

APPLICATION OF CITY OF CIBOLO §
 FOR SINGLE CERTIFICATION IN §
 INCORPORATED AREA AND TO §
 DECERTIFY PORTIONS OF GREEN §
 VALLEY SPECIAL UTILITY DISTRICT §
 SEWER CERTIFICATE OF §
 CONVENIENCE AND NECESSITY IN §
 GUADALUPE COUNTY §

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 PUBLIC UTILITY COMMISSION
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GREEN VALLEY SPECIAL UTILITY DISTRICTS BRIEF ON THRESHOLD LEGAL/POLICY ISSUES

COMES NOW, Green Valley Special Utility District ("GVSUD" or the "District") and files this Brief on Threshold Legal/Policy Issues in the above referenced docket subject to GVSUD's Plea to the Jurisdiction and Motion to Dismiss previously filed. In support, GVSUD would show as follows.

I. Introduction

On May 27, 2016, the Commission ordered briefing on two threshold legal/policy issues:

- (1) May the Commission deny a municipality's application seeking single certification under Texas Water Code (TWC) § 13.255 solely on the basis that a retail public utility that holds a CCN for all or part of the requested area is also a holder of a federal loan made under section 1926(a) of the Federal Consolidated Farm and Rural Development Act? In answering this issue, please address whether the Commission has authority to determine whether a federal statute preempts state law.
- (2) Must a municipality seeking single certification under TWC § 13.255 demonstrate compliance with the TCEQ's minimum requirements for public drinking water systems even if the certification sought is solely to provide sewer service?¹

The short answer to Issue #1 is that the Commission may deny a municipality's application seeking single certification solely on the basis that the utility holding the CCN is also indebted to the federal government, because 7 U.S.C.A. § 1926(b) preempts TWC § 13.255. The

¹ Order Requesting Briefing on Threshold Legal/Policy Issues (May 27, 2016).

Commission may decide whether it agrees that a particular federal statute preempts state law, but federal law is determinative with respect to such preemption issues.²

The short answer to Issue #2 is that TWC § 13.255(m) requires a municipality applicant to make the demonstration about its public drinking water system compliance whether it seeks sewer or water CCN service area single certification. The Texas Legislature has made no exception for a sewer-only application. Therefore, Cibolo is required to make the demonstration. Cibolo's application does not include this information.³ Such omission provides additional grounds for denial or dismissal.

II. Commission Should Deny Application Based on § 1926 Preemption

North Alamo Water Supply Corp. v. City of San Juan provides Fifth Circuit authority for the Commission to deny a municipality's TWC § 13.255 single certification application solely based on the fact that the CCN holder is indebted under § 1926(a) of the Federal Consolidated Farm and Rural Development Act. First, § 1926(b) establishes a legal "bright line" test for the "service provided or made available" element of § 1926(b) protection.⁴ Second, *North Alamo* provides an alternative factual ground for its decision on that element which is similar to the "ability to serve" analysis used in other jurisdictions.⁵ Under either test, § 1926 preempts TWC § 13.255 and requires denial of Cibolo's application.

² GVSUD is currently seeking such a ruling in federal district court. See **Exhibit A**.

³ *Application of the City of Cibolo for Single Certification in Incorporated Area and to Decertify Portions of Green Valley Special Utility District's Sewer Certificate of Convenience and Necessity (CCN) Under Water Code Section 13.255* (Item No. 1) (March 8, 2016).

⁴ *North Alamo Water Supply Corp. v. City of San Juan*, 90 F.3d 910, 915-16 (5th Cir. 1996).

⁵ *Id.*

A. The “Bright Line” CCN Test

Texas federal courts hold that the legal duty to serve an area encompassed by a CCN—by itself—is sufficient to meet the “service provided or made available” prong of § 1926(b).⁶ This is because of the statute’s plain language. The service made available by GVSUD within its CCN “shall not be curtailed or limited by inclusion of the area” with Cibolo’s boundaries.⁷

According to the Fifth Circuit in *North Alamo*:

Under Texas law, the [CCN] gives the Utility the exclusive right to serve the area within its CCN and obligates it “to serve every consumer within its certificated area and . . . render continuous and adequate service within the area or areas.” We hold that the Utility’s state law duty to provide service is the legal equivalent to the Utility’s “making service available” under § 1926(b).⁸

This holding followed the Fifth Circuit’s pronouncements that “[t]he service area of a federally indebted water association is sacrosanct,” and “[e]very federal court to have interpreted § 1926(b) has concluded that the statute should be liberally interpreted to protect FmHA-indebted rural water associations from municipal encroachment.”⁹ More recently, the Western District of Texas has highlighted this language as emphasizing the “virtually unassailable right of

⁶ *El Oso Water Supply Corp. v. City of Karnes City*, 2011 U.S. Dist. LEXIS 156348, at *10-20 (W.D. Tex. Aug. 30, 2011), *aff’d*, 2012 U.S. Dist. LEXIS 147760 (W.D. Tex. Apr. 10, 2012) (finding that the entire El Oso Water Supply Corporation’s CCN service area was federally protected under 1926(b) from encroachment actions by the City of Karnes, including a TWC §13.255 application, given the water supply corporation’s outstanding federal loan); *Becker-Jiba Water Supply Corp. v. City of Kaufman*, 2003 U.S. Dist. LEXIS 10334, at *16-18 (N.D. Tex. June 18, 2003).

⁷ 7 U.S.C.A. § 1926(b).

⁸ *North Alamo*, 90 F.3d at 915-16 (citing TWC § 13.001(b)(1), (2), 13.250(a)).

⁹ *North Alamo*, 90 F.3d at 915-16 (citing *City of Madison, Miss. v. Bear Creek Water Ass’n*, 816 F.2d 1057, 1059 (5th Cir. 1987), and other federal court decisions from the Fourth, Sixth, Seventh, and Tenth Circuits).

an indebted association to protection from municipal encroachment.”¹⁰ The Fifth Circuit deems the prohibition “absolute.”¹¹

As a Chapter 65 special utility district, GVSUD has a second layer of service “responsibilities to applicants within its territory” as was present in *Glenpool Utility Services Authority v. Creek County Rural Water Dist. No. 2*, a Tenth Circuit case cited with approval in *North Alamo*.¹² The District’s boundaries provide a service area within which the District is effectively a monopoly that must exercise its powers for the benefit of its electorate unless another retail public utility is granted a CCN by this Commission within those boundaries.¹³ GVSUD’s CCN provides it with additional legal duties under Commission rules in exchange for exclusive certificated area that would ordinarily prevent that from occurring.

The Fifth Circuit favors this bright-line approach, because “[a] bright-line rule which prohibits condemnation throughout the FmHA loan term at least creates certainty for the municipal planner and the rural water authority, even if it limits the municipality’s options.”¹⁴ This Commission should follow the “bright line” *North Alamo* CCN test to resolve a § 1926(b) conflict issue before unnecessarily proceeding to wrestle with the case-specific factual issues. GVSUD is federally indebted, the area at issue is within GVSUD’s CCN, and thus Cibolo is federally barred from intruding on GVSUD’s sacrosanct certificated service area.

¹⁰ *El Oso Water Supply Corp.*, 2011 U.S. Dist. LEXIS 156348, at *10-20.

¹¹ *City of Madison, Miss. v. Bear Creek Water Ass’n, Inc.*, 816 F.2d 1057, 1059 (5th Cir. 1987).

¹² *Glenpool Util. Servs. Auth. v. Creek County Rural Water Dist. No. 2*, 861 F.2d 1211, 1214 (10th Cir. 1988).

¹³ TWC §§ 13.001(b), 13.242(a), and 65.201. Granting a CCN to another retail public utility within a SUD service area with or without a CCN would ordinarily require a CCN application with opportunity for notice, comment, intervention, and a hearing.

¹⁴ *Bear Creek*, 816 F.2d at 1059.

B. The “Ability to Serve” Test

North Alamo was also decided “on the strength of . . . alternative legal and factual determinations” for the “made service available” prong.¹⁵ This is an alternative approach to the bright line test, which GVSUD contends it also meets, notwithstanding the weight of Fifth Circuit authority supporting the application of the bright line test. The factual findings in *North Alamo* that were relevant to its alternative conclusion were: (1) current service provision to subdivisions adjacent to the disputed areas; (2) lines and adequate facilities to provide service to the disputed areas; and (3) no refusal of service to anyone who had requested service within the certificated area.¹⁶ However, these factors should not be construed to be the only facts relevant to this type of determination regarding § 1926(b) “service.” *North Alamo*’s alternative test is akin to the “ability to serve” analysis employed in other federal circuits that requires the physical ability to provide service *within a reasonable time*.¹⁷ Importantly, this does not mean having physical ability to serve immediately.¹⁸ This approach requires a factual determination, and if adopted, GVSUD submits that a contested case hearing on the merits should be required.

In *El Oso* and *Becker-Jiba*, facts showed physical service in or near the disputed area.¹⁹ However, those federal decisions do not clearly place those facts above CCN obligations as

¹⁵ *North Alamo*, 90 F.3d at 915-916; *El Oso Water Supply Corp. v. City of Karnes City*, 2011 U.S. Dist. LEXIS 156348, at *10-20.

¹⁶ *North Alamo*, 90 F.3d at 916.

¹⁷ Compare *North Alamo*, 90 F.3d at 916, with *Pittsburg County Rural Water Dist. No. 7 v. City of McAlester*, 358 F.3d 694, 713-714 (10th Cir. 2004); *Sequoyah County Rural Water District No. 7 v. Town of Muldrow*, 191 F.3d 1192, 1203 (10th Cir. 1999).

¹⁸ *Pittsburg*, 358 F.3d at 713-714; *Sequoyah*, 191 F.3d at 1203.

¹⁹ *El Oso*, 2011 U.S. Dist. LEXIS 15648, at *14; *Becker-Jiba*, 2003 U.S. Dist. LEXIS 10334, at *16-18

determinative in § 1926(b) cases, and they indicate CCN obligations were of paramount importance to the “made service available” prong following *North Alamo*.

