

Appendix B

Water Wholesale Customer Surveys



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer _____ City of Aledo _____

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)	-*	
Estimated NCTCOG	-*	
Freese and Nichols, Inc. Adjusted Value	-*	

*2012 Impact Fee Survey

Population Projections*	
2012	2,780
2013	2,820
2023	6,850
2033	13,258 Buildout

*2012 Impact Fee Survey

Population Projections	
2016	2,980
2017	3,250
2027	8,470
2037	13,258 Buildout

Employment Projections*	
2012	796
2013	796
2023	836
2033	878

*2012 Impact Fee Survey

Employment Projections	
2016	808
2017	812
2027	853
2037	895

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

Average Day*		
2012	0.47	MGD
2013	0.55	MGD
2023	1.23	MGD
2033	2.45	MGD

*2012 Impact Fee Survey

Maximum Day*		
2012	0.75	MGD
2013	1.04	MGD
2023	2.77	MGD
2033	5.52	MGD

*2012 Impact Fee Survey

Average Day		
2016	0.76	MGD
2017	0.83	MGD
2027	1.53	MGD
2037	2.73	MGD

Maximum Day		
2016	1.91	MGD
2017	2.20	MGD
2027	3.90	MGD
2037	6.70	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>0</u>	%	2016	<u>80</u>	%
2013*	<u>80</u>	%	2017	<u>80</u>	%
2023*	<u>85</u>	%	2027	<u>87</u>	%
2033*	<u>97</u>	%	2037	<u>98</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES		
NO	XXX*	X

*2012 Survey

5 Amount of water needed and starting year:

0.44*		MGD
2013*		Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	X(ETJ)*	X
NO		

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	0	0
3/4"	863	1137
1"	4	11
1-1/2"	0	0
2"	1	1
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	0	0
3/4"	97	111
1"	10	15
1-1/2"	4	6
2"	21	25
3"	3	3
4"	3	3
6"	0	
8"	0	
10"	0	

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	0	
3/4"	85,654,520	89,290,900
1"	739,080	3,338,580
1-1/2"	0	0
2"	116,100	368,700
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	0	
3/4"	6,696,080	6,776,630
1"	0	3,121,930
1-1/2"	1,910,220	1,620,700
2"	4,552,030	9,540,130
3"	124,070	123,560
4"	1,991,630	2,589,920
6"	0	
8"	0	
10"	0	

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer Bethesda Water Supply Corporation

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)	-*	
Estimated NCTCOG	-*	
Freese and Nichols, Inc. Adjusted Value	-*	

*2012 Impact Fee Survey

Population Projections*	
2012	29,709
2013	30,363
2023	37,744
2033	46,920

*2012 Impact Fee Survey

Population Projections	
2016	31.682
2017	32.126
2027	36.623
2037	41.750

Employment Projections*	
2012	N/A
2013	
2023	
2033	

*2012 Impact Fee Survey

Employment Projections	
2016	N/A
2017	
2027	
2037	

0
0
0
0

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	4.647	MGD
2013	4.023	MGD
2023	4.975	MGD
2033	5.987	MGD

*2012 Impact Fee Survey

	<u>Average Maximum Day</u>	
2016	3.934	MGD
2017	3.951	MGD
2027	4.523	MGD
2037	5.156	MGD

	<u>Maximum Day*</u>	
2012	11.251	MGD
2013	12.069	MGD
2023	14.925	MGD
2033	17.961	MGD

*2012 Impact Fee Survey

	<u>Maximum Day</u>	
2016	10.564	MGD
2017	10.712	MGD
2027	12.212	MGD
2037	13.921	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>70</u>	%	2016	<u>70</u>	%
2013*	<u>70</u>	%	2017	<u>70</u>	%
2023*	<u>90</u>	%	2027	<u>70</u>	%
2033*	<u>95</u>	%	2037	<u>85</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*2012 Survey

5 Amount of water needed and starting year:

17*		MGD
2018*		Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	9432	9821
3/4"	38	53
1"	39	49
1-1/2"	4	6
2"	0	0
3"	0	0
4"	0	0
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	145	132
3/4"	3	5
1"	13	18
1-1/2"	5	10
2"	22	34
3"	1	2
4"	2	2
6"	1	1
8"	0	0
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	1,570,333,100	1118369793
3/4"	10,403,200	8668200
1"	17,447,300	13423000
1-1/2"	1,955,200	2639200
2"	0	30679100
3"	0	0
4"	0	0
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	18,368,200	13830400
3/4"	860,900	1066200
1"	5,451,000	2473700
1-1/2"	1,934,900	7400300
2"	26,560,600	40781700
3"	7,089,000	8428000
4"	759,500	909400
6"	868,400	1612000
8"	0	0
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

N/A



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



Wholesale Customer City of Burleson

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)	
Estimated NCTCOG	
Freese and Nichols, Inc. Adjusted Value	

Population Projections	
2016	
2017	43,622
2027	60,348
2037	88,157

Employment Projections	
2016	
2017	21,264
2027	28,494
2037	35,943

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

<u>Average Day</u>		<u>Maximum Day</u>	
2016	_____ MGD	2016	_____ MGD
2017	_____ MGD	2017	_____ MGD
2027	_____ MGD	2027	_____ MGD
2037	_____ MGD	2037	_____ MGD

3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2016	_____ %
2017	<u>100%</u> %
2027	_____ %
2037	_____ %

4 Will you need a larger or additional meter? YES
 NO

5 Amount of water needed and starting year: MGD
 Year

6 Will your service area boundaries be expanding? YES
 NO



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



7 Existing Number of residential water meters:

Meter Size	Quantity
5/8"	12,998
3/4"	3
1"	43
1-1/2"	7
2"	3
3"	0
4"	0
6"	0
8"	0
10"	0

Brandi

8 Existing Number of non-Residential water meters:

Meter Size	Quantity
5/8"	476
3/4"	5
1"	226
1-1/2"	130
2"	261
3"	22
4"	6
6"	1
8"	0
10"	0

Brandi

9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)
5/8"	85,200
3/4"	148,800
1"	157,200
1-1/2"	301,200
2"	104,400
3"	N/A
4"	
6"	
8"	
10"	

Brandi



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)
5/8"	73,200
3/4"	180,000
1"	234,000
1-1/2"	524,400
2"	781,200
3"	998,400
4"	432,000
6"	1,632,000
8"	N/A
10"	N/A

Brandi

11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

Yes



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer City of Crowley

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)	13,504 (estimate)*	
Estimated NCTCOG		
Freese and Nichols, Inc. Adjusted Value		

*2012 Impact Fee Survey

Population Projections*	
2012	13,504 (est.)
2013	13,910 (est.)
2023	14,327 (est.)
2033	14,757 (est.)

*2012 Impact Fee Survey

Population Projections	
2016	14,770
2017	14,770
2027	15,180
2037	16,240

Employment Projections*	
2012	-*
2013	-*
2023	-*
2033	-*

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	2,862
2027	3,621
2037	4,575

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	<u>-*</u>	MGD
2013	<u>-*</u>	MGD
2023	<u>-*</u>	MGD
2033	<u>-*</u>	MGD

*2012 Impact Fee Survey

	<u>Maximum Day*</u>	
2012	<u>-*</u>	MGD
2013	<u>-*</u>	MGD
2023	<u>-*</u>	MGD
2033	<u>-*</u>	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	<u> </u>	MGD
2017	<u> </u>	MGD
2027	<u> </u>	MGD
2037	<u> </u>	MGD

	<u>Maximum Day</u>	
2016	<u> </u>	MGD
2017	<u> </u>	MGD
2027	<u> </u>	MGD
2037	<u> </u>	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	85	%	2016	95	%
2013*	95	%	2017	95	%
2023*	95	%	2027	99	%
2033*	95	%	2037	100	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES		
NO	X*	X

*2012 Survey

5 Amount of water needed and starting year:

-*		MGD
-*		Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES		
NO	X*	X

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	4,806	5168
3/4"		
1"	22	28
1-1/2"		3
2"		7
3"		2
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	175	171
3/4"		
1"	59	63
1-1/2"	19	22
2"	58	58
3"	12	9
4"	1	1
6"		
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	-*	385,898,000
3/4"	-*	
1"	-*	2,388,796
1-1/2"	-*	779,592
2"	-*	389,796
3"	-*	389,796
4"	-*	
6"	-*	
8"	-*	
10"	-*	

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	-*	47,945,000
3/4"	-*	
1"	-*	17,184,000
1-1/2"	-*	2,237,000
2"	-*	14,283,000
3"	-*	1,791,000
4"	-*	18,000
6"	-*	
8"	-*	
10"	-*	

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



Wholesale Customer Dallas Fort Worth International Airport Board

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)	-*	N/A
Estimated NCTCOG	-*	N/A
Freese and Nichols, Inc. Adjusted Value	-*	N/A

*2012 Impact Fee Survey

Population Projections*	
2012	218,375
2013	221,878
2023	230,753
2033	239,983

*2012 Impact Fee Survey

Population Projections	
2016	238,338
2017	261,439
2027	321,526
2037	383,692

Employment Projections*	
2012	60,000
2013	60,000
2023	61,500
2033	63,037

*2012 Impact Fee Survey

Employment Projections	
2016	61,900
2017	61,900
2027	63,200
2037	64,624

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	<u>1,147,623</u>	MGD
2013	<u>1,147,623</u>	MGD
2023	<u>1,023,861</u>	MGD
2033	<u>877,931</u>	MGD

