



Control Number: 50324



Item Number: 6

Addendum StartPage: 0



Southwest Engineers

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Civil | Environmental | Land Development

HEADQUARTERS

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205 Cimarron Park Loop, Ste A
Buda, TX 78610

Phone: 512.312.4336

2020 FEB -8 AM 10:45
PUBLIC UTILITY COMMISSION
FILING CLERK

February 5, 2020

Public Utility Commission of Texas
1701 North Congress Avenue
P. O. Box 13326
Austin, Texas 78711-3326

RE: Sewer CCN Application – County Line Special Utility District
PUC Docket No. 50324
SWE Project No. 0017-059-18

To Whom It May Concern,

On behalf of our client, County Line SUD, we are responding to your Memorandum dated January 6, 2020, regarding the deficiencies in the County Line SUD application to obtain a new sewer CCN.

1. Description of the sources of funding for all facilities and infrastructure that will be constructed to serve the requested area.

Funding will be provided by wastewater impact fees collected from new developments, as well as potential grants and/or loans.

2. Capital improvement plan, including a budget and an estimated timeline for construction of all facilities and infrastructure necessary to provide full service to the entire proposed area, keyed to maps showing where such facilities will be located to provide service.

CLSUD's Wastewater Capital Improvements Plan is enclosed.

3. Written consent from the City of Niederwald as the requested area overlaps this city's boundary.

An email from the City of Niederwald is enclosed.

4. Clarification of the total number of current connections. The Applicant included 52 existing connections in Part D of the application but only 2 connections in Part G for the notice information.

County Line SUD only has two (2) current connections within their proposed CCN boundary. The additional 50 connections that are referenced in Part D are Gristmill Utility Company's customers that are served by the same wastewater treatment plant and discharge permit as CLSUD's two connections.

5. Breakdown of acreage for land with requests for service and undeveloped land.

Existing Customers: 105 acres

Requests for Service: 6,130 acres

Existing Homes/Businesses with Septic Systems: 450 acres (see response to #6 below)

Undeveloped Land: 11,310 acres

4

6. Clarification for the need for service for the areas that do not include developer's request.

County Line SUD has been providing water service to customers in this area for 55 years and has a water CCN that encompasses nearly this same area that has been in place for over 40 years. CLSUD's wastewater system is quite new and construction of the existing infrastructure has just recently been completed within the last year. CLSUD has invested a significant amount of time and money into getting this system established and operational and needs to continue to expand its customer base to help recover its investment. While CLSUD has received several service requests to date, they anticipate that the number of new developments will increase significantly now that a centralized wastewater is established and operational. There are numerous properties in the immediate vicinity of the newly installed wastewater mains that will likely be quick to develop now that the infrastructure is in place. There are also many properties near CLSUD's proposed wastewater infrastructure that are expected to be developed once that infrastructure is installed. CLSUD is investing a significant amount of money in oversizing the existing and proposed infrastructure so it will have sufficient capacity to serve these nearby properties. Furthermore, there are multiple landowners that have dedicated easements to CLSUD for the construction of this infrastructure with the understanding that they will be able to connect to that infrastructure when they decide to develop the land or sell to someone who will. There are also approximately 350 existing homes and businesses in the Uhland area (±450 acres) that currently utilize septic systems for wastewater treatment and disposal. It is County Line SUD's intention to eventually connect these existing properties to the centralized wastewater system and abandon their septic systems, which will have a positive environmental impact on the area. It is also the state's policy that wastewater systems shall be regionalized to the greatest extent possible, which CLSUD intends to do in establishing this service area.

7. Clarification for the capacity of the existing water quality discharge permit. Does the existing water quality discharge permit have enough capacity for the effluent from the four proposed wastewater treatment plants? If not, has the applicant submitted an application(s) for a new discharge permit with the Texas Commission on Environmental Quality?

