

OB NO. 40252-02

DESIGNER _____
CHECKED SH DRAWN ZP

EICURE 4

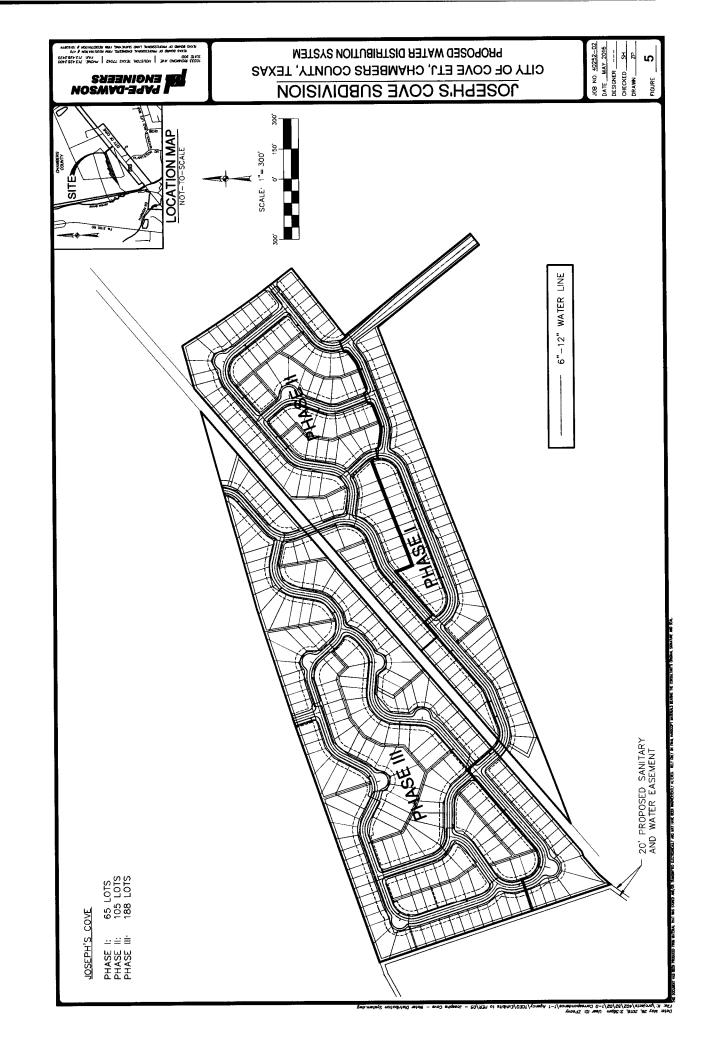
LGI DEVELOPMENT

CITY OF COVE ETJ, CHAMBERS COUNTY, TEXAS
GWU WATER PLANT LOCATION



10333 RICHMOND AVE HOUSTON, TEXAS 77042 PHONE: 713,428,2400 SUITE 900 FAX: 713,428,2420 TEXAS BOARD OF PROFESSIONAL ENGRETS, FIRM REGISTRATION # 470 TEXAS BOARD OF PROFESSIONAL LAND SURVEYING, FIRM REGISTRATION # 10189274

is document has been produced from material that was stored and/or transmitted electronically and may have been hadvertenilly altered. Bely only on pinal haddopy materials bearing the consultant's original signature and seal



ATTACHMENT 7

PRELIMINARY ENGINEERING ASSESSMENT

93.49 ACRES, CHAMBERS COUNTY

CCN 21065

JUNE 2016

Texas Board of Professional Engineers, Firm Registration # 470





June 20, 2016

Aqua Texas, Inc. Robert L. Laughman President 1106 Clayton Lane Suite 400W Austin, Texas 78723

Re: **Preliminary Engineering Assessment**

93.49 Acres, Chambers County, Texas - CCN 21065

Mr. Laughman:

We are pleased to submit this Preliminary Engineering Assessment ("PEA") in support of a planned wastewater collection system extension and amendment to the Aqua Texas, Inc. ("Aqua") Certificate of Convenience and Necessity No. 21065 ("CCN 21065") sewer service area in Chambers County, Texas. The goal of this project is to extend retail sewer service by Aqua to a proposed 93.49 acre single-family residential development in Chambers County, Texas, owned by LGI Homes-Texas, LLC (the "LGI Development"). This extension will require the addition of infrastructure to Aqua's existing wastewater collection system located adjacent to the LGI Development.

This PEA presents our preliminary design analysis and cost estimates necessary for Aqua to provide sewer service for the LGI Development. Final design plans for extension facilities are being developed. We have determined that the wastewater collection system extension project described in this PEA is capable of providing wastewater sewer service to the LGI Development utilizing an adequate wastewater treatment plant and collection facilities designed in accordance with TCEQ rules and the Texas Water Code

Sincerely,

Pape-Dawson Engineers, Inc.

Robert "Michael" Preiss, P.E.

Sr. Vice President - Houston

Enclosures

cc: Texas Commission on Environmental Quality – Houston

K:\projects\402\52\02\1-0 Correspondence\1-1 Agency\TCEQ\4025202-Prelim Eng Report- 93_49 Ac-LGI doc

TBPE Firm Registration #470 | TBPLS Firm Registration #10193974

Houston | San Antonio | Austin | Fort Worth | Dallas

Transportation | Water Resources | Land Development | Surveying | Environmental

10333 Richmond Ave., Suite 900, Houston, TX 77042 T: 713.428.2400 www.Pape-Dawson.com

TABLE OF CONTENTS

1.	INTRO	DUCTION	3				
2.	GENE	3					
	2.1	Location	3				
	2.2	Adjacent Areas	5				
	2.3	Description	5				
	2.4	Proposed Land Use	6				
	2.5						
	Infrast	ructure of Wastewater	7				
	2.6 Flood Levels and Potential Flooding						
	2.7						
4.	SPECI	14					
	4.1	Availability of Utility Services	14				
	4.2	Effects on Land Elevation14					
	4.3	Natural Run-Off/Drainage14					
	4.4	Conclusion	14				
APP	ENDIX A	- FIGURES					
	FIGUR						
FIGURE 2							
	FIGUR	E 3 LAND USE PLAN					
	FIGUR	E 4 VERANDA WASTEWATER TREATMENT FACILITY	LOCATION				
	FIGUR	E 5 WASTEWATER COLLECTION SYSTEM					
	FIGUR	F.6. FLOODPLAIN MAP					

1. INTRODUCTION

The project area proposed to be added to the CCN 21065 service area will include a single, contiguous tract of 93.49 acres of land owned by LGI Homes-Texas, LLC, a Texas limited liability company ("LGI Homes"), located in the City of Cove Extra Territorial Jurisdiction ("ETJ") in unincorporated Chambers County, Texas, along the north side of S FM 565 Road and approximately 0.5 miles east of FM 3180 Road (the "LGI Development") (See Figure 1 – Project Boundary Map).

LGI Homes proposes to develop a single-family residential development consisting of approximately 358 single-family residential lots on the 93.49 acre tract ("Joseph's Cove Subdivision").

A wastewater collection system and wastewater treatment for the proposed LGI Development will be provided by Aqua Texas, Inc. operating under Certificate of Convenience and Necessity No. 21065 ("CCN 21065") and doing business as Aqua Texas ("Aqua"). We have determined that the wastewater collection system extension project described in this PEA is capable of providing wastewater sewer service to the LGI Development utilizing an adequate wastewater treatment plant and collection facilities designed in accordance with TCEQ rules and the Texas Water Code.

2. GENERAL

2.1 Location

The proposed LGI Development consists of 93.49 acres of land (See Figure 1 – Project Boundary Map) located within the City of Cove ETJ in northwest Chambers County. The proposed LGI Development lies approximately 0.8 miles northeast of the intersection of FM 3180 Road and S FM 565 Road, and is bordered on the west by Cotton Bayou, the south by S M 565 Road along which the Mont Belvieu RV Park, Paradise Cove RV Park, Cove Volunteer Emergency Services, Cove Country Store, and single family residences are located, and the north by agricultural cropland. An unrecorded, 50'-wide pipeline easement trends southwest-northeast across the subject site. Although the online Railroad



Commission of Texas Pipeline Public GIS Viewer indicates that a natural gas transmission pipeline currently exists within this easement, pipeline markers observed on the subject property indicate that a petroleum pipeline also exists within this easement. A 110' wide proposed drainage easement is adjacent to the northern property boundary. Right-of-way dedicated for proposed FM 1409 (varying width) is adjacent to the eastern boundary of the LGI Development. Design of proposed FM 1409 is in progress. The proposed LGI Development lies entirely within the City of Cove ETJ, Chambers County, and is zoned to the Barbers Hill Independent School District. Residents will gain access to the proposed LGI Development from S FM 565 Road south of the development. Once FM 1409 has been constructed, residents will gain access to the east side of the proposed LGI Development from FM 1409.

The proposed LGI Development is located approximately 1.5 miles southeast of the City of Mont Belvieu, within Chambers County and Liberty County, Texas. The proposed LGI Development lies within the City of Cove ETJ. The City of Mont Belvieu has a population of approximately 3,835 and is located approximately 32 miles east-northeast of the Central Business District of the City of Houston, Texas. The approximate travel time from downtown Mont Belvieu to the proposed LGI Development is 11 minutes. The main route from the proposed LGI Development to downtown Mont Belvieu is to travel southwest on S FM 565 to FM 3180, then northeast on FM 3180 to N FM 565, then west on N FM 565 to Main Street. Growth in the immediate area has steadily increased in the last few years, and is projected to continue its strong trend due to the next phase of construction on State Highway 99 (the Grand Parkway) as well as continued development such as the new ExxonMobile multi-billion dollar plant expansion and the Enterprise Product new plant.

The proposed LGI Development is located approximately 35 miles east of the Central Business District ("CBD") of the City of Houston. Houston has a population of approximately 2,099,451. The approximate travel time from the

CBD of Houston to the proposed LGI Development is 33 minutes. The main route from the proposed LGI Development to the CBD of Houston is to travel southwest on S FM 565, then north on FM 3180, then west on US Interstate Highway 45 to the Main Street exit to the CBD.