In *Creedmoor-Maha Water Supply Corp. v. Texas Commission on Environmental Quality*, a Texas Third Court of Appeals case, the court wrestled with the § 1926(b) “made service available” issue in the context of a TWC § 13.254(a-1) expedited release matter.²⁰ While not a federal decision and not a TWC § 13.255 matter, that decision ultimately turned on the fact that the court found Creedmoor did not allege facts demonstrating ability to serve the disputed area upon request or in a reasonable time, and in fact, the court found its pleadings and jurisdictional evidence negated that fact.²¹ The court distinguished the *Creedmoor* scenario from the municipal encroachment situation at issue in *North Alamo* and present here, but was compelled by §1926(b) cases from other federal circuits that used the “ability to serve” test for the “made service available” component, and by the absence of other authority specifically stating that no “regard to whether the utility has in fact served or is capable of serving the area” in a reasonable time is required.²² This approach has not been approved by either the Fifth Circuit or the Texas Supreme Court, and no petition for review was filed in *Creedmoor-Maha*.

GVSUD submits another test for whether “service” in Texas is “provided or made available” under § 1926(b), if the Commission declines to follow the bright line test, would be TWC § 13.002(21), which states:

²⁰ *Creedmoor-Maha Water Supply Corp. v. Tex. Comm’n on Env’tl. Quality*, 307 S.W.3d 505, 518-524 (Tex. App.—Austin 2010, no pet.). GVSUD notes that TWC § 13.254(a-5) streamlined expedited releases were not yet available. GVSUD notes that it is unjust to require evidentiary showings while simultaneously eliminating the opportunity for contested case hearings under the APA as in TWC § 13.254(a-4) and as § 13.254(a-5) has been administered. No such restriction is present in TWC § 13.255.

²¹ *Id.* at 522-524.

²² *Id.* at 522.

“Service” means any act performed, anything furnished or supplied, and any facilities or lines committed or used by a retail public utility in the performance of its duties under this chapter to its patrons, employees, other retail public utilities, and the public, as well as the interchange of facilities between two or more retail public utilities.²³

There are a number of different acts that a CCN holder might take to provide service or make it available within its CCN service area. These might include master plans, permit applications, investigating financing options, purchasing property rights, working with engineers on design issues, and various other actions that ultimately lead to actively collecting and treating wastewater from customers in the most efficient manner possible.

The TWC § 13.002(21) definition was affirmed as the meaning of “service” for purposes of TWC Chapter 13 in the Texas Third Court of Appeals decision, *Texas General Land Office v Crystal Clear Water Supply Corporation*, addressing a TWC § 13.254(a-5) expedited release application (not TWC § 13.255).²⁴ The term is “of intentionally broad scope and encompasses an array of activities that a retail public utility might engage in as part of its mission of ‘providing potable water service or sewer service, or both, for compensation.’”²⁵ If an “ability to serve” factual analysis is used, this definition provides a means of harmonizing the liberal interpretation of § 1926(b) required by federal courts in determining whether an association has provided or made service available in a certificated area so that its service area may remain federally protected. This would include whether an association has performed planning needed

²³ TWC §13.002(21).

²⁴ *Tex. Gen. Land Office v. Crystal Clear Water Supply Corp.*, 449 S.W.3d 130, 137 (Tex. App.—Austin 2014, pet. denied).

²⁵ *Id.* (referring to both the TWC § 13.002(21) definition of “service” and § 13.002(19) definition of “retail public utility”).

to respond to requests for service in a reasonable amount of time as described by the Tenth Circuit federal test.²⁶

Here, GVSUD has factually provided or made sewer service available within its entire sewer CCN service area and District boundaries even though it has not received any requests for sewer service within the annexed tracts under dispute.²⁷ As a supplement to its Plea to the Jurisdiction and Motion to Dismiss, GVSUD presents the attached affidavit of District General Manager, Pat Allen (“Affidavit”).²⁸ In the Affidavit, Mr. Allen states that GVSUD has prepared plans, worked with its engineers on design issues, applied for permits, purchased property, investigated financing options, and negotiated with various entities to develop the most prudent wastewater service strategies available for the District and its constituents.²⁹ These actions (1) constitute acts of “service” under the TWC definition, (2) satisfy the “ability to serve” test described by the Tenth Circuit in terms of being able to respond to sewer service requests within a reasonable amount of time, and (3) satisfy the alternative non-exclusive factual analysis in *North Alamo*.

GVSUD notes that it would be able to respond to sewer service requests within its service area much quicker if the City of Cibolo would withdraw its protest of the District’s wastewater permit application pending before the Texas Commission on Environmental Quality (TCEQ).³⁰ But despite Cibolo’s scheme, the District is providing or making sewer service available within the disputed Application areas just the same. In sum, Cibolo’s TWC § 13.255 application may

²⁶ *Pittsburg*, 358 F.3d at 713-714; *Sequoyah*, 191 F.3d at 1203.

²⁷ **Exhibit B** (Affidavit of Pat Allen).

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

be denied on factual grounds, because granting it would curtail or limit GVSUD's sewer service provided or made available to the areas Cibolo seeks for single certification.

C. Section 1926(b) Preempts TWC§13.255 Under U.S. Supremacy Clause

Because GVSUD meets the “service” test, under either approach, federal preemption of TWC § 13.255 by § 1926(b) applies and requires the Commission deny or dismiss Cibolo's application due to irreconcilable conflict. The Supremacy Clause of the United States Constitution, Article VI, Clause 2, states: “This Constitution, and the Laws of the United States . . . shall be the supreme Law of the Land . . . any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.”³¹ The paramount concern in assessing preemption is to effectuate the intent of Congress.³² Generally, that may occur in three ways: (1) enacting express language revealing preemptive intention; (2) occupying the regulatory field; or (3) enacting a law with which the state legislation irreconcilably conflicts.³³ Preemption of state law by federal law may occur when compliance with both the federal law and state laws is “an impossibility,” or when the state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.³⁴ There can be no dispute that the Supremacy Clause invalidates all state laws that conflict or interfere with an Act of Congress.³⁵

In *North Alamo*, the Fifth Circuit held that § 1926(b) “indicates a congressional mandate that local governments not encroach upon the services provided by [federally indebted]

³¹ U.S. CONST. art. VI, cl. 2.

³² *Wells Fargo Bank of Tex. NA v. James*, 321 F.3d 488, 491 (5th Cir. 2003).

³³ *Id.*; see also *In re Grand Jury Proceedings (Grand Jury No. 08-4)*, 607 F. Supp. 2d, 803, 806 (W.D. Tex. 2009).

³⁴ *Barnett Bank, N.A. v. Nelson*, 517 U.S. 25, 31, 116 S. Ct. 1103, 134 L. Ed. 2d 237 (1996); *Wells Fargo Bank*, 321 F.3d at 491 & n.3; *In re Grand Jury Proceedings*, 607 F. Supp. 2d at 806.

³⁵ *In re Grand Jury Proceedings*, 607 F. Supp. 2d at 806 (citing *Rose v. Arkansas State Police*, 479 U.S. 1, 4, 107 S. Ct. 334, 93 L. Ed 2d 183 (1986))

associations, be that encroachment in the form of competing franchises, new or additional permit requirements, or similar means.”³⁶ Per *North Alamo*, policy reasons include the following congressional purposes: “(1) to encourage rural water development by expanding the number of potential users of such systems, thereby decreasing the per-user cost, and (2) to safeguard the viability and financial security of such associations (and FmHA’s loans) by protecting them from the expansion of nearby cities and towns.”³⁷

As *El Oso* recognized in a TWC §13.255 case, a municipality’s efforts (here, Cibolo’s) to annex CCN areas, have them decertificated through the Commission’s single certification TWC § 13.255 process, and obtain single certification of those areas as its own clearly falls within the category of encroachment by a “similar means.”³⁸ This is where the pre-emption conflict arises between § 1926(b) and TWC §13.255.

North Alamo left the specific question of preemption for another day and, specifically, whether the injunction issued in that case impermissibly interfered with the legitimate exercise of the State of Texas’ regulatory powers.³⁹ *Creedmoor-Maha* reached the same result by disposing of that case under evidentiary grounds.⁴⁰ Regardless, Cibolo’s Application is basically a request for this Commission to grant authority for and facilitate prohibited encroachment on GVSUD’s certificated sewer service area thwarting the federal § 1926(b) interests in financially secure “associations.”

³⁶ *North Alamo*, 90 F.3d at 915-916; *El Oso Water Supply Corp. v. City of Karnes City*, 2011 U.S. Dist. LEXIS 156348, at *10-20.

³⁷ *North Alamo*, 90 F.3d. at 915 (quoting *Bear Creek*, 816 F.2d at 1060 (citing S.Rep. No. 566, 87th Cong., 1st Sess., reprinted in 1961 U.S. Code Cong. & Admin. News 2243, 2309)).

³⁸ *El Oso Water Supply Corp.*, 2011 U.S. Dist. LEXIS 156348, at *15.

³⁹ The need to decide that issue was rendered moot by other facts. See *North Alamo*, 90 F.3d at 919-920.

⁴⁰ *Creedmoor-Maha*, 307 S.W.3d at 523-524.

The Northern District of Texas, in *Becker-Jiba*, denied a motion to dismiss a § 1926(b) case seeking injunctive and declaratory relief against a municipality, and rejected the notion that state interests in CCN regulation trump federal interests behind §1926(b).⁴¹ The court found:

Section 1926(b) evinces the clear intent that federal law prevails in adjusting the rights *inter se* of entities like Becker and the City. “The service area of a federally indebted water association is sacrosanct. Every federal court to have interpreted § 1926(b) has concluded that the statute should be liberally interpreted to protect FmHA-indebted rural water associations from municipal encroachment.”

