CITY OF NORTH

WATER/WASTEWATER IMPACT FEE UPDATE

DRAFT EXHIBIT B: LAND USE ASSUMPTIONS - WASTEWATER (2022 - 2041)

PREPARED BY: FREESE AND NICHOLS, INC. 4055 INTERNATIONAL PLAZA, SUITE 200 FORT WORTH, TEXAS 76109 817-735-7300





Innovative approaches Practical results Outstanding service

DRAFT

WATER & WASTEWATER IMPACT FEE UPDATE

EXHIBIT B: LAND USE ASSUMPTIONS -WASTEWATER (2022 – 2041)

Prepared for:

Fort Worth Water



January 26, 2021

Prepared by:

FREESE AND NICHOLS, INC. 4055 International Plaza, Suite 200 Fort Worth, Texas 76109 817-735-7300



Innovative approaches Practical results Outstanding service

WATER & WASTEWATER IMPACT FEE UPDATE

Prepared for:

Fort Worth Water

DRAFT	DRAFT
THIS DOCUMENT IS RELEASED FOR	THIS DOCUMENT IS RELEASED FOR
THE PURPOSE OF INTERIM REVIEW	THE PURPOSE OF INTERIM REVIEW
UNDER THE AUTHORITY OF JESSICA	UNDER THE AUTHORITY OF MAZEN
BROWN, P.E., TEXAS NO. 90098 ON	KAWASMI, P.E., TEXAS NO. 106100
1/26/2021. IT IS NOT TO BE USED	ON 1/26/2021 . IT IS NOT TO BE USED
FOR CONSTRUCTION, BIDDING OR	FOR CONSTRUCTION, BIDDING OR
PERMIT PURPOSES.	PERMIT PURPOSES.
FREESE AND NICHOLS, INC.	FREESE AND NICHOLS, INC.
TEXAS REGISTERED ENGINEERING	TEXAS REGISTERED ENGINEERING
FIRM F- 2144	FIRM F- 2144
DRAFT	DRAFT
DRAFT THIS DOCUMENT IS RELEASED FOR	DRAFT THIS DOCUMENT IS RELEASED FOR
THIS DOCUMENT IS RELEASED FOR	THIS DOCUMENT IS RELEASED FOR
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW	THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW	THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF NICHOLAS
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW FRANKO , P.E., TEXAS NO. 115651 ON	THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF NICHOLAS MCCORMICK , P.E., TEXAS NO. 135767
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW FRANKO , P.E., TEXAS NO. 115651 ON 1/26/2021 . IT IS NOT TO BE USED	THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF NICHOLAS MCCORMICK , P.E., TEXAS NO. 135767 ON 1/26/2021 . IT IS NOT TO BE USED
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW FRANKO , P.E., TEXAS NO. 115651 ON 1/26/2021 . IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR	THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF NICHOLAS MCCORMICK , P.E., TEXAS NO. 135767 ON 1/26/2021 . IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF ANDREW FRANKO , P.E., TEXAS NO. 115651 ON 1/26/2021 . IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.	THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF NICHOLAS MCCORMICK , P.E., TEXAS NO. 135767 ON 1/26/2021 . IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

Prepared by:

FREESE AND NICHOLS, INC. 4055 International Plaza, Suite 200 Fort Worth, Texas 76109 817-735-7300

FTW20118



TABLE OF CONTENTS

1.0	Introduction1-1	
2.0	Wastewater Service Area2-1	
3.0	Population and Employment Projections	
3.1	City of Fort Worth Projections3-1	
3.2	Wholesale Customers	
3.3	Total Wastewater Service Area	

LIST OF TABLES

Table 3-1	City of Fort Worth Retail Service Population and Employment Projections	-1
Table 3-2	Wholesale Customer Population and Employment Projections	-2
Table 3-3	Total Wastewater Service Area Population and Employment Projections	-3

LIST OF FIGURES

Figure B-1	Wastewater Service A	rea	 	 2-2	2

APPENDICES

Appendix A- Wastewater Wholesale Customer Surveys

Appendix B- Wastewater Wholesale Customer Population and Employment Projections

1.0 INTRODUCTION

Chapter 395 of the Texas Local Government Code requires an impact fee analysis before impact fees can be assessed. Chapter 395 defines an impact fee as "a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development." Chapter 395 identifies the following items as impact fee eligible costs:

FORT WORT

FREES

- Construction contract price
- Surveying, engineering and inspection fees
- Land acquisition costs
- Cost of engineering studies
- Fees paid to the consultant preparing or updating the capital improvements plan (CIP)
- Projected interest charges and other finance costs for projects identified in the CIP

Chapter 395 also identifies items that impact fees cannot be used to pay for, such as:

- Construction, acquisition, or expansion of public facilities or assets other than those identified on the capital improvements plan
- Repair, operation or maintenance of existing or new capital improvements
- Upgrading, updating, expanding or replacing existing capital improvements to serve existing development in order to meet stricter safety, efficiency, environmental or regulatory standards
- Upgrading, updating, expanding or replacing existing capital improvements to provide better service to existing development
- Administrative and operating costs of the political subdivision
- Principal payments and interest or other finance charges on bonds or other indebtedness, except as allowed above

In December 2019, the City of Fort Worth authorized Freese and Nichols, Inc. (FNI) to perform an update to the impact fee analysis on the City's water and wastewater systems. The purpose of this report is to address the methodology used in the development of the wastewater land use assumptions. The methodology used herein satisfies the requirements of the Texas Local Government Code Section 395 for the establishment of water and wastewater impact fees.

FORT WORTH.

FREES

The City updated its wastewater land use assumptions and capital improvements plan in 1993, 1996, 1999, 2004, 2009, 2012 and 2017. This report updates the wastewater land use assumptions for the years 2022, 2031 and 2041. This information will be used in the update of the wastewater impact fees.

2.0 WASTEWATER SERVICE AREA

Chapter 395 defines the service area as the area within the corporate boundaries or extraterritorial jurisdiction, as determined under Chapter 42, of the political subdivision to be served by the capital improvements or facilities expansions specified in the capital improvements plan, except roadway facilities and storm water, drainage, and flood control facilities. The service area for Fort Worth's wastewater system is defined as the city limits, portions of the unincorporated existing extraterritorial jurisdiction (ETJ), and wholesale customers. This service area is the area to which wastewater service could be provided on a retail basis and to all wholesale wastewater customers. **Figure B-1** shows the entire wastewater service area for the City of Fort Worth.

The City of Fort Worth provides wastewater service to 23 wholesale customers which make up the wastewater service area. For the purposes of this study, it is assumed that the wholesale customers will remain under contract with the City for the duration of the future planning periods (2022-2041). The wholesale customers are:

- Benbrook Water Authority
- Haltom City
- Saginaw

- Bethesda Water Supply Corp.
- Blue Mound
- Burleson
- Crowley
- Edgecliff Village
- Everman
- Forest Hill

River Oaks

Pantego

Richland Hills

The City also provides wastewater service to unincorporated areas that are not included within its city limits or its wholesale customers' city limits.