2.2 Adjacent Areas

The proposed LGI Development is surrounded on the north and east by undeveloped agricultural cropland, is bordered by the Mont Belvieu RV Park, Paradise Cove RV Park, Cove Volunteer Emergency Services, Cove Country Store, and single family residences, and a wastewater treatment facility and water plant along the site's southern boundary, and is adjacent to Cotton Bayou and single-family residential developments, including The Veranda, Cotton Creek, Legends Bay, The Cove at Cotton Creek, Creekside at Cotton Creek, and The Cove at Cotton Creek Estates, along its western property boundary. The Mont Belvieu Compressor Station is located further east of the subject site. A one hundred ten (110) foot wide drainage easement borders the northern property boundary. Areas north and west of the proposed LGI Development are served by Aqua under CCN 21065 (wastewater system and treatment). See attached Figure 2 - Service Area Maps. Approximately 523 acres in the vicinity of the proposed LGI Development are served by Aqua under CCN 21065. The CCN service areas include six single family residential subdivisions, with three of the subdivisions located adjacent to the western boundary of proposed LGI Development and the remaining three subdivisions approximately 0.35 miles southwest, 0.30 miles southeast, and 0.35 miles west of the proposed LGI Development.

2.3 Description

The land within the proposed LGI Development currently consists of agricultural cropland used to grow rice. Vacant, undeveloped land is situated along the northern border of the proposed LGI Development, rice fields and the Mont Belvieu Compressor Station are located east of the proposed LGI Development, the Mont Belvieu RV Park, Paradise Cove RV Park, Cove Volunteer Emergency



Services, Cove Country Store, single family residences, a wastewater treatment facility, and a water plant are located along the southern boundary of the subject site, and Cotton Bayou and single-family residential developments, including The Veranda, Cotton Creek, Legends Bay, The Cove at Cotton Creek, Creekside at Cotton Creek, and The Cove at Cotton Creek Estates, are located west of the proposed LGI Development (Figure 2 – Service Area Maps). Existing terrain within the proposed LGI Development gradually slopes toward Cotton Bayou along the western property boundary. Existing elevations along the northern boundary of the LGI Development range from 28.2 to 25.6 feet (NAVD88, 2001 adj., and elevations along the southern boundary of the LGI Development range from 27.6 to 24.9 feet (NAVD88, 2001 adj.).

All 93.49 acres of the proposed LGI Development are located within the Lower Trinity Watershed. Runoff from the proposed LGI Development ultimately discharges to Cotton Bayou.

Property within the proposed LGI Development is currently undeveloped, unimproved agricultural cropland.

2.4 Proposed Land Use

A single-family residential development is planned for the LGI Development, as shown in the Land Use Plan (Figure 3 – Land Use Plan). LGI Homes-Texas, LLC proposes a well-planned, single family home development, Joseph's Cove Subdivision, totaling approximately 358 homes on approximately 80.87 acres of the 93.49 acre LGI Development. Approximately 8.30 acres on the west side of the LGI Development will be reserved for a dry-bottom detention basin, including a thirty (30) foot maintenance berm. Approximately thirty-six one-hundredths (0.36) acres will be reserved for parks and recreation area and approximately four-tenths (0.40) acres will be reserved for open space. The proposed LGI Development requires approximately 16.49 acres of right-of-way internal to the proposed single-family development. Of the 80.87 acres to be developed, an



approximately 3.31 acres are utilized as an existing 50' pipeline easement, which bisects the property from the southwest corner to northeast corner. Approximately 3.71 acres of the western portion of the LGI Development, which includes Cotton Bayou floodway and the surrounding 100-yr floodplain, will remain undisturbed. Approximately 0.76 acres will be utilized for a future water well site and 0.26 acres for a lift station site.

Joseph's Cove Subdivision will be developed over three phases. Phase I of the development will include 65 lots, Phase II will include 105 lots, and Phase III will include the remaining 188 lots. LGI Homes-Texas, LLC expects to sell approximately 9 homes per month for the duration of the project (Figure 3-Land Use Plan). Design of Phase I of the development is in progress.

2.5 Proposed Wastewater System Improvements & Utilization of Existing Infrastructure of Wastewater

Collection and treatment for the proposed LGI Development will be provided by Aqua Texas Inc. operating under CCN 21065 and doing business as Aqua Texas ("Aqua"). LGI Homes will construct the proposed wastewater collection utilities for the LGI Development and connect into the existing Aqua wastewater facilities. Aqua will then own, operate, and maintain the facilities. Aqua currently owns and operates a wastewater treatment plant, the Veranda Wastewater Treatment Facility (TPDES Permit No. WQ0011449001), located south of and adjacent to the southwest corner of the subject property. Aqua has represented to LGI Homes that it has sufficient capacity in its regional wastewater system to provide continuous and adequate retail wastewater utility services to the LGI Development. The Public Utility Commission ("PUC") recently approved the expedited release of Gulf Coast Waste Disposal Authority ("GCWDA") as the sanitary sewer provider for the LGI Development site on February 2, 2016 and GCWDA has consented to Aqua becoming the retail sewer utility service for the site. Aqua plans to apply to the PUC for an amendment to its wastewater CCN 21065 to include the LGI Development in its service territory.

Pursuant to Texas regulatory requirements at 30 TAC §217.5-217.6, the Texas Commission on Environmental Quality ("TCEQ") will be provided a summary transmittal letter seeking approval of the wastewater collection facilities for each phase of the development. TCEQ may request submission of plans and specifications following each submittal. Design of wastewater facilities in Phase I of the development is in progress and subject to city and county plan review and approval. Proposed wastewater facilities in Phase I include approximately 2,570 linear feet of 8-inch sanitary sewer line, approximately 1,800 linear foot of 12-inch sanitary sewer forcemain. Only preliminary design of Phase II and Phase III have been completed. Based on the preliminary one-line drawings, it is anticipated that Phase II will include 3,080 linear feet of 8-inch sanitary sewer line and Phase III will include 7,710 linear feet of 8-inch sanitary sewer line.

Design and construction of these facilities will be in conformance with criteria published by the Chambers County Engineer Offices, including the Chamber County Road & Bridge Department, and the Texas Commission on Environmental Quality ("TCEQ").

The working project schedule for Phase I anticipates that CCN Operator, local, and state agency reviews of construction plans for Phase I sanitary sewer facilities and lift station are expected to continue through late June or July 2016. Final approval of plans is anticipated by mid to late July 2016. Bidding of these construction projects will begin prior to final approval of each of the plans, and construction will commence soon thereafter. Permits for construction of homes in LGI Development Phase I are anticipated by mid-December 2016.

The working project schedule for Phase II anticipates that CCN Operator, local, and state agency reviews of construction plans for Phase II sanitary sewer facilities will commence in late July and continue through late August or September 2016. Final approval of plans is anticipated by September 2016.

Bidding of construction will begin prior to final approval of the plans, and construction will commence soon thereafter. Permits for construction of homes in LGI Development Phase II are anticipated by mid-April 2017.

A project schedule has not been established for Phase III at this time.

2.5.1 Wastewater Treatment Plant

The LGI Development will obtain wastewater treatment from Aqua Texas, Inc. operating under CCN 21065 and doing business as Aqua Texas ("Aqua"). The existing regional wastewater treatment plant, the Veranda Wastewater Treatment Facility (TCEQ TPDES Permit No. WQ0011449-001) (the "Veranda WWTP"), is located adjacent to and south of the southwest corner of the proposed LGI Development as shown in Figure 4. The existing Veranda WWTP is designed to accommodate 0.3 milliongallons-per-day (MGD) of capacity. Two additional phases of improvements of 300,000 gallons per day (gpd) per phase are planned, with 900,000 gpd at ultimate plant capacity. Currently, the average daily flow of the existing Veranda WWTP is 0.162 MGD. At full development of the proposed LGI Development and the existing area served by the Veranda WWTP will require approximately 269,400 gpd at average daily flow. The wastewater treatment plant ultimately discharges into Cotton Bayou.

2.5.2 Wastewater Collection System

The existing Aqua Texas wastewater collection systems are a combination of gravity and pressurized systems designed to accommodate normal infiltration and sewage flows from the Aqua's customers (See Figure 5 - Wastewater Collection System). The existing pipe material, bedding, and manhole design provide collection systems which require little maintenance and allow minimum infiltration.



The proposed wastewater collection systems for LGI Development are a combination of gravity and pressurized systems designed to accommodate normal infiltration and sewage flows from the LGI Development's customers. The proposed pipe material, bedding, pump, and manhole design will provide collection systems which require little maintenance and allow minimum infiltration. The proposed 8-inch sanitary sewer lines have a peak flow capacity capable to serve 592 ESFC at a minimum grade of 0.44% and a velocity of 2.3 feet per second. The total demand flow for the LGI Development is 358 ESFC.

The wastewater collection system for the LGI Development will connect to a proposed lift station to be located on the northwest corner of the LGI Development. The lift station will have a 6" force main line that will run parallel to the existing 12" force main line from the west side of the LGI Development to the Veranda WWTP. The existing 12" force main is currently located in a 20' sanitary sewer easement parallel to, and east of, Cotton Bayou. The 12" force main line will be relocated to a proposed sanitary sewer easement adjacent to lots on the west of the LGI Development and extending along the southern border of the southwest corner of the LGI Development. The proposed lift station and force main are currently under preliminary design. More detailed design information will be provided when the design is complete.

Aqua Texas represented during a November 20, 2015 meeting with Pape-Dawson Engineers that the existing maximum capacity of the Veranda WWTP is 300,000 gpd and is currently operating at approximately 162,000 gpd. The Veranda WWTP currently has capacity to serve up to an additional 460 connections, which is sufficient to serve the proposed LGI Development at full development. The total demand flow for the LGI Development is 358 equivalent single family connections (ESFC). As previously stated, full build-out of the Veranda WWTP contemplates two

additional phases of 300,000 gpd per phase, for an ultimate capacity of 900,000 gpd.