What the City has characterized as difficulties are not difficult *questions* but difficult *consequences* of fairly straightforward federal law. That the City’s CCN is subject to paramount federal law, this court’s decision may prompt other rural water associations to challenge the conduct of other municipalities (if *North Alamo* and prior cases have not done so already), the Texas regulatory system and state efforts to establish coherent policy must likely yield to § 1926(b), and enforcement of § 1926(b) may produce monopolies, lessen the power of the State of Texas to regulate its natural resources, and limit or prohibit the State’s power to enforce minimum requirements for the protection of public health, safety, and welfare regarding water development are simply the results of a Congressional choice reflected in § 1926(b). They are not reasons for this court to abstain.

[T]he exercise of federal review would not be disruptive of state matters to establish a coherent policy with respect to a matter of substantial public concern. As supreme federal law, § 1926(b) displaces contrary state law. The Texas Water Code provides for this type of possible conflict by stating that “[a] rule or order of the regulatory authority may not conflict with the rulings of any federal regulatory body.” Texas law thus contemplates that regulation of water services must yield to superior federal law and that doing so will not interfere with its attempts to establish a coherent policy.⁴²

At the conclusion of this discussion, *Becker-Jiba* states that preemption really is not so much of an “issue” as a “controlling legal principle.”⁴³

⁴¹ *Becker-Jiba*, 2003 U.S. Dist. LEXIS 10334, at *4-5, 15-21.

⁴² *Becker-Jiba*, 2003 U.S. Dist. LEXIS 10334, at *15-18 (quoting *North Alamo* and TWC § 13.181(b)) (citations omitted).

⁴³ *Becker-Jiba*, 2003 U.S. Dist. LEXIS 10334, at *20.

The Tenth Circuit would agree. In *Pittsburg County Rural Water Dist. No. 7 v. City of McAlester*, the Tenth Circuit specifically found state law cannot be used to violate the congressional mandate against municipal encroachment upon services by federally indebted associations (also recognized in *North Alamo*, *Bear Creek*, and *Glenpool*) if §1926(b) protection attaches:

In light of this congressional mandate, where the federal §1926 protections have attached, §1926 preempts local or “state law [that] can be used to justify a municipality’s encroachment upon disputed area in which an indebted association is legally providing service under state law.” To the extent that a local or state action encroaches upon the services provided by a protected water association, the local or state act is invalid. There is thus preemption of any local or state law that purports to take away from an indebted rural water association any territory for which the association is entitled to invoke the protection of §1926(b).⁴⁴

The Commission must give deference to these federal preemption principles in its handling of TWC § 13.255 cases. The Commission must recognize that if § 1926(b) protection attaches, its decision on a TWC § 13.255 application will be invalid and a waste of resources for all involved in terms of forcing compensation analyses. Here, GVSUD has sought injunctive relief in federal court to prevent Cibolo’s municipal encroachment efforts that include the Application and “similar means.”⁴⁵ If successful, this whole docket will be mooted. The Commission denied GVSUD’s request to abate this docket while its federal complaint is heard.⁴⁶ However, for the sake of judicial economy, GVSUD respectfully requests reconsideration since a federal court determination on § 1926(b) preemption of TWC § 13.255 would be binding on this Commission, as well as GVSUD and Cibolo.

⁴⁴ *Pittsburg County Rural Water Dist. No. 7 v. City of McAlester*, 358 F.3d 694, 715-716 (10th Cir. 2004) (citations omitted).

⁴⁵ Exhibit A.

⁴⁶ Order No. 5 Denying Motion to Abate and Establishing a Deadline (June 3, 2016).

In sum, federal preemption is a controlling legal principle, and § 1926(b) preempts state law. The federal Congressional purposes for enacting § 1926(b) are paramount to any state interests to the extent there is conflict. Notwithstanding, the Commission may decide whether § 1926(b) preemption is present in the context of a particular TWC Chapter 13 application docket if the Commission decides to apply an “ability to serve” within a reasonable time factual analysis as its policy. In contrast, using the “bright line” CCN test will eliminate the need for factual findings, other than establishing “association” status, CCN possession, and federal indebtedness. This Commission may decide to deny or dismiss a TWC § 13.255 application on the basis of § 1926(b) preemption. Alternatively, the Commission may wait for a federal court decision, as GVSUD is currently seeking, and place the decertification application docket on hold in the interim for judicial economy.

III. Commission Must Require Public Drinking Water Compliance Showing

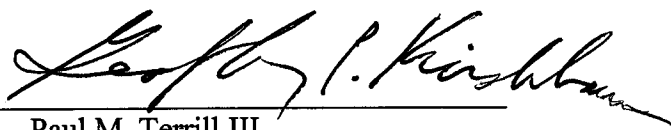
TWC § 13.255(m) requires an applicant municipality to make a demonstration about its public drinking water system compliance as part of the application process. Similarly, P.U.C. SUBST. R. 24.120(n) states, “The Commission shall deny an application for single certification by a municipality that fails to obtain a finding from TCEQ that it is [sic] will demonstrate compliance with the TCEQ’s minimum requirements for public drinking water systems, pursuant to 30 TAC Chapter 290, Subchapter D (relating to Rules and Regulations for Public Water Systems). There is no exception. As a policy matter, this Commission may opt to require Cibolo to meet this statutory prong by demonstrating compliance with the TCEQ’s minimum requirements for *sewer* systems. However, unless and until Cibolo does so, denial or dismissal of Cibolo’s TWC § 13.255 application is required.

Conclusion and Prayer

The District prays that the Commission dismiss or deny the City of Cibolo's TWC § 13.255 application, relieve the District of all further associated deadlines, and grant the District all other and further relief to which it is justly entitled at law or in equity.

Respectfully submitted,

By: _____



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**ATTORNEYS FOR GREEN VALLEY SPECIAL
UTILITY DISTRICT**

CERTIFICATE OF SERVICE

I hereby CERTIFY that on June 6, 2016, a true and complete copy of the above was sent by the method indicated to counsel of record at the following addresses in accordance with P.U.C. PROC. R. 22.74:

David Klein
Christie Dickenson
Lloyd Gosselink
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Austin, Texas 78701

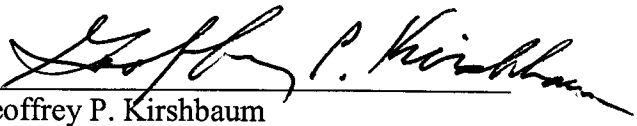
via email and fax to: (512) 472-0532

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Austin, Texas 78711-3326

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ATTORNEY FOR COMMISSION STAFF



Geoffrey P. Kirshbaum

EXHIBIT

A

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

GREEN VALLEY SPECIAL UTILITY
DISTRICT,

Plaintiff,

vs.

CITY OF CIBOLO, TEXAS,
Defendant.

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Civil Action No. 1:16-cv-00627

PLAINTIFF'S ORIGINAL COMPLAINT

NOW COMES Green Valley Special Utility District ("Green Valley SUD" or "Plaintiff"), and files this its Original Complaint against the defendant City of Cibolo, Texas ("the City" or "Defendant"), and respectfully states and alleges as follows.

Parties

1. Plaintiff Green Valley SUD is a special utility district created under the authority of Texas Water Code chapter 65, with its principal place of business in Marion, Guadalupe County, Texas, and with a service area covering portions of Guadalupe, Comal, and Bexar Counties. Green Valley SUD was originally incorporated as a Texas water supply corporation in 1964. In 1992, Green Valley was converted to a special utility district operating under chapter 65 of the Texas Water Code, as confirmed by the voters in the district at an election held for that purpose on May 2, 1992.

2. Defendant City of Cibolo, Texas is located in Guadalupe and Bexar Counties, was incorporated as a Type A General Law City in 1965, and adopted a home rule municipal charter on May 24, 2004. Defendant may be served with citation on the City's mayor at City Hall, 200 South Main Street, Cibolo, Texas, 78108.

Jurisdiction and Venue

3. This Court has federal question jurisdiction under section 1331 of title 28 of the United States Code because the controversy arises under section 1926 of title 7 of the United States Code, as well as sections 1983 and 1988 of title 42 of the United States Code.

4. Venue in this Court is proper under section 1391(b)(1)-(2) of title 28 of the United States Code because the Defendant is located within this Court's judicial district, a substantial part of the events or omissions giving rise to the Plaintiff's claim occurred within this Court's judicial district, and a substantial part of the property that is the subject of the action is situated within this Court's judicial district.

Claims

5. Green Valley SUD provides and makes water and wastewater service available within its certificated service area, which is located within portions of Guadalupe, Comal, and Bexar Counties in Texas. Green Valley SUD provides water service pursuant to its Certificate of Convenience and Necessity ("CCN") No. 10646 duly regulated by the Public Utility Commission of Texas (the "PUC"). Green Valley SUD provides wastewater service pursuant to its CCN No. 20973 duly regulated by the PUC.

6. Green Valley SUD is the recipient of a loan issued by the United States Department of Agriculture, Rural Development (the "USDA"), under 7 U.S.C. section 1921 *et seq.* The debt was issued in 2003, and remains outstanding. The loan was in the original amount of \$584,000 from the United States to Green Valley SUD, under the authority of 7 U.S.C. section 1926, and was then purchased by the USDA. The loan is secured by revenues from Green Valley SUD's water system.

7. On March 8, 2016, the City filed an application for single certification of an area within its corporate limits and within Guadalupe County, and simultaneously to decertify that

same area within Green Valley SUD's CCN No. 20973 (the "Disputed Property"). The application is a request by the City to remove certificated service area from Green Valley SUD's CCN. The City is seeking, pursuant to section 13.255 of the Texas Water Code, authority from the PUC to replace Green Valley SUD as the provider of wastewater service within the Disputed Property. The Disputed Property is properly certificated to Green Valley SUD, and was properly certificated to Green Valley SUD at the time its USDA loan was funded.

