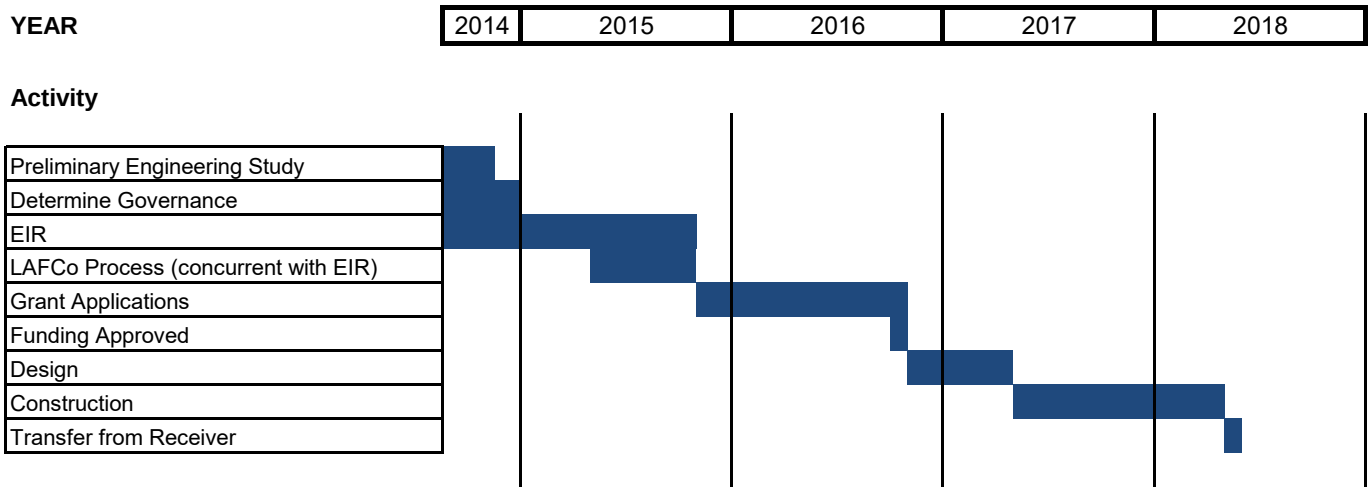
It would appear that there could be considerable debt that will need to be settled prior to transfer of ownership. How the debts are resolved are outside of the scope of this study and may become a civil matter.

7.4 Implementation Schedule

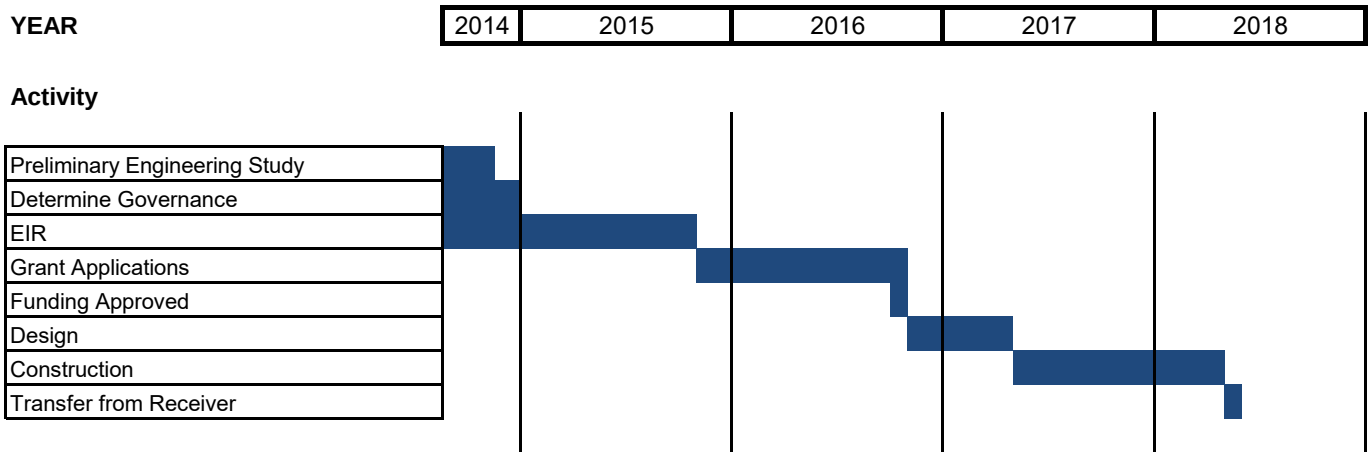
The schedule for bringing the project from the current stage to actual service of GHSC customers by the City of Tehachapi will take about 4 years and will include the following steps:

- Final Engineering Study
- Determine the Governance
- Preparation of the EIR
- LAFCo Process (Needed if City of Tehachapi or Kern County assume Role of Governance. Not needed if GHSCD assumes role.)
- Grant Applications (Update cost opinions to adjust for inflation)
- Funding is set
- Project Design
- Project Construction
- Transfer from Receiver

IMPLEMENTATION SCHEDULE WITH LAFCo PROCESS



IMPLEMENTATION SCHEDULE WITHOUT LAFCo PROCESS



Appendix A
Capital Costs

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
Option Totals

Construction Cost Totals
Construction Costs for Various Options

	Total Cost
Rehabilitate Existing Plant	$ 1,268,000
Force Main to City of Tehachapi (Lift Station at Supply Lake)	$ 1,981,000
Recovery Pond	$ 683,000
Fountain Lake	$ 271,000
Irrigation pump and system	$ 325,000
Rehab Existing Lift Station	$ 420,000
Gravity Main (Option to Rehab of Lift Station)	$ 685,000
New Water Well (For raw untreated water, no chemicals)	$ 398,000
Tehachapi Connection Fees	$ 1,395,000
Easement Cost for Option 1	$ 301,000
Easement Cost for Option 2	$ 119,000
Rehab Collection System Option 1	$ 1,104,000
Rehab Collection System Option 2	$ 1,022,000

Construction Cost Estimate

Cost of Options

Construction Costs

Component	Option 1 Continued Operation	Option 2 Tehachapi
Collection System	$1,104,000	$1,022,000
Gravity replacement of Exist Lift Station	685,000	685,000
Treatment Plant	1,268,000	75,000
Discharge Pipline	0	1,981,000
Easements (Notes 1 and 2)	301,000	119,000
Effluent Disposal	0	1,395,000
Subtotal to Sewer Customers	**3,358,000**	**5,277,000**
Irrigation	325,000	325,000
Fountain Lake	271,000	271,000
Well Water	398,000	398,000
Community total	**994,000**	**994,000**
Total community and Sewer Customers	**$4,352,000**	**$6,271,000**

Notes:

1. Easement costs apply to options where GHCSD is not the governance.
2. Easement costs are based on $1.00 per square foot. The actual cost

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
Option 1 Rehabilitate Existing Wastewater Treatment Plant

Item No	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization/Demobilization	LS	1	$30,000	$30,000
2	Demolition	LS	1	5,000	5,000
3	Permits-CLOMR, DFG, DFWL, USACE, WRCB, FEMA	LS	1	0	0
4	Instrumentation and Control	LS	1	25,000	25,000
5	Utility Improvements	LS	1	15,000	15,000
6	Restore Concrete Surfaces	SF	1,000	100	100,000
7	Norweco plumbing	LS	1	200,000	200,000
8	Above ground piping replacement (site piping)	LS	1	5,000	5,000
9	Cover Replacements with aluminum	EA	20	1,500	30,000
10	Headworks with screen, channels, slide gates, flow measurement, grit chamber and control wiring.	LS	1	50,000	50,000
11	Building Modifications (Hypo room modifications, roof repair and interior repairs)	LS	1	40,000	40,000
12	Eyewash	LS	1	5,000	5,000
13	SCADA software replacement	LS	1	12,500	12,500
14	Redundant effluent pump	LS	1	10,000	10,000
15	Second tertiary filter and piping (Title 22 approved)	LS	1	65,000	65,000
16	Blower	EA	2	10,000	20,000
17	Backup Generator replacement including auto transfer switch and installation 40 kW installed cost	LS	1	40,000	40,000
18	Site improvements (security, lighting, etc.)	LS	1	10,000	10,000
19	Fill	CY	1,000	25	25,000
20	Rock Slope Protection "Light Classification 200#"	TON	200	27	5,400
21	Filter fabric underlayment for Rock Slope Protection	SY	200	3	600
22	Overflow Basin Lining	LS	1	30,000	30,000
23	6' Chain Link Fencing with 3-strand Barbed Wire (To accommodate Basin shift)	LF	360	34	12,240
24	3- foot wide man gate	EA	0	400	0
25	20-foot wide motor-operated chain link rolling gate	EA	0	5,000	0
26	GC Overhead and Profit (10%+/-)	LS	1	73,635	73,635
27	Performance and Payment Bond	LS	1	10,000	10,000
	Subtotal				$819,375
28	Contingency (25% +/-)	LS	1	$183,750	$183,750
29	Special Inspections	LS	1	15,000	15,000
30	Engineering design, surveying, geotechnical Fees	LS	1	150,000	150,000
31	Construction Management and office engineering	LS	1	100,000	100,000
	Subtotal				$448,750
	Total				**$1,268,125**
				USE	**$1,268,000**

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
Option 2 - Force Main to City of Tehachapi
(Connections 180)

Item No	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization/Demobilization	LS	1	$40,000	$40,000
2	Decommisioning Wastewater Treatment Plant	LS	1	52,000	52,000
3	Demolition	LS	1	21,000	21,000
4	New Wetwell 16' deep and 6' diameter	EA	1	20,000	20,000
5	Holding Pond	CY	500	25	12,500
6	Pond Lining	LS	1	15,000	15,000
7	SCADA	LS	1	15,000	15,000
8	20 HP solids handling wastewater pumps on stainless steel rails	EA	2	14,000	28,000
9	Power and control panel in NEMA 3r enclosure	EA	1	15,000	15,000
10	Cover with spring assisted door for service to pumps	EA	1	1,600	1,600
11	8" wide curb	LF	320	22	7,040
12	Chain link fence with triple strand barbed wire top	LF	320	34	10,880
13	Man Gate 3-feet wide	EA	1	400	400
14	Vehicle access gate 16-foot double swing	EA	1	2,000	2,000
15	80 kW standby generator	EA	1	50,000	50,000
16	Float and ultrasound sensors	EA	1	400	400
17	Flow Meter (4")(Mag.)	EA	1	5,000	5,000
18	Area Light	LS	1	15,000	15,000
19	Gravel for soil cover	CY	22	68	1,496
20	Spring assisted door for service to valve vault	EA	1	1,600	1,600
21	Auto Dialer	EA	1	400	400
22	Surface beacon alarm	EA	1	500	500
23	4" PVC pressure line	LF	10,250	41	420,250
24	12" PVC gravity line	LF	2,122	76	161,272
25	Air Release Valve	EA	2	600	1,200
26	Pressure Cleanouts for force main	EA	21	285	5,985
27	Manhole (4' wide at bottom with 2' cover on top.)	EA	7	11,500	80,500
28	15- foot wide by 6-inch gravel access road	SF	9,900	2	19,800
29	2-inch Water Service	LF	660	35	23,100
30	1-inch Reduced pressure principal back flow preventer	EA	1	300	300
31	Building Over Power Panels and generator	EA	1	120,000	120,000
32	Meter Connection	EA	1	8,600	8,600
33	1-inch hose bib	EA	1	35	35
34	Field General Conditions	LS	1	65,000	65,000
35	GC Overhead and Profit (10% +/-)	LS	1	115,966	115,966
36	Performance and Payment Bond	LS	1	15,000	15,000
	Subtotal				$1,351,824
37	Sewer Connection Fee (Table 16)	LS	1	$1,395,000	$1,395,000
38	Contingency (25%+/-)	LS	1	288,965	288,965
39	Special Inspections	LS	1	20,000	20,000
40	Engineering design, surveying, geotechnical Fees	LS	1	200,000	200,000
41	Construction Management and office engineering	LS	1	120,000	120,000
	Subtotal				$2,023,965
	Total				**$3,375,789**
				USE	**$3,376,000**
	Subtotal Force Main Construction				**$1,980,789**
				USE	**$1,981,000**
	Subtotal Effluent Disposal (COT Connection Fees for 180 services)				**1,395,000**
				USE	**$1,395,000**

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
Water Source Option - Recovery Pond

Item No	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization/Demobilization	LS	1	$6,000	$6,000
2	Sitework	LS	1	13,000	13,000
3	Demolition (two existing pumps and concrete pad 4' by 4')	LS	1	17,000	17,000
4	50 HP pump and motor	EA	2	15,000	30,000
5	6" PVC Force Main to Tom Sawyer Lake	LF	1,700	30	51,000
6	Concrete Pedestal 8' by 8' by 12" thick for electrical service and control	LS	1	2,000	2,000
7	Earthwork 3000 cubic yards for site. Brush clearing, etc.	CY	3,000	25	75,000
8	New Wetwell 16' deep by 6' diameter	LS	1	20,000	20,000
9	New power and control panel in NEMA 4x enclosure	LS	1	25,000	25,000
10	New cover with spring assisted door for service to pumps	LS	1	1,600	1,600
11	8" wide curb under chain link fence	LF	125	24	3,000
12	6-foot high Chain link fence with 3-strand barbed wire	LF	125	32	4,000
13	3-foot wide Man Gate	EA	1	350	350
14	Geotextile Liner	SY	300	3	900
15	16-foot wide Vehicle access gate	EA	1	1,900	1,900
16	Extend power to site from existing pole line	LF	300	50	15,000
17	Building for power and control panel	EA	1	60,000	60,000
18	Concrete Pedestal 8' by 16' by 12" thick for 60 kw moveable generator	EA	1	4,000	4,000
19	Float and Ultrasound Sensors	EA	1	400	400
20	Area Light	LS	1	15,000	15,000
21	Gravel soil cover	CY	22	38	844
22	Spring assisted door to service valve vault	EA	1	1,600	1,600
23	2" Water Service	LF	1,500	35	52,500
24	Meter Connection	EA	1	8,600	8,600
24	1-inch Reduced pressure principal back flow preventer	EA	1	300	300
25	1-inch hose bib	EA	1	35	35
26	Auto Dialer	EA	1	400	400
27	15- foot wide by 6-inch gravel access road (blade and cover)	SF	20,000	2	40,000
28	Surface Beacon Alarm	EA	1	500	500
29	Field General Conditions	LS	1	11,000	11,000
30	GC Overhead and Profit (10%+/-)	LS	1	45,071	45,071
31	Performance and Payment Bond	LS	1	5,000	5,000
	Subtotal				$511,000
32	Contingency (25% +/-)	LS	1	$112,000	$112,000
33	Special Inspections	LS	1	3,000	3,000
34	Engineering Fees + surveying	LS	1	32,000	32,000
35	Construction Management and office engineering	LS	1	25,000	25,000
	Subtotal				$172,000
	Total				**$683,000**

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
Water Source Option - Fountain Lake

Item No	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization/Demobilization	LS	1	$5,000	$5,000
2	Site Work (Clearing)	LS	1	13,000	13,000
3	Earth Work	CY	1,500	15	22,500
4	Geotextile Liner	SY	500	3	1,500
5	15- foot wide by 6-inch gravel access road	SF	15,000	2	30,000
6	Rock Slope Protection "Class 200 Light"	Ton	300	47	14,100
7	Slide Gate	EA	1	1,000	1,000
8	Manhole for Sluce Gate	EA	1	6,000	6,000
9	24" concrete line from Sluice gate to open ditch inc. riprap and FES	LS	1	5,000	5,000
10	Open ditch to deliver water to TS Lake	LF	900	40	36,000
11	Intake Structure	LS	1	13,000	13,000
12	24"Culvert with Flared end sections to discharge from ditch to Tom Sawyer lake (RSP + earthwork to allow path to pass over culvert)	LS	1	10,000	10,000
13	Field General Conditions	LS	1	9,000	9,000
14	GC Overhead and Profit (10%+/-)	LS	1	14,900	14,900
15	Performance and Payment Bond	LS	1	2,000	2,000
	Subtotal				$183,000
16	Contingency (25%+/-)	LS	1	$37,000	$37,000
17	Engineering Fees (Design, surveying, geotechnical)	LS	1	28,000	28,000
18	Construction Management + Office engineering	LS	1	23,000	23,000
	Subtotal				$88,000
	Total				**$271,000**

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
Disposal Option - Tom Sawyer Lake (Irrigation)

Item No	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization/Demobilization	LS	1	$6,000	$6,000
2	Booster Pump with filters, power and control in a weather resistant enclosure; piping, valves, labor and miscellaneous costs to irrigate approximately 6 acres. No SCADA, standby generator or fencing	LS	1	200,000	200,000
3	Field General Conditions	LS	1	5,500	5,500
4	GC Overhead and Profit (10% +/-)	LS	1	20,676	20,676
5	Performance and Payment Bond	LS	1	3,000	3,000
	Subtotal				$235,176
6	Contingency (25% +/-)	LS	1	$51,917	$51,917
7	Engineering Fees (Design, surveying))	LS	1	25,000	25,000
8	Construction Management + Office engineering	LS	1	12,500	12,500
	Subtotal				$89,417

Total	**$324,593**
USE	**$325,000**

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
Rehabilitate Existing Lift Station

Item No	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization/Demobilization	LS	1	$5,000	$5,000
2	Demo and remove building	LS	1	4,000	4,000
3	Coat inside of wetwell 20' deep and 5' diameter	LS	1	17,000	17,000
4	New 5HP solids handling wastewater pump on slide rails	EA	2	2,900	5,800
5	New power and control panel in NEMA 4x enclosure	LS	1	20,000	20,000
6	New cover with spring assisted door for service to pumps	LS	1	1,600	1,600
7	8" wide curb under chain link fence	LF	125	24	3,000
8	6-foot high Chain link fence with 3-strand barbed wire	LF	125	34	4,250
9	3-foot wide Man Gate	EA	1	350	350
10	16-foot wide Vehicle access gate	EA	1	1,900	1,900
11	SCADA software replacement	LS	1	15,000	15,000
12	Building	EA	1	120,000	120,000
13	30 kW standby generator	EA	1	32,000	32,000
14	Float and Ultrasound Sensors	EA	1	400	400
15	Area Light	LS	1	15,000	15,000
16	Gravel soil cover	CY	22	38	844
17	Spring assisted door to service vault	EA	1	1,600	1,600
18	Auto Dialer	EA	1	400	400
19	Surface Beacon Alarm	EA	1	500	500
20	2 -inch Water Service	LF	100	36	3,600
21	Meter Connection	EA	1	8,600	8,600
22	1-inch reduced pressure principal backflow preventor	EA	1	300	300
23	1-inch non freeze hose bib	EA	1	35	35
24	Field General Conditions	LS	1	8,000	8,000
25	GC Overhead and Profit (10% +/-)	LS	1	26,321	26,321
26	Performance and Payment Bond	LS	1	3,500	3,500
	Subtotal				$299,000
27	Contingency (25%+/-)	LS	1	$65,000	$65,000
28	Special Inspections	LS	1	3,000	3,000
29	Engineering Fees	LS	1	28,000	28,000
30	Construction Management, Inspection and office engineering	LS	1	25,000	25,000
	Subtotal				$121,000
	Total				**$420,000**

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
Gravity Option to remove Existing Lift Station

Item No	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization/Demobilization	LS	1	$13,000	$13,000
2	Demo Existing Lift Sation (6' diameter and 20' deep)	LS	1	24,000	24,000
3	Abandonment of existing 8" PVC lines at average depth 6' (in place)	LF	1,336	4	5,344
4	Abandonment of existing 12" PVC lines at average depth 6'	LF	1,781	6	10,686
5	Abandonment of existing manholes	EA	12	3,000	36,000
6	Construction of new manholes (4' wide at bottom and 2' diameter cover)	EA	10	8,000	80,000
7	Construct 8 - inch PVC sewer line at average depth of 10'	LF	1,426	60	85,560
8	Construction of new 12" PVC sewer line at average depth 10'	LF	1,983	70	138,810
9	Road Bore	LS	1	12,000	12,000
10	Sitework	LS	1	13,000	13,000
11	Record Drawings	LS	1	2,000	2,000
12	Field General Conditions	LS	1	21,000	21,000
13	GC Overhead and Profit (10% +/-)	LS	1	41,600	41,600
14	Performance and Payment Bond	LS	1	5,000	5,000
	Subtotal				$488,000
15	Contingency (25% +/-)	LS	1	$105,000	$105,000
16	Special Inspections	LS	1	7,000	7,000
17	Engineering and Surveying Fees	LS	1	60,000	60,000
18	Construction Management	LS	1	25,000	25,000
	Subtotal				$197,000
	Total				**$685,000**

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
New Well Connection to Existing 6" Force Main to Tom Sawyer Lake

Item No	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization/Demobilization	LS	1	$0	$0
	Site Work	LS	1	10,000	10,000
2	Drill and develop well	LS	1	112,000	112,000
3	Install 20 HP submersible pump and 4" discharge piping	LS	1	40,000	40,000
4	Furnish and install Power/Control panel, PLC and SCADA system in dead front panel NEMA 4X + 8' X 6' Concrete slab foundation	LS	1	35,000	35,000
5	Concrete pedestal for Well	LS	1	2,000	2,000
6	Small surge vessel	LS	1	2,000	2,000
7	6' chain link fencing with 3 std barbed wire and PCC curb at fence base	LF	120	56	6,720
8	3 - foot man gate	EA	1	350	350
9	16-foot vehicular access gate	EA	1	1,900	1,900
10	Garvel surfacing	CY	14	38	532
11	4" Piping from New Well to FM including trenching	LF	300	40	12,000
12	Connection to 6" force main and to existing well discharge	LS	1	3,000	3,000
13	Miscellaneous Valves, fittings and meter	LS	1	10,000	10,000
14	Record Drawings	LS	1	2,000	2,000
15	General Field Conditions	LS	1	5,000	5,000
16	GC Overhead and Profit (10% +/-)	LS	1	23,698	23,698
17	Performance and Payment Bond	LS	1	4,000	4,000
	Subtotal				$270,200
18	Contingency (25%+/-)	LS	1	$67,800	$67,800
19	Engineering Fees	LS	1	30,000	30,000
20	Construction Management, Inspection and office engineering	LS	1	30,000	30,000
	Subtotal				$127,800
	Total				**$398,000**

TABLE 16

Estimated Force Main Sewer Connection Fees
180 Active Connections and 30 Standby

Type	Number of Connections	Number of Units	EDU	Connection Fee	Total
Single-Family Homes	107	107	1.00	$7,259	$776,713
Manufactured Homes	47	47	0.58	7,259	197,880
Apartment Complex	22	29	0.58	7,259	122,096
Hotel	4	24	0.46	7,259	80,139
Standby	30	30	1.00	7,259	217,770

Totals	**210**	**$1,394,598**
USE		**$1,395,000**

Note: Sewer connection fee based on City of Tehachapi methodology.

Preliminary Opinion of Probable Cost
Golden Hills Sewer Project
Easements

Item No	Item Description	Length	Width	Area	Unit	Unit Price	Amount
	OPTION ONE						
1	Gravity Main to the Plant including side stream (assume 30 - foot wide to facilitate dirt access road)	5,800	30	174,000	SF	$1	$174,000
2	Access road to Plant	2,600	40	104,000	SF	1	104,000
3	Plant Area (Fee)			23,100	SF	1	23,100
				Total Option 1			**$301,100**
				Use			**$301,000**
	OPTION TWO						
1	Gravity Main to Lift Station including side stream (assume 30 - foot wide easement to facilitate dirt access road)	3,000	30	90,000	SF	1	$90,000
2	Force Main Access (assume 30 - foot wide easement to facilitate dirt access road)	400	30	12,000	SF	1	12,000
3	Lift Station site + emergency overflow basin			15,000	SF	1	15,000
4	Easement through private property	200	10	2,000	SF	1	2,000
				Total Option 2			**$119,000**

Notes:

1. Easement costs apply to options where GHCSD is not the governance.
2. Easement costs will depend on the market conditions at the time of purchase..
3. There is evidence of a percriptive easement over the sewer line from Woodford Tehachapi Road to the Existing Wastewater Treatment Plant, but it is not substantiated. The cost of easements shown above are based on an assumed value of $1.00 per square foot only for comparison purposes between options and does not reflect the market value of the land. To the extent that easements are required, the cost would need to be negotiated based on

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
Rehab Exist Collection System (Option 1)

Item No	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization/Demobilization	LS	1	$13,000	$13,000
2	Remove existing 6" PVC sewer	LF	590	4	2,360
3	Remove existing 8" PVC sewer at average depth 6'	LF	2,090	4	8,360
4	Remove existing 12" PVC sewer at average depth 6'	LF	600	6	3,600
5	Remove existing manhole	EA	0	4,000	0
6	Construction of new manhole (4' wide at bottom and 2' diameter cover) Provide collar at road surface.	EA	16	8,000	128,000
7	Construct 6-inch PVC sewer	LF	590	50	29,500
8	Construct 8 - inch PVC sewer	LF	2,090	60	125,400
9	Construction 12 - inch PVC sewer	LF	600	70	42,000
10	Construct Manhole including bypass pumping	EA	27	10,000	270,000
11	Pavement Restoration	SF	8,000	5	40,000
12	Adjust and collar manhole lids to street grade	EA	18	1,500	27,000
13	Deep Clean Sewer main	LF	11,720	3	35,160
14	Traffic Control	LS	1	12,000	12,000
15	Field General Conditions (Bruch Clearing, etc.)	LS	1	21,000	21,000
16	GC Overhead and Profit (10% +/-)	LS	1	73,638	73,638
17	Performance and Payment Bond	LS	1	4,000	4,000
	Subtotal				$835,018
18	Contingency (25% +/-)	LS	1	$183,982	$183,982
19	Engineering Fees (Surveying, Prep plan, specs, contract documents, advertise and provide engineering assistance during construction and cleaning.)	LS	1	60,000	60,000
20	Construction management and Inspection	LS	1	25,000	25,000
	Subtotal				$268,982
	Total				**$1,104,000**

Preliminary Opinion of Probable Construction Cost
Golden Hills Sewer Project
Rehab Exist Collection System (Option 2)

Item No	Item Description	Unit	Quantity	Unit Price	Amount
1	Mobilization/Demobilization	LS	1	$13,000	$13,000
2	Remove existing 6" PVC sewer	LF	590	4	2,360
3	Remove existing 8" PVC sewer at average depth 6'	LF	2,090	4	8,360
4	Remove existing 12" PVC sewer at average depth 6'	LF	0	6	0
5	Remove existing manhole	EA	0	4,000	0
6	Construction of new manhole (4' wide at bottom and 2' diameter cover) Provide collar at road surface.	EA	16	8,000	128,000
7	Construct 6-inch PVC sewer	LF	590	50	29,500
8	Construct 8 - inch PVC sewer	LF	2,090	60	125,400
9	Construction 12 - inch PVC sewer	LF	0	70	0
10	Construct Manhole including bypass pumping	EA	27	10,000	270,000
11	Pavement Restoration	SF	8,000	5	40,000
12	Adjust and collar manhole lids to street grade	EA	18	1,500	27,000
13	Deep Clean Sewer main	LF	10,590	3	31,770
14	Traffic Control	LS	1	12,000	12,000
15	Field General Conditions (Brush clearing, etc.)	LS	1	15,000	15,000
16	GC Overhead and Profit (10% +/-)	LS	1	68,739	68,739
17	Performance and Payment Bond	LS	1	4,000	4,000
	Subtotal				$775,129
18	Contingency (25% +/-)	LS	1	$171,871	$171,871
19	Engineering Fees (Surveying, Prep plan, specs, contract documents, advertise and provide engineering assistance during construction and cleaning.)	LS	1	50,000	50,000
20	Construction management and Inspection	LS	1	25,000	25,000
	Subtotal				$246,871
	Total				**$1,022,000**

Appendix B
O & M Costs

Operations and Maintenance Cost Opinion Summary

Option Totals

Operation and Maintenance Cost Totals
O&M Costs for Various Options

	Annual O&M Costs	
Wastewater Treatment Plant 1a (Kern County)(Low range)	$	327,000
Wastewater Treatment Plant 1a (Kern County)(High range)	$	376,000
Wastewater Treatment Plant 1b (GHCSD)(Low Range)	$	261,000
Wastewater Treatment Plant 1b (GHCSD)(High Range)	$	342,000
Wastewater Treatment Plant 1c (GHCSD or KC/Private Contractor)	$	243,000
Lift Station and FM to Tehachapi 2a (Kern County)	$	119,000
Lift Station and FM to Tehachapi 2b (GHCSD)	$	92,000
Lift Station and FM to Tehachapi 2c (City of Tehachapi)	$	59,000
Existing Lift Station (Recommended to be replaced by gravity main)	$	15,000
Collection System Option 1	$	45,000
Collection System Option 2	$	42,000
Collection System (Portion to be maintained if Exist Lift Station removed)	$	1,000
Fountain Lake	$	7,000
Recovery Pond	$	42,000
Irrigation system	$	24,000
Pipeline to Tom Sawyer Lake	$	6,000
Tehachapi Service Charge total	$	78,000
New Well	$	14,000

Operations and Maintenance Cost Opinion

Cost of Options

Operation and Maintenance Costs

Annual O&M costs (based on 180 connections)

Component	Option 1 Continued Operations			Option 2 F. M. to Tehachapi		
	1a. Kern County	1b. GHCSD	1c. GHCSD +Contractor	2a. Kern County	2b. GHCSD	2c. COT (Note 4)
Collection System	$45,000	$45,000	$45,000	$42,000	$42,000	$42,000
Treatment Plant (Note 1)	376,000	342,000	243,000	0	0	0
Discharge Pipeline (Note 2)	6,000	6,000	6,000	119,000	92,000	59,000
Effluent Disposal (Note 3)				78,000	78,000	78,000
Value of treated effluent (Note 4)	-7,000	-7,000	-7,000			
Value of Standby payments (30) (Note 7)	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000
Totals 180 Customer	414,000	380,000	281,000	233,000	206,000	173,000
Monthly Charge/Customer (180 Customers)	**$192**	**$176**	**$130**	**$108**	**$95**	**$80**

Notes:

1. Kern County's rate could vary from $327,000 to $376,000 per year.
2. Golden Hills CSD rates could vary from $262,000 to $342,000 per year.
3. Annual service cost to City of Tehachapi (Ref. "Estimated City of Tehachapi Sewer Service Charge based on 180 connections") (2014 dollars)
4. Water supplied to Tom Sawyer Lake is valued at $250/AF based on rates charged by Tehachapi Cummings Water District of $453/AF rounded to the nearest $100. Since the water is treated effluent and would need to be mixed with fresh water for recharge purposes, the value is assumed to be half of the value of fresh water or $250/AF.It is understood that the value may change in the future. Therefore, the value of treated effluent delivered to the lake on an annual basis is 28 AF x $250 = $7,000.
5. Monthly reserve fund to cover Tehachapi for all 30 standby customers connected (2014 dollars).
6. The possible range of monthly service charge for this option is $60 to $80 per month depending on how user fees are determined. Specifically, the monthly user fee charged per single family resedential connection now stands at $36.86. That user fee for City of Tehachapi resedents covers the costs of collection, treatment and disposal of wastewater. If, for example, administrative expenses and maintenance expenses for the collection system are not charged, the monthly service fee could be lowered to about $60 and still leave money to maintain the pump station and force main.
7. Under a public governance, the standby charge is not recommended, however the customers currently pay a charge of about

Operations and Maintenance Cost Opinion

Option 1 A

Existing Wastewater Treatment Plant

(Kern County Operated)

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pumps	$	0.140	40	29.8	10.0	3,650	108,916	$15,248
Other Power	$	0.140		2.0	12.0	4,380	8,760	1,226
Other Utilities Water and Phone						0	0	1,200
						Average Annual Cost		**$17,675**

Services and Supplies

Description	$/Yr
Office Supplies and Miscellaneous	$6,500
Truck payment/insurance/maintenance/fuel/year	12,000
Daily travel to/from plant 110 miles/day-365/year. Using $0.55/mile(110 * 365 * $0.55)	22,082
Electrician/SCADA Technician	600
Regulatory Fees	17,000
Certification, training and licensing of Plant Operators (Two operators, one every other year)	3,000
Insurance	4,000
Fees paid to HOA for billing/collections	1,800
Allowance for billing/collections CSD	12,000
Lab Testing/Delivery to lab	7,500
Sodium Hypochlorite	1,500
Materials, supplies, parts	4,000
Sludge Disposal (labor, fees)	2,000
Miscellaneous Expenses	6,000
Total Other O&M	**$99,982**

Routine Labor

Labor Category	Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr	Fully burdened cost factor		$/Yr
WWTP Management (Governance)	$60	2	52	104	1.60		$9,984
Governance (48 hours for two meetings annually with Regional Board)	$60			48	1.60		4,608
Engineering (RWD every 10 years)	$180			28	1.00		5,040
Engineering (Misc.)	$180			20	1.00		3,600
Grade 3+ Operator 4 hours per week (Includes travel)	$35	4	52	208	1.60		11,648
Grade 2/3 Operator 4 hours per day (Includes travel)	$28	28	52	1,456	1.60		65,229
Grade 1 Operator 10 hours per week (Includes travel)	$18	10	52	520	1.60		14,976
Management (Part-time salaried)	$40	10	52	520	1.60		33,280
Clerical and Management	$25	5	52	260	1.60		10,400
					Total Labor		**$158,765**

Reserve Fund + 3 months of operating expenses

Component	Unit Cost Installed	QTY SF	Total Cost	Ave Life Years			Annual Reserve
Building Replacement	$150	1,000	$150,000	30			$5,000
Concrete Structure	$75	17,500	$1,312,500	50			26,250
3 Months operating expense loan @ 4% (30 year)							4,260
Total:			**Total Annual Reserve Fund**				**$35,510**

Replacement costs of moving equipment

Component	Unit Cost Installed	QTY	Total Cost	Ave Life Years			Annual Reserve
Flow Meter	$2,000	1	$2,000	7			$290
Blower	3,000	2	6,000	10			600
Motor, 3 HP	1,000	2	2,000	15			130
Blower	10,000	2	20,000	10			2,000
Motor 10 HP	1,400	2	2,800	15			190
Discharge Pump 7 1/2 HP	3,000	2	6,000	15			400
Chlorine Metering Pump	1,400	2	2,800	7			400
SCADA	12,500	1	12,500	10			1,250
Instrumentation and Control	25,000	1	25,000	10			2,500
Tertiary Filter	50,000	2	100,000	25			4,000
Air Compressor	1,000	1	1,000	15			70
Sump Pump	250	2	500	15			30
Lift Station Pump, 3HP 460v	3,500	2	7,000	15			470
Power and Control Panel	20,000	1	20,000	20			1,000
Standby Generator	40,000	1	40,000	30			1,330
Total:			**Total Annual Repalcement and Emergency fund**				**$14,660**

Total O&M for Plant **$326,591**

USE **$327,000**

Notes:

1. Added labor for management and engineering.
2. Replacement cost fund covers non-routine maintenance and servicing of equipment. This is based on USDA suggested method.
3. Hourly rates based on review of rates for Wastewater Treatment Plant Operators who work for the County of Kern, City of Tehachapi, City of Bakersfield and Bear Valley CSD
4. A reserve fund was computed based on replacement of the building and the concrete structure after their useful remaining lives. It is needed to cover those without having to raise bonds or other revenue in the future. It also includes 3 months of operating expenses (a 20 - year loan at 4%).

Operations and Maintenance Cost Opinion

Option 1 A
Existing Wastewater Treatment Plant
(Kern County Operated) (High)

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pumps	$	0.140	40	29.8	10.0	3,650	108,916	$15,248
Other Power	$	0.140		2.0	12.0	4,380	8,760	1,226
Other Utilities Water and Phone						0	0	1,200
						Average Annual Cost		**$17,675**

Services and Supplies

Description	$/Yr
Office Supplies and Miscellaneous	$6,500
Truck payment/insurance/maintenance/fuel/year	12,000
Daily travel to/from plant 110 miles/day-365/year. Using $0.55/mile(110 * 365 * $0.55)	22,082
Electrician/SCADA Technician	600
Regulatory Fees	17,000
Certification, training and licensing of Plant Operators (Two operators, one every other year)	3,000
Insurance	4,000
Fees paid to HOA for billing/collections	1,800
Allowance for billing/collections CSD	12,000
Lab Testing/Delivery to lab	7,500
Sodium Hypochlorite	1,500
Materials, supplies, parts	4,000
Sludge Disposal (labor, fees)	2,000
Miscellaneous Expenses	6,000
Total Other O&M	**$99,982**

Routine Labor

Labor Category	Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr	Fully burdened cost factor		$/Yr
WWTP Management (Governance)	$60	2	52	104	1.60		$9,984
Governance (48 hours for two meetings annually with Regional Board)	$60			48	1.60		4,608
Engineering (RWD every 10 years)	$180			28	1.00		5,040
Engineering (Misc.)	$180			20	1.00		3,600
Grade 3+ Operator 4 hours per week (Includes travel)	$35	4	52	208	1.60		11,648
Grade 2/3 Operator 4 hours per day (Includes travel)	$28	40	52	2,080	1.60		93,184
Grade 1 Operator 10 hours per week (Includes travel)	$18	24	52	1,248	1.60		35,942
Management (Part-time salaried)	$40	10	52	520	1.60		33,280
Clerical and Management	$25	5	52	260	1.60		10,400
					Total Labor		**$207,686**

Reserve Fund + 3 months of operating expenses

Component	Unit Cost Installed	QTY SF	Total Cost	Ave Life Years			Annual Reserve
Building Replacement	$150	1,000	$150,000	30			$5,000
Concrete Structure	$75	17,500	$1,312,500	50			26,250
3 Months operating expense loan @ 4% (30 year)							4,956
Total:			**Total Annual Reserve Fund**				**$36,206**

Replacement costs of moving equipment

Component	Unit Cost Installed	QTY	Total Cost	Ave Life Years			Annual Reserve
Flow Meter	$2,000	1	$2,000	7			$290
Blower	3,000	2	6,000	10			600
Motor, 3 HP	1,000	2	2,000	15			130
Blower	10,000	2	20,000	10			2,000
Motor 10 HP	1,400	2	2,800	15			190
Discharge Pump 7 1/2 HP	3,000	2	6,000	15			400
Chlorine Metering Pump	1,400	2	2,800	7			400
SCADA	12,500	1	12,500	10			1,250
Instrumentation and Control	25,000	1	25,000	10			2,500
Tertiary Filter	50,000	2	100,000	25			4,000
Air Compressor	1,000	1	1,000	15			70
Sump Pump	250	2	500	15			30
Lift Station Pump, 3HP 460v	3,500	2	7,000	15			470
Power and Control Panel	20,000	1	20,000	20			1,000
Standby Generator	40,000	1	40,000	30			1,330
Total:			**Total Annual Repalcement and Emergency fund**				**$14,660**

Total O&M for Plant **$376,209**
USE **$376,000**

Notes:

1. Added labor for management and engineering.
2. Replacement cost fund covers non-routine maintenance and servicing of equipment. This is based on USDA suggested method.
3. Hourly rates based on review of rates for Wastewater Treatment Plant Operators who work for the County of Kern, City of Tehachapi, City of Bakersfield and Bear Valley CSD
4. A reserve fund was computed based on replacement of the building and the concrete structure after their useful remaining lives. It is needed to cover those without having to raise bonds or other revenue in the future. It also includes 3 months of operating expenses (a 20 - year loan at 4%).

Operations and Maintenance Cost Opinion

Option 1 B
Existing Wastewater Treatment Plant
(Golden Hills CSD Operated)

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pumps	$	0.140	40	29.8	10.0	3,650	108,916	$15,248
Other Power	$	0.140		2.0	12.0	4,380	8,760	1,226
Other Utilities Water and Phone						0	0	1,200
						Average Annual Cost		**$17,675**

Services and Supplies

Description	$/Yr
Office Supplies and Miscellaneous	$6,500
Truck payment/insurance/maintenance/fuel/year	12,000
Electrician/SCADA Technician	600
Regulatory Fees	17,000
Certification, training and licensing of Plant Operators (Two operators, one every other year)	3,000
Insurance	4,000
Fees paid to HOA for billing/collections	1,800
Allowance for billing/collections CSD	12,000
Lab Testing/Delivery to lab	7,500
Sodium Hypochlorite	1,500
Materials, supplies, parts	4,000
Sludge Disposal (labor, fees)	2,000
Miscellaneous Expenses	6,000
Total Other O&M	**$77,900**

Routine Labor

Labor Category	Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr	Fully burdened cost factor	$/Yr
WWTP Management (Governance)	$60	2	52	104	1.60	$9,984
Governance (48 hours for two meetings annually with Regional Board)	$60			48	1.60	4,608
Engineering (RWD every 10 years)	$180			28	1.00	5,040
Engineering (Misc.)	$180			20	1.00	3,600
Grade 3+ Operator 2 hours per week	$35	2	52	104	1.60	5,824
Grade 2/3 Operator 2 hours per day	$28	14	52	728	1.60	32,614
Grade 1 Operator 8 hours per week	$18	8	52	416	1.60	11,981
Management (Part-time salaried)	$40	10	52	520	1.60	33,280
Clerical and Management	$25	5	52	260	1.60	10,400
					Total Labor	**$117,331**

Reserve Fund + 3 months of operating expenses

Component	Unit Cost Installed	QTY SF	Total Cost	Ave Life Years	Annual Reserve
Building Replacement	$150	1,000	$150,000	30	$5,000
Concrete Structure	$75	17,500	$1,312,500	50	26,250
3 Months operating expense loan @ 4% (30 year)					2,964
Total:			**Total Annual Reserve Fund**		**$34,214**

Replacement costs of moving equipment

Component	Unit Cost Installed	QTY	Total Cost	Ave Life Years	Annual Reserve
Flow Meter	$2,000	1	$2,000	7	$290
Blower	3,000	2	6,000	10	600
Motor, 3 HP	1,000	2	2,000	15	130
Blower	10,000	2	20,000	10	2,000
Motor 10 HP	1,400	2	2,800	15	190
Discharge Pump 7 1/2 HP	3,000	2	6,000	15	400
Chlorine Metering Pump	1,400	2	2,800	7	400
SCADA	12,500	1	12,500	10	1,250
Instrumentation and Control	20,000	1	20,000	10	2,000
Tertiary Filter	50,000	2	100,000	25	4,000
Air Compressor	1,000	1	1,000	15	70
Sump Pump	250	2	500	15	30
Lift Station Pump, 3HP 460v	3,500	2	7,000	15	470
Power and Control Panel	20,000	1	20,000	20	1,000
Standby Generator	40,000	1	40,000	30	1,330
Total:			**Total Annual Repalcement and Emergency fund**		**$14,160**

Total O&M for Plant **$261,280**
USE **$261,000**

Notes:

1. Added labor for management and engineering.
2. Replacement cost fund covers non-routine maintenance and servicing of equipment. This is based on USDA suggested method.
3. Hourly rates based on review of rates for Wastewater Treatment Plant Operators who work for the County of Kern, City of Tehachapi, City of Bakersfield and Bear Valley CSD
4. A reserve fund was computed based on replacement of the building and the concrete structure after their useful remaining lives. It is needed to cover those without having to raise bonds or other revenue in the future. It also includes 3 months of operating expenses (a 20 - year loan at 4%).
5. These numbers were not confirmed with GHCSD for the draft and will be prior to the final report.

Operations and Maintenance Cost Opinion

Option 1 B

Existing Wastewater Treatment Plant

(Golden Hills CSD Operated)(High)

Operation and Maintenance Costs

Power

Item	$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pumps	$ 0.140	40	29.8	10.0	3,650	108,916	$15,248
Other Power	$ 0.140		2.0	12.0	4,380	8,760	1,226
Other Utilities Water and Phone					0	0	1,200
					Average Annual Cost		**$17,675**

Services and Supplies

Description	$/Yr
Office Supplies and Miscellaneous	$6,500
Truck payment/insurance/maintenance/fuel/year	12,000
Electrician/SCADA Technician	600
Regulatory Fees	17,000
Certification, training and licensing of Plant Operators (Two operators, one every other year)	3,000
Insurance	4,000
Fees paid to HOA for billing/collections	1,800
Allowance for billing/collections CSD	12,000
Lab Testing/Delivery to lab	7,500
Sodium Hypochlorite	1,500
Materials, supplies, parts	4,000
Sludge Disposal (labor, fees)	2,000
Miscellaneous Expenses	6,000
Total Other O&M	**$77,900**

Routine Labor

Labor Category	Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr	Fully burdened cost factor	$/Yr
WWTP Management (Governance)	$60	2	52	104	1.60	$9,984
Governance (48 hours for two meetings annually with Regional Board)	$60			48	1.60	4,608
Engineering (RWD every 10 years)	$180			28	1.00	5,040
Engineering (Misc.)	$180			20	1.00	3,600
Grade 3+ Operator 2 hours per week	$35	2	52	104	1.60	5,824
Grade 2/3 Operator 2 hours per day	$28	40	52	2,080	1.60	93,184
Grade 1 Operator 8 hours per week	$18	20	52	1,040	1.60	29,952
Management (Part-time salaried)	$40	10	52	520	1.60	33,280
Clerical and Management	$25	5	52	260	1.60	10,400
					Total Labor	**$195,872**

Reserve Fund + 3 months of operating expenses

Component	Unit Cost Installed	QTY SF	Total Cost	Ave Life Years	Annual Reserve
Building Replacement	$150	1,000	$150,000	30	$5,000
Concrete Structure	$75	17,500	$1,312,500	50	26,250
3 Months operating expense loan @ 4% (30 year)					4,956
Total:			**Total Annual Reserve Fund**		**$36,206**

Replacement costs of moving equipment

Component	Unit Cost Installed	QTY	Total Cost	Ave Life Years	Annual Reserve
Flow Meter	$2,000	1	$2,000	7	$290
Blower	3,000	2	6,000	10	600
Motor, 3 HP	1,000	2	2,000	15	130
Blower	10,000	2	20,000	10	2,000
Motor 10 HP	1,400	2	2,800	15	190
Discharge Pump 7 1/2 HP	3,000	2	6,000	15	400
Chlorine Metering Pump	1,400	2	2,800	7	400
SCADA	12,500	1	12,500	10	1,250
Instrumentation and Control	20,000	1	20,000	10	2,000
Tertiary Filter	50,000	2	100,000	25	4,000
Air Compressor	1,000	1	1,000	15	70
Sump Pump	250	2	500	15	30
Lift Station Pump, 3HP 460v	3,500	2	7,000	15	470
Power and Control Panel	20,000	1	20,000	20	1,000
Standby Generator	40,000	1	40,000	30	1,330
Total:			**Total Annual Repalcement and Emergency fund**		**$14,160**

Total O&M for Plant **$341,813**

USE **$342,000**

Notes:

1. Added labor for management and engineering.
2. Replacement cost fund covers non-routine maintenance and servicing of equipment. This is based on USDA suggested method.
3. Hourly rates based on review of rates for Wastewater Treatment Plant Operators who work for the County of Kern, City of Tehachapi, City of Bakersfield and Bear Valley CSD
4. A reserve fund was computed based on replacement of the building and the concrete structure after their useful remaining lives. It is needed to cover those without having to raise bonds or other revenue in the future. It also includes 3 months of operating expenses (a 20 - year loan at 4%).
5. These numbers were not confirmed with GHCSD for the draft and will be prior to the final report.

Operations and Maintenance Cost Opinion

Option 1 C

Existing Wastewater Treatment Plant

(GHCSD Management, Contractor Maintained)

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pumps	$	0.140	40	29.8	10.0	3,650	108,916	$15,248
Other Power	$	0.140		2.0	12.0	4,380	8,760	1,226
Other Utilities Water and Phone						0	0	1,200
						Average Annual Cost		**$17,675**

Services and Supplies

Description	$/Yr
Office Supplies	$1,500
Truck payment/insurance/maintenance/fuel/year	12,000
Electrician/SCADA Technician	600
Regulatory Fees	17,000
Certification, training and licensing of Plant Operators (Two operators, one every other year)	3,000
Fees paid to HOA for billing/collections	1,800
Allowance for billing/collections CSD	12,000
Insurance	4,000
Lab Testing/Delivery to lab	7,500
Sodium Hypochlorite	1,500
Materials, supplies, parts	4,000
Sludge Disposal (labor, fees)	2,040
Miscellaneous Expenses	6,000
Total Other O&M	**$72,940**

Routine Labor

Labor Category	Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr	Fully burdened cost factor	$/Yr
WWTP Management (Governance)	$60	2	52	104	1.60	$9,984
Governance (48 hours for two meetings annually with Regional Board)	60			48	1.60	4,608
Engineering (RWD every 10 years)	180			28	1.00	5,040
Engineering (Misc.)	180			20	1.00	3,600
Workman's Comp						1,920
Grade 5 Operator (Loaded)	46	2	52	104		4,800
Grade 2 Operator (Loaded)	40	14	52	728		28,800
Grade 1 Operator (loaded)	28	14	52	728		20,700
CMC Management Fee (Loaded)		LS	52			18,000
Clerical and Management (Loaded)	25	5	52	260	1.00	6,500
					Total Labor	**$103,951**

Reserve Fund + 3 months of operating expenses

Component	Unit Cost Installed	QTY SF	Total Cost	Ave Life Years	Annual Reserve
Building Replacement	$150	1,000	$150,000	30	$5,000
Concrete Structure	$75	17,500	$1,312,500	50	26,250
3 Months operating expense loan @ 4% (30 year)					2,964
Total:			**Total Annual Reserve Fund**		**$34,214**

Replacement costs of moving equipment

Component	Unit Cost Installed	QTY	Total Cost	Ave Life Years	Annual Reserve
Flow Meter	$2,000	1	$2,000	7	$290
Blower	3,000	2	6,000	10	600
Motor, 3 HP	1,000	2	2,000	15	130
Blower	10,000	2	20,000	10	2,000
Motor 10 HP	1,400	2	2,800	15	190
Discharge Pump 7 1/2 HP	3,000	2	6,000	15	400
Chlorine Metering Pump	1,400	2	2,800	7	400
SCADA	12,500	1	12,500	10	1,250
Instrumentation and Control	25,000	1	25,000	10	2,500
Tertiary Filter	50,000	2	100,000	25	4,000
Air Compressor	1,000	1	1,000	15	70
Sump Pump	250	2	500	15	30
Lift Station Pump, 3HP 460v	3,500	2	7,000	15	470
Power and Control Panel	20,000	1	20,000	20	1,000
Standby Generator	40,000	1	40,000	30	1,330
Total:			**Total Annual Repalcement and Emergency fund**		**$14,660**

Total O&M for Plant **$243,440**

USE **$243,000**

Notes:

1. Added labor for management and engineering.
2. Replacement cost fund covers non-routine maintenance and servicing of equipment. This is based on USDA suggested method.
3. This is based on USDA suggested method.
4. A reserve fund was computed based on replacement of the building and the concrete structure after their useful remaining lives. It is needed to cover those without having to raise bonds or other revenue in the future. It also includes 3 months of operating expenses (a 20 - year loan at 4%).
5. These numbers were not confirmed with GHCSD for the draft and will be prior to the final report.

Operations and Maintenance Cost Opinion

Option 2a

Lift Station and Force Main from District to Tehachapi

Kern County Management

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs./day	Hrs./Yr.	kWh/Yr.	$/Yr.
Pump	$	0.140	20	14.9	6.0	2,190	32,675	$4,574
Other Power	$	0.140		2.0	12.0	4,380	8,760	$1,226
Other utilities, water and phone (SCADA)								$1,200
					Average Annual Cost (Power)			**$7,001**

Services and Supplies

Description	$/Yr
Office Supplies and Miscellaneous	$6,500
Truck payment/insurance/maintenance/year (Portion - can be done without dedicated truck)	$6,000
Electrician/SCADA Technician	$300
by-Weekly travel to/from lift station and collection system 110 miles/day-104/year. Using $0.55/mile(110 * 104 * $0.55)	$6,292
Materials, supplies, parts	$1,000
Miscellaneous Expenses	$2,000
Total Other O&M	**$22,092**

Routine Labor

Various Systems	Labor Rate	Hrs./Wk.	Wks./Yr.	Hrs./Yr.	Fully Burdened Cost Factor		$/Yr.
Management (governance)	$60	2	52	104	1.6		$9,984
Engineering	180				12		$2,160
Labor	28	12	52	624	1.6		$27,955
Clerical and Administrative (needed for billing, etc.)	25	15	52	780	1.6		$31,200
				Total Average Annual Cost (Labor)			**$71,299**

Reserve Fund

Component	Unit Cost Installed	QTY SF	Total Cost	Ave Life Years			Annual Reserve
Building Replacement	$120,000	1	$120,000	50			$2,400
Gravity Main Replacement	243,000	1	243,000	100			2,400
Force Main Replacement	420,000	1	420,000	50			8,400
3 Months Operating Expenses							1,344
Total:			**Total Annual Reserve Fund**				**$14,544**

Replacement costs of moving equipment

Component	Unit Cost Installed	QTY	Total Cost	Ave Life Years			Annual Reserve
Flow Meter	$2,000	1	$2,000	7			$290
Pump and Motor 20 HP	15,000	2	30,000	15			2,000
Power and Control Panel	16,000	1	16,000	20			800
Standby Generator	40,000	1	40,000	30			1,330
Total:			**Total Annual Repalcement**				**$4,420**
			Total Lift Sta & FM to COT				**$119,356**
					USE		**$119,000**

Operations and Maintenance Cost Opinion

Option 2b

Lift Station and Force Main from District to Tehachapi

Golden Hills CSD Management

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs./day	Hrs./Yr.	kWh/Yr.	$/Yr.
Pump	$	0.140	20	14.9	6.0	2,190	32,675	$4,574
Other Power	$	0.140		2.0	12.0	4,380	8,760	$1,226
Other utilities, water and phone (SCADA)								$1,200
					Average Annual Cost (Power)			**$7,001**

Services and Supplies

Description	$/Yr
Office Supplies and Miscellaneous	$6,500
Truck payment/insurance/maintenance/year (Portion - can be done without dedicated truck)	$6,000
Electrician/SCADA Technician	$300
Materials, supplies, parts	$1,000
Miscellaneous Expenses	$2,000
Total Other O&M	**$15,800**

Routine Labor

Various Systems		Labor Rate	Hrs./Wk.	Wks./Yr.	Hrs./Yr.	Fully Burdened Cost Factor		$/Yr.
Management (governance)	$	60.00	2	52	104	1.6		$9,984
Engineering	$	180.00				12		$2,160
Labor	$	28.00	12	52	624	1.6		$27,955
Clerical and Administrative (needed for billing, etc.)	$	25.00	5	52	260	1.6		$10,400
					Total Average Annual Cost (Labor)			**$50,499**

Reserve Fund

Component	Unit Cost Installed	QTY SF	Total Cost	Ave Life Years			Annual Reserve
Building Replacement	$120,000	1	$120,000	50			$2,400
Gravity Main Replacement	$243,000	1	243,000	100			2,400
Force Main Replacement	$420,000	1	420,000	50			8,400
3 Months Operating Reserve							1,008
Total:			**Total Annual Reserve Fund**				**$14,208**

Replacement costs of moving equipment

Component	Unit Cost Installed	QTY	Total Cost	Ave Life Years			Annual Reserve
Flow Meter	$2,000	1	$2,000	7			$290
Pump and Motor 20 HP	15,000	2	30,000	15			2,000
Power and Control Panel	16,000	1	16,000	20			800
Standby Generator	40,000	1	40,000	30			1,330
Total:			**Total Annual Repalcement**				**$4,420**
			Total Lift Sta & FM to COT				**$91,928**
					USE		**$92,000**

Operations and Maintenance Cost Opinion

Option 2c

Lift Station and Force Main from District to Tehachapi

City of Tehachapi Management

Operation and Maintenance Costs

Power

Item	$/kWh	Motor HP	Input (kW)	Hrs./day	Hrs./Yr.	kWh/Yr.	$/Yr.
Pump	$0.14	20	14.9	6.0	2,190	32,675	$4,574
Other Power	0.14		2.0	12.0	4,380	8,760	$1,226
Other utilities, water and phone (SCADA)							$1,200
				Average Annual Cost (Power)			**$7,001**

Services and Supplies

Description	$/Yr
Office Supplies and Miscellaneous	$6,500
Truck payment/insurance/maintenance/year (Portion - can be done without dedicated truck)	$6,000
Electrician/SCADA Technician	$300
Materials, supplies, parts	$1,000
Miscellaneous Expenses	$2,000
Total Other O&M	**$15,800**

Routine Labor

Various Systems	Labor Rate	Hrs./Wk.	Wks./Yr.	Hrs./Yr.	Fully Burdened Cost Factor		$/Yr.
Management (governance)	$60.00	0	52	0	1.6		$0
Engineering	180.00	0		0	12		$0
Labor	28.00	6	52	312	1.6		$13,978
Clerical and Administrative (needed for billing, etc.)	25.00	2	52	104	1.6		$4,160
				Total Average Annual Cost (Labor)			**$18,138**

Reserve Fund

Component	Unit Cost Installed	QTY SF	Total Cost	Ave Life Years			Annual Reserve
Building Replacement	$120,000	1	$120,000	50			$2,400
Gravity Main Replacement	243,000	1	243,000	100			2,400
Force Main Replacement	420,000	1	420,000	50			8,400
Total:			**Total Annual Reserve Fund**				**$13,200**

Replacement costs of moving equipment

Component	Unit Cost Installed	QTY	Total Cost	Ave Life Years			Annual Reserve
Flow Meter	$2,000	1	$2,000	7			$290
Pump and Motor 20 HP	15,000	2	30,000	15			2,000
Power and Control Panel	16,000	1	16,000	20			800
Standby Generator	40,000	1	40,000	30			1,330
Total:			**Total Annual Repalcement**				**$4,420**
			Total Lift Sta & FM to COT				**$58,558**
					USE		**$59,000**

Notes:

1. These numbers were not confirmed with City of Tehachapi for the draft and will be prior to the final report.

Operations and Maintenance Cost Opinion

Existing Lift Station

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pump	$	0.140	5	3.7	12.0	4,380	16,337	$2,287
Other Power	$	0.140		2.0	12.0	4,380	8,760	1,226
						Average Annual Cost		**$3,514**

Reserve Fund

Description		Construction Cost	Annual Cost					$/Yr
Lift Station (1% of Capital Costs)	$	364,000.00	3,640					$3,640
						Average Annual Cost		**$3,640**

Routine Labor

Various Systems		Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr			$/Yr
Labor	$	50.00	3	52	156			$7,800
					Total Average Annual Cost			**$14,954**
						USE		**$15,000**

Operations and Maintenance Cost Opinion

Collection System (Option 1)

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pump	$	0.140	0	0.0	0.0	0	0	$0
Other Power	$	0.140		0.0	0.0	0	0	0
						Average Annual Cost		**$0**

Reserve Fund and Contracted Maintenance

Description	Pipe Length	Cost per foot	Recurrance Interval (Years)	Quantity	Unit Cost	Percent	$/Yr
12 - inch Pipelines $64/foot for R&R	5,330	$70.00	100	N/A	N/A	100%	$3,731
8 - inch Pipeline	10,800	$70.00	100	N/A	N/A	100%	7,560
6 - inch Pipeline	9,685	$65.00	100	N/A	N/A	100%	6,295
Routine Video inspection 100% every 8 years	25,815	$2.00	8	N/A	N/A	100%	6,454
Routine Cleaning (Flushing hydraulically) every 4 years (Since video is every 8 years and would include cleaning, this task only occurs at 8 year interval.)	25,815	$1.00	8			100%	3,227
Emergency sewer stoppage service and Vector Control	N/A	N/A	1	1	$4,000.00	100%	4,000
Brush removal (Annual for access)	N/A	N/A	1	1	$2,500.00	100%	2,500
Adjusting Manhole frames in paved streets based on overlay or reconstruction every 15 years	N/A	N/A	15	72	$1,500.00	100%	7,200
					Average Annual Cost		**$40,967**

Routine Labor

Various Systems		Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr			$/Yr
Labor (Burdoned)	$	40.00	2	52	104			$4,160
					Total Average Annual Cost			**$45,127**
					USE			**$45,000**

Notes:

1. O&M replacement costs are based on 1% of capital costs to account for depreciation and to cover engineering, surveying and contract administration.
2. The O&M costs for routine labor includes lifting manhole lids to clean and inspect.

Operations and Maintenance Cost Opinion

Collection System (Option 2)

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pump	$	0.140	0	0.0	0.0	0	0	$0
Other Power	$	0.140		0.0	0.0	0	0	0
						Average Annual Cost		**$0**

Reserve Fund and Contracted Maintenance

Description	Pipe Length	Cost per foot	Recurrance Interval (Years)	Quantity	Unit Cost	Percent	$/Yr
12 - inch Pipelines R&R	2,230	$70.00	100	N/A	N/A	100%	1,561
8 - inch Pipeline	10,800	$70.00	100	N/A	N/A	100%	7,560
6 - inch Pipeline	9,685	$65.00	100	N/A	N/A	100%	6,295
Routine Video inspection 100% every 8 years	22,715	$2.00	8	N/A	N/A	100%	5,679
Routine Cleaning (Flushing hydraulically) every 4 years (Since video is every 8 years and would include cleaning, this task only occurs at 8 year interval.)	22,715	$1.00	8			100%	2,839
Emergency sewer stoppage service and Vector Control	N/A	N/A	1	1	$4,000.00	100%	4,000
Brush removal (Annual for access)	N/A	N/A	1	1	$2,500.00	100%	2,500
Adjusting Manhole frames in paved streets based on overlay or reconstruction every 15 years	N/A	N/A	15	72	$1,500.00	100%	7,200
					Average Annual Cost		**$37,634**

Routine Labor

Various Systems		Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr			$/Yr
Labor (Burdoned)	$	40.00	2	52	104			$4,160
					Total Average Annual Cost			**$41,794**
						USE		**$42,000**

Notes:

1. O&M replacement costs are based on 1% of capital costs to account for depreciation and to cover engineering, surveying and contract administration.
2. The O&M costs for routine labor includes lifting manhole lids to clean and inspect.

Collection System (Portion to Compare if Lift Station Taken Off Line)

Operation and Maintenance Costs

Power

Item	$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pump	$ 0.140	0	0.0	0.0	0	0	$0
Other Power	$ 0.140		0.0	0.0	0	0	0
					Average Annual Cost		**$0**

Reserve Fund and Contracted Maintenance

Description	Pipe Length	Cost per foot	Recurrance Interval (Years)	Quantity	Unit Cost	Percent	$/Yr
12 - inch Pipelines $64/foot for R&R	-	$70.00	100	N/A	N/A	100%	0
8 - inch Pipeline	535	$70.00	100	N/A	N/A	100%	375
6 - inch Pipeline		$65.00	100	N/A	N/A	100%	0
Routine Video inspection 20% every 5 years	535	$4.00	5	N/A	N/A	20%	86
Emergency sewer stoppage service and Vector Control	N/A	N/A	1	1	$200.00	100%	200
Brush removal (Annual for access)	N/A	N/A	1	1	$0.00	100%	0
Adjusting Manhole frames in paved streets based on overlay or reconstruction every 15 years	N/A	N/A	15	1	$1,500.00	100%	100
					Average Annual Cost		**$760**

Routine Labor

Various Systems	Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr			$/Yr
Labor (Burdoned)	$ 40.00	0.1	52	5.2			$208
				Total Average Annual Cost			**$968**
					USE		**$1,000**

Notes:

1. O&M replacement costs are based on 1% of capital costs to account for depreciation and to cover engineering, surveying and contract administration.
2. The O&M costs for routine labor includes lifting manhole lids to clean and inspect.

Operations and Maintenance Cost Opinion

Fountain Lake

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pump	$	0.140	0	0.0	0.0	0	0	$0
Other Power	$	0.140		0.0	0.0	0	0	0
						Average Annual Cost		**$0**

Reserve Fund

Description		Construction Cost	Annual Cost					$/Yr
Facilities (2% of Construction Costs)	$	220,000.00	4,400					4,400
						Average Annual Cost		**$4,400**

Routine Labor

Various Systems		Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr			$/Yr
Labor	$	50.00	1	52	52			$2,600
					Total Average Annual Cost			**$7,000**
						USE		**$7,000**

Operations and Maintenance Cost Opinion

Recovery Pond Pump Station

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pump	$	0.140	50	37.3	12.0	4,380	163,374	$22,872
Other Power	$	0.140		2.0	12.0	4,380	8,760	1,226
						Average Annual Cost		**$24,099**

Reserve Fund

Description		Construction Cost	Annual Cost					$/Yr
Lift Station (2% of Construction Costs)	$	623,000.00	12,460					12,460
						Average Annual Cost		**$12,460**

Routine Labor

Various Systems		Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr			$/Yr
Labor	$	50.00	2	52	104			$5,200
					Total Average Annual Cost			**$41,759**
						USE		**$42,000**

Operations and Maintenance Cost Opinion

Tom Sawyer Lake Lake Irrigation System

Operation and Maintenance Costs

Power

Item	$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pump	$ 0.140	25	18.7	12.0	4,380	81,687	$11,436
Other Power	$ 0.140		2.0	12.0	4,380	8,760	1,226
					Average Annual Cost		**$12,663**

Reserve Fund

Description	Construction Cost	Annual Cost					$/Yr
Irrigation System including booster pump for 6-acres (2% of capital)	325,000	6,500					6,500
					Average Annual Cost		**$6,500**

Routine Labor

Various Systems	Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr			$/Yr
Labor	$ 50.00	2	52	104			$5,200
				Total Average Annual Cost			**$24,363**
					USE		**$24,000**

Operations and Maintenance Cost Opinion

Pipeline from Plant to Tom Sawyer Lake

Operation and Maintenance Costs

Power

Item		$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Pump	$	0.140	7.5	5.6	6.0	2,190	12,253	$1,715
						Average Annual Cost		**$1,715**

Reserve Fund

Description		Construction Cost	Annual Cost					$/Yr
Lift Station (2% of Construction Costs)	$	50,000.00	1,000					1,000
5,000 Feet of 6" pipe (1% of Capital Cost)	$	250,000.00	2,500					2,500
						Average Annual Cost		**$3,500**

Routine Labor

Various Systems		Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr	Fully burdened cost factor		$/Yr
Labor	$	18.00	0.5	52	26	1.6		$749
					Total Average Annual Cost			**$5,964**
						USE		**$6,000**

Estimated City of Tehachapi Sewer Service Charge based on 180 connections

Type	Number of Connections	Monthly Service Fee	Total Monthly Service Fee	Total Annual Service Fee
Single-Family Homes	107	$36.86	$3,944.02	$47,328.24
Manufactured Homes	47	36.86	1,732.42	20,789.04
Apartment Complex	22	29.81	655.82	7,869.84
Hotel	4	36.86	147.44	1,769.28
Totals	**180**		**$6,479.70**	**$77,756.40**
			Use	**$78,000.00**

Note: Does not include charges to commercial customers for metered water use in excess of 7,000 gallons per month.

Operations and Maintenance Cost Opinion

New Well to Tom Sawyer Lake

(Assume 100 gpm Flow Rate flowing 6 Months per year - Provides 80 AFY)

Operation and Maintenance Costs

Power

Item	$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
Motor	$ 0.140	20	14.9	24.0	4,380	65,350	$9,149
					Average Annual Cost		**$9,149**

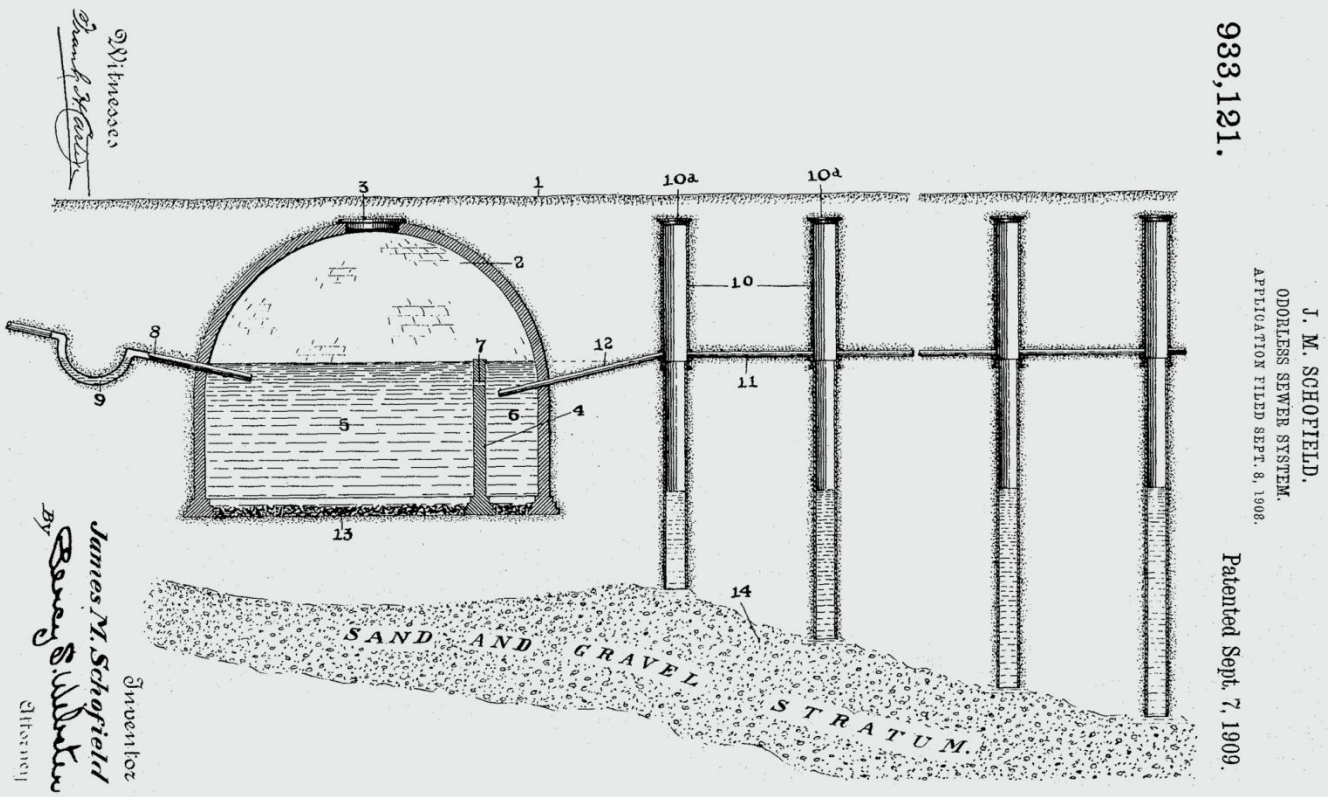
Other Routine Operations and Maintenance

Description	Construction Cost	Life (Years)	Yearly savings required				$/Yr
Submersible Pump and column pipe	40,000	20	2,000				$2,000
Power & Control panel + SCADA	25,000	20	1,250				1,250
Misc Piping, valves, fittings, vessel and meter	12,000	20	600				600
					Average Annual Cost		**$3,850**

Routine Labor

Various Systems	Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr	Fully burdened cost factor		$/Yr
Labor	$ 18.00	0.5	52	26	1.6		$749
					Average Annual Cost		**$749**
				Total Average Annual Cost			**$13,748**
					USE		**$14,000**

Appendix C
OWTS Policy



OWTS POLICY

Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems

June 19, 2012

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD

REGIONAL WATER QUALITY CONTROL BOARDS

State of California
Edmund G. Brown Jr., Governor

California Environmental Protection Agency
Matthew Rodriquez, Secretary

State Water Resources Control Board
http://www.waterboards.ca.gov

Charles R. Hoppin, Chair
Frances Spivy-Weber, Vice Chair
Tam M. Doduc, Member
Steven Moore, Member

Thomas Howard, Executive Director
Jonathan Bishop, Chief Deputy Director
Caren Trgovcich, Chief Deputy Director

Adopted by the State Water Resources Control Board on June 19, 2012
Approved by the Office of Administrative Law on November 13, 2012
Effective Date of the Policy: May 13, 2013

Preamble – Purpose and Scope – Structure of the Policy

Preamble

Onsite wastewater treatment systems (OWTS) are useful and necessary structures that allow habitation at locations that are removed from centralized wastewater treatment systems. When properly sited, designed, operated, and maintained, OWTS treat domestic wastewater to reduce its polluting impact on the environment and most importantly protect public health. Estimates for the number of installations of OWTS in California at the time of this Policy are that more than 1.2 million systems are installed and operating. The vast majority of these are functioning in a satisfactory manner and meeting their intended purpose.

However there have been occasions in California where OWTS for a varied list of reasons have not satisfactorily protected either water quality or public health. Some instances of these failures are related to the OWTS not being able to adequately treat and dispose of waste as a result of poor design or improper site conditions. Others have occurred where the systems are operating as designed but their densities are such that the combined effluent resulting from multiple systems is more than can be assimilated into the environment. From these failures we must learn how to improve our usage of OWTS and prevent such failures from happening again.

As California's population continues to grow, and we see both increased rural housing densities and the building of residences and other structures in more varied terrain than we ever have before, we increase the risks of causing environmental damage and creating public health risks from the use of OWTS. What may have been effective in the past may not continue to be as conditions and circumstances surrounding particular locations change. So necessarily more scrutiny of our installation of OWTS is demanded of all those involved, while maintaining an appropriate balance of only the necessary requirements so that the use of OWTS remains viable.

Purpose and Scope of the Policy

The purpose of this Policy is to allow the continued use of OWTS, while protecting water quality and public health. This Policy recognizes that responsible local agencies can provide the most effective means to manage OWTS on a routine basis. Therefore as an important element, it is the intent of this policy to efficiently utilize and improve upon where necessary existing local programs through coordination between the State and local agencies. To accomplish this purpose, this Policy establishes a statewide, risk-based, tiered approach for the regulation and management of OWTS installations and replacements and sets the level of performance and protection expected from OWTS. In particular, the Policy requires actions for water bodies specifically identified as part this Policy where OWTS contribute to water quality degradation that adversely affect beneficial uses.

This Policy only authorizes subsurface disposal of domestic strength, and in limited instances high strength, wastewater and establishes minimum requirements for the permitting, monitoring, and operation of OWTS for protecting beneficial uses of water of the State and preventing or correcting conditions of pollution and nuisance. And finally, this Policy also conditionally waives the requirement for owners of OWTS to apply for and receive Waste Discharge Requirements in order to operate their systems when they meet the conditions set forth in the Policy. Nothing in this Policy supersedes or requires modification of Total Maximum Daily Loads or Basin Plan prohibitions of discharges from OWTS.

This Policy also applies to OWTS on federal, state, and Tribal lands to the extent authorized by law or agreement.

Structure of the Policy

This Policy is structured into ten major parts:

<u>Definitions</u>
Definitions for all the major terms used in this Policy are provided within this part and wherever used in the Policy the definition given here overrides any other possible definition.
[Section 1]

<u>Responsibilities and Duties</u>
Implementation of this Policy involves individual OWTS owners; local agencies, be they counties, cities, or any other subdivision of state government with permitting powers over OWTS; Regional Water Quality Control Boards; and the State Water Resources Control Board.
[Sections 2, 3, 4, and 5]

<u>Tier 0 – Existing OWTS</u>
Existing OWTS that are properly functioning, and do not meet the conditions of failing systems or otherwise require corrective action (for example, to prevent groundwater impairment) as specifically described in Tier 4, and are not determined to be contributing to an impairment of surface water as specifically described in Tier 3, are automatically included in Tier 0.
[Section 6]

Preamble – Purpose and Scope – Structure of the Policy

Tier 1 – Low-Risk New or Replacement OWTS
New or replacement OWTS that meet low risk siting and design requirements as specified in Tier 1, where there is not an approved Local Agency Management Program per Tier 2.
[Sections 7 and 8]

Tier 2 – Local Agency Management Program for New or Replacement OWTS
California is well known for its extreme range of geological and climatic conditions. As such, the establishment of a single set of criteria for OWTS would either be too restrictive so as to protect for the most sensitive case, or would have broad allowances that would not be protective enough under some circumstances. To accommodate this extreme variance, local agencies may submit management programs ("Local Agency Management Programs") for approval, and upon approval then manage the installation of new and replacement OWTS under that program.
Local Agency Management Programs approved under Tier 2 provide an alternate method from Tier 1 programs to achieve the same policy purpose, which is to protect water quality and public health. In order to address local conditions, Local Agency Management Programs may include standards that differ from the Tier 1 requirements for new and replacement OWTS contained in Sections 7 and 8. As examples, a Local Agency Management Program may authorize different soil characteristics, usage of seepage pits, and different densities for new developments. Once the Local Agency Management Program is approved, new and replacement OWTS that are included within the Local Agency Management Program may be approved by the Local Agency. A Local Agency, at its discretion, may include Tier 1 standards within its Tier 2 Local Agency Management Program for some or all of its jurisdiction. However, once a Local Agency Management Program is approved, it shall supersede Tier 1 and all future OWTS decisions will be governed by the Tier 2 Local Agency Management Program until it is modified, withdrawn, or revoked.
[Section 9]

Tier 3 – Impaired Areas
Existing, new, and replacement OWTS that are near impaired water bodies may be addressed by a TMDL and its implementation program, or special provisions contained in a Local Agency Management Program. If there is no TMDL or special provisions, new or replacement OWTS within 600 feet of impaired water bodies listed in Attachment 2 must meet the specific requirements of Tier 3.
[Section 10]

Tier 4 – OWTS Requiring Corrective Action
OWTS that require corrective action or are either presently failing or fail at any time while this Policy is in effect are automatically included in Tier 4 and must follow the requirements as specified.
[Section 11]

Conditional Waiver of Waste Discharge Requirements
The requirement to submit a report of waste discharge for discharges from OWTS that are in conformance with this policy is waived.
[Section 12]

Effective Date
When this Policy becomes effective. [Section 13]

Financial Assistance
Procedures for local agencies to apply for funds to establish low interest loan programs for the assistance of OWTS owners in meeting the requirements of this Policy.
[Section 14]

Attachment 1
AB 885 Regulatory Program Timelines.

Attachment 2
Tables 4 and 5 specifically identify those impaired water bodies that have Tier 3 requirements and must have a completed TMDL by the date specified.

Attachment 3
Table 6 shows where one Regional Water Board has been designated to review and, if appropriate, approve new Local Agency Management Plans for a local agency that is within multiple Regional Water Boards' jurisdiction.

What Tier Applies to my OWTS?

Existing OWTS that conform to the requirements for Tier 0 will remain in Tier 0 as long as they continue to meet those requirements. An existing OWTS will temporarily move from Tier 0 to Tier 4 if it is determined that corrective action is needed. The existing OWTS will return to Tier 0 once the corrective action is completed if the repair does not qualify as major repair under Tier 4. Any major

repairs conducted as corrective action must comply with Tier 1 requirements or Tier 2 requirements, whichever are in effect for that local area. An existing OWTS will move from Tier 0 to Tier 3 if it is adjacent to an impaired water body listed on Attachment 2, or is covered by a TMDL implementation plan.

In areas with no approved Local Agency Management Plan, new and replacement OWTS that conform to the requirements of Tier 1 will remain in Tier 1 as long as they continue to meet those requirements. A new or replacement OWTS will temporarily move from Tier 1 to Tier 4 if it is determined that corrective action is needed. The new or replacement OWTS will return to Tier 1 once the corrective action is completed. A new or replacement OWTS will move from Tier 1 to Tier 3 if it is adjacent to an impaired water body, or is covered by a TMDL implementation plan.

In areas with an approved Local Agency Management Plan, new and replacement OWTS that conform to the requirements of the Tier 2 Local Agency Management Plan will remain in Tier 2 as long as they continue to meet those requirements. A new or replacement OWTS will temporarily move from Tier 2 to Tier 4 if it is determined that corrective action is needed. The new or replacement OWTS will return to Tier 2 once the corrective action is completed. A new or replacement OWTS will move from Tier 2 to Tier 3 if it is adjacent to an impaired water body, or is covered by a TMDL implementation plan, or is covered by special provisions for impaired water bodies contained in a Local Agency Management Program.

Existing, new, and replacement OWTS in specified areas adjacent to water bodies that are identified by the State Water Board as impaired for pathogens or nitrogen and listed in Attachment 2 are in Tier 3. Existing, new, and replacement OWTS covered by a TMDL implementation plan, or covered by special provisions for impaired water bodies contained in a Local Agency Management Program are also in Tier 3. These OWTS will temporarily move from Tier 3 to Tier 4 if it is determined that corrective action is needed. The new or replacement OWTS will return to Tier 3 once the corrective action is completed.

Existing, new, and replacement OWTS that do not conform with the requirements to receive coverage under any of the Tiers (e.g., existing OWTS with a projected flow of more than 10,000 gpd) do not qualify for this Policy's conditional waiver of waste discharge requirements, and will be regulated separately by the applicable Regional Water Board.

Definitions

1.0 Definitions. The following definitions apply to this Policy:

"303 (d) list" means the same as **"Impaired Water Bodies."**

"At-grade system" means an OWTS dispersal system with a discharge point located at the preconstruction grade (ground surface elevation). The discharge from an at- grade system is always subsurface.

"Average annual rainfall" means the average of the annual amount of precipitation for a location over a year as measured by the nearest National Weather Service station for the preceding three decades. For example the data set used to make a determination in 2012 would be the data from 1981 to 2010.

"Basin Plan" means the same as "water quality control plan" as defined in Division 7 (commencing with Section 13000) of the Water Code. Basin Plans are adopted by each Regional Water Board, approved by the State Water Board and the Office of Administrative Law, and identify surface water and groundwater bodies within each Region's boundaries and establish, for each, its respective beneficial uses and water quality objectives. Copies are available from the Regional Water Boards, electronically at each Regional Water Boards website, or at the State Water Board's Plans and Policies web page (http://www.waterboards.ca.gov/plans_policies/).

"Bedrock" means the rock, usually solid, that underlies soil or other unconsolidated, surficial material.

"CEDEN" means California Environmental Data Exchange Network and information about it is available at the State Water Boards website or http://www.ceden.org/index.shtml.

"Cesspool" means an excavation in the ground receiving domestic wastewater, designed to retain the organic matter and solids, while allowing the liquids to seep into the soil. Cesspools differ from seepage pits because cesspool systems do not have septic tanks and are not authorized under this Policy. The term cesspool does not include pit-privies and out-houses which are not regulated under this Policy.

"Clay" means a soil particle; the term also refers to a type of soil texture. As a soil particle, clay consists of individual rock or mineral particles in soils having diameters <0.002 mm. As a soil texture, clay is the soil material that is comprised of 40 percent or more clay particles, not more than 45 percent sand and not more than 40 percent silt particles using the USDA soil classification system.

"Cobbles" means rock fragments 76 mm or larger using the USDA soil classification systems.

"Dispersal system" means a leachfield, seepage pit, mound, at-grade, subsurface drip field, evapotranspiration and infiltration bed, or other type of system for final wastewater treatment and subsurface discharge.

"Domestic wastewater" means wastewater with a measured strength less then high- strength wastewater and is the type of wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals. Domestic wastewater may include wastewater from commercial buildings such as office buildings, retail stores, and some restaurants, or from industrial facilities where the domestic wastewater is segregated from the industrial wastewater. Domestic wastewater may include incidental RV holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as at RV dump stations. Domestic wastewater does not include wastewater from industrial processes.

"Dump Station" means a facility intended to receive the discharge of wastewater from a holding tank installed on a recreational vehicle. A dump station does not include a full hook-up sewer connection similar to those used at a recreational vehicle park.

"Domestic well" means a groundwater well that provides water for human consumption and is not regulated by the California Department of Public Health.

"Earthen material" means a substance composed of the earth's crust (i.e. soil and rock).

"EDF" see "electronic deliverable format."

"Effluent" means sewage, water, or other liquid, partially or completely treated or in its natural state, flowing out of a septic tank, aerobic treatment unit, dispersal system, or other OWTS component.

Definitions

"Electronic deliverable format" or **"EDF"** means the data standard adopted by the State Water Board for submittal of groundwater quality monitoring data to the State Water Board's internet-accessible database system Geotracker (http://geotracker.waterboards.ca.gov/).

"Escherichia coli" means a group of bacteria predominantly inhabiting the intestines of humans or other warm-blooded animals, but also occasionally found elsewhere. Used as an indicator of human fecal contamination.

"Existing OWTS" means an OWTS that was constructed and operating prior to the effective date of this Policy, and OWTS for which a construction permit has been issued prior to the effective date of the Policy.