2.6 Flood Levels and Potential Flooding

A majority of the 93.49 acres of the proposed LGI Development are delineated to be Unshaded Zone X. Approximately 3.71 acres of floodway and 100-year floodplain (Zone AE), including Cotton Bayou and banks encompassing Cotton Bayou, are located along the western boundary of the proposed LGI Development. Approximately 9.0 acres are reserved for detention and drainage facilities. All areas to be developed for single-family residential use are located outside of the 100-year floodplain, as shown in FEMA Flood Insurance Rate Map (FIRM) Panel Nos. 48071C0180E and 48071C0190E (dated May 4, 2015) (see Figure 6 – Floodplain Map). The nearest base flood elevations are 17.0 to 19.0 feet (1988 NAVD, 2001 Adjustment). No floodplain fill is proposed as part of this development. There are no plans for residential building pads within the floodway or 100-year floodplain. Ponding levels in the streets will be designed in accordance with Chambers County Public Infrastructure Design Standards criteria and will be limited to a maximum of 12 inches above top of curb at any location.

2.7 Existing and Projected Populations and Wastewater Demand

The existing acreage has been and is currently used for rice farming and has no inhabitants. At full development, the 80.87 acre single-family residential is proposed to serve approximately 358 single-family residential units with an average of 3.5 people per unit resulting in a population of approximately 1,253 people.

Residential Property Projected Wastewater Demands

- Residential tract containing approximately 80.87 acres with an estimated wastewater demand of 300 gal/ESFC/day. The total wastewater demand projected for the residential tract equals to 107,400 gal/day (300 gal/day x 358 residential units = 107,400 gal/day).



- The total demand results in 358 ESFC.
- The total demand of 107,400 gal/day or 358 ESFC is being used as the design flow for the proposed collection system.

3. ESTIMATED CONSTRUCTION COST

A summary of estimated construction cost is provided on the following page.

LGI DEVELOPMENT (93.49 ACRE TRACT)

OPINION OF PROBABLE CONSTRUCTION COST

I. WASTEWATER COLLECTION SYSTEM EXTENSION

ITEM			UNIT					
NO.	DESCRIPTION	UNIT	QTY		PRICE	I	AMOUNT	
WAST	EWATER COLLECTION SYSTEM – PHASE I							
1.	6" Sanitary Sewer Pipe (Service Leads)	LF	1,030	\$	38.00	\$	39,140.00	
2.	8" Sanitary Sewer Pipe (0'-8')	LF	980	\$	28.00	\$	27,440.00	
3.	8" Sanitary Sewer Pipe (8'-10')	LF	330	\$	32.00	\$	10,560.00	
4.	8" Sanitary Sewer Pipe (10'-12')	LF	390	\$	34.00	\$	13,260.00	
5.	8" Sanitary Sewer Pipe (12'-14')	LF	230	\$	49.00	\$	11,270.00	
6.	8" Sanitary Sewer Pipe (14'-16')	LF	470	\$	55.00	\$	25,850.00	
7.	8" Sanitary Sewer Pipe (16'-18')	LF	170	\$	58.00	\$	9,860.00	
8.	8" Sanitary Sewer Drop Connection	EA	2	\$	500.00	\$	1,000.00	
9.	Extra Height on 8" Sanitary Drop	VF	20	\$	30.00	\$	600.00	
10.	Standard Manhole	EA	22	\$	4,000.00	\$	88,000.00	
11.	Extra Depth on Standard Manhole (over 8')	VF	78	\$	270.00	\$	21,060.00	
12.	6" Sanitary Sewer Stack	EA	35	\$	380.00	\$	13,300.00	
13.	Extra Height on 6" Sanitary Sewer Stack	VF	80	\$	35.00	\$	2,800.00	
14.	12" Force Main	LF	1,800	\$	65.00	\$	117,000.00	
15.	6" Force Main	LF	1,750	\$	45.00	\$	78,750.00	
16.	Lift Station	LS	1	\$:	350,000.00	\$	350,000.00	
17.	Trench Safety System	LF	3,120	\$	1.00	\$	3,120.00	
18.	Relocation of Existing Sanitary Sewer Facilities	LS	1	\$	96,750.00	\$	96,750.00	
19.	Design of Trench Safety and Shoring	LS	1	\$	100.00	\$	100.00	
20.	Contingency (15%)	LS	1		110,200.00	\$	136,500.00	
21.	Materials Testing (3%)	LS	1	\$	22,040.00	\$	27,300.00	
22.	Miscellaneous	LS	1	\$	4,000.00	\$	4,000	
						1,077,660.00		

TOTAL PHASE III TOTAL WASTEWATER COLLECTION SYSTEM					\$	926,140.0	
20.	Miscellaneous	LS	1	\$	10,500.00	\$	10,50
19.	Materials Testing (3%)	LS	1	\$	23,300.00	\$	23,300.0
18.	Contingency (15%)	LS	1	\$	116,600.00	\$	116,600.0
17.	Design of Trench Safety and Shoring	LS	1	\$	100.00	\$	100.0
16.	Trench Safety System	LF	9,030	\$	9,030.00	\$	9,030.0
15.	Extra Height on 6" Sanitary Sewer Stack	VF	230	\$	35.00	\$	8,050.0
14.	6" Sanitary Sewer Stack	EA	95	\$	380.00	\$	36,100.0
13.	Extra Depth on Standard Manhole (over 8')	VF	220	\$	270.00	\$	59,400.0
12.	Standard Manhole	EA	60	\$	4,000.00	\$	240,000.0
11.	Extra Height on 8" Sanitary Drop	VF	40	\$	30.00	\$	1,200.0
10.	8" Sanitary Sewer Drop Connection	EA	5	\$	500.00	\$	2,500.0
€.	8" Sanitary Sewer Pipe (20'-22')	LF	400	\$	62.00	\$	24,800.0
8.	8" Sanitary Sewer Pipe (18'-20')	LF	500	\$	60.00	\$	30,000.0
7.	8" Sanitary Sewer Pipe (16'-18')	LF	750	\$	58.00	\$	43,500.0
5.	8" Sanitary Sewer Pipe (14'-16')	LF	530	\$	55.00	\$	29,150.0
5.	8" Sanitary Sewer Pipe (12'-14')	LF	650	\$	49.00	\$	31,850.0
ļ.	8" Sanitary Sewer Pipe (10'-12')	LF	1,100	\$	34.00	\$	37,740.0
}.	8" Sanitary Sewer Pipe (8'-10')	LF	950	\$	32.00	\$	30,400.0
	8" Sanitary Sewer Pipe (0'-8')	LF	2,830	\$	28.00	\$	79,240.0
VAS'	TEWATER COLLECTION SYSTEM – PHASE III 6" Sanitary Sewer Pipe (Service Leads)	LF	2,980	\$	38.00	\$	113,240.0
	L PHASE II					\$	439,970.0
6.	Miscellaneous	LS	1	\$	6,000.00	<u>\$</u>	6,000.0
5.	Materials Testing (3%)	LS	1	\$	11,040.00	\$	11,040.0
4.	Contingency (15%)	LS	1	\$	55,200.00	\$	55,200.0
3.	Design of Trench Safety and Shoring	LS	1	\$	100.00	\$	100.0
2.	Trench Safety System	LF	5040	\$	1.00	\$	5,040.0
1.	Extra Height on 6" Sanitary Sewer Stack	VF	130	\$	35.00	\$	4,550.0
0.	6" Sanitary Sewer Stack	EA	60	\$	380.00	\$	22,800.0
).	Extra Depth on Standard Manhole (over 8')	VF	125	\$	270.00	\$	33,750.0
3.	Standard Manhole	EA	34	\$	4,000.00	\$	136,000.0
7.	Extra Height on 8" Sanitary Drop	VF	20	\$	30.00	\$	600.0
5. -	8" Sanitary Sewer Drop Connection	EA	4	\$	500.00	\$	2,000.0
5.	8" Sanitary Sewer Pipe (12'-14')	LF	350	\$	49.00	\$	17,150.0
ŀ.	8" Sanitary Sewer Pipe (10'-12')	LF	620	\$	34.00	\$	21,080.0
3.	8" Sanitary Sewer Pipe (8'-10')	LF	530	\$	32.00	\$	16,960.0
2.	8" Sanitary Sewer Pipe (0'-8')	LF	1,580	\$	28.00	\$	44,240.0
l .	6" Sanitary Sewer Pipe (Service Leads)	LF	1,670	\$	38.00	\$	63,460.0



and the second s

4. SPECIAL CONDITIONS

4.1 Availability of Utility Services

The proposed LGI Development will provide storm drainage collection, transmission, detention, and storm water quality for the entire proposed development. The water supply, water distribution, wastewater collection, and wastewater treatment will be provided by Aqua.

4.2 Effects on Land Elevation

This development is proposed to be in compliance with rules and regulations pertinent to acceptance of the subdivision for home mortgage insurance by the Department of Housing and Urban Development under Section 203(b) of Title II of the National Housing Act of 1934, and in that regard, no major land elevation changes of any type are planned.

4.3 Natural Run-Off/Drainage

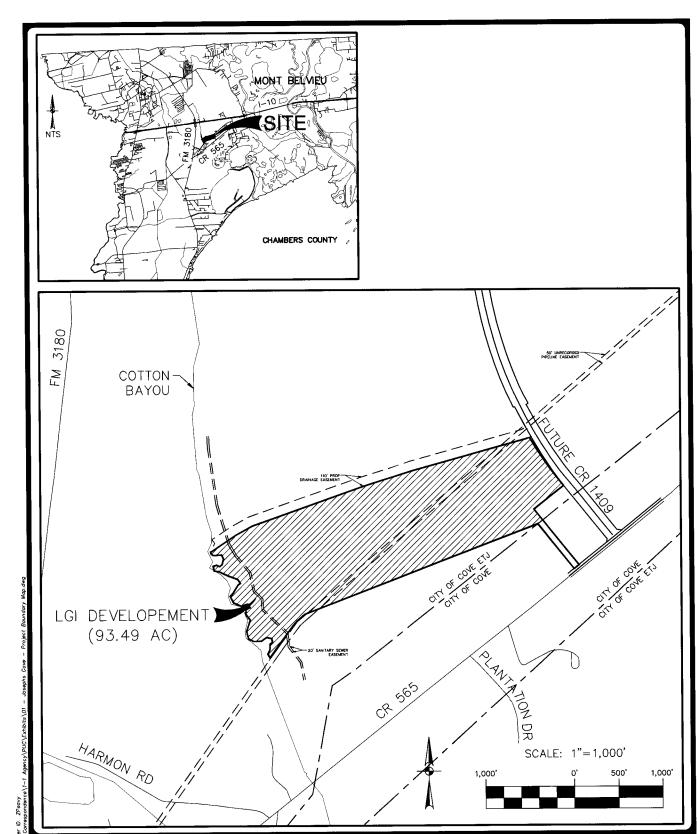
Development generally increases the runoff in an area compared to natural conditions. Drainage improvements within the proposed LGI Development and construction of the proposed drainage and detention facilities should prevent any adverse impact from any increased runoff rate or volume.