8. The City has expressed an intent to file additional applications with the PUC to take certificated service area away from the Green Valley SUD on other properties that are properly certificated to Green Valley SUD, and to replace Green Valley SUD as the provider of wastewater service within those other properties.

9. The City prosecutes its section 13.255 application for single certification in violation of Green Valley SUD's rights under 7 U.S.C. section 1926(b). By virtue of its March 8, 2016 application, the City seeks to curtail and limit the service provided or made available through Green Valley SUD by inclusion of the Disputed Property within the City's boundaries and by obtaining a single certification for the City to replace Green Valley SUD as the wastewater service provider during the term of Green Valley SUD's USDA loan. Accordingly, pursuant to 42 U.S.C. section 1983, Green Valley SUD seeks to preliminarily and permanently enjoin the City's unlawful deprivation of Green Valley SUD's rights under federal law; pursuant to 28 U.S.C. section 2201, Green Valley SUD seeks declaratory relief from the Court to the effect that the City cannot provide water or wastewater service within Green Valley's certificated area; and pursuant to 42 U.S.C. section 1988, Green Valley SUD further seeks an award of its attorneys' fees, expenses, and costs incurred in pursuing this action.

10. Green Valley SUD's CCNs grant Green Valley SUD the exclusive right to provide water and wastewater service within its certificated area. The CCNs obligate Green Valley SUD to provide and make service available to every person who can reasonably and feasibly be served within that certificated area.

11. Pursuant to its obligations to serve its exclusive certificated area, Green Valley SUD applied for funding from the USDA. The USDA loan was issued on August 1, 2003.

12. Green Valley SUD contends that the City, on and after the date of Green Valley SUD's indebtedness, is violating and is continuing to violate Green Valley SUD's rights under 7 U.S.C. section 1926(b) by inclusion of the area served by Green Valley SUD within the City's municipal boundaries and by seeking state-based relief under Water Code section 13.255, thereby attempting to curtail and limit the service provided or made available through Green Valley SUD, and thereby seeking the grant of a private franchise for similar service within such area during the term of Green Valley SUD's loan.

13. Green Valley SUD is a properly indebted association under the USDA's funding authority provided by 7 U.S.C. section 1926(b).

14. Green Valley SUD has a lawful right to serve the Disputed Property pursuant to the authority granted by its CCNs.

15. Green Valley SUD provides or makes available water and wastewater service to the Disputed Property.

16. The City's section 13.255 administrative application seeks to impermissibly encroach on Green Valley SUD's federally protected service area with respect to the Disputed Property.

17. As a result of the City's conduct, Green Valley SUD is being deprived of its right to non-encroachment, non-curtailement, and non-limitation under 7 U.S.C. section 1926(b) and is in danger of permanently losing the Disputed Property from its service area along with the associated revenue stream derived therefrom.

18. The City is engaging in such deprivation of rights secured by federal law under color of state law by way of its Water Code section 13.255 application.

19. 7 U.S.C. section 1926(b) preempts any conflicting state law, and must be enforced pursuant to the Supremacy Clause of the United States Constitution.

20. Pursuant to 42 U.S.C. section 1983 and 28 U.S.C. section 2201, Green Valley SUD requests that the Court declare the City's continuing conduct unlawful, and issue the Court's preliminary and permanent injunction maintaining the status quo with respect to the Disputed Property and prohibiting the City's pursuit of relief from the PUC in violation of Green Valley SUD's rights under 7 U.S.C. section 1926(b).

21. Pursuant to 42 U.S.C. section 1988, Green Valley SUD seeks an award of attorneys' fees, expenses, and costs incurred in this action.

PRAYER

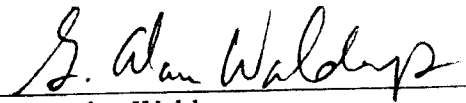
WHEREFORE, Green Valley Special Utility District respectfully prays for the entry of judgment against Defendant City of Cibolo, Texas and in favor of Green Valley Special Utility District as follows:

- A. That preliminary and permanent injunctions be granted and writs of injunction issue commanding the City of Cibolo, Texas to dismiss its application in PUC Docket No. 45702;
- B. That preliminary and permanent injunctions be granted and a writs of injunction issue commanding the City of Cibolo, Texas not to seek any relief from any

governmental entity that has the effect of altering the physical area or exclusive nature of Green Valley Special Utility District's CCN No. 10646 or CCN No. 20973;

- C. That the Court declare that the City of Cibolo is not entitled to commence providing—or seek or apply to the PUC to commence providing—any water service within Green Valley Special Utility District's boundaries or certificated area under CCN No. 10646, as long as any debt remains outstanding on a loan subject to 7 U.S.C. section 1926;
- D. That the Court declare that the City of Cibolo is not entitled to commence providing—or seek or apply to the PUC to commence providing—any wastewater service within Green Valley Special Utility District's boundaries or certificated area under CCN No. 20973, as long as any debt remains outstanding on a loan subject to 7 U.S.C. section 1926;
- E. That Green Valley Special Utility District be awarded its attorneys' fees, expenses, and costs pursuant to 42 U.S.C. sections 1983 and 1988, including post-judgment interest thereon;
- F. That Green Valley Special Utility District be awarded costs of court; and
- G. That Green Valley Special Utility District be awarded all other and further legal and/or equitable relief to which it is justly entitled.

Respectfully submitted,

By: 

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ATTORNEYS FOR GREEN VALLEY
SPECIAL UTILITY DISTRICT

JS 44 (Rev. 12/12)

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)

I. (a) PLAINTIFFS

Green Valley Special Utility District

(b) County of Residence of First Listed Plaintiff Guadalupe
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorneys (Firm Name, Address, and Telephone Number)

Terrill & Waldrop, 810 W. 10th Street
Austin, Texas 78701, (512) 474-9100**DEFENDANTS**

City of Cibolo, Texas

County of Residence of First Listed Defendant Guadalupe
(IN U.S. PLAINTIFF CASES ONLY)NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF
THE TRACT OF LAND INVOLVED.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
- ☒ 3 Federal Question (U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant
- ☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- | | PTF | DEF | | PTF | DEF |
|---|----------------------------|----------------------------|---|---------------------------------------|---------------------------------------|
| Citizen of This State | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business In This State | <input checked="" type="checkbox"/> 4 | <input checked="" type="checkbox"/> 4 |
| Citizen of Another State | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business In Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

IV. NATURE OF SUIT (Place an "X" in One Box Only)

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES	
<input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 151 Medicare Act <input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excludes Veterans) <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholders' Suits <input type="checkbox"/> 190 Other Contract <input type="checkbox"/> 195 Contract Product Liability <input type="checkbox"/> 196 Franchise	PERSONAL INJURY <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers' Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury <input type="checkbox"/> 362 Personal Injury - Medical Malpractice	PERSONAL INJURY <input type="checkbox"/> 365 Personal Injury - Product Liability <input type="checkbox"/> 367 Health Care/Pharmaceutical Personal Injury Product Liability <input type="checkbox"/> 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY <input type="checkbox"/> 370 Other Fraud <input type="checkbox"/> 371 Truth in Lending <input type="checkbox"/> 380 Other Personal Property Damage <input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881 <input type="checkbox"/> 690 Other LABOR <input type="checkbox"/> 710 Fair Labor Standards Act <input type="checkbox"/> 720 Labor/Management Relations <input type="checkbox"/> 740 Railway Labor Act <input type="checkbox"/> 751 Family and Medical Leave Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Employee Retirement Income Security Act IMMIGRATION <input type="checkbox"/> 462 Naturalization Application <input type="checkbox"/> 465 Other Immigration Actions	<input type="checkbox"/> 422 Appeal 28 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157 PROPERTY RIGHTS <input type="checkbox"/> 820 Copyrights <input type="checkbox"/> 830 Patent <input type="checkbox"/> 840 Trademark SOCIAL SECURITY <input type="checkbox"/> 861 HIA (1395ff) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIWC/DIWW (405(g)) <input type="checkbox"/> 864 SSID Title XVI <input type="checkbox"/> 865 RSI (405(g)) FEDERAL TAX SUITS <input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant) <input type="checkbox"/> 871 IRS—Third Party 26 USC 7609	<input type="checkbox"/> 375 False Claims Act <input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 410 Antitrust <input type="checkbox"/> 430 Banks and Banking <input type="checkbox"/> 450 Commerce <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations <input type="checkbox"/> 480 Consumer Credit <input type="checkbox"/> 490 Cable/Sat TV <input type="checkbox"/> 850 Securities/Commodities Exchange <input type="checkbox"/> 890 Other Statutory Actions <input checked="" type="checkbox"/> 891 Agricultural Acts <input type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 896 Arbitration <input type="checkbox"/> 899 Administrative Procedure Act/Review or Appeal of Agency Decision <input type="checkbox"/> 950 Constitutionality of State Statutes

V. ORIGIN (Place an "X" in One Box Only)

- ☒ 1 Original Proceeding
- ☐ 2 Removed from State Court
- ☐ 3 Remanded from Appellate Court
- ☐ 4 Reinstated or Reopened
- ☐ 5 Transferred from Another District (specify)
- ☐ 6 Multidistrict Litigation

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity)
 7 U.S.C.A. § 1926; 42 U.S.C.A. § 1983, 1988

Brief description of cause

Plaintiff is indebted to US Dept. of Agriculture. Defendant has applied to decertify portion of Plaintiff's service area.

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A CLASS ACTION UNDER RULE 23, F.R.Cv.P.