"Flowing water body" means a body of running water flowing over the earth in a natural water course, where the movement of the water is readily discernible or if water is not present it is apparent from review of the geology that when present it does flow, such as in an ephemeral drainage, creek, stream, or river.

"Groundwater" means water below the land surface that is at or above atmospheric pressure.

"High-strength wastewater" means wastewater having a 30-day average concentration of biochemical oxygen demand (BOD) greater than 300 milligrams- per-liter (mg/L) or of total suspended solids (TSS) greater than 330 mg/L or a fats, oil, and grease (FOG) concentration greater than 100 mg/L prior to the septic tank or other OWTS treatment component.

"IAPMO" means the International Association of Plumbing and Mechanical Officials.

"Impaired Water Bodies" means those surface water bodies or segments thereof that are identified on a list approved first by the State Water Board and then approved by US EPA pursuant to Section 303(d) of the federal Clean Water Act.

"Local agency" means any subdivision of state government that has responsibility for permitting the installation of and regulating OWTS within its jurisdictional boundaries; typically a county, city, or special district.

"Major repair" means either: (1) for a dispersal system, repairs required for an OWTS dispersal system due to surfacing wastewater effluent from the dispersal field and/or wastewater backed up into plumbing fixtures because the dispersal system is not able to percolate the design flow of wastewater associated with the structure served, or (2) for a septic tank, repairs required to the tank for a compartment baffle failure or tank structural integrity failure such that either wastewater is exfiltrating or groundwater is infiltrating.

"Mottling" means a soil condition that results from oxidizing or reducing minerals due to soil moisture changes from saturated to unsaturated over time. Mottling is characterized by spots or blotches of different colors or shades of color (grays and reds) interspersed within the dominant color as described by the USDA soil classification system. This soil condition can be indicative of historic seasonal high groundwater level, but the lack of this condition may not demonstrate the absence of groundwater.

"Mound system" means an aboveground dispersal system (covered sand bed with effluent leachfield elevated above original ground surface inside) used to enhance soil treatment, dispersal, and absorption of effluent discharged from an OWTS treatment unit such as a septic tank. Mound systems have a subsurface discharge.

"New OWTS" means an OWTS permitted after the effective date of this Policy.

"NSF" means NSF International (a.k.a. National Sanitation Foundation), a not for profit, non-governmental organization that develops health and safety standards and performs product certification.

"Oil/grease interceptor" means a passive interceptor that has a rate of flow exceeding 50 gallons-per-minute and that is located outside a building. Oil/grease interceptors are used for separating and collecting oil and grease from wastewater.

"Onsite wastewater treatment system(s)" (OWTS) means individual disposal systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal. The short form of the term may be singular or plural. OWTS do not include "graywater" systems pursuant to Health and Safety Code Section 17922.12.

"Percolation test" means a method of testing water absorption of the soil. The test is conducted with clean water and test results can be used to establish the dispersal system design.

"Permit" means a document issued by a local agency that allows the installation and use of an OWTS, or waste discharge requirements or a waiver of waste discharge requirements that authorizes discharges from an OWTS.

Definitions

"Person" means any individual, firm, association, organization, partnership, business trust, corporation, company, State agency or department, or unit of local government who is, or that is, subject to this Policy.

"Pit-privy" (a.k.a. outhouse, pit-toilet) means self-contained waterless toilet used for disposal of non-water carried human waste; consists of a shelter built above a pit in the ground into which human waste falls.

"Policy" means this Policy for Siting, Design, Operation and Management of OWTS.

"Pollutant" means any substance that alters water quality of the waters of the State to a degree that it may potentially affect the beneficial uses of water, as listed in a Basin Plan.

"Projected flows" means wastewater flows into the OWTS determined in accordance with any of the applicable methods for determining average daily flow in the USEPA Onsite Wastewater Treatment System Manual, 2002, or for Tier 2 in accordance with an approved Local Agency Management Program.

"Public Water System" is a water system regulated by the California Department of Public Health or a Local Primacy Agency pursuant to Chapter 12, Part 4, California Safe Drinking Water Act, Section 116275 (h) of the California Health and Safety Code.

"Public Water Well" is a ground water well serving a public water system. A spring which is not subject to the California Surface Water Treatment Rule (SWTR), CCR, Title 22, sections 64650 through 64666 is a public well.

"Qualified professional" means an individual licensed or certified by a State of California agency to design OWTS and practice as professionals for other associated reports, as allowed under their license or registration. Depending on the work to be performed and various licensing and registration requirements, this may include an individual who possesses a registered environmental health specialist certificate or is currently licensed as a professional engineer or professional geologist. For the purposes of performing site evaluations, Soil Scientists certified by the Soil Science Society of America are considered qualified professionals. A local agency may modify this definition as part of its Local Agency Management Program.

"Regional Water Board" is any of the Regional Water Quality Control Boards designated by Water Code Section 13200. Any reference to an action of the Regional Water Board in this Policy also refers to an action of its Executive Officer, including the conducting of public hearings, pursuant to any general or specific delegation under Water Code Section 13223.

"Replacement OWTS" means an OWTS that has its treatment capacity expanded, or its dispersal system replaced or added onto, after the effective date of this Policy.

"Sand" means a soil particle; this term also refers to a type of soil texture. As a soil particle, sand consists of individual rock or mineral particles in soils having diameters ranging from 0.05 to 2.0 millimeters. As a soil texture, sand is soil that is comprised of 85 percent or more sand particles, with the percentage of silt plus 1.5 times the percentage of clay particles comprising less than 15 percent.

"Seepage pit" means a drilled or dug excavation, three to six feet in diameter, either lined or gravel filled, that receives the effluent discharge from a septic tank or other OWTS treatment unit for dispersal.

"Septic tank" means a watertight, covered receptacle designed for primary treatment of wastewater and constructed to:

1. Receive wastewater discharged from a building;
2. Separate settleable and floating solids from the liquid;
3. Digest organic matter by anaerobic bacterial action;
4. Store digested solids; and
5. Clarify wastewater for further treatment with final subsurface discharge.

"Service provider" means a person capable of operating, monitoring, and maintaining an OWTS in accordance to this Policy.

"Silt" means a soil particle; this term also refers to a type of soil texture. As a soil particle, silt consists of individual rock or mineral particles in soils having diameters ranging from between 0.05 and 0.002 mm. As a soil texture, silt is soil that is comprised as

approximately 80 percent or more silt particles and not more than 12 percent clay particles using the USDA soil classification system.

"Single-family dwelling unit" means a structure that is usually occupied by just one household or family and for the purposes of this Policy is expected to generate an average of 250 gallons per day of wastewater.

"Site" means the location of the OWTS and, where applicable, a reserve dispersal area capable of disposing 100 percent of the design flow from all sources the OWTS is intended to serve.

"Site Evaluation" means an assessment of the characteristics of the site sufficient to determine its suitability for an OWTS to meet the requirements of this Policy.

"Soil" means the naturally occurring body of porous mineral and organic materials on the land surface, which is composed of unconsolidated materials, including sand- sized, silt-sized, and clay-sized particles mixed with varying amounts of larger fragments and organic material. The various combinations of particles differentiate specific soil textures identified in the soil textural triangle developed by the United States Department of Agriculture (USDA) as found in Soil Survey Staff, USDA; Soil Survey Manual, Handbook 18, U.S. Government Printing Office, Washington, DC, 1993, p. 138. For the purposes of this Policy, soil shall contain earthen material of particles smaller than 0.08 inches (2 mm) in size.

"Soil Structure" means the arrangement of primary soil particles into compound particles, peds, or clusters that are separated by natural planes of weakness from adjoining aggregates.

"Soil texture" means the soil class that describes the relative amount of sand, clay, silt and combinations thereof as defined by the classes of the soil textural triangle developed by the USDA (referenced above).

"State Water Board" is the State Water Resources Control Board

"Supplemental treatment" means any OWTS or component of an OWTS, except a septic tank or dosing tank, that performs additional wastewater treatment so that the effluent meets a predetermined performance requirement prior to discharge of effluent into the dispersal field.

"SWAMP" means Surface Water Ambient Monitoring Program and more information is available at: http://www.waterboards.ca.gov/water_issues/programs/swamp/

"Telemetric" means the ability to automatically measure and transmit OWTS data by wire, radio, or other means.

"TMDL" is the acronym for "total maximum daily load." Section 303(d)(1) of the Clean Water Act requires each State to establish a TMDL for each impaired water body to address the pollutant(s) causing the impairment. In California, TMDLs are usually adopted as Basin Plan amendments and contain implementation plans detailing how water quality standards will be attained.

"Total coliform" means a group of bacteria consisting of several genera belonging to the family Enterobacteriaceae, which includes Escherichia coli bacteria.

"USDA" means the U.S. Department of Agriculture.

"Waste discharge requirement" or **"WDR"** means an operation and discharge permit issued for the discharge of waste pursuant to Section 13260 of the California Water Code.

Responsibilities and Duties

2.0 OWTS Owners Responsibilities and Duties

2.1 All new, replacement, or existing OWTS within an area that is subject to a Basin Plan prohibition of discharges from OWTS, must comply with the prohibition. If the prohibition authorizes discharges under specified conditions, the discharge must comply with those conditions and the applicable provisions of this Policy.

2.2 Owners of OWTS shall adhere to the requirements prescribed in local codes and ordinances. Owners of new and replacement OWTS covered by this Policy shall also meet the minimum standards contained in Tier 1, or an alternate standard provided by a Local Agency Management Program per Tier 2, or shall comply with the requirements of Tier 3 if near an impaired water body and subject to Tier 3, or shall provide corrective action for their OWTS if their system meets conditions that place it in Tier 4.

2.3 Owners of OWTS shall comply with any and all permitting conditions imposed by a local agency that do not directly conflict with this Policy, including any conditions that are more stringent than required by this Policy.

2.4 To receive coverage under this Policy and the included waiver of waste discharges, OWTS shall only accept and treat flows of domestic wastewater. In addition, OWTS that accept high-strength wastewater from commercial food service buildings are covered under this Policy and the waiver of waste discharge requirements if the wastewater does not exceed 900 mg/L BOD and there is a properly sized and functioning oil/grease interceptor (a.k.a grease trap).

2.5 Owners of OWTS shall maintain their OWTS in good working condition including inspections and pumping of solids as necessary, or as required by local ordinances, to maintain proper function and assure adequate treatment.

2.6 The following owners of OWTS shall notify the Regional Water Board by submitting a Report of Waste Discharge for the following:

2.6.1 a new or replacement OWTS that does not meet the conditions and requirements set forth in either a Local Agency Management Program if one is approved, an existing local program if it is less than 60 months from the effective date of the Policy and a Local Agency Management Program is not yet approved, or Tier 1 if no Local Agency Management Program has been approved and it is more than 60 months after the effective date of this Policy;

2.6.2 any OWTS, not under individual waste discharge requirements or a waiver of individual waste discharge requirements issued by a Regional Water Board, with the projected flow of over 10,000 gallons-per-day;

2.6.3 any OWTS that receives high-strength wastewater, unless the waste stream is from a commercial food service building;

2.6.4 any OWTS that receives high-strength wastewater from a commercial food service building: (1) with a BOD higher than 900 mg/L, or (2) that does not have a properly sized and functioning oil/grease interceptor.

2.7 All Reports of Waste Discharge shall be accompanied by the required application fee pursuant to California Code of Regulations, title 23, section 2200.

3.0 Local Agency Requirements and Responsibilities

3.1 Local agencies, in addition to implementing their own local codes and ordinances, shall determine whether the requirements within their local jurisdiction will be limited to the water quality protection afforded by the statewide minimum standards in Tier 0, Tier 1, Tier 3, and Tier 4, or whether the local agency will implement a Local Agency Management Program in accordance with Tier 2. Except for Tier 3, local agencies may continue to implement their existing OWTS permitting programs in compliance with the Basin Plan in place at the effective date of the Policy until 60 months after the effective date of this Policy, or approval of a Local Agency Management Program, whichever comes first, and may make minor adjustments as necessary that are in compliance with the applicable Basin Plan and this Policy. Tier 3 requirements take effect on the effective date

of this Policy. In the absence of a Tier 2 Local Agency Management Program, to the extent that there is a direct conflict between the applicable minimum standards and the local codes or ordinances (such that it is impossible to comply with both the applicable minimum standards and the local ordinances or codes), the more restrictive standards shall govern.

3.2 If preferred, the local agency may at any time provide the State Water Board and all affected Regional Water Board(s) written notice of its intent to regulate OWTS using a Local Agency Management Program with alternative standards as authorized in Tier 2 of this Policy. A proposed Local Agency Management Program that conforms to the requirements of that Section shall be included with the notice. A local agency shall not implement a program different than the minimum standards contained in Tier 1 and 3 of this Policy after 60 months from the effective date of this Policy until approval of the proposed Local Agency Management Program is granted by either the Regional Water Board or State Water Board. All initial program submittals desiring approval prior to the 60 month limit shall be received no later than 36 months from the effective date of this Policy. Once approved, the local agency shall adhere to the Local Agency Management Program, including all requirements, monitoring, and reporting. If at any time a local agency wishes to modify its Local Agency Management Program, it shall provide the State Water Board and all affected Regional Water Board(s) written notice of its intended modifications and will continue to implement its existing Local Agency Management Program until the modifications are approved.

3.3 All local agencies permitting OWTS shall report annually to the Regional Water Board(s). If a local agency's jurisdictional area is within the boundary of multiple Regional Water Boards, the local agency shall send a copy of the annual report to each Regional Water Board. The annual report shall include the following information (organized in a tabular spreadsheet format) and summarize whether any further actions are warranted to protect water quality or public health:

3.3.1 number and location of complaints pertaining to OWTS operation and maintenance, and identification of those which were investigated and how they were resolved;

3.3.2 shall provide the applications and registrations issued as part of the local septic tank cleaning registration program pursuant to Section 117400 et seq. of the California Health and Safety Code;

3.3.3 number, location, and description of permits issued for new and replacement OWTS and which Tier the permit is issued.

3.4 All local agencies permitting OWTS shall retain permanent records of their permitting actions and will make those records available within 10 working days upon written request for review by a Regional Water Board. The records for each permit shall reference the Tier under which the permit was issued.

3.5 A local agency shall notify the owner of a public well or water intake and the California Department of Public Health as soon as practicable, but not later than 72 hours, upon its discovery of a failing OWTS as described in sections 11.1 and 11.2 within the setbacks described in sections 7.5.6 through 7.5.10.

3.6 A local agency may implement this Policy, or a portion thereof, using its local authority to enforce the policy, as authorized by an approval from the State Water Board or by the appropriate Regional Water Board.

3.7 Nothing in the Policy shall preclude a local agency from adopting or retaining standards for OWTS in an approved Local Agency Management Program that are more protective of the public health or the environment than are contained in this Policy.

3.8 If at any time a local agency wishes to withdraw its previously submitted and approved Tier 2 Local Agency Management Program, it may do so upon 60 days written notice. The notice of withdrawal shall specify the reason for withdrawing its Tier 2 program, the effective date for cessation of the program and resumption of permitting of OWTS only under Tiers 1, 3, and 4.

4.0 Regional Water Board Functions and Duties

4.1 The Regional Water Boards have the principal responsibility for overseeing the implementation of this Policy.

4.2 Regional Water Boards shall incorporate the requirements established in this Policy by amending their Basin Plans within 12 months of the effective date of this Policy, pursuant to Water Code Section 13291(e). The Regional Water Boards may also consider whether it is necessary and appropriate to retain or adopt any more protective standards. To the extent that a Regional Water Board determines that it is necessary and appropriate to retain or adopt any more protective standards,

it shall reconcile those region-specific standards with this Policy to the extent feasible, and shall provide a detailed basis for its determination that each of the more protective standards is necessary and appropriate.

4.2.1 Notwithstanding 4.2 above, the North Coast Regional Water Board will continue to implement its existing Basin Plan requirements pertaining to OWTS within the Russian River watershed until it adopts the Russian River TMDL, at which time it will comply with section 4.2 for the Russian River watershed.

4.3 The Regional Water Board designated in Attachment 3 shall review, and if appropriate, approve a Local Agency Management Program submitted by the local agency pursuant to Tier 2 in this Policy. Upon receipt of a proposed Local Agency Management Program, the Regional Water Board designated in Attachment 3 shall have 90 days to notify the local agency whether the submittal contains all the elements of a Tier 2 program, but may request additional information based on review of the proposed program. Approval must follow a noticed hearing with opportunity for public comment. If a Local Agency Management Program is disapproved, the Regional Water Board designated in Attachment 3 shall provide a written explanation of the reasons for the disapproval. A Regional Water Board may approve a Local Agency Management Program while disapproving any proposed special provisions for impaired water bodies contained in the Local Agency Management Program. If no action is taken by the respective Regional Water Board within 12 months of the submission date of a complete Local Agency Management Program, the program shall be forwarded to the State Water Board for review and approval pursuant to Section 5 of this Policy.

4.3.1 Where the local agency's jurisdiction lies within more than one Regional Water Board, staff from the affected Regional Water Boards shall work cooperatively to assure that water quality protection in each region is adequately protected. If the Regional Water Board designated in Attachment 3 approves the Local Agency Management Program over the written objection of an affected Regional Water Board, that Regional Water Board may submit the dispute to the State Water Board under Section 5.3.

4.3.2 Within 30 days of receipt of a proposed Local Agency Management Program, a Regional Water Board will forward a copy to and solicit comments from the California Department of Public Health regarding a Local Agency Management Program's proposed policies and procedures, including notification to local water purveyors prior to OWTS permitting.

4.4 Once a Local Agency Management Program has been approved, any affected Regional Water Board may require modifications or revoke authorization of a local agency to implement a Tier 2 program, in accordance with the following:

4.4.1 The Regional Water Board shall consult with any other Regional Water Board(s) having jurisdiction over the local agency before providing the notice described in section 4.4.2.

4.4.2 Written notice shall be provided to the local agency detailing the Regional Water Board's action, the cause for such action, remedies to prevent the action from continuing to completion, and appeal process and rights. The local agency shall have 90 days from the date of the written notice to respond with a corrective action plan to address the areas of non- compliance, or to request the Regional Water Board to reconsider its findings.

4.4.3 The Regional Water Board shall approve, approve conditionally, or deny a corrective action plan within 90 days of receipt. The local agency will have 90 days to begin implementation of a corrective action plan from the date of approval or 60 days to request reconsideration from the date of denial. If the local agency fails to submit an acceptable corrective action plan, fails to implement an approved corrective action plan, or request reconsideration, the Regional Water Board may require modifications to the Local Agency Management Program, or may revoke the local agency's authorization to implement a Tier 2 program.

4.4.4 Requests for reconsideration by the local agency shall be decided by the Regional Water Board within 90 days and the previously approved Local Agency Management Program shall remain in effect while the reconsideration is pending.

4.4.5 If the request for reconsideration is denied, the local agency may appeal to the State Water Board and the previously approved Local Agency Management Program shall remain in effect while the appeal is under consideration. The State Water Board shall decide the appeal within 90 days. All decisions of the State Water Board are final.

4.5 The appropriate Regional Water Board shall accept and consider any requests for modification or revocation of a Local Agency Management Program submitted by any person. The Regional Water Board will notify the person making the request and the local agency implementing the Local Agency Management Program at issue by letter within 90 days

whether it intends to proceed with the modification or revocation process per Section 4.4 above, or is dismissing the request. The Regional Water Board will post the request and its response letter on its website.

4.6 A Regional Water Board may issue or deny waste discharge requirements or waivers of waste discharge requirements for any new or replacement OWTS within a jurisdiction of a local agency without an approved Local Agency Management Program if that OWTS does not meet the minimum standards contained in Tier 1.

4.7 The Regional Water Boards will implement any notifications and enforcement requirements for OWTS determined to be in Tier 3 of this Policy.

4.8 Regional Water Boards may adopt waste discharge requirements, or conditional waivers of waste discharge requirements, that exempt individual OWTS from requirements contained in this Policy.

5.0 State Water Board Functions and Duties

5.1 As the state agency charged with the development and adoption of this Policy, the State Water Board shall periodically review, amend and/or update this Policy as required.

5.2 The State Water Board may take any action assigned to the Regional Water Boards in this Policy.

5.3 The State Water Board shall resolve disputes between Regional Water Boards and local agencies as needed within 12 months of receiving such a request by a Regional Water Board or local agency, and may take action on its own motion in furtherance of this Policy. As part of this function, the State Water Board shall review and, if appropriate, approve Local Agency Management Programs in cases where the respective Regional Water Board has failed to consider for approval a Local Agency Management Program. The State Water Board shall approve Local Agency Management Programs at a regularly noticed board hearing and shall provide for public participation, including notice and opportunity for public comment. Once taken up by the State Water Board, Local Agency Management Programs shall be approved or denied within 180 days.

5.4 A member of the public may request the State Water Board to resolve any dispute regarding the Regional Water Board's approval of a Local Agency Management Program if the member of the public timely raised the disputed issue before the Regional Water Board. Such requests shall be submitted within 30 days after the Regional Water Board's approval of the Local Agency Management Program. The State Water Board shall notify the member of the public, the local agency, and the Regional Water Board within 90 days whether it intends to proceed with dispute resolution.

5.5 The State Water Board shall accept and consider any requests for modification or revocation of a Local Agency Management Program submitted by any person, where that person has previously submitted said request to the Regional Water Board and has received notice from the Regional Water Board of its dismissal of the request. The State Water Board will notify the person making the request and the local agency implementing the Local Agency Management Program at issue by letter within 90 days whether it intends to proceed with the modification or revocation process per Section 4.4 above, or is dismissing the request. The State Water Board will post the request and its response letter on its website.

5.6 The State Water Board or its Executive Director, after approving any Impaired Water Bodies [303 (d)] List, and for the purpose of implementing Tier 3 of this Policy, shall update Attachment 2 to identify those water bodies where: (1) it is likely that operating OWTS will subsequently be determined to be a contributing source of pathogens or nitrogen and therefore it is anticipated that OWTS would receive a loading reduction, and (2) it is likely that new OWTS installations discharging within 600 feet of the water body would contribute to the impairment. This identification shall be based on information available at the time of 303 (d) listing and may be further updated based on new information. Updates to Attachment 2 will be processed as amendments to this Policy.

5.7 The State Water Board will make available to local agencies funds from its Clean Water State Revolving Fund loan program for mini-loan programs to be operated by the local agencies for the making of low interest loans to assist private property owners with complying with this Policy.

Tier 0 – Existing OWTS

Existing OWTS that are properly functioning and do not meet the conditions of failing systems or otherwise require corrective action (for example, to prevent groundwater impairment) as specifically described in Tier 4, and are not determined to be contributing to an impairment of surface water as specifically described in Tier 3, are automatically included in Tier 0.

6.0 Coverage for Properly Operating Existing OWTS

6.1 Existing OWTS are automatically covered by Tier 0 and the herein included waiver of waste discharge requirements if they meet the following requirements:

6.1.1 have a projected flow of 10,000 gallons-per-day or less;

6.1.2 receive only domestic wastewater from residential or commercial buildings, or high-strength wastewater from commercial food service buildings that does not exceed 900 mg/L BOD and has a properly sized and functioning oil/grease interceptor (a.k.a. grease trap);

6.1.3 continue to comply with any previously imposed permitting conditions;

6.1.4 do not require supplemental treatment under Tier 3;

6.1.5 do not require corrective action under Tier 4; and

6.1.6 do not consist of a cesspool as a means of wastewater disposal.

6.2 A Regional Water Board or local agency may deny coverage under this Policy to any OWTS that is:

6.2.1 Not in compliance with Section 6.1;

6.2.2 Not able to adequately protect the water quality of the waters of the State, as determined by the Regional Water Board after considering any input from the local agency. A Regional Water Board may require the submission of a report of waste discharge to receive Region specific waste discharge requirements or waiver of waste discharge requirements so as to be protective.

6.3 Existing OWTS currently under waste discharge requirements or individual waiver of waste discharge requirements will remain under those orders until notified in writing by the appropriate Regional Water Board that they are covered under this Policy.

Tier 1 – Low Risk New or Replacement OWTS

New or replacement OWTS meet low risk siting and design requirements as specified in Tier 1, where there is not an approved Local Agency Management Program per Tier 2.

7.0 Minimum Site Evaluation and Siting Standards

7.1 A qualified professional shall perform all necessary soil and site evaluations for all new OWTS and for existing OWTS where the treatment or dispersal system will be replaced or expanded.

7.2 A site evaluation shall determine that adequate soil depth is present in the dispersal area. Soil depth is measured vertically to the point where bedrock, hardpan, impermeable soils, or saturated soils are encountered or an adequate depth has been determined. Soil depth shall be determined through the use of soil profile(s) in the dispersal area and the designated dispersal system replacement area, as viewed in excavations exposing the soil profiles in representative areas, unless the local agency has determined through historical or regional information that a specific site soil profile evaluation is unwarranted.

7.3 A site evaluation shall determine whether the anticipated highest level of groundwater within the dispersal field and its required minimum dispersal zone is not less than prescribed in Table 2 by estimation using one or a combination of the following methods:

7.3.1 Direct observation of the highest extent of soil mottling observed in the examination of soil profiles, recognizing that soil mottling is not always an indicator of the uppermost extent of high groundwater; or

7.3.2 Direct observation of groundwater levels during the anticipated period of high groundwater. Methods for groundwater monitoring and determinations shall be decided by the local agency; or

7.3.3 Other methods, such as historical records, acceptable to the local agency.

7.3.4 Where a conflict in the above methods of examination exists, the direct observation method indicating the highest level shall govern.

7.4 Percolation test results in the effluent disposal area shall not be faster than one minute per inch (1 MPI) or slower than one hundred twenty minutes per inch (120 MPI). All percolation test rates shall be performed by presoaking of percolation test holes and continuing the test until a stabilized rate is achieved.

7.5 Minimum horizontal setbacks from any OWTS treatment component and dispersal systems shall be as follows:

7.5.1 5 feet from parcel property lines and structures;

7.5.2 100 feet from water wells and monitoring wells, unless regulatory or legitimate data requirements necessitate that monitoring wells be located closer;

7.5.3 100 feet from any unstable land mass or any areas subject to earth slides identified by a registered engineer or registered geologist; other setback distance are allowed, if recommended by a geotechnical report prepared by a qualified professional.

7.5.4 100 feet from springs and flowing surface water bodies where the edge of that water body is the natural or levied bank for creeks and rivers, or may be less where site conditions prevent migration of wastewater to the water body;

7.5.5 200 feet from vernal pools, wetlands, lakes, ponds, or other surface water bodies where the edge of that water body is the high water mark for lakes and reservoirs, and the mean high tide line for tidally influenced water bodies;

7.5.6 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet;

7.5.7 Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.

7.5.8 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.

7.6 Prior to issuing a permit to install an OWTS the permitting agency shall determine if the OWTS is within 1,200 feet of an intake point for a surface water treatment plant for drinking water, is in the drainage catchment in which the intake point is located, and located such that it may impact water quality at the intake point such as being upstream of the intake point for a flowing water body. If the OWTS is within 1,200 feet of an intake point for a surface water treatment plant for drinking water, is in the drainage catchment in which the intake point is located, and is located such that it may impact water quality at the intake point:

7.6.1 The permitting agency shall provide a copy of the permit application to the owner of the water system of their proposal to install an OWTS within 1,200 feet of an intake point for a surface water treatment. If the owner of the water system cannot be identified, then the permitting agency will notify California Department of Public Health Drinking Water Program.

7.6.2 The permit application shall include a topographical plot plan for the parcel showing the OWTS components, the property boundaries, proposed structures, physical address, and name of property owner.

7.6.3 The permit application shall provide the estimated wastewater flows, intended use of proposed structure generating the wastewater, soil data, and estimated depth to seasonally saturated soils.

7.6.4 The public water system owner shall have 15 days from receipt of the permit application to provide recommendations and comments to the permitting agency.

7.7 Natural ground slope in all areas used for effluent disposal shall not be greater than 25 percent.

7.8 The average density for any subdivision of property made by Tentative Approval pursuant to the Subdivision Map Act occurring after the effective date of this Policy and implemented under Tier 1 shall not exceed the allowable density values in Table 1 for a single-family dwelling unit, or its equivalent, for those units that rely on OWTS.

Table 1: Allowable Average Densities per Subdivision under Tier 1.

Average Annual Rainfall (in/yr)	Allowable Density (acres/single family dwelling unit)
0 - 15	2.5
>15 - 20	2
>20 - 25	1.5
>25 - 35	1
>35 - 40	0.75
>40	0.5

8.0 Minimum OWTS Design and Construction Standards

8.1 OWTS Design Requirements

8.1.1 A qualified professional shall design all new OWTS and modifications to existing OWTS where the treatment or dispersal system will be replaced or expanded. A qualified professional employed by a local agency, while acting in that capacity, may design, review, and approve a design for a proposed OWTS, if authorized by the local agency.

8.1.2 OWTS shall be located, designed, and constructed in a manner to ensure that effluent does not surface at any time, and that percolation of effluent will not adversely affect beneficial uses of waters of the State.

8.1.3 The design of new and replacement OWTS shall be based on the expected influent wastewater quality with a projected flow not to exceed 3,500 gallons per day, the peak wastewater flow rates for purposes of sizing

hydraulic components, the projected average daily flow for purposes of sizing the dispersal system, the characteristics of the site, and the required level of treatment for protection of water quality and public health.

8.1.4 All dispersal systems shall have at least twelve (12) inches of soil cover, except for pressure distribution systems, which must have at least six (6) inches of soil cover.

8.1.5 The minimum depth to the anticipated highest level of groundwater below the bottom of the leaching trench, and the native soil depth immediately below the leaching trench, shall not be less than prescribed in Table 2.

Table 2: Tier 1 Minimum Depths to Groundwater and Minimum Soil Depth from the Bottom of the Dispersal System

Percolation Rate	Minimum Depth
Percolation Rate ≤1 MPI	Only as authorized in a Tier 2 Local Agency Management Program
1 MPI< Percolation Rate ≤ 5 MPI	Twenty (20) feet
5 MPI< Percolation Rate ≤ 30 MPI	Eight (8) feet
30 MPI< Percolation Rate ≤ 120 MPI	Five (5) feet
Percolation Rate > 120 MPI	Only as authorized in a Tier 2 Local Agency Management Program
MPI = minutes per inch	

8.1.6 Dispersal systems shall be a leachfield, designed using not more than 4 square-feet of infiltrative area per linear foot of trench as the infiltrative surface, and with trench width no wider than 3 feet. Seepage pits and other dispersal systems may only be authorized for repairs where siting limitations require a variance. Maximum application rates shall be determined from stabilized percolation rate as provided in Table 3, or from soil texture and structure determination as provided in Table 4.

8.1.7 Dispersal systems shall not exceed a maximum depth of 10 feet as measured from the ground surface to the bottom of the trench.

Tier 1 – Low Risk New or Replacement OWTS

Table 3: Application Rates as Determined from Stabilized Percolation Rate

Percolation Rate (minutes per Inch)	Application Rate (gallons per day per square foot)		Percolation Rate (minutes per Inch)	Application Rate (gallons per day per square foot)		Percolation Rate (minutes per Inch)	Application Rate (gallons per day per square foot)
<1	Requires Local Manage-ment Program		31	0.522		61	0.197
1	1.2		32	0.511		62	0.194
2	1.2		33	0.5		63	0.19
3	1.2		34	0.489		64	0.187
4	1.2		35	0.478		65	0.184
5	1.2		36	0.467		66	0.18
6	0.8		37	0.456		67	0.177
7	0.8		38	0.445		68	0.174
8	0.8		39	0.434		69	0.17
9	0.8		40	0.422		70	0.167
10	0.8		41	0.411		71	0.164
11	0.786		42	0.4		72	0.16
12	0.771		43	0.389		73	0.157
13	0.757		44	0.378		74	0.154
14	0.743		45	0.367		75	0.15
15	0.729		46	0.356		76	0.147
16	0.714		47	0.345		77	0.144
17	0.7		48	0.334		78	0.14
18	0.686		49	0.323		79	0.137
19	0.671		50	0.311		80	0.133
20	0.657		51	0.3		81	0.13
21	0.643		52	0.289		82	0.127
22	0.629		53	0.278		83	0.123
23	0.614		54	0.267		84	0.12
24	0.6		55	0.256		85	0.117
25	0.589		56	0.245		86	0.113
26	0.578		57	0.234		87	0.11
27	0.567		58	0.223		88	0.107
28	0.556		59	0.212		89	0.103
29	0.545		60	0.2		90	0.1
30	0.533					>90 - 120	0.1

Tier 1 – Low Risk New or Replacement OWTS

Table 4: Design Soil Application Rates

(Source: USEPA Onsite Wastewater Treatment Systems Manual, February 2002)

Soil Texture (per the USDA soil classification system)	Soil Structure Shape	Grade	Maximum Soil Application Rate(gallons per day per square foot) [1]
Coarse Sand, Sand, Loamy Coarse Sand, Loamy Sand	Single grain	Structureless	0.8
Fine Sand, Very Fine Sand, Loamy Fine Sand, Loamy Very Fine Sand	Single grain	Structureless	0.4
Coarse Sandy Loam, Sandy Loam	Massive	Structureless	0.2
	Platy	Weak	0.2
		Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Fine Sandy Loam, very fine Sandy Loam	Massive	Structureless	0.2
	Platy	Weak, Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	0.2
		Moderate, Strong	0.4
Loam	Massive	Structureless	0.2
	Platy	Weak, Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Silt Loam	Massive	Structureless	Prohibited
	Platy	Weak, Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Sandy Clay Loam, Clay Loam, Silty Clay Loam	Massive	Structureless	Prohibited
	Platy	Weak, Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	0.2
		Moderate, Strong	0.4
Sandy Clay, Clay, or Silty Clay	Massive	Structureless	Prohibited
	Platy	Weak, Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	Prohibited
		Moderate, Strong	0.2

[1] Soils listed as prohibited may be allowed under the authority of the Regional Water Board, or as allowed under an approved Local Agency Management Program per Tier 2.

8.1.8 All new dispersal systems shall have 100 percent replacement area that is equivalent and separate, and available for future use.

8.1.9 No dispersal systems or replacement areas shall be covered by an impermeable surface, such as paving, building foundation slabs, plastic sheeting, or any other material that prevents oxygen transfer to the soil.

8.1.10 Rock fragment content of native soil surrounding the dispersal system shall not exceed 50 percent by volume for rock fragments sized as cobbles or larger and shall be estimated using either the point-count or line-intercept methods.

8.1.11 Increased allowance for IAPMO certified dispersal systems is not allowed under Tier 1.

8.2 OWTS Construction and Installation

8.2.1 All new or replacement septic tanks and new or replacement oil/grease interceptor tanks shall comply with the standards contained in Sections K5(b), K5(c), K5(d), K5(e), K5(k), K5(m)(1), and K5(m)(3)(ii) of Appendix K, of Part 5, Title 24 of the 2007 California Code of Regulations.

8.2.2 All new septic tanks shall comply with the following requirements:

8.2.2.1 Access openings shall have watertight risers, the tops of which shall be set at most 6 inches below finished grade; and

8.2.2.2 Access openings at grade or above shall be locked or secured to prevent unauthorized access.

8.2.3 New and replacement OWTS septic tanks shall be limited to those approved by the International Association of Plumbing and Mechanical Officials (IAPMO) or stamped and certified by a California registered civil engineer as meeting the industry standards, and their installation shall be according to the manufacturer's instructions.

8.2.4 New and replacement OWTS septic tanks shall be designed to prevent solids in excess of three-sixteenths (3/16) of an inch in diameter from passing to the dispersal system. Septic tanks that use a National Sanitation Foundation/American National Standard Institute (NSF/ANSI) Standard 46 certified septic tank filter at the final point of effluent discharge from the OWTS and prior to the dispersal system shall be deemed in compliance with this requirement.

8.2.5 A Licensed General Engineering Contractor (Class A), General Building Contractor (Class B), Sanitation System Contractor (Specialty Class C-42), or Plumbing Contractor (Specialty Class C-36) shall install all new OWTS and replacement OWTS in accordance with California Business and Professions Code Sections 7056, 7057, and 7058 and Article 3, Division 8, Title 16 of the California Code of Regulations. A property owner may also install his/her own OWTS if the as-built diagram and the installation are inspected and approved by the Regional Water Board or local agency at a time when the OWTS is in an open condition (not covered by soil and exposed for inspection).

Tier 2 – Local Agency OWTS Management Program

Local agencies may submit management programs for approval, and upon approval then manage the installation of new and replacement OWTS under that program. Local Agency Management Programs approved under Tier 2 provide an alternate method from Tier 1 programs to achieve the same policy purpose, which is to protect water quality and public health. In order to address local conditions, Local Agency Management Programs may include standards that differ from the Tier 1 requirements for new and replacement OWTS contained in Sections 7 and 8. As examples, a Local Agency Management Program may authorize different soil characteristics, usage of seepage pits, and different densities for new developments. Once the Local Agency Management Program is approved, new and replacement OWTS that are included within the Local Agency Management Program may be approved by the Local Agency. A Local Agency, at its discretion, may include Tier 1 standards within its Tier 2 Local Agency Management Program for some or all of its jurisdiction. However, once a Local Agency Management Program is approved, it shall supersede Tier 1 and all future OWTS decisions will be governed by the Tier 2 Local Agency Management Program until it is modified, withdrawn, or revoked.

9.0 Local Agency Management Program for Minimum OWTS Standards

The Local Agency Management Program for minimum OWTS Standards is a management program where local agencies can establish minimum standards that are differing requirements from those specified in Tier 1 (Section 7 and Section 8), including the areas that do not meet those minimum standards and still achieve this Policy's purpose. Local Agency Management Programs may include any one or combination of the following to achieve this purpose:

- Differing system design requirements;
- Differing siting controls such as system density and setback requirements;
- Requirements for owners to enter monitoring and maintenance agreements; and/or
- Creation of an onsite management district or zone.

9.1 Where different and/or additional requirements are needed to protect water quality the local agency shall consider the following, as well as any other conditions deemed appropriate, when developing Local Agency Management Program requirements:

9.1.1 Degree of vulnerability to pollution from OWTS due to hydrogeological conditions.

9.1.2 High Quality waters or other environmental conditions requiring enhanced protection from the effects of OWTS.

9.1.3 Shallow soils requiring a dispersal system installation that is closer to ground surface than is standard.

9.1.4 OWTS is located in area with high domestic well usage.

9.1.5 Dispersal system is located in an area with fractured bedrock.

9.1.6 Dispersal system is located in an area with poorly drained soils.

9.1.7 Surface water is vulnerable to pollution from OWTS.

9.1.8 Surface water within the watershed is listed as impaired for nitrogen or pathogens.

9.1.9 OWTS is located within an area of high OWTS density.

9.1.10 A parcel's size and its susceptibility to hydraulic mounding, organic or nitrogen loading, and whether there is sufficient area for OWTS expansion in case of failure.

9.1.11 Geographic areas that are known to have multiple, existing OWTS predating any adopted standards of design and construction including cesspools.

9.1.12 Geographic areas that are known to have multiple, existing OWTS located within either the pertinent setbacks listed in Section 7.5 of this Policy, or a setback that the local agencies finds is appropriate for that area.

9.2 The Local Agency Management Program shall detail the scope of its coverage, such as the maximum authorized projected flows for OWTS, as well as a clear delineation of those types of OWTS included within and to be permitted by

the program, and provide the local site evaluation, siting, design, and construction requirements, and in addition each of the following:

9.2.1 Any local agency requirements for onsite wastewater system inspection, monitoring, maintenance, and repairs, including procedures to ensure that replacements or repairs to failing systems are done under permit from the local governing jurisdiction.

9.2.2 Any special provisions applicable to OWTS within specified geographic areas near specific impaired water bodies listed for pathogens or nitrogen. The special provisions may be substantive and/or procedural, and may include, as examples: consultation with the Regional Water Board prior to issuing permits, supplemental treatment, development of a management district or zone, special siting requirements, additional inspection and monitoring.

9.2.3 Local Agency Management Program variances, for new installations and repairs in substantial conformance, to the greatest extent practicable. Variances are not allowed for the requirements stated in sections 9.4.1 through 9.4.9.

9.2.4 Any educational, training, certification, and/or licensing requirements that will be required of OWTS service providers, site evaluators, designers, installers, pumpers, maintenance contractors, and any other person relating to OWTS activities.

9.2.5 Education and/or outreach program including informational materials to inform OWTS owners about how to locate, operate, and maintain their OWTS as well as any Water Board order (e.g., Basin Plan prohibitions) regarding OWTS restrictions within its jurisdiction. The education and/or outreach program shall also include procedures to ensure that alternative onsite system owners are provided an informational maintenance or replacement document by the system designer or installer. This document shall cite homeowner procedures to ensure maintenance, repair, or replacement of critical items within 48 hours following failure. If volunteer well monitoring programs are available within the local agency's jurisdiction, the outreach program shall include information on how well owners may participate.

9.2.6 An assessment of existing and proposed disposal locations for septage, the volume of septage anticipated, and whether adequate capacity is available.

9.2.7 Any consideration given to onsite maintenance districts or zones.

9.2.8 Any consideration given to the development and implementation of, or coordination with, Regional Salt and Nutrient Management Plans.

9.2.9 Any consideration given to coordination with watershed management groups.

9.2.10 Procedures for evaluating the proximity of sewer systems to new or replacement OWTS installations.

9.2.11 Procedures for notifying the owner of a public water system prior to issuing an installation or repair permit for an OWTS, if the OWTS is within 1,200 feet of an intake point for a surface water treatment plant for drinking water, is in the drainage area catchment in which the intake point is located, and is located such that it may impact water quality at the intake point such as upstream of the intake point for a flowing water body, or if the OWTS is within a horizontal sanitary setback from a public well.

9.2.12 Policies and procedures that will be followed when a proposed OWTS dispersal area is within the horizontal sanitary setback of a public well or a surface water intake point. These policies and procedures shall either indicate that supplemental treatment as specified in 10.9 and 10.10 of this policy are required for OWTS that are within a horizontal sanitary setback of a public well or surface water intake point, or will establish alternate siting and operational criteria for the proposed OWTS that would similarly mitigate the potential adverse impact to the public water source.

9.2.13 Any plans for the phase-out or discontinuance of cesspool usage.

9.3 The minimum responsibilities of the local agency for management of the Local Agency Management Program include:

9.3.1 Maintain records of the number, location, and description of permits issued for OWTS where a variance is granted.

9.3.2 Maintain a water quality assessment program to determine the general operation status of OWTS and to evaluate the impact of OWTS discharges, and assess the extent to which groundwater and local surface water quality may be adversely impacted. The focus of the assessment should be areas with characteristics listed under section 9.1. The assessment program will include monitoring and analysis of water quality data, review of complaints, variances, failures, and any information resulting from inspections. The assessment may use existing water quality data from other monitoring programs and/or establish the terms, conditions, and timing for monitoring done by the local agency. At a minimum this assessment will include monitoring data for nitrates and pathogens, and may include data for other constituents which are needed to adequately characterize the impacts of OWTS on water quality. Other monitoring programs for which data may be used include but are not limited to any of the following:

9.3.2.1. Random well samples from a domestic well sampling program.

9.3.2.2. Routine real estate transfer samples if those are performed and reported.

9.3.2.3. Review of public system sampling reports done by the local agency or another municipality responsible for the public system.

9.3.2.4. Water quality testing reports done at the time of new well development if those are reported.

9.3.2.5. Beach water quality testing data performed as part of Health and Safety Code Section 115885.

9.3.2.6. Receiving water sampling performed as a part of a NPDES permit.

9.3.2.7. Data contained in the California Water Quality Assessment Database.

9.3.2.8. Groundwater sampling performed as part of Waste Discharge Requirements.

9.3.2.9. Groundwater data collected as part of the Groundwater Ambient Monitoring and Assessment Program and available in the Geotracker Database.

9.3.3 Submit an annual report by February 1 to the applicable Regional Water Board summarizing the status of items 9.3.1 through 9.3.2 above. Every fifth year, submit an evaluation of the monitoring program and an assessment of whether water quality is being impacted by OWTS, identifying any changes in the Local Agency Management Program that will be undertaken to address impacts from OWTS. The first report will commence one year after approval of the local agency's Local Agency Management Program. In addition to summarizing monitoring data collected per 9.3.2 above, all groundwater monitoring data generated by the local agency shall be submitted in EDF format for inclusion into Geotracker, and surface water monitoring shall be submitted to CEDEN in a SWAMP comparable format.

9.4 The following are not allowed to be authorized in a Local Agency Management Program:

9.4.1 Cesspools of any kind or size.

9.4.2 OWTS receiving a projected flow over 10,000 gallons per day.

9.4.3 OWTS that utilize any form of effluent disposal that discharges on or above the post installation ground surface such as sprinklers, exposed drip lines, free-surface wetlands, or a pond.

9.4.4 Slopes greater than 30 percent without a slope stability report approved by a registered professional.

9.4.5 Decreased leaching area for IAPMO certified dispersal systems using a multiplier less than 0.70.

9.4.6 OWTS utilizing supplemental treatment without requirements for periodic monitoring or inspections.

9.4.7 OWTS dedicated to receiving significant amounts of wastes dumped from RV holding tanks.

9.4.8 Separation of the bottom of dispersal system to groundwater less than two (2) feet, except for seepage pits, which shall not be less than 10 feet.

9.4.9 Installation of new or replacement OWTS where public sewer is available. The public sewer may be considered as not available when such public sewer or any building or exterior drainage facility connected thereto is located more than 200 feet from any proposed building or exterior drainage facility on any lot or premises that abuts and is served by such public sewer. This provision does not apply to replacement OWTS where the connection fees and construction cost are greater than twice the total cost of the replacement OWTS and the local agency determines that the discharge from the OWTS will not affect groundwater or surface water to a degree that makes it unfit for drinking or other uses.

9.4.10 Except as provided for in sections 9.4.11 and 9.4.12, new or replacement OWTS with minimum horizontal setbacks less than any of the following:

9.4.10.1 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet in depth.

9.4.10.2 200 feet from a public water well where the depth of the effluent dispersal system exceeds 10 feet in depth.

9.4.10.3 Where the effluent dispersal system is within 600 feet of a public water well and exceeds 20 feet in depth the horizontal setback required to achieve a two-year travel time for microbiological contaminants shall be evaluated. A qualified professional shall conduct this evaluation. However in no case shall the setback be less than 200 feet.

9.4.10.4 Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.

9.4.10.5 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems' surface water intake point, within the catchment area of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.

9.4.11 For replacement OWTS that do not meet the above horizontal separation requirements, the replacement OWTS shall meet the horizontal separation to the greatest extent practicable. In such case, the replacement OWTS shall utilize supplemental treatment and other mitigation measures, unless the permitting authority finds that there is no indication that the previous system is adversely affecting the public water source, and there is limited potential that the replacement system could impact the water source based on topography, soil depth, soil texture, and groundwater separation.

9.4.12 For new OWTS, installed on parcels of record existing at the time of the effective date of this Policy, that cannot meet the above horizontal separation requirements, the OWTS shall meet the horizontal separation to the greatest extent practicable and shall utilize supplemental treatment for pathogens as specified in section 10.8 and any other mitigation measures prescribed by the permitting authority.

9.5 A Local Agency Management Program for OWTS must include adequate detail, including technical information to support how all the criteria in their program work together to protect water quality and public health.

9.6 A Regional Water Board reviewing a Local Agency Management Program shall consider, among other things, the past performance of the local program to adequately protect water quality, and where this has been achieved with criteria differing from Tier 1, shall not unnecessarily require modifications to the program for purposes of uniformity, as long as the Local Agency Management Program meets the requirements of Tier 2.

Tier 3 – Advanced Protection Management Programs for Impaired Areas

Existing, new, and replacement OWTS that are near impaired water bodies may be addressed by a TMDL and its implementation program, or special provisions contained in a Local Agency Management Program. If there is no TMDL or special provisions, new or replacement OWTS within 600 feet of impaired water bodies listed in Attachment 2 must meet the applicable specific requirements of Tier 3.

10.0 Advanced Protection Management Program

An Advanced Protection Management Program is the minimum required management program for all OWTS located near a water body that has been listed as impaired due to nitrogen or pathogen indicators pursuant to Section 303(d) of the Clean Water Act. Local agencies are authorized to implement Advanced Protection Management Programs in conjunction with an approved Local Agency Management Program or, if there is no approved Local Agency Management Program, Tier 1. Local agencies are encouraged to collaborate with the Regional Water Boards by sharing any information pertaining to the impairment, provide advice on potential remedies, and regulate OWTS to the extent that their authority allows for the improvement of the impairment.

10.1 The geographic area for each water body's Advanced Protection Management Program is defined by the applicable TMDL, if one has been approved. If there is not an approved TMDL, it is defined by an approved Local Agency Management Program, if it contains special provisions for that water body. If it is not defined in an approved TMDL or Local Agency Management Program, it shall be 600 linear feet [in the horizontal (map) direction] of a water body listed in Attachment 2 where the edge of that water body is the natural or levied bank for creeks and rivers, the high water mark for lakes and reservoirs, and the mean high tide line for tidally influenced water bodies, as appropriate. OWTS near impaired water bodies that are not listed on Attachment 2, and do not have a TMDL and are not covered by a Local Agency Management Program with special provisions, are not addressed by Tier 3.

10.2 The requirements of an Advanced Protection Management Program will be in accordance with a TMDL implementation plan, if one has been adopted to address the impairment. An adopted TMDL implementation plan supersedes all other requirements in Tier 3. All TMDL implementation plans adopted after the effective date of this Policy that contain load allocations for OWTS shall include a schedule that requires compliance with the load allocations as soon as practicable, given the watershed-specific circumstances. The schedule shall require that OWTS implementation actions for OWTS installed prior to the TMDL implementation plan's effective date shall commence within 3 years after the TMDL implementation plan's effective date, and that OWTS implementation actions for OWTS installed after the TMDL implementation plan's effective date shall commence immediately. The TMDL implementation plan may use some or all of the Tier 3 requirements and shall establish the applicable area of implementation for OWTS requirements within the watershed. For those impaired water bodies that do have an adopted TMDL addressing the impairment, but the TMDL does not assign a load allocation to OWTS, no further action is required unless the TMDL is modified at some point in the future to include actions for OWTS. Existing, new, and replacement OWTS that are near impaired water bodies and are covered by a Basin Plan prohibition must also comply with the terms of the prohibition, as provided in Section 2.1.

10.3 In the absence of an adopted TMDL implementation plan, the requirements of an Advanced Protection Management Program will consist of any special provisions for the water body if any such provisions have been approved as part of a Local Agency Management Program.

10.4 The Regional Water Boards shall adopt TMDLs for impaired water bodies identified in Attachment 2, in accordance with the specified dates.

10.4.1 If a Regional Water Board does not complete a TMDL within two years of the time period specified in Attachment 2, coverage under this Policy's waiver of waste discharge requirements shall expire for any OWTS that has any part of its dispersal system discharging within the geographic area of an Advanced Protection Management Program. The Regional Water Board shall issue waste discharge requirements, general waste discharge requirements, waivers of waste discharge requirements, or require corrective action for such OWTS. The Regional Water Board will consider the following when establishing the waste discharge requirements, general waste discharge requirements, waivers of waste discharge requirements, or requirement for corrective action:

10.4.1.1 Whether supplemental treatment should be required.

10.4.1.2 Whether routine inspection of the OWTS should be required.

10.4.1.3 Whether monitoring of surface and groundwater should be performed.

10.4.1.4 The collection of a fee for those OWTS covered by the order.

10.4.1.5 Whether owners of previously-constructed OWTS should file a report by a qualified professional in accordance with section 10.5.

10.4.1.6 Whether owners of new or replacement OWTS should file a report of waste discharge with additional supporting technical information as required by the Regional Water Board.

10.5 If the Regional Water Board requires owners of OWTS to submit a qualified professional's report pursuant to Section 10.4.1.5, the report shall include a determination of whether the OWTS is functioning properly and as designed or requires corrective actions per Tier 4, and regardless of its state of function, whether it is contributing to impairment of the water body.

10.5.1 The qualified professional's report may also include, but is not limited to:

10.5.1.1 A general description of system components, their physical layout, and horizontal setback distances from property lines, buildings, wells, and surface waters.

10.5.1.2 A description of the type of wastewater discharged to the OWTS such as domestic, commercial, or industrial and classification of it as domestic wastewater or high-strength waste.

10.5.1.3 A determination of the systems design flow and the volume of wastewater discharged daily derived from water use, either estimated or actual if metered.

10.5.1.4 A description of the septic tank, including age, size, material of construction, internal and external condition, water level, scum layer thickness, depth of solids, and the results of a one-hour hydrostatic test.

10.5.1.5 A description of the distribution box, dosing siphon, or distribution pump, and if flow is being equally distributed throughout the dispersal system, as well as any evidence of solids carryover, clear water infiltration, or evidence of system backup.

10.5.1.6 A description of the dispersal system including signs of hydraulic failure, condition of surface vegetation over the dispersal system, level of ponding above the infiltrative surface within the dispersal system, other possible sources of hydraulic loading to the dispersal area, and depth of the seasonally high groundwater level.

10.5.1.7 A determination of whether the OWTS is discharging to the ground's surface.

10.5.1.8 For a water body listed as an impaired water body for pathogens, a determination of the OWTS dispersal system's separation from its deepest most infiltrative surface to the highest seasonal groundwater level or fractured bedrock.

10.5.1.9 For a water body listed as an impaired water body for nitrogen, a determination of whether the groundwater under the dispersal field is reaching the water body, and a description of the method used to make the determination.

10.6 For new, replacement, and existing OWTS in an Advanced Protection Management Program, the following are not covered by this Policy's waiver but may be authorized by a separate Regional Water Board order:

10.6.1 Cesspools of any kind or size.

10.6.2 OWTS receiving a projected flow over 10,000 gallons per day.

10.6.3 OWTS that utilize any form of effluent disposal on or above the ground surface.

10.6.4 Slopes greater than 30 percent without a slope stability report approved by a registered professional.

10.6.5 Decreased leaching area for IAPMO certified dispersal systems using a multiplier less than 0.70.

10.6.6 OWTS utilizing supplemental treatment without requirements for periodic monitoring or inspections.

10.6.7 OWTS dedicated to receiving significant amounts of wastes dumped from RV holding tanks.

10.6.8 Separation of the bottom of dispersal system to groundwater less than two(2) feet, except for seepage pits, which shall not be less than 10 feet.

10.6.9 Minimum horizontal setbacks less than any of the following:

10.6.9.1 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet in depth;

10.6.9.2 200 feet from a public water well where the depth of the effluent dispersal system exceeds 10 feet in depth:

10.6.9.3 Where the effluent dispersal system is within 600 feet of a public water well and exceeds 20 feet in depth the horizontal setback required to achieve a two-year travel time for microbiological contaminants shall be evaluated. A qualified professional shall conduct this evaluation. However in no case shall the setback be less than 200 feet.

10.6.9.4 Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.

10.6.9.5 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.

10.6.9.6 For replacement OWTS that do not meet the above horizontal separation requirements, the replacement OWTS shall meet the horizontal separation to the greatest extent practicable. In such case, the replacement OWTS shall utilize supplemental treatment and other mitigation measures.

10.6.9.7 For new OWTS, installed on parcels of record existing at the time of the effective date of this Policy, that cannot meet the above horizontal separation requirements, the OWTS shall meet the horizontal separation to the greatest extent practicable and shall utilize supplemental treatment for pathogens as specified in section 10.10 and any other mitigation measures as prescribed by the permitting authority.

10.7 The requirements contained in Section 10 shall not apply to owners of OWTS that are constructed and operating, or permitted, on or prior to the date that the nearby water body is added to Attachment 2 who commit by way of a legally binding document to connect to a centralized wastewater collection and treatment system regulated through WDRs as specified within the following timeframes:

10.7.1 The owner must sign the document within forty-eight months of the date that the nearby water body is initially listed on Attachment 2.

10.7.2 The specified date for the connection to the centralized community wastewater collection and treatment system shall not extend beyond nine years following the date that the nearby water body is added to Attachment 2.

10.8 In the absence of an adopted TMDL implementation plan or Local Agency Management Program containing special provisions for the water body, all new or replacement OWTS permitted after the date that the water body is initially listed in Attachment 2 that have any discharge within the geographic area of an Advanced Protection Management Program shall meet the following requirements:

10.8.1 Utilize supplemental treatment and meet performance requirements in 10.9 if impaired for nitrogen and 10.10 if impaired for pathogens,

10.8.2 Comply with the setback requirements of Section 7.5.1 to 7.5.5, and

10.8.3 Comply with any applicable Local Agency Management Program requirements.

10.9 Supplemental treatment requirements for nitrogen

10.9.1 Effluent from the supplemental treatment components designed to reduce nitrogen shall be certified by NSF, or other approved third party tester, to meet a 50 percent reduction in total nitrogen when comparing the 30-day average influent to the 30-day average effluent.

10.9.2 Where a drip-line dispersal system is used to enhance vegetative nitrogen uptake, the dispersal system shall have at least six (6) inches of soil cover.

10.10 Supplemental treatment requirements for pathogens

10.10.1 Supplemental treatment components designed to perform disinfection shall provide sufficient pretreatment of the wastewater so that effluent from the supplemental treatment components does not exceed a 30-day average TSS of 30 mg/L and shall further achieve an effluent fecal coliform bacteria concentration less than or equal to 200 Most Probable Number (MPN) per 100 milliliters.

10.10.2 The minimum soil depth and the minimum depth to the anticipated highest level of groundwater below the bottom of the dispersal system shall not be less than three (3) feet. All dispersal systems shall have at least twelve (12) inches of soil cover.

10.11 OWTS in an Advanced Protection Management Program with supplemental treatment shall be designed to meet the applicable performance requirements above and shall be stamped or approved by a Qualified Professional.

10.12 Prior to the installation of any proprietary treatment OWTS in an Advanced Protection Management Program, all such treatment components shall be tested by an independent third party testing laboratory.

10.13 The ongoing monitoring of OWTS in an Advanced Protection Management Program with supplemental treatment components designed to meet the performance requirements in Sections 10.9 and 10.10 shall be monitored in accordance with the operation and maintenance manual for the OWTS or more frequently as required by the local agency or Regional Water Board.

10.14 OWTS in an Advanced Protection Management Program with supplemental treatment components shall be equipped with a visual or audible alarm as well as a telemetric alarm that alerts the owner and service provider in the event of system malfunction. Where telemetry is not possible, the owner or owner's agent shall inspect the system at least monthly while the system is in use as directed and instructed by a service provider and notify the service provider not less than quarterly of the observed operating parameters of the OWTS.

10.15 OWTS in an Advanced Protection Management Program designed to meet the disinfection requirements in Section 10.10 shall be inspected for proper operation quarterly while the system is in use by a service provider unless a telemetric monitoring system is capable of continuously assessing the operation of the disinfection system. Testing of the wastewater flowing from supplemental treatment components that perform disinfection shall be sampled at a point in the system after the treatment components and prior to the dispersal system and shall be conducted quarterly based on analysis of total coliform with a minimum detection limit of 2.2 MPN. All effluent samples must include the geographic coordinates of the sample's location. Effluent samples shall be taken by a service provider and analyzed by a California Department of Public Health certified laboratory.

10.16 The minimum responsibilities of a local agency administering an Advanced Protection Management Program include those prescribed for the Local Agency Management Programs in Section 9.3 of this policy, as well as monitoring owner compliance with Sections 10.13, 10.14,and 10.15.

Tier 4 – OWTS Requiring Corrective Action

OWTS that require corrective action or are either presently failing or fail at any time while this Policy is in effect are automatically included in Tier 4 and must follow the requirements as specified. OWTS included in Tier 4 must continue to meet applicable requirements of Tier 0, 1, 2 or 3 pending completion of corrective action.

11.0 Corrective Action for OWTS

11.1 Any OWTS that has pooling effluent, discharges wastewater to the surface, or has wastewater backed up into plumbing fixtures, because its dispersal system is no longer adequately percolating the wastewater is deemed to be failing, no longer meeting its primary purpose to protect public health, and requires major repair, and as such the dispersal system must be replaced, repaired, or modified so as to return to proper function and comply with Tier 1, 2, or 3 as appropriate.

11.2 Any OWTS septic tank failure, such as a baffle failure or tank structural integrity failure such that either wastewater is exfiltrating or groundwater is infiltrating is deemed to be failing, no longer meeting its primary purpose to protect public health, and requires major repair, and as such shall require the septic tank to be brought into compliance with the requirements of Section 8 in Tier 1 or a Local Agency Management Program per Tier 2.

11.3 Any OWTS that has a failure of one of its components other than those covered by 11.1 and 11.2 above, such as a distribution box or broken piping connection, shall have that component repaired so as to return the OWTS to a proper functioning condition and return to Tier 0, 1, 2, or 3.

11.4 Any OWTS that has affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking or other uses, or is causing a human health or other public nuisance condition shall be modified or upgraded so as to abate its impact.

11.5 If the owner of the OWTS is not able to comply with corrective action requirements of this section, the Regional Water Board may authorize repairs that are in substantial conformance, to the greatest extent practicable, with Tiers 1 or 3, or may require the owner of the OWTS to submit a report of waste discharge for evaluation on a case-by-case basis. Regional Water Board response to such reports of waste discharge may include, but is not limited to, enrollment in general waste discharge requirements, issuance of individual waste discharge requirements, or issuance of waiver of waste discharge requirements. A local agency may authorize repairs that are in substantial conformance, to the greatest extent practicable, with Tier 2 in accordance with section 9.2.3 if there is an approved Local Agency Management Program, or with an existing program if a Local Agency Management Program has not been approved and it is less than 5 years from the effective date of the Policy.

11.6 Owners of OWTS will address any corrective action requirement of Tier 4 as soon as is reasonably possible, and must comply with the time schedule of any corrective action notice received from a local agency or Regional Water Board, to retain coverage under this Policy.

11.7 Failure to meet the requirements of Tier 4 constitute a failure to meet the conditions of the waiver of waste discharge requirements contained in this Policy, and is subject to further enforcement action.

Waiver – Effective Date – Financial Assistance

Conditional Waiver of Waste Discharge Requirements

12.0 In accordance with Water Code section 13269, the State Water Board hereby waives the requirements to submit a report of waste discharge, obtain waste discharge requirements, and pay fees for discharges from OWTS covered by this Policy. Owners of OWTS covered by this Policy shall comply with the following conditions:

12.0.1 The OWTS shall function as designed with no surfacing effluent.

12.0.2 The OWTS shall not utilize a dispersal system that is in soil saturated with groundwater.

12.0.3 The OWTS shall not be operated while inundated by a storm or flood event.

12.0.4 The OWTS shall not cause or contribute to a condition of nuisance or pollution.

12.0.5 The OWTS shall comply with all applicable local agency codes, ordinances, and requirements.

12.0.6 The OWTS shall comply with and meet any applicable TMDL implementation requirements, special provisions for impaired water bodies, or supplemental treatment requirements imposed by Tier 3.

12.0.7 The OWTS shall comply with any corrective action requirements of Tier 4.

12.1 This waiver may be revoked by the State Water Board or the applicable Regional Water Board for any discharge from an OWTS, or from a category of OWTS.

Effective Date

13.0 This Policy becomes effective six months after its approval by the Office of Administrative Law, and all deadlines and compliance dates stated herein start at such time.

Financial Assistance

14.0 Local Agencies may apply to the State Water Board for funds from the Clean Water State Revolving Fund for use in mini-loan programs that provide low interest loan assistance to private property owners with costs associated with complying with this Policy.

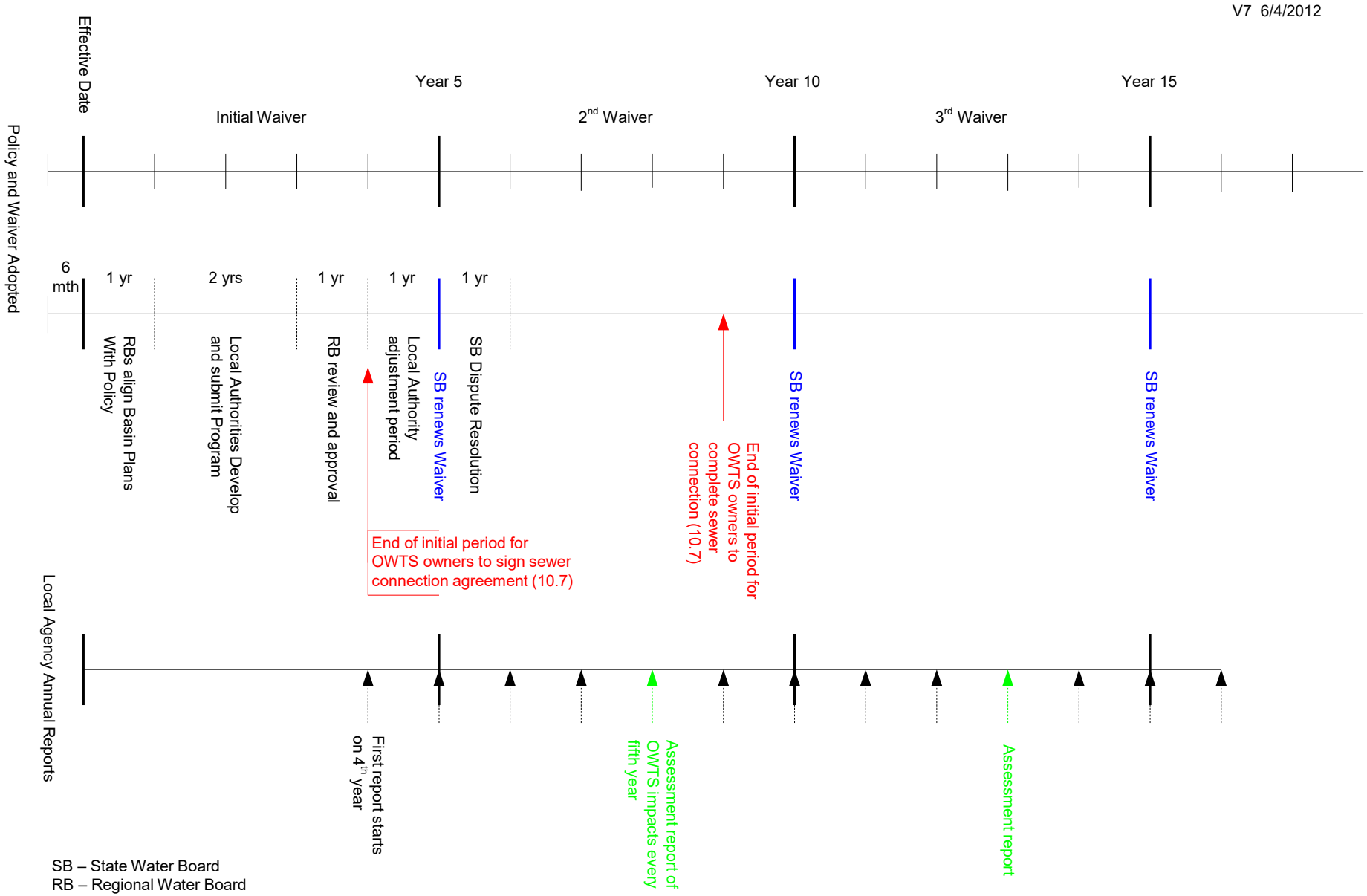
14.1 Loan interest rates for loans to local agencies will be set by the State Water Board using its policies, procedures, and strategies for implementing the Clean Water State Revolving Fund program, but will typically be one-half of the States most recent General Obligation bond sale. Historically interest rates have ranged between 2.0 and 3.0 percent.

14.2 Local agencies may add additional interest points to their loans made to private entities to cover their costs of administering the mini-loan program.

14.3 Local agencies may submit their suggested loan eligibility criteria for the min-loan program they wish to establish to the State Water Board for approval, but should consider the legislative intent stated in Water Code Section 13291.5 is that assistance is encouraged for private property owners whose cost of complying with the requirements of this policy exceeds one-half of one percent of the current assessed value of the property on which the OWTS is located.

Attachment 1

OWTS Policy Time Lines



Attachment 2

The tables below specifically identify those impaired water bodies where: (1) it is likely that operating OWTS will subsequently be determined to be a contributing source of pathogens or nitrogen and therefore it is anticipated that OWTS would receive a loading reduction, and (2) it is likely that new OWTS installations discharging within 600 feet of the water body would contribute to the impairment. Per this Policy (Tier 3, Section 10) the Regional Water Boards must adopt a TMDL by the date specified in the table. The State Water Board, at the time of approving future 303 (d) Lists, will specifically identify those impaired water bodies that are to be added or removed from the tables below.

Table 5. Water Bodies impaired for pathogens that are subject to Tier 3 as of 2012.

REGION NO.	REGION NAME	WATERBODY NAME	COUNTIES	TMDL Completion Date
1	North Coast	Clam Beach	Humboldt	2020
1	North Coast	Luffenholtz Beach	Humboldt	2020
1	North Coast	Moonstone County Park	Humboldt	2020
1	North Coast	Russian River HU, Lower Russian River HA, Guerneville HSA, mainstem Russian River from Fife Creek to Dutch Bill Creek	Sonoma	2016
1	North Coast	Russian River HU, Lower Russian River HA, Guerneville HSA, Green Valley Creek watershed	Sonoma	2016
1	North Coast	Russian River HU, Middle Russian River HA, Geyserville HSA, mainstem Russian River at Healdsburg Memorial Beach and unnamed tributary at Fitch Mountain	Sonoma	2016
1	North Coast	Russian River HU, Middle Russian River HA, mainstem Laguna de Santa Rosa	Sonoma	2016
1	North Coast	Russian River HU, Middle Russian River HA, mainstem Santa Rosa Creek	Sonoma	2016
1	North Coast	Trinidad State Beach	Humboldt	2020
2	San Francisco Bay	China Camp Beach	Marin	2014
2	San Francisco Bay	Lawsons Landing	Marin	2015
2	San Francisco Bay	Pacific Ocean at Bolinas Beach	Marin	2014

Attachment 2

REGION NO.	REGION NAME	WATERBODY NAME	COUNTIES	TMDL Completion Date
2	San Francisco Bay	Pacific Ocean at Fitzgerald Marine Reserve	San Mateo	2016
2	San Francisco Bay	Pacific Ocean at Muir Beach	Marin	2015
2	San Francisco Bay	Pacific Ocean at Pillar Point Beach	San Mateo	2016
2	San Francisco Bay	Petaluma River	Marin, Sonoma	2017
2	San Francisco Bay	Petaluma River (tidal portion)	Marin, Sonoma	2017
2	San Francisco Bay	San Gregorio Creek	San Mateo	2019
3	Central Coast	Pacific Ocean at Point Rincon (mouth of Rincon Cr, Santa Barbara County)	Santa Barbara	2015
3	Central Coast	Rincon Creek	Santa Barbara, Ventura	2015
4	Los Angeles	Canada Larga (Ventura River Watershed)	Ventura	2017
4	Los Angeles	Coyote Creek	Los Angeles, Orange	2015
4	Los Angeles	Rincon Beach	Ventura	2017
4	Los Angeles	San Antonio Creek (Tributary to Ventura River Reach 4)	Ventura	2017
4	Los Angeles	San Gabriel River Reach 1 (Estuary to Firestone)	Los Angeles	2015
4	Los Angeles	San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam	Los Angeles	2015
4	Los Angeles	San Gabriel River Reach 3 (Whittier Narrows to Ramona)	Los Angeles	2015
4	Los Angeles	San Jose Creek Reach 1 (SG Confluence to Temple St.)	Los Angeles	2015
4	Los Angeles	San Jose Creek Reach 2 (Temple to I-10 at White Ave.)	Los Angeles	2015
4	Los Angeles	Sawpit Creek	Los Angeles	2015
4	Los Angeles	Ventura River Reach 3 (Weldon Canyon to Confl. w/ Coyote Cr)	Ventura	2017
4	Los Angeles	Walnut Creek Wash (Drains from Puddingstone Res)	Los Angeles	2015
5	Central Valley	Wolf Creek (Nevada County)	Nevada, Placer	2020
5	Central Valley	Woods Creek (Tuolumne County)	Tuolumne	2020
7	Colorado River	Alamo River	Imperial	2017

Attachment 2

REGION NO.	REGION NAME	WATERBODY NAME	COUNTIES	TMDL Completion Date
7	Colorado River	Palo Verde Outfall Drain and Lagoon	Imperial, Riverside	2017
8	Santa Ana	Canyon Lake (Railroad Canyon Reservoir)	Riverside	2019
8	Santa Ana	Fulmor, Lake	Riverside	2019
8	Santa Ana	Goldenstar Creek	Riverside	2019
8	Santa Ana	Los Trancos Creek (Crystal Cove Creek)	Orange	2017
8	Santa Ana	Lytle Creek	San Bernardino	2019
8	Santa Ana	Mill Creek Reach 1	San Bernardino	2015
8	Santa Ana	Mill Creek Reach 2	San Bernardino	2015
8	Santa Ana	Morning Canyon Creek	Orange	2017
8	Santa Ana	Mountain Home Creek	San Bernardino	2019
8	Santa Ana	Mountain Home Creek, East Fork	San Bernardino	2019
8	Santa Ana	Silverado Creek	Orange	2017
8	Santa Ana	Peters Canyon Channel	Orange	2017
8	Santa Ana	Santa Ana River, Reach 2	Orange, Riverside	2019
8	Santa Ana	Temescal Creek, Reach 6 (Elsinore Groundwater sub basin boundary to Lake Elsinore Outlet)	Riverside	2019
8	Santa Ana	Seal Beach	Orange	2017
8	Santa Ana	Serrano Creek	Orange	2017
8	Santa Ana	Huntington Harbour	Orange	2017

Attachment 2

Table 6. Water Bodies impaired for nitrogen that are subject to Tier 3.

REGION NO.	REGION NAME	WATERBODY NAME	COUNTIES	TMDL Completion Date
1	North Coast	Russian River HU, Middle Russian River HA, mainstem Laguna de Santa Rosa	Sonoma	2015
2	San Francisco Bay	Lagunitas Creek	Marin	2016
2	San Francisco Bay	Napa River	Napa, Solano	2014
2	San Francisco Bay	Petaluma River	Marin, Sonoma	2017
2	San Francisco Bay	Petaluma River (tidal portion)	Marin, Sonoma	2017
2	San Francisco Bay	Sonoma Creek	Sonoma	2014
2	San Francisco Bay	Tomales Bay	Marin	2019
2	San Francisco Bay	Walker Creek	Marin	2016
4	Los Angeles	Malibu Creek	Los Angeles	2016
4	Los Angeles	San Antonio Creek (Tributary to Ventura River Reach 4)	Ventura	2013
8	Santa Ana	East Garden Grove Wintersburg Channel	Orange	2017
8	Santa Ana	Grout Creek	San Bernardino	2015
8	Santa Ana	Rathbone (Rathbun) Creek	San Bernardino	2015
8	Santa Ana	Summit Creek	San Bernardino	2015
8	Santa Ana	Serrano Creek	Orange	2017

Attachment 3

Regional Water Boards, upon mutual agreement, may designate one Regional Water Board to regulate a person or entity that is under the jurisdiction of both (Water Code Section 13228). The following table identifies the designated Regional Water Board for all counties within the State for purposes of reviewing and, if appropriate, approving new Local Agency Management Plans.

Table 7. Regional Water Board designations by County.

County	Regions with Jurisdiction	Designated Region
Alameda	2,5	2
Alpine	5,6	6
Amador	5	5
Butte	5	5
Calaveras	5	5
Colusa	5	5
Contra Costa	2,5	2
Del Norte	1	1
El Dorado	5,6	5
Fresno	5	5
Glenn	5,1	5
Humboldt	1	1
Imperial	7	7
Inyo	6	6
Kern	3,4,5,6	5
Kings	5	5
Lake	5,1	5
Lassen	5,6	6
Los Angeles	4,6	4
Madera	5	5
Marin	2,1	2
Mariposa	5	5
Mendocino	1	1
Merced	5	5
Modoc	1,5,6	5
Mono	6	6
Monterey	3	3
Napa	2,5	2
Nevada	5,6	5
Orange	8,9	8

County	Regions with Jurisdiction	Designated Region
Placer	5,6	5
Plumas	5	5
Riverside	7,8,9	7
Sacramento	5	5
San Benito	3,5	3
San Bernardino	6,7,8	6
San Diego	9,7	9
San Francisco	2	2
San Joaquin	5	5
San Luis Obispo	3,5	3
San Mateo	2,3	2
Santa Barbara	3	3
Santa Clara	2,3	2
Santa Cruz	3	3
Shasta	5	5
Sierra	5,6	5
Siskiyou	1,5	1
Solano	2,5	5
Sonoma	1,2	1
Stanislaus	5	5
Sutter	5	5
Tehama	5	5
Trinity	1	1
Tulare	5	5
Tuolumne	5	5
Ventura	4,3	4
Yolo	5	5
Yuba	5	5

Appendix D
Key Correspondence

Wong, Ashley

Subject: RE: Schedule for the GHSC Debts, A11-08-019/I12-03-008

From: Lee, Cleveland [mailto:cleveland.lee@cpuc.ca.gov]
Sent: Wednesday, November 05, 2014 10:59 AM
To: Black, William
Cc: DeBerry, Bruce; Clifford E Bressler & Assoc (cliffordbressler@att.net)
Subject: RE: Schedule for the GHSC Debts, A11-08-019/I12-03-008

Hi Bill,

I've just heard from the Water Division, which informs me that they would consider waiving or suspending the CPUC fees owed by GHSC. I am awaiting info from our Fiscal Office regarding the amount of the fees owed.



California Public Utilities Commission

Cleveland W. Lee
Staff Counsel

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✉ cleveland.lee@cpuc.ca.gov | www.cpuc.ca.gov
Keep up with what's going on at the CPUC –

From: Black, William [mailto:William.Black@aecom.com]
Sent: Tuesday, November 04, 2014 6:21 PM
To: Lee, Cleveland
Cc: Clifford E Bressler & Assoc (cliffordbressler@att.net); Ali Annan (Alia@co.kern.ca.us); Bob Downs (BOB@co.kern.ca.us); Phillip Hall <phall@co.kern.ca.us> (phall@co.kern.ca.us)
Subject: RE: Schedule for the GHSC Debts, A11-08-019/I12-03-008

Thank you very much for your time and the assistance you are providing. I look forward to hearing of the answer you receive from the Division of Water and Audits. Thanks again.

William C. Black, PE
Principal Engineer
AECOM
5001 E. Commercenter Drive, #100
Bakersfield, CA 93309
O 661.325.7253 F 661.395.0359 M 661.333.4870

Please consider the environment before printing this email.

From: Lee, Cleveland [mailto:cleveland.lee@cpuc.ca.gov]
Sent: Tuesday, November 04, 2014 6:18 PM

To: Black, William
Cc: Clifford E Bressler & Assoc (cliffordbressler@att.net)
Subject: Schedule for the GHSC Debts, A11-08-019/I12-03-008

Hi Bill,

Here is the current schedule for the Commission proceeding stated above regarding the validity of the approximately $900,000 debt claimed by the owners of GHSC.

Intervenor Testimony shall be served on January 17, 2015; and
Rebuttal Testimony shall be served on January 30, 2014 .

I have also asked our Division of Water and Audits for a summary of the CPUC fees owed to date by GHSC and whether they would support a waiver of these fees upon transfer of GHSC to state or local governmental agency.

Please call or write if you have further questions.



California Public Utilities Commission

Cleveland W. Lee
Staff Counsel

505 Van Ness Avenue, Room 5122 | San Francisco, CA 94102
☎ (415) 703-1792
✉ cleveland.lee@cpuc.ca.gov | www.cpuc.ca.gov

Keep up with what's going on at the CPUC –

Build Up. Play Up. Work Up. Explore Up. **Live Up.**

CITY OF TEHACHAPI CALIFORNIA

October 22, 2014

Mr. William Black, P.E.
Principal Engineer
AECOM
5001 E. Commercenter Dr., Suite 100
Bakersfield, CA 93309

RE: Golden Hills Sanitation Company Proposed Connection to the City of Tehachapi – Response to Letter Dated October 15, 2014

Dear Mr. Black,

We are in receipt of the letter you sent regarding the Golden Hills Sanitation Company (GHSC) proposed connection to the City of Tehachapi.

Your letter provides a technical assessment of the capacity of our system as it relates to the potential addition of flows from the GHSC. Generally speaking, this technical assessment appears reasonable. However, while the City may have the physical capacity to allow connection of the GHSC customers to our sewer system, we believe that there are still a myriad of issues that need to be considered by others prior to the City confirming our willingness to allow such a connection. As such, we can only confirm that we will reasonably consider future proposals for Golden Hills Sanitation Company customers to connect to the City of Tehachapi wastewater system.

Sincerely,

John (Jay) H. Schlosser, P.E.
City Engineer

CC: Greg Garrett / COT
Chris Kirk / COT
Jon Curry / COT

115 South Robinson Street | Tehachapi, California 93561-1722
(661) 822-2200 | Fax: (661) 822-8559
www.tehachapicityhall.com

AECOM
5001 E. Commercenter Drive
Suite 100
Bakersfield, CA 93309
www.aecom.com

661 325 7253 tel
661 395 0359 fax

Jay H. Schlosser, P.E.
City Engineer
City of Tehachapi
115 S. Robinson Street
Tehachapi, CA 93561

October 15, 2014

RE: Golden Hills Sanitation Company (GHSC) Proposed Connection to City of Tehachapi (COT)

Dear Mr. Schlosser:

This is a request to confirm that the City of Tehachapi would allow GHSC customers to connect to the sewer manhole at the intersection of Tucker Road and Red Apple Road. The proposed project represents the second of two options offered to the Golden Hills Sanitation Company customers to address their wastewater system issues. The first option is for the customers to continue being served by the existing Golden Hills Wastewater treatment plant. Both options are being evaluated in a preliminary engineering report prepared by AECOM. As part of the evaluation for Option 2, we need to confirm that the City would be willing to accept the connection if requested, and if so, under what conditions.

We were unable to locate any of the original calculations related to sizing of the Tucker Road Sewer Lift Station, other than the slide presentation you referenced from 2002. Instead we have prepared a hydraulic analysis using the COT General Plan, looking at the Tucker Sewer Service Area at full build out. The hydraulic analysis made the following assumptions per the COT Subdivision and Development Standards.

1. Residential Development
    a. 100 gallons per day per person (3.2.3.1.a)
    b. 3.5 persons per residence (3.2.3.1.b)
    c. Peak Factor = 2.0 (3.2.3.1.c)
    d. Assumed 1 EDU = 0.3 acres for a 6,000 sf lot and street frontage
2. Commercial Development
    a. 6,460 gallons per day per gross acre (3.2.3.2)
    b. Peak Factor = 1.8 (3.2.3.2)
3. Sewer Design
    a. Manning's Values (3.2.4.1)
        i. n = 0.013 for VCP
    b. Design Fluid Depth (3.2.4.2)
        i. Pipe Dia $\geq$ 12", 75% max depth

At full build out of the General Plan area, the Tucker Sewer Service Area is estimated to generate 1,078 gpm average daily flow and 2,021 gpm peak flow. The lowest capacity pipeline in the system is immediately upstream of the Tucker Road Lift Station, where the slope is only 0.16% (copy of plan sheet

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www.aecom.com

661 325 7253 tel
661 395 0359 fax

attached). This pipe segment has a capacity of 1,060 gpm at 75% full. Please note that the 2002 slide presentation only included data for segments of the service area, rather than examining full build out.

Only the last segment of pipe presents a restriction to the pipeline feeding the lift station. The other segments provide ample capacity to sewer the calculated 2,021 gpm peak flow at build-out plus substantial excess capacity. Our proposed project includes 8,510 feet of 4-inch force-main ending at a transition manhole on Red Apple Road 1,650 feet east of the Tucker Road/ Red Apple Road intersection. From that manhole to the existing manhole at Tucker Road and Red Apple Road, a12-inch gravity main is proposed.

Unless there are excessive flow issues in the last segment of existing pipe, at this time we believe that the introduction of a 104 gallon per minute intermittent flow rate could be accommodated by your existing pipeline system. Prior to connection by Golden Hills, the City of Tehachapi will receive a connection fee for all of the Golden Hills Sanitation Company customers who would benefit. Assuming that the need for additional capacity at that location would not be needed for many years, the City of Tehachapi could use the connection fee revenue for their programmed system upgrades and provide a parallel relief sewer or other measure necessary in the future when the need becomes imminent.