4.4 Conclusion

Based on our preliminary engineering study, combining the improvements described with Aqua's nearby infrastructure will enable Aqua to provide continuous and adequate sewer service to the proposed LGI Development using wastewater system treatment and collection facilities that are approved by TCEQ and designed in compliance with TCEQ rules and the Texas Water Code. This project will be beneficial to all the land within the proposed LGI Development's boundary.



FIGURES



JOB NO. <u>40252</u>–03

DATE <u>MAY 2016</u>

DESIGNER _____

CHECKED <u>SH</u> DRAWN <u>ZP</u>

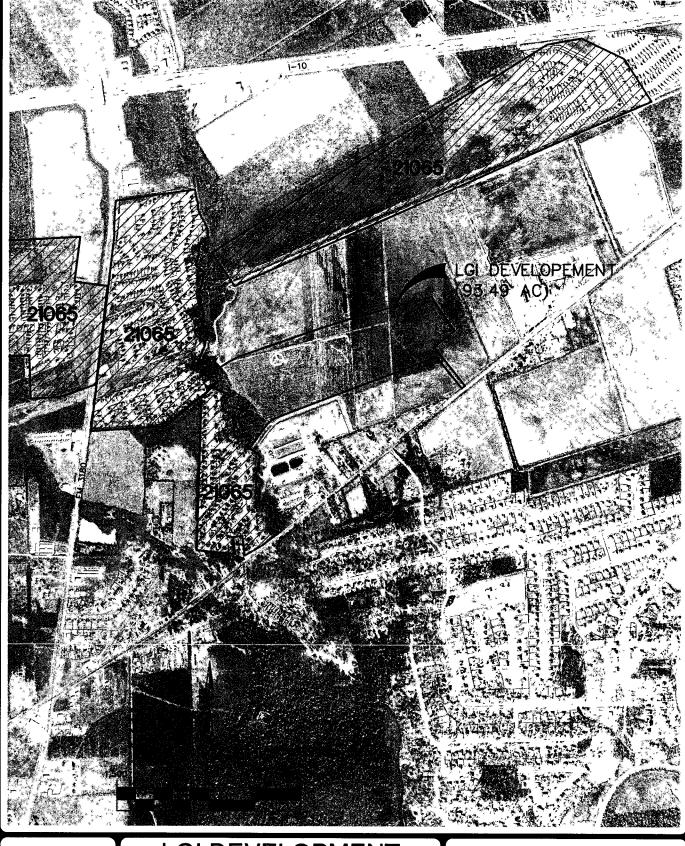
LGI DEVELOPMENT PROJECT BOUNDARY MAP

CITY OF COVE ETJ, CHAMBERS COUNTY, TX

PAPE-DAWSON ENGINEERS

10333 RICHMOND AVE | HOUSTON, TEXAS 77042 | PHONE: 713.428.2400 SUITE 900 | FAX: 713.428.2420 TEXAS BOARD OF PROFESSIONAL ENGINEERS, FRIN REGISTRATION # 470 TEXAS BOARD OF PROFESSIONAL LAND SURVEYING, FIRM REGISTRATION # 10193974

IS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANTS ORIGINAL SIGNATURE AND SEA



JOB NO. <u>40252-03</u>

CHECKED SH DRAWN ZP

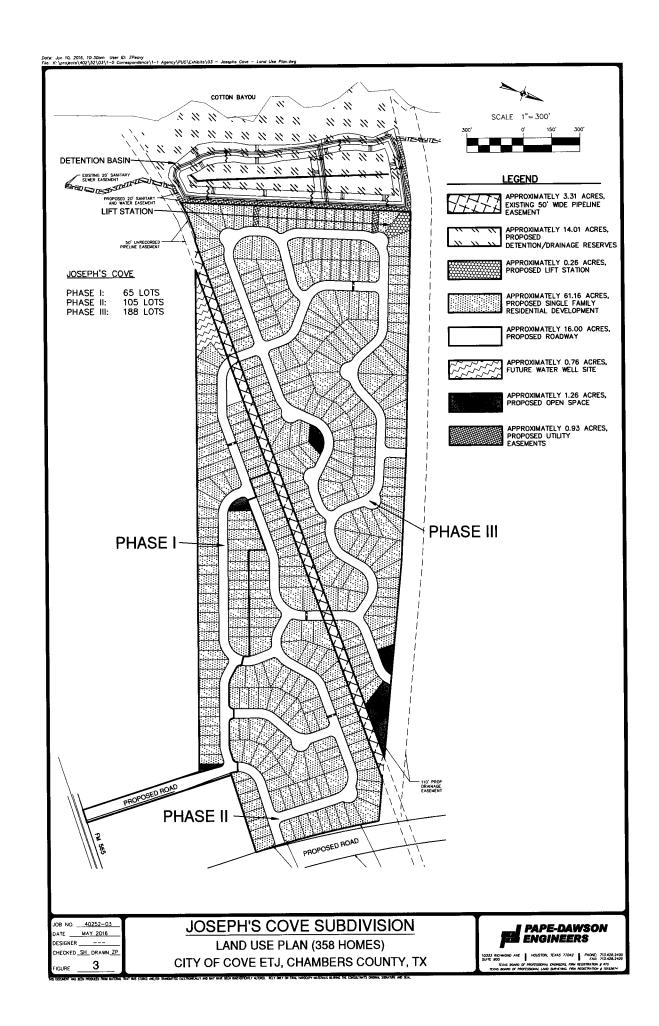
FIGURE 2

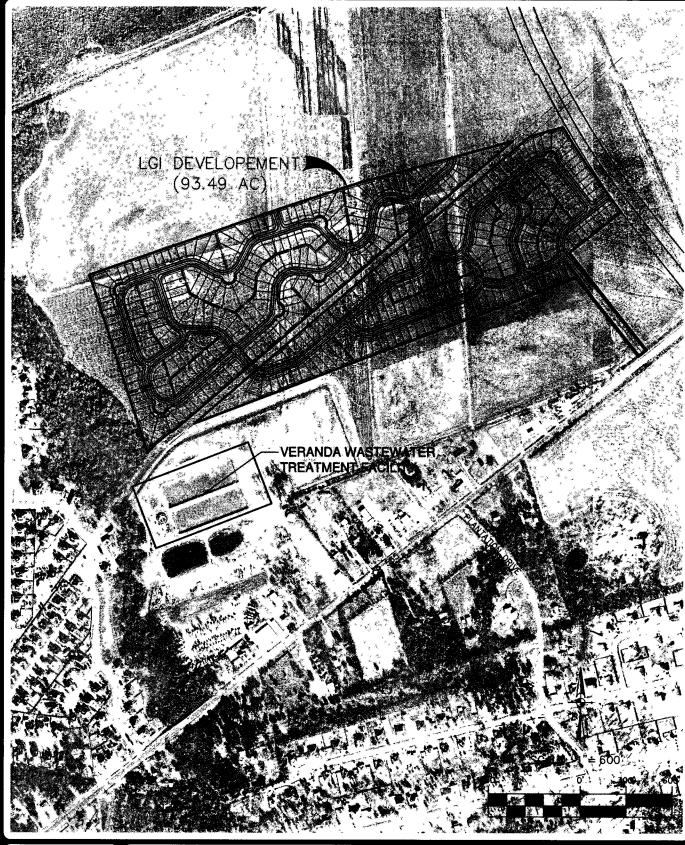
LGI DEVELOPMENT

CITY OF COVE ETJ, CHAMBERS COUNTY, TEXAS
SERVICE AREA MAP

PAPE-DAWSON ENGINEERS

10333 RICHMOND AVE HOUSTON, TEXAS 77042 PHONE: 713,428,2400
SUITE 900 FAX: 713,428,2420
TEXAS BOARD OF PROFESSIONAL ENGINEERS, FRUI REGISTRATION § 470
TEXAS BOARD OF PROFESSIONAL LIMB SURVEYING, FRUI REGISTRATION § 1010