DEMAND \$

CHECK YES only if demanded in complaint

JURY DEMAND: ☐ Yes ☒ No**VIII. RELATED CASE(S) IF ANY**

(See instructions)

JUDGE

DOCKET NUMBER

DATE

05/27/2016

SIGNATURE OF ATTORNEY OF RECORD

FOR OFFICE USE ONLY

RECEIPT #

AMOUNT

APPLYING IFP

JUDGE

MAG JUDGE

EXHIBIT B

DOCKET NO. 45702

APPLICATION OF THE CITY OF	§	BEFORE THE PUBLIC UTILITY
CIBOLO FOR SINGLE CERTIFICATION	§	
IN INCORPORATED AREA AND TO	§	
DECERTIFY PORTIONS OF GREEN	§	COMMISSION OF TEXAS
VALLEY SPECIAL UTILITY DISTRICT'S	§	
SEWER CERTIFICATE OF	§	
CONVENIENCE AND NECESSITY IN	§	
GUADALUPE COUNTY	§	

AFFIDAVIT OF PAT ALLEN

1. My name is Pat Allen. I am of sound mind, over the age of twenty-one years, have never been convicted of a felony or other crime involving moral turpitude, and am capable of making this Affidavit. I am fully competent to testify to the matters stated herein. I have personal knowledge of each of the matters stated herein, and they are true and correct.

2. I am currently employed as the General Manager of Green Valley Special Utility District ("Green Valley SUD") which is a position that I have held since 2007.

3. I am the custodian of records for Green Valley SUD. Attached hereto as **Exhibit 1** through **Exhibit 5** are records from Green Valley SUD. These records are kept by Green Valley SUD in the regular course of business, and it was the regular course of business of Green Valley SUD for an employee or representative of Green Valley SUD, with knowledge of the act, condition, opinion, diagnosis, or records to make the record or to transmit information thereof to be included in such record; and the record was made at or near the time or reasonably soon thereafter. The records attached hereto are the original or exact duplicates of the original.

4. Green Valley SUD currently provides or makes wastewater service available within the entirety of the Green Valley SUD boundaries in line with its state-mandated obligation to do so under its sewer CCN No. 20973. Green Valley SUD has prepared plans, worked with

its engineers on design issues, applied for permits, purchased property, investigated financing options, and negotiated with various entities to develop the most prudent wastewater service strategies available for the District and its constituents.

5. Green Valley SUD stands ready, willing, and able to provide active wastewater service to territory within the Green Valley SUD boundaries within a reasonable amount of time upon request. To date, Green Valley SUD has not received requests for active service in the territory City of Cibolo is attempting to decertify. Yet, Green Valley SUD has developed a master wastewater plan to accommodate such requests. **Exhibit 1.**¹ When Green Valley SUD receives requests for either active water or sewer connections, typically from a developer, Green Valley SUD responds with a feasibility report. These reports explain options and probable costs on a project-specific basis. However, without a request for service, Green Valley SUD will not typically prepare such a report for a specific development project within the District. The District's master plan is used to guide these project-specific responses.

6. Green Valley SUD has a wastewater permit application (Application for TPDES Permit No. WQ0015360001) pending before the Texas Commission on Environmental Quality (TCEQ) (the "TCEQ Application") that will permit discharges from its wastewater treatment facility upon approval at a site purchased by Green Valley SUD. City of Cibolo and others have unjustly protested the TCEQ Application. **Exhibit 2.** Nevertheless, the TCEQ Executive Director has issued a draft permit and recommendation for the TCEQ to approve the TCEQ Application. **Exhibit 3.** The deed for the property Green Valley SUD has purchased for the wastewater treatment site is attached hereto. **Exhibit 4.**

¹ Due to size, only the report through Attachment 2 of Green Valley SUD's wastewater master plan is attached hereto.

7. Green Valley SUD has worked with its engineers on preliminary design issues for both its wastewater treatment and collection facilities, but cannot finalize those designs without knowing the final parameters for treated effluent discharge that will be authorized under the water quality permit resulting from the TCEQ Application. The Green Valley SUD master wastewater plan addresses many important engineering considerations, including showing feasible locations for Green Valley SUD treatment and collection facilities throughout the District. **Exhibit 1** at Page 52. Additionally, Green Valley SUD's TCEQ Application included a 3-mile radius map that shows where the wastewater plant would fit in with the District's master plan extending wastewater collection into territory the City seeks to decertify. **Exhibit 5.**

8. I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 6th day of June, 2016.

Pat Allen

Pat Allen

SWORN TO and SUBSCRIBED before me by Pat Allen on June 6, 2016.



Tracy S. Rappmund

Notary Public in and for the State of Texas

My commission expires: 3-17-2020

EXHIBIT

1

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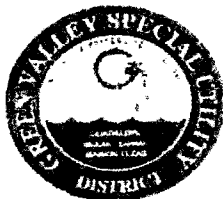
clients

RIVER CITY ENGINEERING
CIVIL, ENVIRONMENTAL & CONSULTING

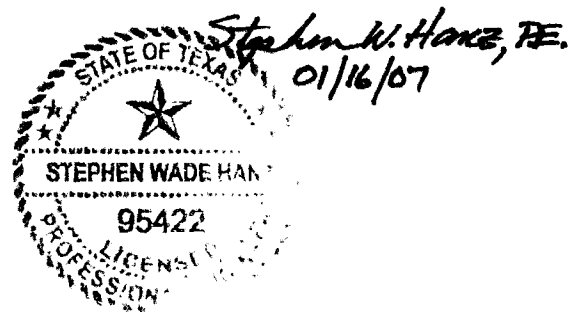
3501 South First Street, Austin, Texas 78701 Phone: 512 442 3008 Fax: 512 442 6522
1011 West Campus Blvd., Suite 200, Austin, Texas 78701 Phone: 512 442 3008 Fax: 512 442 6522

Green Valley SUD Wastewater Master Plan 2006

Green Valley Special Utility District



P.O. Box 99
Marion, Texas 78124-0099
(830) 914-2330
www.greenvalleysud.com



P:\Projects\6096 (Green Valley Special Utility District)\07-Wastewater Master Plan\Report\GV Wastewater Master Plan 10.3106.doc

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Attachments

Attachment 1 – Exhibit Drawings

- Exhibit 1 GVSUD Existing Wastewater CCN No. 20973 Boundary
- Exhibit 2 GVSUD Drainage Basins
- Exhibit 3 GVSUD Area Calculations and Collection Points
- Exhibit 4 GVSUD Proposed Wastewater Main Collection System
- Exhibit 5 GVSUD Theoretical Locations of Wastewater Treatment Capacity and Costs vs. Downstream Locations
- Exhibit 6 GVSUD Proposed Growth and Development

Attachment 2 – Calculation Tables

- Exhibit 1 Calculation Table, Total EDU Calculations
- Exhibit 2 Calculation Table, Wastewater Collection System Design Calculations
- Exhibit 3 Calculation Table, Wastewater Collection System Costs
- Exhibit 4 Calculation Table, Wastewater Treatment Plant Capacity and Costs

Attachment 3 – Existing Wastewater Permits

- | | | |
|-------------|--------------------|--|
| • Exhibit 1 | CCMA | Expired Permit No. 11269-001
Current Permit No. WQ0011269001 |
| • Exhibit 2 | GBRA (Lake Dunlap) | Expired Permit No. 11378-001
Current Permit No. WQ0011378001 |
| • Exhibit 3 | City of Marion | Expired Permit No. 10048-001
Current Permit No. WQ0010048001 |
| • Exhibit 4 | Harvest Hills | Current Permit No. WQ0014037001 |
| • Exhibit 5 | GBRA (Northcliff) | Expired Permit No. 11751-001,002 |
| • Exhibit 6 | Meadow View park | Expired Permit No. 14153-001 |

Attachment 4 – Adopted Wastewater Design Criteria

- Exhibit 1 Texas Commission on Environmental Quality (TCEQ)
- Exhibit 2 San Antonio Water System (SAWS)
- Exhibit 3 City of Austin (COA)

Attachment 5 – GVSUD By-Laws

1.0 Introduction

1.1 General

Since the conception of the Green Valley Special Utility District (GVSUD), GVSUD has earned a respected reputation for excellent water quality and friendly customer service. GVSUD started as a rural water supply corporation back in 1963. Over the past 40-years, GVSUD service area has experienced a great deal of residential growth and commercial development. Through the years, GVSUD has gained a great deal of experience managing and servicing this extensive growth. To further serve its customers, GVSUD obtained a Wastewater Certificate of Convenience and Necessity (CCN) from the Texas Commission on Environmental Quality (TCEQ) in 2004. To insure GVSUD provides its customers the best wastewater service possible, GVSUD organized a wastewater development team to initiate the required steps for GVSUD to enter into this wastewater business. The GVSUD wastewater team consists of GVSUD Board and Staff, Engineers, Attorneys, Financial Advisers, and the Development Community. One of the major steps for GVSUD to enter into the wastewater business is to have River City Engineering, LTD. (RCE) develop this wastewater master plan document.

This document represents the Engineer's wastewater master plan. The objective of this document is to analyze GVSUD's existing conditions, estimate future wastewater demands, evaluate opportunities to utilize existing area wastewater service providers, estimate proposed infrastructure costs, and recognize long-term wastewater opportunities. This document shall serve as a long-term adaptable guide to be used as needed to manage future service area development and projected wastewater needs.

1.2 Authorization and Purpose

River City Engineering, Ltd. (RCE) received authorization from GVSUD to prepare this wastewater master plan document on February 21, 2006. The document is part of a General Engineering Services Agreement between GVSUD and RCE. This study investigates the feasibility of immediate and long-term development of a wastewater collection system and wastewater treatment facilities for the GVSUD service area.

1.3 Project Planning Area

GVSUD wastewater CCN extends from IH-35 to the North and the Cibolo Creek to the South, the City of Cibolo to the West and the Guadalupe River to the East. The wastewater CCN includes portions of Comal, Guadalupe, Bexar, and Wilson Counties. Portions of the wastewater CCN extraterritorial jurisdictions of the City of New Braunfels, Cibolo, Marion, and Santa Clara. The total CCN area is 76,000 acres or 120 square miles.

(see **Attachment 1**, Exhibit 1 - GVSUD Existing Wastewater CCN 20973 Boundary).