Please let us know at your earliest convenience if the City of Tehachapi would allow the connection. Our report is due to the State by the end of October and we would appreciate your response prior to that. If you have any questions or require anything further, please contact me. Thank you for your consideration.

Sincerely,

William C. Black, P.E.
Principal Engineer

CC: Ben Horn / AECOM
Bob Downs /

Enclosures: Analysis of Tehachapi Sewer Lines
Existing Sewer Pipeline Plan & Profile

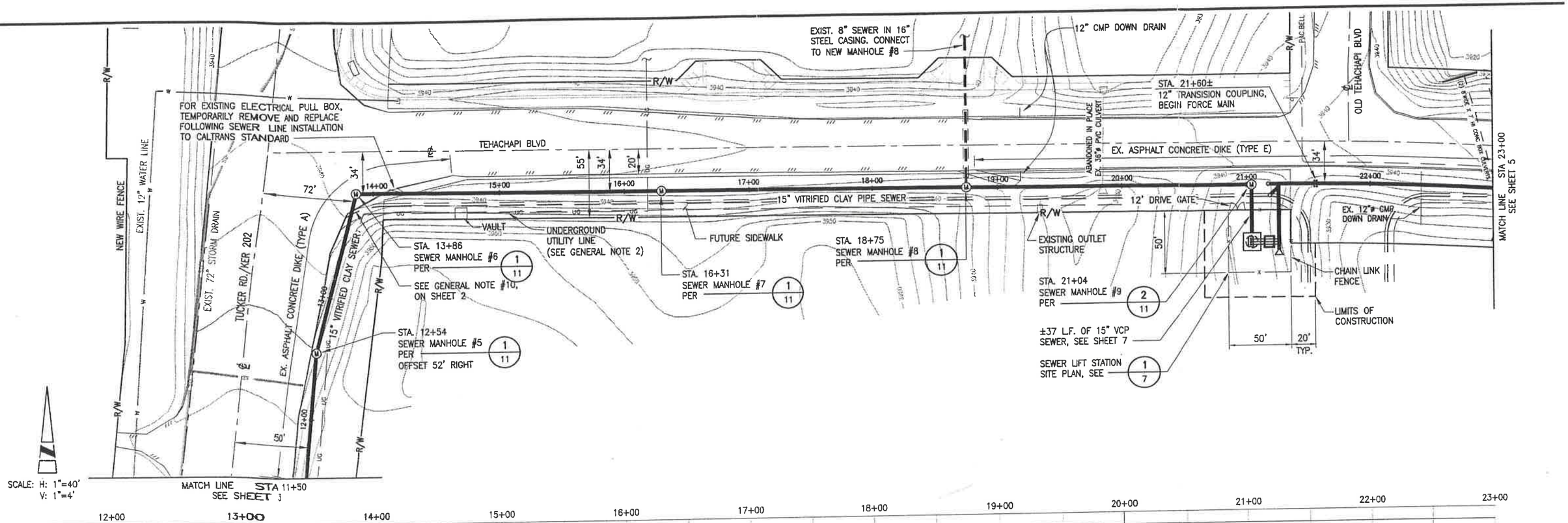
Calculations of Existing Sewer System Without GHSC

Residential Calculation			
Area	500	acre	from General Plan
EDU	1,667		assume 1 EDU per 0.3 Acre (lot + street)
People	5,833		assume 3.5 people/EDU
Daily Flow	583,333	gpd	assume 100 gpd/person
Average Flow	405	gpm	
Peak Flow	810	gpm	assume peaking factor = 2.0

Commercial Calculation			
Area	150	acre	from General Plan
Daily Flow	969,000	gpd	assume 6,460 gpd/GA
Average Flow	673	gpm	
Peak Flow	1,211	gpm	assume peaking factor = 1.8

Total Average Flow	1,078	gpm	commercial + residential
Total Peak Flow	2,021	gpm	commercial + residential

Capacity Analysis			
Diameter	15	inch	for lowest capacity section
Slope	0.0016	ft/ft	for lowest capacity section
n-value	0.013		for VCP
Flow Area (75%)	0.987	sf	determined from CAD
Wetted Perm. (75%)	2.618	ft	determined from CAD
Hydraulic Radius	0.377	ft	
Flow at 75% Depth	2.362	cfs	
Flow at 75% Depth	1,060	gpm	



REVISION	DATE	DESCRIPTION	APP.

SCALE: AS NOTED
DESIGNED BY: NMR
DRAWN BY: ECM
CHECKED BY: CWS
AUTOCAD DWG. DATE: AUG. 2003

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REGISTERED PROFESSIONAL ENGINEER — No. 58223 EXP. 06-30-04 — CIVIL — STATE OF CALIFORNIA

BOYLE ENGINEERING CORPORATION
5001 E. COMMERCENTER DR, SUITE 100 - P.O. BOX 12030 - BAKERSFIELD, CA 93309
(661) 325-7253 - FAX (661) 395-0359

CITY OF TEHACHAPI

TUCKER ROAD SEWER FACILITIES

GRAVITY AND FORCE MAIN SEWER PLAN & PROFILE STA 11+50 to STA 23+00

DWG NO. -

SHEET 4 OF 13

HARD COPY FILE S2217

DWG: S:\...\002 Project\ (108.59200)\dwg\S2217-4.dwg
DATE: Aug 11, 2003 10:54am
USER: dgbullardvici
IMAGES: XREFS: S2217BAR

Wong, Ashley

To: Nielsen, Adam
Subject: RE: WWTP Comparisons

From: Mona Walker [mailto:monaw@ccwd.org]
Sent: Wednesday, August 27, 2014 4:28 PM
To: Nielsen, Adam
Subject: RE: WWTP Comparisons

Hi Adam,
The Calaveras County Water District (CCWD) has three tertiary plants that are closest in size to your 25,000 gpd plant. We have our Southworth (SW) plant at 17,000 gpd and serves 56 customers; the SW plant is a sand filter and is step system. We have the West Point plant at 58,000 gpd and serves 165 customers – also sand filter plant. We do have the Vallecito plant at 65,000 gpd and serves 254 customers. This is a membrane bio-reactor plant system (just built).

We are an enterprise district meaning everyone is charged the same water/sewer rates through-out our many service areas. We have implemented a five year rate increase for both our water and sewer customers each Sept. 1st (no increase the last 2 years) beginning FY 13-14. The monthly sewer charges are:
FY 13-14 - $77.63
FY 14-15 - $86.16
FY 15-16 - $90
FY 16-17 - $90
FY 17-18 - $90

Expansion (Connection) fees for Single Family Equivalent for the above plant areas are as follows:
Southworth - $5,500 plus tank installation fees
West Point - $5,500
Vallecito - $12,265

CCWD has a wastewater operations budget and the balance for FY 14-15 is approx. $1.13 million. CCWD has a reserve fund however, these funds are not for operations. We do have fund balances for expansion (connection) fees for each wastewater service area; however, these funds can only be used for expansion of the system and not operations.

Hope this information is helpful, see our website at www.ccwd.org for more information CCWD.
Feel free to contact me if I wasn't clear – trying to get this to you by day's end.
Mona Walker
(209) 754-3028

From: Nielsen, Adam [mailto:Adam.Nielsen@aecom.com]
Sent: Wednesday, August 27, 2014 9:25 AM
To: monaw@ccwd.org
Cc: Black, William
Subject: WWTP Comparisons

Good morning Mona,

Per our phone conversation today I would like to know the following for one of your WWTP that is similar in size (approximately 25,000 gpd) and treatment level (tertiary) to that of the Golden Hills WWTP.

Name of Plant:
#of connections:
Type of treatment:
Monthly service charge:
Connection fee:
Reserve fund (Y/N):
How large is fund/how do they determine that:

Thanks!

Adam Nielsen E.I.T.
Engineer I, Water
adam.nielsen@aecom.com

AECOM
5001 E. Commercenter Drive, Suite 100, Bakersfield, CA 93309
T. 661.325.7253 F. 661.395.0359
www.aecom.com

Wong, Ashley

To: Ali Annan
Subject: RE: FW: Golden Hills follow up items

From: Cliff Bressler [mailto:cliffordbressler@att.net]
Sent: Wednesday, August 27, 2014 8:37 AM
To: Black, William
Cc: Barbara Miller
Subject: RE: Golden Hills follow up items

Dear Mr. Black,

Because this information is confidential, I will not agree to authorise its release to you.

Sincerely

Clifford Bressler, Receiver

From: Black, William [mailto:William.Black@aecom.com]
Sent: Tuesday, August 26, 2014 3:57 PM
To: bjmiller@bak.rr.com; bjmiller@ghsanitation.com
Cc: Ali Annan (Alia@co.kern.ca.us); Bob Downs (BOB@co.kern.ca.us); cliffordbressler@att.net
Subject: Golden Hills follow up items

Barbara:

This is a follow-up to our conversation of last week concerning verification of standby connection service payments:

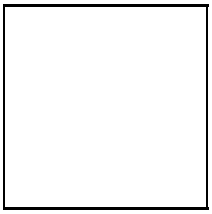
Specifically, we need to know the payment history of the 30 standby customers. We recognize that the records in existence prior to you may not be available, but to the extent that they are, we need copies. We also need to have your records showing monthly payment history.

Recently, the CSD purchased the golf course property. Along with that purchase, they received entitlement for 38 connections and understand that the CSD is making standby fee payments. We need payment history of those standby connections as well. To the extent that records are available prior to receivership, we need those records. We also need payment history from the time the Golden Hills Sanitation Company has been in receivership.

Barbara, as we discussed, we need the information by the end of this week for the report and appreciate your efforts in making it available to us. Thank you very much.

William C. Black, PE
Principal Engineer
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5001 E. Commercenter Drive, #100
Bakersfield, CA 93309
O 661.325.7253 F 661.395.0359 M 661.333.4870

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MF1/ek4 8/8/2014

FILED
8-08-14
10:41 AM

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of Golden Hills Sanitation Company (U438SWR) for Authority to Increase Rates Charged for Sewer Service by $148,076 or 120% in January 2012, $148,076 or 54% in January 2013, and $148,076 or 35% in January 2014.	Application 11-08-019 (Filed August 26, 2011)
And Related Matter.	Investigation I.12-03-008

ASSIGNED COMMISSIONER'S SCOPING MEMO ON REHEARING

1. Summary

Pursuant to Rule 7.3 of the Commission's Rules of Practice and Procedure,[1] this Scoping Memo and Ruling sets forth the procedural schedule, and addresses the scope of this rehearing and other procedural matters following the prehearing conference (PHC) held on July 14, 2014.

2. Background

On August 26, 2011, Golden Hills Sanitation Company (GHSC) filed Application (A.) 11-08-019, to raise its tariff rates by $148,076 or 120 percent in

[1] All references to Rules are to the Commission's Rules of Practice and Procedure, which are available on the Commission's website at http://docs.cpuc.ca.gov/WORD_PDF/RULES_PRAC_PROC/136861.pdf

January 2012; $148,076 or 54 percent in January 2013; and $148,076 or 35 percent in January 2014. GHSC requested interim rate relief in November 2011, and the request was granted in December 2011.

On September 18, 2012, the Commission issued Decision (D.) 12-09-006, which, in part, affirmed the interim rates granted in December 2011, affirmed Commissioner Michel Peter Florio's Assigned Commissioner's Ruling dated March 16, 2012, which directed the Commission's Legal Division, pursuant to Public Utilities (Pub. Util.) Code § 855, to immediately petition the Kern County Superior Court to appoint a receiver to take possession of and operate GHSC, and affirmed as final the interim rates granted in December 2011.

On May 24, 2013, the Commission issued D. 13-05-036, which granted limited rehearing of D.12-09-006, regarding a determination of the source and validity of the debt listed in A.11-08-019.

On June 5, 2014, the assigned Administrative Law Judge (ALJ) issued an electronic ruling notifying the service list of A.11-08-019 that a PHC would be held on July 14, 2014 in the Commission's San Francisco hearing room. A PHC statement was filed by representatives for the Executors for the Estates of Carlie and Lillian Smith (Estates) on July 11, 2014, and a response to *Prehearing Conference Statement of the Executors of the Estates of Carlie Smith and Lillian Smith* was provided by Adrian Maaskant at the PHC, and subsequently filed with the Commission on July 15, 2014.

The PHC was held on July 14, 2014, with Office of Ratepayer Advocates, Maaskant, the Estates, and Sarah Steck Meyers (former attorney for GHSC) in attendance. The Receiver for GHSC, Clifford Bressler, did not attend the PHC.[2]

At the PHC, the assigned ALJ reminded the parties that, pursuant to Pub. Util. Code §§855 and 1759(a),[3] the Commission retains authority over regulated utilities, including those which are in receivership.

In the provision of its regulated services GHSC must take all actions necessary to promote the safety, health, comfort, and convenience of utility patrons, employees, and the public.[4]

---

[2] The Service List, including Bressler, was notified of the PHC via an e-mail ruling issued by the assigned ALJ on June 5, 2014.
http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=92373567

[3] § 855. Petition for receiver to assume possession of water or sewer system corporation: Whenever the commission determines, after notice and hearing, that any water or sewer system corporation is unable or unwilling to adequately serve its ratepayers or has been actually or effectively abandoned by its owners, or is unresponsive to the (sic) rules or orders of the commission, the commission may petition the superior court for the county within which the corporation has its principal office or place of business for the appointment of a receiver to assume possession of its property and to operate its system upon such terms and conditions as the court shall prescribe. The court may require, as a condition to the appointment of such receiver, that a sufficient bond be given by the receiver and conditioned upon compliance with the orders of the court and the commission, and the protection of all property rights involved. The court shall provide for disposition of the facilities and system in like manner as any other receivership proceeding in this state.

Note 4 to § 855, Stats 1980 ch 1078 provides: The procedure provided in *Section 855 of the Public Utilities Code* is in addition to, and not in derogation of, the jurisdiction and authority of the Public Utilities Commission over public utilities. The appointment of a receiver pursuant to Section 855 shall not remove the affected water or sewer system corporation from the continuing jurisdiction of the commission.

§1759**.** (a) No court of this state, except the Supreme Court and the court of appeal, to the extent specified in this article, shall have jurisdiction to review, reverse, correct, or annul any order or decision of the commission or to suspend or delay the execution or operation thereof, or to enjoin, restrain, or interfere with the commission in the performance of its official duties, as provided by law and the rules of court.

[4] Pursuant to Pub. Util. Code § 451.

On July 8, 2014, Maaskant filed a *Motion to Compel Compliance with Discovery* (Motion), regarding requests for information he had made of the Estates. Since the scope of this proceeding had not been finalized at that date, we deny Maaskant's Motion. Based on the scope detailed herein, parties may now tender requests for information within that scope.

3. Category, Need for Hearing, and Ex Parte Rules

The Commission categorized A.11-08-019 as ratesetting as defined in Rule 1.3(e) and anticipated that this proceeding would require evidentiary hearings. This ruling affirms the previous categorization of ratesetting and the need for hearing. This ruling as to category is appealable pursuant to Rule 7.6.

As noted in the schedule below and in accordance with Rule 7.3(a), today's scoping memo adopts a procedural schedule that includes hearings. In a ratesetting proceeding, *ex parte* rules as set forth in Rules 8.1, 8.2, 8.3, 8.5, and Pub. Util. Code § 1701.3(c) apply.

4. Discovery

If parties have discovery disputes they are unable to resolve by meeting and conferring, they should raise these disputes with the presiding officer, pursuant to Rule 11.3.

5. Scope of Proceeding

Through the existing record of A.11-08-019, including but not limited to D.12-09-006 and D.13-05-036, and discussions during the PHC, parties conducted an exchange that has helped to refine the scope of this rehearing. This proceeding will determine the source and validity of the debt listed in GHSC's application for a rate increase in A.11-08-019. Because the rehearing decision (D.13-05-036) limited the scope of this proceeding, no safety issues will be considered.

In order to facilitate this review, I require the following information:

1. GHSC shall provide documentation of indebtedness to another entity for the amount of $800,504 (referenced in A.11-08-019, D.12-09-006, and D.13-05-036.
2. Pursuant to General Order (GO) 24C, GHSC shall provide the following:
    a. The purpose for each expenditure for which GHSC's indebtedness was the source funding, by:
        i. Date and Description of expenditure.
3. Did GHSC enter into the indebtedness in question after D.10-05-025 was issued?
    a. If so, provide Commission authority for such issuance;
    b. If not, should such debt be voided?
4. Is the existing indebtedness of $343,075 shown in D.10-05-025 the same indebtedness as the $800,504?
    a. If so:
        i. Provide documentation of such; and
        ii. Provide Commission authority for increase of $457,429.
5. If GHSC does not provide: 1) Documentation of indebtedness, entered into before or after D.10-05-025; and/or 2) Information pursuant to GO 24C, parties should discuss;
    a. If rates determined in D.12-09-006 should be adjusted;
    b. Provide a calculation of such adjustment; and
    c. Include reasons for conclusions made.

In their opening and rebuttal testimony, parties should address any issues within the scope of this proceeding on which factual information may be helpful to explain or support their positions.

Subsequent to being granted party status, if a party determines that it will no longer actively participate, given the scope of the proceeding, it should

promptly contact the assigned ALJ and the Commission's Process Office via electronic mail, and request that it be moved to Information Only status on the service list.

6. Proceeding Schedule

With the above in mind, the following schedule shall be adopted for this proceeding:

EVENT	DATE
Interested Parties Testimony Served	September 5, 2014
Rebuttal Testimony Served	October 17, 2014
Evidentiary Hearings (if necessary)	November 3, 2014 10:00 a.m. Commission Courtroom State Office Building 505 Van Ness Avenue San Francisco, CA 94102
Briefs	To Be Determined

Consistent with Pub. Util. Code § 1701.5, the Commission anticipates that this proceeding will be completed within 18 months of the date of this scoping memo. This proceeding will be submitted upon the filing of concurrent briefs unless the Assigned Commissioner or ALJ directs further evidence or argument.

7. Final Oral Argument

Pursuant to Rule 13.13, any requests for a final oral argument before the Commission must be filed and served at the same time as opening briefs.

8. Intervenor Compensation

The PHC in this matter was held on July 14, 2014. Pursuant to Pub. Util. Code § 1804(a)(1), a customer who intends to seek an award of compensation must file and serve a notice of intent to claim compensation by August 14, 2014.

9. Presiding Officer

Pursuant to Rule 13.2, I designate ALJ Seaneen M. Wilson as the Presiding Officer.

10. Filing, Service, and Service List

In this proceeding, there are several different types of documents participants may prepare. Each type of document carries with it different obligations with respect to filing and service.

Parties must file certain documents as required by the Commission Rules or in response to rulings by either the assigned Commissioner or the assigned ALJ. All formally filed documents must be filed with the Commission's Docket Office and served on the service list for the proceeding. Article 1 of the Rules contains all of the Commission's filing requirements. Parties must file and serve all pleadings and serve all testimony, as set forth in Article 1 of the Commission's Rules. Parties are encouraged to file and serve electronically, whenever possible, as it speeds processing of the filings and allows them to be posted on the Commission's website. More information about electronic filing is available at http://www.cpuc.ca.gov/puc/efiling.

This proceeding will follow the electronic service protocols adopted by the Commission in Rule 1.10 for all documents, whether formally filed or just served. This Rule provides for electronic service of documents, in a searchable format, unless the party or state service list member did not provide an e-mail address. If no e-mail address was provided, service should be made by U.S. mail. Concurrent e-mail service to ALL persons on the service list for whom an e-mail address is available, including those listed under "Information Only," is required. Parties are expected to provide paper copies of served documents upon request.

E-mail communication about this case should include, at a minimum, the following information on the subject line of the e-mail: *A.11-08-019 – GHSC Rehearing of D.12-09-006 Pursuant to D.13-05-036*. In addition, the party sending the e-mail should briefly describe the attached communication; for example, *Comments*. Both an electronic and a hard copy should be served on the ALJ.

The official service list for this proceeding is available on the Commission's web page. Parties should confirm that their information on the service list is correct, and serve notice of any errors on the Commission's Process Office. Prior to serving any document, each party must ensure that it is using the most up-to-date service list. The list on the Commission's website meets that definition.

Any person interested in participating in this proceeding who is unfamiliar with the Commission's procedures or who has questions about the electronic filing procedures should contact the Commission's Public Advisor at (866) 849-8390 or (415) 703-2074, or (866) 836-7825 (TTY-toll free), or send an e-mail to public.advisor@cpuc.ca.gov.

IT IS RULED that:

1. The scope and schedule are as set forth in the body of this ruling unless amended by a subsequent ruling of the Presiding Officer.
2. This proceeding is categorized as ratesetting. This ruling as to category is appealable pursuant to Rule 7.6.
3. This proceeding requires evidentiary hearings.
4. Any party requesting a final oral argument before the Commission shall file and serve such request on the same date that opening briefs are due.

5. *Ex parte* communications are subject to Rules 8.1, 8.2, 8.3, and 8.5 of the Commissions' Rules of Practice and Procedure, and Public Utilities Code Section 1701.3(c).

6. Pursuant to Rule 13.2, Administrative Law Judge Seaneen M. Wilson is the Presiding Officer.

7. Adrian Maaskant's *Motion to Compel Compliance with Discovery,* dated July 8, 2014, is denied.

Dated August 8, 2014, at San Francisco, California.

/s/ MICHEL PETER FLORIO
Michel Peter Florio
Assigned Commissioner

FIVE YEAR BUDGET PROJECTION

Small Community Wastewater System

Printed on 8/5/2014 21:03

Inflation Factor (%): 1.5

System Name: **Golden Hills WWTF - Public/Private Partnership**

System Number: 180

LINE	EXPENSES AND SOURCE OF FUNDS	2015	2016	2017	2018	2019
1	**(Private Partnership) Management, Operations, and Maintenance**					
2	Salaries & Payroll Loading	93,000.00	94,395.00	95,810.93	97,248.09	98,706.81
3	Worker's Comp	1,920.00	1,948.80	1,978.03	2,007.70	2,037.82
4	Electrician/SCADA Technician	600.00	609.00	618.14	627.41	636.82
5	Fees Regulatory	16,762.00	17,013.43	17,268.63	17,527.66	17,790.58
6	Insurance	3,750.00	3,806.25	3,863.34	3,921.29	3,980.11
7	Utilities (Power, Water)	16,200.00	16,443.00	16,689.65	16,939.99	17,194.09
8	Lab Testing/Delivery to Lab	7,200.00	7,308.00	7,417.62	7,528.88	7,641.82
9	Treatment Chemicals	1,500.00	1,522.50	1,545.34	1,568.52	1,592.05
10	Collections System Maintenance	6,000.00	6,090.00	6,181.35	6,274.07	6,368.18
11	Materials, Supplies, & Parts	3,600.00	3,654.00	3,708.81	3,764.44	3,820.91
12	Truck/Sludge Trailer Fuel & Maintenance	1,440.00	1,461.60	1,483.52	1,505.78	1,528.36
13	Sludge Disposal	600.00	609.00	618.14	627.41	636.82
14	Office Supplies	1,500.00	1,522.50	1,545.34	1,568.52	1,592.05
15	Miscellaneous	6,000.00	6,090.00	6,181.35	6,274.07	6,368.18
16	*Capital Improvement Plan (CIP) – Reserves*	*6,300.00*	*6,394.50*	*6,490.42*	*6,587.77*	*6,686.59*
17	**Total Private Entity Expenses**	**166,372.00**	**168,867.58**	**171,400.59**	**173,971.60**	**176,581.18**
18						
19	**(Public Agency) ADMINISTRATIVE EXPENSES & RESERVES**					
20	Depreciation & Amortization	0.00	0.00	0.00	0.00	0.00
21	*Standby Fee Reserve Fund*	*14,256.00*	*14,256.00*	*14,256.00*	*14,256.00*	*14,256.00*
22	*Allowance for Billing/Collections by CSD*	*12,000.00*	*12,000.00*	*12,000.00*	*12,000.00*	*12,000.00*
23	*Fees paid to HOA for Billing/Collections*	*1,800.00*	*1,800.00*	*1,800.00*	*1,800.00*	*1,800.00*
24	**Total Public Agency Expenses & Reserves:**	28,056.00	28,056.00	28,056.00	28,056.00	28,056.00
25						
26	**TOTAL EXPENSES (Line ~~13~~ 17 + Line ~~23~~ 24):**	**194,428.00**	**196,923.58**	**199,456.59**	**202,027.60**	**204,637.18**
27						
28	**SOURCE OF FUNDS / REVENUES RECEIVED**					
29	Single Family Residences @ $88	161,568.00	165,792.00	170,016.00	174,240.00	178,464.00
30	Willow Trees Apartments @ $88	24,288.00	24,288.00	24,288.00	24,288.00	24,288.00
31	Golden Hills Motel @ $88	4,224.00	4,224.00	4,224.00	4,224.00	4,224.00
32	Standby Connections @ $18	14,256.00	14,256.00	14,256.00	14,256.00	14,256.00
33	Sale of Recycled Water ?	13,500.00	13,500.00	13,500.00	13,500.00	13,500.00
34	Grants	0.00	0.00	0.00	0.00	0.00
35	Standby Connection Sales	0.00	0.00	0.00	0.00	0.00
36	Fees and services	0.00	0.00	0.00	0.00	0.00
37	Withdrawal from capital or other reserves	0.00	0.00	0.00	0.00	0.00
38	**TOTAL REVENUE (Lines ~~27~~ 29 through ~~35~~ 37):**	217,836.00	222,060.00	226,284.00	230,508.00	234,732.00
39	**NET LOSS OR GAIN:**	**23,408.00**	**25,136.42**	**26,827.41**	**28,480.40**	**30,094.82**

Report Prepared by (Name and Title): _____ Date: _____

	2015	2016	2017	2018	2019
Number of Customers:	184	188	192	196	200
Monthly Expense per Customer:	81.60	80.97	80.38	79.83	79.33

(total expenses / # of customers / 12)

Golden Hills WWTF Public/Private Partnership Printed on 8/5/2014 21:03

Detailed Annual Budget **Assuming Loading of 15% on Grade 1 and Management/Clerical**

	Assuming Customer rates of	$88.00	$88.00	$88.00	$18.00							
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**	**TOTAL**
REVENUE													
Active Connections	$15,840.00	$15,840.00	$15,840.00	$15,840.00	$15,840.00	$15,840.00	$15,840.00	$15,840.00	$15,840.00	$15,840.00	$15,840.00	$15,840.00	$190,080.00
Standby Connections	$ 1,188.00	$ 1,188.00	$ 1,188.00	$ 1,188.00	$ 1,188.00	$ 1,188.00	$ 1,188.00	$ 1,188.00	$ 1,188.00	$ 1,188.00	$ 1,188.00	$ 1,188.00	$14,256.00
Sale of Recycled Water	$ 1,125.00	$ 1,125.00	$ 1,125.00	$ 1,125.00	$ 1,125.00	$ 1,125.00	$ 1,125.00	$ 1,125.00	$ 1,125.00	$ 1,125.00	$ 1,125.00	$ 1,125.00	$13,500.00
													$217,836.00
EXPENSES													
OPERATIONS													
Grade 5 Operator	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$4,800.00
Grade 2 Operator	$2,400.00	$2,400.00	$2,400.00	$2,400.00	$2,400.00	$2,400.00	$2,400.00	$2,400.00	$2,400.00	$2,400.00	$2,400.00	$2,400.00	$28,800.00
Grade 1 Operator	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$20,700.00
Office Manager/Accountant	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$1,725.00	$20,700.00
Worker's Comp	$160.00	$160.00	$160.00	$160.00	$160.00	$160.00	$160.00	$160.00	$160.00	$160.00	$160.00	$160.00	$1,920.00
CMC Management Fee	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$18,000.00
Electrician/SCADA Technician	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$600.00
Lab Testing Fees	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$3,600.00
Delivery to Lab	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$3,600.00
Chlorine/Chemicals	$125.00	$125.00	$125.00	$125.00	$125.00	$125.00	$125.00	$125.00	$125.00	$125.00	$125.00	$125.00	$1,500.00
Plant Supplies & Repairs	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$3,600.00
Collections System	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$6,000.00
Sludge Removal	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$600.00
R&M Truck/Trailer	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$600.00
Diesel Fuel for Truck	$70.00	$70.00	$70.00	$70.00	$70.00	$70.00	$70.00	$70.00	$70.00	$70.00	$70.00	$70.00	$840.00
Southern CA Edison	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$14,400.00
GH CSD - water	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$600.00
Phone/Internet	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	$1,200.00
Record Storage	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$50.00	$600.00
Capitol Improvement Reserves	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$6,300.00
Total operating expenses	$11,580.00	$11,580.00	$11,580.00	$11,580.00	$11,580.00	$11,580.00	$11,580.00	$11,580.00	$11,580.00	$11,580.00	$11,580.00	$11,580.00	$138,960.00
ADMINISTRATION													
Office Supplies	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$300.00
Postage Supplies	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$300.00
Printing/Copies	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$300.00
Plant Insurance	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,750.00	$2,750.00
Truck/Trailer Insurance	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,000.00	$1,000.00
CSD Collections	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$12,000.00
HOA Collections	$150.00	$150.00	$150.00	$150.00	$150.00	$150.00	$150.00	$150.00	$150.00	$150.00	$150.00	$150.00	$1,800.00
RWQCB Fees	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$13,875.00	$0.00	$13,875.00
Permits and Fees	$925.00	$0.00	$0.00	$470.00	$0.00	$0.00	$0.00	$0.00	$0.00	$562.00	$130.00	$800.00	$2,887.00
Total administrative expenses	$2,150.00	$1,225.00	$1,225.00	$1,695.00	$1,225.00	$1,225.00	$1,225.00	$1,225.00	$1,225.00	$1,787.00	$15,230.00	$5,775.00	$35,212.00
Standby Fees Reserves Fund	$1,188.00	$1,188.00	$1,188.00	$1,188.00	$1,188.00	$1,188.00	$1,188.00	$1,188.00	$1,188.00	$1,188.00	$1,188.00	$1,188.00	$14,256.00
Miscellaneous	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$6,000.00
NET INCOME(LOSS)	$2,735.00	$3,660.00	$3,660.00	$3,190.00	$3,660.00	$3,660.00	$3,660.00	$3,660.00	$3,660.00	$3,098.00	-$10,345.00	-$890.00	$23,408.00

Labor Cost and Fee Breakdowns

Loading								
	115.00%							
Employee	**Rate/Hour**	**Hours/Week**	**Hours/Month**	**Total/Month**	**Month Loaded**	**Total/Year**	**Year Loaded**
Grade 5 Operator				$ 400.00	$ 400.00	$ 4,800.00	$ 4,800.00
Grade 2 Operator				$ 2,400.00	$ 2,400.00	$ 28,800.00	$ 28,800.00
Grade 1 Operator	$ 25.00	15.00	60.00	$ 1,500.00	$ 1,725.00	$ 18,000.00	$ 20,700.00
CMC Management Fee				$ 1,500.00	$ 1,500.00	$ 18,000.00	$ 18,000.00
Office Manager/Accountant	$ 25.00	15.00	60.00	$ 1,500.00	$ 1,725.00	$ 18,000.00	$ 20,700.00
					$ 7,750.00		**$ 93,000.00**

# Connections	**Fee**	**Totals**	**x12**
153	$88.00	$13,464.00	$161,568.00
23	$88.00	$2,024.00	$24,288.00
4	$88.00	$352.00	$4,224.00
28	$18.00	$504.00	$6,048.00
38	$18.00	$684.00	$8,208.00
	Monthly ->	**$17,028.00**	
		Active Monthly Revenue	$15,840.00
		Standby Monthly Fees	$1,188.00

Golden Hills WWTF - Public/Private Partnership
Printed on 8/5/2014 21:03

SIMPLIFIED CAPITAL IMPROVEMENT PLAN

Date: Printed on 8/5/2014 21:03

System ID No.:

System Name: Golden Hills WWTF - Public/Private Partnership Service Connections: 180

*Enter information only in shaded cells

QTY	COMPONENT	UNIT COST	INSTALLED COST	AVG LIFE, YEARS	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
1	Flow Meter		2000	7	285.71	23.81	0.13
2	Blower		3000	10	300.00	25.00	0.14
2	Motor, 3 HP		1000	7	142.86	11.90	0.07
2	Blower		10000	10	1000.00	83.33	0.46
2	Motor, 10 HP		1400	7	200.00	16.67	0.09
2	Discharge Pump, 7.5 HP, 3-phase		3000	7	428.57	35.71	0.20
2	Chlorine Pump		1400	7	200.00	16.67	0.09
1	Tertiary Filter - 2 pods for redundancy	7000	10000	10	1000.00	83.33	0.46
1	Air Compressor	800	1000	10	100.00	8.33	0.05
1	Sump Pump		1000	7	142.86	11.90	0.07
2	Lift Station Pump, 3 HP, 460 v	3500	7000	10	700.00	58.33	0.32
1	Backup Generator		45000	25	1800.00	150.00	0.83
	TOTALS:		$85,800.00		$6,300.00	$525.00	$2.92

Report Prepared by (Title): _____ Date: _____

NOTE: Installed costs are averages, and include all materials and contracted labor and equipment.

Nielsen, Adam

To: Kennedy, Kevin; Black, William
Cc: Nord, Josh
Subject: RE: Documents related to Tehachapi City Sewer System - SSO's

Gentleman,

1) I looked at SSO's in the previous email and checked all the locations since 2008. I then compared these locations to the wastewater model maps. I am happy to report that none of the SSO's since 2008 have occurred in the same sewer line that we are connecting to. In fact the lines that had the SSO's never touch our sewer water from the connection point until they both reach the WWTP. The following locations that have had SSO's since 2008 are listed below.

126 East J Street
208 W. Tehachapi Blvd
212 S. Green Street

2) Also I attached the pdfs of the cost estimates for both capital and O&M, let me know if I can send these.

Thanks,

Problems with Tehachapi City Sewer

The chart on the following page is a compilation of sewer issues in the City of Tehachapi gleaned from the documents obtained through a Public Documents Request. Its purpose is to demonstrate that connection to the City of Tehachapi's Waste Water Treatment Facility does not necessarily foreclose the possibility of having serious problems.

This document is not being widely distributed. Its purpose is not to embarrass the City of Tehachapi. There is good reason to believe that the City has dealt with these problems in a correct and forthright manner.

However, as the customers of the former Golden Hills Sanitation Company's waste water treatment facility contemplate the option of connecting to the City's facility, this information that includes the problem of businesses and homes literally flooded with sewage might be of interest. A reasonable question to pose is the possible consequences of the failure of the proposed four-inch forced main to the residents and business of the community.

The information was taken from:

- Claim forms
- Notice of Violation from the California Regional Water Quality Control Board
- Exhibit A of Resolution No. 35-09, the City of Tehachapi's resolution authorizing the destruction of records. I have adopted the convention of dating incidences from this document the first day of the month indicated so that sorting the information is feasible.

It should be noted that the resolution of claims is not included in this report … only the existence of claims.

I am personally aware that the 2002 claim was an instance in which a whole house was flooded with raw sewage. The City of Tehachapi settled by buying the victim a new house.

Interestingly enough, I was unable to find evidence that any of the spills in the past five years were reported as Sanitary Sewer Overflows to the State Water Board, as required by law. This is the subject of an additional Public Document Request to the City of Tehachapi.

Date	Source	Location	Incident	Type	Annual # of Incidences
2/1/1985	Business		Sewer back-up	Sewer back-up	
8/1/1985	Individual		Sewer back-up	Sewer back-up	1985-2
3/1/1986	Business	Town & Country	Sewer back-up	Sewer back-up	
9/1/1986	Individual		Sewer back-up	Sewer back-up	
11/1/1986	Business	Church of Christ	Sewer back-up	Sewer back-up	1986-3
12/1/1987	Individual		Sewer back-up	Sewer back-up	
12/1/1987	Individual		Sewer back-up	Sewer back-up	1987-2
3/1/1988	Individual		Sewer back-up	Sewer back-up	1988-1
1/1/1989	Individual		Sewer back-up	Sewer back-up	
2/1/1989	Individual		Sewer back-up	Sewer back-up	
2/1/1989	Individual		Sewer back-up	Sewer back-up	1989-3
1/1/1990	Individual		Sewer back-up	Sewer back-up	
6/1/1990	Individual		Sewer back-up	Sewer back-up	
11/1/1990	Individual		Sewer back-up	Sewer back-up	1990-3
4/1/1991	Individual		Sewer back-up	Sewer back-up	
10/1/1991	Business	Wood Fam Funeral Home	Sewer back-up	Sewer back-up	1991-2
5/1/1992	Business	Wood Fam Funeral Home	Sewer back-up	Sewer back-up	1992-1
2/1/1993	Individual		Sewer back-up	Sewer back-up	1993-1
2/1/1995	Individual		Sewer back-up	Sewer back-up	
11/1/1995	Individual		Sewer back-up	Sewer back-up	
11/1/1995	Business	Four Seasons Realty	Sewer back-up	Sewer back-up	
11/1/1995	Individual		Sewer back-up	Sewer back-up	1995-4
6/1/1996	Individual		Sewer back-up	Sewer back-up	
6/1/1996	Individual		Sewer back-up	Sewer back-up	
11/1/1996	Individual		Sewer back-up	Sewer back-up	1996-3
8/1/1997	Individual		Sewer back-up	Sewer back-up	
11/1/1997	Individual		Sewer line	Sewer line	
12/1/1997	Individual		Sewer back-up	Sewer back-up	1997-3
6/1/1998	Business	Kelton Apartments	Sewer overcharge	Sewer overcharge	
10/1/1998	Individual		City line stoppage	City line stoppage	1998-2
7/1/1999	Individual		Sewer plugged	Sewer plugged	1999-1
2/1/2000	Individual		Sewer back-up	Sewer back-up	
12/1/2000	Individual		Sewer work reimbursement	Sewer Work Reimursement	2000-2
1/1/2002	Individual		Sewer back-up	Sewer back-up	2002-1
7/1/2003	Individual		Sewer back-up	Sewer back-up	2003-1
2/1/2004	Individual		Sewer back-up	Sewer back-up	2004-1
10/20/2008	Resident	126 East J Street	Main line of the City of Tehachapi Sewer backed up into the residence.	Sewer back-up	2008-1
5/18/2009	CRWQCB	WWT Facility	NoV -- Exceeding maximum permitted: Carbonaceous biochemical oxygen, suspended solids, EC of source water. Not minimizing vegetation around ponds. Causing nitrates in ground water to exceed MCL	Violation of Order 92-047	2009-1
6/6/2012	Business	208 W. Tehachapi Blvd (The Burger Spot)	City main sewer line was plugged up and caused sewer to back up to our restaurant.	Sewer back-up	2012-1
7/3/2013	Business	212 S. Green Street	Bldg - flooded entire lower level w/approx. 18-20 thousand gallons of sewer water.	Sewer back-up	2013-1

GOLDEN HILLS SANITATION COMPANY

IN RECEIVERSHIP

Mr. Clifford Bressler, Receiver
PO Box 3257
Clovis, CA 93613
(559) 298-1089

SANITARY SEWER SYSTEM OVERFLOW REPORT

Date of Report: 9/15/13
Date of Incident: 9/13/13

1) Location of the SSO: The SSO occurred at the intersection of White Pine Drive and Woodford-Tehachapi Road in the unincorporated area of Golden Hills near the city of Tehachapi, Kern County
2) Whether or not the SSO entered a drainage channel and/or surface water: The SSO did not enter a drainage channel and/or surface water.
3) Estimated SSO volume: Volume is estimated at 50 + gallons.
4) SSO source/cause: Southern California Edison was working at the power pole across the street and it is likely that the SSO was caused by interruption of electrical service which caused the pumps to shut down at the lift station which then triggered a sewage backup. An appointment with an industrial electrician has been set for Tuesday, 9/17/13, to evaluate any resultant damage to the electrical panel.
5) Time of SSO notification: Barbara Miller was first notified of the overflow incident at 10:17 a.m.
6) Estimated SSO end time: Inter-agency emergency assistance responded from Stallion Springs and the pumps were reactivated at approximately 11:00 a.m. Final cleanup was completed by approximately 3:45 p.m.
7) Description of cleanup activities: It was a liquid spill; no solids were involved. Initially a portion of the spill area that could potentially have foot traffic was chlorinated and vehicular traffic was rerouted until additional chlorine tablets were applied to the affected area, allowed to remain in contact with the liquid spill and the streets were rinsed with clean water. The Health Department visited the site of the spill and provided a signed report of inspection and "Procedure for Disinfection of Streets after Sewage Spills."

NOTIFICATION LOG

Clifford Bressler, Receiver: Office (559) 298-1089 and Cell (559) 351-8767

Kern County Environmental Health: Hazmat (661) 549-9927; Amy Ruttledge (661) 246-5345 and Randy ?, Registered Environmental Health Specialist

Central Valley Water Board: Daniel Benas (559) 445-5500 (left message)

California Emergency Management Agency: 1-800-852-7550. **The Report Control # is 13-5770.**

Reported by: Barbara Miller
Executive Administrative Assistant
(661) 822-1700

Hard copy: Mr. Ernie Martinez
GHSC Grade 2 Operator
(661) 972-0573

GOLDEN HILLS SANITATION COMPANY

IN RECEIVERSHIP

Mr. Clifford Bressler, Receiver
PO Box 3257
Clovis, CA 93613
(559) 298-1089

SANITARY SEWER SYSTEM OVERFLOW REPORT

Date of Report: January 31, 2013
Date of Incident: January 31, 2013

1) Location of the SSO: The SSO occurred at the intersection of White Pine Drive and Woodford-Tehachapi Road in the unincorporated area of Golden Hills near the city of Tehachapi, Kern County
2) Whether or not the SSO entered a drainage channel and/or surface water: The SSO did not enter a drainage channel and/or surface water.
3) Estimated SSO volume: Volume was estimated at +/- 20 gallons and bubbled up just at the manhole cover.
4) SSO source/cause: The SSO occurred because the control panel had inadvertently shut down.
5) Time of SSO notification: Barbara Miller was first notified of the overflow incident at 3:30 p.m. and Ernie Martinez and Dave Stegall were notified within minutes.
6) Estimated SSO end time: Dave Stegall arrived first, followed shortly after by Ernie Martinez, and the problem was resolved by 3:45 pm.
7) Description of cleanup activities: The control panel was reactivated and the new lead pump began pumping immediately. The small liquid spill was chlorinated; no solids were involved. To avoid future incidents, we are considering either phone service to activate the auto dialer at the lift station or internet service to activate the existing SCADA system. Costs for repair of either system and cost of service are limiting factors. In the meantime, Ernie will attempt to determine the cause of the control panel issue and "keep a close eye on the lift station."

NOTIFICATION LOG

Clifford Bressler, Receiver: Office (559) 298-1089 and Cell (559) 351-8767. Reported at 3:55 pm.

Kern County Environmental Health: Hazmat (661) 549-9927 and Ramzi Mansour, Waste Management Emergency Help, Office (661) 862-8942 or Cell (661) 203-1933. Reported at 4:49 pm.

Central Valley Water Board: Daniel Benas (559) 445-5128. Reported at 4:41 pm.

California Emergency Management Agency: 1-800-852-7550. Reported at 4:45 pm. **The Report Control # is 13-0670.**

Reported by: Barbara Miller
Assistant to the Receiver for GHSC in Receivership
(661) 822-1700

Hard copy: Mr. Ernie Martinez
GHSC Grade 2 Operator
(661) 972-0573

GOLDEN HILLS SANITATION COMPANY

IN RECEIVERSHIP

Mr. Clifford Bressler, Receiver
PO Box 3257
Clovis, CA 93613
(559) 298-1089

SANITARY SEWER SYSTEM OVERFLOW REPORT

Date of Report: January 10, 2013
Date of Incident: January 9, 2013

1) Location of the SSO: The SSO occurred at the intersection of White Pine Drive and Woodford-Tehachapi Road in the unincorporated area of Golden Hills near the city of Tehachapi, Kern County
2) Whether or not the SSO entered a drainage channel and/or surface water: The SSO did not enter a drainage channel and/or surface water.
3) Estimated SSO volume: Volume is estimated at +/- 100 gallons.
4) SSO source/cause: The SSO was caused by failure of the primary pump at the lift station.
5) Time of SSO notification: Barbara Miller was first notified of the overflow incident at 10:21 a.m. and Ernie Martinez was notified within minutes.
6) Estimated SSO end time: Ernie Martinez, lead operator, immediately contacted our licensed electrician, who arrived at 11:30 a.m. The primary pump failure was quickly determined; the lag pump was switched to become the lead pump and the problem was resolved before 12:00 noon.
7) Description of cleanup activities: The liquid spill was chlorinated; no solids were involved. A manual gas pump was brought to the lift station and hooked up to successfully pump down the wet well. Quickrane Service in Rosamond dispatched a crane truck to remove the dead pump at 1:50 p.m. A new pump was ordered and is being installed this afternoon. The aged lift station pumps were the cause of a similar incident on July 12, 2012, and the Receiver determined that the purchase of a new pump was required. We will be seeking funding to replace the second pump as well. In addition to avoid future incidents, we are investigating a less expensive means of generating an automated alarm than the repair of an existing SCADA system would entail.

NOTIFICATION LOG

Clifford Bressler, Receiver: Notified on 1/9/13 at 2:29 p.m.

Kern County Environmental Health: Called Ramzi Mansour, Waste Management, on 1/9/13 at 2:22 p.m., followed by a call on 1/10/13 at 2:25 p.m. to Kevin, Environmental Health. We now have the Hazmat number for future reporting, if necessary.

Central Valley Water Board: Left a message for Daniel Benas on 1/9/13, followed up by a call from Daniel Benas on 1/10/13 before 1:00 p.m.

California Emergency Management Agency: A message was left at 1-800-853-7550 on 1/9/13, but in conversation with Daniel Benas on the following day we determined that I had been given the wrong number. I followed up with a call to 1-800-852-7550 at approximately 1:00 p.m. **The Control # for that report is 13-0211.**

Reported by: Barbara Miller
Assistant to the Receiver for GHSC in Receivership
(661) 822-1700

Hard copy: Mr. Ernie Martinez
GHSC Grade 2 Operator
(661) 972-0573

25

Clifford E. Bressler
3237 Jasmine Ave
Clovis, CA 93611
Telephone: (559) 298-1089
Email: cliffordbressler@att.net

Receiver

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF KERN

California Public Utilities Commission, Plaintiff, vs. Golden Hills Sanitation Co., Inc.. and Its Owners, Estate of Carlie W. Smith and the Estate of Lilian M. Smith, Defendants.	Civil Law and Motion Case No.: **S-1500-MS-375, NFT** **TENTH REPORT AND ACCOUNTING OF RECEIVER**

CLIFFORD E. BRESSLER, Receiver herein, submits his Tenth Report and Accounting for the period from April 1, 2014 June 30, 2014 as follows:

CLIFFORD E. BRESSLER was appointed as Receiver herein by Order of the Court dated April 5, 2012. During the period of time covered by this report Receiver has performed or caused to be performed the following services:

1. Gathered information, prepared and mailed out Ninth Report of Receiver.
2. Answered numerous phone calls and emails from customers of GHSC on their accounts and amounts owed, updated customer accounts.

3. Picked up mail at PO Box, credit payments to customer accounts, made deposits, updated customer accounts and paid invoices. Prepared and mailed out monthly customer statements.

4. Continued working with Barbara Miller on preparing the budget for GHSC, equipment grant reports, equipment replacement, and other matters.

5. We continue to implement a variety of means to cure delinquent accounts: phone calls, letters, Small Claims Court, levying a bank account, recording a lien against property as the result of court action, and securing a voluntary note against property.

6. While working thru the incomplete and disorganized records left by previous owners, one of the most distressing discoveries was the realization that not all properties using the sewer system were being billed. We are working hard to identify these additional, unbilled connections. This project has contributed to the discovery and billing of "new" customers, frequently including back-billing for a year previous to the date of discovery. The end result of these actions has been a net increase in cash flow for the company and increasing active connections from 168 to 179.

7. Research wastewater treatment options for GHSC customers.

8. In June we added a new Grade 5 Operator. This has fulfilled the State Water Board requirements for a Class 3 Facility.

9. In January we established a local office in Tehachapi, where we can store and access records, have company related meetings, and meet with various entities such as the engineering firm with which we are currently working.

10. Last year we obtained a $51,700 grant from Kern County to reimburse GHSC for replacement and repairs of some of the most critical and necessary components of the plant for it's continued operation. This has been partially used to fund rehabilitation of the lift station. To date, the new submersible pump (purchased with customer revenue), the new electrical panel, and the automated warning system seem to have solved the sewage overflow incidents we were experiencing prior to the improvement project. Our current project is replacing the sand filtration system. We've obtained quotes and are waiting for approval from the county to move forward.

11. The State Water Board is funding a $500,000 grant for an engineering firm to study the problems associated with GHSC and identify an appropriate long-term solution. The firm has 410 days to complete the project. Recently, as part of the study, the County contracted for the cleaning of the entire collections system, so that the system could be videotaped. This will allow us to determine exactly what physical sewer connections exist (and start billing any new discoveries), as well as identify any problems that may arise before they do.

12. Golden Hills Community Services District had independent lab testing done of Tom Sawyer Lake, the site of our effluent disposal. The results

were reported to the Golden Hills community at the recent public meeting that there were no heavy metals detected.

13. Prepared and attached an Accounts Payable of all bills due and unpaid since my appointment as Receiver. (Exhibit "A")

SUMMARY OF CASH RECEIPTS AND DISBURSEMENTS

Cash on hand and bank account as of April 1, 2014	$41,024.20

RECEIPTS

Receipts During This Reporting Period (Exhibit "B")	$62,360.54

DISBURSEMENTS

Disbursements During This Reporting Period (Exhibit "C")	$38,065.38
Net cash on hand and in bank account as of June 30, 2014 (Exhibit "D") copies of bank statements	**$65,319.36**

FEES AND EXPENSES

During the period of time covered by this report, Receiver has incurred fees and expenses of $6,873.29.

Total Fees and Expenses (Exhibit "E")	$6,873.29

RECEIVER INTENDS TO TAKE SAID FEES AND EXPENSES OF $6,873.29 FROM CASH ON HAND WHEN FUNDS ARE AVAILABLE, AFTER TEN (10) DAYS FROM THE DATE OF SERVICE OF THIS REPORT, UNLESS AN OBJECTION IS SERVED UPON RECEIVER AT HIS PLACE OF BUSINESS LOCATED AT 3237 JASMINE AVE, CLOVIS, CALIFORNIA 93611, AND FILED WITH THE COURT.

Dated: July 24, 2014

Clifford E. Bressler

I, CLIFFORD E. BRESSLER, am the Receiver in the above-entitled Action. I have read the foregoing Tenth Report and Accounting of Receiver (April 1, 2014 through June 30, 2014) and know its contents. It is true of my own knowledge, except as to the matters that are stated in it on my own information and belief and as to those matters, I believe it to be true.

The foregoing account contains a full statement of all charges against me and all credits to which I am entitled on account of the estate for the period embraced in the account. I declare under penalty of perjury that the foregoing is true and correct.

Executed: July 24, 2014

Clifford E. Bressler

Accounts Payable Thru 6/30/2014

	$24,792.50	Cliff's Fees (Apr-June 2012)
	$6,991.25	Cliff's Fees (July 2012)
	$3,254.75	Cliff's Fees (Aug 2012)
	$528.75	Cliff's Fees (Sept 2012)
	$2,937.50	Cliff's Fees (Oct 2012)
	$587.50	Cliff's Fees (Nov 2012)
	$3,466.25	Cliff's Fees (Dec 2012)
	$3,407.50	Cliff's Fees (Jan 2013)
	$3,278.25	Cliff's Fees (Feb 2013)
	$481.75	Cliff's Fees (Mar 2013)
	$2,937.50	Cliff's Fees (Apr 2013)
	$716.75	Cliff's Fees (May 2013)
	$564.00	Cliff's Fees (June 2013)
	$305.50	Cliff's Fees (July 2013)
	$376.00	Cliff's Fees (Aug 2013)
	$3,583.75	Cliff's Fees (Sept 2013)
	$611.00	Cliff's Fees (Oct 2013)
	$293.75	Cliff's Fees (Nov 2013)
	$3,325.25	Cliff's Fees (Dec 2013)
	$470.00	Cliff's Fees (Jan 2014)
	$564.00	Cliff's Fees (Feb 2014)
	$1,304.25	Cliff's Fees (Mar 2014)
	$446.50	Cliff's Fees (Apr 2014)
	$540.50	Cliff's Fees (May 2014)
	$552.25	Cliff's Fees (June 2014)
$66,317.00	**Total all Cliff's unpaid Fees and Expenses**	
$49,460.63	**Total all unpaid bills below:**	
	$10,873.00	SWRCB (7/01/11-6/30/12)
	$10,873.00	SWRCB (7/01/12-6/30/13)
	$13,875.00	SWRCB (7/01/13-6/30/14)
	$2,716.29	KCTTC
	$8,538.53	KCTTC
	~~$216.65~~	~~AT&T~~
	~~$580.03~~	~~Answer~~ Connect
	~~$1,788.13~~	~~Filtronics~~

$115,777.63 **Total**

EXHIBIT "A"

AECOM: REQUEST FOR ADDITIONAL SOLUTIONS ANALYSES

Golden Hills Community Services District (GHCSD) is the agency of record with powers over wastewater in Golden Hills, even though Golden Hills Sanitation Company (GHSC) is under the authority of the PUC and court appointed receiver, any consideration for effluent disposal would necessarily involve GHCSD.

We appreciate the work you are doing to determine options for a solution to problems associated with the management of sewer treatment in a small segment of our community. However, our review of your initial presentations has raised many questions and comments which you may have already addressed, but we would respectfully request additional consideration of the following in your draft report:

- Please contact the GHSC receiver, Mr. Bressler to ascertain his input into your proceedings as he is an integral part of any solution.
- Review cost to replace existing plant structure and facilities. Is complete ground up rebuild necessary for continued operation of existing Sewer Plant?
- Do your estimates for forced main include costs for acquiring easements, road crossing, agency permits, etc.?
- Why is it necessary to build a flood wall when the original permit did not require it?
- Please review the need for 2 full time operators at such a small plant.
- Please provide an analyses of debts of GHSC.
- Consider the value of reclaimed water and apply to option 1 and 2 solutions.
- Please calculate the costs for the restoration of Tom Sawyer Lake with and without the treated effluent from the sewer plant.
- Review value and expense of irrigation of reclaimed water and apply to both options.
- Please provide backup to cost estimates.
- Consider the cost/benefit of having Tom Sawyer Lake and land to irrigate now available (as GHCSD has purchased the land), as the plant was originally designed.
- Please be advised GHCSD will not consider any option which does not allow for the retention of tertiary treated wastewater to remain in GHCSD.
- Please consider an additional option of a Package plant replacing the existing sewer plant.

I have attached questions from one of our directors for your review. These are an example of the questions many of the members of our community with interests in the sewer options are voicing. This letter is being sent as directed by unanimous vote of our Board of Directors, after considerable input from the public. Thank you for your consideration of our concerns.

Sincerely,

Eldon E Kennedy

Ed Kennedy, President

Attachment: Director Wyatt Questions.

July 16, 2014

Questions regarding Golden Hills Sanitation Company and AECOM options.
Laura Lynne Wyatt – Golden Hills CSD Board Member

I have the following questions regarding AECOM's study and options for the Golden Hills Sanitation Company:

A. I've been advised that AECOM said regarding the "forced main" option (I believe that is option 2) "a system that will connect with the City of Tehachapi somewhere around the intersection of Red Apple Rd and SR202 (Tucker Rd)" Has anyone contacted Kern County Roads Department or The State of California Caltrans with the following questions?

1. If the forced main runs across or utilizes any part of SR202 would the contractor setting the pipe need to be approved by Caltrans and meet guidelines set by the State of California?
2. Would all plans need to be approved by Caltrans?
3. Would Caltrans need to issue permits?
4. Would State Traffic Control be needed during construction?
5. Would Caltrans engineers need to approve the plans?

The questions above also apply to the Kern County Roads Department regarding the part of Red Apple Rd. In addition, I would like to know answers to the following questions:

6. Is there a map showing the route of the forced main pipe?
7. Does it affect any privately owned property?
8. If it does, has that property owner been notified?
9. Is that property owner willing to grant an easement?
10. Is there a purchase price in the budget if the purchase of said parcel is needed?
11. I assume that the pipe would run across the "old golf course" which is owned by GHCSD, who would be responsible for the maintenance of that pipe?
12. Would the City of Tehachapi incorporate an easement for that utility line?

B. I have not seen AECOM's proposed budget for this project, I'm wondering if their proposed budget allows for the potential of the answer is yes to any of these questions?

C. It has been proposed that "at least 2 separate entitles will be responsible for the operation" if the forced main option is the chosen plan.

1. Who would be the collection agency?
2. What is the cost of extra staff and processing for this agency?

D. On May 23, 2014 the Golden Hills CSD closed escrow on the purchase of the "old golf course" property that included Tom Sawyer Lake.

1. Has AECOM changed or added a third option based on the fact that the lake is no longer private property?

E. I have heard statements from residents "the CSD needs to TAKE ownership of the wastewater facility."

1. Would this take the act of Eminent Domain?
2. Would there have to be the offer of fair market value?
3. Would there need to be a Proposition 218 hearing required?

F. From what has been presented "there is outstanding debt of over $800,000."

1. Who would be responsible for payment of that debt?
2. If the debt was forgiven (as anticipated by recent conversations), how long will it take for a final ruling by the CPUC?

G. How will AB885 affect the proposed options?

In conclusion, I am interested in knowing what the receiver (Cliff Bressler), who is currently in charge of the GHSC, would like to anticipate as the final outcome?

Regarding option 1 (refurbish and continue with use of the existing plant), I was not afforded the time to investigate that option equally, I will have further questions regarding that in the near future.

From:	Mike Sides
To:	Black, William
Cc:	ekennedy@ghcsd.com; lauralynne@ghcsd.com; "Bill Fisher"
Subject:	Request for additional solutions analyses
Date:	Wednesday, July 23, 2014 7:33:56 AM
Attachments:	AECOM REQUESTED ADDITIONAL COST ANALYSES 7.23.14.docx

Hello Bill,

Please find attached a formal request for additional solutions analyses from Golden Hills CSD Board. As you are aware, Golden Hills CSD is the entity with authority over sewer and wastewater in the Golden Hills area and Clifford Bressler is the Court Appointed Receiver in charge of the Golden Hills Sanitation Company Treatment Plant.
We have been made aware by the Receiver that he has not been contacted by your firm during this process and his input is an essential element that should be considered and we recommend that you contact him as soon as possible (contact information below).
Your review and attention to the various listed items in the attached document should address most of the remaining interests of our community.

Should you have questions, please do not hesitate to contact our office.

Mike Sides
Assistant General Manager
Golden Hills Community Services District
21415 Reeves Street (P.O. Box 637)
Tehachapi, CA 93581
661.822.3064
msides@ghcsd.com

Confidentiality Note:
This communication and any accompanying attachment(s) are privileged and confidential. The information is intended for the use of the individual or entity so named. If you are not the intended recipient, then be aware that any disclosure, copying, distribution or use of this communication and any accompanying attachments (or the information contained in it) is prohibited. If you have received this communication in error, please immediately delete it and notify the sender at the return e-mail address or by telephone at (661) 822-3064.
Thank You

Receiver doesn't want GH sewage to go to city

JACK BARNWELL
TEHACHAPI NEWS

Sanitation discussion came to the forefront at the Golden Hills Community Services District board meeting on July 17.

Board President Ed Kennedy opened the floor to the public, where the topic focused primarily on a study conducted by AECOM, the consultant hired by Kern County to conduct a feasibility study of options for Golden Hills Sanitation Company.

The private company, which serves a small segment of Golden Hills that is sewered, remains in receivership following its declaration of bankruptcy in 2012. AECOM has been conducting a feasibility study to determine how the sewer system can become economically sustainable.

The feasibility study is funded by a planning grant secured by Kern County for up to $500,000.

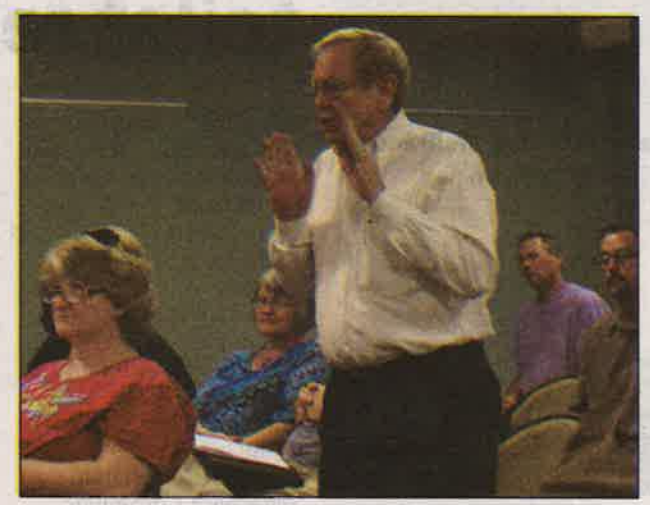
Two options were identified: Continue operation of the small wastewater treatment facility or start sending wastewater to the City of Tehachapi for treatment by way of a four-inch forced sewer main.

All five CSD board members had concerns about figures that AECOM has presented at past public workshops, which show the Tehachapi option as the more viable one.

Chief among those who had concerns was the Receiver for Golden Hills Sanitation, Clifford Bressler of Clovis.

"My biggest objection to the report that is being prepared is not being called," Bressler told the Golden Hills CSD board. "All this time they had been gathering data as to what the operation of the plant costs, and they have never once called me or my office to get our actual costs and this offends me greatly."

Bressler said AECOM had received most of its information regarding costs from the City of Tehachapi. AECOM is a regular consultant utilized by the city (and was the lowest bidder when the county awarded the contract over Provost and Pritchard for the consulting project.)



JACK BARNWELL/TEHACHAPI NEWS

Receiver Clifford Bressler voices his concerns about a feasibility study conducted by AECOM regarding the Golden Hills Sanitation Company during a Golden Hills CSD meeting on July 17.

He acknowledged that he is not happy with the increased rates Golden Hills sewer customers are paying; the rates which was set by the CPUC based on the number of connections.

However, Bressler said even with the increased rates, the plant has yet to break even to fully cover costs like county fees or water assessments. The only thing that is fully covered are operations costs.

The sanitation plant, he said, could go another 25 to 30 years with the proper maintenance, and was running only at 25 percent of its potential capacity to serve.

In addition, it is in the process of receiving a sand filter that would allow the plant to churn out tertiary disinfected water — quality water that he said could be pumped into Tom Sawyer Lake and used for irrigation.

Bressler said the county has helped with that in the form of a $51,700 grant.

Bressler noted that the sanitation company is still a private company. Any decisions made had to go through him first and have the approval of the California Public Utilities Commission.

"Nothing will be done until it is with the best interests of all the small people involved," Bressler said. He said if the feasibility study comes back and shows the city of Tehachapi as the best option, he would oppose it.

"I will fight it tooth and nail," Bressler said. "Every time I turn around, they (AECOM) change the parameters of what they want to do."

He added if he disagrees with the findings of the feasilibity study, he will request a second one to be conducted. He also intends to speak with Kern County Supervisor Zack Scrivner, whose district includes Golden Hills and the City of Tehachapi about the matter.

He reitierated that he had not a chance to speak to AECOM but if the study continues the way it appears to be heading, it will not be looked at by him.

The Golden Hills directors had their own concerns and questions of AECOM. In a separate action, they approved 5-0 a letter to AECOM (subject to review by Kennedy and district legal counsel).

The letter included the requests of the directors.

Questions and requests for information: including all data regarding breakdown of costs for all options along with the data's sources, explore all options, and to further review costs as well as examine what the receiver is paying.

"This is a request," Wyatt cautioned. "They (AECOM) can say anything they want, but we are going out with this request with them."

An agenda item to have the district consider requesting to take over operation of the plant was removed from the agenda.

HIGH DESERT GASTROENTEROLOGY, INC
For matters of the gut!

From: Aaron Leicht
To: Black, William
Subject: Re: Golden Hills Sanitation Company Wastewater Treatment Plant
Date: Monday, July 21, 2014 9:29:30 AM

Bill,
As we discussed, excavating back into the hill behind the pond to provide pond volume then backfilling behind pond's levee wouldn't trigger any FEMA involvement in the project. Fish & Wildlife should also ignore the work since the sewage pond isn't a wetland nor would the work be affecting a streambed. If it's not a wetland or stream then USACE doesn't take a permit. If they don't take a permit then the Water Board usually follows suit.
Aaron

>>> "Black, William" <William.Black@aecom.com> 07/18/2014 11:28 AM >>>
Aaron:

It was great talking with you last Friday. To immortalize our conversation, attached is the GIS mapping of the floodplain as it relates to the plant and building. You agreed that those components are out of the floodplain.

It appears, however that the emergency pond downstream of the plant is partially in the floodplain. (Perhaps the floodplain boundary pre-dated the pond construction as it appears that the pond is surrounded by a relatively high levee.) Per our conversation, we could do some earthwork to excavate deeper into the hill to physically move the pond completely out of the floodplain. We could do the work without touching the existing levee by merely working behind it, excavating into the hill and filling so as not to change the volume of the basin but merely shifting the basin entirely out of the floodplain. If we did that with the future project would there need to be any further action or permitting from FEMA or any of the streambed permitting agencies such as the Corps of Engineers, the State Water Resources Control Board of the Department of Fish and Game? Or could this just be handled administratively through your office?

William C. Black, PE
Principal Engineer
AECOM
5001 E. Commercenter Drive, #100
Bakersfield, CA 93309
O 661.325.7253 F 661.395.0359 M 661.333.4870



Meeting Minutes – Second meeting with Golden Hills CSD 06/10/14

Those present in meeting:

Bill Black

Bill Fisher

Mike Sides

Adam Nielsen (note taker)

Barbara Miller

Jeff Eklund

Overview

The following statements were made by all parties present

CSD bought the property because of blight, rundown buildings, and opportunity to improve land and to increase neighboring property values.

Redundancy in system is important, specifically for raw sewage lift stations and treated effluent delivery to storage ponds.

Air Quality for portable vs. stationary generator, regulations in regards to this is something to consider but was not discussed in the meeting.

AQMD allows for a certain amount of generator hours per year which would be adequate for emergency standby generators that need to be exercised on a weekly basis. This area would need to be addressed at the time that the project is designed.

Response to letter questions sent to CSD

1 The system needs to pan out financially, and, "This has to be approved by the Board." The system could be a possible CSA or public private partnership.

2 Whatever is the most cost effective approach and what the customers want is what should be built
- Both options are on equal footing for funding. This is based a comment by David Warner. He did state that there were more grant funding opportunities if a public entity were to serve as governance.
- Possible amnesty for existing sewer customers of GHSC. This was discussed as a tool to bring those not paying for their connection into compliance if they stepped forward prior to being discovered. Not the opinion of the CSD.

- AECOM mentioned potential annexation of portion of GHCSD into City. Annexation is likely not to work for the CSD.

3 The CSD would like to review O&M costs for plant under option 1 and option 2 before attempting to generate costs for management. The CSD would also like to see the system become a CSA.

4 If the existing sewer connection fee needs to be increased, government agencies can place tax roll liens on customers who don't pay, private entity can't do this.

- Water meter removal policies for customers who don't pay within 90 days, then they have to pay the then current capacity fee minus the amount previously paid.

5 Barbara is billing 180 active connections; Barbara is billing 30 standby connections. According to the original 1983 agreement, 286 connections existed when the plant was built.

- CSD bought 38 sewer connections with the property, monthly rental fee for use of Tom Sawyer Lake (TS Lake)?
- Estoppel agreements
- Clint Hildebrandt was quoted during a prior meeting as having said that the number of future connections is determined by the allowable flow design.
- 106 connections are currently not being billed
- Corner of shop manhole cover is removed; metal plate over top, boulders and pipe in manhole needs to be removed.

6 We need to rehabilitate TS Lake, shoreline vegetation needs to be removed

- Desire not to put equipment into TS Lake (prevent damage to matting in the lake)
- Desire to get Brite Creek diverted back to TS Lake
- TS Lake currently has a surface area of 8 acres, is 10' deep on average for a total of 80 acre-feet (AECOM estimate) Previous estimates have indicated a larger lake volume.
- AECOM wants to take a photo when TS Lake is completely dried up to confirm depth, if possible.
- In 1952 TS Lake was a natural lake with flow into and out of the lake.
- Cost to maintain TS Lake needs to be identified
- Reclamation costs
- Costs to irrigate golf course
- Golden Hills would be willing to fill TS Lake if an agreement was made with existing water master in the adjudicated basin and customers willing to pay.
- Someday the City of Tehachapi (COT) plant will be tertiary treated effluent
- There was thought that a return line for treated effluent may be a good idea to have for the valley as a whole

- Necessary 4’ separation of trenches between wastewater line and effluent return line from COT. Based on Title 22, the recommendation for separation is 10’…. 4’may be allowed for certain construction methods.
- Need to request Regional Board participation by asking for money for rehabilitating to upgrade the existing plant in COT in exchange for possible decommission of GHSC WWTP.
- Possible recharge credit if water is diluted to state standards
- AECOM stated possible return flow credit
- Drive point home that TS Lake could dry up if no additional sources of water are found.
- Cost to fill TS Lake with 100 acre-ft of well water is 50,000 dollars (AECOM estimate)
- CSD, County, State, TCCWD need to work together
- Some consideration should be given to having the community pay the same for service of Tom Sawyer Lake. .. This was a discussion point (that did not originate at Golden Hills) relating to the operations and maintenance of facilities needed to maintain water in Tom Sawyer Lake following construction of grant-funded facilities that would provide bio-remediation of the Lake. It was not a decision

7 Yes, the CSD is willing to allow the COT to maintain the sewer system under contract.

Cost Estimates

- Possible package plant similar to what the county has
- A minimum of two day’s worth of storage to hold wastewater in a emergency pond at proposed lift station included in option 2
- Two separate power and control panels independent of each other would be able to talk with each other or have manual over-ride.
- Add SCADA to option 2
- Water meter cost including capacity fee to be added to option 2
- Desire for enclosed building over panel, SCADA, electrical
- Possible pre-fabricated building, Suncast 10’ by 10’
- H&H Study?
- Redundancy on all options
- Recovery Pond, no generator but pad for temporary generator should be included, building, water connection fee.
- Fountain Lake, open ditch, culvert before lake
- If Fountain lake water retention facility walls are below 6’ tall it is not considered a dam
- Verify if supply lake is considered to be a wetland
- New hydro-pneumatic tank
- Generator to be placed in enclosed building
- Jeff Eklund will email us a map of service area 2,800 connections and 4,300 lots in Golden Hills

- Two existing motors at Supply Lake, one irrigates the golf course and the other sends water to the back 9 fairways. The motors do not appear to be functional, however the condition is unknown.
- TCCWD to give credits hopefully
- TS Lake, take out plants, non-industrial wastewater
- Divert water into TS lake from Brite Creek
- Some sort of aeration system at TS Lake

June 5, 2014

William C. Black
Project Manager
AECOM
5001 E. Commercenter Dr.
Suite 100
Bakersfield, CA 93309

RE: Golden Hills Wastewater Engineering Feasibility Study

Bill,

I received your letter regarding the Golden Hills Sanitation Company Feasibility Study, after conferring with other City staff; I have formulated answers in order of your April 23, 2014 letter:

1. The City does have an existing sewer model produced by AECOM (Boyle at the time) under a consulting engineer arrangement. This model should be available to you in your Bakersfield office. That said, the model has not been updated in at least 7-8 years. There have been significant changes in the quantity and distribution of sewage flows in the parts of the system that would likely be affected by a new flow from the GHSC. As such, we suggest you update the model before using it to explore a 'connection to the City' option.

2. Currently, the City does not have a policy for serving customers outside of City limits. The City's position from the outset of the Kern County "Options" study was that the City would consider treating the wastewater once it had been delivered to the City's collection system. The City is not willing to provide the collection system maintenance or to handle bill collection activities outside City limits. The City's opinion is that a governmental agency which currently holds some jurisdiction for the current GHSC customers would be better suited to handle collection system maintenance and bill payment/collection activities.

3. The current sewer connection fee is $7,259 per Equivalent Dwelling Unit (EDU).

4. The current (2014) monthly sewer rate is $36.86 for single family residential, $29.81 per dwelling unit for multiple family and $36.86 for commercial with an additional $3.02 per 1000 gallons over 7,000 gallons of water used. Particularly for commercial use, our fee system is based upon metered water consumption. As such, fees for GHSC flows for the collection system maintenance and delivery to the City's wastewater treatment plant would need to be set as part of a study prepared specifically for this situation.

5. While I am aware of the environmental, biological and community impacts of losing the treated effluent from the GHSC WWTP discharged to Tom Sawyer Lake, there are some differences between the uses of the GHSC WWTP effluent and groundwater pumped from the Tehachapi Basin aquifer. Meaning, it is not an even exchange based on allowable uses. Treated effluent from our system is not treated to a level which would allow the City to recharge and be credited for the wastewater received from the GHSC service area. Therefore, the City does not see the value in utilizing a transfer of Tehachapi Basin groundwater to offset the treated effluent that would no longer be pumped into Tom Sawyer Lake. Furthermore, with the recent purchase of the former Golden Hills Golf Course and Tom Sawyer Lake by GHCSD, a better option would be to divert Brite Creek back into Tom Sawyer Lake, as has been past practice. Alternatively, the utilization of sources adjacent to Tom Sawyer Lake could be used to supplant the effluent diverted to the City as wastewater.

6. At this point the City does not desire to provide maintenance to the GHSC collection system.

Please let me know if you have any further questions or need clarification on the responses noted above.

Sincerely,

Jon Curry
Public Works Director
City of Tehachapi

AECOM
5001 E. Commercenter Dr., Suite 100
Bakersfield, CA 93309
www.aecom.com

661.325.7253 tel
661.395.0359 fax

June 4, 2014

William Fisher, General Manager
Golden Hills CSD
P.O. Box 637
Tehachapi, CA 93581

RE: Golden Hills Wastewater Engineering Feasibility Study and Environmental Planning Project – Golden Hills Community Services District Input Request

As you are aware, Kern County (County) has recently initiated the Golden Hills Wastewater Engineering Feasibility Study and Environmental Planning Project (Project). A key Project objective is to identify a cost-effective and long-term wastewater solution for Golden Hills Sanitation Company's (GHSC) customers through the development a Preliminary Engineering Report (PER) / Feasibility Study Report (PER or Report). The County has engaged AECOM to develop the engineering alternatives and provide an independent review of their technical appropriateness, cost, and environmental impacts. As part of this process, we would like to:

1) Begin an open dialogue with Golden Hills Community Services District (CSD) about this project;

2) Inform the CSD of our overall plan/process for preparing the study; and

3) Solicit input from the CSD regarding management options which is further described below.

It is our understanding that CSD personnel have been involved in discussions with GHSC and the County over the past several years as the County has worked with GHSC to address their wastewater system. We presume that the CSD has received a copy of the County's initial report entitled *Draft 3 of the Analysis of Continued Sewer Services Options for the Golden Hills Wastewater Treatment Plant Customers – September 2013.* In that study the County evaluated six (6) alternatives for providing sewer services to the GHSC customers and narrowed the list down to the two alternatives listed below. Below we have included only a brief description of the alternatives, however, we would be happy to provide the CSD with a copy of that report if additional background would be helpful.

The two alternatives that we have been asked to be considered in this Project study are as follows:

- Alternative 1 – GHSC WWTP Repair/Rehab: Make the necessary repairs and modifications to the existing wastewater system (collection system, wastewater treatment plant, discharge pipeline, and Tom Sawyer Lake) to meet current regulations and continue operation.

- Alternative 2 – Force Main to the City of Tehachapi: Make the necessary repairs and modifications to the existing wastewater collection system, decommission the GHSC wastewater treatment plant, construct a lift station and force main, pump the sewage to the City for treatment, and make the improvements necessary for Tom Sawyer Lake. Improvements to Tom Sawyer Lake that benefit the community in general would be paid for by the entire community.

In order to develop either alternative in the PER, the current management options have to be explored. To that end, we have prepared the following questions to solicit your input:

1. Under what conditions would the CSD take responsibility for operating and maintaining the sewer system for Golden Hills?

2. Is there a preference for Alternative 1 or Alternative 2?

3. What monthly service charge per residential equivalent unit does the CSD anticipate under either option? More specifically:

    a. Option 1: We will prepare O&M costs for the wastewater plant and collection system which will include a reserve fund and provide it to you for review. What costs for admin, bill collection, and risk management would you anticipate?

    b. Option 2: The City of Tehachapi currently charges $35 per month per unit which adjusts to an index. We will provide you O&M costs plus reserve fund for your collection system, booster pump and force main. What costs for admin, bill collection, and risk management do you anticipate?

4. What connection fee would the CSD anticipate charging to customers under either alternative? More specifically:

    a. Option 1: We will be preparing a construction budget for Option 1 which will include fixing the collection system and the wastewater plant. Depending on our numbers, and the amount paid by grant money, what would the CSD consider adding for administration, collection and risk management?

    b. Option 2: City of Tehachapi currently charges $7,200 per connection per unit which adjusts to an index. We will provide you with a construction budget for Option 2 which will include fixing the collection system, decommissioning the existing wastewater treatment plant and adding the force main to Tehachapi. Depending on our numbers, and the amount paid by grant money, what would the CSD consider adding for administration, collection and risk management?

5. For background information, please note that the GHSC wastewater system currently provides sewage collection, treatment, and disposal for 180 active connections (153 single family residences, a motel (4 equivalent connections), and an apartment complex (23 connections). In the future, it is anticipated that the existing 30 standby connections an addition 87 vacant lots will be connected to the collection system. The estimated daily flow rate to the existing wastewater treatment plant at this time, based on average annual flow is 25,000 gallons per day.

6. Is the CSD willing to provide an alternative water source for Tom Sawyer Lake, if that is required of the GHSC customers or residents of Golden Hills in general? If Golden Hills were to send sewage to the City it would lose a source of supply for Tom Sawyer Lake which will likely result in the lake drying up without other supplemental water sources. This could be problematic from the standpoint of environmental, biological, and community impacts. To rectify this situation, we would like to know if the CSD is willing to provide an alternative source of supply (e.g., groundwater, treated effluent or restoring prior operations such as Recovery Pond or Fountain Lake) to Tom Sawyer Lake. We would also like to know how the CSD would intend to assess the sewer customers and the CSD land owners in general for providing water to the lake.

7. In the event that option two is implemented, is the CSD willing to allow the City of Tehachapi to provide services to maintain the force main and other infrastructure under contract?

We very much appreciate the opportunity to begin the discussion of this alternative with the CSD. Please feel free to contact us directly at 661.325.7253 (william.black@aecom.com) if you have any questions or require further information. Should you have any questions for the County our point of contact is Bob Downs and he can be reached at 661.862.5043.

Thank you in advance for your time and consideration. If at all possible, we would appreciate receiving your initial input within the next three (3) weeks as the next public workshop is planned for the end of June.

Sincerely,

William C. Black, PE
Project Manager

CC: Robert Downs, PE, Kern County

RWQCB Responses
Regarding Golden Hills Sanitation Feasibility Study
May 8, 2014, 10 am
Regional Board, Fresno Office

Attendees: **Warren Gross, Daniel Benas, Patrick Pulupa, Dale Harvey; Barbara Miller, Golden Hills Sanitation Company in Receivership, Steve Miller; and Kevin Kennedy, AECOM**

Topics of Discussion

1. AECOM Workshop No. 1 Presentation and Feedback Received
    a. Described existing wastewater systems and issues/concerns
    b. 2 Options – Local or City of Tehachapi
    c. Local option relies on the existing collection system, treatment plant, treated effluent pipeline, Tom Sawyer Lake, and front 9 fairway irrigation system (flow through TSL).
    d. Attendees expressed strong desire for the local option.
    e. TSL was described as pre-dating the treatment plant and is reportedly a designated wetland. Therefore, providing an ongoing water supply for TSL is likely required for both options.

Question 1. Will a Report of Waste Discharge (RWD) be required prior to implementation of the local option if the local option relies upon the components specified in Waste Discharge Requirements 81-122? For the local option, we intend to irrigate the front 9 holes of the now defunct golf course which is covered under the existing WDR.

RWQCB Response: **No. We would like to focus on getting past this issue and providing water quality benefits (e.g., eliminating the relatively high TDS levels in TSL via flow through system) as soon possible. A RWD will have to be submitted when the use/disposal of wastewater from the Golden Hills WWTF is settled and, consistent with our work load priorities, we are in a position to update the WDRs/WRRs. If the final option is consistent with the WDRs/WRRs, a report of waste discharge may not need to contain much information.**

2. Feasibility Study Requirements
    Specific violations to be addressed as part of the study are the June 21, 2000, July 6, 2010, and March 3, 2014 Notices of Violation (NOVs).

Question 2a. Are odors, aesthetics, fish kills, and high TDS levels the only concerns the Regional Board has regarding the existing wastewater system?

Regional Board Response: **Yes, these along with past sewer system overflows (SSOs); we believe the SSO cause has been addressed for the time being. Continued diligence to infrastructure needs and preventative maintenance are necessary to prevent future problems.**

Question 2b. What dialogue has the RWQCB had with the owner of TSL?

Regional Board Response: Currently there is no ongoing dialogue between the Regional Board and the golf course owner. The golf course owner has provided an access easement to TSL and the Regional Board has no means of compelling the golf course owner to take further action. In the past, there have been attempts to get power supplied to TSL for aerators to increase dissolved oxygen concentrations. However the golf course owner did not permit the additional easement needed for the power lines. Solar Bees (low speed solar power aerators) were looked at in the past. However no further action was taken.

Question 3. Please explain the $3+ million "fine" associated with the 2001 NOV and its impact on current and future rate payers and/or the community.

Regional Board Response: The $3+ million figure is derived from violation of the July 3, 2001 Cleanup and Abatement Order (CAO). The so-called "fine" is actually a potential administrative civil liability which has never been assessed by the Water Board, based on accrual up to the time the 6 July 2010 NOV was issued. Based on this approach, the administrative civil liability could be in the $4 million range today. However, assessment of such a penalty is highly unlikely. Should formal enforcement become necessary, it is more likely that a new enforcement action would be undertaken with a new penalty accrual timeline.

The Regional Board has been discussing the CAO internally. Typically CAOs are issued to encourage action take place within a relatively short period of time, which was not accomplished in Golden Hills' case. Now the active participants and the while approach to the problem have changed and a "fine" could actually impede progress towards implementing a solution. At this time, the Regional Board has no plans to enforce this CAO and may rescind the CAO in the future. The earliest they could rescind the CAO is August 2014.

Question 4. Can the golf course owner sell TSL without addressing the CAO or having it rescinded?

Regional Board Response: Yes, the owner can sell the property. Of course the CAO should be disclosed as a potential liability (full disclosure).

AECOM
5001 E. Commercenter Dr., Suite 100
Bakersfield, CA 93309
www.aecom.com

661.325.7253 tel
661.395.0359 fax

April 16, 2014

Jon Curry – Public Works Director
City of Tehachapi
115 S. Robinson Street
Tehachapi, CA 93561

RE: Golden Hills Wastewater Engineering Feasibility Study and Environmental Planning Project – City of Tehachapi Input Request

As you are aware, Kern County (County) has recently initiated the Golden Hills Wastewater Engineering Feasibility Study and Environmental Planning Project (Project). A key Project objective is to identify a cost-effective and long-term wastewater solution for Golden Hills Sanitation Company's (GHSC) customers through the development a Preliminary Engineering Report (PER) / Feasibility Study Report (PER or Report). The County has engaged AECOM to develop the engineering alternatives and provide an independent review of their technical appropriateness, cost, and environmental impacts. As part of this process, we would like to 1) begin an open dialogue with the City about this project, 2) inform the City of our overall plan/process for preparing the study, and 3) solicit input from the City of Tehachapi (City) regarding Service Alternative No. 2 which is further described below.

It is our understanding that City personnel have been involved in discussions with GHSC and the County over the past several years as the County has worked with GHSC to address their wastewater system. We presume that the City has received a copy of the County's initial report entitled *Draft 3 of the Analysis of Continued Sewer Services Options for the Golden Hills Wastewater Treatment Plant Customers – September 2013.* In that study the County evaluated six (6) alternatives for providing sewer services to GHSC and narrowed the list down to the two alternatives listed below (including service by the City). Below we have included only a brief description of the alternatives, however, we would be happy to provide the City with a copy of that report if additional background would be helpful.