FREESE FORT WORTH

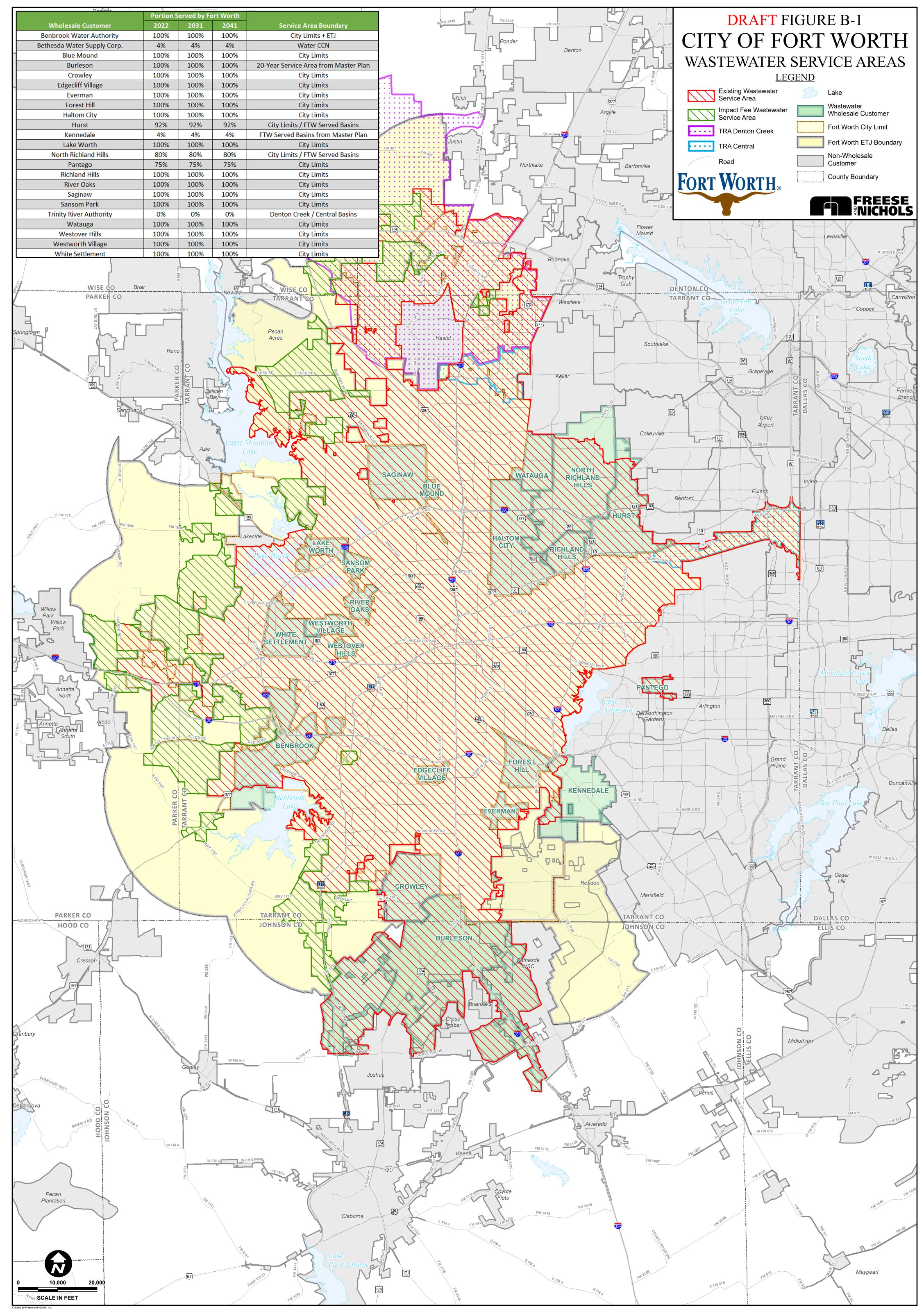
Hurst

Kennedale

Lake Worth

North Richland Hills

- Sansom Park
- Trinity River Authority
- Watauga
- Westover Hills
- Westworth Village
- White Settlement



Job No.: FTW20118 Location: HW, WW_PLANNING\01_DELIVERABLES\05_DRAFT_REPORT\Exhibit B Wastewater LUA\(Figure_B-1)-Future_Wastewater_Service_A Updatet: Tuesday, January 26, 2021 User: 02499



3.0 POPULATION AND EMPLOYMENT PROJECTIONS

Population and employment projections are important elements in the impact fee process. Wastewater flows depend on the residential population and commercial development served by the collection system and determine the sizing and location of collection system infrastructure. For the impact fee update, populations are projected for years 2022, 2031 and 2041. FNI utilized data from wholesale customer surveys, the Fort Worth Planning and Development Department and North Central Texas Council of Governments (NCTCOG) projections to determine the population and employment projections for the City of Fort Worth and its customers for the planning periods of 2022, 2031 and 2041. At the time of this study, 2020 U.S. Census information was not available. Historical NCTCOG information was utilized as the basis for the population and employment projections.

3.1 CITY OF FORT WORTH PROJECTIONS

FNI utilized development data from the City of Fort Worth Planning and Development Department, along with NCTCOG data, to develop population projections for the 2022, 2031 and 2041 planning periods. **Table 3-1** shows the City's population and employment projections and annual growth rate for each 10-year period.

Fort Worth Wastewater Service Area						
		Рори	llation	Employment		
Year	Area	Amount	Annual Growth Rate*	Amount	Annual Growth Rate*	
	Village Creek WRF	839,735		553,086		
2022	TRA Denton Creek	54,497		50,765		
20	TRA Central	17,738		11,158		
	Total	911,970		615,009		
	Village Creek WRF	1,043,237	2.2%	627,583	1.3%	
2031	TRA Denton Creek	70,672	2.6%	63,259	2.2%	
20	TRA Central	19,769	1.1%	13,199	1.7%	
	Total	1,133,678	2.2%	704,041	1.4%	
	Village Creek WRF	1,270,448	2.0%	736,753	1.6%	
11	TRA Denton Creek	91,385	2.6%	76,373	1.9%	
2041	TRA Central	20,114	0.2%	14,522	1.0%	
	Total	1,381,947	2.0%	827,648	1.6%	

 Table 3-1
 City of Fort Worth Retail Service Population and Employment Projections

*Annual Growth Rate is based on information from NCTCOG and the Fort Worth Planning and Development Department

The total Village Creek Water Reclamation Facility (WRF) retail service population is projected to increase 2.2% annually from 2022 to 2031 and 2.0% annually from 2031 to 2041. The total Village Creek WRF retail employment is projected to increase 1.3% annually from 2022 to 2031 and 1.6% annually from 2031 to 2041.

FORT WORTH.

3.2 WHOLESALE CUSTOMERS

Surveys were sent out by the City of Fort Worth to each wholesale customer to provide population and employment projections for each planning period. Wholesale customers were contacted with follow-up emails or phone calls if no survey was returned by the requested due date. If no survey was returned, FNI used projection information from NCTCOG to estimate population and employment. The wholesale customer surveys received by FNI can be found in **Appendix A**. The completed surveys were compared to NCTCOG projections to check for validity and consistency. Adjustments were made to population and employment projections where necessary. **Table 3-2** summarizes the total served wholesale customer population and employment projections within the City of Fort Worth's wastewater service area.

Fort Worth Wastewater Service Area						
			lation	Employment		
Year	Area	Amount	Annual Growth Rate*	Amount	Annual Growth Rate*	
	Village Creek WRF	364,844		164,635		
2022	TRA Denton Creek					
20	TRA Central	+				
	Total	364,844		164,635		
	Village Creek WRF	429,667	1.6%	185,300	1.2%	
2031	TRA Denton Creek					
2(TRA Central					
	Total	429,667	1.6%	185,300	1.2%	
	Village Creek WRF	490,403	1.3%	200,516	0.8%	
1	TRA Denton Creek					
2041	TRA Central					
	Total	490,403	1.3%	200,516	0.8%	

Table 3-2Wholesale Customer Population and Employment Projections

*Annual Growth Rate is based on information from NCTCOG, the Fort Worth Planning and Development Department and Wholesale Customer Surveys

The Village Creek WRF wholesale service population is projected to increase 1.6% annually from 2022 to 2031 and 1.3% annually from 2031 to 2041. The total Village Creek WRF wholesale service employment is projected to increase 1.2% annually from 2022 to 2031 and 0.8% annually from 2031 to 2041. Detailed service population and employment projections broken down by each wholesale customer can be found in Appendix B.

FORT WORTH.

FREES

3.3 **TOTAL WASTEWATER SERVICE AREA**

Table 3-3 shows the combined population and employment projections for the City of Fort Worth and its wholesale customers. The total Village Creek WRF population is projected to increase 2.0% annually from 2022 to 2031 and 1.8% annually from 2031 to 2041. The employment is projected to increase 1.3% annually from 2022 to 2031 and 1.4% annually from 2031 to 2041.