1.4 Need for Project

GVSUD understands its responsibility for long-term planning of wastewater services within its wastewater CCN service area. GVSUD wants to insure quality wastewater infrastructure, excellent customer service, and insure proper health and safety for its residents and surrounding communities.

GVSUD wastewater goals include:

- Provide quality wastewater service to protect public health
- Establish wastewater management team
- Develop well organized operating policies and rate tariffs
- Reduce the extensive use of existing septic systems especially in the Treasure Island area to protect water quality of surface water
- Prepare for any State mandates directing GVSUD to bear wastewater responsibilities or prevent other wastewater providers requesting to take GVSUD wastewater CCN area
- Control the quality of wastewater service
- Provide wastewater services superior to competing area wastewater providers
- Develop engineering wastewater master plan
- Explore funding options
- Work with development community

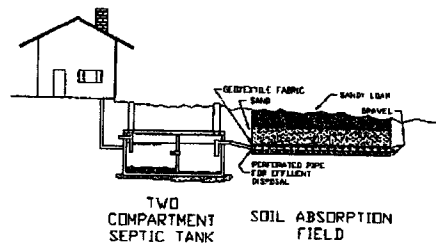
2.0 GVSUD CCN Service Area Existing Wastewater Conditions

2.1 Existing Individual On-Site Septic Systems

GVSUD does not currently provide wastewater service within its wastewater CCN service area. Because the GVSUD service area was originally rural farm-type land, existing wastewater has been treated on an individual basis with on-site septic systems.

A conventional septic system is the most common system installed and consists of a buried septic tank and a number of gravel-filled trenches or a soil drain field. While the septic tank retains solids, the soil drain field provides for absorption and treatment of the septic tank effluent. The bacteria in the septic tank effluent are removed in the soil treatment zone by filtering and soil micro-organisms before reaching the groundwater. However, some chemicals such as nitrates are not typically removed in the soil treatment zone. Additionally, not all soils are capable of absorbing and purifying septic tank effluent.

Conventional System



Below Grade Septic System

There are many types of septic systems used for on-site wastewater treatment. These include aerobic treatment units, sand filters, low pressure dose systems and spray irrigation systems. However, currently for the GVSUD CCN service area, the conventional septic system (anaerobic) is the preferred installed system because of its relatively low cost and low required maintenance compared to other systems.

A critical factor in determining the optimum type of septic system to be installed is the soil's ability to absorb water. The soil percolation rate (typically measured in minutes per inch) indicates how quickly water moves through soil and helps evaluate the ability of the soil to absorb and treat effluent. The clay-type soils prevalent in the GVSUD CCN service area have slow percolation rates thus making the use of conventional septic systems using lateral trenches inadmissible. In such areas the installation of a pressure dose system, aerobic system, or other alternative system should be required.

Based on information provided by local on-site sewage facility installers, the cost of installing a typical conventional septic system ranges from \$4,000 to \$6,000. Low pressure dosing systems cost approximately \$6,000 to \$8,000 installed, while aerobic systems cost upwards of \$8,000.

Additional costs associated with on-site sewage facilities include county permits and inspection fees. These fees vary between counties. Guadalupe County charges a fee of \$200 per lot. Comal County charges a fee of \$150 for on-site facilities less than 500 gallons per day and \$180 for facilities greater than 500 gallons per day.

2.2 Threat of On-Site Septic Systems

Several concerns arise when on-site treatment or septic systems are installed in rapidly developing areas. The primary concern is inadequate and improperly treated effluent entering the water supply sources. The Treasure Island area located adjacent to the Guadalupe River on the East side of the GVSUD CCN service area contains high density aging septic systems. As these existing high-density septic systems age and

deteriorate, the probability of improperly treated sewage leaching into water supply sources (Guadalupe River) may pose a public health concern.

Another concern is the limitation placed on developments that require septic systems. Septic systems require large areas of land for effluent discharge. This land used for effluent discharge has limited use. (Septic tank, drain field, sanitary zones, etc.) septic systems increase minimum lot sizes within subdivisions. This limits the number of lots the developer can sell. The GVSUD service area is contained in Bexar County, Guadalupe County and Comal County. Each county has subdivision regulations regarding lot sizes and percolation tests if a central wastewater collection and disposal system is not provided.

Guadalupe County requires single-family residences to provide lots having at least 22,000 square feet (approximately ½ acre) of surface area if it is served by a public water supply. If the residences are served by an individual water supply well and on-site sewage facilities, the well is required to have a 150-foot radius sanitary zone and lot sizes must be a minimum of 44,000 square feet (approximately 1 acre).

In 1997, Comal County began requiring home sites with septic tanks to be at least 3.17 acres. The Commissioner's Court then imposed a moratorium on subdivision development. The rules have since been revised and the current subdivision regulations require a 5.1-acre minimum for home sites with water wells and septic tanks.

In the event a county has not sought delegation of authority from the Texas Commission on Environmental Quality (TCEQ) to regulate septic tanks, then the rules and regulations of TCEQ apply. In order to obtain delegation, the standards of the county must be at least as strict as those of the TCEQ. TCEQ requires residential lots in a platted or un-platted subdivision served by a public water supply to be at least ½ acre and residential lots not served by a public water supply to be at least one acre (Title 30 Part 1 Chapter 285 Rule §285.4 of Texas Administrative Code).

GVSUD has discussed proposed projects with numerous developers that have indicated they would be interested in high-density subdivisions if wastewater services were available. With the development of wastewater services, GVSUD wastewater CCN service area will likely see an increase in commercial development.

3.0 Existing Wastewater Treatment Facilities Adjacent to GVSUD

3.1 City of Marion

The City of Marion is located near the center of the GVSUD wastewater CCN service area. The City of Marion has wastewater collection and a treatment facility that provides service for its 1,925 residents. Under TPDES Permit No. 10048-001, the City

of Marion is permitted to discharge 200,000 gallons per day to Santa Clara Creek. They currently discharge an average of 60,000 to 80,000 gallons per day. Thus, the City of Marion Wastewater Treatment Facility has extra capacity available for a potential wholesale partnership. Some Marion treated effluent is used by Marion ISD for beneficial re-use (irrigation).

The City of Marion has indicated an interest in providing wholesale wastewater treatment for GVSUD. Due to the central location of the City of Marion Facility within the GVSUD wastewater CCN service area (Drainage Basin E), the potential for partnership with the City of Marion could be beneficial. Also, GVSUD may have the opportunity to take advantage of existing experienced City of Marion wastewater personnel.

(see **Attachment 1**, Exhibit 1 - GVSUD Existing Wastewater CCN 20973 Boundary)
(see **Attachment 3**, Exhibit 3 City of Marion Wastewater Treatment Facility Permit)

3.2 City of Santa Clara

The City of Santa Clara has no wastewater collection system or treatment. All wastewater is disposed of with individual on-site septic systems.

3.3 Cibolo Creek Municipal Authority (CCMA)

CCMA wastewater treatment plant located south of the City of Cibolo. The majority wastewater comes from the City of Cibolo, the City of Schertz, and areas west of the GVSUD wastewater CCN service area.

CCMA currently offers wholesale wastewater treatment to areas in the GVSUD western water CCN service area. CCMA is currently permitted by the TCEQ to discharge an average flow of 6.20 million gallons per day of treated effluent into the Cibolo Creek. However, an application to reduce this discharge to an average discharge of 4.50 million gallons per day was filed on May 3, 2002. The 1.7 million gallons not discharged to the Cibolo Creek is used for beneficial re-use. The wastewater treatment facility is located approximately 2.25 miles northeast of the center of Randolph Air Force Base on the south bank of the Cibolo Creek.

The location of the CCMA plant is inconvenient for GVSUD gravity sewer flow. Any potential utilization of the CCMA wastewater treatment facility would require pumping through the existing City of Cibolo collection system. The City of Cibolo has indicated an interest working with GVSUD in providing wastewater services. Even though the CCMA plant has available capacity, the lack of gravity flow makes this option expensive for GVSUD, and a partnership opportunity would be limited.

(see **Attachment 1**, Exhibit 1 - GVSUD Existing Wastewater CCN 20973 Boundary).
(see **Attachment 3**, Exhibit 1 - CCMA Wastewater Treatment Facility Permit)

3.4 Guadalupe Blanco River Authority (GBRA)

GBRA serves a wastewater CCN service area northeast of the GVSUD CCN wastewater service area. Included in this GBRA CCN service area is a wastewater treatment plant (Dunlap WWTP). Even though the plant has received recent upgrades and modifications, the plant capacity is already expended due to rapid development activity in the GBRA wastewater CCN service area.

(see **Attachment 1**, Exhibit 1 - GVSUD Existing Wastewater CCN 20973 Boundary).

Dunlap WWTP

The GBRA Dunlap WWTP is located in the Northeast portion of the GVSUD water service area approximately one mile east of FM 725 and 3.1 miles southeast of the intersection of IH-35 and FM 725. The present wastewater permit, TPDES Permit No 11378-001, is for 160,000 gallons per day. The GBRA Dunlap WWTP is currently operating at 90,000 gallons per day or approximately 56 % capacity. While wastewater effluent can be discharged to Lake Dunlap, it is presently being pumped to the Guadalupe Partners Power Plant for beneficial re-use. The GBRA has stated that it is possible to expand the Dunlap Wastewater Treatment Facility to 1,000,000 gallons per day.

A partnership relationship with the GBRA Lake Dunlap Plant for wholesale wastewater treatment would probably provide limited benefit for GVSUD. The GVSUD wastewater service area is located downstream of the treatment facility. This would create costs associated with pumping wastewater uphill through existing GBRA collection system. There would not be any opportunities to take advantage of a gravity system. The GVSUD service area is located several miles from the Lake Dunlap Plant. It would be expensive for GVSUD to utilize the GBRA Dunlap Wastewater treatment plant.

(see **Attachment 1**, Exhibit 1-GVSUD existing wastewater CCN 20973 boundary).
(see **Attachment 3**, Exhibit 2 – GBRA (Lake Dunlap) Wastewater Treatment Facility Permit).