The two alternatives that we have been asked to be considered in this Project study are as follows:

- Alternative 1 – GHSC WWTP Repair/Rehab.: Make the necessary repairs and modifications to the existing wastewater system (collection system, wastewater treatment plant, discharge pipeline, and Tom Sawyer Lake) to meet current regulations and continue operation.

- Alternative 2 – Force Main to the City of Tehachapi: Make the necessary repairs and modifications to the existing wastewater collection system, decommission the GHSC wastewater treatment plant, construct a lift station and force main, pump the sewage to the City for treatment, and make the improvements necessary for Tom Sawyer Lake.

In order to develop Alternative 2 in the PER, we will need to better understand the City's practices, charges, and system capacity/availability. To that end, we have prepared the following questions to solicit your input:

1. Does the City have an existing study or sewer system model identifying the available capacity of the collection system between the connection point shown on the attached figure and the City WWTP?

2. Does the City have a policy for serving customers outside of the City limit? Furthermore, would such a service be provided on an individual basis or to the group of customers as a single entity under the new governance structure?

3. What connection fee would the City anticipate charging to the customers under an Alternative 2 scenario? For background information, please note that the GHSC wastewater system currently provides sewage collection, treatment, and disposal for 168 active connections (142 single family residences, a hotel, and an apartment complex). In the future, it is anticipated that the existing 30 standby connections an addition 87 vacant lots will be connected to the collection system. The estimated daily flow rate to the existing wastewater treatment plant based on average annual flow is 25,000 gallons per day.

4. What monthly service fee would the City anticipate charging customers connected under an Alternative 2 scenario?

5. Is the City willing to provide an alternative water source for Tom Sawyer Lake, if that is required of the GHSC customers If Golden Hills were to send sewage to the City it would lose its source of supply for Tom Sawyer Lake which will likely result in it drying up. This could be problematic from the standpoint of environmental, biological, and community impacts. To rectify this situation, we would like to know if the City is willing to provide an alternative source of supply (e.g., groundwater or effluent that could be obtained through the Golden Hills Community Services District or others).

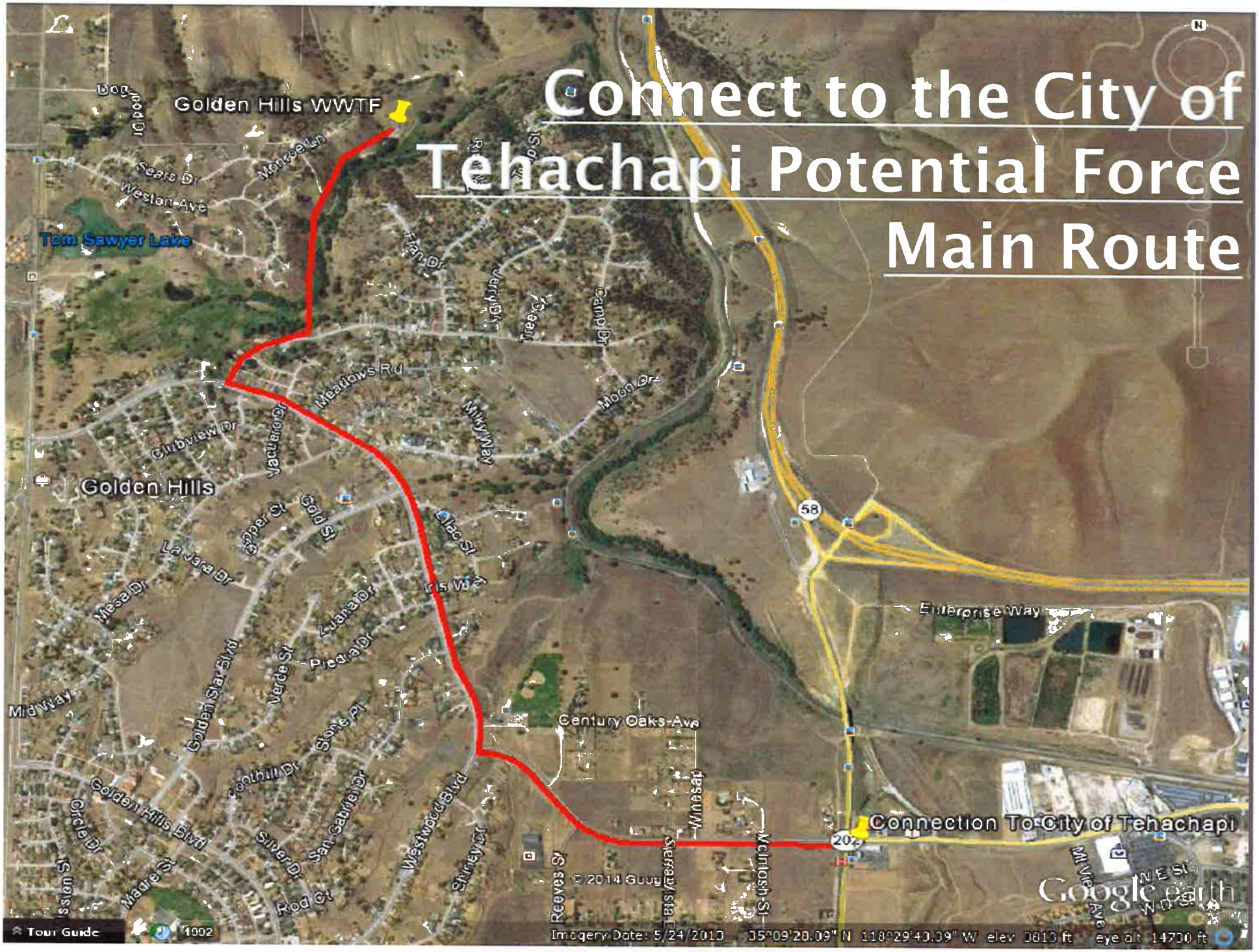
We very much appreciate the opportunity to begin the discussion of this alternative with the City. Please feel free to contact us directly at 661.325.7253 (william.black@aecom.com) if you have any questions or require further information. Should you have any questions for the County our point of contact is Bob Downs and he can be reached at 661.862.5043.

Thank you in advance for your time and consideration. If at all possible, we would appreciate receiving your initial input within the next three (3) weeks as the next public workshop is planned for the end of May.

Sincerely,

Bill Black, PE
Project Manager

CC: John (Jay) H. Schlosser, P.E. – City Engineer (City of Tehachapi)
Al Annan, P.E. – Engineering Manager (County of Kern)


Connect to the City of Tehachapi Potential Force Main Route
Golden Hills WWTF
Tom Sawyer Lake
Golden Hills
Meadows Rd
Century Oaks Ave
Connection To City of Tehachapi
Enterprise Way
Golden Hills Blvd
Golden Star Blvd
Westwood Blvd
Reeves St
Mcintosh St
Imagery Date: 5/24/2013
Google Earth

Meeting Minutes – First meeting with Golden Hills CSD 04/17/14

Those present in meeting:

Bill Black

Bill Fisher

Mike Sides

Adam Nielsen (note taker)

- In 1992 the General Manager was fired
- TS Lake was there prior to the WWTP
- Person who sells TS Lake may have to clean it up first.
- Golf Course and old sanitation company judge ruled in favor of golf course
- Ed Bourgeois tried to stop effluent from being delivered to Tom Sawyer Lake
- Cliff Bressler
- Ed Borges is going after GHSC for litigation costs
- Brite Creek would flow into fountain lake
- Former diversion at fountain lake
- Existing pipe from fountain lake to TS Lake
- Supply lake takes water from TS Lake and irrigates golf course (in the past)
- Ag weirs used to capture Brite Creek water
- There is a Supply Lake and a Recovery Pond, water in Recovery Pond would be pumped to Supply Lake
- Has to be a no-loss venture in order for CSD to agree to take it over
- Kern County hasn't indicated that they want the system
- RWCB what type of permit would they be under
- Any operators to require running the system? Lvl 1 II or better? (3)
- Video of all sewers inspected
- No recorded easements on the property
- Need to video the systems
- SSO's
- CSD wants redundancy for most if not all components of the system
- Containment pond at lift station
- Private/public partnership for WWTP existing (could be USDA Funding)
- County needs to step up and put more on the plate for the CSD to be willing to take the system over
- Mike Sides used to work for the county
- County is in charge of land use/whenever contractor comes in
- Golden highlands trailer park switched to mobile home park then allowed stick framing
- County put in SWTF at Lake Isabella and runs it
- Pine Mountain Club – has a SWTF that the County runs?

- Mike sides is the assistant gm
- Currently 15% to 20% default factor in Tehachapi
- Barbara to file a lean against the existing apartment complex for sewer services owed.
- Apartment complex owes $40,000 and is currently for sale
- $400/month for a room
- CSD will have to report to the RWQCB if they are to take over the system
- Subdivider has to build everything to city standards
- Bring sewer system up to power before handing off to new management
- Can CSD contract operators to maintain the system for the COT
- Ultrasound in lift stations with floats as backups
- Air relief valves along the force main
- Gravity line on red apple
- Existing sewer customers hold some resentment against Kern County
- CSD was on NOVS from RWQB until they had the area surveyed
- Community would like to clean up and preserve the lake.

FILED
SUPERIOR COURT, METROPOLITAN DIVISION
COUNTY OF KERN
APR - 6 2012
TERRY McNALLY, CLERK
BY _____ DEPUTY

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Attorneys for Plaintiff
California Public Utilities Commission

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF KERN,
METROPOLITAN DIVISION

California Public Utilities Commission, Plaintiff, vs. Golden Hills Sanitation Co., Inc., a State-Regulated Public Utility, and Its Owners, Defendants.	Case No.: S-1500-MS-375 **OATH OF RECEIVER**

I, CLIFFORD E. BRESSLER, the appointed Receiver in the above-entitled proceeding, do solemnly swear that I will faithfully discharge the duties of the Receiver in the proceeding and obey the orders of the Court therein.

April 4, 2012

Clifford E. Bressler

578862

SUPERIOR COURT OF CALIFORNIA
METROPOLITAN DIVISION
1415 TRUXTUN AVENUE, BAKERSFIELD, CA 93301

RECEIVED
APR 05 2012
By

DATE: THURSDAY, MARCH 29, 2012 **COURT MET AT:** 4:00 PM DEPARTMENT 14

PRESENT: HON: LINDA S ETIENNE, COMMISSIONER **CLERK:** SHANNA WRIGHT/SW

REPORTER: NONE **BAILIFF:** NONE

TITLE:	COUNSEL:
CALIFORNIA PUBLIC UTILITIES COMMISSION	CLEVELAND W LEE
VS.	
GOLDEN HILL SANITATION CO., INC., A STATE RE	RILEY C WALTER

CASE NUMBER: S-1500-MS-375, NFI

NATURE OF PROCEEDINGS: RULING ON: CONDITIONAL CONSENT TO THE APPOINTMENT OF A RECEIVER

THE COURT REACHES THE FOLLOWING DECISION:

The court has read and considered the ex parte application and defendant Golden Hills Sanitation Co., Inc.'s conditional consent to the appointment of a receiver. In addition to the documents and pleadings filed and submitted by the parties, the court received after the hearing and read, but did not consider, correspondence dated 3/29/12 from Aqua Operations, Inc.

The court finds and concludes as follows:

The Court finds that (1) good cause exists for the appointment of a receiver; (2) the residents and businesses of the Golden Hills community would suffer irreparable injury during the time necessary for a hearing on notice; (3) the Commission is exempted by Code of Civ. Proc. Sec. 995.220 from having to execute and file an undertaking required by id., Sec. 566(b), and Sec(a); and (4) Clifford E Bressler is qualified to act as a receiver in this case and, based thereon, orders that the ex parte application is granted pending hearing on 4/19/12 subject to the terms and conditions as contained in the revisions to the proposed order submitted by Defendant, except as follows:

1. Para. 5.5 : Employment of counsel shall not require prior court approval.
2. Para. 5.9 : Substitution of the Receiver as the legal representative for the Defendant shall not be limited to rate proceedings.
3. Para. 28.4 : The language "that is not the result of Defendant's or Commission's instruction or direction" shall be included.
4. Para. 29.4 : The order shall omit the following language: "but is not obligated to pay for continued coverage."

The order is conditioned upon the timely execution of the oath and filing of the ordered undertaking.

The foregoing findings and order are without prejudice to the parties' right to assert or re-urge any facts or law as may be appropriate to issues pertaining to the receivership at the time of the hearing on 4/19/12.

A proposed order was submitted and shall be signed with the foregoing changes.

COPY OF MINUTE ORDER MAILED TO ALL PARTIES AS STATED ON THE ATTACHED DECLARATION OF MAILING

DECLARATION OF MAILING

The undersigned, of said Kern County, says: That I am a Deputy Clerk of the Superior Court of the State of California, in and for the County of Kern; that I am a citizen of the United States, over 18 years of age, a resident of Kern County, and not a party to the within action, that I served the above on counsel for respective parties in the within action by depositing true copies thereof, enclosed in sealed envelopes with postage thereon fully prepaid in the United States mail at Bakersfield, California, addressed as follows:

RILEY C WALTER
WALTER & WILHELM LAW GROUP
8305 N FRESNO ST #410
FRESNO, CA 93720
PH: (559) 435-9800

CLEVELAND W LEE
CPUC
505 VAN NESS AVE
SAN FRANCISCO, CA 94102
PH: (415) 703-1792

DATE: Thursday, March 29, 2012

TERRY McNALLY
Clerk of the Superior Court
By S. WRIGHT Deputy
SHANNA WRIGHT

Decision 10-05-025 May 20, 2010

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Golden Hills Sanitation Co., Inc., a California corporation for a Certificate of Public Convenience and Necessity to Maintain and Operate an existing Public Utility Wastewater System for the Golden Hills Community near Tehachapi in Kern County and to Affirm Rates for Service and Issue Stock.	Application 08-08-011 (Filed August 19, 2008)

DECISION GRANTING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY, AFFIRMING EXISTING RATES AND AUTHORIZING MEMORANDUM ACCOUNTS

1. Summary

Today's decision grants a certificate of public convenience and necessity (CPCN) to Golden Hills Sanitation Company (GHSC), affirms existing sanitation rates, and authorizes memorandum accounts.

This decision finds that no California Environmental Quality Act (CEQA) review is required as a condition of granting the CPCN to GHSC. However, if GHSC seeks to expand its service territory, a new application will be necessary. At the time such new application is submitted to the Commission, the Commission will determine if a CEQA review is required.

This decision allows GHSC to establish certain memorandum accounts and provides that GHSC may file Tier 3 advice letters to request authority to establish other memorandum accounts.

This proceeding is closed.

2. Background

Golden Hills Sanitation Company (GHSC) is a privately-owned wastewater facility providing sewer service to 168 connections[1] in the community of Golden Hills near Tehachapi, California. In 1980, GHSC entered into an agreement (District Agreement) with the Golden Hills Community Services District (District) to build a wastewater treatment plant on land owned by the District. Construction of the wastewater treatment plant was finished in 1984. The plant was constructed to a maximum discharge of 100,000 gallons per day. The current maximum discharge is approximately 24,000 gallons per day.

On May 12, 1981, the California Regional Water Quality Control Board (RWQCB) made a California Environmental Quality Act (CEQA) determination which adopted a negative declaration for the wastewater treatment plant. The RWQCB determination allowed for a maximum wastewater discharge of 200,000 gallons per day. GHSC planned to discharge wastewater on a golf course; however, the golf course was not constructed. GHSC currently discharges treated effluent wastewater into Tom Sawyer Lake (TSL), consistent with RWQCB Order No. 81-123.[2]

[1] GHSC qualifies as a Class D sewer company (those serving less than 500 customers).

[2] TSL is a water storage reservoir on the land of the proposed golf course.

GHSC built and operated the plant on land owned by the District. The District Agreement anticipated that the District would acquire the wastewater facility. However, in 2001 the District quitclaimed the real property and sewer system to GHSC. Since 2001 GHSC has been the sole provider of sewer service in the Golden Hills Community.[3] Golden Hills Community residents who are not customers of GHSC operate privately-owned septic systems for disposal of wastewater.

3. Procedural Background

GHSC filed A.08-08-011 (Application) on August 19, 2008, requesting a certificate of public convenience and necessity (CPCN), expansion of its service territory, and an increase in current rates. The Application was initially processed by the Commission's Division of Water and Audits (DWA), and later transferred to the Administrative Law Judge (ALJ) Division in late April 2009.[4]

A prehearing conference (PHC) was held on May 29, 2009. During the PHC, the assigned ALJ indicated that the Application was deficient in certain respects, and therefore an amendment to the Application was necessary. At the PHC, the ALJ determined that the first phase of the proceeding should address granting a CPCN, and a later phase would consider GHSC's request to expand its service territory and increase existing rates.

On May 29, 2009, the District protested the Application.

---

[3] Application (A.) 08-08-011 at 1-3.

[4] During the time that the Application was processed in DWA, DWA requested information from GHSC and held an informal public participation hearing (PPH) in November 2008.

On June 5, 2009, an ALJ ruling granted the District's request for late-filing its May 29, 2009 protest, and requested information from the District regarding certain statements made at the PHC and in the District's protest. The District responded to the June 5, 2009 ALJ ruling on June 19, 2009.

On June 29, 2009, GHSC replied to the District's protest and to the information provided by the District in response to the June 5, 2009 ALJ ruling.

On July 21, 2009, GHSC filed an Amendment to Application (Amended Application). The Amended Application provides additional information and makes major changes in the Application. These changes eliminate GHSC's request to expand its service territory and its request to increase existing sanitation rates. The Amended Application requests a CPCN, affirmation of existing rates, authority to issue stock, and also requests authority to establish certain memorandum accounts.

On August 18, 2009, an ALJ ruling required that GHSC provide a defined service territory map. GHSC provided its service territory map on September 3, 2009. (See Attachment A.)

On August 20, 2009, the Amended Application was timely protested by the District, AB Land Development, Inc. (AB Land), and the County of Kern (County). GHSC replied to the protests on August 31, 2009.

On September 8, 2009, a second PHC was held to discuss the issues, develop a schedule, and consider holding a PPH. At the second PHC GHSC stated that it would consider filing a future separate application regarding expansion of its service territory and an increase in rates. The ALJ noted that

GHSC's current summary of earnings reflects negative income.[5] GHSC indicated it would provide a revised summary of earnings and a declaration by GHSC's majority owner regarding GHSC's financial condition. Parties at the second PHC indicated that they did not believe evidentiary hearings were required but that issues could be addressed through briefs.

On September 11, 2009, Assigned Commissioner John A. Bohn issued a Scoping Memo and Ruling (Scoping Memo). The Scoping Memo states that the scope of the proceeding will consider whether a CEQA review is required as a condition of granting a CPCN, the financial viability of GHSC, and affirmation of existing rates.

On October 9, 2009, GHSC provided a revised summary of earnings, a balance sheet and estimated plant and depreciation information[6] and a Declaration by Carlie Smith affirming financial support.[7]

Opening and reply briefs were filed by GHSC, the County, AB Land and the District, on October 14, and October 26, 2009, respectively.

A PPH was held on October 21, 2009. The hearing was attended by over 250 people, and about 30 of the attendees spoke. Many attendees who are not GHSC customers expressed a concern that this proceeding would require forced wastewater connections to GHSC's system or that GHSC would be authorized to

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[5] Amended Application at 30.

[6] Attachment B.

[7] The revised summary of earnings (Appendix A to the Amended Application) indicates that GHSC would require approximately $100,000 in additional revenue in order for the rate of return to equate to 0.0%. The Declaration of Carlie Smith (Appendix B) states that he owns about 77% of GHSC common stock and that he is committed to pay for

Footnote continued on next page

expand its service territory. We thank each person who attended the PPH, and those who spoke. We expect that these attendees understand that the action we take in this proceeding is not an expansion of GHSC's service territory or an action to force non-customers to connect to GHSC involuntarily.

On January 25, 2010, GHSC filed a supplemental response to the September 8, 2009 ALJ ruling. This supplemental response notes that Carlie Smith passed away on December 26, 2009. The supplemental response includes a declaration of Cody Tellis affirming financial support for GHSC[8] which replaces the declaration of Carlie Smith filed on October 9, 2009.

This proceeding was submitted on January 25, 2010.

4. Discussion

4.1. CPCN Requirements

For a small sewer company like GHSC, the provisions of the Public Utilities Code,[9] the Commission's Rules of Practice and Procedure (Rules), and Resolution M-4708 (August 28, 1979) set forth requirements and criteria that must be satisfied before a CPCN is granted.

4.2. Public Utilities Code

The Public Utilities Code contains substantive requirements for an entity to be considered a public utility and issued a CPCN. Section 216 defines a

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GHSC's operating expenses, exclusive of catastrophic expenses, for a period of two years.

[8] The Declaration of Cody Tellis, the present Trustee for Carlie Smith, states that the Estates of Lillian and Carlie Smith are committed to continue paying for a minimum of two years the operating expenses of GHSC.

[9] All references to Code sections are to the California Public Utilities Code unless otherwise noted.

Commission-regulated sewer utility as one "where the service is performed for, or the commodity is delivered to, the public or any portion thereof for which any compensation or payment whatsoever is received." Section 216(b) states that when any person or corporation performs a service or delivers a commodity to the public for which compensation or payment is received, that corporation is a public utility subject to the jurisdiction, control and regulation of the Commission.

In this proceeding, GHSC affirmatively seeks public utility status. GHSC's Amended Application indicates it will continue to provide sanitation service to approximately 168 existing customers. GHSC proposes that its sanitation service be provided under rates approved by the Commission. Under the substantive law, GHSC will operate as a public utility.

4.3. Rules of Practice and Procedure

The Commission's Rules of Practice and Procedure[10] also include procedural requirements. Applicant must file a detailed statement of the amount and basis (estimated if not known) of the original cost of all plant and depreciation reserve (Rule 3.1(n)(1)), a summary of earnings when the proposed rates are the same as existing rates (Rule 3.1(n)(2)), and other additional information as may be necessary to a full understanding of the situation. (Rule 3.1(o).)[11]

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[10] All references to Rules are to the Commission's Rules of Practice and Procedure unless otherwise noted.

[11] While Rule 3.1 technically only applies to applications to construct or extend facilities, the information required by that Rule described in this section of the decision is also relevant to the current application, and has been provided by GHSC.

In its Application, GHSC provided its Certification of Incorporation[12] issued by the Secretary of State. Under GHSC's Articles of Incorporation it is authorized to issue 25,000 shares of common stock. GHSC states that there are currently 238 shares outstanding, and that the principal shareholders are Carlie and Lillian Smith. GHSC also states that its only indebtedness is a secured promissory note for $343,075, for which interest is deferred to July 1, 2010. GHSC has also provided RWQCB Order 81-122[13] which provides wastewater discharge requirements for GHSC,[14] and a permit to operate from the Kern County Air Pollution Control District.[15] Finally, GHSC provided a revised summary of earnings, a balance sheet (December 31, 2009) projected, Sewer Plant in Service, and the Reserve for Depreciation of Utility Plant.[16]

Article 2 and Rule 3.1 of the Rules set forth requirements for water [sewer] utilities that must be satisfied as part of an application for a CPCN and to authorize rates. The relevant requirements of Rule 3.1 include a full description and map of the system, identification of potential competitors, financial information, ratesetting information, and facts supporting the issuance of a CPCN. An important provision of Rule 3.1 is the requirement that the

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[12] *See*, Application, Exhibit A (incorporated by reference).

[13] *Id*., Exhibit E (incorporated by reference).

[14] Although the County and AB Land contend there are problems with the current discharge of wastewater into TSL (see, Opening Brief, County of Kern at 2-4, and AB Land Brief) the granting of a CPCN does not determine the discharge site for current wastewater. The authority for the regulation of a wastewater discharge site clearly rests with the RWQCB. Disputes arising between the parties regarding the discharge site should be addressed before the RWQCB.

[15] *See*, Application, Exhibit I (incorporated by reference).

[16] *See*, Attachment B.

application demonstrate "[f]acts showing that public convenience and necessity require…the proposed construction or extension, and its operation," or in this case, the operation of the existing sewer system as a public utility. The Amended Application demonstrates that public utility regulation is necessary to safeguard a number of customers who have no sanitation system alternatives, ensure reasonable and fair rates for both the ratepayers and the company, and monitor sanitation service and quality in an area where the alternative is installation of privately-owned septic systems.

Rule 2.3 requires more specific financial information and Rule 2.4 addresses CEQA matters as discussed later in this decision. GHSC has submitted all of the information required for issuance of a CPCN.

Because we are issuing a CPCN to an existing sewer system, there are no identified impacts to recreation and park areas or historical and aesthetic values. Any impact to the environment is addressed under the discussion of CEQA below.

4.4. Resolution M-4708

Resolution M-4708 sets forth six basic criteria that are used to evaluate the certificate application of small water companies (Class D companies, i.e., those serving less that 500 customers), which we will apply to a small sewer company such as GHSC. As pertinent to this application, the resolution specifies that the Commission will issue CPCNs only when the water [or sewer] company is able to render adequate service and remain financially viable; and no other existing viable provider is available to serve the proposed area.

In this instance, GHSC fulfills the requirements of the resolution as it is an existing sewer system and there are no other sewer systems capable of serving

the proposed area. GHSC's financial viability is discussed elsewhere in this decision (see, Section 6, below).

We also note that no GHSC customers have complained about service, and that during the PPH some customers expressed satisfaction with GHSC's service.[17]

5. The California Environmental Quality Act (CEQA)[18]

In addition to other requirements, we must consider whether the Commission's approval of GHSC's Amended Application for a CPCN triggers CEQA and, if so, what steps must be taken to satisfy the statute's requirements.

CEQA (Pub. Resources Code §§ 21000, *et. seq.*) applies to discretionary projects to be carried out or approved by public agencies. A basic purpose of CEQA is to "inform governmental decision-makers and the public about the potential, significant environmental effects of the proposed activities." (Title 14 of the California Code of Regulations, hereafter "CEQA Guidelines," Section 15002.) CEQA defines a project as "an activity which may cause a direct change in the environment, or reasonably foreseeable change in the environment, and which is…, an activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies." (Pub. Resources Code § 21065.)

Issuance of a CPCN may be a project under CEQA since it involves the discretionary governmental activity in issuing a "certificate or other entitlement," and a CPCN is an entitlement since it allows an entity to operate as

[17] TR 29.

[18] *See*, Rule 2.4, CEQA Compliance.

a public utility within a specified service area.[19] While the Commission has previously held that the mere granting of a CPCN involving existing facilities is exempt from CEQA,[20] this exemption was based on a finding that there was no possibility that granting the relief requested would have a significant impact on the environment.[21] The question in this proceeding is whether the issuance of a CPCN as requested in the Amended Application will cause a direct or reasonably foreseeable indirect physical change in the environment.

The District, the County and AB Land contend that the "project" in this case includes not only granting the CPCN, but also an increase in customers either by expansion of GHSC's service territory boundaries or addition of new customers within a defined service territory through the operation of the Plumbing Code.[22]

5.1. The Amended Application Does Not Request Expansion of Service Territory

The District,[23] the County[24] and AB Land[25] contend that GHSC requests expansion of its service territory. In this regard, AB Land and the County argue

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[19] See, Decision (D.) 05-11-030, November 18, 2005 at 16-18.

[20] D.02-06-005 at 18.

[21] *Id.*, Finding of Fact 23 at 22.

[22] The Plumbing Code (Section 713, Title 24 of the California Code of Regulations, also referred to as the California Building Standards Code) states that no permit will be issued to build, alter or change a private sewer system if a public sewer is within 200 feet from the proposed building. When drainage to the public sewer is hindered, there is an exception to this rule which provides that the building may remain connected to the private sewer disposal system.

[23] District Opening Brief at 7.

[24] County Reply Brief at 2.

that granting a CPCN constitutes "piecemealing"[26] of the true project. Piecemealing of projects is prohibited under CEQA. Consequently, the County, AB Land and the District conclude that CEQA categorical exemptions[27] do not apply to GHSC's Amended Application.

Contrary to the assertions of parties opposed to granting the CPCN, the relief requested by the Amended Application is clear. The Amended Application requests that GHSC be granted a CPCN for a defined service territory using an existing wastewater system. Although the County and the District argue that GHSC intends to use the granting of a CPCN as a first step in expanding its service territory, these arguments are conjecture. The Application as originally filed requested service territory expansion and an increase in existing rates. However, the Amended Application which we approve does not request that relief. GHSC, as a regulated utility holding a CPCN from this Commission, must obtain CPUC approval to expand its service territory or to increase its rates. Our approval of GHSC's CPCN neither prejudges nor pre-approves any such subsequent application.

If and when GHSC submits an application to expand its service territory or to increase existing rates, it will be reviewed, and the determination will be made whether that application is subject to CEQA review. There is no "piecemealing" here, because GHSC's future plans are not before this Commission, any such

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[25] AB Land Brief at 4.

[26] "Piecemealing" refers to the separation of a project into individual projects in order to avoid the responsibility for considering the environmental impact of the project as a whole. (District Opening Brief at 6).

[27] CEQA Guidelines provide categorical exemptions. (CEQA Guidelines, Section 15061.)

plans it may have are too speculative to require CEQA review, and our action today does not approve any plans other than those specifically before this Commission.

5.2. Granting a CPCN Does Not Cause Enforcement of the Plumbing Code

The County and the District argue that the operation of the Plumbing Code could potentially require existing residences, currently utilizing septic systems, to connect to GHSC's mains.[28] According to the County and the District, the Plumbing Code requires

> …a homeowner to connect to an existent public sewer that is within 200 feet of any building or exterior drainage facility on any lot that abuts the land on which the public sewer is located if that homeowner has a septic tank which requires replacement, alteration or repair.[29]

In this way, they argue, the granting of a CPCN and enforcement of the Plumbing Code could result in new GHSC sewer connections even if the service territory boundaries are not expanded.

The District, the County, and AB Land contend that these potential new connections of existing residences already within the service territory constitute an expansion of service territory which results in environmental effects.[30] There are two major problems with this contention.

First, there is no information on the record as to how many (if any) residences could be required to switch from a septic system to the sewer system.

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[28] County Reply Brief at 4-5, District Opening Brief at 9-10.

[29] County Reply Brief at 5.

[30] District Opening Brief at 9.

Accordingly, we cannot meaningfully evaluate any potential environmental impacts, as such an evaluation would be purely speculative.

Second, it appears that the County is responsible for enforcement of the Plumbing Code.[31] The County will determine whether a particular residence will be required to connect to the sewer system. Any environmental impact of such connections would be the result of the County's determination, not this Commission's granting of a CPCN. We cannot tell from the record before us if the County's determination is discretionary or ministerial. If the County's determination is discretionary, then the County would be the appropriate agency to perform any necessary CEQA review. If that determination is ministerial, then the County's decision requiring a connection to the sewer system is exempt from CEQA. (CEQA Guideline 15268.)

Neither the Plumbing Code nor the County's enforcement of that Code constitutes an environmental impact.

5.3. CEQA Exemption

The project in this proceeding is the issuance of a CPCN to GHSC for the operation of an existing sanitation system with no change in its physical characteristics or operation. Since it can be seen with certainty that there is no possibility that granting the relief requested will have a significant impact on the environment, the project qualifies for an exemption from CEQA pursuant to Section 15061(b)(3) of the CEQA Guidelines. Therefore, no further environmental review by the Commission is required.

[31] GHSC Reply Brief at 9.

6. Financial Ability

The Amended Application requests authority to issue stock, approve a promissory note of $343,075 and establish existing rates. Although no party opposes any of these requests, the financial statements provided in the Amended Application[32] indicate that GHSC's current operations will operate at significant negative net income. In order to clarify this financial condition, the ALJ requested that GHSC file a revised summary of earnings and a declaration by the majority owner of GHSC addressing GHSC's ability to finance its operations.[33]

In response,[34] GHSC provided a revised summary of earnings which indicates that GHSC would require about $100,000 in additional revenues above revenues at existing rates to achieve a 0% return on estimated rate base. GHSC also provided the Declaration of Carlie Smith now superseded by the Declaration of Cody Tellis which states that the estates of Lillian and Carlie Smith own approximately 77% of GHSC's common stock,[35] and that these estates are committed to pay for GHSC operating expenses, exclusive of catastrophic expenses, for a period of two years from September 2009. Although the declaration of Cody Tellis provides some assurance to current GHSC ratepayers regarding the financial viability of GHSC, it is apparent that GHSC will have to address its long-term financial viability. Although we do not direct GHSC to take specific actions with regard to future financial viability, we expect that

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[32] *See*, pp. 29-30.

[33] TR 165-168.

[34] *See*, Response of GHSC to ALJ Ruling Requesting Revised Summary of Earnings and Declaration of Carlie Smith (October 9, 2009).

[35] The Declaration of Carlie Smith has been superseded by the Declaration of Cody Tellis, the current Trustee for the Estates of Lillian and Carlie Smith.

GHSC will adhere to all of the requirements of a California public utility including appropriate accounting, applicable Commission general orders and standard practices.

As the issuance of stock and the promissory note occurred prior to GHSC's application for a CPCN it is not necessary to include an approval of these actions in our decision. However, this decision does not authorize GHSC to issue any additional stock, or incur additional debt, and the issuance of any additional stock or incurrence of debt must comply with the requirements under Section 816, *et. seq*.

7. Proposed Wastewater Service Rates

GHSC currently assesses a flat rate fee for sewer services from its wastewater treatment facility. GHSC currently provides wastewater service to 142 residential customers, one motel utilizing 4 service connections, one apartment building utilizing 22 service connections and 87 undeveloped properties not in service which each pay a monthly service commitment fee. These fees by class of customer are:

Customer Class	Monthly Fee per Connection
Single Family Resident Sewer Service	$58.00
Apartment Service Connection	52.87
Motel Service Connection	56.25
Service Commitment Fee	10.00

No party opposes the current monthly service rates. We will adopt GHSC's existing rates.

8. Memorandum Accounts

GHSC requests authority to establish eight memorandum accounts for the following costs:

1. Unanticipated Repair Costs
2. Catastrophic Events
3. Infrastructure Act
4. Purchased Power
5. Payroll, payroll tax, and contract work for operation and maintenance of plant facilities
6. Litigation expense
7. Water contamination litigation expense
8. Necessary costs to comply with lawful orders affecting plant operations.

Commission Resolution W-4467, adopted April 22, 2004, allows a Class D sewer company such as GHSC to establish memorandum accounts to track changes to purchased power expenses, and unanticipated changes beyond the utility's control in payroll, payroll taxes, and that portion of contract work that is for operation and maintenance of the plant facilities.[36] Class D sewer companies are also allowed to establish an unanticipated repair cost memorandum account.[37]

Commission Resolution E-3238, adopted July 24, 1991, provides that all utilities except common carriers and toll bridge corporations may establish a

[36] Res. W-4467 at 7, Ordering Paragraph (O.P.) 4.

[37] *Id.*, O.P. 6.

catastrophic event memorandum account to record costs resulting from declared disasters.

We will allow GHSC to establish memorandum accounts for unanticipated repair costs, catastrophic events, and unanticipated changes beyond the utility's control in payroll, payroll taxes and that portion of contract work that is for operation and maintenance of the plant facilities. We do not at this time grant authority to establish any of the other memorandum accounts that GHSC has requested. GHSC may request authority to establish memorandum accounts other than those authorized by this decision by filing a Tier 3 advice letter.

While these advice letters could be filed as Tier 2 advice letters pursuant to the Water Industry Rules,[38] pursuant to the general rules[39] if the decision regarding whether to approve the memorandum account requires an exercise of discretion, staff will prepare a resolution so that the Commission may determine the issue.

A memorandum account allows a utility to track costs arising from events that were not reasonably foreseen when existing rates were set, e.g., in the utility's last general rate case. By tracking these costs in a memorandum account, a utility preserves the opportunity to seek recovery of these costs at a later date without raising retroactive ratemaking issues. Authorization of a memorandum account does not mean that the Commission has decided that the types of costs to be recorded in the account should be recoverable in addition to rates that have been otherwise authorized, unless so specified. Instead, the

[38] See, Decision 07-01-024, Appendix C (Water Industry Rules).

[39] *Id.*, Appendix A.

utility shall bear the burden when it requests recovery of the recorded costs, to show that additional recovery of the types of costs recorded in the account is appropriate, that the utility acted prudently when it incurred these costs and that the level of costs is reasonable.

These memorandum accounts typically include only the additional amount by which expenses have "changed." Normally, this means the amount by which these expenses have increased above the level of expenses used in setting the utility's otherwise-authorized, cost-based rates. However, the rates adopted in this decision are not cost-based. Accordingly, it is necessary to specify the level of expenses to be used for determining whether GHSC's expenses have "changed." For this purpose only, we will use the level of expense shown in GHSC's revised summary of earnings (Appendix A to the Amended Application) for the particular category of expense involved. We will attach GHSC's revised summary of earnings to this Decision (as Attachment B), so that it will be easy to refer to this document if GHSC later seeks recovery of any amounts recorded in its memorandum accounts.

9. Conclusion

For all of the foregoing reasons, GHSC should be granted a CPCN and authorized to charge existing sewer rates and establish certain memorandum accounts.

10. Comments on Proposed Decision

The proposed decision of the ALJ in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3. Opening comments were filed by AB Land on August 23, 2010 and GHSC and the District on April 26, 2010. Reply comments were filed by GHSC and the District on May 3, 2010. We make no substantive

changes to the proposed decision in response to the comments, but make minor corrections to the ordering paragraphs regarding the filing of an application for future service territory expansion and the tiers used for establishing advice letters.

11. Assignment of Proceeding

John A. Bohn is the assigned Commissioner and Bruce DeBerry is the assigned ALJ in this proceeding.

Findings of Fact

1. GHSC is a privately-owned wastewater facility providing sewer service to approximately 168 connections in the community of Golden Hills near Tehachapi, California.

2. GHSC's wastewater facility began operation in 1984.

3. GHSC's wastewater treatment plant was built to a capacity of 100,000 gallons per day, but current maximum discharge is approximately 24,000 gallons per day.

4. In 1981 the RWQCB made a CEQA determination which adopted a negative declaration for the wastewater treatment plant.

5. RWQCB Order No. 81-123 provides for a maximum wastewater discharge of 200,000 gallons per day.

6. Since 2001 GHSC has been the sole provider of sewer service in the Golden Hills Community. Golden Hills' residents who are not customers of GHSC operate privately-owned septic systems for disposal of wastewater.

7. Some GHSC customers have expressed satisfaction with GHSC's service.

8. GHSC's initial Application filed on August 19, 2008, requested a CPCN, expansion of service territory, authorization to issue stock, and an increase in existing sewer rates.

9. GHSC filed an Amended Application on July 21, 2009. The Amended Application requests a CPCN, adoption of existing sewer rates, authority to issue stock and authority to establish certain memorandum accounts.

10. Because GHSC is an existing sewer system, the issuance of a CPCN will not affect recreation, park areas, or historical or aesthetic values.

11. GHSC's revised summary of earnings indicates that under existing rates and sewer connections GHSC will operate at significant negative net income.

12. GHSC would require about $100,000 in additional revenues to achieve a 0% return on rate base.

13. The Declaration of Cody Tellis, the current Trustee for the estates of Lillian and Carlie Smith, states that the estates will pay operating expenses, exclusive of catastrophic expenses, for a period of two years from September 2009, and thus provides financial assurance to current GHSC customers.

14. There are no other sewer systems capable of serving GHSC's proposed service territory.

15. GHSC has filed its Amended Application for a CPCN and supplemental information and documents including certified copies of its articles of incorporation, service territory map, financial information, and existing sewer rates, a summary of earnings, a balance sheet, and statements of sewer plant and depreciation reserve.

16. GHSC has been operating the sanitation system on its own behalf since at least 2001 and now seeks to do so in conformity with the Public Utilities Code. The Commission's granting of a CPCN will only establish the service area, authorize existing sewer rates, and grant authority to establish certain memorandum accounts. The Commission's decision will not authorize any construction or modification of the system.

17. Any future expansion of GHSC's service territory would require approval of this Commission via application.

18. Neither the Plumbing Code nor the County's enforcement of the Plumbing Code constitutes an environmental impact.

19. Under these circumstances, we find with certainty that there is no possibility that the granting of a CPCN in this proceeding will have a significant impact on the environment.

Conclusions of Law

1. GHSC has satisfied all of the relevant requirements Article 2 and Rule 3.1 of the Commission's Rules.

2. Once granted a CPCN, GHSC will be classified as a Class D sewer utility.

3. GHSC has satisfied all of the relevant requirements of Commission Resolution M-4708 which applies to water utilities, but which also are appropriate to apply to a small sewer company such as GHSC.

4. Public utility regulation of GHSC is necessary and convenient to provide protection to existing GHSC customers who have no sewer alternatives.

5. GHSC should be granted a CPCN authorizing it to operate as a public utility within the State of California with all the rights and obligations thereof.

6. In being granted a CPCN, GHSC assumes the obligation to serve as set forth in the Public Utilities Code (including but not limited to Section 451).

7. Commission Resolution W-4467 provides that a Class D sewer company may establish memorandum accounts to track purchased power expense, unanticipated changes beyond the utility's control in payroll, payroll taxes and that portion of contract work that is for operation and maintenance of the plant facilities.

8. Commission Resolution E-3238 provides that all utilities may establish a catastrophic event memorandum account to record costs resulting from declared disasters.

9. Authorization of a memorandum account does not mean that the Commission has decided that the types of costs to be recorded in the account should be recoverable in addition to rates that have been otherwise authorized, unless so specified. Instead, the utility shall bear the burden when it requests recovery of the recorded costs, to show that additional recovery of the types of costs recorded in the account is appropriate, that the utility acted prudently when it incurred these costs and that the level of costs is reasonable.

10. For the limited purpose of determining whether GHSC's expenses have changed, as required by a particular memorandum account, the level of expense shown in GHSC's revised summary of earnings (Attachment B to this Decision) for the particular category of expense involved should be used as the base level of expense.

11. The issuance of a CPCN to GHSC is exempt from CEQA because it can be seen with certainty that there is no possibility that granting the CPCN will have a significant impact on the environment.

O R D E R

IT IS ORDERED that:

1. Golden Hills Sanitation Company, Inc. is granted a certificate of public convenience and necessity to provide sewer service to the Golden Hills Community as defined in the attached service territory map (Attachment A). Golden Hills Sanitation Company shall fulfill its obligation to serve, as set forth in the Public Utilities Code and prior decisions and orders of the Commission.

2. Golden Hills Sanitation Company shall establish and maintain a set of accounts in accordance with the Commission's Uniform System of Accounts for its sewer service.

3. Golden Hills Sanitation Company shall file an annual report with the Director of the Division of Water and Audits in compliance with General Order 104-A on a calendar-year basis.

4. Golden Hills Sanitation Company is authorized to charge its existing rates for sewer service.

5. Golden Hills Sanitation Company is authorized to make Tier 2 advice letter filing to establish memorandum accounts for changes to purchased power expenses; unanticipated changes beyond the utility's control for catastrophic events; payroll, payroll taxes and contract work for operation and maintenance of plant facilities; and unanticipated repair costs.

6. Golden Hills Sanitation Company shall make a Tier 2 advice letter filing within 30 days after the effective date of this order, to establish tariffs consistent with General Order 96-B reflecting its authorized rates for sewer service.

7. Golden Hills Sanitation Company may file Tier 3 advice letters to request establishment of memorandum accounts in addition to those authorized in Ordering Paragraph 5.

8. Golden Hills Sanitation Company shall use the base levels of expenses shown in Attachment B to this Decision to determine whether Golden Hills Sanitation Company's expenses have changed, as required by a particular memorandum account.

9. Any request by Golden Hills Sanitation Company to expand its service territory will require Commission approval via an application.

10. Application 08-08-011 is closed.

This order is effective today.

Dated May 20, 2010, at San Francisco, California.

MICHAEL R. PEEVEY
President
DIAN M. GRUENEICH
JOHN A. BOHN
TIMOTHY ALAN SIMON
NANCY E. RYAN
Commissioners

D1005025 Attachments A and B

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Application of Golden Hills Sanitation Co., Inc., a California corporation for a Certificate of Public Convenience and Necessity to Maintain and Operate an existing Public Utility Wastewater System for the Golden Hills Community near Tehachapi in Kern County and to Affirm Rates for Service and Issue Stock.	Application 08-08-011 (Filed August 19, 2008)

RESPONSE OF GOLDEN HILLS SANITATION COMPANY, INC., TO ALJ'S RULING REQUESTING REVISED SUMMARY OF EARNINGS AND SMITH DECLARATION

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October 9, 2009

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of Golden Hills Sanitation Co., Inc., a California corporation for a Certificate of Public Convenience and Necessity to Maintain and Operate an existing Public Utility Wastewater System for the Golden Hills Community near Tehachapi in Kern County and to Affirm Rates for Service and Issue Stock.	Application 08-08-011 (Filed August 19, 2008)

RESPONSE OF GOLDEN HILLS SANITATION COMPANY, INC., TO ALJ'S RULING REQUESTING REVISED SUMMARY OF EARNINGS AND SMITH DECLARATION

Golden Hills Sanitation Company, Inc. (GHSC) respectfully responds to the Administrative Law Judge's (ALJ's) Ruling at the Prehearing Conference of September 8, 2009 (September 8 ALJ's Ruling), requesting GHSC to provide (1) a revised Summary of Earnings and a (2) declaration of financial commitment by GHSC's President and principal shareholder, Carlie Smith.[1] This Response is filed and served pursuant to the Commission's Rules of Practice and Procedure, the September 8 ALJ's Ruling, and ALJ DeBerry's Ruling by electronic mail of October 8, 2009, extending the time to file this Response to today, October 9, 2009.

(1) REVISED SUMMARY OF EARNINGS (Appendix A)

In compliance with the September 8 ALJ's Ruling, GHSC provides the requested revision to its Summary of Earnings on page 30 of its Amendment to Application, inclusive of rate base and rate of return calculations. This information is included, and incorporated by reference herein, as Appendix A hereto. Appendix A consists of two parts: (1) Attachment #1 - Summary of Earnings, and (2) Attachment #2 – Balance Sheets (Schedules A-C). These attachments are described further below.

[1] PHC Reporter's Transcript (PHC RT), at pp. 166-168.

(a) Summary of Earnings, Attachment #1

GHSC's Summary of Earnings has been revised in Attachment #1 to comply with the September 8 ALJ's Ruling and conform with applicable Commission Standard Practices and recommendations of the Commission's Division of Water and Audits (DWA). The assumed rate of return and rate of margin are based on the DWA's update of its recommended Rates of Return and Rates of Margin for Class C and Class D water utilities issued on February 27, 2009.

In Attachment #1, three separate Summary of Earnings scenarios are presented:

- GHSC current summary of earnings (status quo),
- GHSC summary of earnings assuming a 20% return on margin, and
- GHSC summary of earnings assuming a 12.75% return on rate base.[2]

All three Summary of Earnings scenarios are based on GHSC current rates, current 168 customers, and GHSC's total annual operating revenues and expenses included in the Amendment to Application 08-08-011 (Amendment) in Table 3 ("Estimated Summary of Earnings Test Year 2009 Sewer Operations").[3] Total plant, accumulated depreciation, and contributions are based on Table 1 ("Estimated Plant Cost and Depreciation Reserve") of the Amendment.[4]

The first Summary of Earnings scenario titled "Current Rates" does not take into consideration depreciation or actual state and federal tax expenses. The second scenario titled "20% Return on Margin" includes an estimate of depreciation and state and federal tax expense and includes a 20% return on margin. The third scenario titled "12.75% Return on Rate Base" also includes an estimate of depreciation and state and federal tax expenses and a 12.75% return on rate base.

[2] DWA ROR and ROM Recommendations (February 27, 2009), at p. 1.
[3] Amendment, at p. 30.
[4] Amendment, at p. 27.

For the latter two scenarios, state tax was calculated using 8.84% of the total revenue generated for the 20% return on margin and the 12.75% rate of return. Federal tax was calculated at 15% for the first $50,000, 25% for the next $25,000, 34% for the next $25,000, and 39% for over $100,000.

(b) Balance Sheet, Attachment #2

By this response, GHSC also provides a balance sheet, which conforms with Commission Standard Practices and uses plant costs contained in the Amendment. This balance sheet consists of 3 schedules (Schedule A - Balance Sheet (December 31, 2009) Projected; Schedule B – Sewer Plant in Service; and Schedule C – Reserve for Depreciation of Utility Plant).

1. Schedule A – Balance Sheet (December 31, 2009) Projected

Schedule A - Balance Sheet (December 31, 2009) Projected shows a total plant in service of $2,633,276.00, which includes $277,968.00 of legal expense associated with the ongoing easement litigation, $503,078.00 of accumulated depreciation of plant and total assets and total equity and liabilities of $2,140,084.00. A projected contribution in aid of construction includes $1,131,900.00 of collection sewers. Based on that amount, accumulated amortization of $503,125.00 was calculated using an average rate of 2.6%.

2. Schedule B – Sewer Plant in Service

Schedule B – Sewer Plant in Service is based on Table 1: "Estimated Plant Cost and Depreciation Reserve" of the Amendment.[5] Schedule B includes a total plant in service of $2,633,276.00, which includes intangible plant additions of $277,968.00 (legal expense associated with the ongoing easement litigation).

[5] Amendment, at p. 27.

3. Schedule C – Reserve for Depreciation of Utility Plant

In Schedule C – Reserve for Depreciation of Utility Plant, depreciation was calculated using an average of the suggested lives in Table 1: "Estimated Plant Cost and Depreciation Reserve" of the Amendment[6] and developed an average expected life of the plant items providing a average depreciation rate of 2.6%. For the sewer collection lines, the same expected life and amortization rate of 2.6% was established.

(2) DECLARATION OF CARLIE SMITH

Further in response to the September 8 ALJ's Ruling, GHSC attaches and incorporates by reference hereto Appendix B, "Declaration of Carlie Smith Affirming Financial Support." By this declaration, Mr. Smith, GHSC's President and principal shareholder, declares his commitment of financial support for GHSC.

Respectfully submitted,

October 9, 2009

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Sara Steck Myers
for

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[6] Amendment, at p. 27.

APPENDIX A

SUMMARY OF EARNINGS
GOLDEN HILLS SANITATION COMPANY, INC.
(Assumes Current Rates and Number of Customers)

10/8/2009 Attachment #1

PUC Acct. No. (a)	Account Description (a)	Current Rates (b)	20% Return on Margin (c)	12.75% Return on Rate Base (d)
	Sales:			
-	New Revenue Required	$ 100,216	$ 182,000	$ 296,300
460	Unmetered Revenue	$ 125,930	$ 125,930	$ 125,930
480	Other Revenue			
	Total Sales	$ 226,146	$ 307,930	$ 422,230
	% Increase Required		145%	235%
	Tax & Other Expense:			
403	Depreciation Expense	$ -	$ 29,826	$ 29,826
408	Taxes Other Than Income Taxes	$ 50	$ 50	$ 50
408.1	Property Tax			
408.2	Payroll Tax			
408.3	Other Tax and Licenses			
409	State Corp Income Tax (Franchise Fee)	$ 800	$ 3,957	$ 11,250
410	Federal Corp Income Tax		$ 6,120	$ 28,493
427	Interest Expense			
	Total Tax & Other Expense	$ 850	$ 39,953	$ 69,619
	Volume Related Expense:			
610	Purchased Water			
615	Purchased Power	$ 18,216	$ 18,216	$ 18,216
618	Other Vol. Rel. Exp.	$ 15,828	$ 15,828	$ 15,828
	Total Volume Related Expense	$ 34,044	$ 34,044	$ 34,044
	Non-Volume Related Expense:			
630	Employee Labor	$ 15,480	$ 15,480	$ 15,480
640	Materials	$ 11,784	$ 11,784	$ 11,784
650	Contract Work	$ 22,050	$ 22,050	$ 22,050
660	Transportation	$ 7,117	$ 7,117	$ 7,117
664	Other Plant Maintenance Expenses	$ 10,160	$ 10,160	$ 10,160
	Total Non-Volume Expense	$ 66,591	$ 66,591	$ 66,591
	Administrative & General Exp.:			
670	Office salaries	$ 17,300	$ 17,300	$ 17,300
671	Management	$ 55,000	$ 55,000	$ 55,000
674	Employee Pension & Benefits			
676	Uncollectible Accounts Expense	$ 3,540	$ 3,540	$ 3,540
678	Office Services & Rentals	$ 7,800	$ 7,800	$ 7,800
681	Office Supplies & Expense	$ 4,000	$ 4,000	$ 4,000
682	Professional Services			
684	Insurance	$ 22,945	$ 22,945	$ 22,945
688	Regulatory Commission Expense	$ 5,000	$ 5,000	$ 5,000
689	General Expenses	$ 9,076	$ 9,076	$ 9,076
	Total Gen & Admin. Expense	$ 124,661	$ 124,661	$ 124,661
	Expense Capitalized			
	Net Admin & Gen Expense	$ 124,661	$ 124,661	$ 124,661
	Total Operating Expense	$ 225,296	$ 225,296	$ 225,296
	Net Operating Income (Loss)	$ -	$ 42,681	$ 127,315
	Average Plant	$ 2,633,276	$ 2,633,276	$ 2,633,276
	Avg. Accum. Depreciation	$ 503,078	$ 503,078	$ 503,078
	Net Plant	$ 2,130,197	$ 2,130,197	$ 2,130,197
	Less Advances			
	Less Contributions	$ 1,131,900	$ 1,131,900	$ 1,131,900
	Mat'l & Supplies	$ -	$ -	$ -
	Plus: Working Cash	$ -	$ -	$ -
	Rate Base	$ 998,297	$ 998,297	$ 998,297
	Rate of Return	0.00%	4.28%	12.75%
	Return on Margin	0%	20%	64.69%

Notes:
(a) Source: Public Utilities Commission Uniform System of Accounts for Class B, C and D Water Utilities.
(b) Includes the current rates and number of customers. Does not include depreciation expense.
(c) Includes current rates and number of customers, estimated depreciation and tax expense and a return on margin of 20%.
(d) Includes current rates and number of customers, estimated depreciation and tax expense and a return on rate base of 13.61%.
(e) Total annual operating revenues and expenses were obtained from Table 3: Estimated Summary of Earnings Test Year 2009 Sewer Operations, included in Amendment to Application 08-08-011 (Filed August 19, 2008).

SCHEDULE A - BALANCE SHEET (DECEMBER 31, 2009) Projected

10/8/2009
Attachment #2

Line	Acct.	Assets	Balance	Acct.	Equity and Liabilities	Balance
1	101	Plant in service	$ 2,633,276	201	Common Stock (Corporations only)	$ 2,500
2	103	Plant held for future use		211	Other paid-in capital (Corporations only)	$ 860,396
3	104	Plant purchased or sold		215	Retained earnings	$ (802,638)
4	105	Plant construction work in progress		218	Proprietary capital	
5	108	Accumulated depreciation of plant	$ (503,078)	224	Long term debt	
6	114	Plant acquisition adjustments			Current Liabilities	$ 444,314
7	124	Other investments		252	Advances for construction	
8	131	Cash	$ 6,276	233	Customer Deposits	$ 487
9	141	Accounts receivable - customers	$ 1,611	255	Accumulated deferred investment tax credits	
10	142	Receivables from associated companies		282	Accumulated deferred income taxes - Acrs	
11	151	Materials and supplies	$ 2,000		depreciation	
12	174	Other current assets		283	Accumulated deferred income taxes - other	
13	180	Deferred charges		271	Contributions in aid of construction	$ 1,131,900
14				272	Accumulated amortization of contributions	$ 503,125
15		Total Assets	$ 2,140,084		Total Equity and Liabilities	$ 2,140,084

SCHEDULE B - SEWER PLANT IN SERVICE

Line	Acct	Title of Account	Balance Beg of Year	Plt Additions During year	Plt Retirements During year	Other Debits or (Credits)	Balance End of year
16	301	Intangible plant		$ 277,968			$ 277,968
17	303	Land	$ 76,240				$ 76,240
18	304	Structures	$ 47,380				$ 47,380
19	307	Wells					
20	317	Other source plant					
21	311	Pumping equipment	$ 156,622				$ 156,622
22	320	Treatment plant	$ 686,798				$ 686,798
23	330	Reservoirs					$ -
24	331	Mains (Outfall main & Collection Sewers)	$ 1,270,500				$ 1,270,500
25	333	Services and meter installations					$ -
26	334	Meters					$ -
27	339	Other equipment	$ 96,776				$ 96,776
28	340	Office furniture and equipment	$ 20,992				$ 20,992
29	341	Transportation equipment					$ -
30		Total Plant in service	$ 2,355,308	$ 277,968			$ 2,633,276

SCHEDULE C – RESERVE FOR DEPRECIATION OF UTILITY PLANT

Line	Item	Account 106 Plant	
32	Balance in reserves at beginning of year	$ 473,252	A. Method used to compute depreciation
33	Add: Credits to reserves during year		expense (Acct. 403) and rate.
34	(a) Charged to Account No. 403	$ 29,826	Straight line 2.6%
35	(b) Charged to Account No. 272		
36	© Charged to clearing accounts		B. Amount of depreciation expense claimed
37	(d) Salvage recovered		or to be claimed on utility property in
38	(e) All other credits		your federal income tax return for the year
39	Total credits	$ 29,826	covered by this report $ 0
40	Deduct: Debits to reserves during year		
41	(a) Book cost of property retired		
42	(b) Cost of removal		C. State method used to compute tax
43	© All other debits		depreciation. N/A
44	Total debits		
45	Balance in reserve at end of year	$ 503,078	
46	(1) Explanation of all other credits	N/A	
47	(2) Explanation of all other debits	N/A	

APPENDIX B

DECLARATION OF CARLIE SMITH
AFFIRMING FINANCIAL SUPPORT

I, CARLIE SMITH, could and would competently testify under oath based upon personal knowledge to the following if called to do so by the Commission:

I am the President and Chief Financial Officer of Golden Hills Sanitation Co., Inc., a California Corporation, which owns and operates the waste water treatment and reclamation facility near Tehachapi, California.

I own 211 shares of common stock of the company which is over 77% of the outstanding shares.

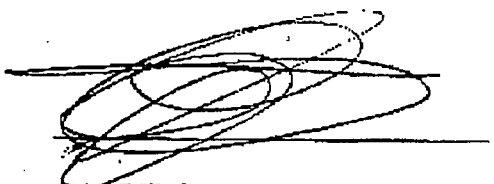
When I purchased my shares more than one year ago, I knew that I would be financially supporting the Corporation's waste water treatment and reclamation facility for some time in the future. I have been paying part of its expenses for at least 19 months.

I am committed to continue paying for a minimum of two years after September 2009 the operating expenses of Golden Hills Sanitation Co., Inc. The term "operating expenses" is meant to include currently expected operating costs but is not meant to include unforeseen catastrophic expenses, if any.

This financial commitment should not be construed to prevent the Company from requesting a rate change at some time in the future.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on October 3, 2009, at Bowling Green KY 42103



CARLIE SMITH, President

CERTIFICATE OF SERVICE

I, Sara Steck Myers, am over the age of 18 years and employed in the City and County of San Francisco. My business address is 122 - 28th Avenue, San Francisco, California 94121.

On October 9, 2009, I served the within document **RESPONSE OF GOLDEN HILLS SANITATION COMPANY, INC., TO ALJ'S RULING REQUESTING REVISED SUMMARY OF EARNINGS AND SMITH DECLARATION** in A.08-08-011, with service on the A.08-08-011 service list (attached) in the manner prescribed by the Commission's Rules of Practice and Procedure, and with additional and separate delivery of paper copies by U.S. Mail to Assigned Commissioner Bohn and Assigned ALJ DeBerry, at San Francisco, California.

Executed on October 9, 2009, at San Francisco, California.

/s/ SARA STECK MYERS
Sara Steck Myers

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A.08-08-011 (GHSC CPCN)
October 9, 2009

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FILED
08-20-09
04:59 PM

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

In the Matter of Application of Golden Hills Sanitation Co, Inc., A California corporation, for a Certificate of Public Convenience and Necessity to Maintain and Operate an existing Public Utility Wastewater System for the Golden Hills Community Near Tehachapi in Kern County and to Affirm Rates for Service and Issue Stock.	Application No. A.08 08 0 11 (filed August 19, 2008)

PROTEST OF THE GOLDEN HILLS COMMUNITY SERVICES DISTRICT

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Attorneys for GOLDEN HILLS COMMUNITY SERVICES DISTRICT
A political subdivision of the State of California

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

In the Matter of Application of Golden Hills Sanitation Co, Inc., A California corporation, for a Certificate of Public Convenience and Necessity to Maintain and Operate an existing Public Utility Wastewater System for the Golden Hills Community Near Tehachapi in Kern County and to Affirm Rates for Service and Issue Stock.	Application No. A.08 08 0 11 (filed August 19, 2008)

PROTEST OF THE GOLDEN HILLS COMMUNITY SERVICES DISTRICT

Pursuant to Rule 2.6 of the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), the Golden Hills Community Services District ("District") hereby formally protests the Golden Hills Sanitation Co, Inc.'s ("Applicant") Application No. 08-08-011 ("Application") and the further amendment thereto dated July 12, 2009 ("Amendment").

I. INTRODUCTION.

While the District is not outright opposed to the CPUC's regulation of the Applicant in its current form and number of connections, so long as the Commission can assure the public that the Applicant and its system and operations are worthy of a certificate through a thorough independent investigation,[1] the District must none-the-less protest the Amendment as it does not

1 For the sake of brevity, the District hereby incorporates the applicable portions of its prior Protest, and the exhibits thereto electronically, filed on May 28, 2009. In particular, the District draws attention to those portions of the Protest which expressly ask that the CPUC conduct a thorough investigation of the Applicant and its entire system to ensure its soundness. This request is especially pertinent in light of the Applicant's claim that a 25 year old facility is state of the art given the fact that the Applicant's own engineer has fairly recently expressed serious concerns related to plant's safety and the District's provision of evidence showing illegal discharges from the plant's emergency ponds, which the Applicant now claims hold primary or secondary treated effluent, onto District

contain any assurance that the Applicant will not use the Certificate as a means to force expansion through the use of the provisions found in the Plumbing Code.

Additionally, the Amendment contains serious legal and factual errors and inconsistencies, which the District must address.[2] In particular, the Amendment falsely asserts that the District does not have the power to provide sanitary waste services within the District and it falsely claims rights to an effluent discharge area on District lands that does not exist. Additionally, as drafted, the Amendment seeks to expand the Applicant's purported service area into Tract 3003, even though the Applicant has no existing service connections in that tract. Moreover, the District must challenge the Applicant's reliance on an outdated CEQA document which cites to effluent discharge on one piece of property which is currently the subject of litigation and/or a second piece which is owned by the District and which the Applicant has no rights to use.

II. PROTEST.

The District respectfully requests that the Commission reject the Application as amended until such time as:

1) The Applicant can assure the Commission, the District and the residents of Golden Hills in writing that the issuance of a Certificate will not result in expansion of the Applicant's purported service area and/or number of connections through the operation of the Plumbing Code; and,
2) The Applicant removes Tract 3003 from its Application as Amended, as there are no existing connections within that tract; and,

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property. In this regard, the District would again like to remind the Commission that the photographs provided clearly show active discharging to the upper pond during the illegal pumping onto District property. This conclusion is unavoidable as later pictures show an elevation in the upper ponds level which is then overflowing into the lower pond. This request is further necessitated by the discrepancies found in the Applicant's Application and Amendments, including the unexplained vast disparity in operating costs and losses between those two documents.

2 While not particularly relevant to the proceedings at this stage, in order to preserve a proper record of these proceedings and the events leading to them, the District must again assert its objection to the Applicant's versions of events involving the Applicant's offer to sale the plant to the District. In that regard, the District hereby references and incorporates as Exhibit A, the letters to the Honorable Judge DeBerry of July 17, 2009 and July 20, 2009 and the exhibits thereto.

3) The Applicant provides a proper exhibit showing the location of each individual existing sewer connection that is in the service area sought by the Applicant; and,
4) The Applicant can properly comply with CEQA rather than rely on an outdated and defective CEQA document which cites to effluent discharge sites that are either questionable due to ongoing litigation or unavailable to the Applicant outright; and,
5) The Applicant can properly inform the public of the issues through an application free of substantive errors and inconsistencies.

Additionally, the District respectfully requests that the Commission take all due time and diligence in investigating and hearing this matter, with local public hearing opportunity, as the affect on the residents of Golden Hills by the Commission's decision, whatever that decision may be, will be significant due to the competing interests of the public. In contrast, the Applicant has already waited over a quarter-century to apply for a certificate and thus any argument related to a need for expediency is muted as the status quos may be maintained during the investigation.

A. THE DISTRICT HAS A MATERIAL INTEREST IN THIS PROCEEDING AS IT IS STATUTORILY EMPOWERED AND CURRENTLY PROVIDES A COMPETING SERVICE.

The District is a political subdivision of the State of California formed under the California Community Services District Law through an election in 1966. The District is governed by a five-person Board of Directors serving four-year terms after being elected by the residents of the District on a rotating bi-annual basis at general elections. At the time of its formation and at every time since then, the District has maintained, among other powers, the express authority to provide for the "collection, treatment, or disposal of sewage, waste and storm water of the district and its inhabitants"[3] ("sanitation powers"). While this express

3 This is the direct quote from former Government Code section 61600(b). That section along with the entirety of the Community Services District law was thoroughly updated on January 1, 2006. The new section 61100(b) currently provides that the District is authorized to "[c]ollect, treat, or dispose of sewage, wastewater, recycled water, and storm water, in the same manner as a sanitary district, formed pursuant to the Sanitary District Act of 1923."

authority provides the District with exclusive right to maintain a sewer collection system within its boundaries, it also provides that the District may at its sole discretion provide that properties within its boundaries use a sewage collection system of the District's choice.

Despite claims to the contrary by the Applicant,[4] presently, and at all times relevant to this matter, the District has actively exercised this authority throughout the District with the exception of the few properties which the District has allowed to tie into the Applicant's waste treatment facility.[5]

B. THE APPLICANT EXISTS TODAY ONLY BECAUSE IT ENTERED INTO A FORMATION AGREEMENT WITH THE DISTRICT.

In 1983, the Applicant and the District entered into an agreement wherein the Applicant would construct a wastewater treatment facility and the necessary piping to service a small number of lots that the Applicant's shareholders wished to develop in a manner that was not conducive to onsite septic for various reasons. ("1983 Agreement") While the Applicant and its agents have gone to considerable lengths trying to obfuscate and confuse the issue, the simple truth is that the 1983 Agreement ***only*** provided the Applicant's shareholders with a limited number of specific connections in exchange for constructing the plant and the agreement specifically provided that upon its completion and a successful demonstration run, the wastewater treatment facility and its related systems would be transferred to the District for operation by the District. Likewise, the Mitigated Negative Declaration supplied by the Applicant expressly provides that the "[u]pon achieving operational status, the plant will be deeded over to the District." Additionally, it is also readily apparent that had it not been for this

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4 Interestingly, it should be noted that the Applicant's argument in this regard contradicts itself as it both asserts that the District's power could lay dormant for over 15 years only to be activated by the District's entrance into the 1983 agreement, while simultaneously asserting that because the District has not built a sewer system it has somehow lost that authority and right to now do so if it so chooses.

5 It should be noted that current connections to the Applicant's system amounts to roughly five percent of the District's current total water customers and less than three percent of the District's customers at full build out of the tracts currently subdivided within the District.

1983 Agreement and the contractual representations of the Applicant therein, the Applicant would not exist today.

Interestingly, it appears that the Applicant now asserts in the Amendment that the 1983 Agreement required the transfer and acceptance of the plant by the District when certain conditions were met. This is, of course, inconsistent with the Applicant's prior assertion found in the Applicant's Data Request Response, which asserted that the Applicant was not under a duty to transfer the plant and the District had to express a subsequent "desire to operate the plant."[6] Adding further inconsistencies on this matter is page 9, line 8 of the Data Request, wherein Mr. Hilderbrand asserts under penalty of perjury that the "[Applicant] never notified the District that the Company wished to transfer the sewer plant to the District." In direct contrast, at a public informational meeting called by the District and held on August 4, 2009, Mr. Hilderbrand expressly asserted to the assembled public that the Applicant had in the past offered to transfer the facility to the District free of charge.

Of course in this instance, one need not only rely on assertions of the parties or the simple wording of the 1983 Agreement or the Mitigated Negative Declaration alone to undermine any assertion of the Applicant that it had no duty to transfer the plant. The Applicant's actions over the last quarter-century and the facts surrounding the construction of the wastewater treatment facility, and the necessary piping, can only point to the conclusion that the wastewater treatment facility and its associated infrastructure were to be transferred to the District for operation upon its completion and successful demonstration run. Fundamental in demonstrating this conclusion is the simple fact that the 1983 Agreement only provides the District with discharge easements and the District owned the land underlying the plant until the District quit claimed that land in 2001 as part of the District's declaration of material breach and rescission based on a failure of consideration.[7] Even more telling is the simple fact that the Applicant has been in direct violation of Public Utilities Code Section 1001 for over a quarter-century.

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6 Interestingly, the Applicant then asserts in the second sentence following that the Applicant could force the plant upon the District and at an indefinite time in the future.

7 The District anticipates that the Applicant will try and counter this fact by citing to an unrecorded modification of the 1983 Agreement which the Applicant submits as Applicant "Exhibit K". Upon close inspection of Exhibit K it

C. THE APPLICANT IS SEEKING TO CAPITALIZE ON ITS CONTRACTUAL BREACHES.

Contrary to the repeated assertions of the Applicant, the District did not simply declare unilaterally that it would not be bound by the 1983 Agreement. Rather, the record clearly demonstrates that in accordance with Civil Code section 1689, the District properly and lawfully declared a material breach and failure of consideration on the part of the Applicant only after the District provided the Applicant with repeated verbal and written notices of the breaches and those concerns went unaddressed by the Applicant.

Given this background, the transfer of the sewage treatment plant never occurred and as a result black letter contract law provides that due to the lack of consideration, the Applicant lost all rights to any future connections, regardless of whether they were considered a part of the original agreement. Quite simply put, the declaration of breach froze the Applicant in the form it held at the date of the declaration and any further connections or expansion of the plant can only be accomplished through a new agreement with the District and to do otherwise will invade the District's service area.

It should be noted that the statue of limitations for challenging the declaration of breach has long since passed and that during the roughly eight years since that declaration the District is of the belief that the Applicant was well aware of the ramifications of the breach declaration and acted in conformity therewith.

In particular, it should be noted that the original Application fails to provide for any stand-by charges paid by the lands owned by Mr. Smith. In direct contrast, after the District

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is noted that there is no indication that it was actually recorded and the District is presently unaware of any such recording. Moreover and most importantly, "Exhibit K" is not signed by any representative of the District as evidence by page 3 of "Exhibit K" which does not contain a notarized signature of an authorized District representative. (See notation on page 3 of "Exhibit K" which provides that "[Hamilton Richardson] signed in wrong place".)

made an issue of that very fact the Applicant Amended its application and now claims that Mr. Smith has in fact made such payments.[8]

The Applicant, and more precisely Mr. Hilderbrand and/or Mr. Smith, now seek to avoid the consequences of the Applicant's material breach as it relates to the lost connections associated with the Applicant's condominium project,[9] while simultaneously gaining and profiting from the Applicant's substantive and material breaches of its formation agreement, through an Application which will provide the Applicant a mandated profit and the ability to force connections and expansion upon the residents of Golden Hills through the operation of the Plumbing Code.

D. THE AMENDED APPLICATION SEEKS TO EXPAND THE APPLICANT BEYOND ITS CURRENT NUMBER OF CONNECTIONS THROUGH THE OPERATION OF PROVISIONS FOUND IN THE PLUMBING CODE.

Despite the Amendment's claims to the contrary, the District is concerned, given the actions of the Applicant and comments made by Mr. Hilderbrand, that the Amendment is specifically drafted in a manner so that the Applicant may expand beyond its current connections without further review of the Commission through the operation of Plumbing Code sections 713 *et seq.* Given these comments and the possible operation of Plumbing Code sections 713 *et seq,* the District has no choice but to protest the Amendment unless the Commission expressly limits the Certificate to the current number of connections without any possible forced expansion of the system by operation of Plumbing Code sections 713 *et seq.*

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8 Troublingly, the original Application showed a loss of $15,933 with no stand-by contribution from Mr. Smith. In contrast, the Amendment unexplainably increases the number of active connections and it shows payments of stand –by contributions from Mr. Smith to the Applicant. Interestingly, those changes alone are enough to provide a profit to the Applicant under its original Application. Along this point it should be noted that the Amendment shows roughly a tripling of costs to the Applicant for Office and Management salaries and an unexplained line item of roughly $35,000 for presumably one time contract work.

9 The District makes reference to a condominium project as the District is of the understanding and belief that the Applicant has in the past, and plans in the future, to construct a condominium project on a parcel zoned high density, which the Applicant claims has entitlement to 65 connections.

As the Applicant as asserted that the Amendment only seeks a Certificate for its current connections, the District anxiously awaits a stipulation from the Applicant to a Certificate which expressly limits the Applicant to its current number of connections without any possible forced expansion through the operation of the Plumbing Code.

E. THE APPLICANT DOES NOT CURRENTLY HAVE ANY CONNECTIONS WITHIN TRACT 3003.

Despite the Applicant's claims to the contrary, the Applicant does not have any existing sewer connections, or connection rights, within Tract 3003 and thus its inclusion is an expansion of the Applicant's connections. Setting aside for the moment that Mr. Smith no longer has connection rights for that project, the District understands and believes based upon the Application that the Applicant believes Mr. Smith's condominium project is within Tract 3003. The District, however, has reviewed the boundaries of Tract 3003 and found that Mr. Smith's condominium project does not lie within the boundaries of that tract.

F. FAILURE TO PROPERLY COMPLY WITH THE DEMANDS OF CEQA.

The District respectfully requests that the Commission reject the Amended Application as the CEQA documentation provided is outdated and defective due to new information. In particular, the Applicant attempts to rely upon a 30 year old Mitigated Negative Declaration which provides that the plant's effluent will be used "for the irrigation application" on the Golden Hills golf course. The golf course, however, is no longer in existence and the District understands and believes that that the irrigation infrastructure either no longer exists or has been compromised to the point that the use of the golf course for irrigation is no longer a viable option.

Likewise, the Mitigated Negative Declaration is outdated and cannot be relied upon as it makes no mention of long term ongoing storage in Tom Sawyer Lake.[10] Additionally, it must

10 On this point it should be noted that the environmental checklist is marked "NO" to the issue if the project has any "Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved, oxygen or turbidity."

not be discounted that the continual use of Tom Sawyer Lake is in jeopardy due to ongoing litigation related to odors from the Lake and it would therefore be improper for the Commission to rely upon the CEQA documentation provided by the Applicant.

Additionally, the Applicant cannot rely on the Mitigated Negative Declaration's cited future disposal alternative, as the Applicant has no rights and/or easements to irrigate any District Land and no infrastructure for such task has ever been built or will be built.[11]

Moreover, at the very least the Mitigated Negative Declaration cannot be relied upon without some current CEQA study and documentation due to the changes in the project itself, the environment and subsequent events over the last 30 years. (see *Snarled Traffic Obstruction Progress v. City and County of San Francisco*, (1999) 74 Cal App 4th 793)

Furthermore, the Applicant's request should be rejected on CEQA grounds as the Applicant has presented an Application and Amendment which violates the prohibition on "piecemeal" environmental review.

Finally, the Applicant's attempted reliance on the general exception found in CEQA Guideline section 15061(b)(3) in order to ultimately discharge 100,000 to 200,000 gallons of effluent to Tom Sawyer Lake is misplaced. Unquestionably, the discharge of even the current claimed flow of roughly 25,000 gallons of effluent to Tom Sawyer Lake has a significant impact on the environment under the terms of CEQA and thus it cannot be credibly asserted that the "there is no possibility that the activity in question may have a significant effect on the environment" as required by the cited exception. Likewise, the Applicant cannot rely on CEQA Guideline section 15301 as the issuance of a Certificate will possibly lead to mandated expansion under the provisions of the Plumbing Code.

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11 It should also be noted that while the Applicant has asserted that there are 85 acres of usable meadow, that figure is incorrect. In fact, the Brite Creek Canyon consists of roughly 40 acres of meadow with a year round stream running through it, and 45 acres of steep sidehill area.

G. FAILURE TO SHOW A RELIABLE DISPOSAL SITE FOR THE PLANT'S EFFLUENT

As mentioned, the disposal site currently used by the Applicant is Tom Sawyer Lake. The use of that disposal site, however, is subject to ongoing litigation and thus it would be improper and poor public policy for the Commission to grant a Certificate until such time as the Applicant can assure the Commission that it has the proper easements and disposal rights needed to operate the plant from all involved parties, including the California Regional Water Quality Control Board.

Possibly anticipating this assertion by parties to this Application or members of the public, the Applicant has asserted that they are "prepared to implement all necessary diligence to utilize Brite Creek Canyon" as a disposal site. The Commission must reject this assertion, however, and by the extension the Application at this time, as the Applicant has no rights to such a discharge area, because that property is not owned by the Applicant and there are no easements for such discharge. Furthermore, such a discharge into Brite Creek Canyon will require additional permits from other regulatory agencies.

H. FAILURE TO IDENTIFY COMPETING SERVICES.

Despite the Applicant's claims to the contrary, claims which often contradict themselves in the same document, there can be no doubt that the District currently provides a competing service through its acceptance and oversight of septic systems. Additionally, there can be no doubt that the District has the express authority to provide sewer service now and in the future if it so chooses because it has not divested itself of this power.

Quite simply, the District has never divested itself of sanitation powers as to do so would require a direct vote of the District's constituents prior to 2006, and post 2006 it would have required that the District pass a referenable ordinance; neither of which have occurred and thus the power is still an ***active*** power of the District and one which it uses on a daily basis.

The Applicant of course knows there is a directly competing service within the area it wishes to service and signifies as much during the PHC of May 29th when Counsel for the

Applicant, Mr. Sill, states that the District has a "conflict of interest" because of the competing service provided by the District and the potential revenue loss to the District. Unexplainably, however, the Applicant now asserts that there are no potential conflicts with competing service providers.

I. FAILURE TO PROPERLY IDENTIFY THE SOUGHT AFTER SERVICE AREA.

The District must assert that the Amendment is procedurally defective as it does not properly set forth the Applicant's service area which, per the express claim of the Amendment, is limited to specific connections rather than tracts. This is especially troubling given the unexplained increase in connections between the dates of Application and Amendment.

J. UNEXPLAINABLE INCONSISTENCIES IN OPERATING TABLES.

While the District understands that the ratesetting will be held over for a second phase, the District must none the less object to the Amendment due to its unexplained discrepancies in the Annual Operating Costs shown in the Application and the Amendment. As example, on page 13 of the Application the Applicant asserts that the number of connections is 155 and yet on the Amendment the Applicant asserts that the number of connections is 168. Additionally, the Application makes no mention of stand-by fees paid by Mr. Smith for his condominium project and yet the Amendment shows stand-by fees paid by Mr. Smith. Interestingly, the current revenue of the Applicant as shown in the Amendment, without any increase in rates, provides the Applicant with an $8,500 profit when compared to the total expenses, depreciation and taxes in that Application. Given these wide and unexplained discrepancies the District must question the financial reporting of the Applicant and ask that the Commission to fully investigate the Applicant's financial assertions before any rulings are made.

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III. PROCEDURAL REQUIREMENTS.

A. Categorization.

The District agrees that the proceeding should be categorized as ratesetting as it does not clearly fit within any of the other categories.

B. Need For Hearing.

The District understandably does not agree with the Applicant's assessment on the need for both an evidentiary hearing and public witness hearings. For the reasons stated above, the District strongly believes that an evidentiary hearing and public witness hearings are necessary in this proceeding, so that a fully developed record may be assembled to guide the Commission in its consideration of the Application.

Additionally, given the expansive service area and new disposal area indicated by the Applicant and the Commission's need for a fully developed record to guide its considerations, the District strongly believes that more than one public witness hearing is necessary in this proceeding so that the public may have a fully developed understanding of the Application and the Applicant. The need for numerous local public witness hearings is especially evident when you consider the magnitude of the change sought by the Applicant as applied to the average District constituents and their properties and the potential impact being proposed to District-owned land.

C. Issues to be Considered.

The issues which the District believes should be addressed and considered by the Commission are set forth above.

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D. Proposed Schedule.

If this Application is set for an evidentiary hearing and public witness hearings as requested, the schedule proposed by the Applicant will need to be modified appropriately given the parties time to conduct discovery, examine witnesses and submit prepared testimony.

IV. CONCLUSION.

In conclusion, the District respectfully requests that the Commission reject the Application until such time as the Applicant can properly comply with CEQA and assure the Commission in writing that the issuance of a Certificate will not result in expansion of the Applicant's purported service area. Additionally, the District respectfully requests that the Commission reject the Application until such time as the Applicant submits an application free of substantive errors and inconsistencies.

Dated 8-20-09

Respectfully submitted,

THE LAW OFFICES OF YOUNG WOOLDRIDGE LLP

By: Phillip W Hall

Phillip Hall, Esq.
1800 30th Street, Fourth Floor
Bakersfield, CA 93301
Telephone: (661) 327-9661
Facsimile: (661) 327-0720
Email: phall@youngwooldridge.com

Attorneys for GOLDEN HILLS COMMUNITY SERVICES DISTRICT

VERIFICATION

I am an officer of Golden Hills Community Services District, and am authorized to make this verification on its behalf in the above entitled matter; the statements in the foregoing document are true of my own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 8-20-2009 at Tehachapi, California.

William C. Fisher, General Manager
Golden Hills Community Services District

EXHIBIT "A"

THE LAW OFFICES OF
Young Wooldridge
A LIMITED LIABILITY PARTNERSHIP • EST. 1939
PHILLIP W. HALL, ASSOCIATE

July 17, 2009

VIA EMAIL AND FIRST CLASS MAIL

Honorable Bruce DeBerry
California Public Utilities Commission
Division of Administrative Law Judges
505 Van Ness Ave., Room 5043
San Francisco, CA 94102-3214
bmd@cpcu.ca.gov

Re: In re Application of Golden Hills Sanitation Company, Inc
Application No. A08-08-011

Dear Mr. DeBerry,

This letter is sent to apprise you of new developments related to Application A08-08-011 and in part to seek your preference on whether a formal motion to stay the proceedings is needed or if this letter will suffice.

On July 1, 2009, the Board of Directors determined that the District would initiate the process of acquiring the assets of the Golden Hills Sanitation Company through condemnation. In a letter, received by this office on July 2, 2009, counsel for the Golden Hills Sanitation Company informed the District that the waste water treatment facility was for sale. In accordance with California law on July 16, 2009, the District sent notice to the registered owner of the facility that the District would consider a resolution of condemnation on August 12, 2009.

Given the above developments, the District would like to seek a stay in the proceedings before the CPUC for the sake of judicial economy, as these proceedings may very well become moot in the near future.

If you have any questions, or concerns, please do not hesitate to contact me.

Respectfully,



Phillip W. Hall, Esq.
of Young Wooldridge, LLP
General Counsel for the Golden
Hills Community Services District

CC: Richard A. Sill, Esq. (by email and First Class Mail)
Paul M. Porter (by email and First Class Mail)
Theresa A. Goldner (by email and First Class Mail)
Fred L. Curry (by email and First Class Mail)
Mohsen Kazemzadeh (by email and First Class Mail)
Mike Sides (by email and First Class Mail)
Matt Constantine (by email and First Class Mail)
Clint Hilderbrand (by email and First Class Mail)
William M. Nelson (by email and First Class Mail)
Clayton J. Hix (by email and First Class Mail)
Sara Steck Myers (email and First Class Mail)
Kevin H. Brogan (by email and First Class Mail)
Milton Wetzel (First Class Mail)
William L. Nelson (First Class Mail)

THE LAW OFFICES OF
Young Wooldridge
A Limited Liability Partnership • Est. 1939
Phillip W. Hall, Associate

July 20, 2009

VIA EMAIL AND FIRST CLASS MAIL

Honorable Bruce DeBerry
California Public Utilities Commission
Division of Administrative Law Judges
505 Van Ness Ave., Room 5043
San Francisco, CA 94102-3214
bmd@cpcu.ca.gov

Re: In re Application of Golden Hills Sanitation Company, Inc
Application No. A08-08-011

Dear Honorable Judge DeBerry,

This letter is sent in response to Mr. Sill's letter of July 17, 2009 which asserts that my letter "does not state recent events accurately". Contrary to Mr. Sill's assertions, however, my letter does state the events accurately as they occurred.