*2012 Impact Fee Survey

	<u>Maximum Day*</u>	
2012	<u>4.0</u>	MGD
2013	<u>4.0</u>	MGD
2023	<u>4.0</u>	MGD
2033	<u>4.0</u>	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	<u>1,082,674</u>	MGD
2017	<u>1,088,088</u>	MGD
2027	<u>1,143,733</u>	MGD
2037	<u>1,202,223</u>	MGD

	<u>Maximum Day</u>	
2016	<u>4.0</u>	MGD
2017	<u>4.0</u>	MGD
2027	<u>4.0</u>	MGD
2037	<u>4.0</u>	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	33	%	2016	33	%
2013*	33	%	2017	33	%
2023*	20	%	2027	25	%
2033*	20	%	2037	25	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES		
NO	X*	X

*2012 Survey

5 Amount of water needed and starting year:

4.0	NC	MGD
2013	NC	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES		
NO	X*	X

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	-*	N/A
3/4"	-*	N/A
1"	-*	N/A
1-1/2"	-*	N/A
2"	-*	N/A
3"	-*	N/A
4"	-*	N/A
6"	-*	N/A
8"	-*	N/A
10"	-*	N/A

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	3	4
3/4"	3	4
1"	8	9
1-1/2"	25	36
2"	211	262
3"	30	40
4"	56	68
6"	17	21
8"	5	4
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	-*	N/A
3/4"	-*	N/A
1"	-*	N/A
1-1/2"	-*	N/A
2"	-*	N/A
3"	-*	N/A
4"	-*	N/A
6"	-*	N/A
8"	-*	N/A
10"	-*	N/A

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	4,449,868	275,047
3/4"	4,449,868	275,047
1"	22,249,341	841,690
1-1/2"	44,498,684	10,962,330
2"	111,246,709	265,488,144
3"	75,647,762	44,277,719
4"	111,246,709	136,566,164
6"	75,647,762	220,857,928
8"	0	567,500
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

No.



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



Wholesale Customer City of Dalworthington Gardens

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

X*	

*2012 Impact Fee Survey

Population Projections*	
2012	2,270
2013	2,361
2023	3,361
2033	4,975

*2012 Impact Fee Survey

Population Projections	
2016	2259
2017	2265
2027	2365
2037	2465

Employment Projections*	
2012	600
2013	625
2023	889
2033	1,317

*2012 Impact Fee Survey

Employment Projections	
2016	650
2017	700
2027	850
2037	950

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	0.746	MGD
2013	-*	MGD
2023	-*	MGD
2033	-*	MGD

*2012 Impact Fee Survey

	<u>Maximum Day*</u>	
2012	1.834	MGD
2013	-*	MGD
2023	-*	MGD
2033	-*	MGD

*2012 Impact Fee Survey

	<u>Maximum Day</u>	
2016	.75	MGD
2017	.75	MGD
2027	1.25	MGD
2037	1.75	MGD

	<u>Maximum Day</u>	
2016	1.6	MGD
2017	1.6	MGD
2027	2.5	MGD
2037	3.0	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>60</u>	%	2016	<u>60</u>	%
2013*	<u>-</u>	%	2017	<u>60</u>	%
2023*	<u>-</u>	%	2027	<u>60</u>	%
2033*	<u>-</u>	%	2037	<u>60</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	<input type="checkbox"/>	<input type="checkbox"/>
NO	<input checked="" type="checkbox"/> *	<input checked="" type="checkbox"/>

*2012 Survey

5 Amount of water needed and starting year:

N/A*	<input type="checkbox"/>	MGD
N/A*	<input type="checkbox"/>	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	<input type="checkbox"/>	<input type="checkbox"/>
NO	<input checked="" type="checkbox"/> *	<input checked="" type="checkbox"/>

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	214	505
3/4"	399	60
1"	297	341
1-1/2"	5	6
2"	9	11
3"	0	0
4"	0	0
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	13	65
3/4"	85	14
1"	22	40
1-1/2"	3	3
2"	22	16
3"	0	0
4"	0	0
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	.*	61,934,000
3/4"	.*	7,343,000
1"	.*	93,472,000
1-1/2"	.*	837,000
2"	.*	2,921,000
3"	.*	
4"	.*	
6"	.*	
8"	.*	
10"	.*	

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	.*	3,223,000
3/4"	.*	998,000
1"	.*	9,128,000
1-1/2"	.*	
2"	.*	7,170,000
3"	.*	
4"	.*	
6"	.*	
8"	.*	
10"	.*	

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

Yes - See Attachment

Sec. 10.03.006 Land use assumptions

- (a) The land use assumptions for the city are contained in appendix A to this article, which is incorporated herein by reference.
- (b) The land use assumptions for the city shall be updated as required by chapter 395 of the Local Government Code.
- (c) Amendments to the land use assumptions shall incorporate projections of change in land uses, densities, intensities and population therein over at least a ten (10) year period.

(2005 Code, sec. 16.2.06)

Sec. 10.03.007 Fees per service unit

- (a) The maximum impact fee per service unit shall be computed by dividing the total costs of capital improvements necessitated by and attributable to new development in the service area identified in the impact fee capital improvements plan for that category of capital improvements by the total number of service units anticipated within the service area, based upon the land use assumptions for that service area. Maximum impact fees per service unit shall be established by category of capital improvements and shall be as set forth in the fee schedule.
- (b) The impact fee per service unit which is to be paid by each new development shall be that established by this article, and shall be an amount less than or equal to the maximum impact fee per service unit established in subsection (a) hereof.
- (c) The fee schedule may be amended from time to time utilizing the amendment procedure set forth in chapter 395 of the Local Government Code.

(2005 Code, sec. 16.2.07)

Sec. 10.03.008 Assessment

- (a) The approval of any new development shall include as a condition the assessment of the impact fee applicable to such development.
- (b) Assessment of the impact fee for any new development shall be made as follows:
 - (1) For a development which is submitted for approval pursuant to the city's subdivision regulations following the effective date of this article, assessment shall be at the time of final plat approval, and shall be the amount of the maximum impact fee per service unit then in effect, as set forth in the fee schedule, as computed by the procedures set forth in section 10.03.007(a) hereof. The city may provide the subdivider with a copy of the fee schedule prior to final plat approval, but such shall not constitute assessment within the meaning of this article.
 - (2) For a development which has received final plat approval prior to the effective date of this article and for which no replatting is necessary prior to issuance of a building permit, assessment shall be on the effective date of this article, and shall be the amount of the maximum impact fee per service unit set forth in the fee schedule.

(c) Following assessment of the impact fee pursuant to subsection (b), the amount of the impact fee per service unit for that development cannot be increased, unless the owner proposes to change the approved development by the submission of a new application for final plat approval, in which case new assessment shall occur at the fee schedule rate then in effect.

(d) Following the lapse or expiration of approval for a plat, a new assessment must be performed at the time a new application for such development is filed.

(e) An application for an amending plat made pursuant to Texas Local Government Code, section 212.016 and article 10.02 of this code is not subject to reassessment for an impact fee.

(2005 Code, sec. 16.2.08)

Sec. 10.03.009 Computation and collection

(a) The impact fees due for a development shall be assessed and collected in accordance with chapter 395 of the Texas Local Government Code.

(b) Following a request for a building permit or a connection to the city's water or sanitary sewer system, the city shall compute the impact fees due for the new development in the following manner:

- (1) The amount of each impact fee due shall be determined by multiplying the number of service units generated by the new development by the impact fee due per service unit using the fee schedule. The number of service units shall be determined by using the conversion table contained in the impact fee capital improvements plan.
- (2) The amount of each impact fee due shall be reduced by any allowable offsets or credits for that category of capital improvements, in the manner provided in section 10.03.011 hereof.
- (3) The total amount of the impact fees due for the new development shall be calculated and attached to the development application or request for connection as a condition of approval.

(c) The amount of each impact fee due for a new development shall not exceed an amount computed by multiplying the fee assessed per service unit pursuant to section 10.03.007 by the number of service units generated by the development.

(d) If the building permit for which an impact fee has been paid has expired, and a new application is thereafter filed, the impact fee due shall be computed using the fee schedule then in effect, with credits for previous payment of fees being applied against the new fees due.

(e) Whenever the property owner proposes to increase the number of service units for a development, the additional impact fees collected for such new service units shall be determined by using the fee schedule then in effect.

(e) Temporary, for cleaning and showing premises without other use: \$25.00.

(2005 Code, sec. 3.3.05(B)(7))

ARTICLE A4.000 WATER AND SEWER SERVICE

(a) Sewer connection fee: \$130.00.

(b) Pro rata charges:

(1) Water, per linear foot: \$15.00.

(2) Sewer, per linear foot: \$15.00.

(c) Tap and access fees:

	<u>Tap Fee</u>	<u>Access Fee</u>	<u>Total</u>
Water condition I (have tap)			
3/4"	\$375.00	\$372.05	\$747.05
1"	475.00	621.32	1,096.32
1-1/2"	575.00	1,238.93	1,813.93
2"	775.00	1,983.03	2,758.03
Water condition II (tap required)			
3/4"	2,375.00	372.05	2,747.05
1"	2,475.00	621.32	3,096.32
1-1/2"	2,575.00	1,238.93	3,813.93
2"	2,775.00	1,983.03	4,758.03
Water condition III (cut or bore under street)*			
3/4"	3,875.00	372.05	4,247.05
1"	3,975.00	621.32	4,596.32
1-1/2"	4,075.00	1,238.93	5,313.93
2"	5,275.00	1,983.03	7,258.03

*Street cut requires city council approval.