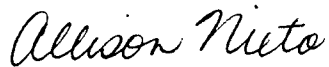
The existing water quality discharge permit (WQ0015635001) currently has an ultimate discharge capacity of 240,000-gpd. A major amendment to increase the capacity of this permit will be submitted once the existing treatment facility is closer to this capacity. Another water quality discharge permit (draft WQ0015635002) for the proposed wastewater treatment facility is currently being reviewed/processed by the TCEQ and will have an ultimate capacity of 170,000 gpd. The other three future wastewater treatment facilities have existing water quality discharge permits in place (WQ0015064001 – 1.55 MGD; WQ0014439001 – 0.7 MGD; WQ0015323001 – 0.42 MGD) that are currently held by the existing landowner (Walton Texas, LP). County Line SUD and Plum Creek Utility Company, LLC are in the process of acquiring the 0.7 MGD permit and associated land from the current permit holder and anticipate acquiring the other two in a similar manner when those properties are ready to be developed.

8. Clarification of who will construct the proposed wastewater treatment plants to serve the future customers: the Plum Creek Utility Company, LLC or the County Line Special Utility District.

Plum Creek Utility Company, LLC will construct the future wastewater treatment plants necessary to provide wholesale wastewater treatment services to County Line SUD.

If you have any questions or need additional information, please do not hesitate to contact me at (830) 672-7546 or allison.nieto@swengineers.com.

Respectfully submitted,



Allison M. Nieto, P.E.

cc: Daniel Heideman, County Line SUD

ENCL.

Allison Nieto

From: Richard Crandal <cityofniederwald@yahoo.com>
Sent: Wednesday, February 5, 2020 8:30 AM
To: Allison Nieto
Subject: RE: County Line SUD CCN
Attachments: CountyLineCCN - Detailed Location Map.pdf

Follow Up Flag: Flag for follow up
Flag Status: Flagged

After deliberation, the City Council of the City of Niederwald consents to the inclusion of portions of the City Limits and Extra-territorial Jurisdiction (ETJ) in the sewer CCN by County Line Special Utility District, as indicated in the attached detailed location map provided by Southwest Engineers, Inc.

If you have any questions regarding this matter, please contact me via email or telephone at 512-398-6338.

Regards
Richard L. Crandal, Jr.
City Administrator
City of Niederwald

From: Allison Nieto [mailto:allison.nieto@swengineers.com]
Sent: Tuesday, January 14, 2020 11:44 AM
To: 'cityofniederwald@yahoo.com' <cityofniederwald@yahoo.com>
Cc: 'Daniel Heideman' <heideman@clsud.com>
Subject: County Line SUD CCN

Good Morning Richard,
County Line SUD has submitted an application to the PUC for a sewer CCN that encompasses the Uhland and part of the Niederwald areas – see attached map. The PUC has requested that we provide written consent from the City of Niederwald since the proposed CCN overlaps your city boundary. Could you please provide us a letter (or even an email) indicating that you have no objections to this proposed sewer CCN? Please let me know if you have any questions or need any further information.

Thank you,

Allison (Guettner) Nieto, P.E.
Project Engineer



Southwest Engineers, Inc.
p: 830-672-7546
a: 307 Saint Lawrence St.
Gonzales, TX 78629
w: swengineers.com



TBPE No. F-1909

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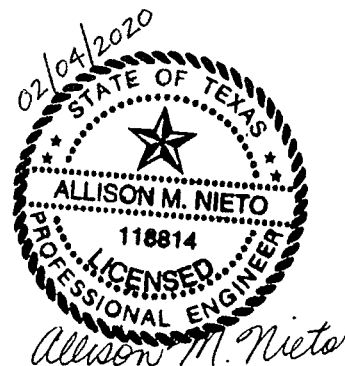
Land Use Assumptions and Wastewater Capital Improvements Plan

for

County Line Special Utility District

**8870 Camino Real
Uhland, Texas 78640
General Manager: Daniel Heideman**

February 2020



**Southwest
Engineers**

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I. Introduction

The County Line Special Utility District's (CLSUD) mission as a retail wastewater service provider is to provide customers with an adequate means of wastewater collection and treatment consistent with the objectives listed below:

1. Provide that wastewater from all customers is collected and treated in accordance with all local, state, and federal requirements.
2. Be responsive to and address customers' needs quickly and effectively.
3. Prepare and plan for future growth.
4. Provide wastewater service for new customers.
5. Provide a pleasant workplace environment for employees:
 - a. safe and free of any health hazards;
 - b. free of any kind of harassment; and
 - c. encourages career development.
6. Provide wastewater service to customers at the lowest possible cost, compatible with the above objectives.