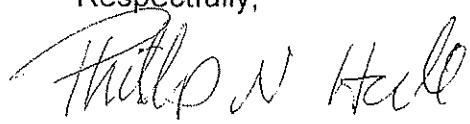
Attached to this letter is a copy of Mr. Stead's letter dated July 1, 2009 which was received by this office on July 2, 2009. In that letter, Mr. Stead expressly states that "[he had] been authorized to advise [me] that the facility is for sale for $3 million." Also attached to this letter is my response letter to Mr. Stead dated July 2, 2009, in which I asserted that I would be happy to pass along his offer and I requested additional information. While not provided for in that letter, the request for additional information was done in part because the Mr. Stead had previously provided in a settlement conference filing that the Company had offered to "turn over the keys" to the facility to A.B. Land for $550,000 and the mutual release of liabilities.

Mr. Conant sought and met with Mr. Stead in part to discuss the offer letter cited above and my request for additional information and in part as a

courtesy to inform Mr. Stead that the District was about to initiate the process of condemnation.

If you have any questions, or concerns, please do not hesitate to contact me.

Respectfully,



Phillip W. Hall, Esq.
of Young Wooldridge, LLP
General Counsel for the Golden
Hills Community Services District

CC: Richard A. Sill, Esq. (by email and First Class Mail)
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SAN JOSE
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JUL 2 2009

IN REPLY REFER
TO OUR FILE NO.
Bakersfield
056049/063336

July 1, 2009

Phillip Hall, Esq.
YOUNG WOOLDRIDGE
1800 30th Street
Bakersfield, CA 93301

Re: Golden Hills Sanitation Company

Dear Mr. Hall:

Since your client, Golden Hills Community Service District has taken such an interest in the operations of our client, Golden Hills Sanitation Company, I have been authorized to advise you that the facility is for sale for $3 million. Please convey this notice to your clients at your earliest convenience.

I also look forward to hearing from you with regard to deposition dates for Mr. Fisher, and the PMK for the Community Service District.

Thank you for an anticipated immediate attention to these matters.

Very truly yours,

Calvin R. Stead

CRS:lj

THE LAW OFFICES OF
Young Wooldridge
A Limited Liability Partnership • Est. 1939
Phillip W. Hall, Associate

July 2, 2009

VIA FACSIMILE 322-4628
& U.S. MAIL

Calvin R. Stead, Esq.
Borton Petrini, LLP
PO Box 2026
5060 California Avenue, Suite 700
Bakersfield, Ca 93303

Re: Letter dated July 1, 2009 – Facility Sale Offer

Dear Mr. Stead:

I have received your letter of July 1, 2009 this afternoon in which, among other things, you advise that the GHSC facility ("Facility") is for sale for three million dollars and you request that I notify the District of that fact.

I of course would be happy to pass along this information to the Board of Directors at their next regular Board meeting. To facilitate that transmission and so that the Board may fully address and consider your offer, could you please provide me with following information before Thursday, July 9, 2009 so that said information may be circulated to the Board in their Board packets:

1. A description of all the Facilities' assets and liabilities (the District would acquire and be required to assume for the $3 million);
2. A listing of all entities/persons, other than Golden Hills Sanitation Company, Inc., if any, which claim to own or have an interest in the Facility; and
3. Any appraisals and other information that supports using $3 million as the value of the Facility.

As always, if you have any questions, or concerns, please do not hesitate to contact me.

Respectfully,

Phillip Hall, Esq.
of Young Wooldridge, LLP

cc: Golden Hills Community Services District

CERTIFICATE OF SERVICE

I, Pamela A. McNemar, certify:

I am employed in the County of Kern, California, am over eighteen years of age and am not a party to the within entitled cause. My business address is 1800 30th Street, Fourth Floor, Bakersfield, California 93301.

On August 20 2009, I caused the following to be served:

PROTEST OF THE
GOLDEN HILLS COMMUNITY SERVICES DISTRICT

Via electronic mail to all parties on the service list A08-08-011 who have provided the Commission with an electronic mail address and by First class mail on the parties listed as "Parties" and "State Service" on the attached service list who have not provided an electronic mail address.

Pamela A. McNemar

PROCEEDING: A0808011 - GOLDEN HILLS SANITATION
FILER: GOLDEN HILLS SANITATION CO., INC.
LIST NAME: LIST
LAST CHANGED: AUGUST 6, 2009

Parties

PAUL M. PORTER
ATTORNEY
HILL, FARRER & BURRILL, LLP
300 S. GRAND AVE, 37TH FLOOR
INC.
LOS ANGELES, CA 90071
FOR: AB LAND DEVELOPMENT, INC.

RICHARD A. SILL, ESQ
2528 HONOLULU AVENUE
MONTROSE, CA 91020
FOR: GOLDEN HILLS SANITATION CO.,

PHILLIP W. HALL
THE LAW OFFICES OF YOUNG WOOLDRIDGE, LLP
1800 30TH STREET, 4TH FLOOR
BAKERSFIELD, CA 93301-5298
FOR: GOLDEN HILLS COMMUNITY SERVICES
DISTRICT
INC.

CLINT HILDERBRAND
GENERAL MANAGER
GOLDEN HILLS SANITATION CO., INC.
PO BOX 1468
TEHACHAPI, CA 93581
FOR: GOLDEN HILLS SANITATION CO.,

Information Only

CLAYTON J. HIX
HILL FARRER & BURRILL LLP
ONE CALIFORNIA PLAZA, 37TH FLOOR
300 SOUTH GRAND AVENUE
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MATT CONSTANTINE
KERN COUNTY ENVIRONMENTAL HEALTH DEPT.
2700 M STREET
DISTRICT
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MIKE SIDES
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GOLDEN HIGHLANDS HOA
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TEHACHAPI, CA 93581

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ATTORNEY AT LAW
122 28TH AVE.
SAN FRANCISCO, CA 94121

State Service

BRUCE DEBERRY
CALIF PUBLIC UTILITIES COMMISSION
DIVISION OF ADMINISTRATIVE LAW JUDGES
ROOM 5043
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

FRED L. CURRY
CALIF PUBLIC UTILITIES COMMISSION
WATER AND SEWER ADVISORY BRANCH
ROOM 3106
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MOHSEN KAZEMZADEH
CALIF PUBLIC UTILITIES COMMISSION
WATER AND SEWER ADVISORY BRANCH
AREA 3-C
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

EXHIBIT A

RECORDING REQUESTED BY:

GOLDEN HILLS C.S.D.

WHEN RECORDED MAIL TO:

GOLDEN HILLS C.S.D.
Post Office Box 1633
Bakersfield, CA 93302

034488

BOOK 5592 PAGE 513

AGREEMENT FOR CONSTRUCTION AND OPERATION OF THE GOLDEN HILLS COMMUNITY SERVICES DISTRICT, COMMUNITY SEWER SYSTEM

THIS AGREEMENT entered into on the 22nd day of March, 1983, between GOLDEN HILLS COMMUNITY SERVICES, a political subdivision of the State of California herein referred to as "District," and GOLDEN HILLS SANITATION CO., INC., a California Corporation, herein referred to as "GHSC."

W I T N E S S E T H:

Section 1. WHEREAS:

(a) GHSC proposed to construct a sewer system to serve certain property within the District. Said system shall have a minimum of 100,000 gallons per day capacity and capable of serving a minimum of 288 residential services.

(b) GHSC proposes to dedicate said system to District to be operated as a Community Sewer System.

(c) GHSC desires to reserve the use of the initial capacity of the system for certain areas within District described in Exhibit "A" attached hereto and incorporated herein by reference.

(d) GHSC proposes to construct certain facilities in excess of the needs of the GHSC.

Section 2. NOW THEREFORE, IT IS AGREED as follows:

1. GHSC shall construct the sewer system described herein according to the standards of the District and according to the plans and specifications approved by the District. Construction shall commence prior to May 1, 1983, and be completed within six

months after commencement. If GHSC is delayed at any time in the progress of the work by labor disputes, fire, unusual delays in transportion, unavoidable casualties, causes beyond GHSC's control or by any cause which the District engineer may determine justifies the delay, then the contract time shall be extended for such reasonable time as the District engineer may determine.

2. The design and operation of the plant shall meet all requirements of the California Water Quality Control Board.

3. Prior to construction on any properties owned by District, GHSC will notify the General Manager of District for purposes of posting notices of Non-Responsibility. GHSC shall give notice to all contractors, subcontractors and material suppliers of the non-responsibility of District for the construction and initial operation of the system.

4. GHSC or its contractor shall supply District with a Faithful Performance Bond in an amount equal to the cost of construction of the entire project prior to commencement of the project.

5. GHSC shall name District as additional insured on a general liability policy not less than $1,000,000 prior to construction, with a thirty (30) day notice required to District prior to cancellation. A certificate of insurance shall be submitted to District prior to commencement of construction.

6. Upon completion, GHSC shall furnish to District a certificate from a registered engineer who has been approved by the District that the sewer system was constructed and tested in conformance with the plans and specifications and good engineering practices. GHSC shall also furnish District with a maintenance bond in the sum of 20% of the actual cost of construction, said bond shall have a term of one year. GHSC shall enter a service contract with the sewer plant manufacturer for a

period of one year after completion. GHSC shall deliver to District a complete set of "as built" plans together with an operating manual. GHSC shall furnish to District a deed or bill of sale conveying the sewer system and a deed conveying all sites and easements necessary for the operation, maintenance and service of completed system to the extent said sites and easements are not owned by District. An easement for discharge of effluent on the golf course shall be granted to District providing the right to discharge effluent for a period of one year after acceptance by the District, and then shall be terminated only upon one years written notice. Permanent easements shall be granted to District for Tom Sawyer Lake for ponding of effluent and for all pipeline necessary for the operation of the system.

7. GHSC shall convey the system to District upon final acceptance by the Board of Directors of District free and clear of all liens and encumbrances. Said conveyance shall be a condition precedent to any obligation of the District to operate or maintain said sewer system. District will accept said sewer system and will operate and maintain same upon six months successful operation by GHSC. GHSC shall prior to acceptance, reimburse District for all engineering and legal expenses incurred by District in the planning or construction or completion or operation of the sewer system in excess of $5,000 but not to exceed the total sum of $15,000.

8. In the event that all connections to properties described in Exhibit "A" attached hereto and incorporated herein by reference are not made at the time the District assumes responsibility of the operation of the sewer system, any additional services and pipelines shall be at the sole cost of the GHSC or the owners of the property being served. Prior to connection of the additional properties within the areas described in Exhibit "A", all easements and rights of way shall be conveyed to District free of all

liens and encumbrances, together with a deed or bill of sale for any additional sewer facilities located in said additional easements. District shall, upon acceptance, be responsible for maintenance of facilities to the property line of each connection.

9. District agrees to make reasonable efforts to impose connection fees, standby or availability charges, use charges or to impose taxes to the extent allowed by the constitution and statute of the State of California for purposes of operating, maintaining and repairing of said system and related sites or easements. Distric further agrees to operate and maintain said sewer system in the most economically feasible method within good engineering practices.

10. After acceptance or until such time as District receives revenues as described in paragraph 9 above, in a sufficient amount to enable District to operate and maintain said system as determined by the Board of Directors of District, GHSC or the property owners listed in Exhibit "A", in the event GHSC is dissolved, will pay District on demand, from time to time, funds sufficient to operate and maintain the sewer facilities as determined by the Board of Directors of District. In the event GHSC or the owners of property listed in Exhibit "A", do not pay said funds within thirty (30) days of the date billed, District will have the right to place a lien on the properties described in Exhibit "A". Said lien shall be prior to all liens and encumbrances except County taxes and other government liens. Said liens shall be prorated in accordance with the number of connections reserved on the properties described in Exhibit "A". Further, said charges may be collected on the tax roll in the event of non-payment and the owners of said property hereby waive all rights of protest to the priority of said lien or the collection of said charges on the tax roll as set forth in the California Health & Safety Code, Section 5470, et seq. In the event that any property has a lien or is delinquent in payment of any charges levied by the District, no further connections

shall be made in that area until the charges or liens are paid.

No expense of expansion of the sewer system or operations for properties outside of the area described in Exhibit "A" shall be charged to or against the properties in Exhibit "A".

District may require at the time of acceptance of said sewer system, sufficient funds for operation of the system for a period not to exceed three (3) months. In no event shall the District be required to spend monies from the District General Fund for the operation, maintenance or repair of such system, site or easements.

11. GHSC shall be required to install oversize trunk lines as required by the engineer of District as set forth in the final plans of the sewer system. District will not be required to pay for the cost of the oversized lines except as follows:

(A) District's engineer shall estimate the number of connections that may be served by said oversized lines and any parcel connecting to the system within ten (10) years after acceptance by District shall be charged a prorata share of the cost of said oversized lines and said sum shall be paid to GHSC or in the event of the prior dissolution of GHSC, to the property owners prorata to the number of connections assigned to their property, providing that a sum remains due to GHSC or property owner: and that all expenses required under the terms of this agreement have been paid.

12. In the event it is determined by the District engineer that the historical flow from the services connected to the system are less than the design standards, GHSC or the property owners listed in Exhibit "A" or their successors, will be entitled to additional connections prorata, available from the original plant capacity constructed by GHSC in proportion to their original number of connections set forth in Exhibit "A" to this Agreement.

13. It is mutually agreed that District shall not permit connections to said system for the use and benefit of any area not within the area described in Exhibit "A" unless:

(a) The sewer plant will allow for the extra connections.

(b) Owners of properties located in Exhibit "A" transfer connection rights to the properties outside of the area described in Exhibit "A".

(c) Any owner of property described in Exhibit A is delinquent in its payment of charges for a period of six months and a notice demanding payment has been sent to the owner at the last known address and the new connections pay any delinquency of owner in addition to such other charges required by District.

14. In the event any action is brought by either party to enforce the terms of this Agreement, the successful party shall be entitled to reasonable attorney's fees as allowed by the Court.

15. GHSC shall indemnify and hold District and the property of District free and harmless from any and all liability, claims, loss, damages or expenses including Attorney's fees and costs arising by reason of the death or injury of any person who is an employee or agent of GHSC or by reason of damage to or destruction to any property, including property owned by GHSC or any person who is an employee or agent of GHSC, caused or allegedly caused by (1) any cause whatsoever while such person or property is in or on District property or in any way connected with District property or with any improvements or personal property on District property; (2) some condition of District property or some building or improvement on district property; (3) some act or omission of District property of GHSC or any person in, on or about District property with the permission and consent

of GHSC; or (4) any matter connected with GHSC's occupation and use of District property.

16. This agreement shall be binding and inure to the benefit of the parties hereto and their respective heirs, beneficiaries, successors and assigns.

IN WITNESS WHEREOF, the parties have entered into this agreement on the date first above written.

GOLDEN HILLS COMMUNITY SERVICES DISTRICT

By _____
President

Attest:

_____
SECRETARY, Board of Directors

GOLDEN HILLS SANITATION COMPANY

By _____

Attest:

_____
SECRETARY

The undersigned are the owners and lenders (beneficiaries of deeds of trust or mortgages) of the property described in Exhibit A attached hereto and acknowledge that they have read the agreement and agree to the terms of said agreement as those terms pertain to the owners of the property described in Exhibit A.

GOLDEN HILLS COUNTRY CLUB, INC.
A California Corporation

By _____
President

By _____
Secretary

INDEPENDENCE BANK, a California Corporation

By _____
President

By _____
Secretary

ON January 19, 1983, before me, the undersigned, a Notary Public in and for said County and State, personally appeared J. GEORGE HARRISON and GEORGE KNAPTON proved to me on the basis of satisfactory evidence to be the persons who executed the within instrument as the President, and the Secretary of the Corporation therein named, and acknowledged to me that such Corporation executed the within instrument pursuant to its By-laws or a Resolution of its Board of Directors.

OFFICIAL SEAL
Carol Anne Chazin
NOTARY PUBLIC CALIFORNIA
PRINCIPAL OFFICE IN
SAN DIEGO COUNTY
My Commission Expires Aug 1, 1986

Notary's Signature Carol Anne Chazin

CORPORATION ACKNOWLEDGMENT
Form No. 14 Rev. 1-68

this agreement on the date first above written.

GOLDEN HILLS COMMUNITY SERVICES DISTRICT

By _____
President

Attest:

_____
SECRETARY, Board of Directors

GOLDEN HILLS SANITATION COMPANY

By _____

Attest:

_____
SECRETARY

The undersigned Are the owners And lenders (beneficiaries of deeds of trust or mortgages) of the property described in Exhibit A attached hereto and acknowledge that they have read the agreement and Agree to the terms of said agreement as those terms pertain to the owners of the property described in Exhibit A.

GOLDEN HILLS COUNTRY CLUB, INC.
A California Corporation

By _____
President

By _____
Secretary

INDEPENDENCE BANK, a California Corporation

By _____
President
C.O. Schatz

By _____
Senior Vice President
Don Young

BOOK 5592 PAGE 522

GOLDEN HILLS LAND COMPANY,
A Corporation

By: George E. Chrisp
President

By: George B. Hopton
Vice President

© 1968 CA 10-741
Partnership)

TITLE INSURANCE AND TRUST
A FIDELITY COMPANY

STATE OF CALIFORNIA } ss.
COUNTY OF Kern

On December 20, 1982

before me, the undersigned, a Notary Public in and for said State, personally appeared K. M. Backes

known to me to be ONE of the partners of the partnership that executed the within instrument, and acknowledged to me that such partnership executed the same.

WITNESS my hand and official seal.

Signature Michele B. Cloyd

MICHELE B. CLOYD
NOTARY PUBLIC - CALIFORNIA
KERN COUNTY
My Commission Expires DEC 14 1986

(This area for official notarial seal)

State of California
County of Orange

On November 12,1982, before me, the undersigned, a Notary Public in and for said State, personallyappeared JOSEPH J. EMLIS known to me to be a partner of the partnership of COUNTRY CLUB ESTATES, A GENERAL PARTNERSHIP That executed the within instrument, known to me to be the person who executed the within instrument on behalf of the Corporation therein named, and acknowledge to me that such Corporation executed the within instrument pursuant to its by-laws or a resolution of its Board of Directors.

WITNESS my hand and official seal.

Janice E. Dolan
NOTARY PUBLIC
Janice E. Dolan

JANICE E. DOLAN
NOTARY PUBLIC - CALIFORNIA
PRINCIPAL OFFICE IN
ORANGE COUNTY
My Commission Expires MAR. 29, 1985

COUNTRY CLUB ESTATES, A GENERAL PARTNERSHIP

By _____
Partner

By _____
Partner - Carlfa W. Smith

By _____
Partner

SMITH CONSTRUCTION LTD., a California Corporation

By _____
President - Carlfa W. Smith

By _____
Secretary - Lillian M. Smith

RESORT PROPERTIES LTD., a California Corporation

By _____
President David G. Price

By _____
Secretary

GOLDEN HIGHLANDS MOBILE HOME ESTATES
A General Partnership

DONALD W. MURRAY

ROSADEL J. MURRAY

J. GEORGE HARRISON

SUSAN D. HARRISON

DAVID T. EASLEY

INDEPENDENCE BANK EMPLOYEE PROFIT SHARING PLAN AND TRUST

By _____
Trustee

STATE OF CALIFORNIA
GEORGE DEUKMEJIAN, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
CENTRAL VALLEY REGION
SAN JOAQUIN WATERSHED BRANCH OFFICE:
3614 EAST ASHLAN AVENUE
FRESNO, CA 93726
PHONE: (209) 445-5116

FILE

CONTROL NO. 90-05-308
ENGINEER MRA
DUE DATE 7-2-90
☐ INFORMATION REC'D ADEQUATE
☐ INFORMATION REC'D NOT ADEQUATE
OTHER
APPROVED BY
DATE

31 May 1990

Mr. George Harrison, President
Golden Hills Sanitation Company
C/O Cal-West Diversified
2750 Wheatstone, Suite #137
San Diego, CA 92111

GOLDEN HILLS WWTF, KERN COUNTY

A recent inspection of the Golden Hills WWTF revealed that it is operating. Subsequent to the inspection, you began discharging treated effluent into Tom Sawyer Lake, near the Golden Hills Country Club. Based on the findings of the inspection, the general requirements of design and the disinfection reliability standards in Articles 8 and 10 of Title 22, Division 4, of the California Code of Regulations (Title 22) have not been fully satisfied as required by Provision C. 6. of Waste Discharge Requirements Order No. 81-122; and an engineering report pursuant to Article 7 of Title 22 has not been submitted. Several other deficiencies were noted and are described, in detail, in the enclosed copy of the inspection report. We are concerned with these findings since restricted recreational use of Tom Sawyer Lake may be occurring (see attached copy of an inspection report for the Golden Hill Country Club).

Prior to 2 July 1990, please submit an engineering report pursuant to Article 7 of Title 22, which describes the means by which compliance with provision C. 6. will be achieved. The report must be prepared by a California registered civil engineer experienced in the field of wastewater treatment.

In addition to the above described deficiencies, the WWTF is not providing influent flow measurements and monthly monitoring reports have not been submitted, as required. **Prior to 2 July 1990,** please install an operable flow meter and start recording daily readings as required. **Monitoring reports for the months of March and April must be submitted immediately, and future reports must be submitted on time.**

Further, the Golden Hills WWTF is not being supervised by an employee possessing wastewater operator certification of grade III or higher, in violation of General Provision E. 1. of "Standard Provisions and Reporting Requirements for Waste Discharge Requirements". **Prior to 2 July 1990,** you must retain a WWTF operator with a certification of III or higher and submit evidence of compliance, including a copy of the operator's certificate and a signed and dated statement of employment.

APPROVED
author MRA
senior CWB

Some of these issues will require communication among the Country Club, the Community Services District, and the Sanitation Company. We recommend that you contact the responsible parties for these organizations to discuss the necessary actions required to achieve compliance with Order No. 81-122 (prescribed for the WWTF), Order No. 81-123 (prescribed for the Country Club), and the Wastewater Reclamation Criteria set forth in Division 4, Title 22 of the California Code of Regulations.

Should you have any questions regarding this matter, please contact Martin Amos at (209) 445-5500.

LARRY W. BEATTY
Senior WRC Engineer

Enclosures

MRA:mra/fmc

cc: Mr. Rick Madden, Golden Hills Country Club, Tehachapi
Mr. Dale Melville, Provost & Pritchard, Fresno
Mr. Cliff Thatcher, Golden Hills CSD, Tehachapi
Mr. Tex Shehan, Tehachapi
Kern County Environmental Health Services, Bakersfield

INSPECTION REPORT

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD - CENTRAL VALLEY REGION

WDS NUMBER: 5D151027001

Form Printed -> 05/18/90

DISCHARGER:

GOLDEN HILLS COMMUNITY SERVICE
STAR ROUTE 2, BOX 1227
TEHACHAPI ,CA 93561

CONTACT: CLIFF THATCHER
PHONE: 8058223064

FACILITY NAME:

GOLDEN HILLS WASTEWATER TREATM

TEHACHAPI ,CA 93561

CONTACT: CLIFF THATCHER
PHONE: 8058223064

STAFF: MRA

ORDERS:

ORDER NUMBER	DATE ADOPTED	TYPE
81-122	811211	WDR

LAST INSPECTIONS:

DATE	TYPE	VIOLATION?
900305	B1	N

INSPECTION TYPE:

[ ] 1. "A" TYPE COMPLIANCE (SAMPLING)
[X] 2. "B" TYPE COMPLIANCE (NO SAMPLING)
[ ] 3. NON-COMPLIANCE FOLLOW-UP
[ ] 4. ENFORCEMENT FOLLOW-UP
[ ] 5. COMPLAINT
[ ] 6. PRE-REQUIREMENT
[ ] 7. MISCELLANEOUS

PROGRAM COMPONENT TASK NUMBER: |1|2|1|

INSPECTION DATE: |9|0|0|3|0|5| (Y Y M M D D)

INSPECTOR'S INITIALS |M|R|A|

CONTACT: Mr. Cliff Thatcher, CSD Manager

INSPECTION SUMMARY (100 character limit): In violation of Specification B.8., Monitoring and Reporting Program No. 81-122, Provision C.6., and Standard Provision E.1.

ADDITIONAL COMMENTS: See attachment

WDR REVIEW: yes MONITORING PROGRAM REVIEW: yes

Was there a VIOLATION discovered during this inspection? YES [X] NO [ ] PENDING SAMPLE RESULTS [ ] NOT APPLICABLE [ ]

(If yes, you MUST attach a completed violation input form.)

INSPECTOR SIGNATURE & DATE:

Reviewed By:

DATA ENTRY DATE:

SUMMARY OF FINDINGS:

On 5 March 1990, I conducted a type "B" compliance inspection of the Golden Hills Wastewater Treatment Facility (WWTF). During the inspection I was accompanied by Cliff Thatcher, general manager for the Golden Hills Community Services District (CSD). The facility is regulated by Waste Discharge Requirements Order No. 81-122, adopted for the Golden Hills CSD and Golden Hills Sanitation Company (hereafter referred to collectively as the discharger). Order No. 81-122 prescribes treatment levels required for discharge to Tom Sawyer Lake (a "landscape impoundment") and landscape irrigation of the golf course fairways at the Golden Hills Country Club. Discharge of effluent to TSL and reclamation of the treated effluent by irrigation of the Golden Hills Country Club golf course are regulated under Waste Discharge Requirements Order No. 81-123 for the Golden Hills Country Club. The discharge to Tom Sawyer Lake and landscape irrigation of golf course fairways is the subject of a separate inspection report, a copy of which is enclosed.

Discharge to the WWTF began in late November 1989. The Golden Hills Sanitation Company, created by Cal-West Diversified, operates the WWTF and will continue to operate it for at least six months before control is transferred to the Golden Hills CSD.

The WWTF is located in Brite Creek Canyon and is fairly isolated from the public. The nearest residence is located on the rim of the canyon, overlooking the WWTF. Access is precluded by a six foot chain link fence which encompasses the entire WWTF, except for the emergency holding pond. Failure to preclude access to the emergency holding pond is a violation of discharge specification B.8. which reads, "The dischargers shall preclude public access to the treatment facilities".

The WWTF consists of an extended aeration package treatment plant, a rapid sand filter and a disinfection unit. It is also equipped with an effluent flow meter. When I inspected the effluent flow meter, it read zero, indicating that the WWTF was not discharging. I was later informed that the effluent flow meter is broken and does not register during discharge. Daily flow is not being measured and recorded, a violation of Monitoring and Reporting Program No. 81-122, which requires daily measurement of the influent flow. According to Cliff Thatcher, flow to the WWTF is derived from approximately twenty-five apartments and ten mobile home units. The mobile home park has a potential capacity of 116 units. Based on the residences currently being served, average flow to the WWTF is probably between three and six thousand gallons per day.

Cliff Thatcher told me that the rapid sand filter did not contain filter media. Since the WWTF was not discharging at the time of the inspection, this is not a violation. However, if the WWTF had been discharging, the rapid sand filter would have been effectively bypassed in violation of the prohibition B. 2., which prohibits bypass of partially treated waste. Several days after the inspection, Tex Shehan, a certified operator who agreed to help the sanitation company during start-up, informed me that the rapid sand filter has been filled with filter media and is now operational.

I observed the disinfection system to include: one set of chlorine scales, two chlorine gas injectors connected to a manifold system, an automatic device for switching to full chlorine cylinders, an emergency holding pond, and an alarm system. However, chlorine cylinders were not connected to the manifold system, and were not present at the WWTF; the alarm is inadequate since it cannot provide warning of a failure when the WWTF is unattended; and the dischargers have not demonstrated that the emergency holding pond is capable of storing at least a 24-hour period of flow. The uninterrupted feed and reliability features of the disinfection system are not in compliance with Provisions (a)(1)and (b), Section 60353 of Title 22 and, therefore, not in compliance with Provision C.6., which states that "discharger shall comply with the general requirements of design and the disinfection reliability standards in Article 8 and Article 10 of Title 22, Division 4," of the California Code of Regulations (Title 22).

Other deficiencies also exist with regard to compliance with provision C. 6. Alarms have not been installed on all of the treatment processes as required in Article 8 of Title 22. Furthermore, the reliability requirements specified in Article 10 of Title 22 for each of the treatment process components report pursuant to Article 7 of Title 22, which describes the means by which compliance with Article 8 and 10 will be achieved, has not been submitted.

Some time after the inspection, Tex discovered that the chlorine injectors were broken and that the WWTF is discharging to TSL once every six to eight days. He told me that replacements have been ordered and should be installed soon. In the interim, granular chlorine is being used to disinfect the effluent during periodic discharges to TSL.

General Provision E. 1. of "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 February 1990, states that publicly owned WWTFs must be supervised and operated by personnel who possess certificates of the appropriate grade according to the California Code of Regulations, Title 23, Chapter 3, Subchapter 14. Chapter 3 of Subchapter 14 specifies that an extended aeration WWTF (design capacity less than 1.0 mgd) with sand filtration requires a grade III certified operator. The WWTF is currently operated by Tex Shehan, a grade II certified operator. Therefore, the dischargers are in violation of General Provision E.1.

Monitoring and Reporting Program No. 81-122 also requires that the discharger submit monthly self-monitoring reports which contain the information requested therein, by the 15th day of the following month. Self-monitoring reports have not been submitted, a violation of Monitoring and Reporting Program NO. 81-122.

SUMMARY:

The discharger is in violation of Specification B. 8. (precluding access to the treatment facilities); Monitoring and Reporting Program No. 81-122 (failure to measure and record flow and submit monthly monitoring reports); Provision C.6.

(concerning disinfection reliability and general design requirements of Title 22); and Standard Provision E. 1. (regarding appropriately certified WWTF operators).

RECOMMENDATIONS:

I recommend that the discharger be requested to correct the violations described in this report as soon as possible. The discharger should preclude access to the emergency holding pond; retain a certified operator possessing a certificate grade of III or higher; install an operable flow meter; and begin submitting monthly monitoring reports. Also, pursuant to Article 7 of Title 22, the discharger must submit an engineering report, which clearly indicates the means for compliance with the Wastewater Reclamation Criteria specified in Title 22, Division 4 of the CCR and Provision C.6. of Order No 81-122.

I also recommend that Waste Discharge Requirements Order No. 81-122 be updated to reflect current Board policy regarding spray irrigation of treated effluent on golf course fairways, and require compliance with Title 22, Division 4 of the California Code of Regulations.

MRA:mra/fmc

Appendix E
Meeting Notes and Slides



WELCOME

- Please Silence your Cell Phones during the presentation.
- An opportunity for questions will be presented during the Question and Discussion period following the presentation.

GOLDEN HILLS SEWER PROJECT



PRESENTATION OUTLINE

1) AECOM's Role
2) June 23rd Meeting Recap
3) Project Progress Updates
   a) Discussion of Options 1 and 2
   b) Tom Sawyer Lake Issues and Water Sources
   c) Ownership Options and Cost Impacts
   d) Recommended Option
   e) Funding Options
4) Response to Written Questions
5) Questions and Comments
6) Next Steps

GOLDEN HILLS SEWER PROJECT

MISSION STATEMENT

- Meeting Purpose: Discuss the draft report, compare sewer service options and present the recommended option.
- Mission: Develop a viable sustainable wastewater solution that results in the least cost to existing Golden Hills sewer customers.

AECOM'S ROLE

- Provide a feasibility study that supports the mission.
- The draft study is done and identifies the least cost option to existing sewer system customers.
  - Monthly collection system O&M costs already included.
  - Collection system capital costs need to be developed to reflect collection system inspections.
  - The results of collection system work would apply to both options and would not affect our recommended solution.
  - Modifications to the report will be made to address the comments up through tonight.

JUNE 23, 2014 MEETING RECAP

1) Discussion of Options 1 and 2
   - Comparison between Options 1 and 2
2) Tom Sawyer Lake
   - Water Quality Sampling Results and Mitigation
   - Water Supply Options
3) Funding Options
4) Management Options
5) Comparison of Alternatives (Capital and O&M Costs)

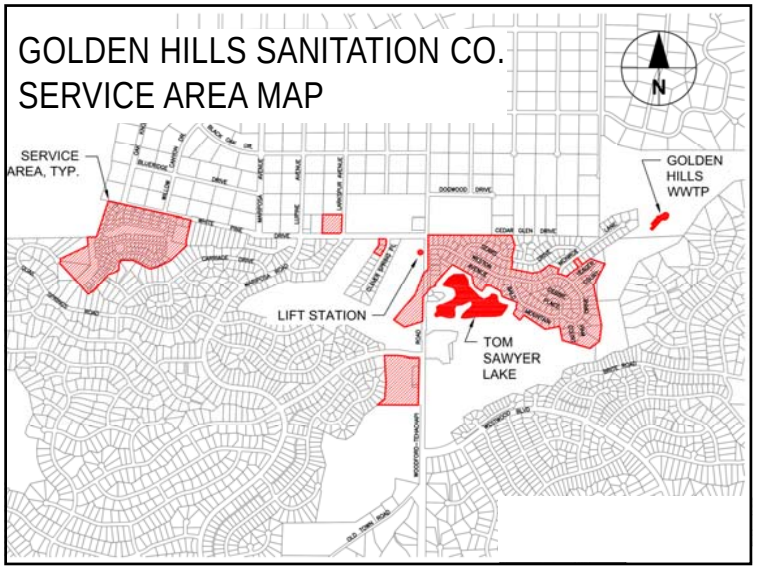
GOLDEN HILLS SEWER PROJECT

PROGRESS UPDATES

1) Met with Lee White, Cliff Bressler, City of Tehachapi & Kern County
2) Sewer Cleaning and Video Contract
3) Coordination with Water Master, City of Tehachapi, Golden Hills CSD & Kern County
4) Field reviewed additional options for Tom Sawyer Lake
5) Refined and vetted cost estimates (construction and O&M)

GOLDEN HILLS SEWER PROJECT

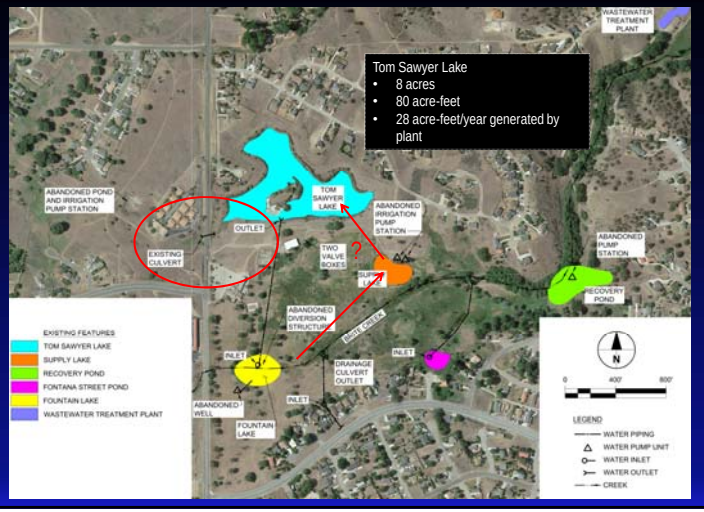




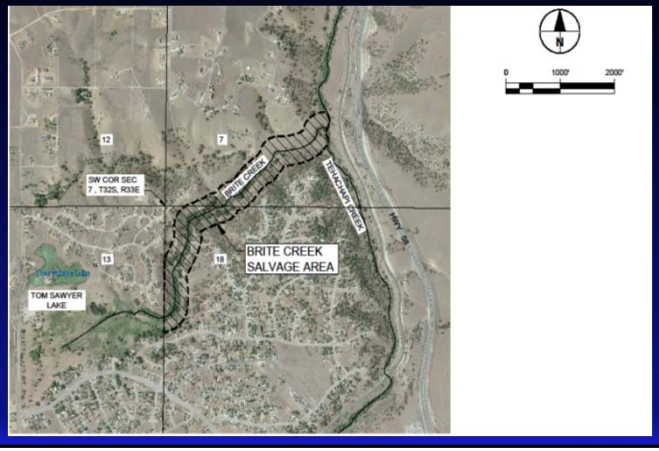
WASTEWATER SYSTEM COMPONENTS

Components	Existing	Option 1 Continued Op.	Option 2 Tehachapi
Collection System		Inspect, Repair & Rehabilitate (R&R)	Inspect, R&R
Treatment Plant		 R&R	Decommission
Discharge Pipeline		 R&R	Construct Force Main to COT
Effluent Disposal		 + IRR	Add water sources

WATER SUPPLY CONCEPTS

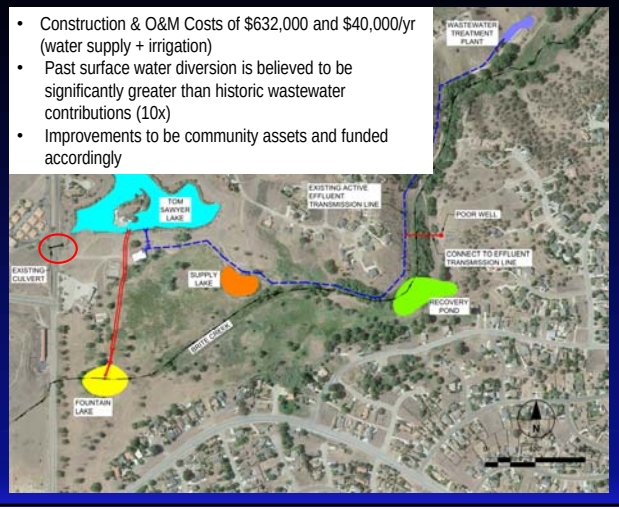


BRITE CREEK SALVAGE AREA



PROPOSED WATER SUPPLY IMPROVEMENTS

- Construction & O&M Costs of $632,000 and $40,000/yr (water supply + irrigation)
- Past surface water diversion is believed to be significantly greater than historic wastewater contributions (10x)
- Improvements to be community assets and funded accordingly



COST COMPARISON OF OPTIONS 1 & 2

Potential Management Entities

No LAFCO Process	LAFCO Process Required	CPUC Process Req'd + Grant Funding Limitations
Golden Hills CSD	Kern County City of Tehachapi	Private

GOLDEN HILLS SEWER PROJECT

CAPITAL COSTS (TABLE 11 UPDATE) WASTEWATER SYSTEM COMPONENTS

Components	Option 1 Continued Operation	Option 2 Tehachapi
Collection System	TBD + $699,000	TBD + $699,000
Treatment Plant	$1,268,000	$75,000
Discharge Pipeline	$0	$1,959,000
Easements	$0	$119,000
Disposal	$0	$1,395,000
Irrigation & fresh water sources to TSL	$325,000 $307,000	$325,000 $307,000
Totals	$2,599,000	$4,879,000

ANNUAL O&M COSTS OPTION 1
(180 CONNECTIONS)
WASTEWATER SYSTEM COMPONENTS

Components	Option 1a Kern County	Option 1b GHCSD	Option 1c Public Agency + Contractor
Collection System	$35,000	$35,000	$35,000
Treatment Plant	344,000	253,000	237,000
Discharge Pipeline	6,000	6,000	6,000
Effluent Disposal	Community Asset	Community Asset	Community Asset
Value of Effluent	-14,000	-14,000	-14,000
Value of Standby (30)	-7,000	-7,000	-7,000
Totals (180 Customers)	$364,000	$273,000	$257,000
Monthly Service Charge	$169	$126	$119

OPTION 1D – MUTUAL NON-PROFIT ENTITY

Components	Option 1d Mutual Non-Profit Entity		
Collection System	$35,000		
Treatment Plant	300,000		
Discharge Pipeline	6,000		
Annual Service Cost (Tehachapi Option)	0		
Value of Effluent	-14,000		
Value of Standby (30)	-7,000		
Totals (180 Customers)	$320,000		
Monthly Service Charge	$148		

ANNUAL O&M COSTS OPTION 2
(180 CONNECTIONS)
WASTEWATER SYSTEM COMPONENTS

Components	Option 2a Kern County/COT	Option 2b GHCSD/COT	Option 2c COT Only
Collection System	$35,000	$35,000	$35,000
Treatment Plant	0	0	0
Discharge Pipeline	116,000	89,000	63,000
Annual Service Cost	78,000	78,000	78,000
Value of Effluent	0	0	0
Value of Standby (30)	-7,000	-7,000	-6,000
Totals (180 Customers)	$222,000	$195,000	$170,000
Monthly Service Charge	$103	$90	$79*

RECOMMENDED OPTION

- Option 2c Description
  - Pump wastewater to COT with COT as governance
  - Rehab the existing collection system
  - Replace existing lift station with gravity main
- Option 2c is the recommended option because
  - Capital costs are eligible for grant funding
  - It supports the mission

NO PROJECT ALTERNATIVE -
CONTINUED OPERATIONS UNDER EXISTING OWNERSHIP

- O&M: Costs exceed forecasted revenue (risk)
- Capital:
  - Existing system needs rehabilitation and modification (increased risk of violation over time)
  - Private ownership limits grant funding opportunities (risk)
  - Obtaining grant funding may be problematic if (a) lower cost option exists and (b) relies on other agencies (risk)

These risks could cause rate increases, increased regulatory oversight, and potential termination of sewer service (tagging)

WHERE TO GET THE MONEY TO BUILD THE PROJECT

1) State: Loan and Grant
   A. Clean Water State Revolving Fund (Loan & Grant)
   B. Future bond money (Grant)
   C. IRWMP money (Grant)
2) Federal: Loan and/or Grant:
   A. USDA/ Rural Development (Loan & Grant)
   B. CDBG Federal Funding administered by the County

The "owner" of the Project (County, CSD, City) could apply for as many sources of funding, as possible. A privately owned sewer plant is not eligible for this funding.

GOLDEN HILLS SEWER PROJECT

FUNDING IMPLICATIONS AND OPTIONS

	Option 1 – Rehabilitate Existing WWTF	Option 2 – Force Main to COT
Funding Opportunity	0 both options are equally eligible for funding provided they are owned by a public agency	
Capital Costs	+ would require less funding for capital costs	
Operation and Maintenance Costs		+ would cost less in long term O & M Costs
Management		+ existing management for treatment; no long-term public owner secured for remaining system

GOLDEN HILLS SEWER PROJECT

QUESTIONS AND DISCUSSION



NEXT STEPS

- Address comments and finalize report - beginning of October
  - Address comments received through tonight
  - Include collection system information and cost ramification
- Next step: Environmental Study
  - Effort has been initiated; focuses on preferred option
  - To be completed by May 2015

GOLDEN HILLS SEWER PROJECT

GOLDEN HILLS SEWER PROJECT



QUESTION ASKED TO AUDIENCE AT FIRST PUBLIC MEETING

- The ownership (management) structure could take many forms. Are the existing rate payers willing to pay more to maintain local ownership?

TOM SAWYER LAKE CONSIDERATIONS

1) Water Quality Sampling Results May 29, 2014 were favorable

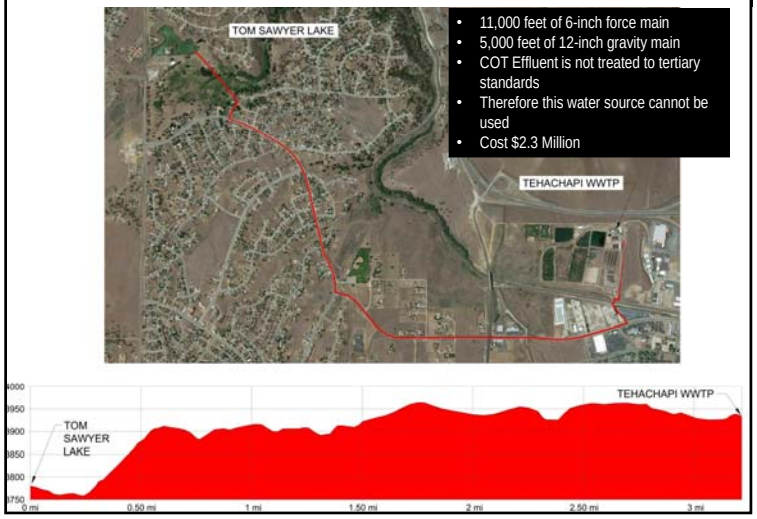
2) Recommended Mitigation – Put recycled water or ground water into lake, reduce/eliminate nutrients, flow through condition to avoid evaporative concentrating, selectively “harvest” wetlands plants to remove salts and nutrients

GOLDEN HILLS SEWER PROJECT

TOM SAWYER LAKE 17 SEPTEMBER 2014



WATER SOURCE - EFFLUENT RETURN LINE TO TOM SAWYER LAKE

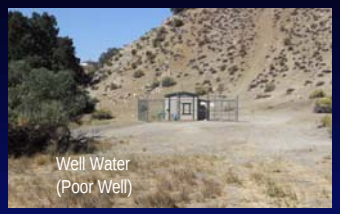


- 11,000 feet of 6-inch force main
- 5,000 feet of 12-inch gravity main
- COT Effluent is not treated to tertiary standards
- Therefore this water source cannot be used
- Cost $2.3 Million

POTENTIAL FRESH WATER SOURCES TO TOM SAWYER LAKE

Local Groundwater and Surface Runoff (Adjudicated Basin)


Well Water


Well Water (Poor Well)


Recovery Pond


Brite Creek Dam Site

OPTION 1 REHAB EXISTING TREATMENT PLANT

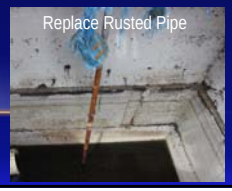
Degraded Concrete



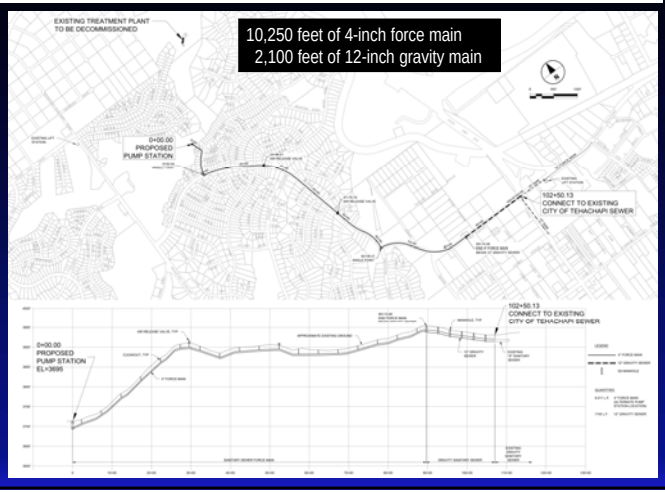
Need Redundant Filter/Relocate Generator outside in weather tight enclosure.




Flood Proofing


Replace Rusted Pipe

OPTION 2 – CONVEY WASTEWATER TO CITY OF TEHACHAPI



DISPOSAL BY IRRIGATION



WELCOME

- Please Silence your Cell Phones during the presentation.
- An opportunity for questions will be presented during the Question and Discussion period following the presentation.

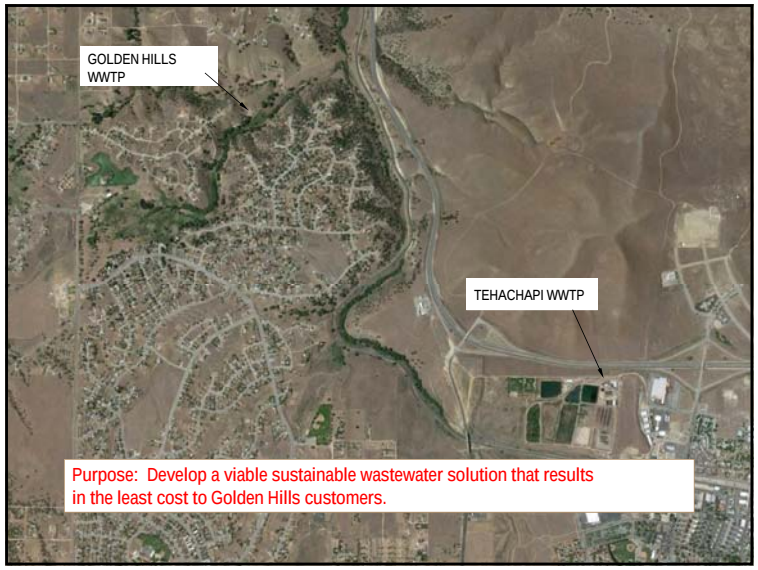


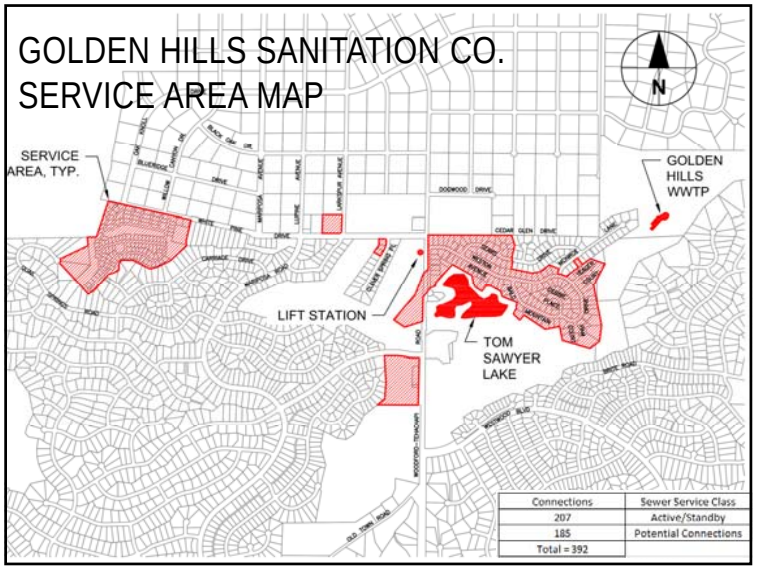
BACKGROUND

- Golden Hills Sanitation Co. (GHSC) began operations in the early 1980s.
- Currently serves more than 170 property owners.
- The previous owner left the system without money & told users the sewer system would be shut down February 28, 2012.
- GHSC is currently being run by a Court appointed Receivership. (April 2012).
- Corrective actions have been taken to eliminate Sanitary Sewer Overflows (SSOs).
- Current monthly sewer rates are $91.29 per house.

THE COUNTY RECEIVED A STATE GRANT TO:

- Continue the analysis of the recommended options
- Prepare a Study Report that looks at 2 specific options and a "No Project" option
- Prepare an Environmental Impact Report on the selected alternative
- Necessary to apply for construction funding







CURRENT WASTEWATER PLANT OPERATIONS

- Operating costs have been cut….but:
  1. the Receiver has not been paid
  2. Pre-Receivership taxes & permit fees remain to be paid
  3. Available funding for system repair & replacement has been insufficient (30 year old facility)
- The County is making a $51,700 contribution for specific repairs to the system (roughly 20% of improvements identified previously by the County)

TOM SAWYER LAKE



WASTEWATER SYSTEM COMPONENTS

Components	Existing	Option 1 Continued Op.	Option 2 Tehachapi
Collection System		Inspect, Repair & Rehabilitate (R&R)	Inspect, R&R
Treatment Plant		 R&R	Decommission
Discharge Pipeline		 R&R	Decommission
Effluent Disposal		 + IRR	Decommission Mitigate

POTENTIAL TOM SAWYER LAKE WATER SUPPLIES

Local Groundwater (Adjudicated Basin)



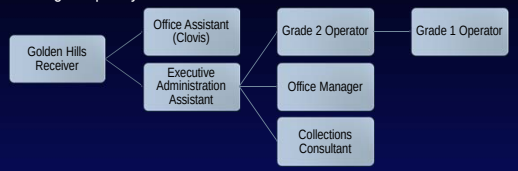
Local Storm Water





SECURING PERMANENT OWNERSHIP OF THE WASTEWATER SYSTEM IS CRITICAL FOR SUCCESS

- Existing Temporary Structure



- Future Structure Considerations
  - Option 1 – Maintain Existing Operations: *Need to manage all 4 components of the wastewater system (Collection, Force Main, Treatment, Disposal) (e.g., Kern County, GHCSD or private entity)*
  - Option 2 – City of Tehachapi: *Management could be split according to collection system/force main (e.g., GHCSD, Kern County, private entity) and treatment/disposal (e.g., COT)*

WE WILL LOOK AT THE FOLLOWING FOR EACH OPTION:

- Costs (Construction, O&M, capital, Net Present Worth)
- Estimated monthly User fees
- What will happen to Tom Sawyer Lake
- Who will own & run the "new" wastewater system

FEASIBILITY STUDY - DELIVERABLE

- Work has started on the Feasibility Study by AECOM.
- The study will look at 2 different options to fix the wastewater system, including:

  1. Continue operation of the wastewater system
  2. Connect to the City of Tehachapi

- "No Project" option

FEASIBILITY STUDY - SCHEDULE

- The Feasibility Study and EIR may take 13 months to complete.
- The Study Report, and a recommended option will be reviewed at 2 future community meetings.
- The Community will participate in developing the solution.
- Implementation may take 3 to 5 years to complete.

OUR QUESTIONS TO YOU

1. The water source (treated effluent/recycled water) for Tom Sawyer Lake could be eliminated. Does the community have a vision for the long-term use of Tom Sawyer Lake? If so what is it?
2. Is the expectation that existing sewer rate payers alone would be responsible for paying for achieving this vision for Tom Sawyer Lake or is the larger community willing to contribute?
3. The ownership (management) structure could take many forms. Are the existing rate payers willing to pay more to maintain local ownership?

QUESTIONS AND DISCUSSION

NEXT STEPS

- Once more of the engineering work is done, we will meet with you again to discuss our comparison results of Option 1 and Option 2.
- Tentatively Scheduled for May 2014.

THANK YOU

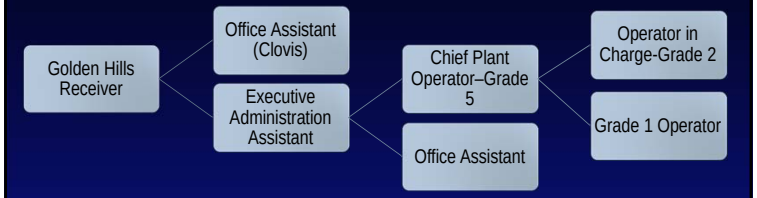


WELCOME

- Please Silence your Cell Phones during the presentation.
- An opportunity for questions will be presented during the Question and Discussion period following the presentation.



EXISTING ORGANIZATIONAL STRUCTURE



PRESENTATION OUTLINE

1) Previous meeting recap
2) Project Area
3) Progress since last meeting
4) Proposed water sources for Tom Sawyer Lake
5) Environmental Remediation of Tom Sawyer Lake
6) Project cost estimates
7) Ownership Options
8) Funding Options

GOLDEN HILLS SEWER PROJECT

MISSION STATEMENT

- Develop a viable sustainable wastewater solution that results in the least cost to Golden Hills customers.

APRIL 7TH MEETING RECAP

1) Tom Sawyer Lake
   - Ownership and Maintenance
   - Future Uses
   - Water Quality
   - Wetland Requirements
   - Community Interest
2) Sewage Collection and Treatment
   - Cost to Rehabilitate existing WWTP
   - Cost to for City of Tehachapi to Treat Sewage
   - Management of System
3) Two Options
   - Other options
   - What will happen to Tom Sawyer Lake with each option

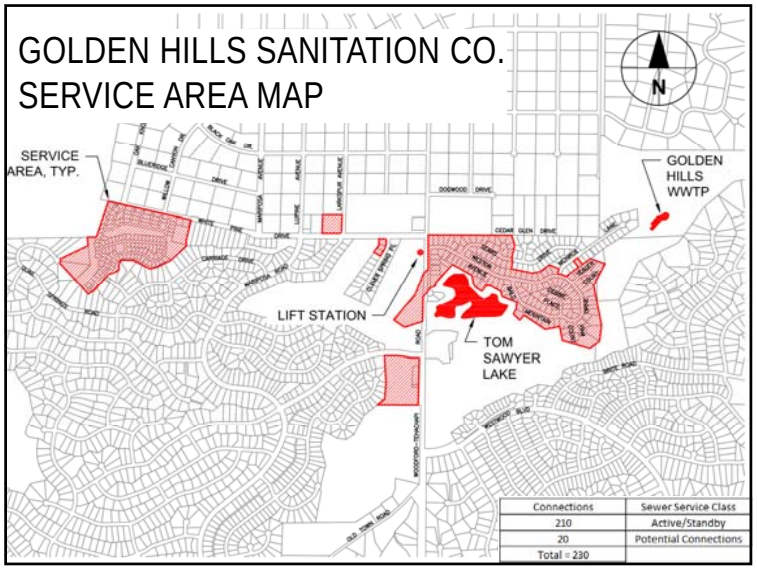
GOLDEN HILLS SEWER PROJECT

PROGRESS MADE SINCE PREVIOUS MEETING

1) Coordination with City of Tehachapi
2) Coordination with Golden Hills CSD
3) Field reviewed options for Tom Sawyer Lake
4) Tested Soil and Water from Tom Sawyer Lake
5) Sewer Cleaning and Video Contract
6) Developed Preliminary Cost Estimates

GOLDEN HILLS SEWER PROJECT





WASTEWATER SYSTEM COMPONENTS

Components	Existing	Option 1 Continued Op.	Option 2 Tehachapi
Collection System		Inspect, Repair & Rehabilitate (R&R)	Inspect, R&R
Treatment Plant		 R&R	Decommission
Discharge Pipeline		 R&R	Force Main and Pump Station to COT
Effluent Disposal		 + IRR	Mitigate or add water sources

OPTION 1
REHAB EXISTING TREATMENT PLANT

Degraded Concrete



Need Redundant Filter/Relocate Generator outside in weather tight enclosure.



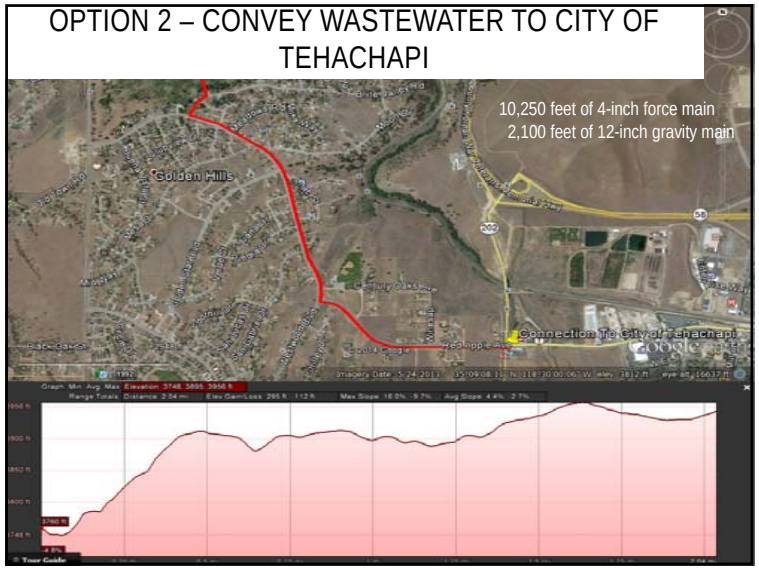
Flood Proofing



Replace Rusted Pipe



OPTION 2 – CONVEY WASTEWATER TO CITY OF TEHACHAPI



CAPITAL COSTS
WASTEWATER SYSTEM COMPONENTS

Components	Option 1 Continued Operation		Option 2 Tehachapi	
Collection System	Inspect and R&R	TBD	Inspect and R&R	TBD
Treatment Plant	Rehab	$2,814,000	Decommission	$75,000
Discharge Pipeline	R&R	$20,000	Pipe to Tehachapi Connection Fee (230)	$1,958,000 $1,670,000
Disposal Irrigation (6 Acres)		$200,000		
Totals		$3,034,000		$3,703,000

DISPOSAL BY IRRIGATION



TOM SAWYER LAKE CONSIDERATIONS

1) Water Quality Sampling Results
2) Water Supply Options

GOLDEN HILLS SEWER PROJECT

SEDIMENT & WATER TESTING (MAY 29, 2014)

1) Tested lake water, effluent into lake, sediments around the lake.
2) Examined metals, total dissolved solids (TDS, salts).
3) Compared results to freshwater standards for protecting aquatic health.
4) No metals exceeded standards for aquatic habitat in either water or sediments.
5) TDS from:
   A. lake water - 7 ppt (seawater is 35 ppt)
   B. effluent into lake – 0.7 ppt
   C. potable water – 0.3 ppt
   D. sediments - 12 ppt

GOLDEN HILLS SEWER PROJECT

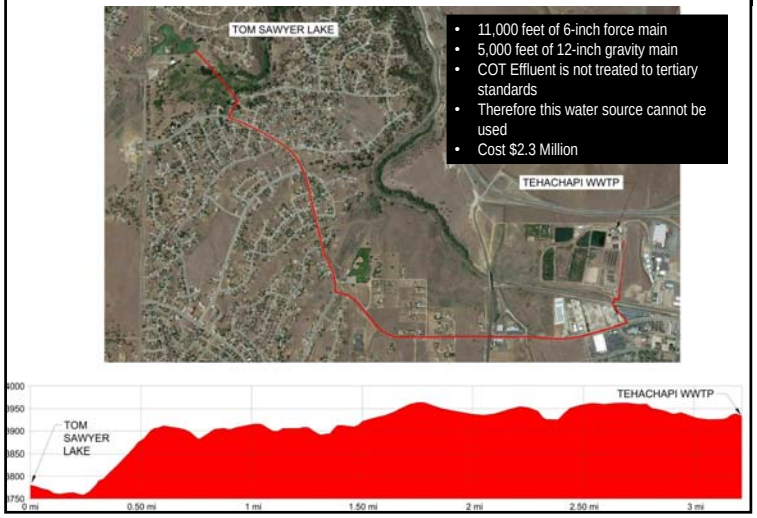
SEDIMENT & WATER TESTING (cont)

6) High salt load to lake – no standards to judge against .
7) Sediments appear uncontaminated except for excessive salts.
8) Further testing may be needed.
9) Vibrant wetlands community, but periodic eutrophication, anoxia.

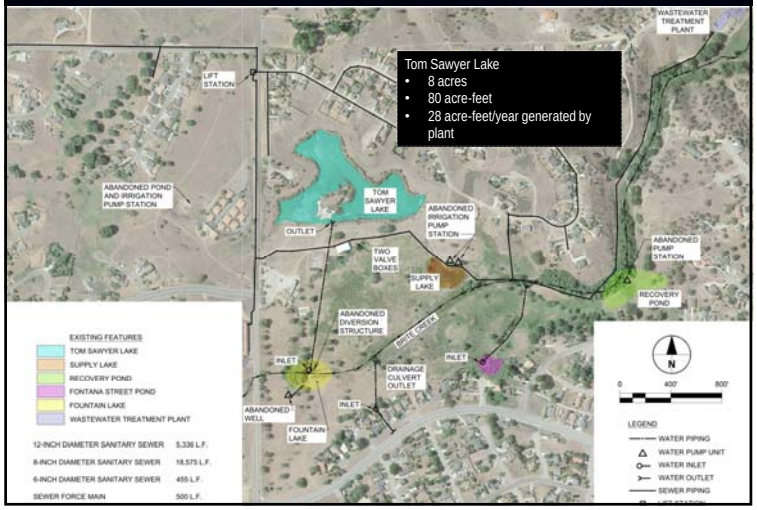
Preferred Option – Put recycled water or ground water into lake, reduce/eliminate nutrients, flow through condition to avoid evaporative concentrating, selectively "harvest" wetlands plants to remove salts and nutrients

GOLDEN HILLS SEWER PROJECT

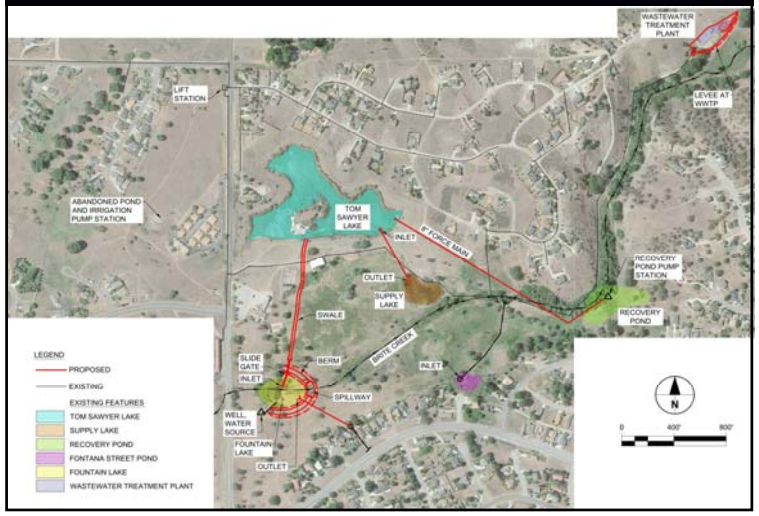
WATER SOURCE - EFFLUENT RETURN LINE TO TOM SAWYER LAKE



ORIGINAL WATER SUPPLY CONCEPT



PROPOSED WATER SUPPLY IMPROVEMENTS



POTENTIAL FRESH WATER SOURCES TO TOM SAWYER LAKE

Local Groundwater and Surface Runoff (Adjudicated Basin)


Well Water


Recovery Pond


Brite Creek Dam Site

CAPITAL COSTS WATER SUPPLY

Components - Water Source	Costs
Fountain Lake	$271,000
Recovery Pond (Dry Weather)	$683,000
Return Force Main	$2,294,000
Irrigation Well	$200,000

GOLDEN HILLS SEWER PROJECT

FUNDING CONSIDERATIONS

GOLDEN HILLS SEWER PROJECT

WHERE TO GET THE MONEY TO BUILD THE PROJECT

1) State: Loan and Grant
   - A. Clean Water State Revolving Fund (Loan & Grant)
   - B. Future bond money (Grant)
   - C. IRWMP money (Grant)
2) Federal: Loan and/or Grant:
   - A. USDA/ Rural Development (Loan & Grant)
   - B. CDBG Federal Funding administered by the County

The "owner" of the Project (County, CSD, City) could apply for as many sources of funding, as possible. A privately owned sewer plant is not eligible for this funding.

GOLDEN HILLS SEWER PROJECT

FUNDING IMPLICATIONS AND OPTIONS

	Option 1 – Rehabilitate Existing WWTF	Option 2 – Force Main to COT
Funding Opportunity	Both options are equally eligible for funding	
Capital Costs	Would require less funding for capital costs	Would require more funding for capital costs
Operation and Maintenance Costs	Would cost more in long term O & M Costs	Would cost less in long term O & M Costs
Management	No long-term owner secured for entire system	Existing management for treatment; no long-term owner secured for remaining system

GOLDEN HILLS SEWER PROJECT

MANAGEMENT OPTIONS

No LAFCO Process	LAFCO Process Required	No LAFCO (CPUC) + Grant Funding Limitations
Golden Hills CSD	Kern County	Private
	City of Tehachapi	

City of Tehachapi Letter

- Collection System Modeling
- Cannot provide groundwater exchange at this time (City does not receive recharge credit)

Golden Hills CSD

- No preference for either option: has to be financially viable (Not subsidized by CSD)
- Availability of water source subject to Water Master
- Approx. $12,500/year to replace treated effluent flow

GOLDEN HILLS SEWER PROJECT

COMPARISON OF ALTERNATIVES

GOLDEN HILLS SEWER PROJECT

ANNUAL O&M COSTS (230 CONNECTIONS) WASTEWATER SYSTEM COMPONENTS

Components	Option 1 Continued Operation		Option 2 Tehachapi	
Collection System		$35,000		$35,000
Treatment Plant		$400,000		$152,000
Discharge Pipeline		$15,000	Pipe to Tehachapi	$40,000
Effluent Disposal	Irrigation	$32,000		$0
TOTALS		$482,000		$227,000

COMPARISON OF ALTERNATIVES – NET PRESENT WORTH

Components	Option 1 Continued Operations	Option 2 Tehachapi
Capital	$3,034,000	$3,703,000
Capital Water Supply	0	0
O&M Costs (20yr,4%)	$6,550,000	$3,085,000
Totals (Net Present Worth)	$9.6 million	$6.8 million

- Management - Option 2 has several advantages compared to Option 1
- Funding – Both options are equal

GOLDEN HILLS SEWER PROJECT

NEXT STEPS

- Once the final engineering work is done, we will meet with you again to discuss draft report and recommended option.
- Tentatively Scheduled for mid to late August 2014.

GOLDEN HILLS SEWER PROJECT

Existing Wastewater Treatment Plant

Operation and Maintenance Costs

Power									
			$/kWh	Motor HP	Input (kW)	Hrs/day	Hrs/Yr	kWh/Yr	$/Yr
	Pumps	$	0.140	40	29.8	10.0	3,650	108,916	$15,248
	Other Power	$	0.140		2.0	12.0	4,380	8,760	1,226
	Other Utilities Water and Phone						0	0	1,200
							Average Annual Cost		$17,675
Other Routine Operations and Maintenance									
	Administrative Expenses Permits, Testing, Fuel for vehicles, vehicle payment, etc								$50,000
	Miscellaneous Expenses								$4,221
							Total Other O&M		$54,221
Routine Labor									
	Various Systems		Labor Rate	Hrs/Wk	Wks/Yr	Hrs/Yr	Fully burdoned cost factor		$/Yr
	Grade 3+ Operator 4 hours per week		$35	4	52	208	2		$14,560
	Grade 2 Operator		$28	40	52	2,080	2		116,480
	Grade 1 Operator		$18	40	52	2,080	2		74,880
	Clerical Overhead 0.2 X Labor								41,184
							Total Labor		$247,104
Reserve Fund (From which repairs and replacement may be drawn									
			Construction Cost	Annual Cost					$/Yr
	Plant Equipment (6% of Construction Costs)	$	900,000.00	54,000					$54,000
	Plant Strucutre (2% of Structure)	$	1,200,000.00	24,000					24,000
	Sitework (2% of capital)	$	100,000.00	2,000					2,000
	Pipeline (1% of Construction Costs)	$	100,000.00	1,000					1,000
							Average Annual Cost		$81,000
Total O&M for Plant									$400,000

Appendix F
Wastewater Treatment Plant

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 81-122

WASTE DISCHARGE REQUIREMENTS
FOR
GOLDEN HILLS COMMUNITY SERVICES DISTRICT AND
GOLDEN HILLS SANITATION COMPANY
KERN COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. The Golden Hills Community Services District and the Golden Hills Sanitation Company (hereafter considered jointly as Dischargers) have submitted a Report of Waste Discharge dated 21 April 1981 for the treatment and disposal of 0.2 mgd (9.8 l/s) of domestic wastewater for a design population of about 2,000.

2. The new treatment facilities will be located in a portion of Section 7, T32S, R33E, MDB&M on 168 acres (68 ha) of land belonging to the Golden Hills Community Services District, approximately five miles (8 km) west of the City of Tehachapi. The proposed plant will consist of an extended aeration package treatment plant, chlorination facilities, rapid sand filter, approximately 2,500 feet (762 m) of 6" force main leading to the golf course, and a wet weather storage reservoir of approximately 110 acre-feet (13.6 ha/m) for treated effluent.

3. Disposal of treated effluent will initially be accomplished by spray irrigation on the front nine fairways of the Golden Hills Country Club golf course. Wastewater Reclamation Requirements are concurrently being presented for Board consideration to govern this proposed disposal operation.

4. Brite Creek transects the Golden Hills golf course. Water flows in the creek during rainy periods and is dry the remainder of the year.

5. An alternate disposal area is located within Brite Creek Canyon consisting of approximately 40 acres (16.2 ha) of irrigable meadow lands and 45 acres (18.2 ha) of side hills. Soils and percolation tests show that this alternate area has sufficient capacity to accommodate anticipated treated effluent flows.

6. The Golden Hills Sanitation Company is arranging the financing for the treatment facilities and will maintain responsibility for the plant until operational stability has been demonstrated. The Golden Hills Community Services District has agreed to assume the duties of operating and maintaining the sewer system after such time that a satisfactory contract has been finalized between the Golden Hills Community Services District and the Golden Hills Sanitation Company which addresses financial, legal and construction aspects of the treatment plant.

7. The beneficial uses of areal ground waters are municipal and industrial supply.

8. The Board, on 25 July 1975, adopted a Water Quality Control Plan for the Tulare Lake Bason (5D) which contains water quality objectives for all inland waters of the Basin. These requirements are consistent with that plan.

9. A Negative Declaration has been prepared by Regional Board staff regarding these requirements in accordance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), and the State Guidelines. A Notice of No Significant Impact has been filed with the Secretary of Resources.

10. The Board has notified the Dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge and has provided them with an opportunity to submit their written views and recommendations.

11. The Board, in a public hearing, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, the Golden Hills Community Services District and the Golden Hills Sanitation Company, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Discharge Prohibitions:

1. The direct discharge of wastes to surface waters from the collection system or treatment and disposal facilities is prohibited.

2. The by-pass or overflow of untreated or partially treated waste from the collection system or treatment and disposal facilities is prohibited.

3. The discharge, storage, or treatment of wastewater within 100 feet (30 m) of any surface water is prohibited.

4. The discharge of treated effluent within 100 feet of the property lines of any residence is prohibited.

5. Spray application of treated wastewater on the Golden Hills golf course is prohibited during the period 1 December and 30 April of each year.

6. The use of untreated or partially treated wastes for irrigation is prohibited.

7. The treatment facility shall not be located within the estimated 100 year flood plain of Brite Creek.

B. Discharge Specifications:

1. Neither the treatment nor the discharge shall cause a pollution or nuisance as defined by the California Water Code, Section 13050.

2. The discharge shall not cause degradation of any water supply.

3. The 30-day dry weather discharge flow shall not exceed 0.20 mgd (9.8 l/sec).

4. The discharge shall be confined to property owned or controlled by the Dischargers and/or those lands for which reclamation permits have been issued.

5. The discharge from the treatment plant prior to entering irrigation storage (Tom Sawyer Lake) or spray irrigation disposal at the Golden Hills golf course shall not contain constituents in excess of the following limits:

Constituents	Units	30-Day Mean	Maximum
BOD_5 1/	mg/l	30	60
Suspended Solids	mg/l	30	60
Settleable Matter	ml/l	0.1	0.2
Coliform Organisms	MPN/100 ml	23	240

1/ Five day 20° Celsius Biochemical Oxygen Demand

6. The dissolved oxygen content in any treatment, disposal or irrigation holding pond shall not be less than 1.0 mg/l for 16 hours in any 24-hour period.

7. The maximum specific electrical conductance of any discharge shall not exceed the weighted average of the source water plus 500 micromhos.

8. The Dischargers shall preclude public access to the treatment facilities.

9. Collected screening, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer.

10. Reclaimed wastewater shall meet the criteria contained in Title 22, Division 4, California Administrative Code (Section 60301 et seq.).

12/11/81 Amended

C. Provisions:

1. The Dischargers shall comply with Monitoring and Reporting Program No. 81-122.

2. The Dischargers shall comply with the Standard Provisions and Reporting Requirements, dated 21 September 1979, which are a part of this Order.

3. In the event of any change in control or ownership of the collection, treatment, or disposal system presently owned by the Dischargers, the Dischargers shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this office.

4. The Dischargers shall report promptly to the Board any material change or proposed change in the character, location or volume of the discharge.

5 The Board will review this Order periodically and may revise the requirements when necessary.

6. The Dischargers shall comply with the general requirements of design and the disinfection reliability standards in Article 8 and Article 10 of Title 22, Division 4, of the California Administrative Code.

I, JAMES A. ROBERTSON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 11 December 1981.

JAMES A. ROBERTSON, Executive Officer

11 December 1981
(Date)

TK/ajp 10/21/81

Attachments

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM

ORDER NO. 81-122

FOR
GOLDEN HILLS COMMUNITY SERVICES DISTRICT AND
GOLDEN HILLS SANITATION DISTRICT
KERN COUNTY

Composite samples may be taken by a proportional sampling device approved by the Executive Officer or by grab samples composited in proportion to the flow. In compositing samples, the interval shall not exceed one hour.

INFLUENT MONITORING

Influent samples shall be collected downstream from the last connection through which wastes can be admitted to the collection system. The following shall constitute the influent monitoring program:

Constituent	Units	Type of Sample	Frequency
Total Daily Flow	mgd	Measured	Daily
Settleable Matter	ml/l	Grab	Weekly
BOD_5 [1/]	mg/l	8-hour composite	Monthly
Total Suspended Matter	mg/l	8-hour composite	Monthly

1/ Five day 20°Celsius Biochemical Oxygen Demand

EFFLUENT MONITORING

The effluent shall be sampled from the outlet of the force main discharge from the treatment plant prior to entering irrigation storage (Tom Sawyer Lake) or spray disposal on the golf course.

Constituents	Units	Type of Sample	Frequency
BOD_5 [1/]	mg/l	Grab	2/Month
Total Suspended Matter	mg/l	Grab	2/Month
Settleable Matter	ml/l	Grab	Daily
Dissolved Oxygen [2/]	mg/l	Grab	Daily
Electrical Conductivity	umhos/cm	Grab	Weekly
Coliform Organisms	MPN/100 ml	Grab	2/Week
Chlorine Residual	mg/l	Grab	Daily

1/ Five day 20° Celsius Biochemical Oxygen Demand

2/ Samples to be collected from or near the outlet of each pond or lagoon between the hours of 0800 and 0900.

REPORTING

Monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the following month. In reporting the monitoring data, the Dischargers shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly the compliance with waste discharge requirements.

The Dischargers shall submit a diagram indicating the location of the sampling stations, in relation to the treatment facilities and the effluent reuse and disposal facilities, to the Executive Officer with the initial monitoring report.

Ordered by _____
JAMES A. ROBERTSON, Executive Officer

11 December 1981
(Date)

TK/ajp 10/21/81

INFORMATION SHEET

GOLDEN HILLS COMMUNITY SERVICES DISTRICT AND
GOLDEN HILLS SANITATION DISTRICT, KERN COUNTY

The Golden Hills Community Services District (District) and Golden Hills Sanitation Company (Company) filed a Report of Waste Discharge dated 21 April 1981 to discharge 200,000 gallons per day (9.8 l/s) of domestic wastewater.

The proposal includes construction of a new wastewater treatment plant, with golf course irrigation as an initial disposal method. The owner of the golf course will not enter into an extended agreement for disposal of treated effluent. Consequently the District had designated approximately 85 acres (34 ha) of useable meadow property it owns in Brite Creek Canyon as a potential land disposal site for irrigation of pasture land and fodder, fiber and seed crops. The disposal capacity of the meadow area has been estimated to be sufficient to accommodate anticipated wastewater flows. The District has required the Company to provide the necessary irrigation equipment to utilize the Brite Creek Canyon land.

Brite Creek transects the Golden Hills golf course. Water flows in the creek during rainy periods, but is dry the rest of the year. It is a tributary to Tehachapi Creek. Staff investigations have demonstrated that beneficial uses of Tehachapi Creek are limited to stock watering. In order to preclude runoff from the golf course into Brite Creek, these requirements include a prohibition of spray irrigation of treated effluent on the golf course for the period 1 December to 30 April of each year.

The District is also considering direct discharge of treated effluent into Brite Creek as a tentative future disposal alternative, and has informed the Board of these desires in written correspondence.

The proposed facilities will consist of a sewer collection system, extended aeration package treatment plant, rapid sand filter, chlorination equipment, a pump station and a 6" force main leading to the golf course. Additionally, an agreement has been reached between the District and the Company, giving the District operational control priority over a 110 acre-foot (13.6 ha/m) water storage reservoir (called Tom Sawyer Lake) on the golf course. The lake will serve as a holding pond for treated effluent during wet weather conditions when irrigation disposal could possibly result in runcff into Brite Creek.

The Company is arranging the financing for the proposed facilities and will maintain responsibility for the plant until operational stability has been demonstrated. The treatment and collection system will be deeded over to the District which will then be responsible for operations and maintenance of the system.

The treatment plant will serve proposed development within the District consisting of condominiums, single family residences, motels and a trailer park. The District may decide to connect existing development with septic tank problems to the system. An ultimate design of approximately 2,000 will be served by the facilities.

Wastewater Reclamation Requirements are concurrently being presented with these requirements for Board consideration to govern this proposed disposal operation.

These requirements have been developed to preclude runoff and discharge into areal surface waters. Compliance with the requirements will provide adequate protection of water quality.

A Negative Declaration has been prepared by Regional Board staff regarding these requirements in accordance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) and the State Guidelines. A Notice of No Significant Impact has been filed with the Secretary of Resources.

TK/ajp 10/21/81

Appendix G

Responses to GHCSD Board Comments and Draft Report Comments

Response to Review Comments
Golden Hills PER/Feasibility Study 3 Sept 2014 Draft
(Comment period through 13 Oct 2014)

Wastewater Committee Review Comments	
Response No.	**Response**
1.1	*Footnote 9 will be corrected to correctly reflect tables 1 and 2. In terms of Note 2, if what was being referred to was footnote 9, the report is based on 180 active connections since it will be those who are actively connected who will be sharing the sewer service fee. Footnote 13 is correct, however a statement will be added to reflect that the information was confidential and was therefore not provided.*
1.2	*AECOM met with the Receiver's appointed representative, Barbara Miller on 15 October 2014 and will revise the report to indicate that they have not used all of the $51,700 authorized by Kern County to date.*
1.3	*The field work was completed on the week of October 1st. Results of that work will be included in the report.*
1.4	*The fines leveed by the Water Board are within the range stated. However to date, the SSO's that have occurred at Golden Hills would not have resulted in a fine of this magnitude.*
1.5	*Acknowledged.*
1.6	*Every visit conducted was to evaluate the plant. It is true that our expert, Kevin Kennedy, visited the plant once, however the other visits included taking measurements, looking at the overflow basin, evaluating concrete structures, evaluating the piping, reviewing the headworks, the equalization basin, the chlorine metering pumps, the building, the fencing, the generator, the electrical works among other items. The check-list for Kevin and for your staff was prepared from prior visits. In summary, the prior visits had a purpose other than to take photographs for presentations to the public.*
1.7	*AECOM's report is based on an independent evaluation. What Kern County prepared in advance served as a good reference based on their many years of wastewater plant operations.*
1.8	*The report clearly reflects that the proposed increases were presented prior to receivership, however more clarification will be presented by annotations to table 4 will be made so there is no doubt that it occurred prior to receivership.*
1.9	*These have been reviewed with the Receiver's Representative. At issue are the entitled connections. Without an exhaustive investigation of how the entitled connections were dealt with over the past 30 years (beyond the scope of this study), the numbers of vacant lots will be based on the information already provided by the CPUC filings.*
1.10	*Since the release or the draft report, AECOM has looked at the budgets of several wastewater plants that support the finding and will provide that information in the final report.*

<table>
<tr><th>Response No.</th><th>Response</th></tr>
<tr><td>1.11</td><td>The numbers for O&M have been vetted with two of three possible governances and were found to be acceptable. The detail of these O&M costs can be found in Appendix B and includes routine labor, periodic cleaning and video, brush clearing to expose manholes, adjusting manhole lids each time there is a street construction project (reconstruction, overlay, etc.), and a reserve fund for rehabilitation.</td></tr>
<tr><td>1.12</td><td>Yes, the numbers are represented in Appendix B of the final report. Also in the final report is a discussion of cost comparison of other sewer service providers.</td></tr>
<tr><td>1.13</td><td>The numbers provided by the receiver were included in the report; however, cost was added for reserve fund, O&M costs not included, and for managing the system by a public agency. The numbers added have been vetted with Kern County, with GHCSD and with City of Tehachapi.</td></tr>
<tr><td>1.14</td><td>The detail required is in Appendix B. A footnote will be added to direct the reader to Appendix B.</td></tr>
<tr><td>1.15</td><td>The above statements identify two issues.
1. The math, though correct, does not accurately represent the amount that will need to be paid to City of Tehachapi for connection fees. Please see the table below that describes the connection fees to be paid. This table is in Appendix A of the report.