(2005 Code, sec. 3.3.05(C))

(d) Water service rates:

(1) The following rates per month shall be the rates charged for water service furnished to the customer within the corporate limits of the city, except as provided in subsection (3) of this section:

(A) Residential rates:

(i) First 2,000 gallons (minimum): \$17.50.

(Ordinance 10-01 adopted 2/18/10)



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer City of Everman

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)	5850*	
Estimated NCTCOG	6100*	
Freese and Nichols, Inc. Adjusted Value		

*2012 Impact Fee Survey

Population Projections*	
2012	5,850
2013	5,850
2023	6,100
2033	6,100

*2012 Impact Fee Survey

Population Projections	
2016	6,250
2017	5,950
2027	6,100
2037	6,100

Employment Projections*	
2012	49
2013	49
2023	50
2033	50

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	1,631
2027	1,703
2037	1,772

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

<u>Average Day*</u>	
2012	<u>.35</u> MGD
2013	<u>.5</u> MGD
2023	<u>.6</u> MGD
2033	<u>.6</u> MGD

*2012 Impact Fee Survey

<u>Maximum Day*</u>	
2012	<u>.75</u> MGD
2013	<u>.8</u> MGD
2023	<u>1.0</u> MGD
2033	<u>1.0</u> MGD

*2012 Impact Fee Survey

<u>Average Day</u>	
2016	<u> </u> MGD
2017	<u> </u> MGD
2027	<u> </u> MGD
2037	<u> </u> MGD

<u>Maximum Day</u>	
2016	<u> </u> MGD
2017	<u> </u> MGD
2027	<u> </u> MGD
2037	<u> </u> MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	0	%	2016	0	%
2013*	0	%	2017	0	%
2023*	0	%	2027	0	%
2033*	0	%	2037	0	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES		
NO	X*	X

*2012 Survey

5 Amount of water needed and starting year:

0		MGD
		Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES		
NO	X*	X

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	1,763	11,076
1"		
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	106	125
1"	14	8
1-1/2"		
2"	16	11
3"	3	1
4"	3	1
6"		
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"		
3/4"	100,067,003	115,993,000
1"		
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"		
3/4"	20,579,000	
1"	2,721,600	
1-1/2"		
2"	3,110,400	
3"	610,200	
4"	583,800	
6"		
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

yes



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



Wholesale Customer _____ City of Forest Hill _____

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

X*	

*2012 Impact Fee Survey

Population Projections*	
2012	12,800
2013	13,000
2023	13,400
2033	13,800

*2012 Impact Fee Survey

Population Projections	
2016	13,000
2017	13,200
2027	13,788
2037	14,800

Employment Projections*	
2012	4,755
2013	4,810
2023	5,360
2033	5,910

*2012 Impact Fee Survey

Employment Projections	
2016	4,900
2017	5,000
2027	5,500
2037	6,175

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	<u>1.004</u>	MGD
2013	_____	MGD
2023	_____	MGD
2033	_____	MGD

*2012 Impact Fee Survey

	<u>Maximum Day*</u>	
2012	<u>1.452</u>	MGD
2013	_____	MGD
2023	_____	MGD
2033	_____	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	<u>1.041</u>	MGD
2017	_____	MGD
2027	_____	MGD
2037	_____	MGD

	<u>Maximum Day</u>	
2016	<u>1.52</u>	MGD
2017	_____	MGD
2027	_____	MGD
2037	_____	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>100</u>	%	2016	<u>100</u>	%
2013*	<u>100</u>	%	2017	<u>100</u>	%
2023*	<u>100</u>	%	2027	<u>100</u>	%
2033*	<u>100</u>	%	2037	<u>100</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES		
NO	X*	x

*2012 Survey

5 Amount of water needed and starting year:

-*	400,150,000	MGD
-*	2016	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES		
NO	X*	x

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	4,656	4774
1"		
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"		
1"	63	67
1-1/2"	25	37
2"	50	72
3"		2
4"	4	2
6"	3	1
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"		
3/4"	361,557,487	291,506,000
1"		
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"		
3/4"		
1"	16,124,000	11,480,000
1-1/2"	14,470,000	11,006,000
2"	44,127,000	30,908,000
3"		
4"	907,000	5,084,000
6"	3,036,000	3,248,000
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

SECTION 15: FEE SCHEDULE. The fee schedule shall be amended as follows and shall be maintained in the City Secretary's Office as per Section 1-22 of the Forest Hill Code of Ordinances.

Building Permit Valuation Calculation Fees:

Valuation calculations shall be based at a minimum on the following:

New Residential Structures	\$90.00 per total square footage
New Commercial Structures	Currently adopted BVD value in the IBC
Wood Fencing	\$19.00 per linear footage
Wrought Iron Fencing	\$27.00 per linear footage
Cyclone Fencing	\$13.00 per linear footage
Storage Sheds	\$23.00 per square footage

Contractors that must register with the City are building contractors, electrical contractors, plumbing contractors, mechanical contractors, sign contractors, general contractors, roofing contractors, and irrigation and backflow contractors. Each registered contractor must provide City with proof of liability insurance.

Building Permit Fees:

Valuation Table:

Valuation	Fee
\$1.00 to \$500.00	\$40.00
\$501.00 to \$2,000.00	\$40.00 for the first \$500.00 plus \$4.00 for each additional \$100.00 or fraction thereof, up to and including \$2,000.00
\$2,001.00 to \$25,000.00	\$80.00 for the first \$2,000.00 plus \$15.00 for each additional \$1,000.00 or fraction thereof, up to and including \$25,000.00
\$25,001.00 to \$50,000.00	\$349.75 for the first \$25,000.00 plus \$10.00 for each additional \$1,000.00 or fraction thereof, up to and including \$50,000.00
\$50,001.00 to \$100,000.00	\$590.00 for the first \$50,000.00 plus \$7.25 for each additional \$1,000.00 or fraction thereof, up to and including \$100,000.00
\$100,001.00 to \$500,000.00	\$1,000.00 for the first \$100,000.00 plus \$8.00 for each additional \$1,000.00 or fraction thereof, up to and including \$500,000.00

\$500,001.00 to \$1,000,000.00	\$3,000.00 for the first \$500,000.00 plus \$5.00 for each additional \$1,000.00 or fraction thereof, up to and including \$1,000,000.00
\$1,000,001.00 & up	\$5500.00 for the first \$1,000,000.00 plus \$4.00 for each additional \$1,000.00 or fraction thereof

Permit Type	Fee
New Residential Structure	Per Valuation Table
New Commercial Structure	Per Valuation Table
Investigation Fee for working w/o permits	Double the Permit Fee
Investigation Fee for working w/o permits - Fire	Double the Permit Fee
Permit Renewal Fee	75% of the Original Permit Fee
Plan Review Fee - Residential	25% of the Building Permit or \$50.00 whichever is greater
Plan Review Fee - Commercial	40% of the Building Permit or \$150.00 whichever is greater
Plan Review Fee - Fence	\$10.00
Reinspection Fee - 1 st	\$50.00
Reinspection Fee - Subsequent	\$75.00
Inspections Outside of regular business hours	\$65.00 /Hr. (Min. 2 hours)
Drive Approach Fee	\$65.00
Cement / Asphalt Work	Per Valuation Table
Certificate of Occupancy - Res.	\$40.00
Certificate of Occupancy - Comm.	\$100.00
Demolition Permit - Res.	\$75.00
Demolition Permit - Comm.	\$200.00
Alteration, Additions, & Repairs to existing structures	Per Valuation Table
Detached Garages	Per Valuation Table
Carports	Per Valuation Table
Portable Buildings	Per Valuation Table
Accessory Building	Per Valuation Table
Swimming Pool	Per Valuation Table
Signs	Per Valuation Table
Fences	Per Valuation Table
Mobile Home (Move in or out)	\$100.00
Home Owner Lights-On Inspection	\$30.00
Roofing	Per Valuation Table
Carnival Permits	\$300.00
Unauthorized Cover Up Fee	\$75.00
Contractor Registration	\$100.00

Mechanical Permits:

Base Fee	\$65.00
New Residential Structures	\$150.00 per air handling unit
New Commercial Structures	\$200.00 per air handling unit
Remodels, Additions, Alterations - Res.	\$150.00 per air handling unit
Remodels, Additions, Alterations - Comm.	\$200.00 per air handling unit
Vent-a-Hoods	\$65.00
Duct Work	\$65.00
Contractor Registration	\$100.00

Business Permits:

Garage Sale Permit	\$10.00
Garage Sale Permit - Citywide Garage Sale	\$5.00
Additional Garage Sale Signs	\$5.00
Temporary Vendor Annual Permit	\$100.00
Annual Business Permit	
No. of Square Feet of Floor Area in Building/Business	
Less than 5,000	\$65.00
5,001 - 10,000	\$75.00
10,001 - 25,000	\$85.00
25,001 - 50,000	\$95.00
50,001 - 75,000	\$105.00
75,001 - 100,000	\$115.00
Greater than 100,001	\$115.00 + \$20.00 for each additional 50,000 sq. ft or portion thereof
Annual Business Permit - Home Occupations	\$20.00

Electrical Permits:

Base Fee	\$65.00
New Residential Structures	\$.07 / total sq. ft.
New Commercial Structures	\$.09 / total sq. ft.
Remodels, Additions, Alterations - Res.	\$.07 / total sq. ft.
Remodels, Additions, Alterations - Comm.	\$.09 / total sq. ft.
Temp. Poles	\$50.00
Upgrade Service	\$100.00
Sign Electrical	\$60.00
In-Ground Residential Swimming Pool	\$100.00
In-Ground Commercial Swimming Pool	\$150.00
Contractor Registration	\$100.00

Plumbing Permits:

Base Fee	\$65.00
New Residential Structures	\$.07 / total sq. ft.
New Commercial Structures	\$.09 / total sq. ft.
Remodels, Additions, Alterations - Res.	\$.07 / total sq. ft.

