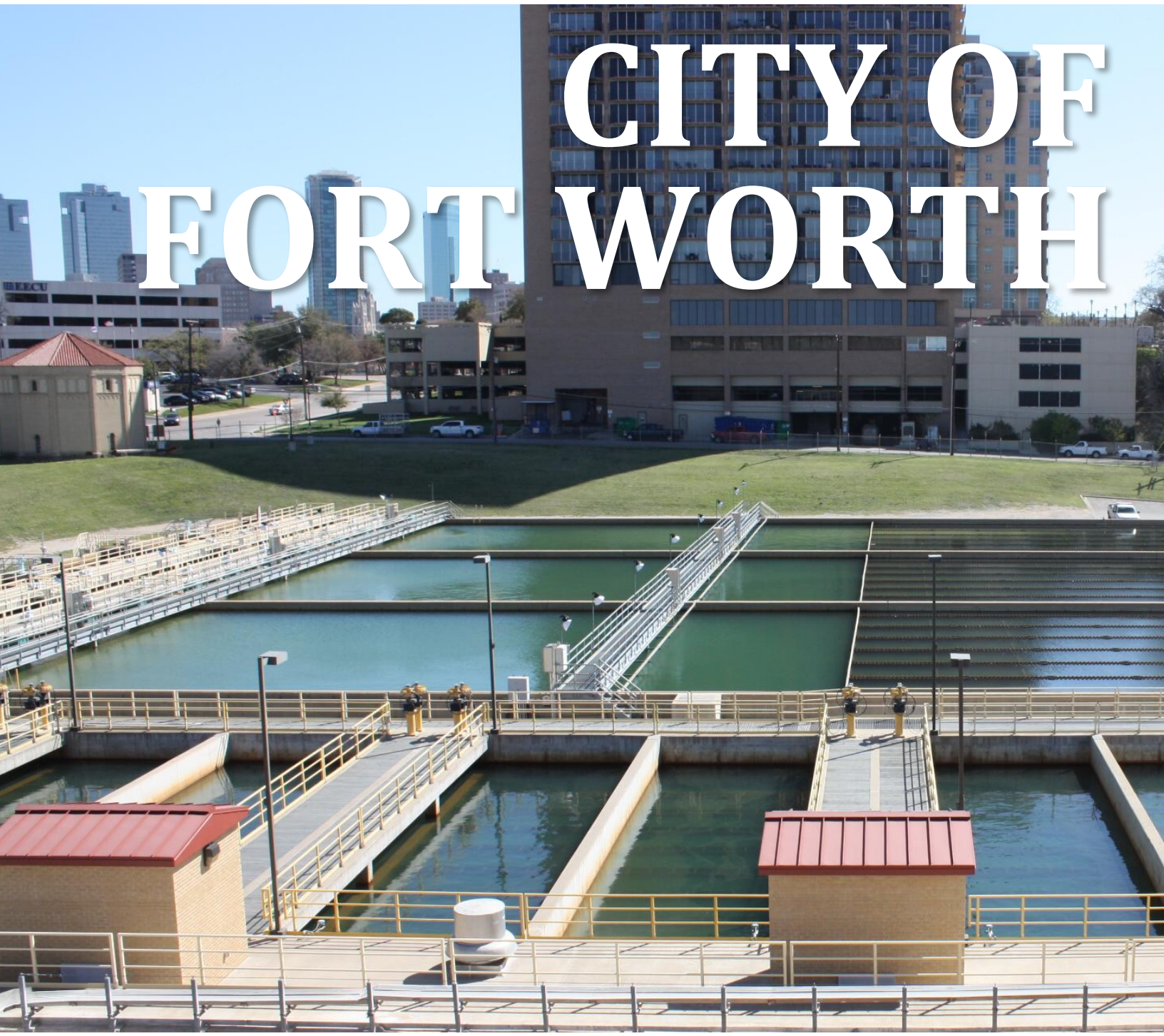

CITY OF FORT WORTH

WATER/WASTEWATER IMPACT FEE UPDATE

EXHIBIT D: CAPITAL IMPROVEMENT PLAN - WATER (2025 – 2045)

PREPARED BY:
FREESE AND NICHOLS, INC.
801 CHERRY STREET, SUITE 2800
FORT WORTH, TEXAS 76102
817-735-7300

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WATER & WASTEWATER IMPACT FEE UPDATE

EXHIBIT D: CAPITAL IMPROVEMENT PLAN -WATER (2025 – 2045)

Prepared for:

Fort Worth Water

March 7, 2025

Prepared by:

FREESE AND NICHOLS, INC.
801 Cherry Street, Suite 2800
Fort Worth, Texas 76102
817-735-7300

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WATER & WASTEWATER IMPACT FEE UPDATE

Prepared for:

Fort Worth Water

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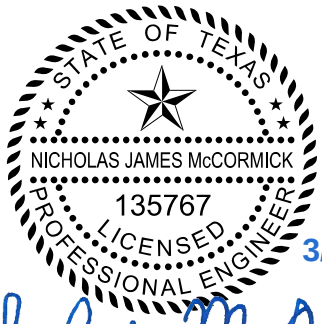

3/7/2025

FREESE AND NICHOLS, INC.
TEXAS REGISTERED
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F-2144

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1.0 INTRODUCTION

In accordance with Texas Local Government Code (TLGC), Chapter 395, the City of Fort Worth commissioned Freese and Nichols, Inc., to conduct a Water and Wastewater Impact Fee Study. This report establishes the engineering basis for the fee schedule, updating the previous study completed in 2021.