In connection with new service, the CLSUD will strive to provide wastewater service to all requestors, consistent with the above stated mission. In all instances of potential new service, the CLSUD will require development to pay for expansion costs and will seek to minimize any economic impact on the existing customer base. With these objectives in mind, the CLSUD has authorized Southwest Engineers, Inc. (SWE) to complete a Capital Improvement Plan (CIP), which identifies system improvements and facility expansions that are necessary for the next 10 years.

II. Methodology

The term "capital improvements" refers to the improvements made to wastewater collection and treatment facilities (including facility expansions) with a life expectancy of three or more years, whether or not located within the service area. These improvements are deemed necessary due to the projected increase in the number of connections over a developmental period not to exceed ten years.

In order to adequately complete the CIP, SWE will analyze the existing facilities and their capacities, the level of current usage, the reserve capacity commitments, any unallocated excess capacity, and determine the projected land uses and growth within CLSUD's service area. These calculations will be based on the number of existing and proposed Living Unit Equivalents (LUEs) connected to the infrastructure. An LUE is defined as the typical flow that would be produced by a single-family residence located in a typical subdivision, and one (1) LUE is assumed to represent 200 gallons per day (gpd) of wastewater flow. The following LUE conversions in Table 1 will be used to estimate flows for the various land uses and development types.

Table 1 – LUE Conversions

<u>Land Use</u>	<u>Type of Development</u>	<u>LUE/unit</u>
Residential - Single Family	Single Family Home, Mobile Home	1
Residential - Other	Duplex	2
	Triplex; Fourplex; Condo or Apartment Unit (<24 units/acre)	0.7
	Condo or Apartment Unit (24+ units/acre)	0.5

<u>Land Use</u>	<u>Type of Development</u>	<u>Units/LUE</u>
Commercial - Business	Hotel or Motel (per room)	2
	RV Park (per space)	5
	Office (per SF of floor)	3,000
	Retail/Shopping Center (per SF of floor)	1,660
	Restaurant/Cafeteria (per SF of floor)	200
	Hospital (per bed)	1
	Rest Home (per bed)	2
	Church (per seat)	70
Commercial - School	High School (per student)	13
	Elementary School (per student)	15
Industrial	Warehouse (per SF of floor)	4,000

III. Current Customer Base

The CLSUD currently serves two (2) active wastewater connections within its approximately 28 square mile service area. These two connections include the Hays Consolidated Independent School District's (HCISD) Uhland Elementary School and HCISD Transportation Facility, as illustrated in Table 2 below.

Table 2 – Active Connections

	Active Connections	Percentage	LUEs	Percentage
Residential - Single Family	0	0%	0	0%
Residential - Other	0	0%	0	0%
Commercial - Business	0	0%	0	0%
Commercial - School	2	100%	41	100%
Industrial	0	0%	0	0%
Total	2	100%	41	100%

In addition to the current active connections, CLSUD is committed to serve residential connections within the following proposed subdivisions: Las Estancias 2 Subdivision (220 LUEs), Millcreek Subdivision Phase 1 (68 LUEs), and Creeks Crossing Subdivision (522 LUEs). The term “committed” means that there is an executed Non-Standard Service Agreement with the developer of the subdivision, and they have paid the associated fees for the number of LUEs listed above.

CLSUD existing infrastructure has sufficient capacity to serve the two active connections, as well as the Millcreek Subdivision and the Creeks Crossing Subdivision. Additional infrastructure is necessary to provide service to the Las Estancias 2 Subdivision and the surrounding area, as discussed later in this report.