Remodels, Additions, Alterations - Comm.	\$.09 / total sq. ft.
Backflow Testing	\$60.00
In-Ground Residential Swimming Pool	\$100.00
In-Ground Commercial Swimming Pool	\$150.00
Contractor Registration (Irrigators & Backflow)	\$100.00

Water Tap & Meter Fees:

	No Street Cut	With Street Cut
¾"	\$1,000.00	\$1,500.00
1"	\$1,100.00	\$1,600.00
1 ½"	\$1,700.00	\$2,200.00
2" or larger	Actual Cost	Actual Cost

Sewer Tap Fees:

	No Street Cut	With Street Cut
4"	\$1,000.00	\$1,500.00
8" or larger	Actual Cost	Actual Cost

Zoning Fees:

Zone Changes (0-10 Acres)	\$750.00
Zone Changes (10 or more Acres)	\$1,500.00
Specific Use Permits	\$500.00
Preliminary Plats	\$750.00 + \$10.00 / lot
Final Plats	\$750.00 + \$10.00 / lot
Re-Plats	\$1,000.00 + \$10.00 / lot
Minor, Amending, or Vacating Plats	\$750.00 + \$10.00 / lot
Planned Developments	\$1,500.00 + \$10.00 / lot
Zoning Variances - Residential	\$500.00
Zoning Variances - Commercial	\$800.00
Sign Variances	\$500.00
Request for New Use	\$150.00
Zoning Verification Letter	\$20.00
Copies of Maps (Zoning, Land Use, Etc.)	\$30.00
Copies of Ord. (Zoning, Subdivision, Etc.)	\$35.00

Code Enforcement Fees:

Administrative Fees -	
Mowing & Trash Abatement	\$250.00
Administrative Fees - Demolition	\$500.00

SECTION 16: SEVERABILITY. If any section, subsection, article, paragraph, sentence, clause, phrase or word in this Ordinance is for any reason held to be invalid or



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



Wholesale Customer City of Grand Prairie

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

Employment Only*	
Aug 11 Master Plan*	

*2012 Impact Fee Survey

Population Projections*	
2012	176,960
2013	186,850
2023	210,851
2033	253,233

*2012 Impact Fee Survey

Population Projections	
2016	
2017	188,517
2027	220,297
2037	250,009

Employment Projections*	
2012	107,226
2013	1
2023	122,179
2033	125,866

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	114,931
2027	124,827
2037	128,681

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	<u>26.87</u>	MGD
2013	<u>30.16</u>	MGD
2023	<u>34.55</u>	MGD
2033	<u>42.17</u>	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	<u> </u>	MGD
2017	<u> </u>	MGD
2027	<u> </u>	MGD
2037	<u> </u>	MGD

	<u>Maximum Day*</u>	
2012	<u>53.74</u>	MGD
2013	<u>60.92</u>	MGD
2023	<u>70.88</u>	MGD
2033	<u>88.35</u>	MGD

*2012 Impact Fee Survey

	<u>Maximum Day</u>	
2016	<u> </u>	MGD
2017	<u> </u>	MGD
2027	<u> </u>	MGD
2037	<u> </u>	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	8.3	%	2016	9	%
2013*	8.2	%	2017	9	%
2023*	7.2	%	2027	8	%
2033*	5.9	%	2037	7	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES		
NO	XX*	

*2012 Survey

5 Amount of water needed and starting year:

N/A*		MGD
N/A*		Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES		
NO	XX*	

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	42,845	
3/4"	0	
1"	435	
1-1/2"	150	
2"	603	
3"	10	
4"	4	
6"	33	
8"	5	
10"	0	

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	1,367	
3/4"	0	
1"	798	
1-1/2"	529	
2"	1,230	
3"	73	
4"	61	
6"	17	
8"	17	
10"	3	

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	-*	
3/4"	-*	
1"	-*	
1-1/2"	-*	
2"	-*	
3"	-*	
4"	-*	
6"	-*	
8"	-*	
10"	-*	

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	-*	
3/4"	-*	
1"	-*	
1-1/2"	-*	
2"	-*	
3"	-*	
4"	-*	
6"	-*	
8"	-*	
10"	-*	

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer City of Haslet

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

X*	
	X

*2012 Impact Fee Survey

Population Projections*	
2012	1,753
2013	1,763
2023	2,463
2033	4,500

*2012 Impact Fee Survey

Population Projections	
2016	1675
2017	1690
2027	1940
2037	2810

Employment Projections*	
2012	450
2013	550
2023	1,000
2033	1,800

*2012 Impact Fee Survey

Employment Projections	
2016	2350
2017	2410
2027	2630
2037	3310

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	<u>350,000</u>	MGD
2013	<u>350,000</u>	MGD
2023	<u>500,000</u>	MGD
2033	<u>750,000</u>	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	<u>350,000</u>	MGD
2017	<u>350,000</u>	MGD
2027	<u>500,000</u>	MGD
2037	<u>750,000</u>	MGD

	<u>Maximum Day*</u>	
2012	<u>1.6</u>	MGD
2013	<u>1.6</u>	MGD
2023	<u>2.0</u>	MGD
2033	<u>2.5</u>	MGD

*2012 Impact Fee Survey

	<u>Maximum Day</u>	
2016	<u>1.6</u>	MGD
2017	<u>1.6</u>	MGD
2027	<u>2.0</u>	MGD
2037	<u>2.5</u>	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	99.9	%	2016	99.9	%
2013*	99.9	%	2017	99.9	%
2023*	99.9	%	2027	99.9	%
2033*	99.9	%	2037	99.9	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	X*	
NO		X

*2012 Survey

5 Amount of water needed and starting year:

2*	2	MGD
2014*	2016	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES		
NO	X*	X

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
3/4 x 5/8"	582	616
3/4"	2	5
1"	11	12
1-1/2"	0	0
2"	0	0
3"	0	0
4"	0	0
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
3/4 x 5/8"	1	32
3/4"	20	0
1"	13	16
1-1/2"	2	3
2"	47	53
3"	5	4
4"	1	1
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
<i>3/4 x 5/8"</i>	250,000	<i>93,765,515</i>
3/4"	116,057,440	<i>1,109,982</i>
1"	2,755,322	<i>2,096,441</i>
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
<i>3/4 x 5/8"</i>	2,488,360	<i>1,098,290</i>
3/4"	50,000	<i>0</i>
1"	1,754,311	<i>4,596,062</i>
1-1/2"	1,516,920	<i>1,312,130</i>
2"	35,939,050	<i>28,003,640</i>
3"	5,188,300	<i>12,187,668</i>
4"	272,200	<i>266,500</i>
6"		
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

Yes.
City of Haslet Code of Ordinances
Ordinance Number 018-2013
Article 8.000
Sec. 8.100
Sec. 8.200



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer City of Hurst

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

37,360*	
38,340	

*2012 Impact Fee Survey

Population Projections*	
2012	37,360
2013	37,360
2023	42,930
2033	48,500

*2012 Impact Fee Survey

Population Projections	
2016	38,500
2017	39,000
2027	40,000
2037	41,000

Employment Projections*	
2012	19,958
2013	19,958
2023	24,229
2033	28,500

*2012 Impact Fee Survey

Employment Projections	
2016	20,200
2017	20,400
2027	28,550
2037	36,700

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	<u>5.9</u>	MGD
2013	<u>6.0</u>	MGD
2023	<u>6.0</u>	MGD
2033	<u>6.0</u>	MGD

*2012 Impact Fee Survey

	<u>Maximum Day*</u>	
2012	<u>9.05</u>	MGD
2013	<u>9.0</u>	MGD
2023	<u>9.0</u>	MGD
2033	<u>9.0</u>	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	<u>6.0</u>	MGD
2017	<u>6.0</u>	MGD
2027	<u>6.0</u>	MGD
2037	<u>6.0</u>	MGD

	<u>Maximum Day</u>	
2016	<u>9.0</u>	MGD
2017	<u>9.0</u>	MGD
2027	<u>9.0</u>	MGD
2037	<u>9.0</u>	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	95	%	2016	95	%
2013*	95	%	2017	95	%
2023*	95	%	2027	95	%
2033*	95	%	2037	95	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES		
NO	X*	X

*2012 Survey

5 Amount of water needed and starting year:

6.0*	6.0	MGD
2013*	2016	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES		
NO	X*	X

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	10,073	9,620
3/4"		1
1"	728	1,399
1-1/2"	46	44
2"	8	9
3"	0	0
4"	8	8
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey 10863 11,081

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	429	444
3/4"		1
1"	331	361
1-1/2"	204	221
2"	291	198
3"	34	32
4"	24	16
6"	8	1
8"	0	0
10"	0	0

*2012 Impact Fee Survey 1297 1268



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	1,164,884,000	875,764,000
3/4"		327,000
1"	97,677,000	98,631,000
1-1/2"	8,825,000	7,104,000
2"	3,965,000	3,558,000
3"	0	0
4"	1,101,000	881,000
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	93,419,000	49,543,000
3/4"		7,000
1"	87,216,000	91,930,000
1-1/2"	124,103,000	104,806,000
2"	340,035,000	295,694,000
3"	66,700,000	65,371,000
4"	73,765,000	78,131,000
6"	838,000	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

Ordinance No. 1931 10-12-2004 attached

ORDINANCE NO. 1931

AN ORDINANCE APPROVING AMENDMENTS TO THE HURST LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS PLAN AND MODIFICATIONS OF IMPACT FEES BASED ON SUCH PLAN AND AMENDING TABLE 1 AND 2 ADOPTED BY REFERENCE AS PART OF ARTICLE II OF CHAPTER 21 OF THE HURST CODE OF ORDINANCES.