Impact fees provide the City of Fort Worth with a mechanism for recouping the cost associated with expanding the municipal water system to accommodate growth in the service area. The City of Fort Worth owns and operates a system comprised of treatment facilities, pumping stations, storage facilities, and pipelines that are continuously improved and expanded. The schedule for future investment in the water system is known as the Capital Improvement Plan (CIP). The CIP was updated as a part of this study with capital projects and costs provided by previously commissioned master planning documents and input from Fort Worth Water staff.

The report describes the basis for establishing which City of Fort Worth water facilities are eligible to be included in the impact fee analysis. The additional facilities required to accommodate growth during the study period are summarized.

2.0 EXISTING WATER DISTRIBUTION SYSTEM

2.1 RAW WATER SOURCES AND TRANSMISSION

The City obtains the majority of its raw water supply from the Tarrant Regional Water District (TRWD). The City owns water rights in Lake Worth and Lake Benbrook. TRWD administers these water rights on the City of Fort Worth's behalf, and in exchange TRWD has contracted to provide raw water to meet all reasonable future needs. TRWD has supplies in several reservoirs and reuse sources (Lake Bridgeport, Eagle Mountain, Lake Worth, Benbrook Lake, Richland-Chambers Reservoir, Cedar Creek Reservoir, and significant indirect reuse volumes). Any of these supplies can be used as part of the TRWD system to meet the raw water needs of the City of Fort Worth. In addition to raw water supplies from TRWD, Fort Worth also has supplies from some small direct non-potable reuse projects.

TRWD can supply water to Fort Worth from any of its sources through its system of pump stations and transmission infrastructure. The TRWD water can then be pumped to the Rolling Hills Water Treatment Plant (RHWTP), North Holly Water Treatment Plant (NHWTP)/South Holly Water Treatment Plant (SHWTP), Eagle Mountain Water Treatment Plant (EMWTP), or Westside Water Treatment Plant (WSWTP). The existing raw water supply facilities that are owned/operated by the City of Fort Worth are shown in **Table 2-1**.

Table 2-1 Fort Worth Raw Water Supply Infrastructure

Facility	Capacity (MGD)
Raw Water Pump Stations	
Eagle Mountain Pump Station #1	74[1]
Eagle Mountain Pump Station #2	30[1]
Clear Fork Pump Station	90[1]
Raw Water Pipelines	
Eagle Mountain Pipelines (54-inch and 72-inch)	198[2]
Clear Fork Pipeline (60-inch)	88[2]
Lake Worth Pipeline (60-inch and 72-inch)	127[3]

[1]Indicates firm capacity with the largest pump out of service.
[2]Approximate capacity, based on maintaining a velocity of less than 7 feet/second.
[3]Lake Worth pipeline system can gravity water from Lake Worth to the NHWTP and SHWTP.

2.2 WATER TREATMENT PLANTS, PUMP STATIONS AND STORAGE

The City's distribution system consists of twelve pressure planes. The pressure planes include the Holly (HO), Eastside (ES) II, Northside (NS) II, III, and IV, Southside (SS) II, III, and IV, and Westside (WS) II, III, IV and V Pressure Planes. Some pressure planes, such as Holly and ES II, are supplied principally by pump stations at the water treatment plants.

The City currently operates five water treatment plants, summarized in **Table 2-2**. These plants take raw water from the TRWD reservoirs and treat it, which is then pumped into the distribution system through the high service pump stations at each treatment plant.

Table 2-2 Water Treatment Plant Facilities

Water Treatment Plant	Treatment Capacity (MGD)
North Holly Plant	90
South Holly Plant	110
Rolling Hills Plant	200
Eagle Mountain Plant	107
Westside Plant	18

In order to provide adequate pressure to each of the City's eleven pressure planes, the City operates a series of 9 high service pump stations (at the Water Treatment Plants) and twenty-three distribution system pump stations for a total of thirty-two pumping facilities. A summary of the existing system pumping capacities of each high service pump station as well as the in-system pump stations can be found in **Appendix A**. These pump stations are used to fill the thirty ground and elevated storage tanks located throughout the City. A summary of the existing system storage capacities of the ground and elevated storage tanks can be found in **Appendix B**.