TABLE 16

Estimated Force Main Sewer Connection Fees
180 Active Connections and 30 Standby

<table>
<tr><th>Type</th><th>Number of Connections</th><th>Number of Units</th><th>EDU</th><th>Connection Fee</th><th>Total</th></tr>
<tr><td>Single-Family Homes</td><td>107</td><td>107</td><td>1.00</td><td>$7,259</td><td>$776,713.00</td></tr>
<tr><td>Manufactured Homes</td><td>47</td><td>47</td><td>0.58</td><td>7,259</td><td>197,880.34</td></tr>
<tr><td>Apartment Complex</td><td>22</td><td>29</td><td>0.58</td><td>7,259</td><td>122,096.38</td></tr>
<tr><td>Hotel</td><td>4</td><td>24</td><td>0.46</td><td>7,259</td><td>80,139.36</td></tr>
<tr><td>Standby</td><td>30</td><td>30</td><td>1.00</td><td>7,259</td><td>217,770.00</td></tr>
<tr><td colspan="6"></td></tr>
<tr><td>Totals</td><td>210</td><td></td><td></td><td></td><td>$1,394,599.08</td></tr>
<tr><td>USE</td><td></td><td></td><td></td><td></td><td>$1,395,000.00</td></tr>
</table>
Note: Sewer connection fee based on City of Tehachapi methodology.

2. This is answered by notes 1 and 2 under Table 2 of the report. Recorded documents are not necessarily legal documents.</td></tr>
</table>

Response No.	Response
1.16	*AECOM is not challenging the validity of decisions made by the receiver. It is ACEOM's position that the research and verification of connection fee payment and continuous payment of standby fees still needs to be made prior to payment. This verification would require extensive legal and accounting activities that are beyond the scope of AECOM's contract.*
1.17	*The matter is being researched with the State. The results of video recording of the sewer line have nothing to do with connection fees.*
1.18	*Previously addressed to your comment of Page 57, comment 1.11. See answer to 1.1.*
1.19	*The value of the standby fee is the money collected monthly for the 30 standby connections. The income generated is a receivable in your budget ledger.*
1.20	*We acknowledge the City of Tehachapi's position. The report's purpose was to address all viable options. Whether or not the related governance is willing to accept the option is not part of the feasibility analysis but will certainly need to be addressed prior to implementation.*
1.21	*Agreed. This number has vetted with the CSD and will be in the final report.*
1.22	*See Response 1.11*
1.23	*See response 1.20*
Barbara Miller's Comments	
Response No.	**Response**
2.1	*The time has been extended to 13 October.*
2.2	*Acknowledged*
2.3	*The calculations include the 1,740 feet of pipeline. The footnote was placed there to demonstrate a potential savings. Again, the calculations did not assume the savings potential.*
2.4	*Refer to response 1.13*
2.5	*Acknowledged. The final report will revise the numbers to be consistent throughout the document.*
2.6	*There could be as much as $7 million available in grant funding.*
2.7	*Refer to response 1.11*
2.8	*This is covered in appendix B. The budget covers electrical costs for pumping. It covers a reserve fund for the lift station and 5,000 feet of pipeline. It also covers routine labor assumed at 30 minutes per week.*
2.9	*Acknowledged. The numbers were accurate based on information available at the time of the draft report. An update will be made to these numbers in the final report.*
2.10	*Not that we are aware of.*
2.11	*City of Tehachapi budgets are a matter of public record.*
2.12	*Refer to response 1.11*
2.13	*Acknowledged*
2.14	*Refer to response 2.1*

Adrian Maaskant's Comments	
Response No.	**Response**
3.1	*The report was not delayed because of any request from the City of Tehachapi. It was our intent to meet with the three potential governance entities in advance of preparing the report. We now have met with Kern County, City of Tehachapi, and Golden Hills CSD.*
3.2	*Mr. Kennedy is a highly respected authority on this subject matter. The report will be based on independent research with the goal of recommending the least cost viable option.*
3.3	*Under all options presented, AECOM looked at the new facility standards for the treatment plant (Option 1) and delivery to the City of Tehachapi's treatment plant (Option 2). The City of Tehachapi has an updated facility and maintains it to a standard that is acceptable to Regional Board. It is not in a state of disrepair, in receivership, or is being cited for violations.*
3.4	*Under all Option 2 options, the Golden Hills customers are protected against increases under Prop 218. Under Option 2 c, each customer would have voting rights under Prop 218 with the City of Tehachapi. Under the other Option 2 options, each customer would have voting rights with the governance directly serving them, but the governance would not have that right with the City of Tehachapi. Options 2a and 2b would be more complicated.*
3.5	*Refer to response 1.15.*
3.6	*The decline in costs for Option 1 were a result of working closely with the Receiver, calculating costs, comparing costs of similar services with similar sized facilities, and vetting the numbers with two of the potential governances. The numbers for Option 1 were also reduced because the cost of easements for Option 1 was waived by GHCSD and not for Option 2. So, the capital costs of Option 1 were lowered. There is still more potential of lowering the costs of Option 2, but that would depend on final determinations made by the new governances. Numbers in this report are study level and are based on 2014 dollars. Actual numbers will need to adjust to inflation as well.*
3.7	*The time extension for the report was granted by the State which will provide the time necessary to include the results of the cleaning and video survey. We acknowledge you are entitled to your opinion regarding bias. The costs that you may be concerned about appear to be the construction costs which will be covered by grant funding.*
3.8	*Acknowledged.*
3.9	*For the purpose of this study we limited the report to those customers who were either actively connected or had a standby arrangement. That is not to say that the plant or force main connection to City of Tehachapi could not handle more services.*
3.10	*Acknowledged. The report will.*
3.11	*Costs are not inflated, they are representative of a study-level report. In terms of a headworks, there are other ways for debris to enter the system other than house plumbing. The results of the video will prove that. Bar screens are necessary for wastewater treatment plants.*
3.12	*Refer to response 3.3.*

Response No.	Response
3.13	*The cost of upgrading would be borne by all who receive the service. Those who receive the service would also be protected by Prop 218.*
3.14	*The easements would be needed for the sewer lines that cross the property, the access roads to the sewer lines and wastewater treatment plant and the area where the wastewater treatment plant is sited. Golden Hills would not need the easements because they already own the property. Recently (since the writing of the report) Golden Hills stated that they would provide the easements at no charge to Kern County if they took on the governance for Option 1. The final report will reflect this but retain costs in the event that GHCSD position changes.*
3.15	*The lift station that is referenced in footnote 40 is the existing lift station, not the lift station to the City of Tehachapi. The footnote 40 lift station applies to both options.*
3.16	*This analysis is based on experience and on history of operating and maintaining wastewater treatment plants. Even the grant providers recognize this. Furthermore, since the public/private partnership is less expensive, there is greater risk if it fails, because other options to address this potential failure would be more expensive. It should also be noted that the ability to heal a failure under a public agency that has the responsibility to manage more facilities (water, other facilities – such as GHCSD, COT or Kern County) is far greater than a single purpose small private entity. Further, grant money is more readily available to public agencies should grant funding be needed to fix a problem.*
3.17	*Refer to response 3.16*
3.18	*The lawful operation of the facility is a matter of opinion. The facility does not conform the requirements of the waste discharge permit for a tertiary facility and until very recently did not have oversight by a Grade 3 operator. Yes, the current management is moving in the correct direction, but there are many things that are not being done for a lawful operation. It is true that there is not a lot of local talent available. The statement was not based on speculation but on reviewing this very issue with Kern County and their struggles in acquiring local talent to operate the remote plants that they manage.*
3.19	*For the sake of lowering rates to customers, AECOM is looking into many different options with the full understanding that some will be more difficult to administer than others.*
3.20	*Refer to response 3.16.*
3.21	*Rate increases for the City of Tehachapi system are tied to an index that pre-dates Proposition 218.*
3.22	*Refer to response 3.16.*
3.23	*Refer to response 3.16.*

Response No.	Response
3.24	*After the second public meeting and physical evaluation of the plant by Kevin Kennedy, AECOM made revisions to the construction cost estimate needed to refurbish the plant. Further research with Kern County resulted in making the determination that flood proofing the entire site (as would have been the case if the FEMA map was correct), was unnecessary. That also reduced costs. That said, the improvements needed for the plant that are recommended in the report will not be a complete refurbishment but rather a catching up on deferred maintenance. The plant will still be an older plant and one that will require more maintenance than a new one.*
3.25	*They were raised to demonstrate the impact that minor changes would have on either option. It demonstrates that for a system with a smaller customer base, small cost changes can generate greater impacts to individual users.*
3.26	*Your comment is appreciated. Certainly there will be administrative issues that will need to be addressed. The report goal, again, was to address the cost to the customer for each option. Obviously for any option embraced, management will need to be competent and will need to establish a good and can-do working relationship with one another, or even the best option will fail.*
Allen Schluze's Comments	
Response No.	**Response**
4.1	*Their position should be consistent with what you have described and also consistent with the Plumbing Code.*
4.2	*AECOM's scope of work for this project was limited to the active and standby connections. The long term plan for sewage disposal should be addressed by the Golden Hills CSD. As an aside, the Golden Hills Community has about 4,000 lots. The existing wastewater treatment plant has been in operation for 30 years. To date there are only 180 active connections.*
4.3	*The financial analysis is based on the current 180 customers and needs to because it will be the 180 customers and no one else who would pay for the service. As connection numbers increase, the cost per connection would decrease, however the number of connections would have to increase considerably before the cost of option 1 and 2 became compatible. To assume that such an increase in use would occur at project implementation would be risky to the paying customers.*
4.4	*That is a reasonable assumption. If the community leadership moves in a direction that is in opposition of the Regional Board (which is to consolidate – Option 2) and the result is to keep the plant as a privatized operation (the "no change" option), this will likely not encourage confidence in the building community. If the plant is to remain but be under the governance of a public agency, the confidence will improve, but the costs will increase over where they are presently. If the option to consolidate is the one that is followed (Option 2) even though the initial capital costs will be greater (Capital costs will be covered by grant funding), the long-term O&M costs will decrease and the risks assumed by the building community will be minimized.*

Response No.	Response
4.5	*The current plant treats 25,000 gallons per day and is rated for 100,000 gallons per day. The request to the City of Tehachapi is to accept a peak flow of 104 gallons per minute. That flow rate if sustained over a 24-hour period would result in about 150,000 gallons per day. If the force main were upgraded to flow at 5 feet per second in the pipeline, the peak flow rate would be about 196 gallons per minute or about 282,000 gallons per day. With the 4-inch force main, you would actually have more capacity than the existing plant.*
4.6	*The detailed analysis is shown in Appendix B of the report. The numbers for plant operation were provided by Barbara Miller. AECOM added money to cover such items as reserve fund, management costs by the public agency, a realistic budget for replacing operating equipment, vehicle maintenance and repair, and continuing education required to maintain certification of the plant operators.*
4.7	*Options 1 and 2 as described in this report are both dependent upon grant funding. The purpose of this report is to provide justification for the grant funding. If the community embraces Option 2 and grant funding is unavailable, then there would be justification to consider another option.*
Dave Stegall's Comments	
Response No.	**Response**
5.1	*5.1 Response: AECOM appreciates your comments. Since the release of the draft report, the State has granted an extension to allow for comments through 13 October 2104 and also to allow for time to complete the sewer video. The video results were delivered by Pro Pipe to AECOM on October 15. The results, along with cost opinions to address deficiencies, will be included in the final report.* *That stated, the draft report was released in advance of the video findings for two reasons:* *1. <u>O&M focus.</u> The focus of the draft report was on operations and maintenance expenses and not on capital expenses. One of the purposes of the report was to provide justification for grant money as would be needed to cover capital expenses. If the collection system requires some rehabilitation, the rehabilitation would be covered by grant funding.* *2. <u>O&M costs applied equivalently to both options.</u> The operations and maintenance expenses of a rehabilitated collection system would be roughly the same for either option and would be applied to both. Actually, Option 1 would be slightly more expensive since 3,000 feet of 12-inch sewer main continues downstream of where the proposed Option 2 lift station will be cited.*

Response No.	Response
5.2	*Please note the capital costs listed in the estimates were developed to represent the total cost of installed work. Simply looking up costs in a catalog will not provide an accurate total cost for work installed under a public works contract. If all of the work identified was performed without design, verification of the correct selection of equipment, and without accounting for labor, installation, inspection, conformance with codes (Title 22) , documentation or any contingencies (such as plumbing modifications needed for an eyewash), the numbers cited by such a statement would appear considerably cheaper than those shown on the preliminary report.*
5.3	*The irrigation system cost was based on information received by a landscape design professional and contractor. The system would include a pond intake facility; a duplex irrigation pump station, a power, control panel and SCADA in a NEMA 3-R enclosure, fencing and a gravel area to facilitate access to the equipment area; an irrigation clock; a piping system and large-area style irrigation heads as needed to irrigate six acres. The purpose of the system is to provide a flow-through condition of water in Tom Sawyer Lake to lower the TDS and improve water quality over time. The lake would serve as a community amenity and would be supported by the entire community – not just the customers of GHSC.*
Golden Hills CSD Comments	
Response No.	**Response**
6.1	*The comment is appreciated. The report will be revised to reflect the "do nothing" option as suggested.*
6.2	*Kern County will be added as another viable public agency.*
6.3	*The footnote will be completed in the final report.*
6.4	*It could be contracted either by Golden Hills CSD or Kern County; however there would be some cost differences. The report will address both options.*
6.5	*The footnote was restored and will be included in the final report.*
6.6	*We understand this is the position of GHCSD; however, it is in conflict with GHSC and the CPUC filings. Likewise this position is in conflict with the 1983 agreement provision that addresses breaches and attorney's fees. This legal matter is beyond the scope of AECOM's contract.*
6.7	*The report did not consider the large lot numbers in the count, as they would not be required to connect to the sewer system. We appreciate the comment.*
6.8	*The proposed force main has the capacity for adding property within 200 feet of the existing sewer system.*
6.9	*Comment noted.*
6.10	*There is discussion of Exhibit "A" in Note 2 following Table 2.*
6.11	*The figure will be updated based on information we receive from GHSC. The video survey is only a check but does not guarantee the accuracy of all connections.*
6.12	*Report will reflect the change.*
6.13	*Figure will reflect this.*
6.14	*Acknowledged. It will be added to the report as a footnote.*
6.15	*As an example of flows diverted from Tom Sawyer Lake.*

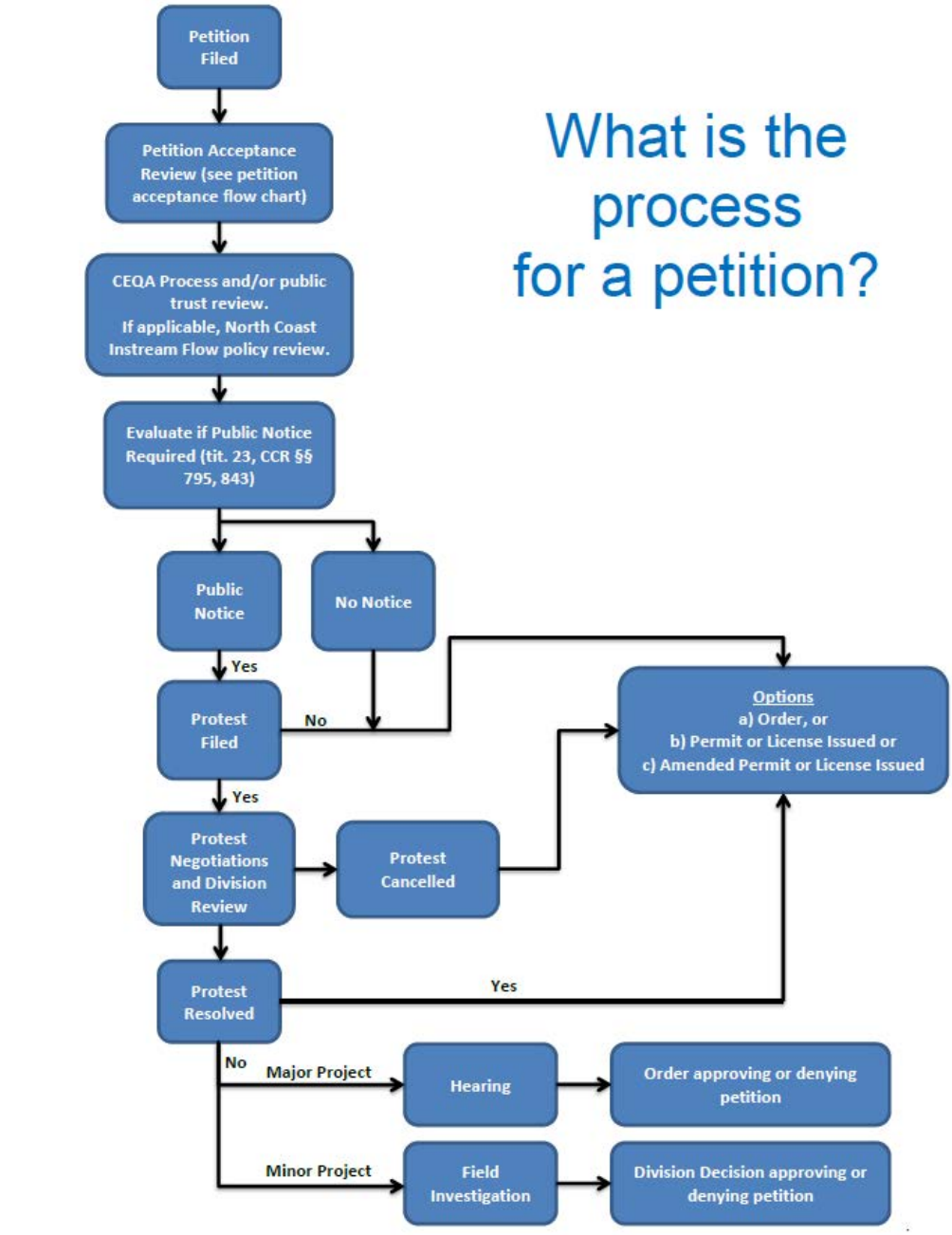
Response No.	Response
6.16	*And it has. It will be added to the text of the report.*
6.17	*Will be made in the report.*
6.18	*Report will be modified.*
6.19	*Report will be modified.*
6.20	*Acknowledged. The report will mention this and suggest drilling of another well.*
6.21	*Acknowledged.*
6.22	*Agreed. The report will be modified.*
6.23	*The Report that was prepared by BSK will be added to an appendix.*
6.24	*This will be noted.*
6.25	*It will be noted in the final report.*
6.26	*Restoration of Tom Sawyer Lake will be through bio-remediation as noted in Section 5.1.5 of the report. Golden Hills CSD is on the waste discharge permit of the plant. It is the intent of the study to recommend certain items of work for grant funding. Providing facilities to convey water to and through Tom Sawyer Lake is on the list. The report will concur with your point about shared costs with the community for the Tom Sawyer Lake amenity.*
6.27	*Yes. Not needed because fresh water will be added to Tom Sawyer Lake.*
6.28	*They are listed in the report.*
6.29	*Since the preparation of the draft, we also understand that the routing through Fontana Street is unencumbered by other utilities. The Fontana route will be the one recommended for Option 2.*
6.30	*See response 6.26.*
6.31	*Yes, a flow through condition is already recommended. Aeration, is a less expensive means, however with only aeration, the concentration of salts and metals in Tom Sawyer Lake would continue to increase.*
6.32	*This is a very good comment, however fine tuning of options should be part of design service.*
6.33	*Recovery Pond will not be a recommended option to remediate Tom Sawyer Lake in the final report.*
6.34	*This is not an accurate statement. Golden Hills CSD had in fact had effective authority over the plant through 2001.*
6.35	*See response 6.25.*
6.36	*Would this be a long-term solution that Golden Hills CSD would embrace if it takes the role as Governance?*
6.37	*This concern is uniform for all options. If there is a rate increase that is rejected by the rate payers and service cannot be provided without the rate increase, the service can cease.*
6.38	*See response 6.26.*
6.39	*Letters from the Regional Board in response to the draft report will be included in the final report.*

Jeannire Guiffre's Comments	
Response No.	**Response**
7.1	*The costs of easements for both options are calculated in Appendix A of the report.*
7.2	*Near new condition was the standard in order to compare both options. Option 2 would include all new facilities. Option 1 would need to start out the same way in order to begin with comparable facilities. In the event that Option 1 is implemented, the costs needed to bring the facilities to near new condition would be paid for by grant funds and relieve the rate payers of that burden.*
7.3	*The report lists the full cost of construction for each of these components. That cost includes verification of the correct selection of equipment, accounting for labor, installation, inspection, conformance with codes (Title 22) and documentation or any contingencies (such as plumbing modifications needed for an eyewash).*
7.4	*See response 5.3.*
7.5	*Yes, but at this time it cannot be legally permitted.*
7.6	*The number in the report that you are referring to is $62,000. It includes the generator placed in an outdoor weather resistant enclosure, an inertial slab foundation, wiring and installation costs. The generator would also include an automatic transfer switch with a clock to exercise the unit on a weekly basis. The transfer switch turns the generator on the moment utility power becomes unavailable. The unit will be outside to provide room for a second tertiary filter.*
7.7	*Surface water comes from the west of Woodford Tehachapi during storm events. Presently there is no surface water due to lack of rain.*
7.8	*We agree with your statement about nuisance water as it relates to the current drought conditions. There are several springs especially south of Brite Creek west of Woodford Tehachapi Road. Water runs from the springs into Brite Creek from that area to some extent year-round. We have not counted the springs as part of the report effort.*
7.9	*Currently that is the case. The report suggests that the lake could be fed by fresh water instead of treated wastewater effluent.*
Leroy White's Comments	
Response No.	**Response**
8.1	*This statement was made because at the time of the draft report, the sewer video survey results had not been received.*
8.2	*You are correct about the ditch. Ed Borges, however, did construct a pipeline to Tom Sawyer Lake from Fountain Lake. He also built an earthen levee to hold back more water. The El Nino storm of 1997 washed out the levee and the levee was never reconstructed. There is a photograph of the pipe and valve in the report.*

Response No.	Response
8.3	*The numbers called out in the report are detailed in Appendix A and were prepared by a professional Class A licensed contractor and estimator. Each will be summarized below:* *<u>Recovery Pond:</u> To construct a pond with the required holding capacity to capture a flash storm, we determined that there would be some major brush clearing and earthwork. To protect the pond from washing out (as it had in the past), riprap would be required and a controlled spillway would also need to be constructed. For all-weather access to the site, a gravel road from Woodford Tehachapi Road would be needed. To protect the facility from vandals and to protect the public, a chain link fence and lighting would be required. The pump station would include a screened intake at the pond, two pumps(for redundancy and to operate in a lead-lag alternating start configuration, a power, control panel and SCADA in a NEMA 3-R enclosure, fencing and a gravel area to facilitate access to the equipment area. The facility would also include a 1,700 foot long force main to Tom Sawyer Lake.* *To prepare the project for construction and public bidding, a design would be necessary. For the design, a survey, a geotechnical investigation and environmental documentation would be required. Plans and specifications would need to be prepared. The project would need to be bid and constructed. During construction the public agency would need to inspect the project and perform materials testing. At the end of the job, a set of record drawings and O&M manuals would be needed so that the facility can be properly maintained.* *Yes, $683,000 is about what the project would cost in the current market. The project would need to be built to public works standards to stay in operation as a permanent facility. In today's market, such a facility could not be constructed for $25,000.* *<u>Fountain Lake:</u> Similar to Recovery Pond, if Fountain Lake were constructed as a permanent reliable facility, the cost would be in the range stated in the report. The design would require a survey, geotechnical investigation, environmental analysis, design, plans and specifications. The end product would require grading, rip-rap slope protection and an emergency spillway to prevent washouts. If the project was constructed with force account labor and not to the permanent standard that was estimated, certainly the cost would be less. The report addressed each item as a viable reliable long term solution.* *In addressing your comment about the report making Option 1 look worse than Option 2, both of these water sources apply to both options.*

Response No.	Response
8.3 continued	*In fact Recovery Pond, though used in the past as an all-weather source of water, is not being recommended because of cost. As a less expensive option for year-round water is a well in the salvage area.*
8.4	*We checked with the Regional Water Control Board to find that there was no record of either of these occurrences after 2007. The answer to your question of whether or not the City of Tehachapi could handle Option 2, please also refer to response 3.3.*
8.5	*This is actually covered in the draft report under Section 3.2, second paragraph, second sentence; "Until 2001, the District Agreement anticipated that GHCSD would acquire the wastewater facility. However, in 2001, GHCSD quitclaimed the real property and sewer system to GHSC."*
8.6	*Please refer to response 2.1. The review time was extended to October 13th.*
State Water Board Comments	
Response No.	**Response**
9.1	*Refer to response 6.3.*
9.2	*Refer to response 6.1.*
9.3	*Refer to response 6.5.*
9.4	*The population of the 180 connections is roughly 2 persons per connection based on discussions with the Receiver's representative. The demographic consists mainly of retired people. The average daily flow based on a flow meter reading recorded at the plant is 25,000 gallons per day with the highest wet-weather flow of 38,000 gallons. This amounts to about 70 gallons per capita per day (gpcd) average and just over 105 gpcd wet weather.*
9.5	*They will be included in the report along with maps indicating where the deficiencies are.*
9.6	*It will be included in the final report.*
9.7	*The information is included in the Appendix A estimates, however the total to relocate and line the basin will also be included in this section.*
9.8	*They will be included in the final report.*
9.9	*Golden Hills CSD requested that the report include the value of treated effluent in both options. There was some discussion of revenue generated, so the report used the value of raw water in the area to be the value of the treated effluent. The District wanted that value accounted for so it would show the loss if Option 2 were implemented. The District now feels that the $500 per acre-foot is over-valued since it is treated effluent and not at the same quality as raw water, so the final report will consider lowering the value to half or $250 per acre-foot.*
9.10	*The standby fee benefit is the current practice for the area and for the report will remain. Your comment is appreciated.*
9.11	*Golden Hills CSD is the owner of Tom Sawyer Lake. They would need to collect the revenue from those in the community. Yes, fresh water sources would also be required for either option. A discussion and accounting of this is covered in the report.*
9.12	*Cleanup would be through bio remediation as described in section 5.1.5 of the report and also addressed under response 6.26.*

Response No.	Response
9.13	*On October 22, 2014, the City of Tehachapi responded to our 15 October request by indicating that AECOM's analysis appeared reasonable and that while the City may physically have the capacity, that the City would still have a myriad of issues that need to be considered prior to allowing the connection.*
9.14	*To approve a wastewater change petition, the State Water Resources Control Board (State Water Board) must be able to find that the proposed change will not injure other legal users of water, will not unreasonably harm in-stream uses, and is not contrary to the public interest.* *Additionally, if the proposed project has the potential to impair the water supply of other legal users of water or in-stream beneficial uses, the Division will require further notice of the petition. Protestants may raise concerns about protecting their water rights, or may raise public trust concerns. A protest sets forth the protestant's objections to approval of the petition. The procedures for addressing protests are set forth in tit. 23, CCR §1701.3, et seq. Evaluation of whether water is needed to serve in-basin water rights focuses on whether the discharges result from natural flows. Natural flows do not include imported or stored water.* *The actual link to the change petition is located here.* *http://www.waterboards.ca.gov/waterrights/publications_forms/forms/docs/pet_change.pdf* *If the proposed project has the potential to impair the water supply of other legal users of water or in-stream beneficial uses the attached flow chart must be followed.*

Response No.	Response
9.14 continued	
9.15	*Life cycle cost analysis will be included in the final report.*
9.16	*It will be described under 6.4.1 of the report, "Existing Management."*
9.17	*This would be handled by an outside service agreement for service outside the City's sphere of influence and established on the basis of a threat to public health and safety. It would be initiated by the City of Tehachapi based on a request by petition from those who want the service. The City of Tehachapi would prepare a resolution to LAFCO requesting permission to provide service. Along with the resolution, the City would prepare an application to*

Response No.	Response
9.17 continued	*LAFCO, a map with legal description and proof of a public health and safety issue. The process would not require a detailed agreement, a promise to annex in the future or a protest hearing. The process would take about six (6) months to complete.*
9.18	*The costs are provided in Appendix A and are also discussed earlier in the report. A footnote will be added.*
9.19	*This is very well stated and will replace item 1 of the grant funding descriptions.*
9.20	*An implementation schedule was part of the project and will be included in the final report.*
9.21	*Acknowledged.*
Glenn Mueller's Comments	
Response No.	**Response**
10.1	*Your solution was considered in the Draft No. 3 "Analysis of Continued Sewer Services Options for the Golden Hills Wastewater Treatment Plant Customers" prepare by the County of Kern as Option 3.4. It was determined that it would not be viable because it does not provide a solution to all the customers and that it would not likely receive approval from the Regional Water Quality Control Board because of potential ground water impacts and use of technology that is counter the State Water Resources Board goals.*
Director Cassil's Comments	
Response No.	**Response**
11.1	*We appreciate your comments; however, we disagree because the City's connection fee is charged to anyone who connects to the sewer system. It is actually a capacity fee and based on the cost of adding capacity in the future when the current capacity is exhausted. The capacity fee is regulated and fair. Stated in other words, all who connect are charged based on the portion of capacity they require.—Not biased.—Not a windfall.*
Central Valley Regional Water Quality Control Board Staff Comments	
Response No.	**Response**
12.1	*On page 10, Paragraph 2 that statement was made about forgiveness of debt. It will be revised to reflect your comments. The report will include the verbiage presented herein with regard to the Cleanup and Abatement Order. The report will also include the statement regarding the accumulated debt of $61,928.*
12.2	*The paragraph numbers will be checked. A statement about treatment trains will that addresses your comment be included in the report.*
12.3	*Dirt, rocks and roots restrict the flow to the WWTF. The video survey identified several locations where there was dirt in the lines as well as other deficiencies. These impact flow and will eventually result in major repair and replacement costs to maintain the collection system.*
12.4	*So noted.*
12.5	*The Board has been consistent on this position and is acknowledged. It will be a point made in the report.*

WASTEWATER COMMITTEE MEETING
GHCSD
Review of Draft Preliminary Engineering Report by AECOM
September 15, 2014

Submitted by Committee Member Barbara Miller

Pages 15-16:

1.1 Table 1 and Table 2 are presented in this report, but later references to such data are attributed to Table 1a and Table 1b. Note 2 requires further discussion and Footnote 13 contains misleading wording. Please review this with the Receiver or his appointed representative.

> ***1.1 Response: Footnote 9 will be corrected to correctly reflect tables 1 and 2. In terms of Note 2, if what was being referred to was footnote 9, the report is based on 180 active connections since it will be those who are actively connected who will be sharing the sewer service fee. Footnote 13 is correct, however a statement will be added to reflect that the information was confidential and was therefore not provided.***

Page 20:

1.2 The first paragraph is worded in such a manner that it is misleading regarding costs of operations and maintenance under the receivership. Please review this with the Receiver or his appointed representative.

> ***1.2 Response: AECOM met with the Receiver's appointed representative, Barbara Miller on 15 October 2014 and will revise the report to indicate that they have not used all of the $51,700 authorized by Kern County to date.***

Page 20: FOOTNOTE #17 MENTIONS A KEY COMPONENT OF THIS FEASIBILITY STUDY – THE COLLECTION SYSTEM.

1.3 Unresolved: The field work to assess the collection system is currently scheduled to begin on Monday, September 15, 2014. The start date has been moved forward multiple times, so still unknown are capital costs to repair/resolve any issues as well as the actual number of active connections to the sewer system. **Until this evaluation of a key component to wastewater treatment for either Option 1 or 2 is completed, numbers in this report are only based on assumptions. The report needs to represent the culmination of the best information the engineering firm can collect to validate the recommendation it is making.**

1.3 Response: The field work was completed on the week of October 1st. Results of that work will be included in the report.

Page 38: COLLECTION SYSTEM

1.4 Paragraph 2 is egregiously misleading and out of context for the discussion of SSO's delineated in Paragraph 1. Please review this with the Receiver or his appointed representative before publishing the final PER.

1.4 Response: The fines leveed by the Water Board are within the range stated. However to date, the SSO's that have occurred at Golden Hills would not have resulted in a fine of this magnitude.

1.5 Paragraph 3 further substantiates the necessity of completing the evaluation of the collection system before the report numbers can be validated.

1.5 Response: Acknowledged.

Page 41: EVALUATION OF THE EXISTING PLANT

1.6 Paragraph 2 states, "AECOM conducted a review of the existing wastewater plant on several occasions, to assess the needed repairs and rehabilitation required for continued operations in the future. We have confirmed the work described previously by Kern County and concur that that work would be required to address immediate issues to keep the wastewater treatment plant operational…"

Let's define "several occasions" and let the record reflect the truth:

There were two trips made by AECOM to the facility prior to the contract being awarded by the County to AECOM for the feasibility study: 1) on January 9, 2014 for the Pre-Proposal Meeting along with several other firms considering bidding on the project and 2) the morning before the interviews of those who had submitted bids. The purpose of that visit appeared to be more about exploring the project alternatives politically; it was definitely not a plant assessment.

The next visit to the facility by AECOM was not conducted by the wastewater specialist for the project but as a photo opportunity that provided the photos for the public meetings and the draft report.

Finally, after the community's reactions at the second public meeting, AECOM scheduled an evaluation of the facility by the firm's wastewater specialist. It was preceded by a conference call with GHSC lead plant operator who, because of scheduling restraints by AECOM, was on vacation during the plant visit. That is the only visit made to the facility that could be construed as evaluating the existing facility and it was

conducted after AECOM had already presented the community with the first set of cost calculations to rehab the plant.

1.6 Response: Every visit conducted was to evaluate the plant. It is true that our expert, Kevin Kennedy, visited the plant once, however the other visits included taking measurements, looking at the overflow basin, evaluating concrete structures, evaluating the piping, reviewing the headworks, the equalization basin, the chlorine metering pumps, the building, the fencing, the generator, the electrical works among other items. The check-list for Kevin and for your staff was prepared from prior visits. In summary, the prior visits had a purpose other than to take photographs for presentations to the public.

1.7 Secondly, to "confirm" and "confer" with the report by Kern County is troubling: 1) how thorough was the evaluation performed by Kern Country prior to the writing of their Options Report? 2) some of the issues raised in the County's report have already been resolved; 3) AECOM is supposed to be conducting an independent study and, since it has been expressed by many that it appeared that the County report was written tailored to a pre-determined solution, AECOM needs to stand independently in their final evaluation and not lean on Kern County.

1.7 Response: AECOM's report is based on an independent evaluation. What Kern County prepared in advance served as a good reference based on their many years of wastewater plant operations.

Page 52 and 53: PREVIOUS ATTEMPTS TO RAISE SEWER RATES AND TABLE 4

1.8 Please clearly attribute Table 4 to Clint Hilderbrand, previous management of GHSC, in his attempt to have rates increased by the CPUC. None of the information provided in that table is supported by the receivership and should not be confused as current information.

1.8 Response: The report clearly reflects that the proposed increases were presented prior to receivership, however more clarification will be presented by annotations to table 4 will be made so there is no doubt that it occurred prior to receivership.

Page 53: FUNDING ISSUES

1.9 The two paragraphs under this heading are confusing, misleading, with an inaccurate number and reference to tables that don't exist, and makes assumptions that aren't established. Please review this section with the Receiver or his appointed representative.

1.9 Response: These have been reviewed with the Receiver's Representative. At issue are the entitled connections. Without an exhaustive investigation of how the entitled connections were dealt with over the past 30 years (beyond the

scope of this study), the numbers of vacant lots will be based on the information already provided by the CPUC filings.

Page 55: REHABILITATION OF EXISTING WWTP

1.10 Please provide documentation in the report from sources used to determine appropriate budget numbers for reserves and substantiate level of actual review with said facilities. It is suggested that for valid comparison that perhaps local agencies should be polled for budgeted and actual reserves funding information. Specifically, the budget and actual reserves for the City of Tehachapi (Option 2) should be analyzed. Since the city has a much larger customer base, it appears that Stallion Springs, which is twice the size of GHSC, might also provide valuable comparison. It is also suggested that the State Water Board requirements in order to provide grant money be utilized to establish a realistic reserves plan.

1.10 Response: Since the release or the draft report, AECOM has looked at the budgets of several wastewater plants that support the finding and will provide that information in the final report.

Page 57: TABLE 5 – OPINION OF CONSTRUCTION AND O&M COSTS FOR OPTION 1

Construction costs I leave to those with expertise. However, I am particularly concerned with O&M costs.

1.11 1A, 1B, and 1C all assume annual O&M costs for the collection system and discharge piping that seem excessively high. These numbers need to be justified, particularly if a private contractor is providing the services, as the costs most likely could be reduced. Furthermore, costs of services to the collection system include high numbers to maintain the existing lift station and that lift station may be replaced by gravity piping as suggested in this report.

1.11 Response: The numbers for O&M have been vetted with two of three possible governances and were found to be acceptable. The detail of these O&M costs can be found in Appendix B and includes routine labor, periodic cleaning and video, brush clearing to expose manholes, adjusting manhole lids each time there is a street construction project (reconstruction, overlay, etc.), and a reserve fund for rehabilitation.

1.12 1B: Has the Golden Hills CSD supplied the numbers for O&M costs if it were to own and operate the facility?

1.12 Response: Yes, the numbers are represented in Appendix B of the final report. Also in the final report is a discussion of cost comparison of other sewer service providers.

1.13 1C: I would like to see the justification for the numbers attributed to a private contractor performing the operations and maintenance. My two and a half years of experience with actual costs to operate GHSC indicate that O&M costs could be significantly lower. I also have preliminary numbers from an established wastewater operator providing service to small systems such as ours that show that existing operations could continue with much lower costs than reported by AECOM.

1.13 Response: The numbers provided by the receiver were included in the report; however, cost was added for reserve fund, O&M costs not included, and for managing the system by a public agency. The numbers added have been vetted with Kern County, with GHCSD and with City of Tehachapi.

1.14 Unresolved: The cost of operating and maintaining the sewer service is the single most critical component of this study and needs to be further reviewed. The customers, who ultimately will be looking at whether they can afford the monthly cost of service or not, deserve that AECOM show justification for the numbers in this table.

1.14 Response: The detail required is in Appendix B. A footnote will be added to direct the reader to Appendix B.

1.15 Page 59: REQUIRED CAPACITY FEES FOR OPTION 2

The COT stands to receive a windfall in connection (capacity) fees if Option 2 is recommended but the draft report does not adequately address the unknowns at this time.

180 current customers	x $7,259	= $1,306,620 **(MINIMUM)**
30 standby connections	x	= $ 217,770
38 standby connections	x	= $ 275,842
65 standby connections	x	= $ 471,835
(MAXIMUM as of research to date)		$ 2,272,067

9/23/14 After using the numbers based on methodology from COT, my calculations are that the numbers could increase to $2, 142,276. And what about any additional customers that are added before the project begins?

1.15 Response: The above statements identify two issues.

1. ***The math, though correct, does not accurately represent the amount that will need to be paid to City of Tehachapi for connection fees. Please see the***

table below that describes the connection fees to be paid. This table is in Appendix A of the report.

TABLE 16

Estimated Force Main Sewer Connection Fees
180 Active Connections and 30 Standby

Type	Number of Connections	Number of Units	EDU	Connection Fee	Total
Single-Family Homes	107	107	1.00	$7,259	$776,713.00
Manufactured Homes	47	47	0.58	7,259	197,880.34
Apartment Complex	22	29	0.58	7,259	122,096.38
Hotel	4	24	0.46	7,259	80,139.36
Standby	30	30	1.00	7,259	217,770.00

Totals	**210**	**$1,394,599.08**
USE		**$1,395,000.00**

Note: Sewer connection fee based on City of Tehachapi methodology.

2. This is answered by notes 1 and 2 under Table 2 of the report. Recorded documents are not necessarily legal documents.

1.16 Background: GHSC records were in shambles when they were handed over to the Receiver after he accepted court-appointed responsibility for the continued wastewater treatment operations in April 2012. The Receiver's position at that time was and remains today that he does not intend to go to the CPUC and request a rate increase for the battle-weary customers of GHSC who have endured so much emotionally and physically with the threat of increased rates that were obviously beyond their ability to pay.

That commitment has required that he work with limited staff hours to sort out the woefully inadequate records that were left in his care and make fiduciary decisions based on good business sense without incurring legal fees which would have further encumbered the customers. I believe those decisions have been fair and defensible.

Now AECOM is trying to get a commitment from the State for potential funding for some, but not necessarily all, of the capacity fees for standby connections. I believe it is outside the parameters of the feasibility study to challenge the decisions the Receiver has made. If AECOM intends to challenge the validity of some standby connections and not others, I believe it would be a matter for the courts to disallow recorded documents and in no way should the Receiver or the customers of GHSC be financially burdened with any of the legal costs.

1.16 Response: AECOM is not challenging the validity of decisions made by the receiver. It is ACEOM's position that the research and verification of

connection fee payment and continuous payment of standby fees still needs to be made prior to payment. This verification would require extensive legal and accounting activities that are beyond the scope of AECOM's contract.

1.17 Unresolved:

Option 1: No issue.

Option 2: It is assumed that there might be grant money from the State to pay the capacity fees that the City is requiring for the **existing** customers who are already connected (active connections).
It is unknown at this time if the State could also potentially provide grant money to cover the City-required capacity fees for the **standby** connections.
So the cost to connect to the City could **potentially increase another approximately $1,000,000 or potentially more since the sewer videotaping has not yet been completed. There is a limit to how much grant money might even be available and this could potentially require the customers to take on the added burden of a loan in order to fund Option 2.**

1.17 Response: The matter is being researched with the State. The results of video recording of the sewer line have nothing to do with connection fees.

1.18 Page 65: TABLE 7 – OPINION OF CONSTRUCTION AND O&M COSTS FOR OPTION 2

Again, I leave the discussion of construction costs to those who have expertise in such. As before, O&M costs to maintain the existing collection system seem higher than necessary.

1.18 Response: Previously addressed to your comment of Page 57, comment 1.11. See answer to 1.1.

1.19 Please explain the line "Value of 30 Standby"

1.19 Response: The value of the standby fee is the money collected monthly for the 30 standby connections. The income generated is a receivable in your budget ledger.

1.20 Unresolved: Option 2 C Annual Costs (COT) appears invalid since it assumes that the City of Tehachapi will maintain full responsibility for the collection system located in Golden Hills as well as billing of customers and delinquent debt collection. However, the letter from COT included in the report states that "the city is willing to consider treating the wastewater once it has been delivered to the City's collection system," but twice states that "it is not willing to provide the collection system maintenance." It is also unwilling, per this letter, to "handle bill collection

activities outside City limits." Finally, "The City's opinion is that a governmental agency which currently holds some jurisdiction for the current GHSC customers would be better suited to handle collection system maintenance and bill payment/collection activities."

1.20 Response: We acknowledge the City of Tehachapi's position. The report's purpose was to address all viable options. Whether or not the related governance is willing to accept the option is not part of the feasibility analysis but will certainly need to be addressed prior to implementation.

Pages 75-76: PUBLIC/PRIVATE PARTNERSHIP

1.21 There are multiple assumptions made in this analysis that discredit the public/private partnership option that suggest the author's bias. One specific observation: "truck replacement." It has been noted in other places as well in this report that there needs to be $12,000 per year put into a reserve account to replace our 2006 Ford truck which doesn't appear to need replacement for many, many years. And if it did, good business management would consider other options than purchasing another truck that is only used six-eight times a year! Furthermore, depending on the party covering operations, there may already be a truck available for those infrequent sludge-hauling trips. Or it would be far less expensive to rent a truck for six to eight days per year than to pad the reserve account with an additional $12,000.

1.21 Response: Agreed. This number has vetted with the CSD and will be in the final report.

Page 80: Comparison of O&M Costs (180 connections)

The monthly rate to the customer is the bottom line! This is the page that customers are likely to read first. Please reference comments regarding pages 57 and 65.

1.22 Unresolved: The cost of operating and maintaining the sewer service is the single most critical component of this study. Option 1 (maintaining the newly refurbished existing plant) needs to be further reviewed. The customers, who ultimately will be looking at whether they can afford the monthly cost of service or not, deserve that AECOM show justification for the numbers in this table.

1.22 Response: See response 1.11

1.23 Unresolved: Option 2 C Annual Costs (COT) appears invalid since it assumes that the City of Tehachapi will maintain full responsibility for the collection system located in Golden Hills as well as billing of customers and delinquent debt collection. However, the letter from COT included in the report states that "the city

is willing to consider treating the wastewater once it has been delivered to the City's collection system," but twice states that "it is not willing to provide the collection system maintenance." It is also unwilling, per this letter, to "handle bill collection activities outside City limits." Finally, "The City's opinion is that a governmental agency which currently holds some jurisdiction for the current GHSC customers would be better suited to handle collection system maintenance and bill payment/collection activities."

1.23 Response: See response 1.20

COMMENTS BY BARBARA MILLER TO THE DRAFT AECOM REPORT

September 23, 2014

2.1 I need more time to fully review this report!

2.1 Response: The time has been extended to 13 October.

2.2 My comments today are primarily limited to just a few of the numbers that I find concerning in this report.

2.2 Response: Acknowledged

2.3 Page 63, second paragraph and footnote: Is the 1,740 feet of pipeline that could potentially be provided by a land developer included in all of the calculations in this report? My concern is that we don't make an assumption on a potential, not an actual, situation.

2.3 Response: The calculations include the 1,740 feet of pipeline. The footnote was placed there to demonstrate a potential savings. Again, the calculations did not assume the savings potential.

2.4 Page 65, Table 7: What is the basis for assigning different O&M annual costs for Discharge Piping between the GHCSD and COT? No number has been vetted with GHCSD, so I don't understand how there can be a $26,000 difference. <u>If the same number is attributed to both the CSD and COT, the total O&M cost to rate payers is actually $1,000 less for the CSD.</u>

2.4 Response: Refer to response 1.13

2.5 Page 78, third bullet point: Project costs are significantly different that numbers reported throughout the report. Why is this? And, I fully agree with many others that these numbers MUST include verifiable capital (as well as O&M) costs for the collection system.

2.5 Response: Acknowledged. The final report will revise the numbers to be consistent throughout the document.

A MAJOR CONCERN THAT ONLY GETS MORE CONCERNING AS I SEE THE NUMBERS CONTINUALLY INCREASING UPWARDS:

2.6 Page 78, Grant funding, #1 and #2: When we get over the maximum amounts of grant money available, the report needs to calculate the costs of loans. Please fully evaluate the final O&M costs for either Option 1 or Option 2 after including loan repayments whenever it is possible that grant money will not be available. The assumption of grant money provides a seriously different picture to the customers than what they would experience if they have to pay for any portion of the final solution.

2.6 Response: There could be as much as $7 million available in grant funding.

2.7 Page 80, Table 12: I find $35,000 used for O&M costs for the Collection System. Is there a detailed explanation of how you arrived at this figure?

2.7 Response: Refer to response 1.11

2.8 Page 80, Table 12: Please provide justification for assigning $6,000 per year for O&M costs for Discharge Pipeline.

2.8 Response: This is covered in appendix B. The budget covers electrical costs for pumping. It covers a reserve fund for the lift station and 5,000 feet of pipeline. It also covers routine labor assumed at 30 minutes per week.

2.9 Page 80, Table 12: My calculations arrive at different a "Calculated Monthly Rate" than those in the report. When time permits, I would like to share my reasons for arriving at different numbers.

2.9 Response: Acknowledged. The numbers were accurate based on information available at the time of the draft report. An update will be made to these numbers in the final report.

2.10 General questions: Does the COT anticipate a rate increase in the foreseeable future in addition to CPI increases?

2.10 Response: Not that we are aware of.

2.11 Will the ratepayers have an opportunity to look at a wastewater COT budget and any other information that would affect the ratepayers if Option 2 is selected?

2.11 Response: City of Tehachapi budgets are a matter of public record.

2.12 Unnumbered page, "Operations and Maintenance Cost Opinion for Option 1 C": As I have expressed multiple times, I have disagreement with numbers in AECOM's opinion regarding the GHCSD/contractor-maintained solution. I reserve my comments here until these numbers have been vetted with GH CSD, except for one specific concern. To receive State grant money the Reserve Fund components – building replacement and

concrete structure – are not required. If the two numbers included for these reserve fund items are removed, the monthly O&M cost to the ratepayer can be reduced $14.47. With additional time, I would also like to discuss other reserve assignments.

2.12 Response: Refer to response 1.11

2.13 Unnumbered page, "Operations and Maintenance Cost Opinion, Collection System": My calculations for annual costs differ significantly with the draft report numbers. I would like an opportunity to discuss this in detail.

2.13 Response: Acknowledged

2.14 I'm out of time, but my commentary is not finished…

It is my understanding – but unverified because I haven't spoken with District Supervisor Scrivner – that the County is hesitating to request additional time for this FINAL PER to be developed because Supervisor Scrivner (and understandably so) just wants this project done. But, there are so many unresolved concerns and challenged numbers in this report, that I add my voice to others requesting that the State extend the deadline for this portion of the feasibility study.

2.14 Response: Refer to response 2.1

Comments on AECOM Draft Report

General Comments

3.1 1) I'm told that AECOM delayed making this report public because the City of Tehachapi requested the opportunity to review the report first. At the June 23 public meeting an AECOM spokesperson stated that there was a "firewall" between this project and the City of Tehachapi.

What happened to the "firewall?"

3.1 Response: The report was not delayed because of any request from the City of Tehachapi. It was our intent to meet with the three potential governance entities in advance of preparing the report. We now have met with Kern County, City of Tehachapi, and Golden Hills CSD.

3.2 2) Dave Stegall, employee of Receiver Clifford Bressler, was present when Mr. Kevin Kennedy inspected the facility. Mr. Stegall relates that Mr. Kennedy repeatedly stated during his inspection that the only viable option is the forced-main to the City of Tehachapi.

Was there ever really a firewall?

3.2 Response: Mr. Kennedy is a highly respected authority on this subject matter. The report will be based on independent research with the goal of recommending the least cost viable option.

3.3 3) Under Section 5.1.2 the report states:
"As a corollary, the intent of each project is to bring each facility [where "facility" seems to refer only to components of GHSC] to an acceptable standard for a new facility and not merely a repair or short term maintenance activity. Treating each project [where "project" seems to refer only to those related to GHSC] equally will also serve as an apples- to-apples comparison of alternatives and affect a decision based on equal criteria for every option." (Bold emphasis added) (Last paragraph, page
39)

And:

"**In order to bring the system to a "like new" condition**, …" (Bold emphasis added) (First paragraph, page 40)

Under Option 1 Golden Hills residents are held to the standard that they must flush into a facility brought up to "like new" condition. However, under Option 2, those same residents will be flushing into the City of Tehachapi Sewer System – a system that I recall predates the GHSC facility by several decades. There is no comparable review of the City of Tehachapi facility which develops the cost of bringing the City system up to "like new" condition.

3.3 Response: Under all options presented, AECOM looked at the new facility standards for the treatment plant (Option 1) and delivery to the City of Tehachapi's treatment plant (Option 2). The City of Tehachapi has an updated facility and maintains it to a standard that is acceptable to Regional Board. It is not in a state of disrepair, in receivership, or is being cited for violations.

3.4 Furthermore, the City of Tehachapi system only produces secondary-treated effluent, as opposed to the tertiary-treated effluent the existing GHSC facility would produce if brought up to the standard to which it was originally designed.

This means that the cost comparisons developed in this AECOM Report are an "apples to coconut" comparison between Option 1 and Option 2, with Option 1 held to a far more stringent and costly standard producing a far superior product in the form of tertiary-treated effluent.

For this reason, should Option 2 become the favored solution, the residents of Golden Hills who are connected to the City of Tehachapi Sewer System must be protected in perpetuity from any assessments, fees and/or rate increases intended to address upgrades to the City of Tehachapi Sewer System. This would be in recognition that the City of Tehachapi would already have been compensated by the generous grant funding anticipated by this project. Certainly, the residents of Golden Hills should be forever shielded from any costs of bring the City of Tehachapi facility up to the standard of tertiary-treated.

3.4 Response: Under all Option 2 options, the Golden Hills customers are protected against increases under Prop 218. Under Option 2 c, each customer would have voting rights under Prop 218 with the City of Tehachapi. Under the other Option 2 options, each customer would have voting rights with the governance directly serving them, but the governance would not have that right with the City of Tehachapi. Options 2a and 2b would be more complicated.

3.5 4) With a bit of effort the motivation for AECOM and its client, the City of Tehachapi, to advance the argument for Option 2 – Connect to the City of Tehachapi – is discernable from the AECOM Report. Table 11 notes the cost category: "Effluent Disposal." Under Option 2 is listed: "One-time COT Connection fee payment" with a cost of $1,395,000. If one assumes that 180 connections plus the additional 12 mentioned in paragraph 4 of page 15 were used to arrive at this cost, the connection fee to the City is $1,395,000 ÷ 192 = $7,265.63 … slightly higher than the $7,259 previously disclosed.

Furthermore, there are 30 stand-by connections apparently not included in this calculation, thus the City can anticipate another $7,259 x 30 = $217,770 in connection fees.

If the 38 connection fees for the newly acquired Tehachapi- Woodford property of Golden Hills CSD is added, the City stands to gain another $7,259 x 38 = $275,842. All together, the City of Tehachapi anticipates a windfall of $1,888,612.

3.5 Response: Refer to response 1.15.

3.6 5) Comparison of the Treatment Plant Repair and Rehab Costs presented at the June 23, 2014 presentation and the current AECOM Report is of interest. It is striking how the cost of Option 1 has declined so dramatically, while the cost of Option 2 has grown. The vast change in these numbers from June 23 to September 4 cast doubt upon the integrity of the process used to arrive at any of these numbers.

An explanation is requested.

3.6 Response: The decline in costs for Option 1 were a result of working closely with the Receiver, calculating costs, comparing costs of similar services with similar sized facilities, and vetting the numbers with two of the potential governances. The numbers for Option 1 were also reduced because the cost of easements for Option 1 was waived by GHCSD and not for Option 2. So, the capital costs of Option 1 were lowered. There is still more potential of lowering the costs of Option 2, but that would depend on final determinations made by the new governances. Numbers in this report are study level and are based on 2014 dollars. Actual numbers will need to adjust to inflation as well.

3.7 6) It has been noted that this AECOM Report is premature because not all the cost factors have been included. Most obviously, the results of the video inspection of the collection system has not been completed.

For this reason a delay is in order until a Final AECOM Report can be produced which not only includes all the information to be collected, but a report which also addresses the many concerns raised in the public meeting to be held on September 23, 2014.

Please find below a page from the power point presentation which represents the Operations and Maintenance Cost Comparisons of the June 23 presentation and on the next page the June 23 Capital Costs Comparisons plus Table 11 from the September 4 Report.

FUNDING IMPLICATIONS AND OPTIONS

	Option 1 – Rehabilitate Existing WWTF	Option 2 – Force Main to COT
Funding Opportunity	Both options are equally eligible for funding	
Capital Costs	Would require less funding for capital costs	Would require more funding for capital costs
Operation and Maintenance Costs	Would cost more in long term O & M Costs	Would cost less in long term O & M Costs
Management	No long-term owner secured for entire system	Existing management for treatment; no long-term owner secured for remaining system

GOLDEN HILLS SEWER PROJECT

CAPITAL COSTS
WASTEWATER SYSTEM COMPONENTS

Components	Option 1 Continued Operation		Option 2 Tehachapi	
Collection System	Inspect and R&R	TBD	Inspect and R&R	TBD
Treatment Plant	Rehab	$2,814,000	Decommission	$75,000
Discharge Pipeline	R&R	$20,000	Pipe to Tehachapi Connection Fee (230)	$1,958,000 $1,670,000
Disposal Irrigation (6 Acres)		$200,000		
Totals		**$3,034,000**		**$3,703,000**

Table 11

Comparison of Construction Costs

Component	Required Improvements		Capital Costs	
	Option 1 Continued Op	Option 2 FM to Tehachapi	Option 1 Continued Op	Option 2 FM to Tehachapi
Collection System	Inspect, Repair, & Rehabilitate	Inspect, Repair, & Rehabilitate	TBD + $699,000	TBD + $699,000
Treatment Plant	Repair & Rehab	Decommission	$1,268,000	$75,000
Discharge Pipeline	Repair & Rehab	FM and Lift Station, Connection Fees	$0	$1,959,000
Easements [1]	Kern County (1A)	Kern County (2A) and COT (2C)	$301,000	$119,000
Effluent Disposal	Tom Sawyer Lake, as it exists	One-time COT Connection fee payment	$0	$1,395,000
TOTAL COST			**Option 1A $2,268,000**	**Option 2A $4,247,000**
			Option 1B $1,967,000	**Option 2B $4,128,000**
			Option 1C $1,967,000	**Option 2C $4,247,000**

Table 11 – Comparison of Construction Costs

1. Easement costs apply to options that do not include GHCSD in the governance.

The culmination of the concerns raised support the notion that AECOM's efforts have been biased in favor of a predetermined recommendation to have Golden Hills customers connect to the City of Tehachapi. Considering the stature of AECOM in the community of project engineers, this is a surprising but appropriate and necessary conclusion. The problem this presents to Golden Hills customers is that action based on a biased report will likely incur problems, cost overruns or other unpleasant anomalies that may ultimately be charged to them. For this reason it will be necessary to shield Golden Hill customers from the consequences of the bias in this AECOM Report through contractual provisions that disallow in perpetuity any recourse against them for the purpose of alleviating the costs of deficiencies likely from pursing the AECOM Report recommendations.

3.7 Response: The time extension for the report was granted by the State which will provide the time necessary to include the results of the cleaning and video survey. We acknowledge you are entitled to your opinion regarding bias. The costs that you may be concerned about appear to be the construction costs which will be covered by grant funding.

3.8 Section 3.2 Background

1) Second paragraph with additional references throughout this AECOM Report to GHSC filing for bankruptcy – GHSC has not filed for bankruptcy. There is no (and never was) a proceeding before the Federal Bankruptcy Court related to GHSC.

3.8 Response: Acknowledged.

3.9 Section 3.3 Service Area

1) First paragraph – Golden Hills has a total of 4,066 lots of which 2,699 have residential water connections and 98 commercial water connections. Thus there is potential for 4,066 sewer connections, though for a variety of reasons it is unlikely that all of these lots would eventually be connected to sewer.

2) Second paragraph – From Section 3.2, second paragraph:

"The average flow at the treatment plant is currently 25,000 GPD. The treatment plant has a maximum 30-day average dry weather flow limit of 0.20 MGD or 200,000 GPD in accordance with waste discharge requirements (WDR) 81-22."

Thus the potential number of customers the current wastewater treatment facility could serve is (180 ÷ 25,000 x 200,000) = 1,440 customers. But here you state:

"… the number of connections is limited to 325 customers comprised of 180 active connections, 30 standby connections, 103 connections that require additional accounting and 12 projected connections."

Please clarify. Are the number of connections truly "limited to 325 connections?" In the fifth paragraph you identify the limiting factor as the current capacity of the collections system. Is it correct to conclude that the number of connections can increase substantially with the refurbished current facility given the expansion of the collection system?

3.9 Response: For the purpose of this study we limited the report to those customers who were either actively connected or had a standby arrangement. That is not to say that the plant or force main connection to City of Tehachapi could not handle more services.

3.10 Section 3.4 Management

1) Page 20, Second paragraph –

"…the system is being managed within a reasonable budget, however the budget has not always covered all necessary expenditures for O&M."

I have heard it stated that the normal operation of the existing waste water facility is currently accomplished within the constraints of current revenue. This does not include the cost of needed capital improvements caused by the deferred maintenance of the previous management nor does it include the Receiver's fees.

Pease verify the accuracy of your statement with current management.

3.10 Response: Acknowledged. The report will.

3.11 Section 5.1.3 Treatment System
All costs related in this section seem to be inflated. For example, under "Headworks on page 41:

"The existing headworks system (Figure 18) does not have an automatic bar screen or redundant manual unit to remove screenings and other large materials such as rocks or tree limbs that could damage downstream processes."

Is it the expectation that Golden Hills' residents will be flushing rocks and tree limbs down their toilets? Is this concern truly legitimate?

3.11 Response: Costs are not inflated, they are representative of a study-level report. In terms of a headworks, there are other ways for debris to enter the system other than house plumbing. The results of the video will prove that. Bar screens are necessary for wastewater treatment plants.

3.12 6.1.1 Option 1 – Continued Operations
1) First Bullet –

"For purposes of comparing Options 1 and 2, plant operations moving forward should be with a plant that is in "near new" condition. This allows for an equal comparison between the two options with respect to the level of service."

Yet this standard for comparing costs of Option 1 with Option 2 is flawed. There is no comparable cost for refurbishing the City of Tehachapi Wastewater facility to "near new" condition in Option 2. As noted, if Option 2 is recommended, the Golden Hills ratepayers must be shielded from future assessments, fees and/or rate increases in recognition of the windfall the City of Tehachapi will receive from the grants funding this project.

3.12 Response: Refer to response 3.3.

3.13 Furthermore, the costs of upgrading the City of Tehachapi facility from secondary-treated to tertiary-treated effluent should not be borne by Golden Hills customers of the City's facility.

3.13 Response: The cost of upgrading would be borne by all who receive the service. Those who receive the service would also be protected by Prop 218.

3.14 6.1.7 Cost Estimates – Option 1a and 1b

1) Table 5 shows a cost for easements of $301,000 if Kern County operates the facility under Option 1A. What easements would the County need and why would GHCSD not need these easements?

3.14 Response: The easements would be needed for the sewer lines that cross the property, the access roads to the sewer lines and wastewater treatment plant and the area where the wastewater treatment plant is sited. Golden Hills would not need the easements because they already own the property. Recently (since the writing of the report) Golden Hills stated that they would provide the easements at no charge to Kern County if they took on the governance for Option 1. The final report will reflect this but retain costs in the event that GHCSD position changes.

3.15 6.2.2 Collection Facilities

1) Footnote 40 –

"AECOM recommends removal of the existing lift station. Therefore, the reconstruction or operations and maintenance expenses for the existing lift station will not be analyzed in the comparison of options."

Please confirm that the cost of either refurbishing or eliminating this existing lift station is included in the cost of implementing Option 2.

3.15 Response: The lift station that is referenced in footnote 40 is the existing lift station, not the lift station to the City of Tehachapi. The footnote 40 lift station applies to both options.

3.16 6.4 Governance Alternatives

The AECOM Report identifies four potential viable governance alternatives: Kern County, GHCSD, City of Tehachapi and Public/Private Partnership. The first three are presented only with factual considerations and without speculation of what problems could develop in the future for each of the options. In contrast, the Public/Private option includes such speculation.

3.16 Response: This analysis is based on experience and on history of operating and maintaining wastewater treatment plants. Even the grant providers recognize this. Furthermore, since the public/private partnership is less expensive, there is greater risk if it fails, because other options to address this potential failure would be more expensive. It should also be noted that the ability to heal a failure under a public agency that has the responsibility to manage more facilities (water, other facilities – such as GHCSD, COT or Kern County) is far greater than a single purpose small private entity. Further, grant money is more readily available to public agencies should grant funding be needed to fix a problem.

3.17 6.4.5 Public/Private Partnership

"… The issue is whether or not it would be sustainable over time. The current operation of the plant managed under receivership is providing sewer

service to customers at a reasonable rate. However the rate generated so far is not paying for the receiver's fee and does not appear adequate to cover such items as major repairs, staff training for certification, proper maintenance of the collection system, or truck replacement. It also appears that maintenance of the collection system has been deferred. The team handling the plant is hard-working and provides good value, however if the leadership changes there is uncertainty that the good service they provide would continue. In general, there are very few contractors available in Kern County to operate and maintain a wastewater treatment plant, and local talent may not be readily available over the long term."

Let's take these critiques/speculations one at a time:

1. "However the rate generated so far is not paying for the receiver's fee and does not appear adequate to cover such items as major repairs, staff training for certification, proper maintenance of the collection system, or truck replacement. It also appears that maintenance of the collection system has been deferred."

- The Receiver fees will no longer be incurred once he fulfills his court-ordered task of transferring to new ownership.

Response: Acknowledged.

- Under public ownership but operation contracted to a private entity, staff training and certification will be the responsibility of that private contractor.

Response: Acknowledged.

- The whole premise of Option 1 is that grants will fund the upgrades needed to overcome the deferred maintenance and major repairs caused by the failures of the previous management. Construction of a drying bed could relieve much of the work of the truck. This function could also be part of the private contractor's responsibility.

Response: Acknowledged.

2. "The team handling the plant is hard-working and provides good value, however if the leadership changes there is uncertainty that the good service they provide would continue."

- The same statement could be made regarding the management of GHCSD, the City of Tehachapi or Kern County. This critique is wildly speculative and further evidence of the bias of the AECOM Report.

3.17 Response: Refer to response 3.15

3.18 3. "In general, there are very few contractors available in Kern County to operate and maintain a wastewater treatment plant, and local talent may not be readily available over the long term."

- Yet GHSC under the Receiver has successfully accomplished a lawful operation of the facility.

In fact, a grandmother with no prior experience in the management and operation of utility – let alone that of a wastewater facility – has successfully assembled from the local talent available the necessary

personnel needed to properly operate and maintain the GHSC wastewater facility and fund the day-to-day operation within budget. This fact strongly supports the notion that AECOM's pessimism is unjustified. Again, AECOM's critique is not grounded in any demonstrable fact – just another inappropriate speculation on the part of the authors of the AECOM Report.

3.18 Response: The lawful operation of the facility is a matter of opinion. The facility does not conform the requirements of the waste discharge permit for a tertiary facility and until very recently did not have oversite by a Grade 3 operator. Yes, the current management is moving in the correct direction, but there are many things that are not being done for a lawful operation. It is true that there is not a lot of local talent available. The statement was not based on speculation but on reviewing this very issue with Kern County and their struggles in acquiring local talent to operate the remote plants that they manage.

3.19 4. AECOM's favored Option 2—connection to the City of Tehachapi with a forced-main – is fraught with governance issues. The City of Tehachapi has indicated that it will only accept Golden Hills wastewater at their boundary at the corner of Tucker Road and Red Apple Road. AECOM ignores the fact that some other agency must assume responsibility for operation and maintenance of the collection system including the forced main lift station. It has been noted that as many as four agencies could end up having a Balkanized system of governance for the total wastewater system for Golden Hills residents: (1) the City of Tehachapi for wastewater treatment, (2) Some other agency (perhaps Golden Hills CSD) for maintenance and operation of the collection system, (3) Some other agency (perhaps Golden Hills CSD) for the billing, and (4) Golden Highlands because all of its residents are connected to the existing facility. This organization is an invitation to failure and is not realistically addressed by the AECOM Report.

3.19 Response: For the sake of lowering rates to customers, AECOM is looking into many different options with the full understanding that some will be more difficult to administer than others.

3.20 6.4.8 Viable Governance Alternatives
The viable governance alternatives listed by the AECOM Report are Golden Hills CSD, City of Tehachapi and Kern County.

The most viable, the Public/Private Partnership, seems to have been deliberately discarded because it does not serve the preordained purpose of this AECOM Report – that purpose being Option 2, the forced main to the City. Note that Kern County has stated that it would use the Public/Private Partnership model if it should be the governmental entity that assumes control of the GHSC facility. This is also the model currently being utilized by that grandmother who has been so successful in keeping the facility going since it entered receivership.

3.20 Response: Refer to response 3.16.

3.21 6.4.9 218 Protection Highlights
GHSC customers are fully warned:

> "… rate increased by the City of Tehachapi can be accomplished without a 218 election by the Golden Hills customers. This could create a challenging issue for Kern County or Golden Hills CSD with the implementation of Option 2."

3.21 Response: Rate increases for the City of Tehachapi system are tied to an index that pre-dates Proposition 218.

3.22 It would thus also create a challenging issue for the Golden Hills customers of the City of Tehachapi Sewer Facility. For this reason and for the legitimate protection of the Golden Hills customers of the City of Tehachapi Sewer System, enforceable contract provisions must be in place to protect them from assessments, fees, rate increases or any other revenue-producing means the City of Tehachapi might seek to impose
on them at some future time that prevents any rate increase other than one resulting from an inflation adjustment based on a recognized and appropriate CPI.

3.22 Response: Refer to response 3.20.

3.23 7.2 Management and Funding Comparison

Summary of Management Options

No LAFCO Process Required	LAFCO Process Required	No LAFCO (CPUC) + Grant Funding Limitations
Golden Hills CSD	Kern County (new agency)	Private Company
	City of Tehachapi	

Table 13 – Summary of Management Options

For option 1, management could be under the GHCSD, a newly formed County service area or sanitation district. Under Option 2, management of the treatment facilities would be provided by the City of Tehachapi. The management of the collection system and billing services could be provided by GHCSD, Kern County or City of Tehachapi.

LAFCo's only mission is to determine the geographical boundaries of special districts and their powers. Since no boundaries are under consideration, Option 2 clearly envisions a compromise of the powers currently under the purview of Golden Hills CSD.

7.1 Wastewater System Costs Comparison

Table 11

Comparison of Construction Costs

Component	Required Improvements		Capital Costs	
	Option 1 Continued Op	Option 2 FM to Tehachapi	Option 1 Continued Op	Option 2 FM to Tehachapi
Collection System	Inspect, Repair, & Rehabilitate	Inspect, Repair, & Rehabilitate	TBD + $699,000	TBD + $699,000
Treatment Plant	Repair & Rehab	Decommission	$1,268,000	$75,000
Discharge Pipeline	Repair & Rehab	FM and Lift Station, Connection Fees	$0	$1,959,000
Easements [1]	Kern County (1A)	Kern County (2A) and COT (2C)	$301,000	$119,000
Effluent Disposal	Tom Sawyer Lake, as it exists	One-time COT Connection fee payment	$0	$1,395,000
TOTAL COST			**Option 1A $2,268,000**	**Option 2A $4,247,000**
			Option 1B $1,967,000	**Option 2B $4,128,000**
			Option 1C $1,967,000	**Option 2C $4,247,000**

Table 11 – Comparison of Construction Costs

1. Easement costs apply to options that do not include GHCSD in the governance.

Table 12

Comparison of O&M Costs
(180 Connections)

Component	Annual O&M Costs					
	Option 1.A Continued Op. (Kern County)	Option 1.B Continued Op. (GHCSD)	Option 1.C Continued Operation (GHCSD + Contractor)	Option 2.A Force Main to COT (Kern County)	Option 2.B Force Main to COT (GHCSD)	Option 2.C Force Main to COT (COT)
Collection System	$35,000	$35,000	$35,000	$35,000	$35,000	$35,000
Treatment Plant	$344,000	$253,000	$237,000	$0	$0	$0
Discharge Pipeline	$6,000	$6,000	$6,000	$116,000	$89,000	$83,000
Effluent Disposal [1]	$0	$0	$0	$78,000	$78,000	$78,000
Value of Treated Effluent [2]	-$14,000	-$14,000	-$14,000	$0	$0	$0
Value of Standby Payments (30)	-$7,000	-$7,000	-$7,000	-$7,000	-$7,000	-$6,000 [3]
Total Cost	**$364,000**	**$273,000**	**$257,000**	**$222,000**	**$195,000**	**$170,000**
Calculated Monthly Rate	**$169**	**$126**	**$119**	**$103**	**$90**	**$79** [4]

Table 12 – Comparison of O&M Costs

1. Annual service cost to City of Tehachapi is included Appendix B.
2. Water supplied to Tom Sawyer Lake is valued at $500/acre-foot based on rates charged by Tehachapi Cummings Water district of $453/AF rounded to the nearest $100. It is understood that the value may change in the future. Therefore, the value of treated effluent to the Lake is 8 AF X $500 = $14,000.
3. This value was lowered because the option will result in lower monthly rates to rate payers. The value was lowered to be proportional to the rate reduction.

4. The possible range of monthly service charges for this option is $60 to $79 depending on how user fees are determined. Specifically, the monthly user fee charged per single family residential connection now stands at $36.86. That user fee for City of Tehachapi residents covers the costs of collection, treatment and disposal of wastewater. If, for example, administrative expense and maintenance expense for the collection system are not charged, the monthly service fee could be lowered to about $60.00 and still leaves money to maintain the pump station and force main.

AECOM's cost comparisons are suspect due to the obvious bias of this AECOM Report. For this reason, should the City of Tehachapi wish to proceed with the project known as Option 2, the Golden Hills customers need protection from the consequences of the bias in this Report. Thus, should the customers vote to approve Option 2, they must receive iron- clad contractual assurances that the maximum rate of $60 to $79 per month promised by this report can only be adjusted for inflation based on a CPI normally utilized by local agencies. Such assurances should be accomplished by binding contract with the Golden Hills Customers.

3.23 Response: Refer to response 3.20.

7.2.1 Advantages/Disadvantages

3.24 1. Option 1 disadvantages: "Without a complete refurbishment, long-term viability of aging plant is unknown."

Yet Option 1 is supposed to fund a refurbishment of the facility to make it "like new" to produce tertiary-treated effluent as opposed to the City of Tehachapi's secondary-treated effluent.

3.24 Response: After the second public meeting and physical evaluation of the plant by Kevin Kennedy, AECOM made revisions to the construction cost estimate needed to refurbish the plant. Further research with Kern County resulted in making the determination that flood proofing the entire site (as would have been the case if the FEMA map was correct), was unnecessary. That also reduced costs. That said, the improvements needed for the plant that are recommended in the report will not be a complete refurbishment but rather a catching up on deferred maintenance. The plant will still be an older plant and one that will require more maintenance than a new one.

3.25 2. The calculations based on the prices of electricity doubling and the cost of concrete repair tripling seem a bit extreme and perhaps gauged to raise doubt about the feasibility of Option 1. These hypothetical expenses would also impact Option 2.

3.25 Response: They were raised to demonstrate the impact that minor changes would have on either option. It demonstrates that for a system with a smaller customer base, small cost changes can generate greater impacts to individual users.

3.26 3. Option 2 advantages: "Existing management in place for treatment" … but nothing is said about the management of the collection system, billing and how non-payment of sewer bills is to be managed. These omissions must be addressed

before the customers are asked to consider the proposal to connect to the City of Tehachapi Wastewater System so that unpleasant surprises don't visit the customers at some future date.

3.26 Response: Your comment is appreciated. Certainly there will be administrative issues that will need to be addressed. The report goal, again, was to address the cost to the customer for each option. Obviously for any option embraced, management will need to be competent and will need to establish a good and can-do working relationship with one another, or even the best option will fail.

Adrian Maaskant
21605 Belmont Dr.
Tehachapi CA 93561

amaaskant@bak.rr.com

To: Mr. Bob Downs

I appreciate the efforts and progress of the various parties in working toward a solution to the Golden Hills Sanitation predicament. After a review of the 9/4/14 draft report by AECOM, my comments are as follows:

4.1. What is the RWQCB's position regarding the continued use/expansion of septic tank sanitation in the Golden Hills area? In other areas, the RWQCB has REQUIRED that septic tanks be replaced with Sewer Plant type sanitation.

> ***4.1 Response: Their position should be consistent with what you have described and also consistent with the Plumbing Code.***

4.2. What is the community's long term plan for sewage disposal? As the area utilizes groundwater for domestic water use, and as West Golden Hills is not compatible to septic tank sanitation, it seems as we need to consider what the longer term solution to the current problem is.

> ***4.2 Response: AECOM's scope of work for this project was limited to the active and standby connections. The long term plan for sewage disposal should be addressed by the Golden Hills CSD. As an aside, the Golden Hills Community has about 4,000 lots. The existing wastewater treatment plant has been in operation for 30 years. To date there are only 180 active connections.***

4.3. The study contains a cost/financial analysis based only on the current 180 connections, while ignoring many more standby customers, let alone expansion of the sewer connections to accommodate consideration of items #1 and 2 above. How would this report's conclusions change with increased connections?

> ***4.3 Response: The financial analysis is based on the current 180 customers and needs to because it will be the 180 customers and no one else who would pay for the service. As connection numbers increase, the cost per connection would decrease, however the number of connections would have to increase considerably before the cost of option 1 and 2 became compatible. To assume that such an increase in use would occur at project implementation would be risky to the paying customers.***

4.4. New connections to this system have been affected by the economy and the "cloud" (questions of sewage treatment availability and cost) hanging over this area, yet at some point, this situation will change as sewer plant decisions are finalized.

> ***4.4 Response: That is a reasonable assumption. If the community leadership moves in a direction that is in opposition of the Regional Board (which is to consolidate – Option 2) and the result is to keep the plant as a privatized operation (the "no change" option), this will likely not encourage confidence in the building community. If the plant is to remain but be under the governance of a public agency, the confidence will improve, but the costs will increase over where they are presently. If the option to consolidate is the one that is followed (Option 2) even though the initial capital costs will be greater (Capital costs will be covered by grant funding), the long-term O&M costs will decrease and the risks assumed by the building community will be minimized.***

4.5. The Option 2 plan includes a 4" forced main. What additional hookup capacity would exist with such a size main for the future? It seems as if the existing private treatment plant has substantial capacity for expansion.

> ***4.5 Response: The current plant treats 25,000 gallons per day and is rated for 100,000 gallons per day. The request to the City of Tehachapi is to accept a peak flow of 104 gallons per minute. That flow rate if sustained over a 24-hour period would result in about 150,000 gallons per day. If the force main were upgraded to flow at 5 feet per second in***

the pipeline, the peak flow rate would be about 196 gallons per minute or about 282,000 gallons per day. With the 4-inch force main, you would actually have more capacity than the existing plant.

4.6. I do not see a detailed analysis of the operating costs of the current private sewer plant, only some vague generalities.

4.6 Response: The detailed analysis is shown in Appendix B of the report. The numbers for plant operation were provided by Barbara Miller. AECOM added money to cover such items as reserve fund, management costs by the public agency, a realistic budget for replacing operating equipment, vehicle maintenance and repair, and continuing education required to maintain certification of the plant operators.

4.7. How dependent is our solution on grant funding? What is the probability of receiving grant funding necessary to accomplish Option 2? Should we make a decision to proceed conditioned on receiving the necessary capital grants first? Otherwise, if we proceed with Option 2, and capital grants are not made available, what guaranties are available to customers that the monthly sewer fees will not be more than those estimated in the report?

4.7 Response: Options 1 and 2 as described in this report are both dependent upon grant funding. The purpose of this report is to provide justification for the grant funding. If the community embraces Option 2 and grant funding is unavailable, then there would be justification to consider another option.

Thank you for this detailed Report/Study and the opportunity to comment on it.

Sincerely,

Allan Schulze, Golden Highlands (standby) property owner

Mr. Downs,

5.1 As of the date this report was released (September 4th to City of Tehachapi and September 5th to the public) and the date of this email (September 17th)the report remains woefully incomplete. A valuable and necessary part is the cleaning and video evaluation of the collection system. It is also an integral component to both proposed solutions and remains to date remains unfulfilled.

Stated in the signed Agreement under the "Description of Services" A-1 "Review of existing Golden Hills Sanitation Company's sewer system, including collection system and the wastewater treatment plant and effluent disposal and provide further in-depth comprehensive development of multiple alternatives".

The information contained within a completed evaluation of the collection system is critical at this time for all stakeholders involved within this solutions project. It will assist those to better comprehend the future dependability of this aged and neglected service system. Also, whether or not there may be critical and potentially costly issues to address. It will help to complete and finalize the list of service customers within the collection system area and give confirmation as to the mapping of lateral tie-ins. . Lastly, it will assist district leaders as well as land owners as to the potential value and availability of future expansion of the collection system within the community.

I as a ratepayer can not nor should the community of Golden Hills, county of Kern, GHCSD or City of Tehachapi accept this report at this time because it does not fulfill the requirements set forth within the March 4th agreement between AECOM and the county of Kern. The start of the evaluation was on September 15th and I believe it will take weeks if not a couple months to be complete and submitted. I am of the opinion that the released report and all subsequent project processes (meetings, hearings etc..)should be stayed until the information contained within a completed collection system evaluation complements a complete finalized draft. This entire project and subsequent final report is of too great of importance to the ratepayers, city and county administrators and the surrounding community to be compromised by premature release of an insufficient report.

David Stegall
ratepayer and resident
fyi

5.1 Response: AECOM appreciates your comments. Since the release of the draft report, the State has granted an extension to allow for comments through 13 October 2014 and also to allow for time to complete the sewer video. The video results were delivered by Pro Pipe to AECOM on October 15. The results, along with cost opinions to address deficiencies, will be included in the final report.

That stated, the draft report was released in advance of the video findings for two reasons:

1. <u>O&M focus.</u> The focus of the draft report was on operations and maintenance expenses and not on capital expenses. One of the purposes of the report was to provide justification for grant money as would be needed to cover capital expenses. If the collection system requires some rehabilitation, the rehabilitation would be covered by grant funding.

2. <u>O&M costs applied equivalently to both options.</u> The operations and maintenance expenses of a rehabilitated collection system would be roughly the same for either option and would be applied to both. Actually, Option 1 would be slightly more expensive since 3,000 feet of 12-inch sewer main continues downstream of where the proposed Option 2 lift station will be cited.

>>> <dstegall@bak.rr.com> Thursday, October 02, 2014 5:19 PM >>>
As an certified operator of the GHSC facility please allow me to speak of matters I do know something about. The replacement cost of machinery for the treatment of waste water.

5.2 Within the report on pg. 46-47 listed under "Other Items" are estimated prices for replacement item at the facility. These cost are heavily inflated and should not be considered as estimated/actual cost within this report.

ESTIMATED COST
Eyewash station $8000
Effluent pump $15000
Blowers $30000

Actual Cost could have easily been found in print from a reliable water/waste water catalog USA BLUEBOOK

Barbara Miller and I have been working on replacement cost for priority items since we join the receivership team in April of 2012. Included is a quote for an effluent pump and 2 new blowers from USA bluebook.

BOOK COST for items
eyewash station start at $650 to a non-freeze at $1000
Blowers $3600/ea (#6005)and $1400 (#3003)
Effluent pump $1200

One can only speculate that since these basic replacement items are excessively cost inflated. That possibly other numbers may be as well!!

This section also mentions the SCADA software replacement at a cost of $20000. We have been quoted substantially less by the party who installed the original package..estimate of $1000-2000 with a new CPU.

5.2 Response: Please note the capital costs listed in the estimates were developed to represent the total cost of installed work. Simply looking up costs in a catalog will not provide an accurate total cost for work installed under a public works contract. If all of the work identified was performed without design, verification of the correct selection of equipment, and without accounting for labor, installation, inspection, conformance with codes (Title 22) , documentation or any contingencies (such as plumbing modifications needed for an eyewash), the numbers cited by such a statement would appear considerably cheaper than those shown on the preliminary report.

5.3 Lastly, within the report and also during the last public meeting it is mentioned repeatedly the cost for an irrigation system at Tom Sawyers lake would be $325000

WHAT is this irrigation system suppose to irrigate and WHY should this cost be attributed to GHSC?? This is not the GHSC property or responsibility.

5.3 Response: The irrigation system cost was based on information received by a design professional and contractor. The system would include a pond intake facility; a duplex irrigation pump station, a power, control panel and SCADA in a NEMA 3-R enclosure, fencing and a gravel area to facilitate access to the equipment area; an irrigation clock; a piping system and large-area style irrigation heads as needed to irrigate six acres. The purpose of the system is to provide a flow-through condition of water in Tom Sawyer Lake to lower the TDS and improve water quality over time. The lake would serve as a community amenity and would be supported by the entire community – not just the customers of GHSC.

David Stegall
ratepayer and resident

GOLDEN HILLS

21415 Reeves Street
P.O. Box 637
Tehachapi, CA 93581

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September 22, 2014

Robert C. Downs, P.E.
Special Districts Engineer
County of Kern
Engineering, Surveying and Permit Services Department
2700 "M" Street, Suite 570
Bakersfield, California, 93301

Subject: Comments regarding the draft "Golden Hills Wastewater System Preliminary Engineering Report (PER) / Feasibility Study" by AECOM (dated September 4, 2014)

Golden Hills Community Services District (GHCSD) appreciates the County's and AECOM's time and effort in preparing the subject draft report. District staff have reviewed the draft report and the following comments have been prepared to help clarify certain details in the report and to provide additional considerations that the County and AECOM should take into account when preparing the final version of the document. We appreciate your efforts and look forward to continue working with you on this important subject.

The following comments and clarifications herein reference page and section numbers of the report.

2.0 Executive Summary

6.1 Page 8, 4h Bullet

Based on the County's Request for Proposal (RFP), the Do Nothing Option is not consistent with a "status quo" alternative. It is the District's opinion that an analysis of the current operations of the existing wastewater treatment plant (WWTP) should be utilized for the Do Nothing Option. It would be beneficial for the customers to understand what could happen over the next few years in regards to the following:

1. Meeting (or not meeting) waste discharge requirements (WDR) under its existing permit with the Regional Water Quality Control Board (RWQCB) (e.g. violations from discharges to Tom Sawyer Lake).
2. Potential increased operations and maintenance (O&M) costs as equipment fails.