IV. Existing Infrastructure

The CLSUD currently owns 12” and 15” gravity mains along Plum Creek Road from High Road to Plum Creek, which were recently installed in 2019. The 15” gravity main terminates at a lift station, owned by Plum Creek Utility Company (PCU) – CLSUD’s wholesale wastewater treatment provider, which pumps the wastewater thru an 8” force main to the PCU Wastewater Treatment Plant (WWTP). These gravity mains currently serve CLSUD’s two active connections (41 LUEs) and the 15” will also serve the proposed Las Estancias 2 Subdivision (220 LUEs) mentioned above.

The CLSUD also owns a 12” gravity main that begins at the property boundary of the Millcreek Subdivision and terminates at the PCU WWTP. This gravity main currently serves Plum Creek Utility’s retail customers in the adjacent Gristmill Highlands Subdivision. PCU currently has 50 active LUEs and 188 committed LUEs in this subdivision. This gravity main will also serve CLSUD retail customers in the proposed Millcreek Subdivision (68 LUEs) mentioned above.

An overview of the maximum pipe capacity, current pipe capacity, and committed pipe capacity for all three of CLSUD’s existing gravity wastewater mains is contained in Table 3 below. All existing infrastructure has sufficient capacity for CLSUD’s active and committed connections.

Table 3 – Existing Capacity Analysis

	Max. Capacity	Active Connections		% Capacity	Active + Committed Connections		% Capacity
	(gpm)	(LUEs)	(gpm)*		(LUEs)	(gpm)*	
Plum Creek 12" Gravity Main	1,444	41	30	2.1%	41	30	2.1%
Plum Creek 15" Gravity Main	2,476	41	30	1.2%	261	197	7.9%
Gristmill 12" Gravity Main**	1,118	50	33	3.0%	306	199	17.8%

* peak wet-weather flow

**active and committed connections on Gristmill 12” Gravity Main also include Plum Creek Utility retail customers in adjacent Gristmill Highlands Subdivision

V. Land Use Assumptions and Projected Growth

CLSUD's service area consists of approximately 28 square miles or 17,995-acres (of which approximately 2,750-acres are located within the FEMA 100-year flood plain) as depicted in the County Line SUD Wastewater Impact Fee Service Area, attached hereto as Exhibit A. It is projected that the majority of the growth will occur due to development in the form of residential subdivisions, with some retail/commercial developments and schools to serve the growing population. The growth within the next ten years is expected in areas near the existing and proposed wastewater infrastructure and where large tracts of land have been purchased by potential developers. Table 4 below contains the projected growth in CLSUD's active wastewater connections over the next 10 years based on the service request applications and feedback that CLSUD has received from potential developers in the area. The ID given below is cross-referenced to the Land Use Assumptions in Exhibit A. Table 5 below compares CLSUD's gravity main capacities from Table 3 to the projected growth in Table 4.

Table 4 – Projected Growth

ID	Development	Total LUEs	Anticipated Active LUEs										
			2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	HCISD Elem. & Transp.	41	41	41	41	41	41	41	41	41	41	41	41
2	Las Estancias 2 Subd.	220	0	30	120	220	220	220	220	220	220	220	220
3	Millcreek Subdivision	215	0	15	75	135	195	215	215	215	215	215	215
4	Creeks Crossing Subd.	522	0	30	210	390	522	522	522	522	522	522	522
5	Cotton Gin RV Park	25	0	25	25	25	25	25	25	25	25	25	25
6	Anderson Subdivision	470	0	0	30	90	150	210	270	330	390	450	470
7	Camino Crest II Subd.	120	0	0	75	100	105	110	115	120	120	120	120
8	Caldwell Valley	11,500	0	0	0	0	60	120	180	240	300	360	420
9	Caldwell Ranch Subd.	460	0	0	0	40	100	160	220	280	340	400	460
10	Camino Real	7,000	0	0	0	0	60	120	180	240	300	360	420
11	High School	75	0	0	0	0	0	75	75	75	75	75	75
12	RH & JS Development	450	0	0	0	30	90	150	210	270	330	390	450
13	Cotton Gin Estates	100	0	0	0	0	50	100	100	100	100	100	100
14	El Camino Real RV Park	35	0	0	20	20	35	35	35	35	35	35	35
15	Misty Lane Commercial	75	0	0	15	30	45	60	75	75	75	75	75
16	Misty Lane Residential	450	0	0	30	90	150	210	270	330	390	450	450
17	Misty Lane Residential II	300	0	0	0	60	120	180	240	300	300	300	300
18	Pecan Springs RV Park	100	0	40	40	70	70	100	100	100	100	100	100
Totals:		22,158	41	181	681	1,341	2,038	2,653	3,093	3,518	3,878	4,238	4,498
Increase:		--	--	140	500	660	697	615	440	425	360	360	260