WHEREAS, notices have been published, public hearings held and the written recommendations of the advisory committee received concerning amendments to land use assumptions, the capital improvements plan and the impact fees of the City; and

WHEREAS, the City Council finds that the amendments proposed have been formulated in accordance with and meet the requirements of Chapter 395, Texas Local Government Code and should be adopted;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF HURST, TEXAS:

Section 1: THAT the amended land use assumptions, capital improvements plan and modification of impact fees based on a plan prepared by Freese and Nichols, Inc. dated July 2004 and entitled "Impact Fee Capital Improvements Plan – Water and Wastewater" on file in the office of the City Secretary is hereby approved and adopted as the updated Hurst Capital Improvements Plan. The Capital Improvements Plan for Water and Wastewater Impact Fees effective August 16, 2004, prepared by Camp Dresser & McKee, Inc. (CDM) for the City of Fort Worth, to the extent that such plans meet the requirements of law for the imposition of impact fees by the City of Hurst, are hereby adopted and approved as part of the updated Hurst Capital Improvements Plan.

Section 2: THAT Article II of Chapter 21 of the Hurst Code of Ordinances is hereby amended by substituting Attachment "A" hereto and Tables 1 and 2 contained therein for Tables 1 and 2 referred to in such Article.

AND IT IS SO ORDERED.

Passed on first reading on the 28th day of September 2004, by a vote of 6 to 0.

Passed on second reading on the 12th day of October 2004, by a vote of 6 to 0.



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer City of Keller

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

NCTCOG*	

*2012 Impact Fee Survey

Population Projections*	
2012	39,920
2013	41,453
2023	46,911
2033	51,310

*2012 Impact Fee Survey

Population Projections	
2016	44,050
2017	44,400
2027	47,700
2037	51,000

*FN
To complete*

Employment Projections*	
2012	315
2013	315
2023	320
2033	325

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	12,621
2027	14,402
2037	15,828

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	5.984	MGD
2013	6.074	MGD
2023	7.083	MGD
2033	7.748	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	6.30	MGD
2017	6.40	MGD
2027	7.30	MGD
2037	7.90	MGD

	<u>Maximum Day*</u>	
2012	21.943	MGD
2013	22.604	MGD
2023	25.972	MGD
2033	28.408	MGD

*2012 Impact Fee Survey

	<u>Maximum Day</u>	
2016	23.47	MGD
2017	23.76	MGD
2027	26.67	MGD
2037	29.41	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	_____	100	_____	%	2016	_____	100	_____	%
2013*	_____	100	_____	%	2017	_____	100	_____	%
2023*	_____	100	_____	%	2027	_____	100	_____	%
2033*	_____	100	_____	%	2037	_____	100	_____	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

When ALTAVISTA PUMP STATION is complete meter will go from 16" to 20"

YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*2012 Survey

PROJECT IS ON HOLD PER CITY COUNCIL.

5 Amount of water needed and starting year:

_*	_____	MGD
_*	_____	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	<input type="checkbox"/>	<input type="checkbox"/>
NO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	13,288	14,452
3/4"	49	74
1"	152	161
1-1/2"	4	7
2"	4	5
3"	-	
4"	-	
6"	-	
8"	-	
10"	-	

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	461	440
3/4"	40	42
1"	276	315
1-1/2"	58	64
2"	269	203
3"	14	24
4"	7	5
6"	-	0
8"	3	3
10"	-	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	208,752	147,224
3/4"	263,808	101,330
1"	365,472	278,820
1-1/2"	652,896	236,886
2"	150,000	444,940
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	339,336	68,345 71,607
3/4"	1,711,404	178,340
1"	228,096	308,824
1-1/2"	596,220	526,844
2"	1,025,484	857,115
3"	1,280,288	930,575
4"	1,734,504	1,441,320
6"		∅
8"	7,128,000	5,751,333
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

FREESE & NICHOLS UPDATED THE
W/WW FEES IN 2015.



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



Wholesale Customer City of Kennedale

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

X*	

*2012 Impact Fee Survey

Population Projections*	
2012	6,790
2013	6,804
2023	??
2033	??

*2012 Impact Fee Survey

Population Projections	
2016	8000
2017	8000
2027	14,042
2037	22,441

8,786
14,042
22,441

Employment Projections*	
2012	71
2013	71
2023	??
2033	??

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	4,744
2027	6,977
2037	9,210

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	1.147	MGD
2013	1.2	MGD
2023	?	MGD
2033	?	MGD

*2012 Impact Fee Survey

	<u>Maximum Day*</u>	
2012	2.55	MGD
2013	2.8	MGD
2023	?	MGD
2033	?	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	1.0	MGD
2017	1.0	MGD
2027		MGD
2037		MGD

	<u>Maximum Day</u>	
2016	2.5	MGD
2017	2.5	MGD
2027		MGD
2037		MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>21.32</u>	%	2016	<u>40</u>	%
2013*	<u>20-30</u>	%	2017	<u>30</u>	%
2023*	<u>?</u>	%	2027	<u>30</u>	%
2033*	<u>?</u>	%	2037	<u>30</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	<input type="checkbox"/>	<input type="checkbox"/>
NO	<input checked="" type="checkbox"/> *	<input checked="" type="checkbox"/>

*2012 Survey

5 Amount of water needed and starting year:

2.5*	<u>2.5</u>	MGD
2012*	<u>2016</u>	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	<input checked="" type="checkbox"/> *	<input checked="" type="checkbox"/>
NO	<input type="checkbox"/>	<input type="checkbox"/>

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	2,638	2220
3/4"	0	0
1"	195	192
1-1/2"	7	7
2"	7	6
3"		1
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	271	227
3/4"	0	0
1"	39	43
1-1/2"	10	15
2"	34	36
3"	23	8
4"	3	3
6"		
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	25,539,200,000	218605550
3/4"	0	0
1"	5,264,110,000	41351652
1-1/2"	261,020,000	2430852
2"	3,968,200	5639771
3"		1674298
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	17,075,900	16450971
3/4"	0	0
1"	9,011,800	10892677
1-1/2"	403,300	2491377
2"	21,601,700	16711526
3"	20,826,500	776456
4"	8,048,600	3367576
6"		
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 February 2016



Wholesale Customer Lake Worth

Note: The information provided will be used to project the Land Use Assumptions for the 2016-2026 Fort Worth Impact fees unless otherwise directed. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (February 2016)	
NCTCOG – Forecast Districts	X
Freese and Nichols, Inc. Adjusted Value	

Population Projections	
2016	4,727
2017	5,186
2027	5,831
2037	6,468

Employment Projections	
2016	2700
2017	2780
2027	3137
2037	3779

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

<u>Average Day</u>			<u>Maximum Day</u>		
2016	<u>0.59</u>	MGD	2016	<u>1.1</u>	MGD
2017	<u>0.85</u>	MGD	2017	<u>1.3</u>	MGD
2027	<u>1.0</u>	MGD	2027	<u>1.8</u>	MGD
2037	<u>1.5</u>	MGD	2037	<u>2.5</u>	MGD

3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2016	<u>81</u>	%
2017	<u>85</u>	%
2027	<u>100</u>	%
2037	<u>100</u>	%

4 Will you need a larger or additional meter? YES NO

5 Amount of water needed and starting year:

1.5	MGD
2020	Year

6 Will your service area boundaries be expanding? YES NO



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 February 2016



7 Existing Number of residential water meters:

Meter Size	Quantity
5/8"	1
3/4"	1679
1"	144
1-1/2"	- 0 -
2"	1
3"	- 0 -
4"	- 0 -
6"	- 0 -
8"	- 0 -
10"	- 0 -

8 Existing Number of non-Residential water meters:

Meter Size	Quantity
5/8"	- 0 -
3/4"	133
1"	122
1-1/2"	43
2"	106
3"	25
4"	5
6"	- 0 -
8"	- 0 -
10"	- 0 -

9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)
5/8"	- 0 -
3/4"	112,335,000
1"	24,426,000
1-1/2"	- 0 -
2"	171,000
3"	- 0 -
4"	- 0 -
6"	- 0 -
8"	- 0 -
10"	- 0 -



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
February 2016



10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)
5/8"	- 0
3/4"	9,412,000
1"	19,904,000
1-1/2"	23,964,000
2"	67,825,000
3"	5,586,000
4"	4,153,000
6"	- 0 -
8"	- 0
10"	- 0 -