OB NO. 40252-03

DATE <u>MAY 2016</u>

DESIGNER <u>---</u>

CHECKED <u>SH</u> DRAWN <u>ZP</u>

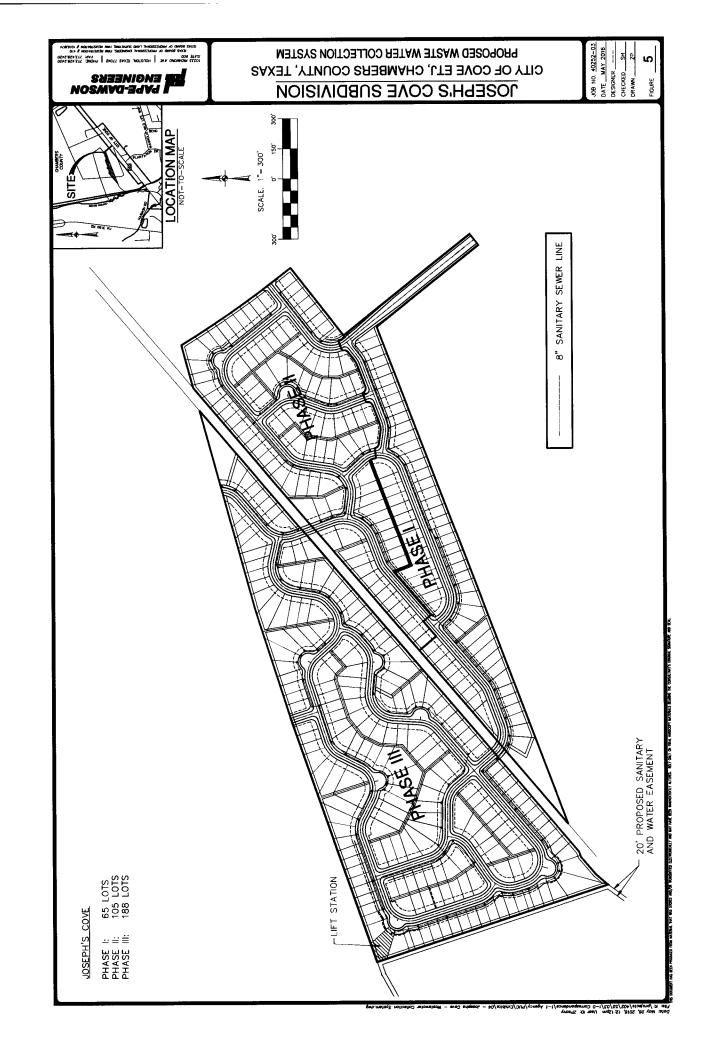
igure 4

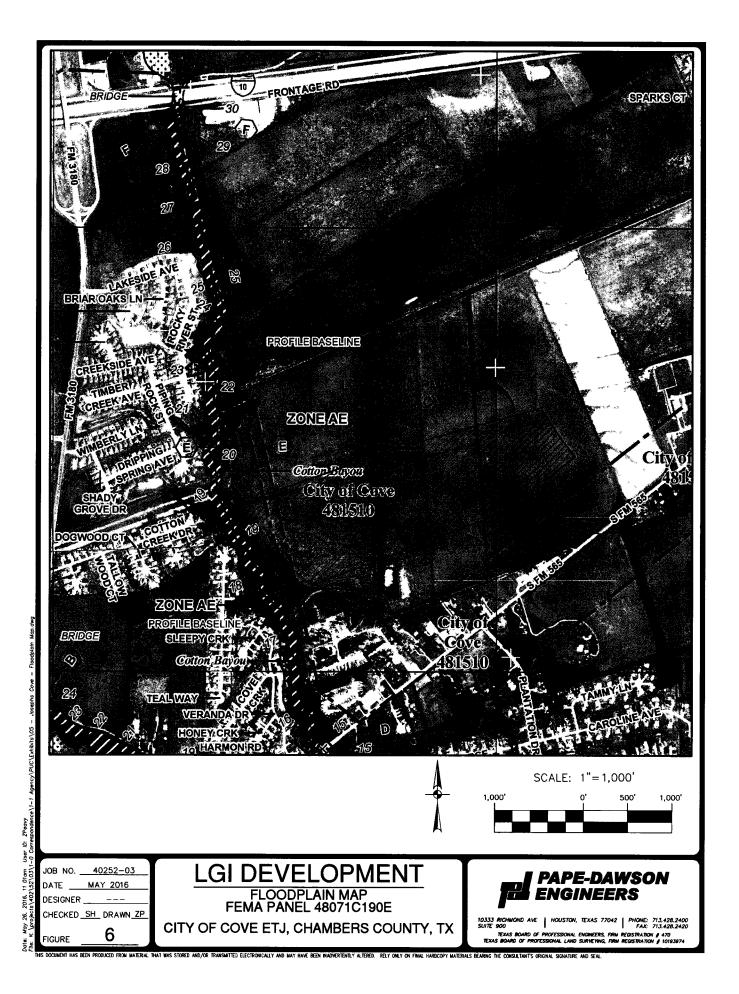
JOSEPH'S COVE

CITY OF COVE ETJ, CHAMBERS COUNTY, TEXAS
VERANDA WASTEWATER TREATMENT
FACILITY LOCATION



10333 RICHMOND AVE HOUSTON, TEXAS 77042 PHONE: 713.428.2400 SUITE 900 FAX: 713.428.2420 TEXAS BOARD OF PROFESSIONAL ENGINEERS, FRM REGISTRATION § 470 TEXAS BOARD OF PROFESSIONAL LIMB SURVEYING, FRM REGISTRATION § 1010974





ATTACHMENT 8

DOCKET NO. 45337

RECEIVED

PETITION OF LGI HOMES-TEXAS, L.L.C. TO AMEND GULF COAST	§ §	PUBLIC UTILITY ROMMESION: 21
WASTE DISPOSAL AUTHORITY'S SEWER CERTIFICATE OF	§ §	OF TRUMASUTILITY COMMISSION FILING CLERK
CONVENIENCE AND NECESSITY IN CHAMBERS COUNTY BY EXPEDITED RELEASE	\$9 \$9 \$9	

NOTICE OF APPROVAL

This Notice addresses the petition of LGI Homes-Texas, L.L.C. (LGI) for expedited release from Gulf Coast Waste Disposal Authority (Gulf Coast WDA) sewer certificate of convenience and necessity (CCN) No. 20465 in Chambers County. Public Utility Commission of Texas (Commission) Staff recommended approval of LGI'S petition. Consistent with Commission Staff's recommendation, the petition is approved.

The Commission adopts the following findings of fact and conclusions of law:

I. **Findings of Fact**

Procedural History, Description and Background

- 1. On November 13, 2015, LGI filed a petition to amend Gulf Coast WDA's sewer CCN No. 20465 in Chambers County by expedited release.
- 2. On November 17, 2015, Order No. 1 was issued, setting a deadline for comments on the administrative completeness of the petition, notice, other procedural matters, and establishing procedural schedule.
- 3. On November 19, 2015, LGI filed a supplement to the petition to include an over-sized plat survey and digital data.
- 4. On December 18, 2015, Commission Staff filed a response to Order No. 1 and a recommendation on administrative completeness.
- 5. On January 5, 2016, Order No. 3 was issued, finding the petition administratively complete and adopting a procedural schedule.



- 6. On January 15, 2016, Commission Staff filed a recommendation for the final disposition in favor of approving the petition and provided a CCN certificate and service area maps.
- 7. The above referenced maps and CCN certificates are attached to this Notice.
- 8. No protests, motions to intervene, or request for hearing were filed.

Notice

- 9. LGI provided a copy of the petition to Gulf Coast WDA on November 13, 2015.
- 10. Notice of the petition was published in the *Texas Register* on November 27, 2015.

Project Description

- 11. The approximately 94.247-acre tract of land LGI seeks to have released from Gulf Coast WDA's sewer CCN No. 20465 is situated in Chambers County, a qualifying county under Texas Water Code § 13.254(a-5) (TWC) and 16 Tex. Admin. Code § 24.113(r) (TAC).
- 12. The area LGI seeks to have decertified is at least 25 acres, is not receiving water or sewer services from Gulf Coast WDA, and is located in a qualifying county.
- LGI provided an affidavit stating the area never received sewer service from Gulf Coast WDA.

II. Conclusions of Law

- 1. The Commission has jurisdiction over this matter pursuant to TWC §§ 13.041 and 13.254(a-5).
- 2. Notice of the petition was provided in compliance with 16 TAC § 24.113(s) and 16 TAC § 22.54 22.55.
- 3. This docket was processed in accordance with the requirements of TWC and Commission rules.
- 4. The 94.247-acre property is not "receiving sewer service" from Gulf Coast WDA under TWC § 13.254(a-5).
- 5. LGI is entitled to approval of the petition having sufficiently satisfied the requirements of TWC § 13.254(a-5) and 16 TAC § 24.113(r) and (s) by adequately demonstrating

ownership of a tract of land that is at least 25 acres, is located in a qualifying county, and is not receiving water or sewer service.

6. The requirements for informal disposition pursuant to 16 TAC § 22.35 have been met in this proceeding.

III. Ordering Paragraphs

In accordance with these findings of fact and conclusion of law, the Commission issues the following order:

- 1. LGI'S petition is approved.
- 2. LGI'S 94.247 acres are removed from Gulf Coast WDA's sewer CCN No. 20465.
- 3. Gulf Coast WDA's sewer CCN No. 20465 is amended in accordance with this Notice and the attached map and certificate.
- 4. All other motions, requests for entry of specific fact statements and legal conclusions, and any other requests for general or specific relief, if not expressly granted herein, are denied.

SIGNED AT AUSTIN, TEXAS on the day of February 2016.

PUBLIC UTILITY COMMISSION OF TEXAS

ADMINISTRATIVE LAW JUDGE

q:\cadm\docket management\water\ccn_expedited\45xxx\45337noa.docx



Public Utility Commission of Texas

By These Presents Be It Known To All That Gulf Coast Waste Disposal Authority

having obtained certification to provide sewer utility service for the convenience and necessity of the public, and it having been determined by this Commission that the public convenience and necessity would in fact be advanced by the provision of such service, Gulf Coast Waste Disposal Authority is entitled to this

Certificate of Convenience and Necessity No. 20465

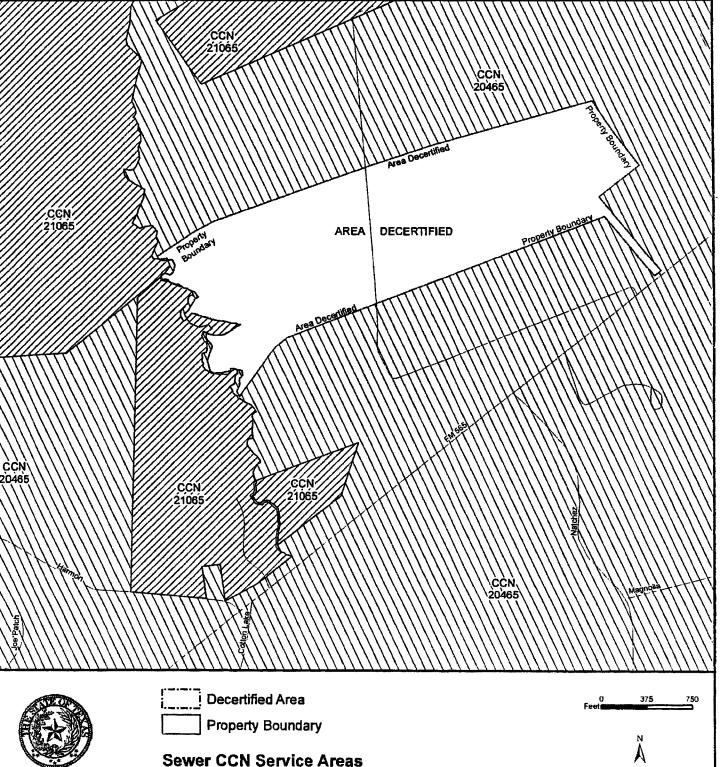
to provide continuous and adequate sewer utility service to that service area in Chambers County as by final Order duly entered by this Commission, which Order resulting from Docket No. 45337 are on file at the Commission offices in Austin, Texas; and are a matter of official record available for public inspection; and be it known further that these presents do evidence the authority and the duty of Gulf Coast Waste Disposal Authority to provide such utility service in accordance with the laws of this State and Rules of this Commission, subject only to any power and responsibility of this Commission to revoke or amend this Certificate in whole or in part upon a subsequent showing that the public convenience and necessity would be better served thereby.