Table 3-3 Total Wastewater Service Area Population and Employment Projections								
	Fort Worth Wastewater Service Area							
		Popu	lation	Employment				
Year Area		Amount	Annual Growth Rate*	Amount	Annual Growth Rate*			
	Village Creek WRF	1,204,579		717,721				
2022	TRA Denton Creek	54,497		50,765				
20	TRA Central	17,738		11,158				
	Total	1,276,814		779,644				
	Village Creek WRF	1,472,904	2.0%	812,883	1.3%			
2031	TRA Denton Creek	70,672	2.6%	63,259	2.2%			
2(TRA Central	19,769	1.1%	13,199	1.7%			
	Total	1,563,345	2.0%	889,341	1.3%			
	Village Creek WRF	1,760,851	1.8%	937,269	1.4%			
t1	TRA Denton Creek	91,385	2.6%	76,373	1.9%			
2041	TRA Central	20,114	0.2%	14,522	1.0%			
	Total	1,872,350	1.8%	1,028,164	1.5%			

Total Wastewater Service Area Population and Employment Projections Table 2.2

*Annual Growth Rate is based on information from NCTCOG, the Fort Worth Planning and Development Department and Wholesale Customer Surveys



Appendix A Wastewater Wholesale Customer Surveys





LEGEND **FNI Responses in Blue** City Responses in Red

y FTW

Demographics Information

- 1. Wholesale Customer Name: Benbrook Water Authority
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections					
2019	22,933				
2020	23,176				
2030	28,314				
2040	34,213				

Employment Projections					
2019	6,132				
2020	6,242				
2030	7,342				
2040	8,441				

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand Projections (MGD)		Maximum Day Demand Projections (MGD)			ntage of Water ls Served by FTV
2020	8	2020	15	2020	0%
2030	8	2030	15	2030	0%
2040	8	2040	15	2040	0%

- 8. Will you require a larger and/or additional meter within the next 20 years? No.
- 9. Will your service area boundaries be expanded within the next 20 years? Yes.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")





Resident	ial Meters
Meter Size	Quantity
5/8"	5,145
3/4"	43
1"	3,075
1-1/2"	17
2"	87
3"	25
4"	0
6"	0
8"	0
10"	0

Non-Residential Meters						
Meter Size	Quantity					
5/8"	138					
3/4"	4					
1"	221					
1-1/2"	54					
2"	107					
3"	11					
4"	3					
6"	2					
8"	0					
10"	0					

12. Are there any current ordinances concerning water impact fees within your utility? Resolutions and water impact fees.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections (MGD)		Vet Weather jection (MGD)
2020	2020	
2030	2030	
2040	2040	

Percentage of Wastewater Flow Served by FTW		
2020	100%	
2030	100%	
2040	100%	

_)

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential:_____, Non-Residential:_____

- 17. Will your service area boundaries be expanded in the next 20 years? (Y/N)
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.





Residential Meters		Non-Reside	ntial Meters
Meter Size	Quantity	Meter Size	Quantity
5/8"	5,145	5/8"	138
3/4"	43	3/4"	4
1"	3,075	1"	221
1-1/2"	17	1-1/2"	54
2"	87	2"	107
3"	25	3"	11
4"	0	4"	3
6"	0	6"	2
8"	0	8"	0
10"	0	10"	0

20. Are there any current ordinances concerning wastewater impact fees within your utility?





ODemographics Information

- 1. OWholesale Customer Name: City of Blue Mound
- 2. Wholesale Customer Type (Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections			
2019	2,636		
2020	2,700		
2030	2,700		
2040	2,700		

Employment Projections				
2019				
2020	732			
2030	855			
2040	984			

Wastewater Service Information

- 5. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections (MGD)			et Weather Flow ctions (MGD)
2020	0.145	2020	0.19
2030	0.145	2030	0.19
2040	0.145	2040	0.19

Percentage of Wastewater Flow Served by FTW			
2020	100%		
2030	100%		
2040	100%		

- 8. Existing number of wastewater customers SERVED by Fort Worth (Residential: <u>807</u>, Non-Residential: <u>26</u>)
- 9. Will your service area boundaries be expanded in the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.

LEGEND





Residential Meters		
Meter Size	Quantity	
5/8"	807	
3/4"	0	
1"	0	
1-1/2"	0	
2"	0	
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

Non-Residential Meters		
Meter Size	Quantity	
5/8"	24	
3/4"	0	
1"	1	
1-1/2"	0	
2"	1	
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

12. Are there any current ordinances concerning wastewater impact fees within your utility? Yes.





Demographics Information

- 1. Wholesale Customer Name: City of Burleson
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Populatio	Population Projections			
2019				
2020	49,981			
2030	77,949			
2040	108,681			

Employment Projections				
2019	22,925			
2020	23,382			
2030	26,700			
2040	30,700			

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

	Day Demand tions (MGD)	Maximum Day Demand Projections (MGD)		Perc Deman
2020	8.22	2020	18.08	2020
2030	9.68	2030	21.29	2030
2040	10.30	2040	22.65	2040

	ntage of Water
Demand	ls Served by FTW
2020	93%
2030	76%
2040	62%

- 8. Will you require a larger and/or additional meter within the next 20 years? No.
- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")





Resident	Residential Meters			
Meter Size	Quantity			
5/8"	13,746			
3/4"	3			
1"	202			
1-1/2"	8			
2"	1			
3"	0			
4"	0			
6"	0			
8"	0			
10"	0			

Non-Residential Meters		
Meter Size	Quantity	
5/8"	484	
3/4"	5	
1"	287	
1-1/2"	140	
2"	285	
3"	58	
4"	6	
6"	1	
8"	0	
10"	0	

12. Are there any current ordinances concerning water impact fees within your utility?

Yes.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

	ge Day Flow tions (MGD)		et Weather Flow ctions (MGD)
2020	5.78	2020	17.22
2030	8.94	2030	27.97
2040	10.61	2040	33.63

Percentage of Wastewater Flow Served by FTW	
2020	100%
2030	100%
2040	100%

_)

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential:_____, Non-Residential:_____

- 17. Will your service area boundaries be expanded in the next 20 years? Yes.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.





Residential Meters					
Meter Size	Quantity				
5/8"	13,746				
3/4"	2				
1"	3				
1-1/2"	3				
2"	0				
3"	0				
4"	0				
6"	0				
8"	0				
10"	0				

Non-Reside	ntial Meters
Meter Size	Quantity
5/8"	385
3/4"	0
1"	139
1-1/2"	101
2"	210
3"	20
4"	3
6"	1
8"	0
10"	0

20. Are there any current ordinances concerning wastewater impact fees within your utility? Yes.





LEGEND FNI Responses in Blue City Responses in Red

Demographics Information

- 1. Wholesale Customer Name: City of Crowley
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Populatio	on Projections
2019	16,721
2020	18,053
2030	25,000
2040	35,000

Employn	nent Projections
2019	
2020	3,089
2030	3,907
2040	4,861

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

	Day Demand tions (MGD)		n Day Demand tions (MGD)	Perc Demai
2020	3	2020	7	2020
2030	4	2030	8	2030
2040	5	2040	10	2040

Percentage of Water	
Demand	ls Served by FTW
2020	100%
2030	100%
2040	100%

- 8. Will you require a larger and/or additional meter within the next 20 years? No.
- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")





Residential Meters		
Meter Size	Quantity	
5/8"	6,467	
3/4"	0	
1"	35	
1-1/2"	16	
2"	30	
3"	2	
4"	0	
6"	0	
8"	0	
10"	0	

Non-Residential Meters				
Meter Size	Quantity			
5/8"	0			
3/4"	0			
1"	59			
1-1/2"	14			
2"	48			
3"	15			
4"	0			
6"	0			
8"	0			
10"	0			

12. Are there any current ordinances concerning water impact fees within your utility? Ordinances in place.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

	Average Day Flow Projections (MGD)			et Weather Flow ections (MGD)
2020	4		2020	5
2030	12		2030	13
2040	14		2040	15

Percentage of Wastewater Flow Served by FTW		
2020	100%	
2030	100%	
2040	100%	

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential: 6,162_, Non-Residential: 660_)

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.





Residenti	al Meters	No	n-Reside	ntial Meters
Meter Size	Quantity	Met	ter Size	Quantity
5/8"	6,467		5/8"	0
3/4"	0		3/4"	0
1"	35		1"	59
1-1/2"	16	1	-1/2"	14
2"	30		2"	48
3"	2		3"	15
4"	0		4"	0
6"	0		6"	0
8"	0		8"	0
10"	0		10"	0

20. Are there any current ordinances concerning wastewater impact fees within your utility?





LEGEND FNI Responses in Blue City Responses in Red

Demographics Information

- 1. Wholesale Customer Name: Town of Edgecliff Village
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections				
2019	3,220			
2020	3,240			
2030	3,260			
2040	3,260			

Employment Projections				
2019				
2020	1,622			
2030	1,810			
2040	1,912			

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

	Day Demand tions (MGD)	Maximum Day Demand Projections (MGD)			ntage of Water ls Served by FTW
2020	0.44	2020	1.15	2020	100%
2030	0.44	2030	1.15	2030	100%
2040	0.44	2040	1.15	2040	100%

- 8. Will you require a larger and/or additional meter within the next 20 years? (Y/N)
- 9. Will your service area boundaries be expanded within the next 20 years? (Y/N)
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")





Residential Meters		Non-Resid	ential Meters
Meter Size	Quantity	Meter Size	Quantity
5/8"	78	5/8"	0
3/4"	1,257	3/4"	3
1"	33	1"	4
1-1/2"	5	1-1/2"	0
2"	0	2"	7
3"	0	3"	0
4"	0	4"	0
6"	0	6"	1
8"	0	8"	0
10"	0	10"	0

12. Are there any current ordinances concerning water impact fees within your utility?

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections			Vet Weather Projections
2020	0.32	2020	1.28
2030	0.33	2030	1.32
2040	0.33	2040	1.32

Percentage of Wastewater Flow Served by FTW			
2020	100%		
2030	100%		
2040	100%		

_)

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential:______, Non-Residential:______

- 17. Will your service area boundaries be expanded in the next 20 years? (Y/N)
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", **10**") – Skip if you provided information in the previous section.