Northcliffe WWTP

The GBRA is authorized to treat and dispose of effluent from the Northcliffe WWTP. This facility is located near the intersection of FM 1103 and IH-35, approximately five miles northeast of the City of Schertz in southern Comal County. Under TPDES Permit No 11751-001, a non-discharge permit, the facility is authorized to dispose of treated domestic wastewater effluent at a daily average flow not to exceed 300,000 gallons per

day by land application irrigation of 117 acres on the Northcliffe Country Club golf course.

In addition, GBRA was issued a second permit to treat and dispose of effluent from the GBRA-Municipal Utility District No. 2 Wastewater Reclamation Facility also located near the intersection of FM 1103 and IH 35. This permit, TPDES No. 11751-002, allows for the discharge of 350,000 gallons per day to an unnamed tributary of Dry Comal Creek.

This Northcliffe Municipal Utility District No. 2 facilityies are located upstream of the GVSUD wastewater CCN service area and would not benefit GVSUD as a beneficial partnership option.

Other

GBRA also has wastewater permits for two other facilities in Guadalupe and Comal Counties. The Springs Hill Wastewater Treatment Facility, located in the City of Seguin, south of the Guadalupe River on State Highway 123, is allowed to discharge 300,000 gallons per day (TPDES Permit No. 11427-001). The Canyon Park Estates Wastewater Treatment Facility (TPDES Permit No 11496-001), is located in northern Comal County. Both facilities are outside of the GVSUD service area and would not pose an available partnership opportunity.

3.5 Meadow View Park

The Meadow View Park Ltd., a private investor owned utility, has obtained a wastewater permit; TPDES permit number 14153-001, which allows their facility to treat and dispose of waste from the Meadow View Park Wastewater Treatment Facility to Town Creek. The facility is located approximately 3 miles west-southwest of the intersection of State Highway 78 and State Highway 465. The permit allows Meadow View Park to discharge a daily average effluent flow of 120,000 gallons per day, with a two-hour average flow peak not to exceed 250 gpm, from the 0.24 MGD facility. No construction has been initiated on this project.

3.6 City of New Braunfels

The New Braunfels Utilities (NBU) wastewater service area is adjacent to the GVSUD northern boundary. At this time no expansion is planned by NBU into the GVSUD wastewater CCN service area. NBU has developed a guideline limiting provision of providing wastewater services only to areas within their water service area.

3.7 San Antonio River Authority (SARA)

SARA operates several wastewater treatment plants South East of the GVSUD service area. Currently these plants are located some distance away from the GVSUD

wastewater CCN service area. If the opportunity arises for wastewater growth to extend to the downstream portion of drainage basin G, there could exist an opportunity for GVSUD to partner with SARA.

3.8 Harvest Hills Subdivision

Harvest Hills is a subdivision located within the GVSUD wastewater CCN service area. The development has already obtained a wastewater facilities permit for an irrigation type discharge facility. The wastewater treatment plant, a package type facility has been installed on the development site. There is additional irrigation equipment that still remains for installation. This facility is located approximately 2.5 miles North of the City of Marion.

This facility is an excellent opportunity for GVSUD to take ownership and enter into the wastewater business. There are a few houses built with total build-out expected to be 412 homes. There are also several developers interested in property surrounding the Harvest Hills Subdivision. There may exist an opportunity for GVSUD to provide wastewater service to adjacent developments utilizing the existing Harvest Hill Wastewater treatment Plant Facility.

(see **Attachment 1**, Exhibit 1-GVSUD existing wastewater CCN 20973 boundary).

(see **Attachment 3**, Exhibit 4 – Harvest Hills Wastewater Treatment Facility Permit).

4.0 Proposed Main Sewage Collection System

4.1 Wastewater Collection System Design Approach

To determine the layout of the future wastewater collection system, the GVSUD wastewater CCN service area was divided into seven (7) primary drainage areas, A through G. The proposed location of the main collection system is based on the concept of aligning along major creek beds. This method insures optimal use of gravity for main trunk lines. It is expected that this concept will present itself as the most cost effective means of providing wastewater collection because it minimizes areas that must be served by lift stations (pumps).

(see **Attachment 1**, Exhibit 2 - GVSUD Drainage Basins)

Areas A through G were further divided into smaller drainage areas. These smaller drainages areas were used to develop future build-out wastewater flows for each collection point. From wastewater flows required at each collection point, the main wastewater collection pipes were sized to accommodate the required flow. Each diameter was selected to accommodate 80% of the design flow.

In locations where the diameter of main collection pipes became so large that one large pipe would be not economical to install, two smaller diameter parallel pipes can be an

option to accommodate the required flowrate. This parallel method is beneficial for GVSUD because it allows each pipe to be installed one at a time in phases. This allows GVSUD to offer adequate wastewater service, and prepare for ultimate future build-out demand. This approach may prove economical for GVSUD. Addition ROW or utility easement will need to be considered to accommodate this parallel pipes instead of one large pipe.

4.2 Wastewater Standard Design Criteria

Under State Law, the Texas Commission on Environmental Quality (TCEQ) has jurisdictional responsibility for review and monitoring of wastewater facilities for all entities within the State of Texas. With regards to wastewater collection facilities, their design criteria dictate minimum slope requirements for various sizes of pipe as well as alignment and manhole spacing requirements.

Complete design criteria required by TCEQ can be found in Chapter 317 under Title 30 of the Texas Administrative Code, Sections §317.2 and §317.3. The design criteria used in this study meets or exceeds that imposed by the TCEQ.

(see **Attachment 4**, Exhibit 1 – Texas Commission on Environmental Quality (TCEQ))

Presently, GVSUD has not adopted design standards for wastewater collection systems and wastewater treatment facilities. For this reason, the design criteria used for this master plan was modeled after design requirements presented in the City of San Antonio and City Of Austin utilities criteria manuals. Section 2.9.0 of the City of Austin Utilities Criteria Manual provides design criteria for determination of wastewater flows, pipe sizing, lift stations and force mains as well as other design considerations.

(see **Attachment 4**, Exhibit 2 – San Antonio Water System Design Criteria)

(see **Attachment 4**, Exhibit 3 – City of Austin Design Criteria)

This document provides wastewater design criteria standards for both the City of Austin (COA) and the San Antonio Water System (SAWS). The purpose of providing both COA and SAWS design standards is for GVSUD to use as a guide to establish their own preferred set of GVSUD wastewater design criteria standards. TCEQ wastewater design standards should be used as a minimum guide. It is important for GVSUD to adopt a wastewater design criteria standards. This will prepare GVSUD for negotiation with the development community and standardize the GVSUD wastewater system. GVSUD will benefit from reduced operation and maintenance costs by developing a standardized system.

4.3 Equivalent Dwelling Unit (EDU) and Wastewater Design Flows

Wastewater design flows were developed using the EDU (Equivalent Dwelling Unit) concept. An Equivalent Dwelling Unit is defined as an amount of capacity or demand on a daily basis that an average single-family residence requires.

$$\text{Residential Single Family Units (EDU)} = 3.5 \text{ capita/EDU}$$

Green Valley Special Utility District EDU Calculation Summary					
Total EDU Calculations					
Drainage Basin ID	Total Area (acres)	Development Density (1 EDU/acre)	Total EDU 1	Development Density (3 EDU/acre)	Total EDU 3
A	9,211	1	9,211	3	27,633
B	4,690	1	4,690	3	14,070
C	5,636	1	5,636	3	16,908
D	6,688	1	6,688	3	20,064
E	35,618	1	35,618	3	106,854
F	6,515	1	6,515	3	19,545
G	7,511	1	7,511	3	22,533
	75,869		75,869		227,607

As shown in this above table, the land use assumptions play an important role in determining the total quantity of EDU. The total of 227,607 EDU with 3 EDU/Acre development densities is substantially greater than 75,869 EDU considering 1 EDU/Acre development densities. GVSUD can expect and prepare for actual EDU growth to fit within the above range.

For design purposes, three different wastewater flow rates were estimated to represent sizing of different portions of the wastewater collection and treatment systems.

An average dry weather flow or average daily flow of 245 GPD per EDU was derived from the following formula:

Average Dry Weather Flow

$$\text{Residential Single Family Units (EDU)} = 3.5 \frac{\text{capita}}{\text{EDU}} \times 70 \frac{\text{GPD}}{\text{capita}} = 245 \frac{\text{GPD}}{\text{EDU}}$$

$$\text{Population per LUE} = 3.5 \text{ capita/EDU}$$

$$\text{Wastewater Demand} = 70 \text{ GPD/capita}$$

Using the average dry weather flow, a maximum dry weather flow was calculated using the following formula:

Maximum Dry Weather Flow

$$\text{Maximum Dry Weather Flow} = 245 \frac{\text{GPD}}{\text{EDU}} \times 3 \text{ PFF} = 735 \frac{\text{GPD}}{\text{EDU}}$$

$$\text{Average Dry Weather Flow} = 245 \frac{\text{GPD}}{\text{EDU}}$$

$$\text{Maximum Flow Peak Factor} = 3\text{PFF}$$

Adding inflow and infiltration of 750 gallons/acres served

Maximum Wet Weather Flow

$$\text{Maximum Wet Weather Flow} = 735 \frac{\text{GPD}}{\text{EDU}} + \left(750 \frac{\text{GPD I/I}}{\text{acre}} \times \frac{\text{acre}}{3 \text{ EDU}} \right)$$

$$\text{Maximum Wet Weather Flow} = 985 \frac{\text{GPD}}{\text{EDU}} \text{ or } 0.7 \frac{\text{GPM}}{\text{EDU}}$$

A summary of the wastewater design flow parameters considering the development density range of 1 EDU/Acre to 3 EDU/Acre is summarized in the below table:

Green Valley Special Utility District Design Flow Summary		
Design Flow	Development Density	
	1 EDU/Acre	3 EDU/Acre
Average Dry Weather Flow	245 GPD/EDU	245 GPD/EDU
Maximum Dry Weather Flow	735 GPD/EDU	735 GPD/EDU
Maximum Wet Weather Flow	1485 GPD/EDU	985 GPD/EDU

The drainage basins A through G were further divided into smaller drainage areas. The surface area (acres) of these smaller drainage areas were calculated and assumed to contribute wastewater to collection points situated periodically down the main trunk line. The location of collection points for each drainage area and the anticipated flow at each point were calculated to determine the total wastewater flow required for design proposes. By multiplying EDU by the above flows per EDU, the required flow at each collection point was calculated for collection system pipe sizing.