3. Increasing debt (e.g. costs of receiver) and inadequate reserves.
4. Potential impacts to customer monthly service rates
5. Potential future termination of sewer service to the community.

Related to this Do Nothing option is the fact that continued operation is required over the next few years until the selected option is implemented. Additionally, the information developed for this Do Nothing option would be useful in providing justification for the need of a grant for the community.

6.1 Response: The comment is appreciated. The report will be revised to reflect the "do nothing" option as suggested.

6.2 Page 9, 1st Bullet

Footnote 3 only mentions Golden Hills CSD as a public agency that could take over the ownership of the VWI/TP or an effluent force main system. Although a Local Agency Formation Commission (LAFCo) process would be required, it should be noted that the County could implement a County Service Area (CSA) to own and manage the facilities as discussed later in the report.

6.2 Response: Kern County will be added as another viable public agency.

6.3 Page 10

Footnote 4 appears to be cutoff at the end.

6.3 Response: The footnote will be completed in the final report.

3.0 Introduction

3.1 Purpose

6.4 *Page 12*

Option 1C should be titled "Operations and Maintenance by a Contractor under a Public Agency" as it could be contracted by Golden Hills CSD or Kern County.

6.4 Response: It could be contracted either by Golden Hills CSD or Kern County; however there would be some cost differences. The report will address both options.

3.2 Background

Page 13

6.5 1.1st Paragraph- Footnote 5 is missing.

6.5 Response: The footnote was restored and will be included in the final report.

6.6 2. It would be beneficial to amend the paragraph to include the following information from Page 5 of the "Analysis of Continued Sewer Services Options for the Golden Hills Wastewater Treatment Plant Customers" prepared by the County of Kern, dated September 27, 2013 (herein referred to as the County Report):

In 2001, due to an extensively sited list of GHSC breaches to the 1983 agreement and after repeated demands to cure were not addressed, the GHCSD declared a material breach of the original1983 agreement. GHCSD then terminated the 1983 agreement and "Quitclaimed" the 0.527 acres where the Plant is located to GHSC. Following the declaration, the Water Board removed the GHCSD from the Plant's Waste Discharge Orders.

6.6 Response: We understand this is the position of GHCSD; however, it is in conflict with GHSC and the CPUC filings. Likewise this position is in conflict with the 1983 agreement provision that addresses breaches and attorney's fees. This legal matter is beyond the scope of AECOM's contract.

3.3 Service Area

Page 14

6.7 1. 1st Paragraph- The undeveloped lots included in the 93% have an existing water meter that would be served by Golden Hills CSD. There are approximately 4,000 parcels in Golden Hills CSD service area.

6.7 Response: The report did not consider the large lot numbers in the count, as they would not be required to connect to the sewer system. We appreciate the comment.

6.8 2. 2nd Paragraph - It should be noted that the California Plumbing Code requires that a proposed building connect to a public sewer that is located within 200 feet of the proposed building. This predates the concern regarding AB 885.

6.8 Response: The proposed force main has the capacity for adding property within 200 feet of the existing sewer system.

6.9 *Page 15, Paragraphs 1-3*

It is recommended that future residences be included in the discussion of onsite wastewater treatment systems (OWTS). In particular, a discussion of the County's proposed implementation of a Local Agency OWTS Management Program (Tier 2) under the OWTS Policy would be beneficial.

6.9 Response: Comment noted.

6.10 *Page 16, Table 2*

Table 2 should be updated based on the information contained in Exhibit A (attached).

6.10 Response: There is discussion of Exhibit "A" in Note 2 following Table 2.

6.11 *Page 18, Figure 2*

GHCSD believes that not all of the lots have a sewer connection are shown correctly. It is recommended that this map be updated after video survey of the sewer collection system.

6.11 Response: The figure will be updated based on information we receive from GHSC. The video survey is only a check but does not guarantee the accuracy of all connections.

4.0 Existing Facilities

4.1.2 **Collection System**

6.12 *Page 22, Fig. 4A & 4B*

Revisions per Exhibit B.

6.12 Response: Report will reflect the change.

4.2.1 **Wastewater Treatment Plant**

6.13 *Page 25, Fig. 5*

It should be noted that the Small Emergency Overflow Basin (Item 11) is not a permitted pond.

6.13 Response: Figure will reflect this.

4.1.3 **Disposal System**

Page 27

6.14 1. The cause of the loss of diversion from Brite Creek to Tom Sawyer Lake is due to the El Nino storm in 1997 that washed out the dam at Fountain Lake.

6.14 Response: Acknowledged. It will be added to the report as a footnote.

6.15 2. Clarification is needed as to why Indian Lakes is mentioned.

6.15 Response: As an example of flows diverted from Tom Sawyer Lake.

6.16 Page 29

Kern County Fire Department can also use Tom Sawyer Lake as a source of water.

6.16 Response: And it has. It will be added to the text of the report.

4.1.4 **Former Water Sources for Tom Sawyer Lake**

6.17 Page 30, Fig. 9.

Revisions per Exhibit C.

6.17 Response: Will be made in the report.

6.18 Page 31, Fountain Lake

Clarification: Originally a v-ditch diverted water from Brite Creek to Tom Sawyer Lake. Ed Borges constructed Fountain Lake and a pipeline to Tom Sawyer Lake.

6.18 Response: Report will be modified.

6.19 Page 33, Fig. 12

Revisions per Exhibit D.

6.19 Response: Report will be modified.

6.20 Page 35

It should be noted that the Poor Well currently has a minimum of approximately 15 AF set aside for existing customer demand and could increase in the future based on land development.

6.20 Response: Acknowledged. The report will mention this and suggest drilling of another well.

5.0 System Deficiencies

5.1.2 **General**

6.21 Page 40, 2nd Paragraph

It would be helpful to have a plan and profile of this proposed gravity main option

to better understand the magnitude of this project component.

6.21 Response: Acknowledged.

5.1.3 **Treatment System**

6.22 Page 44, Building Replacement

The title is somewhat misleading; a more appropriate title would be Building Modification and Repair.

6.22 Response: Agreed. The report will be modified.

5.1.5 **Disposal System- Tom Sawyer Lake**

6.23 Page 48

An appendix of the soil and water quality sampling would be beneficial.

6.23 Response: The Report that was prepared by BSK will be added to an appendix.

5.1.6 **Regulatory Compliance Issues**

6.24 Page 50

The list provided is not a complete list; rather it consists of violations that have taken place since 2000.

6.24 Response: This will be noted.

6.0 Wastewater System Alternatives

6.1 **Option 1 – Continued Operations**

6.25 Page 57, Table 5

Should Kern County be the implementing agency under 1A, Golden Hills CSD would not charge the County for easements through the Woodford Property. This cost should be removed from this table and other locations.

6.25 Response: It will noted in the final report.

6.26 Page 58, Table 6

Restoration of Tom Sawyer Lake should not be separated from the costs of the project as it is an environmental issue that has been caused by GHSC. Should grant funding be obtained for the project, the costs of the Lake restoration and the facilities for the disposal of treated effluent should be funded by the grant. On-going O&M associated with the recycled water could be allocated to GHCSD for use on community property if approved by the District's residents.

6.26 Response: Restoration of Tom Sawyer Lake will be through bio-remediation as noted in Section 5.1.5 of the report. Golden Hills CSD is on the waste discharge permit of the plant. It is the intent of the study to recommend certain items of work for grant funding. Providing facilities to convey water to and through Tom Sawyer Lake is on the list. The report will concur with your point about shared costs with the community for the Tom Sawyer Lake amenity.

6.2 **Option 2 -Construct Force Main**

6.27 Page 59, Paragraph 2

Has a preliminary analysis of potential odor generation and mitigation been performed?

6.27 Response: Yes. Not needed because fresh water will be added to Tom Sawyer Lake.

6.28 Page 59, Paragraph 3

Please list which grant programs would provide funding for connection fees associated with Option 2.

6.28 Response: They are listed in the report.

6.29 Page 61, Fig. 27

It may be recommended to place the pipeline in Fontana Street as the slope along Brite Road is fairly steep and minimum separation from the water main may be difficult to achieve.

6.29 Response: Since the preparation of the draft, we also understand that the routing through Fontana Street is unencumbered by other utilities. The Fontana route will be the one recommended for Option 2.

6.30 Page 66, Table 8

1. As mentioned previously, the restoration of Tom Sawyer Lake should be included in the project as it was caused by GHSC. Future operations and maintenance of the pond (including pumping groundwater to the Lake) should then be considered a community expense.

6.30 Response: See response 6.26.

6.31 2. Should Option 2 be selected and fresh groundwater and/or Brite Creek water be added to Tom Sawyer Lake, would a flow-through condition be required? Would a lake aeration system be less expensive to operate and result in less groundwater pumped?

6.31 Response: Yes, a flow through condition is already recommended. Aeration, is a less expensive means, however with only aeration, the concentration of salts and metals in Tom Sawyer Lake would continue to increase.

6.32 Page 69, 6.3.3 Tom Sawyer Lake- Fresh Water System Improvements

After further review of property there may be an alternative option for the fresh water system improvements that should be investigated for the Study. A diversion from Brite Creek could convey creek water to Supply Lake (where sediments can be removed) and then overflow to Tom Sawyer Lake. Fountain Lake would not need to be reconstructed for this option.

6.32 Response: This is a very good comment, however fine tuning of options should be part of design service.

6.33 Page 73, Fig. 32

A backup generator should not be required for the Recovery Pond Pump Station.

6.33 Response: Recovery Pond will not be a recommended option to remediate Tom Sawyer Lake in the final report.

6.34 Page 76 – 6.4.8 Viable Governance Alternatives, Item 2.

GHCSD has never had control of operations of the WWTP.

6.34 Response: This is not an accurate statement. Golden Hills CSD had in fact had effective authority over the plant through 2001.

6.35 Page 79, Table 11

For Option 2, under the Discharge Pipeline Component, Connection Fees should be deleted as this cost is under the Effluent Disposal Component.

As mentioned before, the $301,000 should be deleted from Easements cost.

6.35 Response: See response 6.25.

6.36 Page 80, Table 12

A contract operator could potentially provide a reduced O&M cost under the Option 2 scenarios.

6.36 Response: Would this be a long-term solution that Golden Hills CSD would embrace if it takes the role as Governance?

6.37 Page 82, Option 1

Additional Disadvantage: Should Golden Hills CSD take over operations of the WWTP and operations costs increase (e.g. major repairs required, higher costs due to prevailing wage requirements, earthquake damage, etc.) the sewer customers could accomplish a majority protest under Proposition 218 to reject a rate increase. GHCSD would have to utilize other sources of revenue to fund the deficit spending for the WWTP (not allowed to use funds from another enterprise fund) or allow the system to further degrade. Currently there have been no other funds identified for the WWTP operations.

6.37 Response: This concern is uniform for all options. If there is a rate increase that is rejected by the rate payers and service cannot be provided without the rate increase, the service can cease.

6.38 Page 82, Option 2

Disadvantage: Remediation of Tom Sawyer Lake should be included as a part of the project as discussed previously.

Advantage: Tom Sawyer Lake could be filled with other sources of clean water. The Lake could provide additional amenities (e.g. fishing) that are not currently possible with treated effluent that flows into the Lake.

6.38 Response: See response 6.26.

6.39 Page 84, Option 1

Additional details should be provided regarding "uncertainties of support from the Regional Board".

6.39 Response: Letters from the Regional Board in response to the draft report will be included in the final report.

County RFP Services Requested:

We would like to also mention some of the items listed in the County's Request for Proposal that appear to have not been accomplished by the Study as of yet:

1. develop complete project schedules for implementation;
2. delineate funding agency application procedures and steps, and compile a schedule for overall approval process;
3. how existing system debts will be addressed; and
4. detailed schedule of implementation.

Golden Hills CSD would like to reiterate that it believes that the most cost effective approach for their customers and ultimately what their customers want is what should be implemented.

Again, thank you for the opportunity to review and comment on the draft report.

William C. Fisher
General Manager

CC: GHCSD Board of Directors
Ernest Conant, Young-Woodridge
Jeff Eklund, Provost & Pritchard Consulting Group

EXHIBIT "A"

GOLDEN HILLS COUNTRY CLUB INC.

38 Sewer connections

P. RCEL 1:

Parcel 2 in the unincorporated area, of Kern County C lifornia, as shown on record of survey filed in Book 10, Pages 14 to 17, inclusive, of record of surveys, in the office of the county Recorder of said County.

EXCEPT that portion included within Parcel A of Parcel Map No. 4663.

A!.SO EXCEPT all minerals, oil and/or gas produced, saved and sold from c\ depth of r.tore than 500 feet, measured vertically, below the surface of said real property, without, however, reserving any right to lease or come upon said real property for the purpose of exploring for or producing such minerals, oil and/or gas.

PARCEl.2:

Parcel 1 in the unincorporated area, Kern County, Cal3fornia, ashown on record of survey filed in Book 10, Puqs 14 to 17, inclusive, of record of surveys, in.the office of the County Recorder of said County.

EXCEPT that portion included wjthin Parcel A of Parcel Map No. 4663.

ALSO EXCEP'I'all minerals, oil and/or. gas produced, saved and sold from a depth of more than 500 feet, measured vcrtically, below the surface of sai:i real property, without, how ver, reserving any right t lease or come upon said real property for the purpose *of* exploring for or producing such mineral, oil and/or gas.

ALSO EXCEPT a water. well over and in t.hat portion of Section 18, Township 21 South, Range 33 East, M.D.M., in Kern County, California, according to the official plat of said land described as follows:

Beginning at the rnost northerly corner of lot 119 of Tract No. 3366, as per map recorded in Book 20, Page 127 of Naps, in the office of the County Recorder of said County; thence along the northeasterly line of Raid lot south 37 degrees, 04' 19" East, 137.00 feet to the beginninq of a tangent curve concave to the southwest having a radius of 296.8 feet: thence

southerly along said curve 92.81 feet through a central angle of 17 degrees 36' 52": thence south 19 degrees 27' 27East tangent to said curve 237.50 feet to e beginning of a tangent curve concave to the Wesl having a radius of 210.40 feet; thence southerly along said curve 204.30 feet through a central angle of 54 degrees 20' 37": thence tangent to said curve south 34 degrees 53' 10' West, 170.00 feet; thence south 12 degrees 10' 13• East, 300.50 feet; thence south 20 degrees 28' 13" East, 243.50 feet to the true point of beginning; thence South 01 degrees 54' 47" West, 4400 feet; thence South 88 degrees 05' 13" East, 111.00 feet; thence North 01 degrees 54' 47" East, 50.00 feet; thence North 88 degrees OS' 13" West to a line which bears North 20 degrees 28' 13" West from the true point of beginning; thence South 20 degrees 28' 13" East to the true point of beginning.

ALSO EXCEPT all that portion of the Northeast quarter of Section 13, Township 32 South, Range 32 East, M.D.M., Kern County, California, being a parcel of land described as follows:

The East 10 feet of the West 40 feet of the South 200 feet of the North 1545.56 feet of said Northeast quarter.

GOLDEN IIILLS LAND COMPANY, A CORPORATION

28 Sewer Connections All

of Lots 38, 40, 41, 42, 43, 44, 45, 46, 53, 85, 86, 87, 89, 90, 91, 92, 94, 95, 96, 97, 98, 102, 103, 107 of Tract 3366, in the unincorporated area of Rern county, California, as per map recorded December 29, 1970, in Book 20, Pages 121 to 127, inclusive of Maps in the office of the County Recorder of said County.

EXCEPT 50\ of all minerals, oil and/or gas produced, saved and sold from a depth of ore than 500 feet, measured vertically below the surface of said real property, without, however, reserving any right to lease or come upon said rel property for the purpose of exploring for or producing such minerals, oil and/or <}a!!I, as Tfserved in thP. deed from Alzada Cuddeback Trusty and John Price Cuddeback Jr., to Pacific-Atlantic Properties, Inc., a Corporation, recorded May 26, 1965 in Book 3843, Page 770 of Official Records.

DO I\.LD NURRJ\Y, et a.l

122 Sewer Connections

Parcel 1 in the unincorporated area of I<ern County California, as shown upon a record of survey filed January 23, 1969, in Book 9, Page 171, record of surveys, in the Office of the County Recorder thereof.

EXCEPT from that portion of Parcel 1 that is included within Section 11, Township 32 South, Range 32 East, M.D.M., an undivided 1/2 of all oil, gas, petroleum and other hydrocarbon substances and minerals within or underlying said land or that may be produced and saved therefrom as excepted in deed from James N. Crofton and Loretta E. Crofton, husband and wife, recorded June 19, 1953, in Book 2094, Page 410 of Official Records.

By a deed dated September 27, 1966, recorded October 10, 1966, in Book 3987, Page 168 of Official Records James N. Crofton and wife, quitclaimed all right, title and interest in and to all oil, gas, petroleum and other hydrocarbon substances and minerals within or underlying said land, from the surface thereof to a depth of 500 feet measured vertically therefrom, and all rights of surface entry to said land.

COUN'rRY CLUB ESTATES, A GENERAL PARTNERSHIP

98 Sewer Connections

That pc>rtion of Section 13, Township 32 South, Range 32 East, M.D.M., in the unincorporated area of Kern County, California, according to the official plat thereof, which lies within the following described boundaries.

Beginning at the southeasterly corner of Lot 135, Tract No. 3003, as per map recorded in Book 15, Pages 28 to 39, inclusive, of Maps, in the office of the County Recordar of said County; thence along the Easterly boundary of said Tract, as follows: North 48 degrees 34' 17" East, 148.50 feet; North 2 degrees 20' 06" East, 257.71 feet; and North *4* degrees 41' 48" West, 427.39 feet to a point in that certain 1105 foot radius curve in the southerly boundary of Country Club Drive, as shown on said map of said Tract, a radial of said certain curve to said point bears north 6 degrees 17' 35" Nest.

Thence along said certain curve and said southerly boundary as follows:

Easterly along said certain curve through a central angle of 17 degrees 37' 25" a distance of 339.89 feet to the beginning of a reverse curve concave northnrly and having a radius of 1045.00 feet.

1henc:e ci\sterly along said reverse curve through a central angle of 10 degrees 42' 40" a distance of 195.36 fet to the beginning of a reverse curve concave southwesterly and having a radius of 25.00 feet.

THENCE North 89 degrees 34' 22" West, 100.00 feet.

Thence South 0 degrees 25' 38" West, 335.00 feet along a line being 155.00 feet westerly of and parallel with said easterly line of the West half.

Thence South 89 degrees 34' 22" East, 100.00 feet. Thence South 0 degrees 25' 38" West, 251.13 feet along a line being 55.00 feet westerly of and parallel with said easterly line of the West half.

Thence North 89 degrees 34' 22" West, 638.42 feet to the point of beginning.

Jeannire Guiffre's Comments

7.1 Why are GHCSD easement costs so much higher?

7.1 Response: The costs of easements for both options are calculated in Appendix A of the report.

7.2 "Near New Condition" seems unreasonable & prohibitive.

7.2 Response: Near new condition was the standard in order to compare both options. Option 2 would include all new facilities. Option 1 would need to start out the same way in order to begin with comparable facilities. In the event that Option 1 is implemented, the costs needed to bring the facilities to near new condition would be paid for by grant funds and relieve the rate payers of that burden.

7.3 Some costs, like "eyewash" & standby generator & probably more, are lower when listed towards back.

7.3 Response: The report lists the full cost of construction for each of these components. That cost includes verification of the correct selection of equipment, accounting for labor, installation, inspection, conformance with codes (Title 22) , and documentation or any contingencies (such as plumbing modifications needed for an eyewash).

7.4 How can they get a # for irrigation system improvements without a landscape plan?

7.4 Response: See response 5.3.

7.5 Can the water be sent into/down creek cheaper?

7.5 Response: Yes, but at this time it cannot be legally permitted.

Standby Generator—

7.6 Can't it just be repaired with fuel stored? $162,000 is really high!

7.6 Response: The number in the report that you are referring to is $62,000. It includes the generator placed in an outdoor weather resistant enclosure, an inertial slab foundation, wiring and installation costs. The generator would also include an automatic transfer switch with a clock to exercise the unit on a weekly basis. The transfer switch turns the generator on the moment utility power becomes unavailable. The unit needs to be moved outside the building to provide the space needed for a second tertiary filter for the wastewater treatment plant.

7.7 There seems to be the impression that there is surface water coming from west of Wat Road, as well as from the Southern side of the GC.

7.7 Response: Surface water comes from the west of Woodford Tehachapi during storm events. Presently there is no surface water due to lack of rain.

7.8 They reference "Nuisance Water" & springs as well as seasonal/winter. In reality, given the drought & prohibitions against sidewalks & driveways getting wet. I suspect that most water will only be from springs. Have they been located/counted?

7.8 Response: We agree with your statement about nuisance water as it relates to the current drought conditions. There are several springs especially south of Brite Creek west of Woodford Tehachapi Road. Water runs from the springs into Brite Creek from that area to some extent year-round. We have not counted the springs as part of the report effort.

7.9 The lake is dependent on treated water!

7.9 Response: Currently that is the case. The report suggests that the lake could be fed by fresh water instead of treated wastewater effluent.

SEPTEMBER, 18, 2014

ROBERT C. DOWNS, P.E.
2700 'M' STREET, SUITE 570
BAKERSFIELD, CA. 93301
RE: DRAFT SEWER OPTIONS REPORT FOR GOLDEN HILLS SEWER CUSTUMERS

PAGE 20
8.1 STATEMENT: ANOTHER CONSDERATION IS THAT THE WASTE WATER COLLECTION SYSTEM HAVE ISSUES THAT HAVE NOT BEEN DETERMINED AT THE TIME DRAFT WAS PREPARED.

AECOM HAS PUT ALL KINDS OF TECHNICAL INFORMATION IN THIS DRAFT AND DECIDED NOT TO DETERMINE ISSUES IN EXISTING PLANT. THEN HOW CAN THEY MAKE THIS STATEMENT?

8.1 Response: This statement was made because at the time of the draft report, the sewer video survey results had not been received.

PAGE 27:
8.2 STATEMENT: AS A MEANS OF MAINTAING WATER IN TOM SAWYER LAKE, FORMER GOLF COARSE OWNER'S SECURED OTHER SOURCES OF WATER, THESE INCLUDED FOUNTAIN LAKE AND RECOVERY POND AND TO AN EXTENT A CULVERT THAT DRAINS DIRECTLY INTO TOM SAWYER LAKE JUST SOUTH OF WILLOW TREE APARTMENTS. THIS SITUATION HAS RESULTED IN THE WWTP EFFLUENT AS THE ONLY CONTINOUS WATER SUPPLY TO TOM SAWYER LAKE. THE CULVERT DRAIN NEAR WILLOW TREES APARTMENT IS AN INTERMITTENT SOURCE.

PAGE 31:
ONE FORMER WATER SOURCE WAS FOUNTAIN LAKE. DURING LARGE STORM EVENTS WATER FROM BRITE CREEK WOULD FLOW INTO FOUNTAIN LAKE AND FLOW TO TOM SAWYER LAKE VIA A UNDERGROUND PIPELINE AND A OVERLAND DITCH PAGE 22.THE DITCH WAS DISCOVERED BY HISTORICAL PHOTOGRAPHS OF THE PROJECT SITE AND DISCUSSION WITH LOCAL RESIDENTS.

I LEROY E. WHITE OWNED AND OPERATED THE GOLDEN HILLS GOLF COURSE FROM THE LATE 1979 THRU THE LATE 1984. FOUNTAIN LAKE WAS NOT A LAKE. WE LOWERED THE GROUND IN A 20' DIAMETER ABOUT 12 INCHES DEEP AND PUT A SPRINKLER IN THE MIDDLE JUST FOR LOOKS. AFTER ONE SEASON WE FILLED IT IN AS TO MAKE MOWING EASIER. THERE WAS NO UNDERGROUND PIPELINE TO TOM SAWYER LAKE. THE HISTORICAL DITCH THEY TALK ABOUT WAS A MAN MADE CUT BY ME PERSONALLY. THE DAM THEY TALK ABOUT WAS ONLY TWO 2Xl2 REDWOOD BOARDS SIX FEET WIDE BETWEEN TWO POST TO DIVERT PART OF BRITE CREEK TO TOM SAWYER LAKE. WHEN THE DETERMINED AMOUNT OF WATER WAS IN THE LAKE WE REMOVED BOARDS.. THIS CAN STILL BE DONE FOR A COST OF UNDER $250.00.

8.2 Response: You are correct about the ditch. Ed Borges, however, did construct a pipeline to Tom Sawyer Lake from Fountain Lake. He also built an earthen levee to hold back more water. The El Nino storm of 1997 washed out the levee and the levee was never reconstructed. There is a photograph of the pipe and valve in the report.

8.3 STATEMENT NOTE:
THE SIZE OF THE RECOVERY POND ON FIG. #8 IS WAY OUT OF PURPORTION. WE PUT THAT POND AND PUMP IN AND IT WAS NO WIDER THEN 15 FOOT BY TEN FOOT. THE COST WAS APPROX. $25,000.00 AT THAT TIME. THE ESTIMATED COST BY AECOM TO REPLACE OR REPAIR BY THEIR ESTIMATE $683,000.00. AND THE COST TO MAKE IMPROVEMENTS FOR THE FOUNTAIN LAKE THAT DID NOT EXIST OF $271,000.00 IS COMPLETELY INACCURATE. THESE ARE FIGURES JUST TO MAKE THE COST OF USING THE EXISTING WWTP LOOK BAD. I AM A LICENSED CONTRACTOR IN THE STATE OF CALIFORNIA. I HAVE BUILT OVER 60 HOMES AND 18 COMMERCIAL BUILDINGS IN GOLDEN HILLS AREA..ALSO SUB-DIVIDED THE BRIAN WAY STREET AND THE WILLOW TREE APARTMENTS PROJECT.

8.3 Response: The numbers called out in the report are detailed in Appendix A and were prepared by a professional Class A licensed contractor and estimator. Each will be summarized below:

Recovery Pond: To construct a pond with the required holding capacity to capture a flash storm, we determined that there would be some major brush clearing and earthwork. To protect the pond from washing out (as it had in the past), riprap would be required and a controlled spillway would also need to be constructed. For all-weather access to the site, a gravel road from Woodford Tehachapi Road would be needed. To protect the facility from vandals and to protect the public, a chain link fence and lighting would be required. The pump station would include a screened intake at the pond, two pumps(for redundancy and to operate in a lead-lag alternating start configuration, a power, control panel and SCADA in a NEMA 3-R enclosure, fencing and a gravel area to facilitate access to the equipment area. The facility would also include a 1,700 foot long force main to Tom Sawyer Lake.

To prepare the project for construction and public bidding, a design would be necessary. For the design, a survey, a geotechnical investigation and environmental documentation would be required. Plans and specifications would need to be prepared. The project would need to be bid and constructed. During construction the public agency would need to inspect the project and perform materials testing. At the end of the job, a set of record drawings and O&M manuals would be needed so that the facility can be properly maintained.

Yes, $683,000 is about what the project would cost in the current market. The project would need to be built to public works standards to stay in operation as a permanent facility. In today's market, such a facility could not be constructed for $25,000.

Fountain Lake: Similar to Recovery Pond, if Fountain Lake were constructed as a permanent reliable facility, the cost would be in the range stated in the report. The design would require a survey, geotechnical investigation, environmental analysis, design, plans and specifications. The end product would require grading, rip-rap slope protection and an emergency spillway to prevent washouts. If the project was constructed with force account labor and not to the permanent standard that was estimated, certainly the cost would be less. The report addressed each item as a viable reliable long term solution.

In terms of making Option 1 look worse than Option 2, both of these water sources apply to both options. In fact Recovery Pond, though used in the past as an all-weather source of water, is not being recommended because of cost. As a less expensive option for year-round water is a well in the salvage area.

PAGE38:

8.4 STATEMENT:

COLLECTION SYSTEM INCLUDES THE LIFT STATION ON WOODFORD TEHACHAPI ROAD. THE SYSTEM HAS A HISTOY OF SANITARY SEWER OVERFLOWS (SSO'S) RELATED TO THE LIFT STATION. THREE SSO'S WERE RECORDED BY THE GHSC ON JANUARY 9, 2013 THRU SEPTEMBER 13, 2013 AND ARE BRIEFLY SUMMARIZED BELOW MORE COMPLETE DESCRIPTION ARE INCLUDED IN APPENDIX D JANUARY 9, 2013OCCKURRED AT THE INTERSECTION OF WHITE PINE DRIVE AND WOODFORD TEHACHAPI ROAD ESTIMATED VOLUME OF 100 GALLONS AND IS BELIEVED TO BE CAUSED BY FAILURE OF THE PRIMARY PUMP AT THE LIFT STATION

JANUARY 31, 2013OCCURED AT THE INTERSECTION OF WHITE PINE DRIVE AND WOODFORD TEHACHAPI ROAD, ESTIMATED VOLUME 20 GALLONS. AND IS BELIEVED TO BE CAUSED BY A FAILURE OF THE CONTROL PANEL AT THE LIFT STATION.

SEPTEMBER 13, 2013OCCURRED AT THE INTERSECTION OF WHITE PINE DRIVE AND WOODFORD TEHACHAPI ROAD, ESTIMATED VOLUME 50 GALLONS AND IS BELIEVED TO BE CAUSED BY AN INTERRUPTION OF ELECTRICAL SERVICE TO THE LIFT STATION. NOTE: I SEE NO MENTION IN THE REPORT THAT THESE PROBLEMS HAVE BEEN TAKEN CARE OF AND THE REASON WHY THEY TOOK PLACE IN THE FIRST PLACE WAS LACK OF MAINTAINENCE BY PREVIOUS OWNERS.

AECOM IS THE SEWER ENGINEERS FOR THE CITY OF TEHACHAPI. HAS THE CITY OR THEIR ENGINEERS CHECKED OUT THE REPORTS ABOUT A BACK UP OVERFLOW AT THE LOVE'S FACILITY EAST END OF CITY ON TEHACHAPI BLVD OR A REPORT ON A 2,000 GALLON AND 1,800 GALLON SPILLAGE AT THE OLD MASONIC TEMPLE BUILDING RIGHT IN THE MIDDLE OF THE TOWN. AND IF THIS IS TRUE HAS THIS BEEN REPORTED TO THE PROPER AUTHORITIES. MY QUESTION IS THE CITIES SEWER SYSTEM CAPABLE OF HANDLING OPTION #2.

8.4 Response: We checked with the regional water quality control board to find that there was no record of either of these occurrences since 2007 which was as far back as our records search would take us. The answer to your question of whether or not the City of Tehachapi could handle Option 2, please also refer to response 3.3.

8.5 CONCLUSION:

I MEET WITH MR. BLACK PRIOR TO THE DRAFT DATED SEPTEMBER 4, 2014 AND GAVE HIM IN DETAIL THE ABOVE INFORMATION OF THE OLD COUNTRY CLUB PROPERTY AND THE REPORTS OF SEWER BACK UPS, AND THE HISTORY OF THE WWTP FROM THE VERY BEGINNING. I WAS ONE OF THE ORGINAL 5 PEOPLE WHO PUT IN THIS TREATMENT PLANT. THIS PLANT WAS PUT IN WITH THE TIGHT OVERSIGHT BY DALE MALELVILE, THE GOLDEN HILLS CSD ENGINEER. AFTER ONE YEAR OF OPERATION THE GHCSD WAS TO TAKE THE OWNERSHIP AND OPERATION OF THE PLANT. THEY DID NOT. MR.BLACK. EITHER FORGOT OR DID NOT WANT TO USE THE TRUTHFUL INFOMATION GIVEN HIM. BARBARA MILLER ALSO WAS PRESENT AT THIS MEETING.

8.5 Response: This is actually covered in the draft report under Section 3.2, second paragraph, second sentence; "Until 2001, the District Agreement anticipated that GHCSD would acquire the wastewater facility. However, in 2001, GHCSD quitclaimed the real property and sewer system to GHSC."

8.6 STATEMENT NOTE:

THEDATE OF SEPTEMBER 8 , 2014 WHEN THE DRAFT WAS AVAILABLE. THIS IS NOT ENOUGH TIME TO REVIEW ALL THE FIGURES IN THE DRAFT. IF THE BALANCE OF THE DRAFT PAST PAGE 38 IS AS INACCURATE AS THE FIRST 38 PAGES, THEN PLEASE GIVE US MORE TIME TO REVIEW THE DRAFT. **MY REQUEST IS WE NEED MORE TIME FOR THE PUBLIC TO REVIEW THIS DRAFT.**



COPIES TO;

MEGHAN TOSNEY
DAVE WARNER
BOBERT DOWNS
BARBARA MILLER

8.6 Response: Please refer to response 2.1. The review time was extended to October 13th.

State Water Board, Division of Financial Assistance Comments on the September 4, 2014, AECOM Draft Preliminary Engineering Report (PER)/ Feasibility Study

2.0 Executive Summary

- 9.1 Page 10 – Footnote 4 got cut off.

9.1 Response: Refer to response 6.3.

3.0 Introduction

3.1 Purpose

- 9.2 "Do-Nothing" is misleading. This option is for decommissioning the wastewater treatment plant and collection system and converting to on-site septic systems. It may also be appropriate to include the true "Do-Nothing" alternative, and explain why it is not considered a feasible long-term option.

9.2 Response: Refer to response 6.1.

3.2 Background

- 9.3 Page 13 – Missing footnote 5.

9.3 Response: Refer to response 6.5.

3.3 Service Area

- 9.4 What is the population of the service area? The report indicates that the Golden Hills CSD serves 180 sewer connections – what is the average number of people per household/ connection? Provide current average daily flow, wet weather flow, and gallons per capita per day calculations.

9.4 Response: The population of the 180 connections is roughly 2 persons per connection based on discussions with the Receiver's representative. The demographic consists mainly of retired people. The average daily flow based on a flow meter reading recorded at the plant is 25,000 gallons per day with the highest wet-weather flow of 38,000 gallons. This amounts to about 70 gallons per capita per day (gpcd) average and just over 105 gpcd wet weather.

5.0 System Deficiencies

5.1.1 Collection System

- 9.5 Incorporate video inspection results and costs for collection system improvements in the final report.

9.5 Response: They will be included in the report along with maps indicating where the deficiencies are.

5.1.6 Regulatory Compliance Issues

- 9.6 List the violations or issues noted during the March 3, 2014, RWQCB inspection.

9.6 Response: It will be included in the final report.

5.1.3 Treatment System

- 9.7 Page 46 – Emergency Overflow Basin: Seems it would be appropriate to include at least a rough estimate of cost to relocate the emergency overflow basin (not just lining costs).

9.7 Response: The information is included in the Appendix A estimates, however the total to relocate and line the basin will also be included in this section.

6.0 Wastewater System Alternatives

6.1 Option 1 – Continued Operations

6.1.7 Cost Estimates

- 9.8 Provide life cycle costs (capital costs plus 30 years of O&M) for each option.

9.8 Response: They will be included in the final report.

- 9.9 Is it really appropriate to include $14K (for value of keeping treated effluent in the area) as a credit under the annual O&M for Option 1? No revenue will actually be generated, will it?

9.9 Response: Golden Hills CSD requested that the report include the value of treated effluent in both options. There was some discussion of revenue generated, so the report used the value of raw water in the area to be the value of the treated effluent. The District wanted that value accounted for so it would show the loss if Option 2 were implemented. The District now feels that the $500 per acre-foot is over-valued since it is treated effluent and not at the same quality as raw water, so the final report will consider lowering the value to half or $250 per acre-foot.

- 9.10 Is the new governance going to continue to charge a "standby" fee? Consider removing this credit from the analysis – it seems unclear if it would remain a revenue source for all options and it really doesn't change the analysis significantly.

9.10 Response: The standby fee benefit is the current practice for the area and for the report will remain. Your comment is appreciated.

- 9.11 How will the Tom Sawyer Lake related costs, that are a benefit to the whole community, be handled? Who owns and operates those items, and how is revenue collected to support those items? It seems that irrigation may be a necessity for disposal under Option 1 – please confirm. Given the proposed flush through approach, wouldn't there be a need to provide additional water supply sources to Tom Sawyer Lake, even under Option 1?

  9.11 Response: Golden Hills CSD is the owner of Tom Sawyer Lake. They would need to collect the revenue from those in the community. Yes, fresh water sources would also be required for either option. A discussion and accounting of this is covered in the report.

- 9.12 When will an estimate of any necessary cleanup costs for Tom Sawyer Lake be available, and who is the responsible party?

  9.12 Response: Cleanup would be through bio remediation as described in section 5.1.5 of the report and also addressed under response 6.26.

6.2 Option 2 – Construct Force Main

6.2.1 General

- 9.13 Page 62, first paragraph – Please confirm whether the City of Tehachapi is in agreement with the analysis of their pipeline system capacity, and indicate this in the report.

  9.13 Response: On October 22, 2014, the City of Tehachapi responded to our 15 October request by indicating that AECOM's analysis appeared reasonable and that while the City may physically have the capacity, that the City would still have a myriad of issues that need to be considered prior to allowing the connection.

- 9.14 Need to coordinate with Division of Water Rights regarding filing a Petition for Change, which is required whenever a project will eliminate a discharge to surface water. This would certainly be required under Option 2 and may also be necessary for Option 1. More information about this process can be found online: http://www.waterboards.ca.gov/waterrights/water_issues/programs/applications/wastewaterchange/index.shtml

  9.14 Response: To approve a wastewater change petition, the State Water Resources Control Board (State Water Board) must be able to find that the proposed change will not injure other legal users of water, will not unreasonably harm in-stream uses, and is not contrary to the public interest.

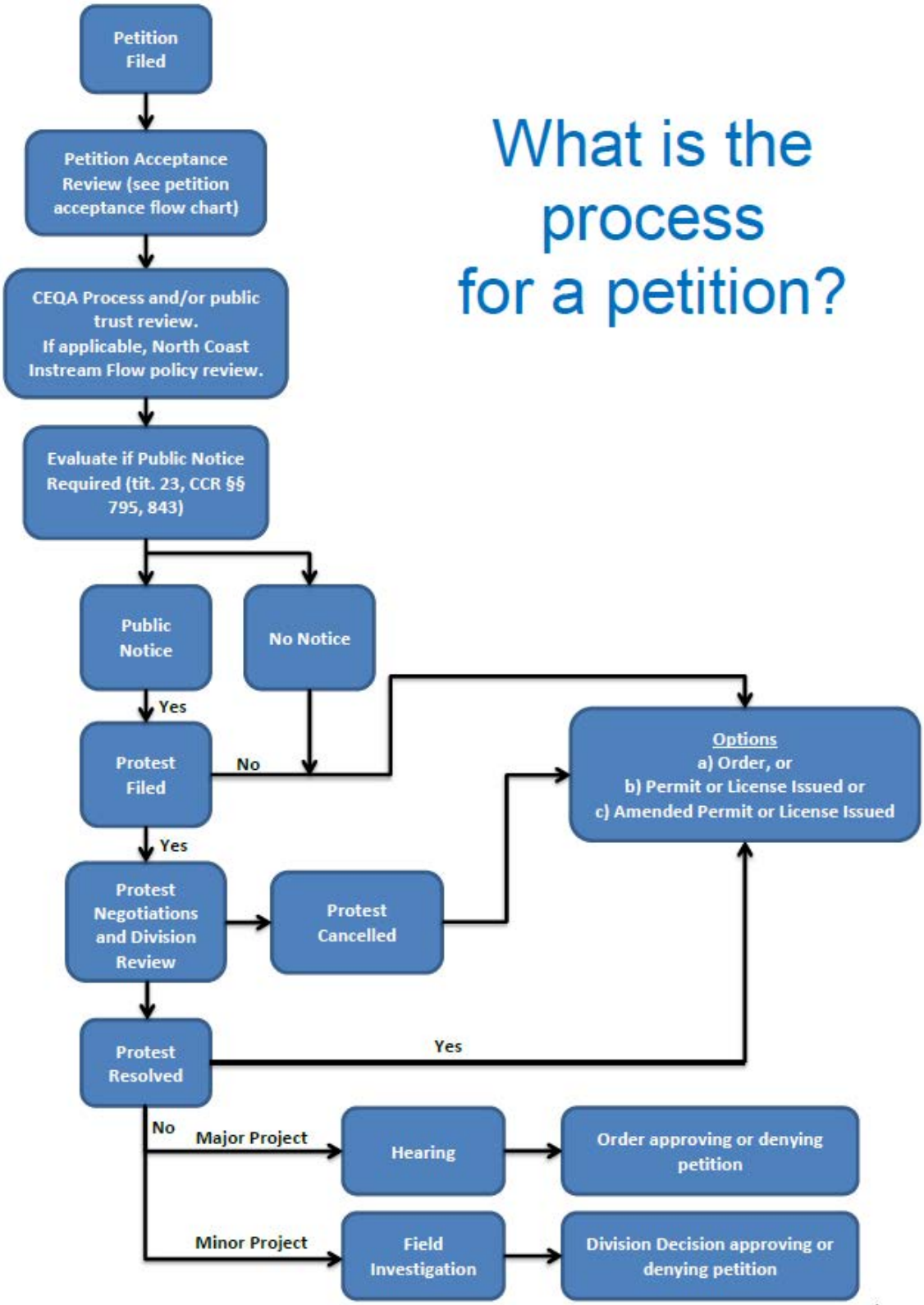
Additionally, if the proposed project has the potential to impair the water supply of other legal users of water or in-stream beneficial uses, the Division will require further notice of the petition. Protestants may raise concerns about protecting their water rights, or may raise public trust concerns. A protest sets forth the protestant's objections to approval of the petition. The procedures for addressing protests are set forth in tit. 23, CCR §1701.3, et seq. Evaluation of whether water is needed to serve in-basin water rights focuses on whether the discharges result from natural flows. Natural flows do not include imported or stored water.

The actual link to the change petition is located here.

http://www.waterboards.ca.gov/waterrights/publications_forms/forms/docs/pet_change.pdf

If the proposed project has the potential to impair the water supply of other legal users of water or in-stream beneficial uses the attached flow chart must be followed.

What is the process for a petition?



6.2.6 Cost Estimates – Option 2

- 9.15 Provide life cycle costs (capital costs plus 30 years of O&M) for each option.

9.15 Response: Life cycle cost analysis will be included in the final report.

6.4 Governance Alternatives

- 9.16 It is our understanding that there is a specific process that would need to be followed to transfer ownership from the Golden Hills Sanitation Company to another entity. It appears the receiver would have to file an application with California Public Utilities Commission (CPUC) to transfer ownership, and the entity proposed to take over ownership would have to do the same. We understand the receiver would also have to seek Kern County Superior Court approval of the transfer. Please address these issues in this section.

9.16 Response: It will be described under 6.4.1 of the report, "Existing Management."

6.4.4 City of Tehachapi

- 9.17 What would be the process for having the City of Tehachapi handle collection system maintenance, billing, etc. without annexation? Is it some sort of contract arrangement; who are they contracting with; and who owns the system then? Who would be applying for construction funding? These questions are important to consider with regard to project implementation, and may have implications specifically with regard to adoption of the CEQA document.

9.17 Response: This would be handled by an outside service agreement for service outside the City's sphere of influence and established on the basis of a threat to public health and safety. It would be initiated by the City of Tehachapi based on a request by petition from those who want the service. The City of Tehachapi would prepare a resolution to LAFCO requesting permission to provide service. Along with the resolution, the City would prepare an application to LAFCO, a map with legal description and proof of a public health and safety issue. The process would not require a detailed agreement, a promise to annex in the future or a protest hearing. The process would take about six (6) months to complete.

6.5 Funding Alternatives

- 9.18 Page 78 – Project Costs. The $1,268,000 is the capital cost for rehab/repair of the treatment plant only. The project cost should also include the cost for collection system improvements. It is unclear where the cost of $3,136,000 for Option 2 comes from.

9.18 Response: The costs are provided in Appendix A and are also discussed earlier in the report. A footnote will be added.

- 9.19 Page 78 – Item 1, State CWSRF: Currently, wastewater projects for communities that have a population <20,000, a community median household income (MHI) <80% of the statewide MHI, and wastewater rates at least 1.5 percent of community MHI, may receive 50 percent of eligible project costs, not to exceed $4 million in principal forgiveness (PF)/Small Community Grant (SCG). If wastewater rates are more than 2.0 percent of the community MHI, these projects may receive 75 percent of eligible costs, not to exceed $6 million in PF/SCG financing. And if a credit review shows that the community has inadequate revenues to finance the remaining eligible costs, the disadvantaged community may receive PF/SCG financing up to 100 percent of eligible costs, not to exceed $6 million. The criteria to qualify for PF/SCG funding are provided in the Clean Water State Revolving Fund Intended Use Plan (IUP). The IUP is updated each year. The criteria listed above are for the 2013 Federal Fiscal Year (October 1, 2013 – September 30, 2014), and may change with future IUP updates.

  9.19 Response: This is very well stated and will replace item 1 of the grant funding descriptions.

8.0 Conclusions and Recommendations

- 9.20 It would be helpful if you incorporated a schedule for implementation of the selected alternative, including necessary milestones for completion of the planning work and preparation of CWSRF construction funding application, etc. We understand that adjustments will be necessary as the project proceeds, but a reasonable estimate would helpful at this stage.

  9.20 Response: An implementation schedule was part of the project and will be included in the final report.

- 9.21 It is our understanding that the County plans to request an extension of the September 30, 2014, date to submit the Final PER/Feasibility Study. We understand that the County is assessing how much additional time will be needed to address existing comments on the draft, and we understand the County intends to hold a meeting with involved parties (i.e., receiver, GHCSD, City of Tehachapi, etc.) in the coming weeks to discuss future roles and responsibilities. We will anticipate a more formal request for time extension later in October. Please note that if the County finalizes the PER/Feasibility Study, and then determines the recommended option will not be feasible, for example due to governance issues, we will need the County to update the report accordingly, possibly via addendum or other similar document.

  9.21 Response: Acknowledged.

Thank you for your comments.

Robert C. Downs, PE
Special Districts Engineer
Engineering & Survey Services
Tel: (661) 862-5043
Cell: (661) 210-9938
Fax: (661) 862-5101
E-mail: bob@co.kern.ca.us

>>> Barb Mueller <muellergb@outlook.com> Sunday, October 12, 2014 2:36 PM >>>
Dear Mr. Downs:

I wish to make the following comments regarding the AECOM report addressing the Golden Hills sewer collection system. The mission statement includes the goal to find a solution which results in the least cost to GH sewer customers. If it would be possible to include these comments and ideas, I believe the cost will be substantially less than any proposed by AECOM.

10.1 My main proposal would be to utilize APN 270-010-35, a 54.5-acre parcel now owned by Golden Hills Community Services District. This parcel is known as the "Back 9" of the former golf course and lies south of White Pine and to the rear of a number of residential lots in Tract 2762 and Tract 3004. The proposed possible uses of APN 270-010-35 to help solve the sewer treatment and transportation question would be as follows:

1. Build a community septic tank and leach field system within this parcel by turning the existing sewer line in White Pine south and into the parcel.

2. Use the existing lift station to pump the sewage originating on the east side of Woodford-Tehachapi Road back up the White Pine sewer main and into the community septic system.

3. The motel and sewer from Monroe Lane could utilize another smaller septic system within the main golf course area east and south of Tom Sawyer Lake.

4. If APN 270-010-235 were to be used to just bypass the lift station with a gravity sewer line, there could be possible savings in the cost to rebuild the lift station and the force main.

I don't know if the community septic system and leach field will be acceptable, but I do know that they have been utilized in many instances in other states to address the needs of resorts and mobile home parks and certainly would be a better solution than having the individual lot owners try to develop their individual septic tanks and seepage pits on their developed and landscaped lots.

We should keep in mind that the proposed site is ideal for a park and it is owned now by the CSD. The cost to maintain such a system will always be less than running a small treatment plant.

Thank you, Glenn Mueller

Response 10.1 We appreciate your comments. Your solution was considered in the Draft No. 3 "Analysis of Continued Sewer Services Options for the Golden Hills Wastewater Treatment Plant Customers" prepare by the County of Kern as Option 3.4. It was determined that it would not be viable because it does not provide a solution to all the customers and that it would not likely receive approval from the Regional Water Quality Control Board because of potential ground water impacts and use of technology that is counter the State Water Resources Board goals.

Mike Sides

From: Sent: To: **Subject:**

CSD Billing (billing@ghcsd.com] Monday, September
22, 2014 11:24 AM
'Sides Mike'
FW: Comments RE AECOM report

-----Original Message-----
From: kcassil@ghcsd.com [mailto:kcassil@ghcsd.com]
Sent: Monday, September 22, 2e14 11:17 AM
To: billing@ghcsd.com
Subject: Comments RE AECOM report

Comments by Director Cassil regarding the Draft Preliminary Engineering Report by AECOM The

AECOM Report is mind boggling on a micro level, so I shall confine my response to a general statement and leave the details to the experts.

11.1 The assumptions of the study are biased in favor of the City of Tehachapi. Given that large amounts of money will be awarded to the City if they prevail, it is not surprising that the City's engineers are biased.

Data collection was frequently erroneous and led to conclusions that are neither valid nor reliable.

In conclusion, the total report should be rejected by the Board of Supervisors in that it does not provide a sustainable solution for sound managerial and financial practices for any of the parties (Public Utilities Commission, Kern County, Golden Hills Sanitation Company, Golden Hills Community Services District and the City of Tehachapi).

11.1 Response: We appreciate your comments; however, we disagree because the City's connection fee is charged to anyone who connects to the sewer system. It is actually a capacity fee and based on the cost of adding capacity in the future when the current capacity is exhausted. The capacity fee is regulated and fair. Stated in other words, all who connect are charged based on the portion of capacity they require.—Not biased.—Not a windfall.

Central Valley Regional Water Quality Control Board staff comments on the 4 September 2014, AECOM Draft Golden Hills Wastewater System Preliminary Engineering Report (PER)/ Feasibility Study

12.1 Page 24, Paragraph 3:

The report states: "2. The RWQCB has forgiven the debt to Golden Hills Sanitation Company. At this point the debt would have exceeded $4 million."

Comments:

There was never any debt owed to the Board due to past violations; the Board's notices of violation simply informed the discharger of the maximum potential liability that could be assessed, should the Board choose to pursue an administrative civil liability order.

Since the parties involved with the Golden Hills Sanitation Facility are making significant progress in resolving the outstanding issues at the facility, there is be no reason for this office to recommend that the Board assess *any* administrative civil liability whatsoever for the outstanding violations. In addition, though the Board reserves the right to issue additional enforcement orders to compel compliance should the situation at the facility deteriorate, the Board is currently exploring the rescission of the Cleanup and Abatement Order, as it serves no useful purpose at the current juncture.

The above comment also applies to Page 52, Section 5.1.6, final bullet.

GHSC is six years in arrears in payment of annual permit fees due the State Water Resources Control Board. The accumulated debt of $61,928 remains due and payable.

> ***12.1 Response: On page 10, Paragraph 2 that statement was made about forgiveness of debt. It will be revised to reflect your comments. The report will include the verbiage presented herein with regard to the Cleanup and Abatement Order. The report will also include the statement regarding the accumulated debt of $61,928.***

12.2 Page 24, Section 4.1.1:

Comments:

It appears this should actually be section 4.1.3.

Only one treatment train is needed due to low flow rate. Use of parts from other treatment train is immaterial to current or projected operations.

> ***12.2 Response: The paragraph numbers will be checked. A statement about treatment trains will that addresses your comment be included in the report.***

12.3 Page 38, Section 5.1.1 – references to sewer system blockages by dirt and rocks.

Comment:

How does this impact flow to the WWTF? Are these inactive lines?

> ***12.3 Response: Dirt, rocks and roots restrict the flow to the WWTF. The video survey identified several locations where there was dirt in the lines as well as other deficiencies. These impact flow and will eventually result in major repair and replacement costs to maintain the collection system.***

12.4 Page 41, Paragraph 1. Report references mandatory fines in the event of certain WWTF failures.

Comment: As there is no NPDES permit, no mandatory fines are applicable; however, discretionary penalties could be applicable.

> ***12.4 Response: So noted.***

12.5 Page 84, Section 8.0

Comment: Central Valley Water Board Policy is to encourage consolidation of wastewater treatment into regional plants. See *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, Revised January 2004 (with approved amendments)*, page IV-12-13, Consolidations; as reproduced below:.

> ## Consolidations
>
> Proliferation of small treatment plants in developed areas is undesirable. Most small communities do not have adequate resources to properly manage, treat and dispose of wastewater in an urban environment. Typical problems involve nuisance and ground water pollution. Small communities and development close to other small communities may be able to construct and operate a joint wastewater treatment facility with greater treatment ability, opportunity for reclamation, and for lower cost. Policies on consolidation are as follows:
>
> • Adjoining small communities should combine resources to construct and operate a joint or regional wastewater treatment plant.
>
> • Consolidation, whether one or more regional facilities operated by a single sewering authority, should be cost-effective, and consider benefits to the ecology, treatment efficiencies, and effective reuse of the waters.
>
> • Unsewered areas and new developments adjacent to or within existing wastewater

collection system service areas should be connected to the system. Developments not within a service area but within the projected sphere of influence of a regional system should be developed in a manner that provides for future connection to the system when the regional sewer system becomes available. One condition of approval of individual sewage disposal systems in certain areas and of certain densities may be that developments be dry sewered in a manner that provides cost-effective sewerage infrastructure to be placed during initial construction.

• Each municipal facility should act as a regional facility and provide sewerage services within its sphere of influence. The municipality must be equitably compensated for these services.

• Areas recommended for consolidation of wastewater systems are the Parlier area, the Bakersfield area, and the City of Delano. The Selma-Kingsburg-Fowler (Tri-Cities) and Fresno-Clovis regions have been consolidated. Consolidations of other wastewater treatment plants may be justified at some future time.

The intent of this policy is to make consolidation the rule rather than the exception. Consolidation should be compared to other approaches. If such a comparison yields clear technical, environmental, or economic advantages for consolidating, then consolidation should be implemented.

Option 2 is consistent with the Basin Plan. Prior to the approval of an alternative not consistent with the above consolidation Policy, the Central Valley Water Board would require demonstration of why consolidation is not feasible.

12.5 Response: The Board has been consistent on this position and is acknowledged. It will be a point made in the report.

Appendix H

BSK Work Order A4E2456

Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

A4E2456
6/13/2014

Aaron Gress
AECOM
1360 East Spruce Avenue
Fresno, CA 93730

RE: Report for A4E2456 Golden Hills

Dear Aaron Gress,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 5/29/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Adam Trevarrow, Project Coordinator

If additional clarification of any information is required, please contact your Project Manager, Renea Rangell , at (800) 877-8310 or (559) 497-2888 x233.

Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details		Invoice Details	
Client:	AECOM	**Invoice To:**	AECOM
Report To:	Aaron Gress	**Invoice Attn:**	Aaron Gress
Project #:	Golden Hills Project	**Project PO#:**	-
Received:	5/29/2014 - 16:45		
Report Due:	6/12/2014		

Sample Receipt Conditions

Cooler: Default Cooler
Temperature on Receipt ºC: 2.3

Containers Intact
COC/Labels Agree
Received On Wet Ice
Received On Blue Ice
Packing Material - Other
Sample(s) were received in temperature range.
Initial receipt at BSK-Bakersfield

Cooler: New Cooler
Temperature on Receipt ºC: 4.6

Containers Intact
COC/Labels Agree
Received On Wet Ice
Received On Blue Ice
Packing Material - Other
Sample(s) were received in temperature range.
Initial receipt at BSK-Bakersfield

Cooler: New Cooler [1]
Temperature on Receipt ºC: 5.1

Containers Intact
COC/Labels Agree
Received On Wet Ice
Received On Blue Ice
Packing Material - Other
Sample(s) were received in temperature range.
Initial receipt at BSK-Bakersfield

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

B1.0	Analyte present in method blank above reporting limit.
B1.3	Analyte detected in associated method blank. Reanalysis was not attempted because the reported result was >10x that found in the blank. Sample result may be, in part, attributable to ambient laboratory background.
B2.0	Analyte present in the method blank above the method detection limit (MDL). Laboratory does not determine batch acceptance on detections below the reporting limit (RL).
MS1.0	Matrix spike recoveries exceed control limits.

Report Distribution

Recipient(s)	Report Format	CC:
Adam Nielsen	Final.rpt	
William Black	Final.rpt	

Certificate of Analysis

Sample ID: A4E2456-01
Sampled By: Adam Nielsen
Sample Description: South & North Lake - Composite 'B' Bottle

Sample Date - Time: 05/29/14
Matrix: Water
Sample Type: Composite

Composite Start: 05/29/14 - 00:00

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C	SM 2510B	**9900**	1.0	umhos/cm	1	A406798	06/02/14	06/02/14	
Hexavalent Chromium	EPA 218.6	ND	0.20	ug/L	1	A406782	06/02/14	06/02/14	
Hexavalent Chromium	EPA 218.6	ND	0.20	ug/L	1	A406782	06/02/14	06/02/14	
Total Dissolved Solids	SM 2540C	**7000**	5.0	mg/L	1	A406885	06/04/14	06/09/14	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 200.8 DRC	ND	0.50	ug/L	1	A406810	06/03/14	06/04/14	
Arsenic	EPA 200.8 DRC	**12**	0.10	ug/L	1	A406965	06/05/14	06/09/14	
Beryllium	EPA 200.8 DRC	ND	0.50	ug/L	1	A406810	06/03/14	06/04/14	
Cadmium	EPA 200.8 DRC	ND	0.25	ug/L	1	A406965	06/05/14	06/09/14	
Chromium	EPA 200.8 DRC	ND	1.0	ug/L	2	A406965	06/05/14	06/11/14	
Copper	EPA 200.8 DRC	**7.8**	0.50	ug/L	1	A406965	06/05/14	06/07/14	B1.3
Lead	EPA 200.8 DRC	**0.27**	0.10	ug/L	1	A406810	06/03/14	06/04/14	
Mercury	EPA 200.8	ND	0.20	ug/L	1	A406886	06/04/14	06/10/14	
Nickel	EPA 200.8 DRC	**7.0**	2.0	ug/L	2	A406965	06/05/14	06/11/14	
Selenium	EPA 200.8 DRC	**1.6**	1.0	ug/L	1	A406810	06/03/14	06/04/14	
Silver	EPA 200.8 DRC	ND	0.25	ug/L	1	A406810	06/03/14	06/04/14	
Thallium	EPA 200.8 DRC	ND	1.0	ug/L	1	A406810	06/03/14	06/04/14	
Zinc	EPA 200.8 DRC	**9.5**	1.0	ug/L	1	A406965	06/05/14	06/07/14	

Certificate of Analysis

Sample ID: A4E2456-02
Sampled By: Adam Nielsen
Sample Description: South & North Lake - Composite Soil

Sample Date - Time: 05/29/14
Matrix: Solid
Sample Type: Composite

Composite Start: 05/29/14 - 00:00

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C, DI Extract	SM 2510B	**3700**	5.0	umhos/cm	1	A407140	06/10/14	06/10/14	
Hexavalent Chromium	EPA 7199	ND	1.0	mg/kg	50	A406970	06/05/14	06/05/14	
Total Dissolved Solids, DI Extract	SM 2540C	**12000**	25	mg/kg	1	A407041	06/06/14	06/10/14	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	10	mg/kg	1	A406838	06/03/14	06/04/14	
Arsenic	EPA 6020	ND	2.5	mg/kg	1	A406838	06/03/14	06/04/14	
Beryllium	EPA 6020	ND	1.2	mg/kg	1	A406838	06/03/14	06/04/14	
Cadmium	EPA 6020	ND	1.2	mg/kg	1	A406838	06/03/14	06/04/14	
Chromium	EPA 6020	ND	12	mg/kg	1	A406838	06/03/14	06/04/14	
Copper	EPA 6020	**7.8**	5.0	mg/kg	1	A406838	06/03/14	06/04/14	
Lead	EPA 6020	ND	6.2	mg/kg	1	A406838	06/03/14	06/04/14	
Mercury	EPA 6020A	ND	0.50	mg/kg	1	A406838	06/03/14	06/04/14	
Nickel	EPA 6020	ND	12	mg/kg	1	A406838	06/03/14	06/04/14	
Selenium	EPA 6020	ND	2.5	mg/kg	1	A406838	06/03/14	06/04/14	
Silver	EPA 6020	ND	12	mg/kg	1	A406838	06/03/14	06/04/14	
Thallium	EPA 6020	ND	2.0	mg/kg	1	A406838	06/03/14	06/04/14	
Zinc	EPA 6020	ND	62	mg/kg	1	A406838	06/03/14	06/04/14	

Certificate of Analysis

Sample ID: A4E2456-03
Sampled By: Adam Nielsen
Sample Description: Effluent Line

Sample Date - Time: 05/29/14 - 08:50
Matrix: Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C	SM 2510B	**1000**	1.0	umhos/cm	1	A406798	06/02/14	06/02/14	
Hexavalent Chromium	EPA 218.6	ND	0.20	ug/L	1	A406744	05/30/14	05/30/14	
Hexavalent Chromium	EPA 218.6	ND	0.20	ug/L	1	A406744	05/30/14	05/30/14	
Total Dissolved Solids	SM 2540C	**670**	5.0	mg/L	1	A406885	06/04/14	06/09/14	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 200.8 DRC	ND	0.50	ug/L	1	A406810	06/03/14	06/04/14	
Arsenic	EPA 200.8 DRC	**0.93**	0.10	ug/L	1	A406965	06/05/14	06/09/14	
Beryllium	EPA 200.8 DRC	ND	0.50	ug/L	1	A406810	06/03/14	06/04/14	
Cadmium	EPA 200.8 DRC	ND	0.25	ug/L	1	A406965	06/05/14	06/09/14	
Chromium	EPA 200.8 DRC	**0.56**	0.50	ug/L	1	A406965	06/05/14	06/07/14	
Copper	EPA 200.8 DRC	**7.7**	0.50	ug/L	1	A406965	06/05/14	06/07/14	B1.3
Lead	EPA 200.8 DRC	**0.16**	0.10	ug/L	1	A406810	06/03/14	06/04/14	
Mercury	EPA 200.8	ND	0.20	ug/L	1	A406886	06/04/14	06/10/14	
Nickel	EPA 200.8 DRC	**2.2**	1.0	ug/L	1	A406965	06/05/14	06/07/14	
Selenium	EPA 200.8 DRC	ND	1.0	ug/L	1	A406810	06/03/14	06/04/14	
Silver	EPA 200.8 DRC	ND	0.25	ug/L	1	A406810	06/03/14	06/04/14	
Thallium	EPA 200.8 DRC	ND	1.0	ug/L	1	A406810	06/03/14	06/04/14	
Zinc	EPA 200.8 DRC	**55**	1.0	ug/L	1	A406810	06/03/14	06/04/14	

Certificate of Analysis

Sample ID: A4E2456-04
Sampled By: Adam Nielsen
Sample Description: Potable Water

Sample Date - Time: 05/29/14 - 09:00
Matrix: Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C	SM 2510B	**490**	1.0	umhos/cm	1	A407021	06/06/14	06/06/14	
Total Dissolved Solids	SM 2540C	**330**	5.0	mg/L	1	A406885	06/04/14	06/09/14	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 218.6 - Quality Control											
Batch: A406744										Prepared: 05/30/2014	
Prep Method: Method Specific Preparation										Analyst: RCN	
Blank (A406744-BLK1)											
Hexavalent Chromium	ND	0.20	ug/L							05/30/14	
Hexavalent Chromium	ND	0.20	ug/L							05/30/14	
Blank Spike (A406744-BS1)											
Hexavalent Chromium	2.0	0.20	ug/L	2.0		99	90-110			05/30/14	
Hexavalent Chromium	2.0	0.20	ug/L	2.0		99	90-110			05/30/14	
Blank Spike Dup (A406744-BSD1)											
Hexavalent Chromium	2.0	0.20	ug/L	2.0		101	90-110	2	10	05/30/14	
Hexavalent Chromium	2.0	0.20	ug/L	2.0		101	90-110	2	10	05/30/14	
Matrix Spike (A406744-MS1), Source: A4E2402-08											
Hexavalent Chromium	2.0	0.20	ug/L	2.0	ND	98	90-110			05/30/14	
Hexavalent Chromium	2.0	0.20	ug/L	2.0	ND	98	90-110			05/30/14	
Matrix Spike Dup (A406744-MSD1), Source: A4E2402-08											
Hexavalent Chromium	1.9	0.20	ug/L	2.0	ND	96	90-110	2	10	05/30/14	
Hexavalent Chromium	1.9	0.20	ug/L	2.0	ND	96	90-110	2	10	05/30/14	
EPA 218.6 - Quality Control											
Batch: A406782										Prepared: 06/02/2014	
Prep Method: Method Specific Preparation										Analyst: RCN	
Blank (A406782-BLK1)											
Hexavalent Chromium	ND	0.20	ug/L							06/02/14	
Hexavalent Chromium	ND	0.20	ug/L							06/02/14	
Blank Spike (A406782-BS1)											
Hexavalent Chromium	2.0	0.20	ug/L	2.0		100	90-110			06/02/14	
Hexavalent Chromium	2.0	0.20	ug/L	2.0		100	90-110			06/02/14	
Blank Spike Dup (A406782-BSD1)											
Hexavalent Chromium	2.0	0.20	ug/L	2.0		102	90-110	3	10	06/02/14	
Hexavalent Chromium	2.0	0.20	ug/L	2.0		102	90-110	3	10	06/02/14	
Matrix Spike (A406782-MS1), Source: A4E2456-01											
Hexavalent Chromium	1.2	0.20	ug/L	2.0	ND	55	90-110			06/02/14	MS1.0 ***Low***
Hexavalent Chromium	1.2	0.20	ug/L	2.0	ND	55	90-110			06/02/14	MS1.0 ***Low***
Matrix Spike Dup (A406782-MSD1), Source: A4E2456-01											
Hexavalent Chromium	1.2	0.20	ug/L	2.0	ND	53	90-110	4	10	06/02/14	MS1.0 ***Low***
Hexavalent Chromium	1.2	0.20	ug/L	2.0	ND	53	90-110	4	10	06/02/14	MS1.0 ***Low***

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 7199 - Quality Control											
Batch: A406970										Prepared: 06/05/2014	
Prep Method: Method Specific Preparation										Analyst: RCN	
Blank (A406970-BLK1)											
Hexavalent Chromium	ND	1.0	mg/kg							06/05/14	
Blank Spike (A406970-BS1)											
Hexavalent Chromium	10	1.0	mg/kg	10		103	70-130			06/05/14	
Blank Spike Dup (A406970-BSD1)											
Hexavalent Chromium	10	1.0	mg/kg	10		100	70-130	2	20	06/05/14	
Duplicate (A406970-DUP1), Source: A4E2456-02											
Hexavalent Chromium	ND	1.0	mg/kg		ND				20	06/05/14	
Matrix Spike (A406970-MS1), Source: A4E2456-02											
Hexavalent Chromium	10	1.0	mg/kg	10	ND	102	70-130			06/05/14	
Matrix Spike Dup (A406970-MSD1), Source: A4E2456-02											
Hexavalent Chromium	11	1.0	mg/kg	10	ND	103	70-130	1	20	06/05/14	
SM 2510B - Quality Control											
Batch: A406798										Prepared: 06/02/2014	
Prep Method: Method Specific Preparation										Analyst: CEG	
Blank (A406798-BLK1)											
Conductivity @ 25C	ND	1.0	umhos/cm							06/02/14	
Duplicate (A406798-DUP1), Source: A4F0042-01											
Conductivity @ 25C	220	1.0	umhos/cm		220			1	20	06/02/14	
Duplicate (A406798-DUP2), Source: A4E2455-01											
Conductivity @ 25C	240	1.0	umhos/cm		240			1	20	06/02/14	
SM 2510B - Quality Control											
Batch: A407021										Prepared: 06/06/2014	
Prep Method: Method Specific Preparation										Analyst: CEG	
Blank (A407021-BLK1)											
Conductivity @ 25C	ND	1.0	umhos/cm							06/06/14	
Duplicate (A407021-DUP1), Source: A4F0378-03											
Conductivity @ 25C	230	1.0	umhos/cm		220			1	20	06/06/14	
Duplicate (A407021-DUP2), Source: A4F0413-08											

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
SM 2510B - Quality Control											
Batch: A407021										Prepared: 06/06/2014	
Prep Method: Method Specific Preparation										Analyst: CEG	
Duplicate (A407021-DUP2), Source: A4F0413-08											
Conductivity @ 25C	180	1.0	umhos/cm		180			1	20	06/06/14	
SM 2510B - Quality Control											
Batch: A407140										Prepared: 06/10/2014	
Prep Method: DI Extraction										Analyst: CEG	
Blank (A407140-BLK1)											
Conductivity @ 25C, DI Extract	ND	5.0	umhos/cm							06/10/14	
Duplicate (A407140-DUP1), Source: A4E2456-02											
Conductivity @ 25C, DI Extract	3700	5.0	umhos/cm		3700			0	20	06/10/14	
SM 2540C - Quality Control											
Batch: A406885										Prepared: 06/04/2014	
Prep Method: Method Specific Preparation										Analyst: DEH	
Blank (A406885-BLK1)											
Total Dissolved Solids	ND	5.0	mg/L							06/09/14	
Blank Spike (A406885-BS1)											
Total Dissolved Solids	980	5.0	mg/L	1000		98	70-130			06/09/14	
Duplicate (A406885-DUP1), Source: A4E2391-01											
Total Dissolved Solids	310	5.0	mg/L		310			3	20	06/09/14	
SM 2540C - Quality Control											
Batch: A407041										Prepared: 06/06/2014	
Prep Method: Method Specific Preparation										Analyst: DEH	
Blank (A407041-BLK1)											
Total Dissolved Solids, DI Extract	ND	25	mg/kg							06/10/14	
Blank Spike (A407041-BS1)											
Total Dissolved Solids, DI Extract	4900	25	mg/kg	5000		98	70-130			06/10/14	
Duplicate (A407041-DUP1), Source: A4E2456-02											
Total Dissolved Solids, DI Extract	12000	25	mg/kg		12000			0	20	06/10/14	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.8 - Quality Control											
Batch: A406886										Prepared: 06/04/2014	
Prep Method: EPA 200.2										Analyst: MAS	
Blank (A406886-BLK1)											
Mercury	ND	0.20	ug/L							06/10/14	
Blank Spike (A406886-BS1)											
Mercury	4.5	0.20	ug/L	5.0		90	85-115			06/10/14	
Blank Spike Dup (A406886-BSD1)											
Mercury	4.7	0.20	ug/L	5.0		94	85-115	4	20	06/10/14	
Matrix Spike (A406886-MS1), Source: A4F0205-01											
Mercury	4.7	0.20	ug/L	5.0	ND	94	70-130			06/10/14	
Matrix Spike Dup (A406886-MSD1), Source: A4F0205-01											
Mercury	4.6	0.20	ug/L	5.0	ND	91	70-130	3	20	06/10/14	
EPA 200.8 DRC - Quality Control											
Batch: A406810										Prepared: 06/03/2014	
Prep Method: EPA 200.2 DRC										Analyst: PSK	
Blank (A406810-BLK1)											
Antimony	ND	0.50	ug/L							06/04/14	
Beryllium	ND	0.50	ug/L							06/04/14	
Lead	ND	0.10	ug/L							06/04/14	
Selenium	ND	1.0	ug/L							06/04/14	
Silver	ND	0.25	ug/L							06/04/14	
Thallium	ND	1.0	ug/L							06/04/14	
Zinc	1.3	1.0	ug/L							06/04/14	B1.0
Blank Spike (A406810-BS1)											
Antimony	51	0.50	ug/L	50		102	85-115			06/04/14	
Beryllium	48	0.50	ug/L	50		97	85-115			06/04/14	
Lead	49	0.10	ug/L	50		99	85-115			06/04/14	
Selenium	49	1.0	ug/L	50		98	85-115			06/04/14	
Silver	51	0.25	ug/L	50		101	85-115			06/04/14	
Thallium	49	1.0	ug/L	50		98	85-115			06/04/14	
Zinc	49	1.0	ug/L	50		98	85-115			06/04/14	
Blank Spike Dup (A406810-BSD1)											
Antimony	51	0.50	ug/L	50		102	85-115	1	20	06/04/14	
Beryllium	47	0.50	ug/L	50		95	85-115	2	20	06/04/14	
Lead	50	0.10	ug/L	50		100	85-115	2	20	06/04/14	
Selenium	50	1.0	ug/L	50		100	85-115	2	20	06/04/14	
Silver	51	0.25	ug/L	50		102	85-115	0	20	06/04/14	
Thallium	50	1.0	ug/L	50		99	85-115	1	20	06/04/14	
Zinc	48	1.0	ug/L	50		97	85-115	1	20	06/04/14	
Matrix Spike (A406810-MS1), Source: A4E2456-03											

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.8 DRC - Quality Control											
Batch: A406810										Prepared: 06/03/2014	
Prep Method: EPA 200.2 DRC										Analyst: PSK	
Matrix Spike (A406810-MS1), Source: A4E2456-03											
Antimony	51	0.50	ug/L	50	ND	102	70-130			06/04/14	
Beryllium	48	0.50	ug/L	50	ND	96	70-130			06/04/14	
Lead	53	0.10	ug/L	50	0.16	105	70-130			06/04/14	
Selenium	51	1.0	ug/L	50	ND	101	70-130			06/04/14	
Silver	46	0.25	ug/L	50	ND	92	70-130			06/04/14	
Thallium	52	1.0	ug/L	50	ND	105	70-130			06/04/14	
Zinc	98	1.0	ug/L	50	55	86	70-130			06/04/14	
Matrix Spike Dup (A406810-MSD1), Source: A4E2456-03											
Antimony	51	0.50	ug/L	50	ND	102	70-130	0	20	06/04/14	
Beryllium	48	0.50	ug/L	50	ND	96	70-130	0	20	06/04/14	
Lead	53	0.10	ug/L	50	0.16	105	70-130	0	20	06/04/14	
Selenium	51	1.0	ug/L	50	ND	100	70-130	0	20	06/04/14	
Silver	46	0.25	ug/L	50	ND	91	70-130	1	20	06/04/14	
Thallium	52	1.0	ug/L	50	ND	105	70-130	0	20	06/04/14	
Zinc	99	1.0	ug/L	50	55	87	70-130	1	20	06/04/14	
EPA 200.8 DRC - Quality Control											
Batch: A406965										Prepared: 06/05/2014	
Prep Method: EPA 200.2 DRC										Analyst: PSK	
Blank (A406965-BLK1)											
Chromium	ND	0.50	ug/L							06/07/14	
Copper	0.51	0.50	ug/L							06/07/14	B1.0
Nickel	ND	1.0	ug/L							06/07/14	
Zinc	ND	1.0	ug/L							06/07/14	B2.0
Blank (A406965-BLK2)											
Arsenic	ND	0.10	ug/L							06/09/14	
Cadmium	ND	0.25	ug/L							06/09/14	
Blank Spike (A406965-BS1)											
Chromium	50	0.50	ug/L	50		100	85-115			06/07/14	
Copper	49	0.50	ug/L	50		98	85-115			06/07/14	
Nickel	48	1.0	ug/L	50		97	85-115			06/07/14	
Zinc	46	1.0	ug/L	50		91	85-115			06/07/14	
Blank Spike (A406965-BS2)											
Arsenic	53	0.10	ug/L	50		106	85-115			06/09/14	
Cadmium	48	0.25	ug/L	50		96	85-115			06/09/14	
Blank Spike Dup (A406965-BSD1)											
Chromium	49	0.50	ug/L	50		98	85-115	1	20	06/07/14	
Copper	49	0.50	ug/L	50		98	85-115	0	20	06/07/14	
Nickel	48	1.0	ug/L	50		96	85-115	0	20	06/07/14	
Zinc	46	1.0	ug/L	50		91	85-115	0	20	06/07/14	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.8 DRC - Quality Control											
Batch: A406965										Prepared: 06/05/2014	
Prep Method: EPA 200.2 DRC										Analyst: PSK	
Blank Spike Dup (A406965-BSD2)											
Arsenic	52	0.10	ug/L	50		104	85-115	2	20	06/09/14	
Cadmium	48	0.25	ug/L	50		95	85-115	1	20	06/09/14	
Matrix Spike (A406965-MS1), Source: A4F0333-03											
Chromium	50	0.50	ug/L	50	ND	100	70-130			06/07/14	
Copper	64	0.50	ug/L	50	16	95	70-130			06/07/14	
Nickel	50	1.0	ug/L	50	2.1	97	70-130			06/07/14	
Zinc	670	1.0	ug/L	50	620	90	70-130			06/07/14	
Matrix Spike (A406965-MS2), Source: A4F0333-03											
Arsenic	54	0.10	ug/L	50	0.20	108	70-130			06/09/14	
Cadmium	48	0.25	ug/L	50	ND	95	70-130			06/09/14	
Matrix Spike Dup (A406965-MSD1), Source: A4F0333-03											
Chromium	50	0.50	ug/L	50	ND	100	70-130	0	20	06/07/14	
Copper	65	0.50	ug/L	50	16	97	70-130	2	20	06/07/14	
Nickel	51	1.0	ug/L	50	2.1	97	70-130	1	20	06/07/14	
Zinc	670	1.0	ug/L	50	620	105	70-130	1	20	06/07/14	
Matrix Spike Dup (A406965-MSD2), Source: A4F0333-03											
Arsenic	55	0.10	ug/L	50	0.20	109	70-130	1	20	06/09/14	
Cadmium	48	0.25	ug/L	50	ND	97	70-130	1	20	06/09/14	
EPA 6020 - Quality Control											
Batch: A406838										Prepared: 06/03/2014	
Prep Method: EPA 3050B										Analyst: MAS	
Blank (A406838-BLK1)											
Antimony	ND	10	mg/kg							06/04/14	
Arsenic	ND	2.5	mg/kg							06/04/14	
Beryllium	ND	1.2	mg/kg							06/04/14	
Cadmium	ND	1.2	mg/kg							06/04/14	
Chromium	ND	12	mg/kg							06/04/14	
Copper	ND	5.0	mg/kg							06/04/14	
Lead	ND	6.2	mg/kg							06/04/14	
Nickel	ND	12	mg/kg							06/04/14	
Selenium	ND	2.5	mg/kg							06/04/14	
Silver	ND	12	mg/kg							06/04/14	
Thallium	ND	2.0	mg/kg							06/04/14	
Zinc	ND	62	mg/kg							06/04/14	
Blank Spike (A406838-BS1)											
Antimony	110	10	mg/kg	100		107	75-125			06/04/14	
Arsenic	100	2.5	mg/kg	100		100	75-125			06/04/14	
Beryllium	110	1.2	mg/kg	100		106	75-125			06/04/14	
Cadmium	98	1.2	mg/kg	100		98	75-125			06/04/14	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6020 - Quality Control											
Batch: A406838										Prepared: 06/03/2014	
Prep Method: EPA 3050B										Analyst: MAS	
Blank Spike (A406838-BS1)											
Chromium	97	12	mg/kg	100		97	75-125			06/04/14	
Copper	100	5.0	mg/kg	100		100	75-125			06/04/14	
Lead	99	6.2	mg/kg	100		99	75-125			06/04/14	
Nickel	96	12	mg/kg	100		96	75-125			06/04/14	
Selenium	96	2.5	mg/kg	100		96	75-125			06/04/14	
Silver	48	12	mg/kg	50		96	75-125			06/04/14	
Thallium	98	2.0	mg/kg	100		98	75-125			06/04/14	
Zinc	100	62	mg/kg	100		103	75-125			06/04/14	
Blank Spike Dup (A406838-BSD1)											
Antimony	110	10	mg/kg	100		105	75-125	2	20	06/04/14	
Arsenic	99	2.5	mg/kg	100		99	75-125	2	20	06/04/14	
Beryllium	100	1.2	mg/kg	100		103	75-125	3	20	06/04/14	
Cadmium	98	1.2	mg/kg	100		98	75-125	0	20	06/04/14	
Chromium	97	12	mg/kg	100		97	75-125	0	20	06/04/14	
Copper	97	5.0	mg/kg	100		97	75-125	4	20	06/04/14	
Lead	99	6.2	mg/kg	100		99	75-125	0	20	06/04/14	
Nickel	96	12	mg/kg	100		96	75-125	0	20	06/04/14	
Selenium	99	2.5	mg/kg	100		99	75-125	3	20	06/04/14	
Silver	48	12	mg/kg	50		96	75-125	0	20	06/04/14	
Thallium	96	2.0	mg/kg	100		96	75-125	2	20	06/04/14	
Zinc	98	62	mg/kg	100		98	75-125	4	20	06/04/14	
Matrix Spike (A406838-MS1), Source: A4E2151-01											
Antimony	25	10	mg/kg	100	ND	25	75-125			06/04/14	MS1.0 ***Low***
Arsenic	130	2.5	mg/kg	100	40	93	75-125			06/04/14	
Beryllium	93	1.2	mg/kg	100	ND	93	75-125			06/04/14	
Cadmium	93	1.2	mg/kg	100	2.0	91	75-125			06/04/14	
Chromium	170	12	mg/kg	100	74	94	75-125			06/04/14	
Copper	290	5.0	mg/kg	100	200	93	75-125			06/04/14	
Lead	190	6.2	mg/kg	100	100	91	75-125			06/04/14	
Nickel	140	12	mg/kg	100	50	90	75-125			06/04/14	
Selenium	94	2.5	mg/kg	100	ND	92	75-125			06/04/14	
Silver	39	12	mg/kg	50	ND	78	75-125			06/04/14	
Thallium	89	2.0	mg/kg	100	ND	89	75-125			06/04/14	
Zinc	650	62	mg/kg	100	540	109	75-125			06/04/14	
Matrix Spike (A406838-MS2), Source: A4E2456-02											
Antimony	41	10	mg/kg	100	ND	41	75-125			06/04/14	MS1.0 ***Low***
Arsenic	96	2.5	mg/kg	100	ND	94	75-125			06/04/14	
Beryllium	95	1.2	mg/kg	100	ND	95	75-125			06/04/14	
Cadmium	92	1.2	mg/kg	100	ND	92	75-125			06/04/14	
Chromium	100	12	mg/kg	100	ND	93	75-125			06/04/14	
Copper	100	5.0	mg/kg	100	7.8	92	75-125			06/04/14	
Lead	95	6.2	mg/kg	100	ND	95	75-125			06/04/14	
Nickel	95	12	mg/kg	100	ND	95	75-125			06/04/14	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6020 - Quality Control											
Batch: A406838										Prepared: 06/03/2014	
Prep Method: EPA 3050B										Analyst: MAS	
Matrix Spike (A406838-MS2), Source: A4E2456-02											
Selenium	92	2.5	mg/kg	100	ND	92	75-125			06/04/14	
Silver	43	12	mg/kg	50	ND	85	75-125			06/04/14	
Thallium	94	2.0	mg/kg	100	ND	94	75-125			06/04/14	
Zinc	130	62	mg/kg	100	ND	96	75-125			06/04/14	
Matrix Spike Dup (A406838-MSD1), Source: A4E2151-01											
Antimony	26	10	mg/kg	100	ND	26	75-125	2	20	06/04/14	MS1.0 ***Low***
Arsenic	140	2.5	mg/kg	100	40	98	75-125	4	20	06/04/14	
Beryllium	94	1.2	mg/kg	100	ND	94	75-125	2	20	06/04/14	
Cadmium	94	1.2	mg/kg	100	2.0	92	75-125	1	20	06/04/14	
Chromium	170	12	mg/kg	100	74	100	75-125	3	20	06/04/14	
Copper	310	5.0	mg/kg	100	200	108	75-125	5	20	06/04/14	
Lead	200	6.2	mg/kg	100	100	98	75-125	4	20	06/04/14	
Nickel	140	12	mg/kg	100	50	92	75-125	1	20	06/04/14	
Selenium	94	2.5	mg/kg	100	ND	93	75-125	1	20	06/04/14	
Silver	45	12	mg/kg	50	ND	89	75-125	13	20	06/04/14	
Thallium	93	2.0	mg/kg	100	ND	93	75-125	4	20	06/04/14	
Zinc	680	62	mg/kg	100	540	136	75-125	4	20	06/04/14	MS1.0 ***High***
Matrix Spike Dup (A406838-MSD2), Source: A4E2456-02											
Antimony	40	10	mg/kg	100	ND	40	75-125	2	20	06/04/14	MS1.0 ***Low***
Arsenic	96	2.5	mg/kg	100	ND	94	75-125	0	20	06/04/14	
Beryllium	95	1.2	mg/kg	100	ND	95	75-125	0	20	06/04/14	
Cadmium	93	1.2	mg/kg	100	ND	93	75-125	1	20	06/04/14	
Chromium	100	12	mg/kg	100	ND	93	75-125	0	20	06/04/14	
Copper	97	5.0	mg/kg	100	7.8	89	75-125	3	20	06/04/14	
Lead	97	6.2	mg/kg	100	ND	97	75-125	3	20	06/04/14	
Nickel	94	12	mg/kg	100	ND	94	75-125	1	20	06/04/14	
Selenium	91	2.5	mg/kg	100	ND	91	75-125	1	20	06/04/14	
Silver	43	12	mg/kg	50	ND	86	75-125	1	20	06/04/14	
Thallium	94	2.0	mg/kg	100	ND	94	75-125	0	20	06/04/14	
Zinc	130	62	mg/kg	100	ND	96	75-125	0	20	06/04/14	
EPA 6020A - Quality Control											
Batch: A406838										Prepared: 06/03/2014	
Prep Method: EPA 3050B										Analyst: MAS	
Blank (A406838-BLK1)											
Mercury	ND	0.50	mg/kg							06/04/14	
Blank Spike (A406838-BS1)											
Mercury	2.2	0.50	mg/kg	2.5		90	75-125			06/04/14	
Blank Spike Dup (A406838-BSD1)											
Mercury	2.3	0.50	mg/kg	2.5		91	75-125	1	20	06/04/14	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6020A - Quality Control											
Batch: A406838										Prepared: 06/03/2014	
Prep Method: EPA 3050B										Analyst: MAS	
Matrix Spike (A406838-MS1), Source: A4E2151-01											
Mercury	2.6	0.50	mg/kg	2.5	0.53	84	75-125			06/04/14	
Matrix Spike (A406838-MS2), Source: A4E2456-02											
Mercury	2.2	0.50	mg/kg	2.5	ND	88	75-125			06/04/14	
Matrix Spike Dup (A406838-MSD1), Source: A4E2151-01											
Mercury	2.6	0.50	mg/kg	2.5	0.53	83	75-125	0	20	06/04/14	
Matrix Spike Dup (A406838-MSD2), Source: A4E2456-02											
Mercury	2.1	0.50	mg/kg	2.5	ND	83	75-125	6	20	06/04/14	

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: **Please refer to our website for a copy of our Accredited Fields of Testing under each certificattion.**

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792014-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters: **NA**

Conductivity @ 25C, DI Extract — Total Dissolved Solids, DI Extract

A4E2456



AECOM

AECOM822



05302014

Turnaround: Standard

Due Date: 6/12/2014

Printed: 5/30/2014 4:05:29PM

Page 1 of 1

BSK ANALYTICAL LABORATORIES

1414 STANISLAUS ST., FRESNO, CA 93706
(559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

A4E2456 05/29/2014
AECOM822 10

* Required Fields

Temp _____

Client/Company Name *:	Report Attention* :	Phone* : / Fax* :
AECOM	Adam Nielsen	661-325-7253 / 661-395-0359
		Email : adam.nielsen@aecom.com

Address*	City*	State*	Zip*
5001 E. Commercenter Dr.	Bakersfield	CA	93309

Project Information:	PO#
Golden Hills Project	Quote#

How would you like your completed results sent? ☑ E-Mail ☐ Fax ☐ EDD ☐ Mail Only-

Sampler Name Printed / Signature*	QC Request	Result Request **Surcharge
Adam Nielsen	(STD) Level II	(STD) 5Day** 2Day** 1 Day**

Carbon Copies: (Circle One)
CDHS Fresno Co EPA
Merced Co Tulare Co
Other:

REGULATORY COMPLIANCE
Electronic Data Transfer: Y N
System No.*

Matrix Types: RSW= Raw Surface Water CFW= Chlorinated Finished Water CWW= Chlorinated Waste Water BW= Bottled Water RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

ANALYSIS REQUESTED

Sample #	# Btls	Sampled* Date	Sampled* Time	Sample Description/Location*	Matrix*	Comments / Station Code	TDS, EC	Priority Pollutant Metals	Priority Pollutant Metals 3050	Hex Chrome EPA 218.6	Hex Chrome EPA 7199		Comp	BSK #
1E	01	5/28/14	8:45	North East Lake	soil	see note 1	X		X		X	6	X	16
2B	4	5/28/14	8:50	Effluent Line	water		X	X		X				3
4W	1	5/28/14	9:00am	Potable Water	water	test for TDS - Electricity	X							4
				South East Lake - Comp "B"	W		X	X		X				1
				North West Lake - Comp "B"	W		X	X		X				
				South East Lake - Comp	Solid		X		X		X			2
				North West Lake - Comp	Solid		X		X		X			

Relinquished by : (Signature and Printed Name)	Company	Date	Time	Received by (Signature and Print Name)	Company
Adam Nielsen	AECOM	5/29/14	10:05	K FIELDS	BSK
K FIELDS	BSK	5/29/14	10:05A		
Received for lab by : (Signature and Printed Name)		Date	Time	Payment Received at Delivery: Date: Amount: Check/Cash/Card PIA# Init.	