11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

See Attached

- CHAPTER 11 TAXATION ▲
- CHAPTER 12 TRAFFIC AND VEHICLES
- CHAPTER 13 UTILITIES
- ARTICLE 13.100 WATER SERVICE
- ARTICLE 13.200 WATER WELLS*
- ARTICLE 13.300 SEWER SERVICE
 - Sec. 13.301 Definitions
 - Sec. 13.302 Permits and Connection
 - Sec. 13.303 Tap Fees
 - Sec. 13.304 Sewer Service Charges
 - Sec. 13.305 When Sewer Bills are D
 - Sec. 13.306 Sand and Grease Traps
 - Sec. 13.307 Mandatory Connection I
 - Sec. 13.308 Certain Acts Unlawful
 - Sec. 13.309 Responsibility for Injurie
 - Sec. 13.310 Septic Tanks, Privies, E
 - Sec. 13.311 Not to Deposit Garbage
 - Sec. 13.312 Not to Injure Sewer Sys
 - Sec. 13.313 Notice for Opening Stre
 - Sec. 13.314 Barriers and Lights to br
 - Sec. 13.315 Connection of Buildings
 - Sec. 13.316 Approval of Connections
 - Sec. 13.317 Connections to Comply
 - Sec. 13.318 Basement Drains
 - Sec. 13.319 Certain Pipes Prohibited
 - Sec. 13.320 Pipe Materials
 - Sec. 13.321 Fall Requirement
 - Sec. 13.322 Entrance onto Premises
 - Sec. 13.323 Improvements and Exte
 - Sec. 13.324 Injunctions: Civil Remed
- ARTICLE 13.400 WATER AND WASTEVE
- ARTICLE 13.500 SEPTIC TANKS
- ARTICLE 13.600 INDUSTRIAL WASTE
- ARTICLE 13.700 TRENCH EXCAVATIO
- ARTICLE 13.800 WATER AND SEWER
- ARTICLE 13.900 RESERVED*
- ARTICLE 13.1000 BACKFLOW PREVENT

Sec. 13.402 Payment Required

(a) No person, firm, corporation or other entity shall be entitled to initial water or wastewater service until payment of the system facility access fee as set forth in [Section 13.403](#) hereof. Payment of the system facility access fee is required as a condition of establishing initial water or wastewater service. All other conditions for initiating service, such as deposit requirement agreements, and service charges as covered elsewhere in this code and are in addition to the system facility access fee.

(b) Prior to the initial connection of any building, structure, premises, or lot after the effective date of this article to a wastewater system, the owner of that building, structure, premises or lot shall pay the system facility access fee as established by such fee to be paid in cash prior to the issuance of the building permit.

(Ordinance 987, sec. 3, adopted 8/14/12)

Sec. 13.403 System Facility Access Fee

The system facility access fees are those imposed upon the city by the City of Fort Worth for providing water or wastewater service to development contained within the incorporated city limits and to which service is provided either directly or indirectly by the city's water and/or wastewater system(s). The system facility access fees for residential and other classes of customers shall be the same as the system facility access fees set and assessed by the City of Fort Worth. (Ordinance 987, sec. 4, adopted 8/14/12)

Sec. 13.404 Private and Public Facilities

(a) If any property within or outside the city's corporate limits utilizes a water well, a septic tank, or an individual wastewater treatment system, and the property owner requests to be connected to the city's water or wastewater system, the customer shall be assessed the system facility access fee before the property is connected to the city's water or wastewater system. Should the property owner request to be connected to the city's water or wastewater system while retaining a private water well, the appropriate fee to be assessed will be determined by the director.

(b) A system facility access fee will not be assessed to any property which is receiving service from a wastewater treatment system or public utility when such public utility is acquired by the city and connected into the city's wastewater system.

(Ordinance 987, sec. 5, adopted 8/14/12)

Sec. 13.405 Clarifications and Determinations

Where a question arises as to the classification of a customer's service class and/or the appropriate meter size, the director (or superintendent) shall make the determination in accordance with the existing city code as of the date the question arises. Any customer shall request in writing from the director (or superintendent) an interpretation or clarification of the basis upon which a system facility access fee is assessed. (1987 Code of Ordinances, Chapter 10, Section 4E)



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



Wholesale Customer City of North Richland Hills

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

-*	
-*	
-*	

*2012 Impact Fee Survey

Population Projections*	
2012	63,780
2013	64,080
2023	73,703
2033	83,327

*2012 Impact Fee Survey

Population Projections	
2016	
2017	67,742
2027	74,621
2037	76,499

Employment Projections*	
2012	22
2013	22
2023	22
2033	22

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	27,791
2027	30,686
2037	32,920

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	9.02	MGD
2013	10.15	MGD
2023	11.86	MGD
2033	13.58	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016		MGD
2017		MGD
2027		MGD
2037		MGD

	<u>Maximum Day*</u>	
2012	26.52	MGD
2013	26.52	MGD
2023	27.30	MGD
2033	28.08	MGD

*2012 Impact Fee Survey

	<u>Maximum Day</u>	
2016		MGD
2017		MGD
2027		MGD
2037		MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	64	%	2016	64	%
2013*	64	%	2017	64	%
2023*	64	%	2027	64	%
2033*	64	%	2037	64	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	*	
NO	X*	

*2012 Survey

5 Amount of water needed and starting year:

10.15*		MGD
2013*		Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	*	
NO	X*	

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	18,811	
1"	961	
1-1/2"	5	
2"	15	
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	669	
1"	342	
1-1/2"	79	
2"	729	
3"	30	
4"	19	
6"	4	
8"	2	
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	-	
3/4"	-	
1"	-	
1-1/2"	-	
2"	-	
3"	-	
4"	-	
6"	-	
8"	-	
10"	-	

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	-	
3/4"	-	
1"	-	
1-1/2"	-	
2"	-	
3"	-	
4"	-	
6"	-	
8"	-	
10"	-	

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



Wholesale Customer Town of Northlake

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)	23,765*	
Estimated NCTCOG	*	
Freese and Nichols, Inc. Adjusted Value	*	

*2012 Impact Fee Survey

Population Projections*	
2012	2,110
2013	3,524
2023	22,678
2033	43,941

*2012 Impact Fee Survey

Population Projections	
2016	3,000
2017	4,500
2027	31,000
2037	45,000

Employment Projections*	
2012	-
2013	-
2023	-
2033	-

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	2,527
2027	7,555
2037	15,483

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	0.209	MGD
2013	1.74	MGD
2023	7.60	MGD
2033	13.9	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	.252	MGD
2017	.8	MGD
2027	8.0	MGD
2037	15.0	MGD

	<u>Maximum Day*</u>	
2012	0.501	MGD
2013	4.35	MGD
2023	19.0	MGD
2033	34.8	MGD

*2012 Impact Fee Survey

	<u>Maximum Day</u>	
2016	.8	MGD
2017	1.2	MGD
2027	15.0	MGD
2037	25.0	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>79</u>	%	2016	<u>45</u>	%
2013*	<u>76</u>	%	2017	<u>50</u>	%
2023*	<u>60</u>	%	2027	<u>55</u>	%
2033*	<u>57</u>	%	2037	<u>60</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	X*	x
NO	*	

*2012 Survey

5 Amount of water needed and starting year:

9.62*	10.0	MGD
2018*	2020	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	*	
NO	X*	x

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	-	
3/4"	164	761
1"	-	
1-1/2"	-	
2"	-	
3"	-	
4"	-	
6"	-	
8"	-	
10"	-	

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	-	
3/4"	9	9
1"	16	16
1-1/2"	-	7
2"	73	97
3"	28	52
4"	1	1
6"	-	
8"	-	
10"	-	

*2012 Impact Fee Survey



**WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016**



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	-	
3/4"	29,475,311	46,187,029
1"	-	
1-1/2"	-	
2"	-	
3"	-	
4"	-	
6"	-	
8"	-	
10"	-	

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	-	
3/4"	-	
1"	-	
1-1/2"	-	
2"	-	
3"	-	
4"	-	
6"	-	
8"	-	
10"	-	

*2012 Impact Fee Survey

87,558,004-No breakdown by meter size.



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

Yes.



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



Wholesale Customer City of Richland Hills

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

-*	
-*	
-*	

*2012 Impact Fee Survey

Population Projections*	
2012	7,900
2013	8,300
2023	8,300
2033	8,300

*2012 Impact Fee Survey

Population Projections	
2016	
2017	
2027	
2037	

Employment Projections*	
2012	85
2013	85
2023	85
2033	85

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	
2027	
2037	

8,772
 9,322
 9,898

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	<u>1</u>	MGD
2013	<u>1</u>	MGD
2023	<u>1</u>	MGD
2033	<u>1</u>	MGD

*2012 Impact Fee Survey

	<u>Maximum Day*</u>	
2012	<u>2.5</u>	MGD
2013	<u>2.5</u>	MGD
2023	<u>2.5</u>	MGD
2033	<u>2.5</u>	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	<u> </u>	MGD
2017	<u> </u>	MGD
2027	<u> </u>	MGD
2037	<u> </u>	MGD

	<u>Maximum Day</u>	
2016	<u> </u>	MGD
2017	<u> </u>	MGD
2027	<u> </u>	MGD
2037	<u> </u>	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	_____	100	_____	%	2016	_____	%
2013*	_____	100	_____	%	2017	_____	%
2023*	_____	100	_____	%	2027	_____	%
2033*	_____	100	_____	%	2037	_____	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	XXX*	_____
NO	*	_____

*2012 Survey

5 Amount of water needed and starting year:

3*	_____	MGD
2013*	_____	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	*	_____
NO	XXX*	_____

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	2,780	
1"	82	
1-1/2"	18	
2"	16	
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	169	
1"	77	
1-1/2"	26	
2"	35	
3"	2	
4"	2	
6"		
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"		
3/4"	230,598,459	
1"	13,662,195	
1-1/2"	2,033,600	
2"	20,618,597	
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"		
3/4"	13,493,097	
1"	12,964,202	
1-1/2"	11,746,100	
2"	24,102,801	
3"	1,222,800	
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer _____ City of Saginaw _____