Residenti	al Meters	Non-Reside	ntial Meters
Meter Size	Quantity	Meter Size	Quantity
5/8"	78	5/8"	0
3/4"	1,257	3/4"	3
1"	33	1"	4
1-1/2"	5	1-1/2"	0
2"	0	2"	7
3"	0	3"	0
4"	0	4"	0
6"	0	6"	1
8"	0	8"	0
10"	0	10"	0

20. Are there any current ordinances concerning wastewater impact fees within your utility?





LEGEND **FNI Responses in Blue**

> d by FTW 0% 0% 0%

City Responses in Red

- **Demographics Information**
 - 1. Wholesale Customer Name: City of Everman
 - 2. Wholesale Customer Type (Water and Wastewater)
 - 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
 - 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections				
2019	6,250			
2020	6,500			
2030	7,500			
2040	8,000			

Employment Projections				
2019				
2020	1,652			
2030	1,724			
2040	1,793			

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand Projections (MGD)			Maximum Day Demand Projections (MGD)				Percentage of Water Demands Served by FTV	
2020	0		2020	0		2020	0%	
2030	0		2030	0		2030	0%	
2040	0		2040	0		2040	0%	

- 8. Will you require a larger and/or additional meter within the next 20 years? No.
- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")





Residential Meters		
Meter Size	Quantity	
5/8"	0	
3/4"	1,817	
1"	0	
1-1/2"	0	
2"	0	
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

Non-Residential Meters				
Meter Size	Quantity			
5/8"	0			
3/4"	156			
1"	14			
1-1/2"	5			
2"	11			
3"	3			
4"	1			
6"	0			
8"	0			
10"	0			

12. Are there any current ordinances concerning water impact fees within your utility?

Yes.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by

Fort Worth? (2020, 2030, 2040)

	Average Day Flow Projections (MGD)			et Weather Flow ctions (MGD)
2020	400,000		2020	300,000
2030	600,000		2030	500,000
2040	700,000		2040	600,000

Percentage of Wastewater Flow Served by FTW		
2020	100%	
2030	100%	
2040	100%	

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential: 1,810_, Non-Residential: 153_)

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.





Residential Meters		
Meter Size	Quantity	
5/8"	0	
3/4"	1,817	
1"	0	
1-1/2"	0	
2"	0	
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

Non-Residential Meters		
Meter Size	Quantity	
5/8"	0	
3/4"	156	
1"	14	
1-1/2"	5	
2"	11	
3"	3	
4"	1	
6"	0	
8"	0	
10"	0	

20. Are there any current ordinances concerning wastewater impact fees within your utility? Yes.





Demographics Information

- 1. Wholesale Customer Name: Forest Hill
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections		
2019	13,000	
2020	13,100	
2030	13,150	
2040	13,200	

Employment Projections				
2019	9,550			
2020	9,600			
2030	9,712			
2040	9,907			

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand					
Projections (MGD)					
2020	2.200				
2030	2.200				
2040	2.300				

Maximum Day Demand					
Projections (MGD)					
2020	2.700				
2030	2.800				
2040	2.805				

Percentage of Water Demands Served by FTW		
2020	100%	
2030	100%	
2040	100%	

8. Will you require a larger

and/or additional meter within the next 20 years? Yes.

- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")





Residential Meters		
Meter Size	Quantity	
5/8"	0	
3/4"	4,559	
1"	10	
1-1/2"	38	
2"	55	
3"	1	
4"	1	
6"	0	
8"	0	
10"	0	

Non-Residential Meters			
Meter Size	Quantity		
5/8"	0		
3/4"	10		
1"	7		
1-1/2"	2		
2"	6		
3"	1		
4"	1		
6"	1		
8"	0		
10"	0		

12. Are there any current ordinances concerning water impact fees within your utility? Yes, see attached form.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections (MGD)			Vet Weather jection (MGD)
2020	2.281	2020	2.180
2030	2.200	2030	2.100
2040	2.300	2040	2.100

Percentage of Wastewater Flow Served by FTW	
2020	100%
2030	100%
2040	100%

16. Existing number of

wastewater customers SERVED by Fort Worth

(Residential: <u>4,329</u>, Non-Residential: <u>333</u>)

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8",

10") - Skip if you provided information in the previous section.

19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10") – Skip if you provided information in the previous section.





Residential Meters		Non-Reside	ntial Meters
Meter Size	Quantity	Meter Size	Quantity
5/8"	0	5/8"	0
3/4"	4,559	3/4"	10
1"	10	1"	7
1-1/2"	38	1-1/2"	2
2"	55	2"	6
3"	1	3"	1
4"	1	4"	1
6"	0	6"	1
8"	0	8"	0
10"	0	10"	0

20. Are there any current ordinances concerning wastewater impact fees within your utility? Yes, see attached documentation.





Demographics Information

- 1. Wholesale Customer Name: City of Haltom City
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections		
2019	43,000	
2020	43,500	
2030	50,000	
2040	50,000	

Employment Projections		
2019	21,000	
2020	21,300	
2030	24,500	
2040	24,500	

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand Projections (MGD)		Maximum Day Demand Projections (MGD)			ntage of Water ls Served by FTW
2020	4.4	2020	8.8	2020	100%
2030	4.9	2030	9.8	2030	100%
2040	4.9	2040	9.8	2040	100%

- 8. Will you require a larger and/or additional meter within the next 20 years? (Y/N)
- 9. Will your service area boundaries be expanded within the next 20 years? (Y/N)
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")

LEGEND FNI Responses in Blue City Responses in Red





Resident	ial Meters	Non-Resid	ential Meters
Meter Size	Quantity	Meter Size	Quantity
5/8"	11,369	5/8"	1,584
3/4"	0	3/4"	0
1"	4	1"	5
1-1/2"	0	1-1/2"	0
2"	37	2"	18
3"	1	3"	1
4"	0	4"	1
6"	0	6"	2
8"	0	8"	0
10"	0	10"	0

12. Are there any current ordinances concerning water impact fees within your utility?

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections (MGD)			et Weather Flow ections (MGD)
2020		2020	
2030		2030	
2040		2040	

Percentage of Wastewater Flow Served by FTW		
2020	100%	
2030	100%	
2040	100%	

_)

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential:______, Non-Residential:______

- 17. Will your service area boundaries be expanded in the next 20 years? (Y/N)
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", **10**") – Skip if you provided information in the previous section.