Issued at Austin, Texas, the 2rd day of Johnson 2016.

Gulf Coast Waste Disposal Authority Sewer Service Area CCN No. 20465

PUC Docket No. 45337

Petition by LGI Homes-Texas LLC to Amend Gulf Coast Waste Disposal Authority's CCN by Expedited Release in Chambers County



blic Utility Commission of Texas D1 N. Congress Ave stin, TX 78701 7777 Saves O KO

20465 - Gulf Coast Waster Disposal Authority

21065 - Aqua Texas Inc

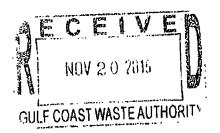
-y Map by: Komal Patel Oate created: January 14, 2018 Project Path: ก Vinalmapping\45337LGlHomesTexas.mxd

ATTACHMENT 9



November 17, 2015

Mr. Ricky Clifton General Manager Gulf Coast Waste Disposal Authority 910 Bay Area Boulevard Houston, Texas 77058



Re: Request to Remove Certain Properties from Sewer Certificate of Convenience and

Necessity (CCN) No. 20465

Dear Mr, Clifton:

Aqua Texas, Inc. d/b/a Aqua Texas ("Aqua") has received several requests for sewer service from landowners within a certain area covered by the Gulf Coast Waste Disposal Authority ("Authority") CCN No. 20465. The landowners requesting sewer service from Aqua are all within the area identified as "Proposed CCN Decertification" indicated in blue and outlined in black on Attachment "A" ("Subject Area").

To allow Aqua to provide sewer service to landowners within the Subject Area, Aqua and the Authority hereby agree as follows:

- 1. The Authority does not currently have sewer lines or wastewater treatment facilities in the immediate area of the Subject Area or plans to install same such that it is reasonable for the Authority to cooperate with Aqua to remove land within the Subject Area from CCN No. 20465.
- 2. To allow Aqua to provide sewer service to landowners within the Subject Area, Aqua has asked the Authority to seek approval from the PUC for decertification of the Subject Area from CCN No. 20465 via an application prepared and prosecuted for the Authority by Aqua for land within the Subject Area not otherwise decertified from CCN No. 20465 through expedited release pursuant to Texas Water Code Section 13.254 (a-1) or (a-5).
- 3. Based upon Aqua's commitments set out below, the Authority agrees to seek the requested PUC approval and cooperate with Aqua as Aqua prosecutes the application(s) through the PUC. Aqua commits to the Authority that Aqua will prepare and provide drafts of any necessary applications to the Authority for review and comment by no later than January 31, 2016, and will provide final documents to the Authority for signature by no later than February 29, 2016, as the current CCN holder in the Subject Area. Aqua agrees that the applications will

Mr. Clifton November 17, 2015 Page 2

be filed with the PUC by March 4, 2016. The Authority acknowledges that it will coordinate with Aqua and provide any necessary public information about the Authority that Aqua needs to prepare the applications and any such information that is requested by the PUC to remove the Subject Area from CCN No. 20465. Aqua commits to the Authority that it will be responsible for preparing the appropriate administratively and technically complete applications and will undertake all necessary coordination with the PUC, respond to all requests for information from the PUC and be responsible for all required notices necessary to remove the Subject Area from CCN No. 20465 except for expedited release petitions filed for property within the Subject Area by landowners. Aqua shall reimburse the Authority for its legal expenses incurred related to submittal of applications and acceptance of expedited releases for removal of land within the Subject Area from CCN No. 20465 up to \$8,000.00. Aqua shall reimburse the Authority for its legal expenses incurred related to prosecution of the applications up to \$2,000.00.

4. To allow Aqua to provide sewer service to landowners within the Subject Area, the Authority agrees that once petitions for expedited release and an application or applications have been filed with the PUC to remove the land within the Subject Area from CCN No. 20465, Aqua may file an application or applications with the PUC to amend Aqua's CCN to add the land within the Subject Area to Aqua's CCN and the Authority consents to and will not contest any such applications.

Should any protest be filed with the PUC to the applications or should the PUC deny any applications needed to accomplish removal of the Subject Area or any portion thereof or should Aqua or the Authority fail to cooperate with each other as described herein, including but not limited to failure by Aqua to remit payment within sixty (60) days following written request by the Authority for reimbursement of legal expenses incurred by the Authority as described above, the acknowledgements and agreements in this letter are subject to revocation by either Aqua or the Authority by sending written notice to the other entity.

Yours truly,

Robert L. Laughman

President

Aqua Texas, Inc, d/b/a Aqua Texas

Mr. Clifton November 17, 2015 Page 3

AGREED AND ACCEPTED:
GULF COAST WASTE DISPOSAL AUTHORITY

Ricky Clifton General Manager

Date:

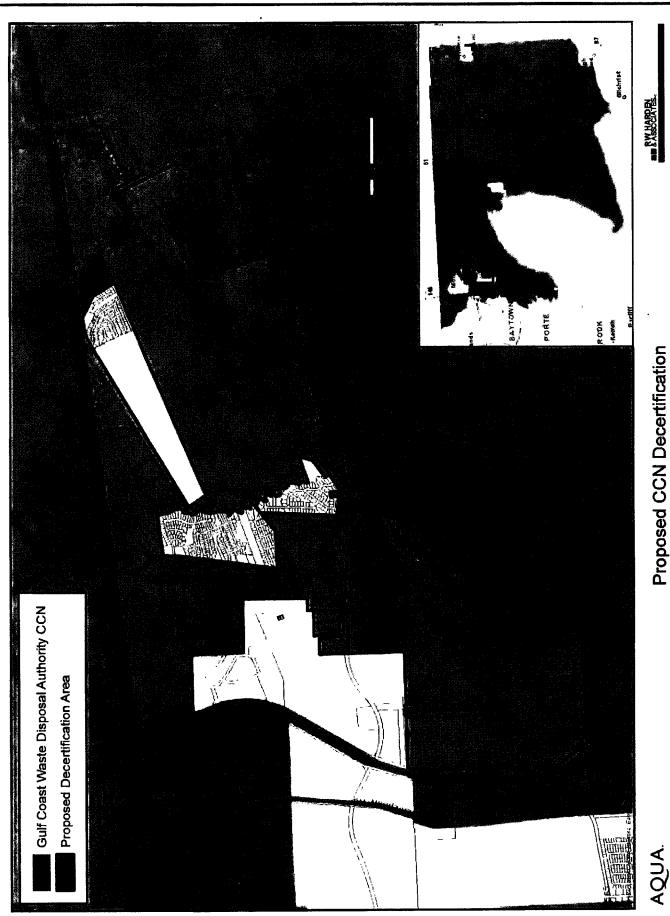
Enclosure - Attachment "A"

cc: Geoff Kirshbaum, The Terrill Firm. P.C. Sara Burgin, Bracewell & Giuliani LLP

Mr. Clifton November 17, 2015 Page 4

ATTACHMENT "A"