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

*	
X*	
*	

*2012 Impact Fee Survey

Population Projections*	
2012	19,500
2013	20,500
2023	25,038
2033	29,040

*2012 Impact Fee Survey

Population Projections	
2016	22,580
2017	23,036
2027	28,136
2037	29,657

Employment Projections*	
2012	-
2013	-
2023	-
2033	-

*2012 Impact Fee Survey

Employment Projections	
2016	10,766
2017	10,981
2027	13,178
2037	16,472

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	2.78	MGD
2013	2.93	MGD
2023	3.58	MGD
2033	4.15	MGD

*2012 Impact Fee Survey

	<u>Maximum Day*</u>	
2012	5.57	MGD
2013	5.85	MGD
2023	6.47	MGD
2033	7.15	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	3.21	MGD
2017	3.27	MGD
2027	4.00	MGD
2037	4.22	MGD

	<u>Maximum Day</u>	
2016	6.33	MGD
2017	6.46	MGD
2027	7.89	MGD
2037	8.32	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>100</u>	%	2016	<u>100</u>	%
2013*	<u>100</u>	%	2017	<u>100</u>	%
2023*	<u>100</u>	%	2027	<u>100</u>	%
2033*	<u>100</u>	%	2037	<u>100</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	*	
NO	X*	X

*2012 Survey

5 Amount of water needed and starting year:

-*		MGD
-*		Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	*	
NO	X*	X

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	6,685	6964
1"	7	9
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	165	167
1"	105	116
1-1/2"	12	12
2"	132	137
3"	16	16
4"	5	7
6"	1	1
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"		
3/4"	666,769,897	567,569,280
1"	2,864,000	1,267,000
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"		
3/4"	15,868,961	16,424,000
1"	31,482,000	33,448,000
1-1/2"	3,918,000	4,399,000
2"	97,036,927	102,585,000
3"	129,562,000	175,900,000
4"	8,434,000	8,260,000
6"	4,806,000	4,693,000
8"		
10"		

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

ORDINANCE 2011-21 AND AMENDING ORDINANCE 2011-22



WHOLESALE CUSTOMER SURVEY
WASTEWATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer Sansom Park

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)	-*	
Estimated NCTCOG	-*	
Freese and Nichols, Inc. Adjusted Value	-*	

*2012 Impact Fee Survey

Population Projections*	
2012	4,686
2013	4,710
2023	5,100
2033	5,600

*2012 Impact Fee Survey

Population Projections	
2016	4881
2017	4881
2027	6000
2037	6000

Employment Projections*	
2012	-
2013	-
2023	-
2033	-

*2012 Impact Fee Survey

Employment Projections	
2016	38
2017	38
2027	50
2037	50

1,115

1,192

1,280

2 The percentage of your population's wastewater anticipated to be served by Fort Worth's Village Creek Wastewater Treatment Plant:

2012*	<u>100</u>	%	2016	<u>100</u>	%	0
2013*	<u>100</u>	%	2017	<u>100</u>	%	0
2023*	<u>100</u>	%	2027	<u>100</u>	%	0
2033*	<u>100</u>	%	2037	<u>100</u>	%	0

*From the 2012 Impact Fee Survey

3 Existing number of wastewater customers:

<u>1517</u>	Residential*	<u>1424</u>	Residential
<u>119</u>	Non-Residential*	<u>121</u>	Non-Residential

*2012 Impact Fee Survey

4 Will your service area boundaries be expanding?

YES	*	
NO	X*	

*2012 Survey

5 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	1,517	1481
1"		
1-1/2"		
2"		
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

6 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"		
3/4"	113	115
1"	2	2
1-1/2"		
2"	4	4
3"		
4"		
6"		
8"		
10"		

*2012 Impact Fee Survey

7 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	-	
3/4"	-	3000
1"	-	
1-1/2"	-	
2"	-	
3"	-	
4"	-	
6"	-	
8"	-	
10"	-	

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WASTEWATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



8 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	-	
3/4"	-	8000
1"	-	
1-1/2"	-	
2"	-	
3"	-	
4"	-	
6"	-	
8"	-	
10"	-	

*2012 Impact Fee Survey

9 Are there any current ordinances concerning water and wastewater impact fees within your utility?

yes



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer City of Southlake

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

Based on 2015 Impact Fee Survey

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

*	
X*	
*	

*2012 Impact Fee Survey

Population Projections*	
2012	27,514
2013	27,904
2023	32,691
2033	34,188

*2012 Impact Fee Survey

Population Projections	
2016	
2017	28,827
2027	33,636
2037	38,445

2015 27,865
2025 32,674

* 2015 Impact Fee Survey

Employment Projections*	
2012	21,000
2013	21,000
2023	36,500
2033	38,355

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	23,329
2027	35,742
2037	48,155

2015 10,423,290 sq. ft.
2025 16,629,747 sq. ft.

* 2015 Impact Fee Survey

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

Average Day*	
2012	<u>9.85</u> MGD
2013	<u>8.73</u> MGD
2023	- MGD
2033	- MGD

*2012 Impact Fee Survey

Maximum Day*	
2012	<u>30</u> MGD
2013	<u>30</u> MGD
2023	<u>30</u> MGD
2033	<u>30</u> MGD

*2012 Impact Fee Survey

Average Day	
2015	<u>10.73</u> MGD
2016	
2017	
2025	<u>12.58</u> MGD
2027	
2037	

* 2015 Impact Fee Survey

Maximum Day	
2016	<u>33</u> MGD *
2017	<u>33</u> MGD
2027	<u>33</u> MGD
2037	<u>33</u> MGD

* Per Amendment to Contract for Water Service Between the City of Fort Worth and the City of Southlake Contract No. 41110-A1



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>100</u>	%	2016	<u>100</u>	%
2013*	<u>100</u>	%	2017	<u>100</u>	%
2023*	<u>100</u>	%	2027	<u>100</u>	%
2033*	<u>100</u>	%	2037	<u>100</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	*	
NO	X*	X

*2012 Survey

5 Amount of water needed and starting year:

-*	<u>33</u>	MGD
-*	<u>2016</u>	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	*	
NO	X*	X

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	0	0
3/4"	0	842
1"	8,409	7,787
1-1/2"	0	0
2"	85	21
3"	0	1
4"	0	0
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	0	0
3/4"	0	95
1"	566	834
1-1/2"	0	0
2"	393	441
3"	0	5
4"	46	37
6"	7	9
8"	1	1
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	0	0
3/4"	0	112,160,466
1"	339,293	1,792,099,186
1-1/2"	0	0
2"	870,504	7,105,627
3"	0	9,858,000
4"	0	0
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	0	0
3/4"	0	37,317,083
1"	322,190	234,527,200
1-1/2"	0	0
2"	906,068	266,874,514
3"	0	2,888,846
4"	1,804,346	51,844,293
6"	2,428,267	11,524,831
8"	8,277,000	6,256,400
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

Yes, Impact Fee Ordinance No. 657-A.

FY2015 Billed Water Consumption By Account / Meter Type

(Distinct Count of Meters)

Account Type: C **Total Consumption: 299,394,007** **Total Meters Billed: 730**

<u>Meter Size</u>	<u>Consumption</u>	<u>Count</u>
.75	30,577,579	80
1	130,110,605	494
2	85,715,617	251
3	1,474,046	1
3IN	1,414,800	4
4	45,343,793	31
6	2,324,478	6
, 75	2,433,089	9

Account Type: H **Total Consumption: 315,141** **Total Meters Billed: 1**

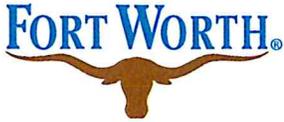
<u>Meter Size</u>	<u>Consumption</u>	<u>Count</u>
1	315,141	1

Account Type: I **Total Consumption: 311,524,019** **Total Meters Billed: 540**

<u>Meter Size</u>	<u>Consumption</u>	<u>Count</u>
.75	3,553,159	4
1	104,101,454	339
2	181,158,897	190
4	6,500,500	6
6	9,200,353	3
, 75	753,256	2
8	6,256,400	1

Account Type: R **Total Consumption: 1,922,080,064** **Total Meters Billed: 8,642**

<u>Meter Size</u>	<u>Consumption</u>	<u>Count</u>
	856,785	3
.75	94,641,659	717
1	1,792,099,186	7,787
2	7,105,627	21
3IN	9,858,000	1
, 75	17,518,807	125



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer Trophy Club Municipal Utility District No. 1

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

-*	
-*	
-*	

*2012 Impact Fee Survey

Population Projections*	
2012	9,007
2013	10,500
2023	14,000
2033	14,000

*2012 Impact Fee Survey

Population Projections	
2016	10,500
2017	14,000
2027	14,000
2037	14,000

Employment Projections*	
2012	29
2013	30
2023	30
2033	30

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	1,013
2027	1,141
2037	1,141

FNI to provide.