Shipping Method: CAO UPS GSO WALK-IN SJVC FED EX OTHER

Cooling Method: WET BLUE NONE

Packing Material:

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service/re-billings charges and interest calculated at 1 1/2% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, cost of collections, including attorneys' fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, an the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantities, will be noted and agreed upon this Chin of Custody. The turn around time for any samples received after 3:00pm will begin the next business day.

BSK ANALYTICAL LABORATORIES

1414 STANISLAUS ST., FRESNO, CA 93706
(559) 497-2888 · FAX (559) 497-2893 · www.bsklabs.com

A4E2456 05/29/2014
AECOM822 10

* Required Fields

Temp 2.3, 4.6, 5.1

Client/Company Name *:	Report Attention* :	Phone* : / Fax* :
AECOM	Adam Nielsen	661-328-7253 / 661-395-0359
		Email : adam.nielsen@aecom.com

Address*	City*	State*	Zip*
5001 E Commercenter Dr.	Bakersfield	CA	93309

Project Information: Golden Hills Project

PO#

Quote#

How would you like your completed results sent? ☑ E-Mail ☐ Fax ☐ EDD ☐ Mail Only-

Sampler Name Printed / Signature*: Adam Nielsen

QC Request: STD Level II

Result Request **Surcharge: STD 5Day** 2Day** 1 Day**

Carbon Copies: (Circle One)
CDHS Fresno Co EPA
Merced Co Tulare Co
Other:

REGULATORY COMPLIANCE
Electronic Data Transfer: Y N
System No.*

Matrix Types: RSW= Raw Surface Water CFW= Chlorinated Finished Water CWW= Chlorinated Waste Water BW= Bottled Water RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

ANALYSIS REQUESTED

	Sample #	# Btls	Sampled* Date	Sampled* Time	Sample Description/Location*	Matrix*	Comments / Station Code	TDS, EC	Priority Pollutant Metals	Priority Pollutant Metals 3050	Hex Chrome EPA 218.6	Hex Chrome EPA 7199	Hold	Cond. BSK#'s	
1	1A	4	5/29/14	7:10	South East Lake	water		X	X		X		X		5
2	1B	4	5/29/14	7:30	South East Lake	water	combine w/other B sister bot	X	X		X	2	1	X	6
3	1C	1	5/29/14	7:35	South East Lake	soil	combine w/other C sister bot if results are high for individual	X		X		2		X	7
4	2A	4	5/29/14	7:50	South West Lake	water		X	X		X		X		8
5	2B	4	5/29/14	7:50	South West Lake	water	combine w/other B sister bot	X	X		X			X	9
6	2C	1	5/29/14	7:50	South West Lake	soil	see note 1C	X		X		2	1	X	10
7	3A	4	5/29/14	8:10	North West Lake	water		X	X		X		X		11
8	3B	4	5/29/14	8:10	North West Lake	water	combine w/other B sister bot	X	X		X	2		X	12
9	3C	1	5/29/14	8:10	North West Lake	soil	see note 1C	X		X		2		X	13
10	4A	4	5/29/14	8:45	North East Lake	water		X	X		X		X		14
11	4B	4	5/29/14	8:45	North East Lake	water	combine w/other B sister bot	X	X		X	2		X	15

Relinquished by : (Signature and Printed Name)	Company	Date	Time	Received by (Signature and Print Name)	Company
Adam Nielsen	AECOM	5/29/14	10:00	K Frias	BSK
Relinquished by : (Signature and Printed Name)	Company	Date	Time	Received by (Signature and Print Name)	Company
K Frias	BSK	5/29/14	10:05A		
Received for lab by : (Signature and Printed Name)		Date	Time	Payment Received at Delivery:	
		5/29/14	1645	Date: Amount: Check/Cash/Card PIA# Init.	

Shipping Method: CAO UPS GSO WALK-IN SJVC FED EX OTHER pms

Cooling Method: WET BLUE NONE

Packing Material:

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service/re-billings charges and interest calculated at 1 1/2% per month. 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, cost of collections, including attorneys' fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, an the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantities, will be noted and agreed upon this Chin of Custody. The turn around time for any samples received after 3:00pm will begin the next business day.

Sample Integrity

BSK Bottles: (Yes) No Page 1 of 2

COC Info

Was temperature within range? Chemistry ≤ 6°C Micro < 10°C	(Yes) No NA	Were correct containers and preservatives received for the tests requested?	(Yes) No NA
If samples were taken today, is there evidence that chilling has begun?	(Yes) No NA	Were there bubbles in the VOA vials? (Volatiles Only)	Yes No (NA)
Did all bottles arrive unbroken and intact?	(Yes) No	Was a sufficient amount of sample received?	(Yes) No
Did all bottle labels agree with COC?	(Yes) No	Do samples have a hold time <72 hours?	(Yes) No
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No (NA)	Was PM notified of discrepancies? PM: ADM By/Time: 5/29	(Yes) No NA

Bottles Received — "_" means preservation/chlorine checks are either N/A or are performed in the lab

250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	1	2	3	4	5-6	7
Bacti $Na_2S_2O_3$	—	—						
None (P) White Cap	—	—	1C		1C	★1B	1C	
Cr6 Buffer (P) Blue Cap	pH 9-9.5	(Y) N	1a		1a		1a	
HNO_3 (P) Red Cap	—	—	1B		1B		1B	
H_2SO_4 (P) Yellow Cap	pH ≤ 2	(Y) N	1a		1a		1a	
NaOH (P) Green Cap	Cl, pH ≥12	Y N						
NaOH + ZnAc (P)	pH ≥ 9	Y N						
Dissolved Oxygen 300ml (g)	—	—						
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—						
H_2SO_4 (AG) Yellow Label O&G, Diesel	—	—						
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—						
$Na_2S_2O_3$ (AG) Blue Label 547, 515, 525, 548	—	—						
$Na_2S_2O_3$ (AG) Blue Label THMs 524.2 or 524.3	—	—						
$Na_2S_2O_3$ (CG) Blue Label 504, 505	—	—						
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH = 3	Y N						
NH_4Cl (AG) Purple Label 552	—	—						
EDA (AG) Brown Label DBPs	—	—						
Ascorbic + Maleic (AG) Lt Green Label 524.3	—	—						
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—						
Buffer pH 4 (CG)	—	—						
None (CG)	—	—						
H_3PO_4 (CG) Salmon Label	—	—						
Other:								
Asbestos 1Liter Plastic w/ Foil	—	—						
Low Level Hg / Metals Double Baggie	—	—						
Bottled Water	—	—						
Clear Glass Jar: 250 / 500 / 1 Liter	—	—		1C				1B
Soil Tube Brass / Steel / Plastic	—	—						
Tedlar Bag / Plastic Bag	—	—						

Split

	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials
S P				S P			
S P				S P			

Comments

Delay in Log due to confusion on COC y

Labeled by: NR @ 1508 Labels checked by: DMJ @ 15:09 RUSH Paged by: _____ @ _____

Sample Integrity

BSK Bottles: Yes No Page 2 of 2

COC Info

Was temperature within range? Chemistry ≤6°C Micro < 10°C	Yes No NA		Were correct containers and preservatives received for the tests requested?	Yes No NA	
If samples were taken today, is there evidence that chilling has begun?	Yes No NA		Were there bubbles in the VOA vials? (Volatiles Only)	Yes No NA	
Did all bottles arrive unbroken and intact?	Yes No		Was a sufficient amount of sample received?	Yes No	
Did all bottle labels agree with COC?	Yes No		Do samples have a hold time <72 hours?	Yes No	
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No NA		Was PM notified of discrepancies? PM: By/Time:	Yes No NA	

Bottles Received — "---" means preservation/chlorine checks are either N/A or are performed in the lab

250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	8-9	10	11-12	13	14-15	16
Bacti $Na_2S_2O_3$	—	—						
None (P) White Cap	—	—	1C		1C		1C	
Cr6 Buffer (P) Blue Cap	pH 9-9.5	Y N	1C		1C		1C	
HNO_3 (P) Red Cap	—	—	1B		1B		1B	
H_2SO_4 (P) Yellow Cap	pH ≤ 2	Y N	1A		1A		1A	
NaOH (P) Green Cap	Cl, pH ≥12	Y N						
NaOH + ZnAc (P)	pH ≥ 9	Y N						
Dissolved Oxygen 300ml (g)	—	—						
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—						
H_2SO_4 (AG) Yellow Label O&G, Diesel	—	—						
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—						
$Na_2S_2O_3$ (AG) Blue Label 547, 515, 525, 548	—	—						
$Na_2S_2O_3$ (AG) Blue Label THMs 524.2 or 524.3	—	—						
$Na_2S_2O_3$ (CG) Blue Label 504, 505	—	—						
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH = 3	Y N						
NH_4Cl (AG) Purple Label 552	—	—						
EDA (AG) Brown Label DBPs	—	—						
Ascorbic + Maleic (AG) Lt Green Label 524.3	—	—						
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—						
Buffer pH 4 (CG)	—	—						
None (CG)	—	—						
H_3PO_4 (CG) Salmon Label	—	—						
Other:								
Asbestos 1Liter Plastic w/ Foil	—	—						
Low Level Hg / Metals Double Baggie	—	—						
Bottled Water	—	—						
Clear Glass Jar: 250 / 500 / 1 Liter	—	—		1B		1B		1B
Soil Tube Brass / Steel / Plastic	—	—						
Tedlar Bag / Plastic Bag	—	—						

Split

	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials
S P				S P			
S P				S P			

Comments

Labeled by: AE @ 1508 Labels checked by: MD @ 1509 RUSH Paged by: _____ @ _____

Appendix I

Sewer Video Inspection Report

PROFESSIONAL PIPE SERVICES
249 S. PASEO TESORO
Walnut, CA 91789
Tel: 909-598-9743
Fax: 909-598-9756
E-mail:

DAILY CONSTRUCTION LOG

Project name :	Project No. :	Contact :	Date :
AECOM GOLDEN HILLS	**GOLDEN HILLS SEWER SYSTEM**		**10/10/2014**

Client:	**AECOM**
Contact Name:	**GOLDEN HILLS SEWER SYSTEM**
Department:	
Po Box:	
Street:	
City:	
Telephone:	
Fax:	
Mobile:	
E-mail:	

Site:	
Contact Name:	
Department:	
Po Box:	
Street:	
City:	
Telephone:	
Fax:	
Mobile:	
E-mail:	

Contractor	**PROFESSIONAL PIPE SERVICES**
Contact Name:	
Department:	
Po Box:	
Street:	**249 S. PASEO TESORO**
City:	**Walnut, CA 91789**
Telephone:	**909-598-9743**
Fax:	**909-598-9756**
Mobile:	
E-mail:	

PROFESSIONAL PIPE SERVICES
249 S. PASEO TESORO
Walnut, CA 91789
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E-mail:

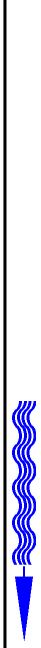
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/15/2014		**Dry**	**C. DEHNER**		**1**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/15/2014**	**Jetting**	

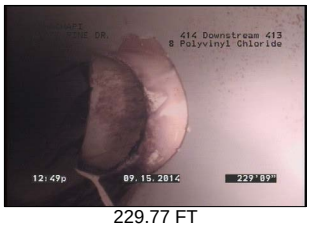
Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**414**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**413**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**358.38 ft**	Section Length	**358.38 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184622_091514**	Lining Method	

Add. Information : **E**



1:870 Position		Code	Observation	Grade
414				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
2.97	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
229.77		TB	Tap Break-In, at 02 o'clock, -, within 8 inches of joint: YES, 4"	
284.76		TB	Tap Break-In, at 02 o'clock, -, within 8 inches of joint: YES, 4"	
351.54		TB	Tap Break-In, at 03 o'clock, -, within 8 inches of joint: YES, 4"	
356.10	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
358.38		AMH	Downstream Manhole, Survey Ends	
413				



229.77 FT



229.77 FT



284.76 FT

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2M00**	**0**	**142**	**142**	**0**	**2**	**2**

PROFESSIONAL PIPE SERVICES
249 S. PASEO TESORO
Walnut, CA 91789
Tel: 909-598-9743
Fax: 909-598-9756
E-mail:

Inspection photos

City :	Street :	Date :	Pipe Segment Reference :	Section No :
TEHACHAPI	**WHITE PINE DR.**	**9/15/2014**		**1**



Photo: WHITE PINE DR._414_413_001337_124526.JPG, VCR No.: SC184622_091514
229.77FT, Tap Break-In, at 02 o'clock, -, within 8 inches of joint: YES, 4"



Photo: WHITE PINE DR._414_413_001337_124602.JPG, VCR No.: SC184622_091514
229.77FT, Tap Break-In, at 02 o'clock, -, within 8 inches of joint: YES, 4"



Photo: WHITE PINE DR._414_413_001701_125155.JPG, VCR No.: SC184622_091514
284.76FT, Tap Break-In, at 02 o'clock, -, within 8 inches of joint: YES, 4"

PROFESSIONAL PIPE SERVICES
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Walnut, CA 91789
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E-mail:

Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/15/2014		**Dry**	**C. DEHNER**		**2**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/15/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**413**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**412**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**369.38 ft**	Section Length	**369.38 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184622_091514**	Lining Method	

Add. Information : **E**

1:900	Position		Code	Observation	Grade
413					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	2.28	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	71.24		TB	Tap Break-In, at 12 o'clock, -, within 8 inches of joint: YES, 4"	
	367.49	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
	369.38		AOC	Drop Connection, Survey Ends	
412					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2N00**	**0**	**146**	**146**	**0**	**2**	**2**

PROFESSIONAL PIPE SERVICES
249 S. PASEO TESORO
Walnut, CA 91789
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E-mail:

Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/15/2014		**Dry**	**C. DEHNER**		**3**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/15/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**412**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**411**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**399.99 ft**	Section Length	**399.99 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184622_091514**	Lining Method	

Add. Information : **E**

1:960	Position		Code	Observation	Grade
412					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	3.96	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	376.01		TB	Tap Break-In, at 03 o'clock, -, within 8 inches of joint: YES, 4"	
	397.81	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
	399.99		AMH	Downstream Manhole, Survey Ends	
411					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2O00**	**0**	**158**	**158**	**0**	**2**	**2**

PROFESSIONAL PIPE SERVICES
249 S. PASEO TESORO
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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/15/2014		**Dry**	**C. DEHNER**		**4**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/15/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**411**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**410**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**404.65 ft**	Section Length	**404.65 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184622_091514**	Lining Method	

Add. Information : **E**

1:975	Position		Code	Observation	Grade
411					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	3.96	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	402.37	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
	404.65		AMH	Downstream Manhole, Survey Ends	
410					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2O00**	**0**	**160**	**160**	**0**	**2**	**2**

PROFESSIONAL PIPE SERVICES
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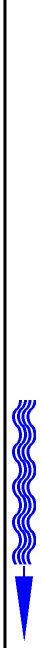
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/16/2014		**Dry**	**C. DEHNER**		**5**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/16/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**410**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**409**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**308.74 ft**	Section Length	**308.74 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184623-091614**	Lining Method	

Add. Information : **E**



1:750 Position		Code	Observation	Grade
410				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
2.97	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
305.37	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
308.74		AMH	Downstream Manhole, Survey Ends	
409				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2K00**	**0**	**120**	**120**	**0**	**2**	**2**

PROFESSIONAL PIPE SERVICES
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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/16/2014		**Dry**	**C. DEHNER**		**6**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/16/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**409**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**408**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**314.48 ft**	Section Length	**314.48 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184623-091614**	Lining Method	

Add. Information : **E**

1:765	Position		Code	Observation	Grade
409					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	2.08	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	314.48	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
	314.48		AOC	Drop Connection, Survey Ends	
408					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2K00**	**0**	**124**	**124**	**0**	**2**	**2**

PROFESSIONAL PIPE SERVICES
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Tel: 909-598-9743
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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/16/2014		**Dry**	**C. DEHNER**		**7**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/16/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**408**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**407**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**316.27 ft**	Section Length	**316.27 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184623-091614**	Lining Method	

Add. Information : **E**

1:765 Position		Code	Observation	Grade
408				
0.00		AMH	Upstream Manhole, Survey Begins	
47.46	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
180.33		FS	Fracture Spiral, 3", from 10 to 12 o'clock, within 8 inches of joint: NO	S 3
182.41		TB	Tap Break-In, at 03 o'clock, 4", within 8 inches of joint: YES	
313.69	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
316.27		AMH	Downstream Manhole, Survey Ends	
407				



180.33 FT



180.33 FT

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
3100	**2J00**	**3**	**106**	**109**	**3**	**2**	**2.02**

PROFESSIONAL PIPE SERVICES
249 S. PASEO TESORO
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E-mail:

Inspection photos

City :	Street :	Date :	Pipe Segment Reference :	Section No :
TEHACHAPI	**WHITE PINE DR.**	**9/16/2014**		**7**



Photo: WHITE PINE DR._407_406_001252_093933.JPG, VCR No.: SC184623-091614
180.33FT, Fracture Spiral, 3", from 10 to 12 o'clock, within 8 inches of joint: NO



Photo: WHITE PINE DR._407_406_001252_093953.JPG, VCR No.: SC184623-091614
180.33FT, Fracture Spiral, 3", from 10 to 12 o'clock, within 8 inches of joint: NO

PROFESSIONAL PIPE SERVICES
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Fax: 909-598-9756
E-mail:

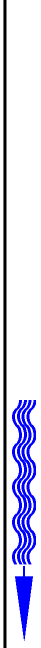
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/16/2014		**Dry**	**C. DEHNER**		**8**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/16/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**407**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**406**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**320.83 ft**	Section Length	**320.83 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184623-091614**	Lining Method	

Add. Information : **E**



1:780 Position		Code	Observation	Grade
407				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
2.18	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
144.66		TB	Tap Break-In, at 12 o'clock, 4", within 8 inches of joint: YES	
318.35	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
320.83		TF	Tap Factory Made, at 09 o'clock, 8", within 8 inches of joint: YES	
320.83		TF	Tap Factory Made, at 03 o'clock, 8", within 8 inches of joint: YES	
320.83		AMH	Downstream Manhole, Survey Ends	
406				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2L00**	**0**	**126**	**126**	**0**	**2**	**2**

PROFESSIONAL PIPE SERVICES
249 S. PASEO TESORO
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E-mail:

Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/16/2014		**Dry**	**C. DEHNER**		**9**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/16/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**406**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**405**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**352.23 ft**	Section Length	**352.23 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184623-091614**	Lining Method	

Add. Information : **W**

1:855 Position		Code	Observation	Grade
			406	
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
1.59		MGO	General Observation	
5.94	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
350.05	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
352.23		TF	Tap Factory Made, at 09 o'clock, 8", within 8 inches of joint: YES	
352.23		TF	Tap Factory Made, at 03 o'clock, 8", within 8 inches of joint: YES	
352.23		AMH	Upstream Manhole, Survey Ends	
			405	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2M00**	**0**	**138**	**138**	**0**	**2**	**2**

PROFESSIONAL PIPE SERVICES
249 S. PASEO TESORO
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E-mail:

Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/16/2014		**Dry**	**C. DEHNER**		**10**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/16/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**405**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**403**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**259.30 ft**	Section Length	**259.30 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184623-091614**	Lining Method	

Add. Information : **E**

1:630	Position		Code	Observation	Grade
405					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	2.97	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 03 to 09 o'clock, , within 8 inches of joint: YES, Start	M 2
	57.57	**S2**	MWLS	Water Level, Sag in pipe, 20 %of cross sectional area, Start	S 2
	105.13	**F2**	MWLS	Water Level, Sag in pipe, 20 %of cross sectional area, Finish	S 2
	133.17	**S3**	MWLS	Water Level, Sag in pipe, 50 %of cross sectional area, Start	S 3
	174.19	**F3**	MWLS	Water Level, Sag in pipe, 50 %of cross sectional area, Finish	S 3
	256.62	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 03 to 09 o'clock, , within 8 inches of joint: YES, Finish	M 2
	259.30		TF	Tap Factory Made, at 03 o'clock, 6", within 8 inches of joint: YES	
	259.30		AMH	Downstream Manhole, Survey Ends	
403					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
382A	**2I00**	**44**	**102**	**146**	**2.44**	**2**	**2.12**

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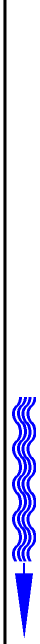
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/16/2014		**Dry**	**C. DEHNER**		**11**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/16/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**403**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**402**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**141.19 ft**	Section Length	**141.19 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184623-091614**	Lining Method	

Add. Information : **E**



1:345 Position	Code	Observation	Grade
403			
0.00	AMH	Upstream Manhole, Survey Begins	
0.00	TF	Tap Factory Made, at 03 o'clock, 6", within 8 inches of joint: YES	
0.00	MWL	Water Level, 15 %of cross sectional area	
141.19	TF	Tap Factory Made, at 03 o'clock, 8", within 8 inches of joint: YES	
141.19	TF	Tap Factory Made, at 09 o'clock, 8", within 8 inches of joint: YES	
141.19	AMH	Downstream Manhole, Survey Ends	
402			

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/16/2014		**Dry**	**C. DEHNER**		**12**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/16/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**402**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**401**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**272.57 ft**	Section Length	**272.57 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184623-091614**	Lining Method	

Add. Information : **E**

1:660	Position		Code	Observation	Grade
402					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	1.59	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
	53.80		TB	Tap Break-In, at 01 o'clock, 4", within 8 inches of joint: YES	
	272.57	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
	272.57		AMH	Downstream Manhole, Survey Ends	
401					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2J00**	**0**	**108**	**108**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/17/2014		**Dry**	**C. DEHNER**		**13**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/17/2014**	**Jetting**	

Street123	**WHITE PINE DR.**	Use of Sewer	**Sanitary**	Upstream MH	**401**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**400**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**282.58 ft**	Section Length	**282.58 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184624-091714**	Lining Method	

Add. Information : **E**

1:690 Position		Code	Observation	Grade
401				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
4.95	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
135.94	**S2**	MWLS	Water Level, Sag in pipe, 20 %of cross sectional area, Start	S 2
167.94	**F2**	MWLS	Water Level, Sag in pipe, 20 %of cross sectional area, Finish	S 2
280.70	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
282.58		AMH	Downstream Manhole, Survey Ends	
400				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
2600	**2J00**	**12**	**110**	**122**	**2**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/17/2014		**Dry**	**C. DEHNER**		**14**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/17/2014**	**Jetting**	

Street123	**WOODFORD-TEHACHAPI RD.**	Use of Sewer	**Sanitary**	Upstream MH	**400**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**200**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**183.80 ft**	Section Length	**183.80 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184624-091714**	Lining Method	

Add. Information : **N**

1:450 Position	Code	Observation	Grade
400			
0.00	AMH	Downstream Manhole, Survey Begins	
0.00	MWL	Water Level, 15 %of cross sectional area	
175.18	MWLS	Water Level, Sag in pipe, 50 %of cross sectional area	S 3
183.30	TF	Tap Factory Made, at 09 o'clock, 8", within 8 inches of joint: YES	
183.80	AMH	Upstream Manhole, Survey Ends	
200			

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
3100	**0000**	**3**	**0**	**3**	**3**	**0**	**3**

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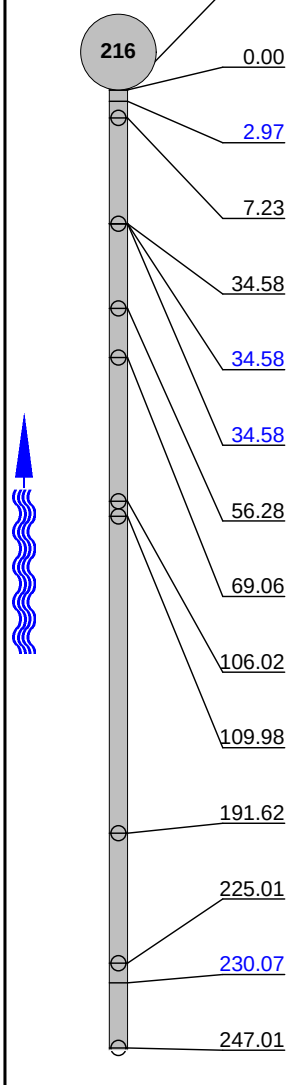
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/17/2014		**Dry**	**C. DEHNER**		**15**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/17/2014**	**Jetting**	

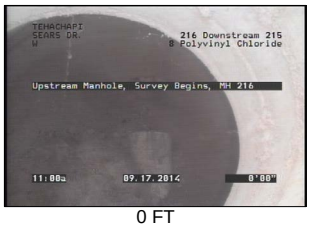
Street123	**SEARS DR.**	Use of Sewer	**Sanitary**	Upstream MH	**216**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**215**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**327.56 ft**	Section Length	**327.56 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184624-091714**	Lining Method	

Add. Information : **E**



1:594 Position		Code	Observation	Grade
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
2.97	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
7.23		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
34.58		TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
34.58	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
34.58	**S2**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, at 06 o'clock, , within 8 inches of joint: YES, Start	M 2
56.28		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
69.06		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
106.02		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
109.98		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
191.62		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
225.01		TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
230.07	**F2**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, at 06 o'clock, , within 8 inches of joint: YES, Finish	M 2
247.01		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	



0 FT



0 FT

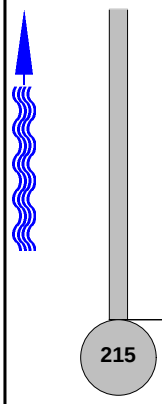
City : TEHACHAPI

PROFESSIONAL PIPE SERVICES
249 S. PASEO TESORO
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Email:

Inspection Report

Date :	Job number :	Weather :	Operator :	Counter :	Section name :
9/17/2014		**Dry**	**C. DEHNER**	**15**	
Present :	Vehicle :	Camera :	Preset :	Cleaned :	Rate :
				Jetting	

1:594	Position	Code	Observation	Rate
	327.56	AMH	Upstream Manhole, Survey Ends	



QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2H00**	**0**	**90**	**90**	**0**	**2**	**2**

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Inspection photos

City :	Street :	Date :	Pipe Segment Reference :	Section No :
TEHACHAPI	**SEARS DR.**	**9/17/2014**		**15**

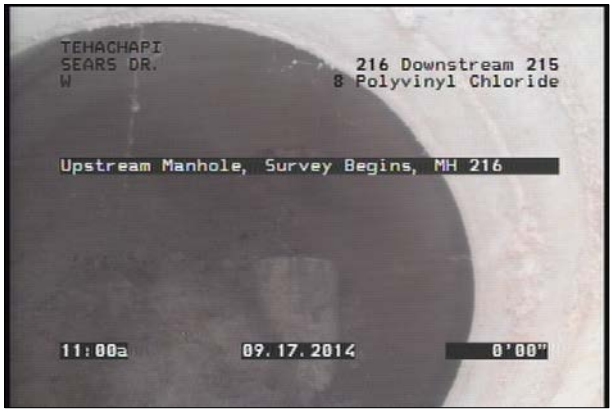


Photo: SEARS DR._216_215_SO_MPEGPosition_105609.JPG,
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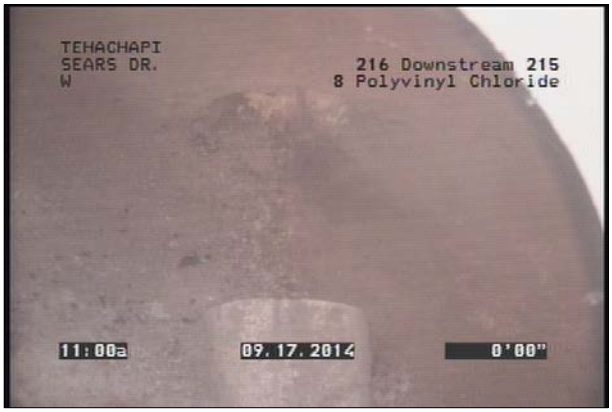


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0FT, Downstream Manhole, Survey Begins

PROFESSIONAL PIPE SERVICES
249 S. PASEO TESORO
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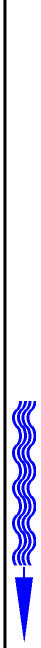
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/17/2014		**Dry**	**C. DEHNER**		**16**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/17/2014**	**Jetting**	

Street123	**SEARS DR.**	Use of Sewer	**Sanitary**	Upstream MH	**215**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**212**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**222.83 ft**	Section Length	**222.83 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184624-091714**	Lining Method	

Add. Information : **W**



1:540 Position		Code	Observation	Grade
215				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
2.97	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
17.93		TB	Tap Break-In, at 03 o'clock, 4", within 8 inches of joint: YES	
19.02		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
81.84		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
148.03		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
163.98		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
221.65	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
222.83		AMH	Downstream Manhole, Survey Ends	
212				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2H00**	**0**	**88**	**88**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/17/2014		**Dry**	**C. DEHNER**		**17**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/17/2014**	**Jetting**	

Street123	**SEARS DR.**	Use of Sewer	**Sanitary**	Upstream MH	**212**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**205**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**155.26 ft**	Section Length	**155.26 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184624-091714**	Lining Method	

Add. Information : **N**

1:375 Position		Code	Observation	Grade
212				
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
2.97	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
154.67	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
154.67		MGO	General Observation	
155.26		AMH	Upstream Manhole, Survey Ends	
205				



154.67 FT

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2E00**	**0**	**60**	**60**	**0**	**2**	**2**

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E-mail:

Inspection photos

City :	Street :	Date :	Pipe Segment Reference :	Section No :
TEHACHAPI	**SEARS DR.**	**9/17/2014**		**17**

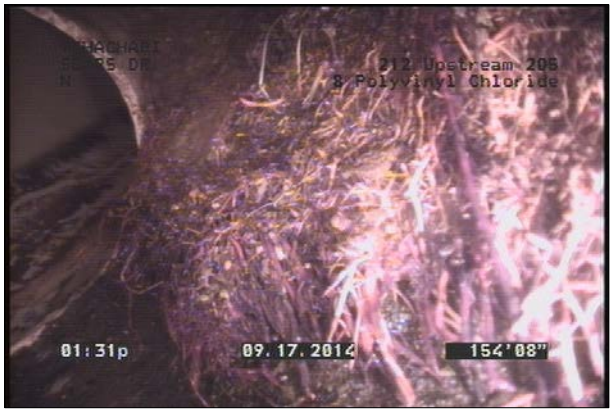


Photo: SEARS DR._212_205_000952_132724.JPG, VCR No.: SC184624-091714
154.67FT, General Observation

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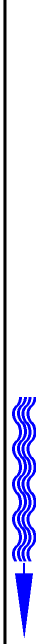
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/18/2014		**Dry**	**C. DEHNER**		**18**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/18/2014**	**Jetting**	

Street123	**WESTON AVE**	Use of Sewer	**Sanitary**	Upstream MH	**209**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**208**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**282.08 ft**	Section Length	**282.08 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184625-091814**	Lining Method	

Add. Information : **W**



1:690 Position		Code	Observation	Grade
209 0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
2.97	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
4.95		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
39.73		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
90.76		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
141.09		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
175.97		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
181.12		TB	Tap Break-In, at 12 o'clock, 4", within 8 inches of joint: YES	
231.06		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
262.37		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
276.14		TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
282.08	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
282.08 208		AMH	Downstream Manhole, Survey Ends	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2J00**	**0**	**112**	**112**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/18/2014		**Dry**	**C. DEHNER**		**19**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/18/2014**	**Jetting**	

Street123	**WESTON AVE**	Use of Sewer	**Sanitary**	Upstream MH	**208**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**207**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**318.65 ft**	Section Length	**318.65 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184625-091814**	Lining Method	

Add. Information : **W**

1:765 Position	Code	Observation	Grade
208			
0.00	AMH	Upstream Manhole, Survey Begins	
0.00	MWL	Water Level, 5 %of cross sectional area	
142.97	TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
149.02	TFC	Tap Factory Made Capped, at 03 o'clock, 4", within 8 inches of joint: YES	
216.89	TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
257.51	TFC	Tap Factory Made Capped, at 03 o'clock, 4", within 8 inches of joint: YES	
281.79	TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
318.65	AMH	Downstream Manhole, Survey Ends	
207			

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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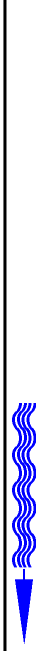
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/18/2014		**Dry**	**C. DEHNER**		**20**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/18/2014**	**Jetting**	

Street123	**WESTON AVE**	Use of Sewer	**Sanitary**	Upstream MH	**207**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**206**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**329.94 ft**	Section Length	**329.94 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184625-091814**	Lining Method	

Add. Information : **W**



1:795 Position	Code	Observation	Grade
207			
0.00	AMH	Upstream Manhole, Survey Begins	
0.00	MWL	Water Level, 20 %of cross sectional area	
34.88	TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
42.01	TFC	Tap Factory Made Capped, at 03 o'clock, 4", within 8 inches of joint: YES	
121.47	TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
125.73	TFC	Tap Factory Made Capped, at 03 o'clock, 4", within 8 inches of joint: YES	
132.77	TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
205.49	TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
229.47	TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
329.94	AMH	Downstream Manhole, Survey Ends	
206			

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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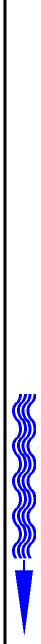
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/18/2014		**Dry**	**C. DEHNER**		**21**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/18/2014**	**Jetting**	

Street123	**WESTON AVE**	Use of Sewer	**Sanitary**	Upstream MH	**206**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**205**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**250.28 ft**	Section Length	**250.28 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184625-091814**	Lining Method	

Add. Information : **W**



1:615 Position		Code	Observation	Grade
206				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
3.96	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
74.61		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
94.62		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
200.44		TB	Tap Break-In, at 03 o'clock, 4", within 8 inches of joint: YES	
250.28		TF	Tap Factory Made, at 03 o'clock, 8", within 8 inches of joint: YES	
250.28	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
250.28		AMH	Downstream Manhole, Survey Ends	
205				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2I00**	**0**	**98**	**98**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/18/2014		**Dry**	**C. DEHNER**		**22**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/18/2014**	**Jetting**	

Street123	**WESTON AVE**	Use of Sewer	**Sanitary**	Upstream MH	**205**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**204**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**229.47 ft**	Section Length	**229.47 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184625-091814**	Lining Method	

Add. Information : **W**

1:555 Position		Code	Observation	Grade
			205	
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		TFB	Tap Factory Made Abandoned, at 03 o'clock, 8", within 8 inches of joint: YES	
0.00		MWL	Water Level, 10 %of cross sectional area	
1.98	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
229.47	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
229.47		AMH	Downstream Manhole, Survey Ends	
			204	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2H00**	**0**	**90**	**90**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/18/2014		**Dry**	**C. DEHNER**		**23**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/18/2014**	**Jetting**	

Street123	**WESTON AVE**	Use of Sewer	**Sanitary**	Upstream MH	**211**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**210**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**31.41 ft**	Section Length	**31.41 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184625-091814**	Lining Method	

Add. Information : **E**

1:90	Position	Code	Observation	Grade
211				
	0.00	AMH	Downstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 5 %of cross sectional area	
	12.09	TB	Tap Break-In, at 02 o'clock, 4", within 8 inches of joint: YES	
	24.67	TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
	28.04	TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
	31.41	ACOM	Cleanout Mainline, Survey Ends	
210				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/18/2014		**Dry**	**C. DEHNER**		**24**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/18/2014**	**Jetting**	

Street123	**WESTON AVE**	Use of Sewer	**Sanitary**	Upstream MH	**210**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**209**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**214.31 ft**	Section Length	**214.31 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184625-091814**	Lining Method	

Add. Information : **W**

1:525

Position		Code	Observation	Grade
210				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
3.96	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
57.07		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
85.90		TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
127.02		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
148.82		TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
185.68		TFC	Tap Factory Made Capped, at 12 o'clock, 4", within 8 inches of joint: YES	
204.60		TB	Tap Break-In, at 12 o'clock, 4", within 8 inches of joint: YES	
212.73	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
214.31		AMH	Downstream Manhole, Survey Ends	
209				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2G00**	**0**	**84**	**84**	**0**	**2**	**2**

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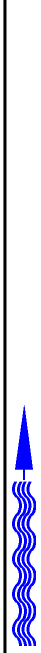
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/18/2014		**Dry**	**C. DEHNER**		**25**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/18/2014**	**Jetting**	

Street123	**DIRT ROAD**	Use of Sewer	**Sanitary**	Upstream MH	**202**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**201**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**442.00 ft**	Section Length	**442.00 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184625-091814**	Lining Method	

Add. Information : **S**



1:1065 Position		Code	Observation	Grade
202				
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
59.94		JOM	Joint Offset Medium, 1"	S 1
67.18	**S1**	MWLS	Water Level, Sag in pipe, 15 %of cross sectional area, Start	S 2
81.15	**F1**	MWLS	Water Level, Sag in pipe, 15 %of cross sectional area, Finish	S 2
179.44		TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
258.50		TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
273.46		TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
317.75		JSM	Joint Separated Medium, 1"	S 1
330.63		TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
372.45		TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
441.61		TFC	Tap Factory Made Capped, at 09 o'clock, 4", within 8 inches of joint: YES	
442.00		AMH	Upstream Manhole, Survey Ends	
201				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
2312	**0000**	**8**	**0**	**8**	**1.6**	**0**	**1.6**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/18/2014		**Dry**	**C. DEHNER**		**26**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/18/2014**	**Jetting**	

Street123	**WESTON AVE**	Use of Sewer	**Sanitary**	Upstream MH	**204**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**201**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**311.51 ft**	Section Length	**311.51 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184625-091814**	Lining Method	

Add. Information : **E**



1:750 Position		Code	Observation	Grade
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
6.24	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
92.05		TB	Tap Break-In, at 02 o'clock, 4", within 8 inches of joint: YES	
185.88		JSM	Joint Separated Medium, 1"	S 1
199.05		JSM	Joint Separated Medium, 1"	S 1
238.39		JSM	Joint Separated Medium, 1"	S 1
255.83		TB	Tap Break-In, at 10 o'clock, 4", within 8 inches of joint: YES	
256.92		TB	Tap Break-In, at 01 o'clock, 4", within 8 inches of joint: YES	
300.32		TB	Tap Break-In, at 12 o'clock, 4", within 8 inches of joint: YES	
309.43	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
311.51		AMH	Upstream Manhole, Survey Ends	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
1300	**2K00**	**3**	**122**	**125**	**1**	**2**	**1.95**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/19/2014		**Dry**	**C. DEHNER**		**27**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/19/2014**	**Jetting**	

Street123	**WOODFORD-TEHACHAPI RD.**	Use of Sewer	**Sanitary**	Upstream MH	**129**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**128**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**300.02 ft**	Section Length	**300.02 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184626-091914**	Lining Method	

Add. Information : **N**

1:735	Position	Code	Observation	Grade
129				
	0.00	AMH	Downstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 15 %of cross sectional area	
	300.02	AMH	Upstream Manhole, Survey Ends	
128				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/19/2014		**Dry**	**C. DEHNER**		**28**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/19/2014**	**Jetting**	

Street123	**WOODFORD-TEHACHAPI RD.**	Use of Sewer	**Sanitary**	Upstream MH	**128**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**127**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**301.31 ft**	Section Length	**301.31 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184626-091914**	Lining Method	

Add. Information : **S**

1:735	Position	Code	Observation	Grade
128	0.00	AMH	Upstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 15 %of cross sectional area	
	301.31	AMH	Downstream Manhole, Survey Ends	
127				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/19/2014		**Dry**	**C. DEHNER**		**29**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/19/2014**	**Jetting**	

Street123	**WOODFORD-TEHACHAPI RD.**	Use of Sewer	**Sanitary**	Upstream MH	**127**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**124**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**297.94 ft**	Section Length	**297.94 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184626-091914**	Lining Method	

Add. Information : **S**

1:720 Position	Code	Observation	Grade
127			
0.00	AMH	Upstream Manhole, Survey Begins	
0.00	MWL	Water Level, 15 %of cross sectional area	
60.64	TF	Tap Factory Made, at 03 o'clock, 6", within 8 inches of joint: YES	
183.40	KW	Buckling Wall, at 12 o'clock	
295.86	MGO	General Observation	
297.94	AMH	Downstream Manhole, Survey Ends	
124			

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/19/2014		**Dry**	**C. DEHNER**		**30**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/19/2014**	**Jetting**	

Street123	**WOODFORD-TEHACHAPI RD.**	Use of Sewer	**Sanitary**	Upstream MH	**125**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**124**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**397.91 ft**	Section Length	**397.91 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184626-091914**	Lining Method	

Add. Information : **N**

1:960	Position		Code	Observation	Grade
125					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	163.78	**S1**	MWLS	Water Level, Sag in pipe, 40 %of cross sectional area, Start	S 3
	205.79	**F1**	MWLS	Water Level, Sag in pipe, 40 %of cross sectional area, Finish	S 3
	397.91		AOC	Drop Connection, Survey Ends	
124					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
3800	**0000**	**24**	**0**	**24**	**3**	**0**	**3**

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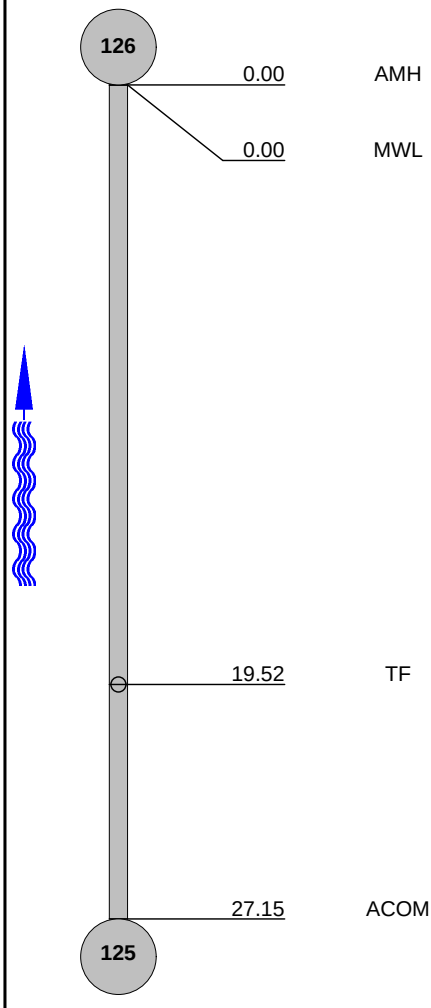
Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/19/2014		**Dry**	**C. DEHNER**		**31**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/19/2014**	**Jetting**	

Street123	**WOODFORD-TEHACHAPI RD.**	Use of Sewer	**Sanitary**	Upstream MH	**126**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**125**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**27.15 ft**	Section Length	**27.15 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184626-091914**	Lining Method	

Add. Information : **S**

1:75	Position	Code	Observation	Grade
	0.00	AMH	Downstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 30 %of cross sectional area	
	19.52	TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
	27.15	ACOM	Cleanout Mainline, Survey Ends	



QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/19/2014		**Dry**	**C. DEHNER**		**32**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/18/2014**	**Jetting**	

Street123	**WOODFORD-TEHACHAPI RD.**	Use of Sewer	**Sanitary**	Upstream MH	**201**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**200**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**88.58 ft**	Section Length	**88.58 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184626-091914**	Lining Method	

Add. Information : **E**

1:225	Position	Code	Observation	Grade
201	0.00	AMH	Downstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 20 %of cross sectional area	
	78.67	TB	Tap Break-In, at 01 o'clock, 4", within 8 inches of joint: YES	
	87.89	TF	Tap Factory Made, at 03 o'clock, 6", within 8 inches of joint: YES	
200	88.58	AMH	Upstream Manhole, Survey Ends	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**33**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 1**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 2**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**94.10 ft**	Section Length	**94.10 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:240	Position		Code	Observation	Grade
CO 1					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 5 %of cross sectional area	
	1.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	94.10	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
CO 2					
	94.10		ACOM	Cleanout Mainline, Survey Ends	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2C00**	**0**	**38**	**38**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**34**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 2**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 3**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**41.80 ft**	Section Length	**41.80 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:105	Position		Code	Observation	Grade
CO 2					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 5 %of cross sectional area	
	1.00	**S1**	DAGS	Deposits Attached Grease, 15 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 3
	2.40		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
	41.80	**F1**	DAGS	Deposits Attached Grease, 15 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 3
CO 3	41.80		ACOM	Cleanout Mainline, Survey Ends	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**3800**	**0**	**24**	**24**	**0**	**3**	**3**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**35**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 3**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 4**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**89.60 ft**	Section Length	**89.60 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:225	Position		Code	Observation	Grade
CO 3					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 5 %of cross sectional area	
	1.00	**S1**	DAGS	Deposits Attached Grease, 15 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 3
	8.00		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
	89.60	**F1**	DAGS	Deposits Attached Grease, 15 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 3
CO 4	89.60		ACOM	Cleanout Mainline, Survey Ends	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**3C00**	**0**	**54**	**54**	**0**	**3**	**3**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**36**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 4**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 5**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**102.50 ft**	Section Length	**102.50 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:255	Position		Code	Observation	Grade
CO 4					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	1.40	**S1**	DAGS	Deposits Attached Grease, 15 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 3
	1.40		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
	102.50	**F1**	DAGS	Deposits Attached Grease, 15 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 3
	102.50		ACOM	Cleanout Mainline, Survey Ends	
CO 5					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**3C00**	**0**	**60**	**60**	**0**	**3**	**3**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**37**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 5**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 6**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**50.70 ft**	Section Length	**50.70 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:135 Position		Code	Observation	Grade
CO 5				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
0.00	**S1**	DAGS	Deposits Attached Grease, 15 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 3
2.50		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
50.70	**F1**	DAGS	Deposits Attached Grease, 15 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 3
CO 6				
50.70		ACOM	Cleanout Mainline, Survey Ends	



0 FT

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**3A00**	**0**	**30**	**30**	**0**	**3**	**3**

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Inspection photos

City :	Street :	Date :	Pipe Segment Reference :	Section No :
TEHACHAPI	**PAMPA PEAK RD**	**9/22/2014**		**37**



Photo: PAMPA PEAK RD_CO 5_CO 6_000022_114510.JPG,
VCR No.: SC184627-092214
0FT, Upstream Manhole, Survey Begins

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**38**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 6**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 7**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**61.90 ft**	Section Length	**61.90 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:150	Position		Code	Observation	Grade
CO 6					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 5 %of cross sectional area	
	0.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	61.90	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
	61.90		ACOM	Cleanout Mainline, Survey Ends	
CO 7					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2A00**	**0**	**24**	**24**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**39**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 7**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 8**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**79.20 ft**	Section Length	**79.20 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:195	Position		Code	Observation	Grade
CO 7					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 5 %of cross sectional area	
	1.10	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	28.30		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
	79.20	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
	79.20		ACOM	Cleanout Mainline, Survey Ends	
CO 8					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2B00**	**0**	**32**	**32**	**0**	**2**	**2**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**40**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 8**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 9**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**114.80 ft**	Section Length	**114.80 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:285 Position		Code	Observation	Grade
CO 8				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
0.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
103.70		TF	Tap Factory Made, at 10 o'clock, 4", within 8 inches of joint: YES	
114.80	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
114.80		ACOM	Cleanout Mainline, Survey Ends	
CO 9				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2D00**	**0**	**46**	**46**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**41**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 9**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 10**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**94.10 ft**	Section Length	**94.10 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:240	Position		Code	Observation	Grade
CO 9					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 5 %of cross sectional area	
	0.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	84.10		ACOM	Cleanout Mainline, Survey Ends	
	94.10	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
CO 10					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2C00**	**0**	**38**	**38**	**0**	**2**	**2**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**42**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 10**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 11**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**93.70 ft**	Section Length	**93.70 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:225 Position		Code	Observation	Grade
CO 10				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
0.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
33.50		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
93.70	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
93.70		ACOM	Cleanout Mainline, Survey Ends	
CO 11				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2C00**	**0**	**38**	**38**	**0**	**2**	**2**

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E-mail:

Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**43**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**PAMPA PEAK RD**	Use of Sewer	**Sanitary**	Upstream MH	**CO 11**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 11A**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**99.10 ft**	Section Length	**99.10 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **E**

1:240	Position		Code	Observation	Grade
CO 11					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	0.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	74.50		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
	99.10	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
	99.10		ACOM	Cleanout Mainline, Survey Ends	
CO 11A					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2C00**	**0**	**40**	**40**	**0**	**2**	**2**

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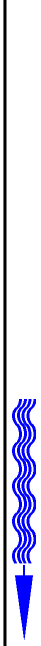
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/22/2014		**Dry**	**C. DEHNER**		**44**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/22/2014**	**Jetting**	

Street123	**WHITE ROCK DR**	Use of Sewer	**Sanitary**	Upstream MH	**CO 27**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 26**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**265.00 ft**	Section Length	**265.00 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184627-092214**	Lining Method	

Add. Information : **N**



1:645 Position		Code	Observation	Grade
CO 27				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
0.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
0.90		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
74.10		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
135.60		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
198.90		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
249.60		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
265.00	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
265.00		MSA	Survey Abandoned	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2J00**	**0**	**106**	**106**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/23/2014		**Dry**	**C. DEHNER**		**45**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/23/2014**	**Jetting**	

Street123	**WHITE ROCK DR**	Use of Sewer	**Sanitary**	Upstream MH	**CO 13A**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**414**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**25.86 ft**	Section Length	**25.86 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184628-092314**	Lining Method	

Add. Information : **S**

1:75	Position	Code	Observation	Grade
CO 13A	0.00	AMH	Downstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 20 %of cross sectional area	
	25.86	ACOM	Cleanout Mainline, Survey Ends	
414				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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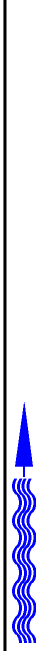
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/23/2014		**Dry**	**C. DEHNER**		**46**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/23/2014**	**Jetting**	

Street123	**WHITE ROCK DR**	Use of Sewer	**Sanitary**	Upstream MH	**CO 13**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 13A**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**376.41 ft**	Section Length	**376.41 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184628-092314**	Lining Method	

Add. Information : **S**



1:915 Position		Code	Observation	Grade
CO 13				
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 15 %of cross sectional area	
1.39	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
74.81		TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
137.13		TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
202.13		TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
259.20		TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
266.73		TF	Tap Factory Made, at 03 o'clock, 6", within 8 inches of joint: YES	
376.41	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
376.41		AMH	Upstream Manhole, Survey Ends	
CO 13A				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2N00**	**0**	**150**	**150**	**0**	**2**	**2**

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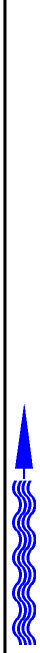
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/23/2014		**Dry**	**C. DEHNER**		**47**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/23/2014**	**Jetting**	

Street123	**WHITE ROCK DR**	Use of Sewer	**Sanitary**	Upstream MH	**CO 18**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 13**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**99.28 ft**	Section Length	**99.28 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184628-092314**	Lining Method	

Add. Information : **S**



1:240 Position	Code	Observation	Grade
CO 18			
0.00	AMH	Downstream Manhole, Survey Begins	
0.00	MWL	Water Level, 10 %of cross sectional area	
74.11	TF	Tap Factory Made, at 03 o'clock, 6", within 8 inches of joint: YES	
97.40	TF	Tap Factory Made, at 03 o'clock, 6", within 8 inches of joint: YES	
99.28	ACOM	Cleanout Mainline, Survey Ends	
CO 13			

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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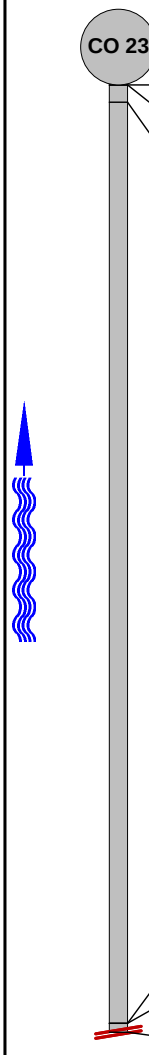
Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/23/2014		**Dry**	**C. DEHNER**		**48**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/23/2014**	**Jetting**	

Street123	**WHITE ROCK DR**	Use of Sewer	**Sanitary**	Upstream MH	**CO 23**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 18**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**80.16 ft**	Section Length	**80.16 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184628-092314**	Lining Method	

Add. Information : **S**

1:195 Position		Code	Observation	Grade
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 15 %of cross sectional area	
1.49	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
79.36		MSC	Shape or Size Change, 8", 6"	
79.36	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
80.16		MSA	Survey Abandoned	



QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2B00**	**0**	**32**	**32**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/23/2014		**Dry**	**C. DEHNER**		**49**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/23/2014**	**Jetting**	

Street123	**WHITE ROCK DR**	Use of Sewer	**Sanitary**	Upstream MH	**CO 23R**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 18**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**19.00 ft**	Section Length	**19.00 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184628-092314**	Lining Method	

Add. Information : **N**

1:60	Position		Code	Observation	Grade
CO 23R					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	1.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	19.00	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
CO 18					
	19.00		MGO	Reversal Inspection	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2400**	**0**	**8**	**8**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/23/2014		**Dry**	**C. DEHNER**		**50**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/23/2014**	**Jetting**	

Street123	**WHITE ROCK DR**	Use of Sewer	**Sanitary**	Upstream MH	**CO 26**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 26A**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**265.60 ft**	Section Length	**265.60 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184628-092314**	Lining Method	

Add. Information : **E**

1:645 Position	Code	Observation	Grade
CO 26			
0.00	AMH	Upstream Manhole, Survey Begins	
0.00	MWL	Water Level, 5 %of cross sectional area	
1.30	TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
61.10	TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
157.50	TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
183.70	TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
265.60	MSA	Survey Abandoned	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/23/2014		**Dry**	**C. DEHNER**		**51**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/23/2014**	**Jetting**	

Street123	**EMERALD MOUNTAIN DR**	Use of Sewer	**Sanitary**	Upstream MH	**CO 25**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 24**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**36.40 ft**	Section Length	**36.40 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184628-092314**	Lining Method	

Add. Information : **N**

1:90	Position	Code	Observation	Grade
CO 25				
	0.00	AMH	Upstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 5 %of cross sectional area	
	2.80	TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
	36.40	ACOM	Cleanout Mainline, Survey Ends	
CO 24				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/23/2014		**Dry**	**C. DEHNER**		**52**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/23/2014**	**Jetting**	

Street123	**EMERALD MOUNTAIN DR**	Use of Sewer	**Sanitary**	Upstream MH	**CO 24**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 22**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**228.40 ft**	Section Length	**228.40 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184628-092314**	Lining Method	

Add. Information : **N**

1:555 Position		Code	Observation	Grade
CO 24				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
0.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
97.60		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
147.00		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
192.00		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
228.40	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
228.40		MSA	Survey Abandoned	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2H00**	**0**	**92**	**92**	**0**	**2**	**2**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/23/2014		**Dry**	**C. DEHNER**		**53**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/23/2014**	**Jetting**	

Street123	**EMERALD MOUNTAIN DR**	Use of Sewer	**Sanitary**	Upstream MH	**CO 22**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**CO 19**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**142.70 ft**	Section Length	**142.70 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**6 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184628-092314**	Lining Method	

Add. Information : **N**

1:345 Position		Code	Observation	Grade
CO 22				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
1.10		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
9.40	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
84.30		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
123.40		MWLS	Water Level, Sag in pipe, 25 %of cross sectional area	S 2
142.70	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
142.70		ACOM	Cleanout Mainline, Survey Ends	
CO 19				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
2100	**2D00**	**2**	**54**	**56**	**2**	**2**	**2**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/24/2014		**Dry**	**C. DEHNER**		**61**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/24/2014**	**Jetting**	

Street123	**YEAGER CT**	Use of Sewer	**Sanitary**	Upstream MH	**310**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**309**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**341.53 ft**	Section Length	**341.53 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184629-092414**	Lining Method	

Add. Information : **E**

1:825 Position		Code	Observation	Grade
			310	
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
2.97	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
89.27		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
93.04		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
259.69		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
274.95		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
338.36		TB	Tap Break-In, at 03 o'clock, 4", within 8 inches of joint: YES	
341.53		TF	Tap Factory Made, at 12 o'clock, 4", within 8 inches of joint: YES	
341.53	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
341.53		ACOM	Cleanout Mainline, Survey Ends	
			309	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2M00**	**0**	**136**	**136**	**0**	**2**	**2**

PROFESSIONAL PIPE SERVICES
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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/24/2014		**Dry**	**C. DEHNER**		**62**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/24/2014**	**Jetting**	

Street123	**BALD MTN DR.**	Use of Sewer	**Sanitary**	Upstream MH	**309**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**308**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**264.65 ft**	Section Length	**264.65 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184629-092414**	Lining Method	

Add. Information : **S**

1:645 Position		Code	Observation	Grade
			309	
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
2.97	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
26.16		TF	Tap Factory Made, at 02 o'clock, 4", within 8 inches of joint: YES	
78.37		TBI	Tap Break-In Intruding, at 12 o'clock, 2", 2", within 8 inches of joint: YES	M 2
100.96		TF	Tap Factory Made, at 02 o'clock, 4", within 8 inches of joint: YES	
172.30		TF	Tap Factory Made, at 02 o'clock, 4", within 8 inches of joint: YES	
190.73		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
192.02		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
264.65	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
264.65		AMH	Downstream Manhole, Survey Ends	
			308	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2J00**	**0**	**106**	**106**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/24/2014		**Dry**	**C. DEHNER**		**63**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/24/2014**	**Jetting**	

Street123	**BALD MTN DR.**	Use of Sewer	**Sanitary**	Upstream MH	**308**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**307**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**249.09 ft**	Section Length	**249.09 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184629-092414**	Lining Method	

Add. Information : **N**

1:600	Position		Code	Observation	Grade
308					
	0.00		AMH	Downstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 5 %of cross sectional area	
	2.97	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 03 to 09 o'clock, , within 8 inches of joint: YES, Start	M 2
	8.22		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
	84.02		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
	85.31		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
	89.57		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
	156.05		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
	219.37		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
	220.56		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
	232.74		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
	248.10	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 03 to 09 o'clock, , within 8 inches of joint: YES, Finish	M 2
	249.09		AMH	Upstream Manhole, Survey Ends	
307					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2I00**	**0**	**98**	**98**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/24/2014		**Dry**	**C. DEHNER**		**64**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/24/2014**	**Jetting**	

Street123	**BALD MTN DR.**	Use of Sewer	**Sanitary**	Upstream MH	**307**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**305**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**162.59 ft**	Section Length	**162.59 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184629-092414**	Lining Method	

Add. Information : **S**

1:405 Position		Code	Observation	Grade
			307	
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
2.97	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
85.11		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
86.20		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
151.40		TF	Tap Factory Made, at 03 o'clock, 4", within 8 inches of joint: YES	
162.59	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
162.59		AOC	Drop Connection, Survey Ends	
			305	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2E00**	**0**	**64**	**64**	**0**	**2**	**2**

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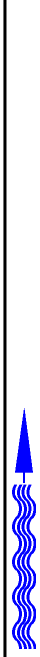
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/24/2014		**Dry**	**C. DEHNER**		**65**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/24/2014**	**Jetting**	

Street123	**BALD MTN DR.**	Use of Sewer	**Sanitary**	Upstream MH	**304**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**303**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**131.18 ft**	Section Length	**131.18 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184629-092414**	Lining Method	

Add. Information : **E**



1:315 Position		Code	Observation	Grade
304				
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
3.96	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
86.50		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
119.89		TF	Tap Factory Made, at 09 o'clock, 4", within 8 inches of joint: YES	
128.01	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
131.18		AMH	Upstream Manhole, Survey Ends	
303				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2D00**	**0**	**50**	**50**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/24/2014		**Dry**	**C. DEHNER**		**66**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/24/2014**	**Jetting**	

Street123	**BALD MTN DR.**	Use of Sewer	**Sanitary**	Upstream MH	**305**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**304**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Light highway**	Length surveyed	**127.62 ft**	Section Length	**127.62 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184629-092414**	Lining Method	

Add. Information : **E**

1:315 Position		Code	Observation	Grade
305				
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
5.65	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
127.62		TF	Tap Factory Made, at 03 o'clock, 8", within 8 inches of joint: YES	
127.62	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
127.62		AMH	Upstream Manhole, Survey Ends	
304				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2D00**	**0**	**48**	**48**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/24/2014		**Dry**	**C. DEHNER**		**67**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/24/2014**	**Jetting**	

Street123	**BALD MTN DR.**	Use of Sewer	**Sanitary**	Upstream MH	**303**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**302**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**110.08 ft**	Section Length	**110.08 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184629-092414**	Lining Method	

Add. Information : **W**

1:270	Position		Code	Observation	Grade
303					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 5 %of cross sectional area	
	3.96	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	57.57		TB	Tap Break-In, at 09 o'clock, 4", within 8 inches of joint: YES	
	109.09	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
	110.08		AMH	Downstream Manhole, Survey Ends	
302					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2C00**	**0**	**42**	**42**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/24/2014		**Dry**	**C. DEHNER**		**68**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/24/2014**	**Jetting**	

Street123	**BALD MTN DR.**	Use of Sewer	**Sanitary**	Upstream MH	**302**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**301**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**65.49 ft**	Section Length	**65.49 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184629-092414**	Lining Method	

Add. Information : **W**

1:165	Position		Code	Observation	Grade
302					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 5 %of cross sectional area	
	2.28	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
	64.20	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
301	65.49		AMH	Downstream Manhole, Survey Ends	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2A00**	**0**	**24**	**24**	**0**	**2**	**2**

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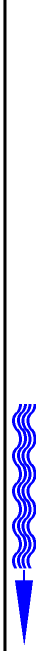
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/24/2014		**Dry**	**C. DEHNER**		**69**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/24/2014**	**Jetting**	

Street123	**BALD MTN DR.**	Use of Sewer	**Sanitary**	Upstream MH	**301**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**300**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**130.79 ft**	Section Length	**130.79 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184629-092414**	Lining Method	

Add. Information : **S**



1:315 Position		Code	Observation	Grade
301				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
0.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
8.12	**S2**	DSGV	Deposits Settled Gravel, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
23.19	**F2**	DSGV	Deposits Settled Gravel, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
31.81		MGO	General Observation	
114.14	**S3**	DSF	Deposits Settled Fine, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
130.79	**F3**	DSF	Deposits Settled Fine, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
130.79	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
130.79		MSA	Survey Abandoned	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2E00**	**0**	**64**	**64**	**0**	**2**	**2**

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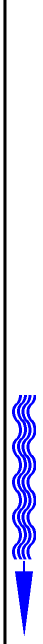
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/24/2014		**Dry**	**C. DEHNER**		**70**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/24/2014**	**Jetting**	

Street123	**BALD MTN DR.**	Use of Sewer	**Sanitary**	Upstream MH	**300**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**112**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Light highway**	Length surveyed	**281.29 ft**	Section Length	**281.29 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**8 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184629-092414**	Lining Method	

Add. Information : **S**



1:690 Position		Code	Observation	Grade
300				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
0.00	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
241.86	**S2**	DAGS	Deposits Attached Grease, 20 %of cross sectional area, from 10 to 02 o'clock, , within 8 inches of joint: YES, Start	M 3
281.29	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
281.29	**F2**	DAGS	Deposits Attached Grease, 20 %of cross sectional area, from 10 to 02 o'clock, , within 8 inches of joint: YES, Finish	M 3
281.29		MSA	Survey Abandoned	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**382J**	**0**	**136**	**136**	**0**	**2.13**	**2.13**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/25/2014		**Dry**	**C. DEHNER**		**71**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/25/2014**	**Jetting**	

Street123	**DIRT ROAD**	Use of Sewer	**Sanitary**	Upstream MH	**124**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**123**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Easement/Right of way**	Length surveyed	**48.55 ft**	Section Length	**48.55 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184630-092514**	Lining Method	

Add. Information : **W**

1:120	Position		Code	Observation	Grade
124					
	0.00		AMH	Downstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	4.46	**S1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
	48.55	**F1**	DAGS	Deposits Attached Grease, 10 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
	48.55		AMH	Upstream Manhole, Survey Ends	
123					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2900**	**0**	**18**	**18**	**0**	**2**	**2**

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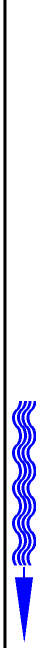
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/25/2014		**Dry**	**C. DEHNER**		**72**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/25/2014**	**Jetting**	

Street123	**DIRT ROAD**	Use of Sewer	**Sanitary**	Upstream MH	**123**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**122**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**129.99 ft**	Section Length	**129.99 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184630-092514**	Lining Method	

Add. Information : **E**



1:315 Position		Code	Observation	Grade
123				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 15 %of cross sectional area	
2.97	**S1**	DSF	Deposits Settled Fine, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
47.76		RPP	Repair Patch, from 11 to 01 o'clock, within 8 inches of joint: YES	
128.21	**F1**	DSF	Deposits Settled Fine, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
129.99		TFC	Tap Factory Made Capped, at 09 o'clock, 8", within 8 inches of joint: NO	
129.99		AMH	Downstream Manhole, Survey Ends	
122				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2D00**	**0**	**50**	**50**	**0**	**2**	**2**

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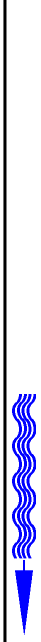
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/25/2014		**Dry**	**C. DEHNER**		**73**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/25/2014**	**Jetting**	

Street123	**DIRT ROAD**	Use of Sewer	**Sanitary**	Upstream MH	**122**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**121**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**122.07 ft**	Section Length	**122.07 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184630-092514**	Lining Method	

Add. Information : **E**



1:300 Position		Code	Observation	Grade
122				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
2.97	**S1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 2
51.32	**S2**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
119.69	**F2**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
119.69	**F1**	DAGS	Deposits Attached Grease, 5 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 2
122.07		AMH	Downstream Manhole, Survey Ends	
121				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2F00**	**0**	**74**	**74**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/25/2014		**Dry**	**C. DEHNER**		**74**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/25/2014**	**Jetting**	

Street123	**DIRT ROAD**	Use of Sewer	**Sanitary**	Upstream MH	**121**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**120**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**257.12 ft**	Section Length	**257.12 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184630-092514**	Lining Method	

Add. Information : **E**

1:630	Position		Code	Observation	Grade
121					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 15 %of cross sectional area	
	4.86	**S1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
	62.82	**F1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
	137.52		TB	Tap Break-In, at 03 o'clock, 4", within 8 inches of joint: YES	
	257.12		AMH	Downstream Manhole, Survey Ends	
120					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2A00**	**0**	**24**	**24**	**0**	**2**	**2**

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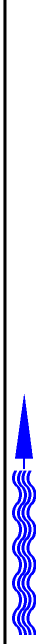
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/25/2014		**Dry**	**C. DEHNER**		**75**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/25/2014**	**Jetting**	

Street123	**DIRT ROAD**	Use of Sewer	**Sanitary**	Upstream MH	**120**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**119**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Easement/Right of way**	Length surveyed	**188.35 ft**	Section Length	**188.35 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184630-092514**	Lining Method	

Add. Information : **W**



1:465 Position		Code	Observation	Grade
120				
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 25 %of cross sectional area	
30.02	**S1**	DSGV	Deposits Settled Gravel, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
186.47	**F1**	DSGV	Deposits Settled Gravel, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
188.35		TFB	Tap Factory Made Abandoned, at 09 o'clock, 4", within 8 inches of joint: NO	
188.35		AMH	Upstream Manhole, Survey Ends	
119				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2E00**	**0**	**62**	**62**	**0**	**2**	**2**

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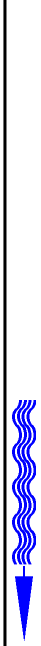
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/25/2014		**Dry**	**C. DEHNER**		**76**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/25/2014**	**Jetting**	

Street123	**DIRT ROAD**	Use of Sewer	**Sanitary**	Upstream MH	**119**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**118**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**253.05 ft**	Section Length	**253.05 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184630-092514**	Lining Method	

Add. Information : **E**



1:615 Position		Code	Observation	Grade
119				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
4.06	**S1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
52.32		RPP	Repair Patch, at 12 o'clock, within 8 inches of joint: YES	
249.98	**F1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
253.05		AMH	Downstream Manhole, Survey Ends	
118				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2I00**	**0**	**98**	**98**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/25/2014		**Dry**	**C. DEHNER**		**77**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/25/2014**	**Jetting**	

Street123	**DIRT ROAD**	Use of Sewer	**Sanitary**	Upstream MH	**118**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**117**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**233.14 ft**	Section Length	**233.14 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184630-092514**	Lining Method	

Add. Information : **E**

1:570	Position		Code	Observation	Grade
118					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	3.57	**S1**	DSGV	Deposits Settled Gravel, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
	231.55	**F1**	DSGV	Deposits Settled Gravel, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
	233.14		AMH	Downstream Manhole, Survey Ends	
117					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2H00**	**0**	**92**	**92**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/25/2014		**Dry**	**C. DEHNER**		**78**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/25/2014**	**Jetting**	

Street123	**DIRT ROAD**	Use of Sewer	**Sanitary**	Upstream MH	**117**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**116**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**210.25 ft**	Section Length	**210.25 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184630-092514**	Lining Method	

Add. Information : **E**

1:510	Position	Code	Observation	Grade
117				
	0.00	AMH	Upstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 5 %of cross sectional area	
	210.25	AMH	Downstream Manhole, Survey Ends	
116				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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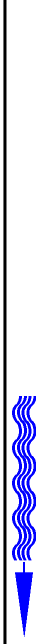
Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/25/2014		**Dry**	**C. DEHNER**		**79**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/25/2014**	**Jetting**	

Street123	**DIRT ROAD**	Use of Sewer	**Sanitary**	Upstream MH	**116**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**115**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**208.27 ft**	Section Length	**208.27 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184630-092514**	Lining Method	

Add. Information : **E**



1:510 Position		Code	Observation	Grade
116				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
67.47	**S1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
206.49	**F1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
208.27		AMH	Downstream Manhole, Survey Ends	
115				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2E00**	**0**	**56**	**56**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/29/2014		**Dry**	**C. DEHNER**		**80**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/29/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**115**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**114**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Easement/Right of way**	Length surveyed	**120.09 ft**	Section Length	**120.09 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184631-092914**	Lining Method	

Add. Information : **W**

1:300	Position	Code	Observation	Grade
115	0.00	AMH	Downstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 10 %of cross sectional area	
	120.09	AMH	Upstream Manhole, Survey Ends	
114				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/29/2014		**Dry**	**C. DEHNER**		**81**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/29/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**114**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**113**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**153.58 ft**	Section Length	**153.58 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184631-092914**	Lining Method	

Add. Information : **E**

1:375	Position	Code	Observation	Grade
114	0.00	AMH	Upstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 10 %of cross sectional area	
	153.58	AMH	Downstream Manhole, Survey Ends	
113				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Inspection Report

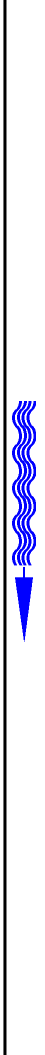
Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/29/2014		**Dry**	**C. DEHNER**		**82**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/29/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**113**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**112**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**260.09 ft**	Section Length	**260.09 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184631-092914**	Lining Method	

Add. Information : **E**

1:630 Position		Code	Observation	Grade
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
18.83	**S1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
159.92	**F1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
159.92	**S2**	DSF	Deposits Settled Fine, 20 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 3
220.16	**S3**	DAGS	Deposits Attached Grease, 15 %of cross sectional area, from 09 to 03 o'clock, , within 8 inches of joint: YES, Start	M 3
260.09	**F2**	DSF	Deposits Settled Fine, 20 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 3
260.09	**F3**	DAGS	Deposits Attached Grease, 15 %of cross sectional area, from 09 to 03 o'clock, , within 8 inches of joint: YES, Finish	M 3
260.09		MSA	Survey Abandoned	



QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**3E2E**	**0**	**140**	**140**	**0**	**2.5**	**2.5**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/29/2014		**Dry**	**C. DEHNER**		**83**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/29/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**112**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**111**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Easement/Right of way**	Length surveyed	**212.53 ft**	Section Length	**212.53 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184631-092914**	Lining Method	

Add. Information : **W**



1:525 Position		Code	Observation	Grade
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
2.97	**S1**	DSC	Deposits Settled Compacted, 20 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Start	M 3
24.18	**F1**	DSC	Deposits Settled Compacted, 20 %of cross sectional area, from 04 to 08 o'clock, , within 8 inches of joint: YES, Finish	M 3
24.18	**S2**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
212.53	**F2**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
212.53		MSA	Survey Abandoned	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**342G**	**0**	**88**	**88**	**0**	**2.1**	**2.1**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/30/2014		**Dry**	**C. DEHNER**		**84**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/30/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**111**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**110**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**207.18 ft**	Section Length	**207.18 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184632-093014**	Lining Method	

Add. Information : **E**

1:510 Position		Code	Observation	Grade
111				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 5 %of cross sectional area	
11.30		TB	Tap Break-In, at 01 o'clock, 4", within 8 inches of joint: YES	
73.42	**S1**	MWLS	Water Level, Sag in pipe, 15 %of cross sectional area, Start	S 2
88.78	**F1**	MWLS	Water Level, Sag in pipe, 15 %of cross sectional area, Finish	S 2
207.18		AMH	Downstream Manhole, Survey Ends	
110				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
2300	**0000**	**6**	**0**	**6**	**2**	**0**	**2**

PROFESSIONAL PIPE SERVICES
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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/30/2014		**Dry**	**C. DEHNER**		**85**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/30/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**107**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**106**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Easement/Right of way**	Length surveyed	**313.00 ft**	Section Length	**313.00 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184632-093014**	Lining Method	

Add. Information : **S**

1:765	Position	Code	Observation	Grade
107				
	0.00	AMH	Downstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 10 %of cross sectional area	
	313.00	AMH	Upstream Manhole, Survey Ends	
106				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/30/2014		**Dry**	**C. DEHNER**		**86**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/30/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**108**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**107**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Easement/Right of way**	Length surveyed	**345.69 ft**	Section Length	**345.69 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184632-093014**	Lining Method	

Add. Information : **S**

1:840 Position		Code	Observation	Grade
108				
0.00		AMH	Downstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
287.04	**S1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
343.52	**F1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
345.69		AMH	Upstream Manhole, Survey Ends	
107				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2A00**	**0**	**22**	**22**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/30/2014		**Dry**	**C. DEHNER**		**87**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**9/30/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**106**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**105**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**403.36 ft**	Section Length	**403.36 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184632-093014**	Lining Method	

Add. Information : **N**

1:975 Position		Code	Observation	Grade
106				
0.00		AMH	Upstream Manhole, Survey Begins	
0.00		MWL	Water Level, 10 %of cross sectional area	
54.89		MWLS	Water Level, Sag in pipe, 20 %of cross sectional area	S 2
94.33	**S1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
155.76		TBC	Tap Break-In Capped, at 11 o'clock, 4", within 8 inches of joint: NO	M 2
220.65		OBR	Obstacles Rocks, 15 %of cross sectional area, from 05 to 07 o'clock	M 3
235.12		OBR	Obstacles Rocks, 10 %of cross sectional area, from 04 to 06 o'clock	M 2
277.23		OBR	Obstacles Rocks, 10 %of cross sectional area, from 05 to 07 o'clock	M 2
400.39	**F1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
403.36		AMH	Downstream Manhole, Survey Ends	
105				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
2100	**312L**	**2**	**131**	**133**	**2**	**2.02**	**2.02**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/30/2014		**Dry**	**C. DEHNER**		**88**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/30/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**105**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**104**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Easement/Right of way**	Length surveyed	**205.40 ft**	Section Length	**205.40 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184632-093014**	Lining Method	

Add. Information : **S**

1:495	Position	Code	Observation	Grade
105	0.00	AMH	Downstream Manhole, Survey Begins	
	0.00	MWL	Water Level, 10 %of cross sectional area	
	205.40	AMH	Upstream Manhole, Survey Ends	
104				

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**0000**	**0**	**0**	**0**	**0**	**0**	**0**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
9/30/2014		**Dry**	**C. DEHNER**		**89**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**9/30/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**104**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**103**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**320.63 ft**	Section Length	**320.63 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184632-093014**	Lining Method	

Add. Information : **N**

1:780	Position		Code	Observation	Grade
104					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	2.97	**S2**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
	320.63	**F2**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
	320.63		AMH	Downstream Manhole, Survey Ends	
103					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2L00**	**0**	**128**	**128**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
10/1/2014		**Dry**	**C. DEHNER**		**90**
Certificate No.	**Survey Customer**	**System Owner**	**Date Cleaned**	**Pre-Cleaning**	**Sewer Category**
U-912-15963	**AECOM**		**10/1/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**103**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**102**
Loc. details		Flow Control		Dir. of Survey	**Upstream**
Location Code	**Easement/Right of way**	Length surveyed	**365.51 ft**	Section Length	**365.51 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184633**	Lining Method	

Add. Information : **W**

1:885	Position		Code	Observation	Grade
103					
	0.00		AMH	Downstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 15 %of cross sectional area	
	2.97	**S1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
	363.63	**F1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
	365.51		TFC	Tap Factory Made Capped, at 03 o'clock, 8", within 8 inches of joint: YES	
	365.51		AMH	Upstream Manhole, Survey Ends	
102					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2M00**	**0**	**144**	**144**	**0**	**2**	**2**

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Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
10/1/2014		**Dry**	**C. DEHNER**		**91**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**10/1/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**102**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**101**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**91.75 ft**	Section Length	**91.75 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184633**	Lining Method	

Add. Information : **E**

1:225	Position		Code	Observation	Grade
102					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	2.97	**S1**	DSF	Deposits Settled Fine, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
	91.75	**F1**	DSF	Deposits Settled Fine, 10 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
	91.75		AMH	Downstream Manhole, Survey Ends	
101					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2C00**	**0**	**36**	**36**	**0**	**2**	**2**

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Inspection Report

Date	P/O. No.	Weather	Surveyor's Name	Pipe Segment Reference	Section No.
10/1/2014		**Dry**	**C. DEHNER**		**92**
Certificate No.	Survey Customer	System Owner	Date Cleaned	Pre-Cleaning	Sewer Category
U-912-15963	**AECOM**		**10/1/2014**	**Jetting**	

Street123	**DIRT ROAD, UNDERBRUSH**	Use of Sewer	**Sanitary**	Upstream MH	**101**
City	**TEHACHAPI**	Drainage Area		Dowstream MH	**100**
Loc. details		Flow Control		Dir. of Survey	**Downstream**
Location Code	**Easement/Right of way**	Length surveyed	**129.20 ft**	Section Length	**129.20 ft**

Purpose of Survey	**Routine Assessment**	Joint Length	
Year Laid		Dia./Height	**12 inch**
Year Rehabilitated		Material	**Polyvinyl Chloride**
Tape / Media No.	**SC184633**	Lining Method	

Add. Information : **E**

1:315	Position		Code	Observation	Grade
101					
	0.00		AMH	Upstream Manhole, Survey Begins	
	0.00		MWL	Water Level, 10 %of cross sectional area	
	4.06	**S1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Start	M 2
	127.72	**F1**	DSF	Deposits Settled Fine, 5 %of cross sectional area, from 05 to 07 o'clock, , within 8 inches of joint: YES, Finish	M 2
	129.20		AMH	Downstream Manhole, Survey Ends	
100					

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	**2D00**	**0**	**50**	**50**	**0**	**2**	**2**