Residential Meters		Non-Resid	ler
Meter Size Quantity		Meter Size	2
5/8"	11,369	5/8"	
3/4"	0	3/4"	
1"	4	1"	
1-1/2"	0	1-1/2"	
2"	37	2"	
3"	1	3"	
4"	0	4"	
6"	0	6"	
8"	0	8"	
10"	0	10"	

20. Are there any current ordinances concerning wastewater impact fees within your utility?





Demographics Information

- 1. Wholesale Customer Name: City of Hurst
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Populatio	Population Projections					
2019	38,187					
2020	38,510					
2030	39,637					
2040	40,817					

Employment Projections							
2019	26,296						
2020	26,711						
2030	30,861						
2040	32,936						

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand Projections (MGD)		Maximum Day Demand Projections (MGD)		Percentage of Water Demands Served by FTV	
2020	5	2020	10	2020	99%
2030	5	2030	10	2030	99%
2040	6	2040	11	2040	99%

- 8. Will you require a larger and/or additional meter within the next 20 years? No.
- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")

LEGEND FNI Responses in Blue City Responses in Red

W





Residential Meters		
Meter Size	Quantity	
5/8"	9,454	
3/4"	1	
1"	1,517	
1-1/2"	33	
2"	4	
3"	0	
4"	1	
6"	0	
8"	0	
10"	0	

New Desidential Materia			
Non-Residential Meters			
Meter Size	Quantity		
5/8"	465		
3/4"	0		
1"	367		
1-1/2"	251		
2"	239		
3"	32		
4"	18		
6"	4		
8"	1		
10"	0		

12. Are there any current ordinances concerning water impact fees within your utility? Ordinance #2353.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections (MGD)			et Weather Flow ctions (MGD)
2020	4	2020	16
2030	4	2030	16
2040	5	2040	20

Percentage of Wastewater Flow Served by FTW				
2020	2020 <mark>92%</mark>			
2030 <mark>92%</mark>				
2040	92%			

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential: <u>10,477</u>, Non-Residential: <u>1,377</u>)

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.





Residential Meters		
Meter Size	Quantity	
5/8"	9,454	
3/4"	1	
1"	1,517	
1-1/2"	33	
2"	4	
3"	0	
4"	1	
6"	0	
8"	0	
10"	0	

Non-Residential Meters			
Meter Size	Quantity		
5/8"	465		
3/4"	0		
1"	367		
1-1/2"	251		
2"	239		
3"	32		
4"	18		
6"	4		
8"	1		
10"	0		

20. Are there any current ordinances concerning wastewater impact fees within your utility? Ordinance #2353.





Demographics Information

- 1. Wholesale Customer Name: City of Kennedale
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections			
2019			
2020	7,670		
2030 10,820			
2040	15,263		

Employment Projections			
2019			
2020	4,616		
2030	5,864		
2040	7,119		

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand		
Projections (MGD)		
2020	0.21	
2030	0.23	
2040	0.21	

	Maximum Day Demand Projections (MGD)				
	2020	0.47			
	2030	0.50			
	2040	0.47			

Percentage of Water Demands Served by FTW			
2020 20%			
2030	15%		
2040	10%		

8. Will you require a larger

and/or additional meter within the next 20 years?

- 9. Will your service area boundaries be expanded within the next 20 years?
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")





		-		
Residential Meters			Non-Resid	ential Meters
Meter Size	Quantity		Meter Size	Quantity
5/8"			5/8"	
3/4"	2,543		3/4"	229
1"	313		1"	57
1-1/2"	5		1-1/2"	13
2"	4		2"	38
3"			3"	44
4"			4"	3
6"			6"	
8"			8"	
10"			10"	

12. Are there any current ordinances concerning water impact fees within your utility?

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow		Peak W	Vet Weather
Projections (MGD)		Flow Pro	jection (MGD)
2020	0.69	2020	2.76
2030	0.97	2030	3.88
2040	1.37	2040	5.48

Percentage of Wastewater		
Flow Served by FTW		
2020	4%	
2030	4%	
2040	4%	

16. Existing number of

wastewater customers SERVED by Fort Worth

(Residential:____, Non-Residential:____)

- 17. Will your service area boundaries be expanded in the next 20 years?
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8",

10") - Skip if you provided information in the previous section.

19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10") - Skip if you provided information in the previous section.





Residential Meters		
Meter Size	Quantity	
5/8"		
3/4"		
1"		
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

Non-Residential Meters		
Meter Size	Quantity	
5/8"		
3/4"		
1"		
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

20. Are there any current ordinances concerning wastewater impact fees within your utility?





<u>LEGEND</u> FNI Responses in Blue

City Responses in Red

- **Demographics Information**
 - 1. Wholesale Customer Name: City of Lake Worth
 - 2. Wholesale Customer Type (Water and Wastewater)
 - 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
 - 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections		
2019	4,584	
2020	4,957	
2030	5,831	
2040	6,468	

Employment Projections		
2019	3,125	
2020	3,137	
2030	3,779	
2040	3,850	

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand Projections (MGD)			n Day Demand tions (MGD)	
2020	600,000	2020	1,200,000	
2030	1,000,000	2030	1,800,000	
2040	1,250,000	2040	2,250,000	

Percentage of Water Demands Served by FTW		
2020	81%	
2030	90%	
2040	100%	

- 8. Will you require a larger and/or additional meter within the next 20 years? Yes.
- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")





Residential Meters		
Meter Size	Quantity	
5/8"	0	
3/4"	1,663	
1"	171	
1-1/2"	0	
2"	1	
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

Non-Residential Meters		
Meter Size	Quantity	
5/8"	0	
3/4"	123	
1"	129	
1-1/2"	46	
2"	108	
3"	15	
4"	7	
6"	0	
8"	0	
10"	0	

12. Are there any current ordinances concerning water impact fees within your utility?

Yes.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections (MGD)			et Weather Flow ections (MGD)
2020	800,000	2020	1,700,000
2030	1,000,000	2030	2,000,000
2040	1,250,000	2040	2,250,000

Percentage of Wastewater Flow Served by FTW		
2020	100%	
2030	100%	
2040	100%	

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential: 2.030_, Non-Residential: 0_)

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.





Residential Meters			
Meter Size	Quantity		
5/8"	0		
3/4"	1,663		
1"	171		
1-1/2"	0		
2"	1		
3"	0		
4"	0		
6"	0		
8"	0		
10"	0		

Non-Residential Meters				
Quantity				
0				
123				
129				
46				
108				
15				
7				
0				
0				
0				

20. Are there any current ordinances concerning wastewater impact fees within your utility? Yes.





Demographics Information

- 1. Wholesale Customer Name: City of North Richland Hills
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections		
2019	71,269	
2020	72,000	
2030	79,000	
2040	88,000	

Employment Projections		
2019	23,738	
2020	23,964	
2030	26,240	
2040	28,764	

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

	rage Day Demand Djections (MGD)		Maximum Day Demand Projections (MGD)			ntage of Water ls Served by FTV
2020	6		2020	11	2020	58%
2030	6		2030	11	2030	58%
2040	7		2040	12	2040	58%

- 8. Will you require a larger and/or additional meter within the next 20 years? No.
- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")

LEGEND **FNI Responses in Blue** City Responses in Red

FTW





Resident	tial Meters
Meter Size	Quantity
5/8"	0
3/4"	19,429
1"	960
1-1/2"	8
2"	17
3"	0
4"	0
6"	0
8"	0
10"	0

Non-Residential Meters				
Meter Size	Quantity			
5/8"	0			
3/4"	683			
1"	404			
1-1/2"	64			
2"	827			
3"	29			
4"	18			
6"	4			
8"	2			
10"	0			

12. Are there any current ordinances concerning water impact fees within your utility?

Yes.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections (MGD)			t Weather Flow ctions (MGD)
2020	2	2020	7
2030	2	2030	7
2040	2	2040	7

Percentage of Wastewater Flow Served by FTW		
2020	80%	
2030	80%	
2040	80%	

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential: <u>18,979</u>, Non-Residential: <u>2,031</u>)

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.





Residenti	al Meters	Non-Reside	ntial Met
Meter Size	Quantity	Meter Size Quanti	
5/8"	0	5/8"	0
3/4"	19,429	3/4"	683
1"	960	1"	404
1-1/2"	8	1-1/2"	64
2"	17	2"	827
3"	0	3"	29
4"	0	4"	18
6"	0	6"	4
8"	0	8"	2
10"	0	10"	0

20. Are there any current ordinances concerning wastewater impact fees within your utility? Yes.





Demographics Information

- 1. Wholesale Customer Name: Town of Pantego
- 2. Wholesale Customer Type (Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections		
2019		
2020	2,415	
2030	2,465	
2040	2,515	

Employment Projections		
2019		
2020	1,826	
2030	2,067	
2040	2,294	

Wastewater Service Information

- 5. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow		
Projections (MGD)		
2020	0.18	
2030	0.18	
2040	0.19	

Peak W	Vet Weather	
	jection (MGD)	
2020	0.72	
2030	0.72	
2040	0.72	

Percentage of Wastewater		
Flow Served by FTW		
2020	75%	
2030	75%	
2040	75%	

8. Existing number of

wastewater customers SERVED by Fort Worth

(Residential:_____, Non-Residential:_____)

- 9. Will your service area boundaries be expanded in the next 20 years?
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8",

10") – Skip if you provided information in the previous section.