Table 5 – Gravity Main Capacities versus Projected Growth

	Max. Capacity	Projected Connections in next 10 Years		% Capacity
	(gpm)	(LUEs)	(gpm)*	
Plum Creek 12" Gravity Main	1,444	491	327	22.7%
Plum Creek 15" Gravity Main	2,476	1,796	1,058	42.7%
Gristmill 12" Gravity Main**	1,118	453	288	25.7%

* peak wet-weather flow

**active and committed connections on Gristmill 12" Gravity Main also include Plum Creek Utility retail customers in adjacent Gristmill Highlands Subdivision

All existing infrastructure has sufficient capacity for CLSUD's projected growth in the next 10 years. However, additional infrastructure will be necessary to connect some of these proposed developments to the existing infrastructure. CLSUD will also need to acquire land for additional wastewater treatment plants to serve several of these proposed developments. These necessary capital improvements are summarized in the following section.

VI. Capital Improvements

CLSUD will need to make several improvements to their wastewater system to be able to serve the projected growth of their service area over the next ten years. While the existing infrastructure has sufficient capacity, several additional gravity mains, lift stations, and force main will be necessary to serve areas not immediately adjacent to the existing infrastructure. Land for new wastewater treatment plants will also need to be acquired to serve the larger new developments. A 10-year Capital Improvements Plan was developed to identify the projects that will need to be completed to accommodate the proposed growth. The subsequent paragraphs provide the details of each of these projects, followed by a summary of this list and the associated costs in Table 6.

The first project that will be necessary is a force main to convey wastewater from the Las Estancias 2 Lift Station (by others) back toward CLSUD's existing wastewater infrastructure. This lift station and force main will also have capacity to accept wastewater from some surrounding properties in the area, the largest being the Camino Real tract on the north side of State Highway 21 (SH 21). This project will consist of approximately 7,500 LF of 6" force main from the lift station, continuing in a southerly direction along SH 21, and terminating near High Road at a proposed gravity main described below.

The next project is a 15" gravity main that will begin at the termination of the above-mentioned force main and continue in a southerly direction paralleling SH 21 until it reaches downtown Uhland, where another lift station and force main will be constructed. This gravity main will provide service to the Las Estancias 2 Subdivision and its neighboring properties, as well as several other proposed developments along this SH 21 corridor, and help promote commercial growth in downtown Uhland.

The next capital improvement is a lift station near downtown Uhland and a force main that will convey the wastewater back to the existing 15" gravity main along Plum Creek Road.

This lift station will accept wastewater from the above-mentioned gravity main and other future developments around downtown Uhland and transport the wastewater to the existing infrastructure via an 8" force main.

There are several proposed developments that will necessitate the construction of a separate wastewater collection system and treatment plant, as they are a significant distance from the existing infrastructure and in a different watershed. The next project includes a regional lift station that would collect wastewater from several proposed developments in this watershed and transport it via force main to the proposed wastewater treatment plant location on Clear Fork Creek. CLSUD will also need to acquire the necessary land for the Clear Fork Creek WWTP, where PCU will construct and operate a new treatment facility to serve this area.

CLSUD will also need to acquire the necessary land for another wastewater treatment facility in the Brushy Creek Watershed to serve proposed developments in that area – the largest being the Camino Real tract, which consists of nearly 1,800 acres of undeveloped land. While the first 200 – 300 homes built in this area can be connected to the Las Estancias 2 Lift Station and Force Main mentioned above, the remaining developments will require a new wastewater treatment plant to serve this overall area.