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	2.250	MGD
2013	2.610	MGD
2023	3.471	MGD
2033	3.471	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	2.8	MGD
2017	3.0	MGD
2027	3.5	MGD
2037	3.5	MGD

	<u>Maximum Day*</u>	
2012	5.369	MGD
2013	6.228	MGD
2023	8.283	MGD
2033	8.283	MGD

*2012 Impact Fee Survey

	<u>Maximum Day</u>	
2016	6.0	MGD
2017	8.0	MGD
2027	10.3	MGD
2037	10.3	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>80</u>	%	2016	<u>85</u>	%
2013*	<u>85</u>	%	2017	<u>90</u>	%
2023*	<u>90</u>	%	2027	<u>95</u>	%
2033*	<u>100</u>	%	2037	<u>95</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	X*	X
NO	*	

*2012 Survey

5 Amount of water needed and starting year:

10*	<u>10.3</u>	MGD
2013*	<u>2018</u>	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	*	
NO	X*	X

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	2,511	<u>2489</u>
3/4"	-	<u>0</u>
1"	1,102	<u>1861</u>
1-1/2"	-	<u>2</u>
2"	-	<u>10</u>
3"	-	<u>0</u>
4"	-	<u>0</u>
6"	-	<u>0</u>
8"	-	<u>0</u>
10"	-	<u>0</u>

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	-	<u>37</u>
3/4"	-	<u>0</u>
1"	-	<u>27</u>
1-1/2"	17	<u>18</u>
2"	80	<u>77</u>
3"	13	<u>16</u>
4"	11	<u>12</u>
6"	2	<u>2</u>
8"	-	<u>0</u>
10"	-	<u>0</u>

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	194,479	312,303,000
3/4"	-	
1"	205,321	298,737,000
1-1/2"	-	1,056,000
2"	-	5,244,000
3"	-	
4"	-	
6"	-	
8"	-	
10"	-	

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	-	19,490,000
3/4"	-	
1"	-	6,846,000
1-1/2"	969,823	12,000,000
2"	1,600,075	76,103,000
3"	1,559,231	16,049,000
4"	7,310,909	77,728,000
6"	2,690,000	8,202,000
8"	-	
10"	-	

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

Requirement to pay Fort Worth
impact fee.



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



Wholesale Customer Town of Westover Hills

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (February 2016)
 Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

X*	
*	
*	

*2012 Impact Fee Survey

Population Projections*	
2012	688
2013	690
2023	710
2033	725

*2012 Impact Fee Survey

Population Projections	
2016	731
2017	735
2027	738
2037	740

Employment Projections*	
2012	NA
2013	NA
2023	NA
2033	NA

*2012 Impact Fee Survey

Employment Projections	
2016	NA
2017	NA
2027	NA
2037	NA

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

	<u>Average Day*</u>	
2012	<u>0.78</u>	MGD
2013	<u>0.9</u>	MGD
2023	<u>1.2</u>	MGD
2033	<u>1.5</u>	MGD

*2012 Impact Fee Survey

	<u>Maximum Day*</u>	
2012	<u>1.05</u>	MGD
2013	<u>1.1</u>	MGD
2023	<u>1.5</u>	MGD
2033	<u>2.0</u>	MGD

*2012 Impact Fee Survey

	<u>Average Day</u>	
2016	<u>.473</u>	MGD
2017	<u>.507</u>	MGD
2027	<u>.571</u>	MGD
2037	<u>.635</u>	MGD

	<u>Maximum Day</u>	
2016	<u>.745</u>	MGD
2017	<u>.840</u>	MGD
2027	<u>.935</u>	MGD
2037	<u>1.030</u>	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>100</u>	%	2016	<u>100</u>	%
2013*	<u>100</u>	%	2017	<u>100</u>	%
2023*	<u>100</u>	%	2027	<u>100</u>	%
2033*	<u>100</u>	%	2037	<u>100</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	*	
NO	X*	X

*2012 Survey

5 Amount of water needed and starting year:

NA*	183	MGD
NA*	2016	Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	*	
NO	X*	X

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	0	0
3/4"	12	12
1"	94	93
1-1/2"	115	159
2"	91	46
3"	3	2
4"	0	1
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	0	0
3/4"	0	0
1"	0	0
1-1/2"	0	0
2"	0	0
3"	0	0
4"	0	0
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	0	0
3/4"	10,857,142	NA
1"	85,046,619	NA
1-1/2"	104,047,619	NA
2"	82,393,333	NA
3"	2,714,285	NA
4"	0	NA
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	0	0
3/4"	0	0
1"	0	0
1-1/2"	0	0
2"	0	0
3"	0	0
4"	0	0
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

__Yes_Ordinance_92-2



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



Wholesale Customer City of Westworth Village

Note: The information provided will be used to update the Fort Worth Impact fees. Any questions, comments, or concerns should be directed to Jessica Brown, P.E., with Freese and Nichols, Inc. 817-735-7406.

1 Population Projections for the entire Wholesale Customer based on:

Wholesale Customer Survey (March 2016)
 - Estimated NCTCOG
 Freese and Nichols, Inc. Adjusted Value

*	3100
X*	2570
*	

*2012 Impact Fee Survey

Population Projections*	
2012	2,470
2013	2,500
2023	UNK
2033	UNK

*2012 Impact Fee Survey

Population Projections	
2016	3100
2017	3140
2027	3197
2037	3255

Employment Projections*	
2012	UNK
2013	UNK
2023	UNK
2033	UNK

*2012 Impact Fee Survey

Employment Projections	
2016	
2017	1,653
2027	1,752
2037	1,837

2 Projected Average Day and Maximum Day water demands based on prior Wholesale Customer Survey:

<u>Average Day*</u>	
2012	405 MGD
2013	440 MGD
2023	MGD
2033	MGD

*2012 Impact Fee Survey

<u>Average Day</u>	
2016	324063 MGD
2017	337025 MGD
2027	38758 MGD
2037	MGD

<u>Maximum Day*</u>	
2012	0.392 MGD
2013	0.040 MGD
2023	MGD
2033	MGD

*2012 Impact Fee Survey

<u>Maximum Day</u>	
2016	630000 MGD
2017	642600 MGD
2027	738990 MGD
2037	MGD



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
 March 2016



3 The Percentage of your projected water demand anticipated to be served by Fort Worth:

2012*	<u>100</u>	%	2016	<u>100</u>	%
2013*	<u>100</u>	%	2017	<u>100</u>	%
2023*	<u>100</u>	%	2027	<u>100</u>	%
2033*	<u>100</u>	%	2037	<u>100</u>	%

*From the 2012 Impact Fee Survey

4 Will you need a larger or additional meter?

YES	*	
NO	x*	

*2012 Survey

5 Amount of water needed and starting year:

UNK*		MGD
UNK*		Year

*2012 Survey

6 Will your service area boundaries be expanding?

YES	*	
NO	x*	

*2012 Survey

7 Existing Number of residential water meters:

Meter Size	Quantity*	Quantity
5/8"	0	0
3/4"	717	540
1"	1	6
1-1/2"	0	0
2"	1	3
3"	0	0
4"	0	0
6"	0	0
8"	0	0
10"	0	0

*2012 Impact Fee Survey

Need to Note That to subtract for IRRigation only meters
 -61 IRR meters
 -1 IRR meters

8 Existing Number of non-Residential water meters:

Meter Size	Quantity*	Quantity
5/8"	0	0
3/4"	17	3
1"	9	15
1-1/2"	5	6
2"	12	18
3"	0	0
4"	1	2
6"	0	1
8"	1	1
10"	0	0

*2012 Impact Fee Survey

-1 IRR
 -12 IRR
 -1 IRR
 -7 IRR



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



9 Annual Residential Consumption per meter, gallons:

Meter Size	Annual Residential Consumption (gallons)*	Annual Residential Consumption (gallons)
5/8"	0	
3/4"	64,476,497	73,405,474
1"	167,332	787,472
1-1/2"	0	
2"	477,227	169,699
3"	0	
4"	0	
6"	0	
8"	0	
10"	0	

*2012 Impact Fee Survey

10 Annual Non-Residential Consumption per meter, gallons:

Meter Size	Annual Non-Residential Consumption (gallons)*	Annual Non-Residential Consumption (gallons)
5/8"	0	
3/4"	761,779	795,992
1"	4,193,826	4,334,159
1-1/2"	1,654,481	1,111,229
2"	21,883,901	30,278,928
3"	0	
4"	462,041	2,489,105
6"	0	271,748
8"	183,273	26,180
10"	0	

*2012 Impact Fee Survey



WHOLESALE CUSTOMER SURVEY
WATER SERVICE PROJECTIONS FOR IMPACT FEE STUDY
March 2016



11 Are there any current ordinances concerning water and wastewater impact fees within your utility?

SCHEDULE 2

ASSESSED IMPACT FEE FOR WATER AND WASTEWATER SCHEDULE

(EFFECTIVE JANUARY 1, 2013)

METER SIZE	EQUIVALENCY FACTOR	WATER IMPACT FEE*	WASTEWATER IMPACT FEE*	TOTAL IMPACT FEE*
5/8" x 5/8" and 5/8" x 3/4"	1.00	\$469	\$452	\$921
3/4" x 3/4"	1.50	\$704	\$678	\$1,382
1"	2.50	\$1,173	\$1,129	\$2,302
1-1/2"	5.00	\$2,345	\$2,258	\$4,603
2"	8.00	\$3,752	\$3,612	\$7,364
3"	21.75	\$10,201	\$9,820	\$20,021
4"	37.50	\$17,588	\$16,932	\$34,520
6"	80.00	\$37,520	\$36,120	\$73,640
8"	140.00	\$65,660	\$63,210	\$128,870
10"	210.00	\$98,490	\$94,815	\$193,305

* Referenced in 35-70.3(b), 35-73(b) and 35-78(b)

**Water and Wastewater Impact Fees are calculated at 50% of the total maximum assessable amount

Sec. 13.02.094 Connection and impact fees

The following charges shall be collected:

- (1) A connection fee shall be charged for connecting to the tap at the resident's property line. This charge shall be imposed for each separate tap to which a connection is made, including taps for irrigation.
- (2) An impact fee shall be assessed and charged for connecting to the tap at the resident's property line. This charge shall be imposed for each separate tap to which a connection is made, including taps for irrigation.
- (3) The current water and sewer connection fees are listed on the city fee schedule. The current impact fees are established by and forwarded to the water provider and are available by contacting the city utilities department.