11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") – Skip if you provided information in the previous section.

LEGEND FNI Responses in Blue City Responses in Red





Residential Meters		
Meter Size	Quantity	
5/8"	0	
3/4"	655	
1"	58	
1-1/2"	5	
2"	0	
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

Non-Residential Meters		
Quantity		
0		
439		
15		
13		
19		
3		
3		
0		
0		
0		

12. Are there any current ordinances concerning wastewater impact fees within your utility?





LEGEND FNI Responses in Blue City Responses in Red

Demographics Information

- 1. Wholesale Customer Name: City of Richland Hills
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections		
2019	8,300	
2020	8,300	
2030	8,300	
2040	8,300	

Employment Projections				
2019				
2020	8,937			
2030	9,495			
2040	10,072			

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand Projections (MGD)			n Day Demand tions (MGD)	
2020	1,200,000	2020	2,500,000	
2030	1,200,000	2030	2,500,000	
2040	1,200,000	2040	2,500,000	

Percentage of Water Demands Served by FTW			
2020	75%		
2030	100%		
2040	100%		

- 8. Will you require a larger and/or additional meter within the next 20 years? Yes.
- 9. Will your service area boundaries be expanded within the next 20 years? Yes.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")





Resident	tial Meters	Non-Re
Meter Size	Quantity	Meter Siz
5/8"	2	5/8"
3/4"	2,778	3/4"
1"	79	1"
1-1/2"	17	1-1/2"
2"	11	2"
3"	0	3"
4"	0	4"
6"	0	6"
8"	0	8"
10"	0	10"

Non-Residential Meters		
Meter Size	Quantity	
5/8"	0	
3/4"	165	
1"	85	
1-1/2"	31	
2"	42	
3"	3	
4"	2	
6"	0	
8"	0	
10"	0	

12. Are there any current ordinances concerning water impact fees within your utility?

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections (MGD)		Peak Wet Weather Flow Projections (MGD)	
2020	1,500,000	2020	600,000
2030	1,500,000	2030	600,000
2040	1,500,000	2040	600,000

Percentage of Wastewater Flow Served by FTW		
2020	100%	
2030	100%	
2040	100%	

- 16. Existing number of wastewater customers SERVED by Fort Worth (Residential: <u>2,686</u>, Non-Residential: <u>260</u>)
- 17. Will your service area boundaries be expanded in the next 20 years? Yes.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10") – Skip if you provided information in the previous section.





Residential Meters		Non-Reside	ntial Meters
Meter Size	Quantity	Meter Size	Quantity
5/8"	2	5/8"	0
3/4"	2,778	3/4"	165
1"	79	1"	85
1-1/2"	17	1-1/2"	31
2"	11	2"	42
3"	0	3"	3
4"	0	4"	2
6"	0	6"	0
8"	0	8"	0
10"	0	10"	0

20. Are there any current ordinances concerning wastewater impact fees within your utility?





Demographics Information

- 1. Wholesale Customer Name: City of River Oaks
- 2. Wholesale Customer Type (Emergency Connection Water, 100% Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections		
2019	7,427	
2020	7,600	
2030	8,152	
2040	8,200	

	Employment Projections		
2019		7,619	
	2020	7,700	
	2030 8,200		
	2040	8,200	

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040) (Emergency Connection Only) City of River Oaks has a surface water plant.

Average Day Demand Projections (MGD)		
2020	0	
2030	0	
2040	0	

Maximum Day Demand		
Project	tions (MGD)	
2020	0	
2030	0	
2040	0	

Percentage of Water Demands			
Served by FTW			
2020	0% (Emergency Only)		
2030	0% (Emergency Only)		
2040 0% (Emergency Only)			

8. Will you require a larger

and/or additional meter within the next 20 years? No.

- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8",
 - 10") 2,723 Residential Connections
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10") 203 Non-Residential Customers

LEGEND





		1		
Residential Meters			Non-Residential Mete	
Meter Size	Quantity		Meter Size	Quanti
5/8"	2,529		5/8"	274
3/4"	15		3/4"	0
1"	49		1"	66
1-1/2"	9		1-1/2"	41
2"	2		2"	36
3"	0		3"	2
4"	0		4"	2
6"	0		6"	5
8"	0		8"	0
10"	0		10"	0

12. Are there any current ordinances concerning water impact fees within your utility?

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040) Cannot be measured. City of River Oaks and the City of Fort Worth have 14 interconnects. See attached contract and map for calculations.
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow		
Projections (MGD)		
2020	0.76	
2030	0.82	
2040	0.82	

Peak Wet Weather				
	Flow Projection (MGD)			
	2020	3.04		
	2030	3.28		
	2040	3.28		

Percentage of Wastewater		
Flow Served by FTW		
2020	100%	
2030	100%	
2040	100%	

16. Existing number of

wastewater customers SERVED by Fort Worth

(Residential: <u>2,711</u>, Non-Residential: <u>191</u>)

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8",

10") - Skip if you provided information in the previous section.





19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10") – Skip if you provided information in the previous section.





Residential Meters		Non-Residential Mete	
Meter Size	Quantity	Meter Size	Quantity
5/8"		5/8"	
3/4"		3/4"	
1"		1"	
1-1/2"		1-1/2"	
2"		2"	
3"		3"	
4"		4"	
6"		6"	
8"		8"	
10"		10"	

20. Are there any current ordinances concerning wastewater impact fees within your utility? No, City of River Oaks collects only Fort Worth Impact Fee under any new development.







Demographics Information

- 1. Wholesale Customer Name: City of Saginaw
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections		
2019	22,380	
2020	22,940	
2030	29,364	
2040	33,000	

Employment Projections		
2019	11,311	
2020	11,640	
2030	15,195	
2040	17,900	

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand	
Projec	tions (MGD)
2020	3.27
2030	4.18
2040	4.70

Maximum Day Demand		
Project	tions (MGD)	
2020	6.41	
2030	8.21	
2040	9.22	

Percentage of Water Demands Served by FTW	
2020	100%
2030	100%
2040	100%

8. Will you require a larger

and/or additional meter within the next 20 years? No.

- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")

LEGEND FNI Responses in Blue City Responses in Red





Residential Meters		
Meter Size	Quantity	
5/8"	7,950	
3/4"	0	
1"	0	
1-1/2"	0	
2"	0	
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	
Total: 7,950		

Non-Residential Meters		
Meter Size	Quantity	
5/8"	333	
3/4"	0	
1"	0	
1-1/2"	0	
2"	0	
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

Total: 333

12. Are there any current ordinances concerning water impact fees within your utility?

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections (MGD)			Vet Weather jection (MGD)
2020 2.57		2020	10.28
2030	3.29	2030	13.16
2040 3.70		2040	14.8

Percentage of Wastewater		
Flow Served by FTW		
2020	100%	
2030	100%	
2040	100%	

16. Existing number of

wastewater customers SERVED by Fort Worth

(Residential:_____, Non-Residential:_____) Total: 8,283

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10") - Skip if you provided information in the previous section.





Residential Meters			Non-Reside	ntial Meter
Meter Size	Quantity		Meter Size	Quantity
5/8"	7,950		5/8"	333
3/4"	0		3/4"	0
1"	0		1"	0
1-1/2"	0		1-1/2"	0
2"	0		2"	0
3"	0		3"	0
4"	0		4"	0
6"	0		6"	0
8"	0		8"	0
10"	0		10"	0
Total: 7,9	950	_	Total: 333	

20. Are there any current ordinances concerning wastewater impact fees within your utility? Ordinance 2011-21 and Amending Ordinance 2011-22.







Demographics Information

- 1. Wholesale Customer Name: City of Sansom Park
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections		
2019	5,075	
2020	5,575	
2030	5,845	
2040	6,147	

Employn	Employment Projections		
2019			
2020	1,139		
2030	1,219		
2040	1,306		

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand		
Projections (MGD)		
2020		
2030		
2040		

Maximum Day Demand			
	tions (MGD)		
2020			
2030			
2040			

Percentage of Water		
Demands Served by FTW		
2020	0%	
2030	0%	
2040	0%	

8. Will you require a larger

and/or additional meter within the next 20 years? No.

- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")

LEGEND FNI Responses in Blue City Responses in Red





Residential Meters		
Meter Size	Quantity	
5/8"	1,413	
3/4"	0	
1"	0	
1-1/2"	0	
2"	0	
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

New Desidential Materia		
Non-Residential Meters		
Meter Size	Quantity	
5/8"	110	
3/4"	0	
1"	1	
1-1/2"	0	
2"	1	
3"	4	
4"	0	
6"	0	
8"	0	
10"	0	

12. Are there any current ordinances concerning water impact fees within your utility?

Yes.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow Projections (MGD)			Vet Weather jection (MGD)
2020	410,000	2020	460,000
2030	500,000	2030	570,000
2040	600,000	2040	680,000

Percentage of Wastewater Flow Served by FTW	
2020	100%
2030	100%
2040	100%

16. Existing number of

wastewater customers SERVED by Fort Worth

(Residential: <u>1,413</u>, Non-Residential: <u>116</u>)

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8",

10") - Skip if you provided information in the previous section.

19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10") – Skip if you provided information in the previous section.





Residential Meters		
Meter Size	Quantity	
5/8"	1,413	
3/4"	0	
1"	0	
1-1/2"	0	
2"	0	
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

Non-Residential Meters	
Meter Size	Quantity
5/8"	110
3/4"	0
1"	1
1-1/2"	0
2"	1
3"	4
4"	0
6"	0
8"	0
10"	0

20. Are there any current ordinances concerning wastewater impact fees within your utility? Yes.





LEGEND FNI Responses in Blue City Responses in Red

Demographics Information

- 1. Wholesale Customer Name: City of Watauga
- 2. Wholesale Customer Type (Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections		
2019	23,770	
2020	24,793	
2030	27,387	
2040	30,000	

Employment Projections		
2019		
2020	4,284	
2030	4,838	
2040	4,938	

Wastewater Service Information

- 5. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040) 100%
- 6. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040) 100%
- 7. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow		
Projections (MGD)		
2020	2.48	
2030	2.74	
2040	2.76	

Peak Wet Weather					
Flow Pro	jection (MGD)				
2020	9.92				
2030	10.96				
2040	11.04				

Percentage of Wastewater Flow Served by FTW					
2020)	100%			
2030)	100%			
2040)	100%			

8. Existing number of

wastewater customers SERVED by Fort Worth

(Residential:_____, Non-Residential:_____) 8,315 connections.

- 9. Will your service area boundaries be expanded in the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8",

10") – Skip if you provided information in the previous section.

11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") – Skip if you provided information in the previous section. 344 total meters.





Residential Meters			
Meter Size	Quantity		
5/8"	0		
3/4"	6,377		
1"	1,925		
1-1/2"	5		
2"	120		
3"	3		
4"	4		
6"	0		
8"	1		
10"	0		

Non-Residential Meters			
Meter Size	Quantity		
5/8"	0		
3/4"	0		
1"	0		
1-1/2"	0		
2"	0		
3"	0		
4"	0		
6"	0		
8"	0		
10"	0		

12. Are there any current ordinances concerning wastewater impact fees within your utility? Fort Worth Impact Fee.





- Demographics Information
 - 1. Wholesale Customer Name: Town of Westover Hills
 - 2. Wholesale Customer Type (Water and Wastewater)
 - 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
 - 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections				
2019	682			
2020	682			
2030	682			
2040	682			

Employment Projections				
2019	576			
2020	576			
2030	576			
2040	576			

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand Projections (MGD)			n Day Demand tions (MGD)	I
2020	1	2020	1	
2030	1	2030	1	
2040	1	2040	1	

Percentage of Water						
Demands Served by FTW						
2020	100%					
2030	100%					
2040	100%					

- 8. Will you require a larger and/or additional meter within the next 20 years? No.
- 9. Will your service area boundaries be expanded within the next 20 years? No.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")

LEGEND FNI Responses in Blue City Responses in Red





Residential Meters		Non-Resid	ential Meters
Meter Size	Quantity	Meter Size	Quantity
5/8"	0	5/8"	2
3/4"	7	3/4"	0
1"	110	1"	0
1-1/2"	149	1-1/2"	1
2"	41	2"	0
3"	2	3"	0
4"	1	4"	0
6"	0	6"	0
8"	0	8"	0
10"	0	10"	0

12. Are there any current ordinances concerning water impact fees within your utility? Yes, ordinance replicating those of Fort Worth.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

	Average Day Flow Projections (MGD)			t Weather Flow ctions (MGD)
2020	0		2020	0
2030	0		2030	0
2040	0		2040	0

Percentage of Wastewater Flow Served by FTW				
2020	100%			
2030	100%			
2040	100%			

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential: <u>219</u>, Non-Residential: <u>0</u>)

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.





Residential Meters		Non-Res	idential Meters
Meter Size	Quantity	Meter Siz	e Quantity
5/8"	0	5/8"	2
3/4"	7	3/4"	0
1"	110	1"	0
1-1/2"	149	1-1/2"	1
2"	41	2"	0
3"	2	3"	0
4"	1	4"	0
6"	0	6"	0
8"	0	8"	0
10"	0	10"	0

20. Are there any current ordinances concerning wastewater impact fees within your utility? Yes, matches what the City of Fort Worth has.





LEGEND FNI Responses in Blue City Responses in Red

Demographics Information

- 1. Wholesale Customer Name: Westworth Village
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections	
2019	
2020	3,157
2030	3,214
2040	3,272

Employment Projections		
2019		
2020	1,683	
2030	1,778	
2040	1,863	

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

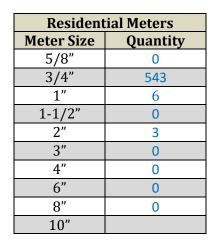
	Day Demand tions (MGD)		n Day Demand tions (MGD)		ntage of Water ls Served by FTW
2020	0.34	2020	0.85	2020	100%
2030	0.35	2030	0.87	2030	100%
2040	0.36	2040	0.90	2040	100%

- 8. Will you require a larger and/or additional meter within the next 20 years?
- 9. Will your service area boundaries be expanded within the next 20 years?
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 12. Annual residential consumption per meter (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8",

10")

13. Annual non-residential consumption per meter (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")





Non-Residential Meters	
Meter Size	Quantity
5/8"	0
3/4"	3
1"	15
1-1/2"	6
2"	18
3"	2
4"	1
6"	1
8"	0
10"	0

14. Are there any current ordinances concerning water impact fees within your utility?

Wastewater Service Information

- 15. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 16. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 17. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow		
Project	tions (MGD)	Fl
2020	0.32	
2030	0.32	
2040	0.33	•

Peak Wet Weather		
Flow Pro	jection (MGD)	
2020	1.28	
2030	1.28	
2040	1.32	

Percentage of Wastewater		
Flow Served by FTW		
2020	100%	
2030	100%	
2040	100%	

18. Existing number of

wastewater customers SERVED by Fort Worth

(Residential:____, Non-Residential:____)

- 19. Will your service area boundaries be expanded in the next 20 years?
- 20. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 21. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10") – Skip if you provided information in the previous section.





Residential Meters		
Meter Size	Quantity	
5/8"		
3/4"		
1"		
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

Non-Residential Meters		
Meter Size	Quantity	
5/8"		
3/4"		
1"		
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

22. Are there any current ordinances concerning wastewater impact fees within your utility?





Demographics Information

- 1. Wholesale Customer Name: City of White Settlement
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections	
2019	
2020	16,997
2030	17,522
2040	17,530

Employment Projections		
2019		
2020	8,216	
2030	9,458	
2040	10,353	

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average	Day Demand
Project	tions (MGD)
2020	1.14
2030	1.18
2040	1.18

Maximum Day Demand				
Project	tions (MGD)			
2020	1.94			
2030	2.01			
2040	2.01			

Percentage of Water Demands Served by FTW			
2020	55%		
2030	55%		
2040	55%		

8. Will you require a larger

and/or additional meter within the next 20 years?

- 9. Will your service area boundaries be expanded within the next 20 years?
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")

LEGEND FNI Responses in Blue City Responses in Red





Residential Meters		Non-Reside	ential Meters
Meter Size Quantity		Meter Size	Quantity
5/8"	2,760	5/8"	125
3/4"		3/4"	0
1"		1"	6
1-1/2"		1-1/2"	25
2"		2"	57
3"		3"	7
4"		4"	2
6"		6"	1
8"		8"	
10"		10"	

12. Are there any current ordinances concerning water impact fees within your utility? Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)

15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Flow			Peak Wet Weather	
Projections (MGD)			Flow Projection (MGD)	
2020	1.70		2020	6.80
2030	1.75		2030	7.00
2040	1.75		2040	7.00

Percentage of Wastewater				
Flow Served by FTW				
2020	100%			
2030	100%			
2040	100%			

16. Existing number of

wastewater customers SERVED by Fort Worth

(Residential:_____, Non-Residential:_____)

- 17. Will your service area boundaries be expanded in the next 20 years?
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.