Detailed preliminary cost estimates for the capital improvement projects mentioned above may be found within Exhibit B, and Exhibit C contains a location map of the improvements. The table below summarizes the estimated cost for the capital improvements and expected project dates.

Table 6 – List of Capital Improvements

Capital Improvements		Preliminary Cost Estimate			Estimated Date
		Construction	Total	With Financing	
1	Las Estancias Force Main	\$398,297	\$527,797	\$828,992	2020
2	State Highway 21 Gravity Main	\$704,663	\$912,163	\$1,432,702	2020
3	Downtown Lift Station & Force Main	\$720,130	\$970,630	\$1,524,535	2020
4	Pecan Springs Lift Station & Force Main	\$787,750	\$987,750	\$1,551,425	2022
5	Land for Clear Fork Creek WWTP	--	\$84,700	\$133,035	2020
6	Land for Camino Real WWTP	--	\$84,700	\$133,035	2025
TOTAL:			\$3,567,739	\$5,603,726	

Based on the projected growth over the next 10 years (Table 4) and the anticipated expenditures for associated capital improvements (Table 6), CLSUD would need to collect approximately \$1,250/LUE from all new developments. As CLSUD does not collect an ad valorem tax nor plan to use service fee revenues to pay for these capital improvements, an Impact Fee in the above amount would need to be assessed on all new developments. Since most of these capital improvements will need to be designed and constructed before many of the future subdivisions pay their Impact Fees, County Line SUD will likely need to acquire loans to initially pay for some of these improvements; therefore, financing costs have been included in these cost estimates as indicated above. County Line SUD may also elect to pay cash for some of the improvements if they have sufficient cash on hand.

Exhibit A

County Line SUD

Wastewater Impact Fee Service Area

OVERSIZED DOCUMENT(S)

TO VIEW

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PLEASE GO TO

CENTRAL RECORDS

(512) 936-7180

Exhibit B
Cost Estimates

Las Estancias Force Main
Preliminary Cost Estimate
January 30, 2020

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	6" PVC, C-900 Force Main Pipe	7,500	LF	\$25.00	\$187,500.00
2	Air Release Valve Assembly	3	EA	\$5,000.00	\$15,000.00
3	18" Bored Steel Casing	110	LF	\$300.00	\$33,000.00
4	6" HDPE Directional Bore	225	LF	\$115.00	\$25,875.00
5	6" Slick Bore	75	LF	\$100.00	\$7,500.00
6	Base Repair	30	LF	\$25.00	\$750.00
7	Trench Safety	7,090	LF	\$2.00	\$14,180.00
8	Sand Embedment	7,090	LF	\$6.00	\$42,540.00
9	Erosion Control	1	LS	\$10,000.00	\$10,000.00
10	Traffic Control	1	LS	\$10,000.00	\$10,000.00
11	Contingency (15%)	1	LS	\$51,951.75	\$51,951.75
Preliminary Construction Cost					\$398,296.75
Non-Construction Cost					
Engineering/Surveying					Cost
1	Preliminary Engineering				\$3,500.00
2	Survey - Easement Exhibits				\$4,000.00
3	Survey - Alignment Topo				\$9,500.00
4	Engineering Design				\$27,500.00
5	Bidding/Contract Assistance				\$5,000.00
6	Construction Phase Assistance				\$7,500.00
7	TXDOT ROW Permit				\$5,000.00
8	Storm Water Pollution Prevention Plan				\$2,500.00
	Subtotal Engineering/Surveying Cost				\$64,500.00
Non-Engineering/Surveying					Cost
1	Legal Expenses				\$5,000.00
2	Easement Acquisition Services				\$15,000.00
3	Easement Acquisition Compensation				\$10,000.00
4	Project Management Services				\$35,000.00
	Subtotal Non-Engineering/Surveying Cost				\$65,000.00
Subtotal Non-Construction Costs					\$129,500.00
Total Costs					\$527,796.75

Financing Expenses:

Interest Rate = 4.90%
Loan Term (years) = 20
Monthly Payments = \$3,454.13
Total Amount Paid = \$828,992.26