(see **Attachment 1**, Exhibit 3 – GVSUD Area Calculations and Collection Points)
(see **Attachment 2**, Exhibit 1 – Total EDU Calculations)

(see **Attachment 2**, Exhibit 2 – Wastewater Collection System Design Calculations)

Green Valley Special Utility District Wastewater Design Flows Three Design Flow Conditions									
Drainage Basin	Total Area (acres)	Total LUE 1 (EDU/acre)	Total LUE 3 (EDU/acre)	Development Density of 1 EDU/acre			Development Density of 3 EDU/acre		
				Average Dry Weather Flow (GPD)	Maximum Dry Weather Flow (GPD)	Maximum Wet Weather Flow (GPD)	Average Dry Weather Flow (GPD)	Maximum Dry Weather Flow (GPD)	Maximum Wet Weather Flow (GPD)
Drainage Basin A	9,211	9,211	27,633	2,256,695	6,770,085	13,678,335	6,770,085	20,310,255	27,218,505
Drainage Basin B	4,690	4,690	14,070	1,149,050	3,447,150	6,964,650	3,447,150	10,341,450	13,858,950
Drainage Basin C	5,636	5,636	16,908	1,380,820	4,142,460	8,369,460	4,142,460	12,427,380	16,654,380
Drainage Basin D	6,688	6,688	20,064	1,638,560	4,915,680	9,931,680	4,915,680	14,747,040	19,763,040
Drainage Basin E	35,618	35,618	106,854	8,726,410	26,179,230	52,892,730	26,179,230	78,537,690	105,251,190
Drainage Basin F	6,515	6,515	19,545	1,596,175	4,788,525	9,674,775	4,788,525	14,365,575	19,251,825
Drainage Basin G	7,511	7,511	22,533	1,840,195	5,520,585	11,153,835	5,520,585	16,561,755	22,195,005

The above table summarizes the cumulative design flows generated from each drainage basin at the most downstream location. The Average Dry Weather Flow, Maximum Dry Weather Flow, and the Maximum Wet Weather Flow were calculated by multiplying design flows by the total EDU for each drainage basin. There is a substantial flow difference between development densities of 1 EDU/acre versus 3 EDU/acre. GVSUD should prepare for maximum wastewater flows to fall between these two development densities.

4.4 Wastewater Collection System Design

Peak flow (Maximum Wet Weather Flow) was used to size the main gravity wastewater collection system assuming natural ground slope and 80% line capacity to maintain a minimum line velocity of 2 feet per second (Section 2.9.3, City of Austin Utilities Criteria Manual). A minimum diameter of 8 inches was used for all gravity wastewater mains. Additionally, 8-inch, 10-inch, 12-inch, 15-inch, 18-inch, 21-inch, 24-inch, 27-inch, 30-inch, 33-inch, 36-inch, 42-inch, 48-inch, 54-inch, 60-inch, 66-inch, and 72-inch diameter pipes were considered as standard wastewater pipe diameter sizes.

However, pipe diameters greater than 48" may not prove economical for initial trunk line installation. An alternative option is to prepare for installation of two smaller diameter parallel pipes whose combined cross sectional area equals the required future ultimate build-out cross sectional area. This option allows GVSUD to install one pipe to meet the immediate demand and wait until future ultimate build-out to install the second parallel pipe. This approach allows GVSUD to economically phase wastewater infrastructure to match the rate of development growth. Additional foresight must be taken into consideration in obtaining utility easements wide enough to accommodate two parallel pipes.

Lift station design capacity is determined by the Maximum Wet Weather Flow. All lift stations will be designed to handle the Maximum Wet Weather Flow for the designated service area. The wet well volume is sized to provide adequate storage volume at peak design flows and a sufficient pump cycle time. A minimum of two (2) pumps will be required for all lift stations and pumping capacity will be such that the Maximum Wet Weather Flow can be handled with the largest pump out of service (Section 2.9.3, City of Austin Utilities Criteria Manual). Lift Station design shall be refined during actual project considerations.

Force mains will be designed using C-909 PVC (poly-vinyl chloride) pipe. Force mains will be sized so that the flow velocity is between three (3) and six (6) feet per second (Section 2.9.3, City of Austin Utilities Criteria Manual). Any force main designs shall be refined during actual projects.

Green Valley Special Utility District 1 EDU/acre Pipe Diameter Design Summary								
Pipe Diameter (in)	Basin A Pipe Length (ft)	Basin B Pipe Length (ft)	Basin C Pipe Length (ft)	Basin D Pipe Length (ft)	Basin E Pipe Length (ft)	Basin F Pipe Length (ft)	Basin G Pipe Length (ft)	Total Pipe Length (ft)
8								0
10								0
12	5,600							5,600
15	8,200	2,600	2,600				2,700	16,100
18	19,800	5,600	5,600			2,500	2,700	36,200
21	9,000	7,000	5,600	2,500	7,350	2,500	5,000	38,950
24	3,500	5,000	5,200	2,500	17,200	5,000	2,500	40,900
27	2,500		5,000	5,300	22,300	5,000	2,800	42,900
30	2,500			5,600	15,450	12,200	2,900	38,650
33	11,400				21,650		3,000	36,050
36					5,800			5,800
42								0
48					7,000			7,000
54					18,500			18,500
60					9,600			9,600
66								0
72								0
Total	62,500	20,200	24,000	15,900	124,850	27,200	21,600	296,250

56 Miles

The above table is a summary of the required main wastewater collection system pipe diameters to service a development density of 1 EDU/Acre.

Green Valley Special Utility District 3 EDU/acre Pipe Flow Design Summary								
Pipe Diameter (in)	Basin A Pipe Length (ft)	Basin B Pipe Length (ft)	Basin C Pipe Length (ft)	Basin D Pipe Length (ft)	Basin E Pipe Length (ft)	Basin F Pipe Length (ft)	Basin G Pipe Length (ft)	Total Pipe Length (ft)
8								0
10								0
12								0
15	2,600							2,600
18	11,200	2,600	2,600				2,700	19,100
21	13,800	2,800	2,800				2,700	22,100
24	9,500	2,800	2,800		4,600	2,500	2,500	24,700
27	5,500	2,600	2,800	2,500	7,350	2,500	2,500	25,750
30	3,500	9,400	5,400		12,600	5,000	2,500	38,400
33			7,600	2,500	13,000	2,500	2,800	28,400
36	5,000			5,300	14,450	7,700	2,900	35,350
42	11,400			5,600	31,950	7,000	3,000	58,950
48					5,800			5,800
54								0
60					7,000			7,000
66					5,000			5,000
72					23,100			23,100
Total	62,500	20,200	24,000	15,900	124,850	27,200	21,600	296,250

56 Miles

The above table is a summary of the required main wastewater collection system pipe diameters to service a development density of 3 EDU/Acre. There is a greater quantity of larger diameter pipes required for the greater development density of 3 EDU/Acre.

The contrast in development density between 1 and 3 EDU/Acre provides a range on which to anticipate future development. The 1 EDU/Acre represents low development density and 3 EDU/Acre represents high development density. GVSUD can expect future development density to fall in between these two EDU densities.

(see **Attachment 1**, Exhibit 4 – GVSUD Proposed Wastewater Main Collection System)
(see **Attachment 2**, Exhibit 2 – Wastewater Collection System Design Calculations)

5.0 Wastewater Treatment Plant Capacity and Costs

GVSUD has several options for wastewater treatment. One option is to partner with existing adjacent wastewater providers. GVSUD would provide the trunk lines and provide retail service to the customers. The partnership would provide wholesale treatment services and the existing adjacent wastewater providers would provide wholesale wastewater treatment.

One potential partnership that would be beneficial for GVSUD is the City of Marion. The City of Marion is considering expanding their wastewater CCN to provide service to areas within their water service area. They have expressed a desire to reserve available treatment capacity in their wastewater treatment plant for this expansion and for anticipated growth within their service area. The City of Marion may be willing to contract to provide wholesale wastewater treatment for GVSUD wastewater retail service.

Another opportunity exists at the Harvest Hills Subdivision. This 250,000 GPD facility already exists and soon will be on-line. The owner has expressed an interest for GVSUD to take ownership and operate. If an agreement can be negotiated between GVSUD and the treatment plant private owner, then GVSUD could see a relatively easy entry into the wastewater business.

The other option would be to construct new wastewater treatment facilities. Final scope and budget for the construction of new facilities would need to be determined on an individual basis and were only estimated in this report. Initially, these treatment plants would serve individual development projects. As these individual developments start to populate portions of the GVSUD wastewater CCN service area, GVSUD could utilize capital investment for wastewater infrastructure to provide a more regional wastewater collection and treatment opportunities.

These plants would initiate as small plants servicing the local development. As development increases, these small plants would be replaced with connecting infrastructure and larger regional facilities. These larger facilities would be phased to expand as capacity requires, and also be replaced with larger regional facilities which would locate downstream of major drainage basins.

The optimal result would be for GVSUD to own and operate large regional wastewater treatment facilities located at the most downstream locations in each drainage basin. Several drainage basins that flow in a common direction could be combined to share a regional wastewater treatment facility. A potential partnership with other entities could assist with economical means of developing large regional wastewater treatment plant facilities. These large regional facilities would only be justified when the GVSUD wastewater service area reaches ultimate build-out and wastewater demand exists.