SUBJECT AREA MAP

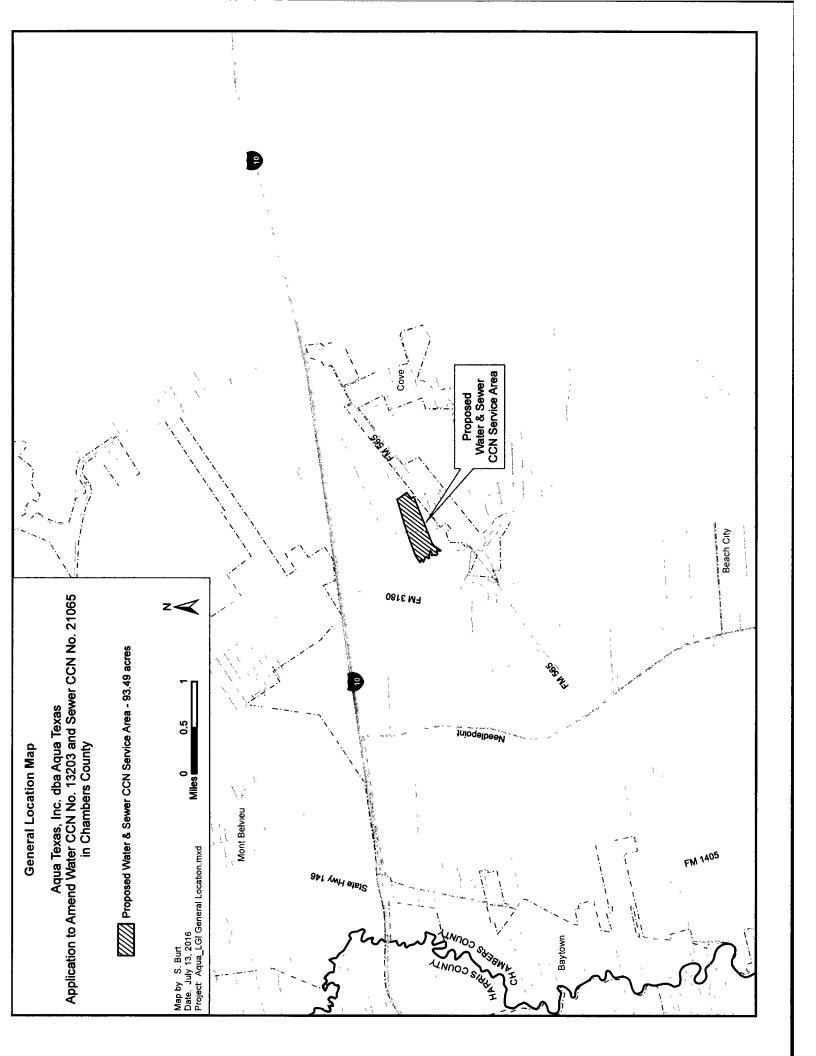


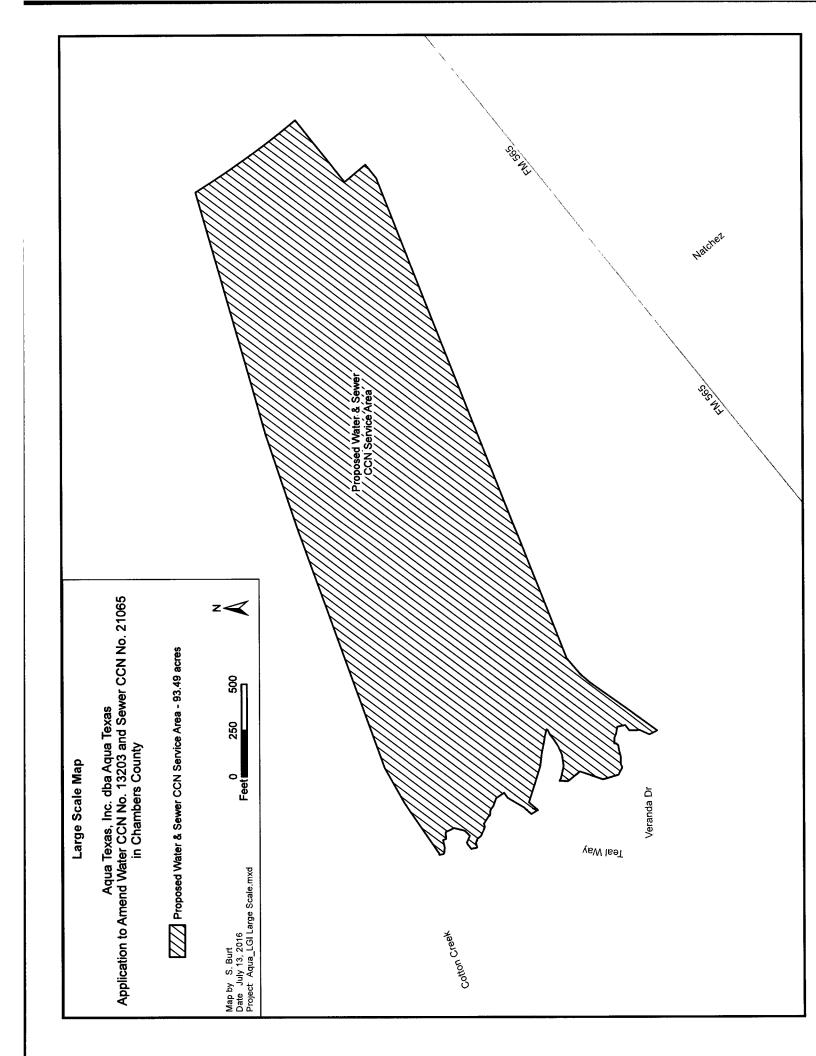
Proposed CCN Decertification

RW HARDEN

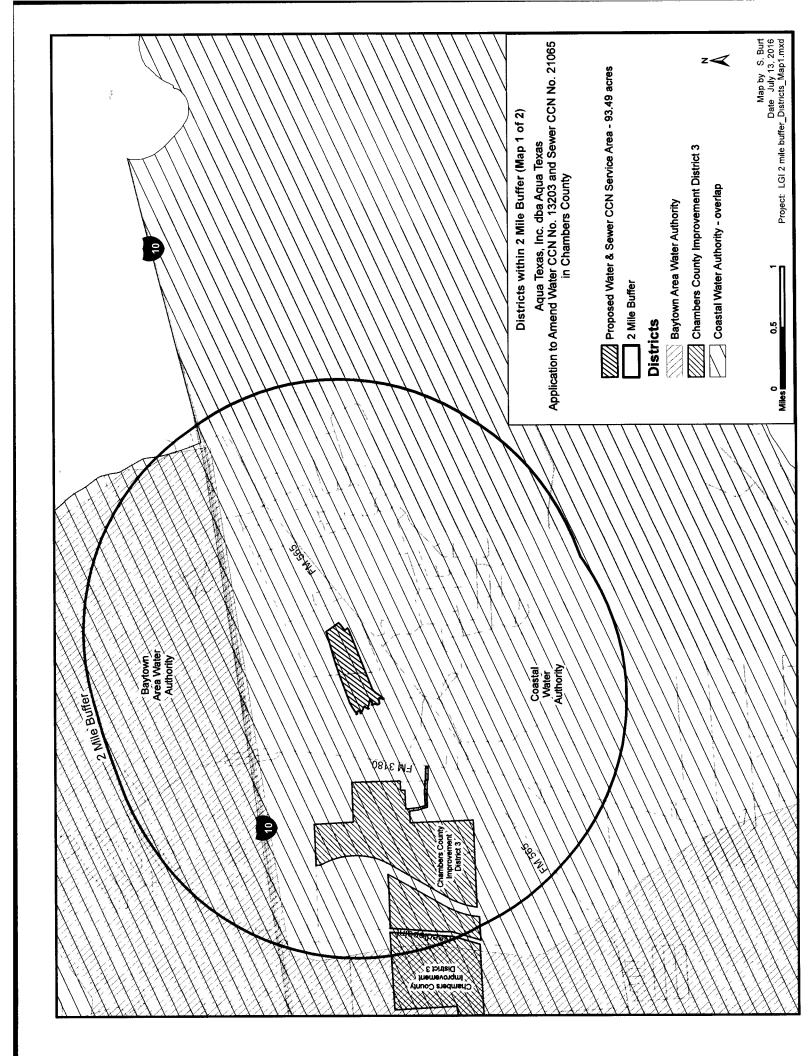
File: D:1744\Graphcs\Transfer_Area_Gulf_Coast.mxd