State Highway 21 Gravity Main
Preliminary Cost Estimate
January 30, 2020

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	15" PVC Gravity Wastewater Line	7,000	LF	\$55.00	\$385,000.00
2	24" Bored Steel Casing	100	LF	\$350.00	\$35,000.00
3	Concrete Manhole	20	EA	\$6,000.00	\$120,000.00
4	Base Repair	30	LF	\$25.00	\$750.00
5	Concrete Repair	405	LF	\$100.00	\$40,500.00
6	Trench Safety	7,000	LF	\$2.00	\$14,000.00
7	Erosion Control	1	LS	\$7,500.00	\$7,500.00
8	Traffic Control	1	LS	\$10,000.00	\$10,000.00
9	Contingency (15%)	1	LS	\$91,912.50	\$91,912.50
Preliminary Construction Cost					\$ 704,662.50
Preliminary Non-Construction Cost					
Engineering					Cost
1	Preliminary Engineering				\$10,000.00
2	Survey - Easement Exhibits				\$15,000.00
3	Survey - Alignment Topo				\$7,500.00
4	Engineering Design				\$45,000.00
5	Bidding/Contract Assistance				\$5,000.00
6	Construction Phase Assistance				\$12,500.00
7	ROW Permitting				\$5,000.00
8	Storm Water Pollution Prevention Plan				\$2,500.00
	Subtotal Engineering Cost				\$102,500.00
Non-Engineering					Cost
1	Legal Expenses				\$5,000.00
2	Easement Acquisition Services				\$25,000.00
3	Easement Acquisition Compensation				\$15,000.00
4	Project Management Services				\$60,000.00
	Subtotal Non-Engineering Cost				\$105,000.00
Subtotal Non-Construction Costs					\$207,500.00
Total Project Preliminary Cost Estimate					\$912,162.50

Financing Expenses:

Interest Rate = 4.90%
Loan Term (years) = 20
Monthly Payments = \$5,969.59
Total Amount Paid = \$1,432,702.37

Downtown Lift Station
Preliminary Cost Estimate
January 30, 2020

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	Structural Excavation and Backfill	1	LS	\$60,000.00	\$60,000.00
2	Wet Well And Valve Vault Structure	1	LS	\$40,000.00	\$40,000.00
3	Two Submersible Sewage Pumps	1	LS	\$70,000.00	\$70,000.00
4	8" Piping and Valves	1	LS	\$25,000.00	\$25,000.00
5	Yard piping	1	LS	\$25,000.00	\$25,000.00
6	Electrical and Controls	1	LS	\$150,000.00	\$150,000.00
7	Generator	1	LS	\$50,000.00	\$50,000.00
8	Site Work	1	LS	\$50,000.00	\$50,000.00
9	Contingency (15%)	1	LS	\$70,500.00	\$70,500.00
Preliminary Construction Cost					\$540,500.00
Non-Construction Cost					
Engineering/Surveying					Cost
1	Preliminary Engineering				\$5,000.00
2	Survey - Easement Exhibit				\$2,500.00
3	Survey - Site Topo				\$3,000.00
4	Engineering Design (Civil & Electrical)				\$50,000.00
5	Bidding/Contract Assistance				\$5,000.00
6	Construction Phase Assistance				\$12,500.00
7	Storm Water Pollution Prevention Plan				\$2,500.00
	Subtotal Engineering/Surveying Cost				\$80,500.00
Non-Engineering/Surveying					Cost
1	Legal Expenses				\$5,000.00
2	Easement Acquisition Services				\$2,500.00
3	Easement Acquisition Compensation				\$20,000.00
4	Project Management Services				\$50,000.00
	Subtotal Non-Engineering/Surveying Cost				\$77,500.00
Subtotal Non-Construction Costs					\$158,000.00
Total Costs					\$698,500.00