Residential Meters			
Meter Size	Quantity		
5/8"	5,156		
3/4"			
1"			
1-1/2"			
2"			
3"			
4"			
6"			
8"			
10"			

Non-Residential Meters		
Meter Size	Quantity	
5/8"	236	
3/4"		
1"	74	
1-1/2"	46	
2"	113	
3"	13	
4"	4	
6"	1	
8"		
10"		

20. Are there any current ordinances concerning wastewater impact fees within your utility?





FNI Responses in Blue City Responses in Red

LEGEND

Demographics Information

- 1. Wholesale Customer Name: Bethesda Water Supply Corp.
- 2. Wholesale Customer Type (Water and Wastewater)
- 3. City-Wide Population Projections (2019, 2020, 2030, 2040)
- 4. City-Wide Employment Projections (2019, 2020, 2030, 2040)

Population Projections				
2019 31,563				
2020	31,869			
2030	35,099			
2040	38,656			

Employment Projections				
2019	0			
2020	0			
2030	0			
2040	0			

Water Service Information

- 5. Average Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 6. Maximum Day Demand Projections SERVED by Fort Worth (2020, 2030, 2040)
- 7. What percentage of your projected water demands are anticipated to be served by Fort Worth? (2020, 2030, 2040)

Average Day Demand Projections (MGD)		Maximum Day Demand Projections (MGD)		
2020	2,990,000	2020	8,630,000	
2030	3,290,000	2030	9,502,000	
2040	3,620,000	2040	10,400,000	

Percentage of Water Demands Served by FTW					
2020	68%				
2030	75%				
2040	79%				

- 8. Will you require a larger and/or additional meter within the next 20 years? Yes.
- 9. Will your service area boundaries be expanded within the next 20 years? Yes.
- 10. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10")
- 11. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6",

8", 10")





Residential Meters		Non-Reside	ential Meters
Meter Size Quantity		Meter Size	Quantity
5/8"	10,293	5/8"	142
3/4"	8	3/4"	8
1"	42	1"	44
1-1/2"	4	1-1/2"	13
2"	2	2"	55
3"	1	3"	1
4"	0	4"	8
6"	0	6"	1
8"	0	8"	0
10"	0	10"	0

12. Are there any current ordinances concerning water impact fees within your utility? Yes; \$1,000.00 equity buy-in fee per 5/8" meter equivalent.

Wastewater Service Information

- 13. Average Day Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 14. Peak Wet Weather Flow Projections SERVED by Fort Worth (2020, 2030, 2040)
- 15. What percentage of your projected wastewater flows are anticipated to be served by Fort Worth? (2020, 2030, 2040)

	ge Day Flow ojections		Vet Weather Projections
2020	78,732	2020	101,041
2030	78,732	2030	101,041
2040	78,732	2040	101,041

Percentage of Wastewater Flow Served by FTW							
2020	4%						
2030	4%						
2040	4%						

16. Existing number of wastewater customers SERVED by Fort Worth

(Residential: <u>426</u>, Non-Residential: <u>0</u>)

- 17. Will your service area boundaries be expanded in the next 20 years? No.
- 18. Existing number of residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.
- 19. Existing number of non-residential water meters (5/8", 3/4", 1", 1-1/2", 2", 3", 4", 6", 8", 10") Skip if you provided information in the previous section.





Residenti	al Meters	Non-Reside	ntial Meter	
Meter Size	Quantity	Meter Size	Quantity	
5/8"	10,293	5/8"	142	
3/4"	8	3/4"	8	
1"	42	1"	44	
1-1/2"	4	1-1/2"	13	
2"	2	2"	55	
3"	1	3"	1	
4"	0	4"	8	
6"	0	6"	1	
8"	0	8"	0	
10"	0	10"	0	

20. Are there any current ordinances concerning wastewater impact fees within your utility? No.

Page 3 of 3



Appendix B Population and Employment Projections



DRAFT Appendix B Wastewater Wholesale Customer Population and Employment Projections City of Fort Worth



	Population		۱ <u> </u>	Employment			Portion Served by Fort Worth			Served Population			Served Employment		
Wholesale Customer	2022	2031	2041	2022	2031	2041	2022	2031	2041	2022	2031	2041	2022	2031	2041
Benbrook Water Authority	24,204	29,494	35,393	6,462	7,562	8,661	100%	100%	100%	24,204	29,494	35,393	6,462	7,562	8,661
Bethesda Water Supply Corp.	32,515	35,810	39,367	0	0	0	4%	4%	4%	1,301	1,432	1,575	0	0	0
Blue Mound	2,700	2,700	2,700	756	881	1,010	100%	100%	100%	2,700	2,700	2,700	756	881	1,010
Burleson	55,575	84,095	114,827	24,046	27,500	31,500	100%	100%	100%	55,575	84,095	114,827	24,046	27,500	31,500
Crowley	19,442	27,000	37,000	3,253	4,098	5,052	100%	100%	100%	19,442	27,000	37,000	3,253	4,098	5,052
Edgecliff Village	3,244	3,260	3,260	1,659	1,830	1,932	100%	100%	100%	3,244	3,260	3,260	1,659	1,830	1,932
Everman	6,700	7,600	8,100	1,667	1,738	1,807	100%	100%	100%	6,700	7,600	8,100	1,667	1,738	1,807
Forest Hill	13,110	13,160	13,210	9,622	9,751	9,946	100%	100%	100%	13,110	13,160	13,210	9,622	9,751	9,946
Haltom City	44,800	50,000	50,000	21,940	24,500	24,500	100%	100%	100%	44,800	50,000	50,000	21,940	24,500	24,500
Hurst	38,735	39,873	41,053	27,541	31,276	33,351	92%	92%	92%	35,636	36,683	37,769	25,338	28,774	30,683
Kennedale	8,300	11,709	16,152	4,866	6,115	7,370	4%	4%	4%	332	468	646	195	245	295
Lake Worth	5,132	5,958	6,595	3,265	3,793	3,864	100%	100%	100%	5,132	5,958	6,595	3,265	3,793	3,864
North Richland Hills	73,400	80,800	89,800	24,419	26,745	29,269	80%	80%	80%	58,720	64,640	71,840	19,535	21,396	23,415
Pantego ¹	2,425	2,475	2,525	1,874	2,112	2,339	75%	75%	75%	1,819	1,856	1,894	1,406	1,584	1,754
Richland Hills	8,300	8,300	8,300	9,048	9,610	10,187	100%	100%	100%	8,300	8,300	8,300	9,048	9,610	10,187
River Oaks	7,710	8,162	8,210	7,800	8,200	8,200	100%	100%	100%	7,710	8,162	8,210	7,800	8,200	8,200
Saginaw	24,225	30,091	33,727	12,351	15,736	18,441	100%	100%	100%	24,225	30,091	33,727	12,351	15,736	18,441
Sansom Park	5,629	5,905	6,207	1,155	1,236	1,323	100%	100%	100%	5,629	5,905	6,207	1,155	1,236	1,323
Trinity River Authority	0	0	0	0	0	0	0%	0%	0%	0	0	0	0	0	0
Watauga	25,312	27,431	27,652	4,395	4,858	4,958	100%	100%	100%	25,312	27,431	27,652	4,395	4,858	4,958
Westover Hills	682	682	682	576	576	576	100%	100%	100%	682	682	682	576	576	576
Westworth Village ¹	3,169	3,226	3,284	1,702	1,795	1,880	100%	100%	100%	3,169	3,226	3,284	1,702	1,795	1,880
White Settlement ¹	17,102	17,524	17,532	8,464	9,637	10,532	100%	100%	100%	17,102	17,524	17,532	8,464	9,637	10,532
TOTAL	422,411	495,255	565,576	176,861	199,549	216,698				364,844	429,667	490,403	164,635	185,300	200,516

¹Survey not received, data taken from the 2016 Impact Fee Update

FREESE AND NICHOLS, INC. DRAFT Exhibit B: Land Use Assumptions - Wastewater

FREESE AND NICHOLS, INC. 4055 International Plaza, Suite 200 Fort Worth, Texas 76109 817-735-7300

www.freese.com