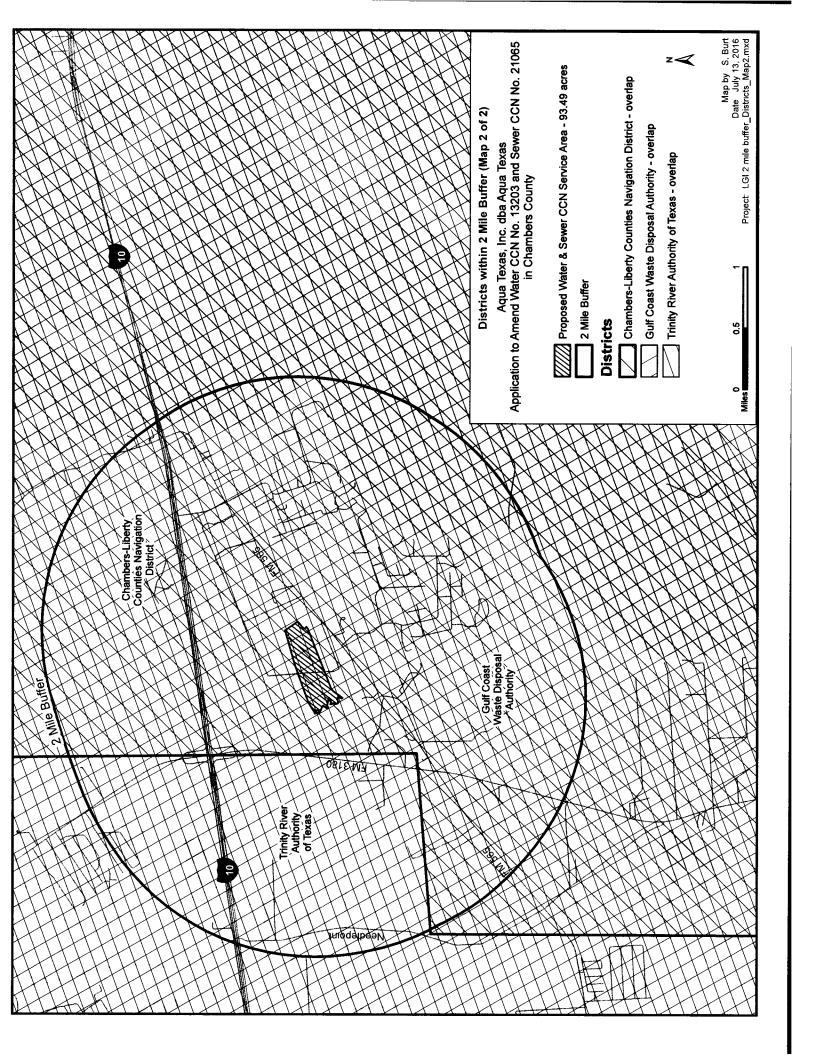
ATTACHMENT 10

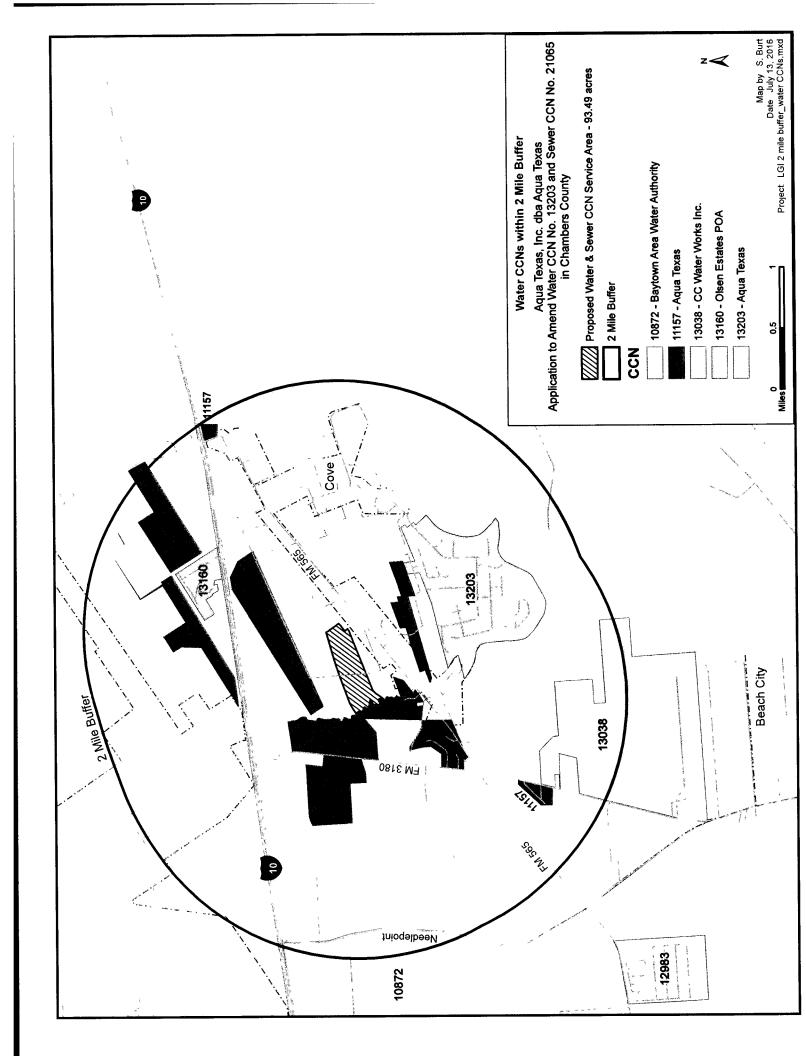


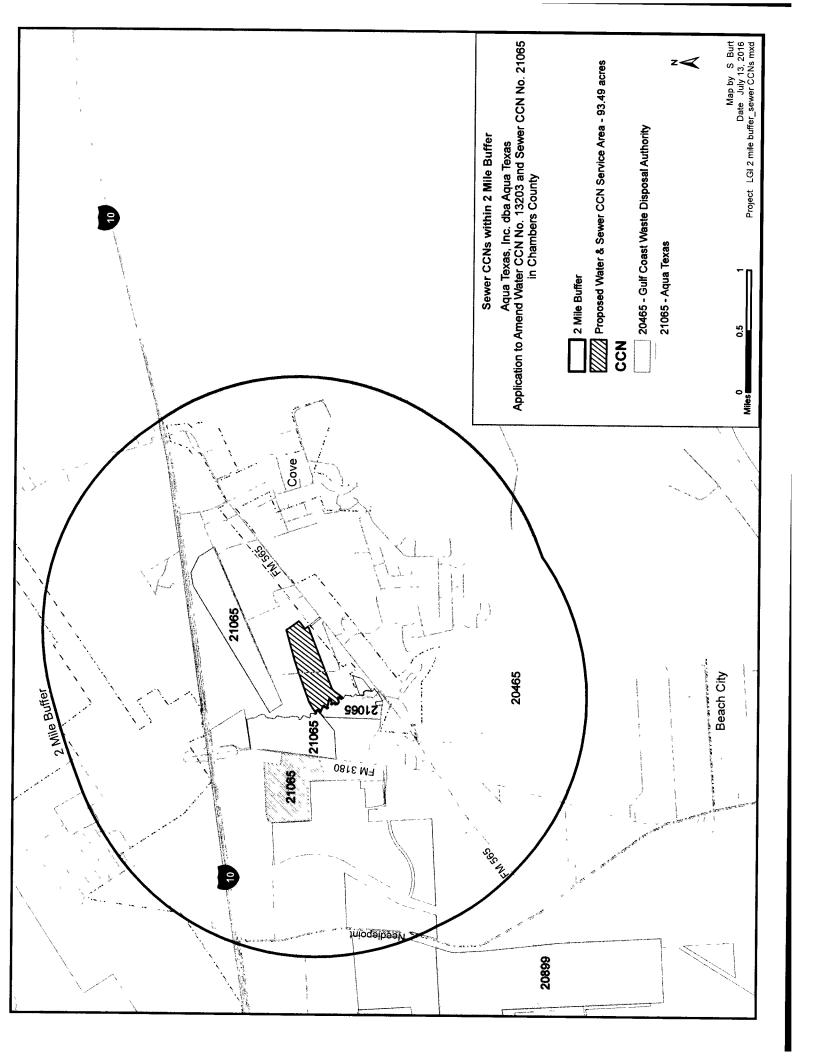












Property Description

The proposed water and sewer utility service area is located approximately 4 miles southeast of downtown Mont Belvieu, TX, and is generally bounded on the north by 0.75 mile south of IH10; on the east by 1 mile west of FM 3246; on the south by FM 565; and on the west by Cotton Bayou.

Approximately <u>93.49</u> acres.

ATTACHMENT 11

Bryan W. Shaw, Ph.D., Chairman Carlos Rubinstein, Commissioner Toby Baker, Commissioner Zak Covar, Executive Director



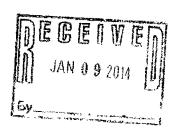
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 7, 2014

CERTIFIED MAIL #7011 3500 0000 0279 5998 RETURN RECEIPT REQUESTED

Mr. Dan Rimann, Vice President of Operations Aqua Utilities, Inc. 1106 Clayton Ln., Ste. 400W Austin, Texas 78723-2476



Re:

Notice of Violation for the Comprehensive Compliance Investigation at: Gray Utility Service, 5601 S. FM 565 Rd., Chambers County, Texas

Regulated Entity No.:101233534, TCEQ ID No.: 0360005, Investigation No.: 1128285

Dear Mr. Rimann:

On October 30, 2013, Ms. Christina Bernal of the Texas Commission on Environmental Quality (TCEQ) Houston Region Office conducted an investigation of the above-referenced regulated entity to evaluate compliance with applicable requirements for Public Water Supply. Enclosed is a summary which lists the investigation findings. During the investigation, the investigator resolved an apparent instance of noncompliance noted during the complaint investigation dated March 30, 2011. Information has been provided which appears to indicate that this outstanding problem has been corrected. In addition, certain outstanding alleged violations were identified for which compliance documentation is required. A due date for submitting compliance documentation for outstanding alleged violations #522544, 522546, and 522548 will be determined after you provide a compliance plan for these alleged violations. Your compliance plan is due by March 31, 2014. Please address how each violation will be resolved and provide a reasonable time frame for the completion of the work.

In the listing of the alleged violations, we have cited applicable requirements, including TCEQ rules. Please note that both the rules themselves and the agency brochure entitled Obtaining TCEQ Rules (GI 032) are located on our agency website at http://www.tceq.texas.gov for your reference. If you would like a hard copy of this brochure mailed to you, you may call and request one from either the Houston Region Office at Phone (713)767-3650 or the Central Office Publications Ordering Team at (512)239-0028.

The TCEQ appreciates your assistance in this matter. Please note that the Legislature has granted TCEQ enforcement powers which we may exercise to ensure compliance with environmental regulatory requirements. We anticipate that you will resolve the alleged violations as required in order to protect the State's environment. If you have additional information that we are unaware of, you have the opportunity to contest the violations documented in this notice. Should you choose to do so, you must notify the Houston Region Office within 10 days from the date of this letter. At that time, PWS Team Leader Ms. Leticia DeLeon will schedule a violation review meeting to be conducted within 21 days from the date of this letter.

Mr. Dan Rimann, Vice President of Operations Page 2 January 7, 2014

If you or members of your staff have any questions, please feel free to contact Ms. Christina Bernal in the Houston Region Office at (713)767-3650.

Sincerely,

Leticia De Leon, Team Leader Public Water Supply

Houston Region Office

LD/CB/ra

cc: Harris County Public Health and Environmental Services

Summary of Investigation Findings **Enclosures:**

Summary of investigation Findings

GRAY UTILITY SERVICE

5601 FM 565 EAST

BAYTOWN, CHAMBERS COUNTY, TX 77520

Additional ID(s); 0360005

Investigation #

1128285 Investigation Date: 10/30/2013

A (S) MODIVA JOHA DE ESEBANOMI (ALMANDIO) MODIVA JOHA SON SON SON SON SON (SERVADIO)

Track No: 522544 Compliance Due Date: To Be Determined

30 TAC Chapter 290.42(I)

Alleged Violation:

Investigation: 1128285

Comment Date: 12/16/2013

Plant Operations Manual

Failure to compile and maintain, a current, and thorough plant operations manual for operator review and reference. This manual should be of sufficient detail to provide the operator with routine maintenance and repair procedure as well as provide telephone numbers of water system personnel, system officials, and local/state/federal agencies to be contacted in the event of an emergency.

At the time of the compliance investigation, the system's plant operations manual was not available.

Recommended Corrective Action: Submit a copy of the plant operations manual to verify compliance.

Track No: 522546

Compliance Due Date: To Be Determined

30 TAC Chapter 290.41(c)(3)(A)

Alleged Violation:

Investigation: 1128285

Comment Date: 12/16/2013

Ground Water Sources and Development

Failure to submit the well completion data on Well Number 1 for our review and approval before placing the well into service. This data must include copies of:

- an executed sanitary control easement or other documentation demonstrating compliance with 30 TAC, §290.41(c)(1)(F) for all property located within 150 feet of the well head,
- 2. the well Driller's Log (geological log and material setting report)
- 3. the cementing certificate,
- 4. the results of a 36-hour pump test which shows the steady state capacity of the well,
- 5. the results of chemical analysis performed by an accredited laboratory,
- three consecutive daily collform-free raw water bacteriological analyses conducted by a TCEQ accredited laboratory, and
- 7. an original or legible copy of a U.S. Geological Survey 7.5 minute topographical quadrangle map showing the accurate well location.

Please be aware you may apply for an exception to this regulation or if you have the well completion data please submit all requests to:

Texas Commission on Environmental Quality, Utilities Review and Oversight Team (MC-159), P.O. Box 13087, Austin, Texas 78711-3087; phone (512)239-4691.

At the time of the compliance investigation, there was a variance in the region file dated September 28, 1999, for high chloride, iron, and manganese found in raw water samples collected from G0350005A, Well 1, on August 14, 1995. However, there was no documentation available showing Well 1 was approved for use.