**Downtown Force Main
Preliminary Cost Estimate
January 30, 2020**

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	8" PVC, C-900 Force Main Pipe	3,650	LF	\$30.00	\$109,500.00
2	Air Release Valve Assembly	2	EA	\$5,000.00	\$10,000.00
3	Trench Safety	3,650	LF	\$2.00	\$7,300.00
4	Sand Embedment	3,650	LF	\$6.00	\$21,900.00
5	Erosion Control	1	LS	\$7,500.00	\$7,500.00
6	Contingency (15%)	1	LS	\$23,430.00	\$23,430.00
Preliminary Construction Cost					\$179,630.00
Non-Construction Cost					
Engineering/Surveying					Cost
1	Preliminary Engineering				\$5,000.00
2	Survey - Easement Exhibits				\$7,500.00
3	Survey - Alignment Topo				\$5,000.00
4	Engineering Design				\$15,000.00
5	Bidding/Contract Assistance				\$5,000.00
6	Construction Phase Assistance				\$5,000.00
7	Storm Water Pollution Prevention Plan				\$2,500.00
Subtotal Engineering/Surveying Cost					\$45,000.00
Non-Engineering/Surveying					Cost
1	Legal Expenses				\$5,000.00
2	Easement Acquisition Services				\$15,000.00
3	Easement Acquisition Compensation				\$10,000.00
4	Project Management Services				\$17,500.00
Subtotal Non-Engineering/Surveying Cost					\$47,500.00
Subtotal Non-Construction Costs					\$92,500.00
Total Costs					\$272,130.00

Total Cost for Lift Station & Force Main = \$970,630.00

Financing Expenses:

Interest Rate = 4.90%
 Loan Term (years) = 20
 Monthly Payments = \$6,352.23
Total Amount Paid = \$1,524,535.27

Pecan Springs Lift Station & Force Main
Preliminary Cost Estimate
January 30, 2020

Construction Cost					
No.	Item	Quantity	Unit	Unit Cost	Total Cost
1	8" PVC, C-900 Force Main Pipe	4,250	LF	\$30.00	\$127,500.00
2	Air Release Valve Assembly	2	EA	\$5,000.00	\$10,000.00
3	8" HDPE Directional Bore	500	LF	\$125.00	\$62,500.00
4	Trench Safety	3,750	LF	\$2.00	\$7,500.00
5	Sand Embedment	3,750	LF	\$6.00	\$22,500.00
6	Lift Station	1	LS	\$450,000.00	\$450,000.00
7	Erosion Control	1	LS	\$5,000.00	\$5,000.00
8	Contingency (15%)	1	LS	\$102,750.00	\$102,750.00
Preliminary Construction Cost					\$787,750.00
Non-Construction Cost					
Engineering/Surveying					Cost
1	Preliminary Engineering				\$5,000.00
2	Survey - Easement Exhibits				\$5,000.00
3	Survey - Alignment Topo				\$5,000.00
4	Engineering Design (Civil & Electrical)				\$65,000.00
5	Bidding/Contract Assistance				\$5,000.00
6	Construction Phase Assistance				\$15,000.00
7	Storm Water Pollution Prevention Plan				\$5,000.00
Subtotal Engineering Cost					\$105,000.00
Non-Engineering					Cost
1	Legal/Administrative				\$10,000.00
2	Easement Acquisition Services				\$5,000.00
3	Easement Acquisition Compensation				\$10,000.00
4	Project Management Services				\$70,000.00
Subtotal Non-Engineering Cost					\$95,000.00
Subtotal Non-Construction Costs					\$200,000.00
Total Costs					\$987,750.00

Financing Expenses:

Interest Rate = 4.90%
Loan Term (years) = 20
Monthly Payments = \$6,464.27
Total Amount Paid = \$1,551,425.06

WWTP Land Acquisition
Preliminary Cost Estimate
January 30, 2020

Acquisition Cost		
No.	Item	Total Cost
1	Property Value	\$60,000.00
2	Legal Services	\$6,000.00
3	Surveying Services	\$5,000.00
4	Engineering Services	\$6,000.00
5	Contingency (10%)	\$7,700.00
Preliminary Acquisition Cost		\$ 84,700.00

Interest Rate = 4.90%
Loan Term (years) = 20
Monthly Payments = \$554.31
Total Amount Paid = \$133,035.39

Exhibit C

Capital Improvements Location Map