3.0 PROJECTED WATER DEMANDS

Water demand design criteria were developed for the City of Fort Worth in the *2024 Northside Water Master Plan Update*. Based on historical usage, specific residential and non-residential per capita were developed for each pressure plane. FNI applied the water demand design criteria to Fort Worth population and employment projections to develop projected water demands, excluding wholesale customers, resulting in a City 2025 average day demand of 167.00 MGD, and a City 2035 average day demand of 201.92 MGD. An average day to maximum day peaking factor was also developed for each pressure plane, resulting in a City 2025 maximum day demand of 309.20 MGD and a City 2035 maximum day demand of 374.77 MGD.

The wholesale customer demand was provided by the wholesale customers as part of the wholesale customer surveys. The 2025 average day demand for wholesale customers is 64.44 MGD, and the 2035 average day demand for the wholesale customers is 76.12 MGD. The 2025 maximum day demand for wholesale customers is 140.10 MGD, and the 2035 maximum day demand for the wholesale customers is 165.19 MGD.

The total 2025 average day demand for Fort Worth and its wholesale customers is 231.44 MGD (2025 maximum day demand of 449.30 MGD). The total 2035 average day demand for Fort Worth and its wholesale customers is 278.04 MGD (2035 maximum day demand of 539.96 MGD). The *2024 Northside Water Master Plan Update* recommended a maximum day to peak hour peaking factor of 1.5, resulting in a total 2025 peak hour demand for Fort Worth and its wholesale customers of 674.00 MGD, and a total 2035 peak hour demand for Fort Worth and its wholesale customers of 809.99 MGD. **Table 3-1** summarizes the projected water demands for Fort Worth and its wholesale customers.

Table 3-1 Projected Water Demands

Entity	Planning Year	Average Day Demand (MGD)	Maximum Day Demand (MGD)	Peak Hour Demand (MGD)
City of Fort Worth	2025	167.00	309.20	463.83
	2035	201.92	374.77	562.19
Wholesale Customers (Portion Served by Fort Worth)	2025	64.44	140.10	210.17
	2035	76.12	165.19	247.80
Total Demand	**2025**	**231.44**	**449.30**	**674.00**
	2035	**278.04**	**539.96**	**809.99**

4.0 WATER CAPITAL IMPROVEMENTS

This section establishes the water facilities and engineering studies that are eligible for inclusion in the calculation of the impact fee. Projects included in the CIP are designated to increase system capacity as a result of projected growth. Only those projects warranted by capacity needs derived from growth occurring during the study period (2025-2035) can be included in the impact fee calculation. Additionally, projects are excluded from the impact fee calculation if alternate mechanisms for cost recovery are in place.

Projects included in the impact fee study are TRWD supply projects, City of Fort Worth raw water supply and transmission facilities, water treatment facilities, regional transmission lines, pump stations, storage facilities, and engineering studies.

Table 4-1 provides a summary of each water CIP project cost and allocation for the 2025-2035 study period. The percent utilization allocated to 2025 is the portion of a project's capacity required to serve existing development. It is not included in the impact fee cost calculations. The 2025-2035 percent utilization is the portion of the project's capacity that will be required to serve development projected to occur from 2025 to 2035. The portion of a project's total cost that is used to serve development projected to occur from 2025 through 2035 is calculated as the total cost multiplied by the 2025-2035 percent utilization. Only this portion of the cost is used in the impact fee analysis. The percent utilization beyond 2035 is the portion of a project's capacity allocated to development projected to occur after 2035.

Figures D-1 and **D-2** show existing and proposed facilities, respectively, for the impact fee study period. **Appendix C** describes each water CIP project for the 2025-2035 planning period. A project description, the purpose of each project, and the portion of each project that is allocated to associated growth are included.

Fort Worth Water
Table 4-1 Water Impact Fee Eligible
Capital Improvement Projects 2025 - 2035

Project ID	Project Title	Project Phase	TRWD Project Cost	Fort Worth Participation Cost[2]	Project Status	Initial Project Cost	Project Cost in 2025 Dollars	Start Date	Completion Date	Added Capacity	% Allocated to Existing 2025 Capacity	Cost Allocated to Existing 2025 Capacity	% Allocated to 2025-2035 Impact Fees	Cost Allocated to 2025-2035 Impact Fees (2025 Dollars)	% Allocated to Impact Fees after 2035	Cost Allocated to Impact Fees after 2035
TARRANT REGIONAL WATER DISTRICT (TRWD) PROJECTS																
-	Richland-Chambers Wetlands	Const	$61,000,000	$36,600,000	Completed	$36,600,000	$36,600,000	1999	2013	89.6 MGD	74%	$38,866,452	26%	$9,516,000	0%	$0
-	Eagle Mountain Connection Raw Water Line & PS	Const	$138,867,058	$83,320,235	Completed	$83,320,235	$83,320,235	2006	2008	47 MGD	53%	$63,370,691	25%	$20,830,059	22%	$26,304,815
-	Integrated Pipeline & PS's	Const	$707,914,617	$424,748,770	UD/UC	$424,748,770	$424,748,770	2009	2022	160 MGD	19%	$115,810,469	56%	$237,859,311	25%	$152,382,196
-	Integrated Pipeline JRC1 Lake PS and Section 16 Pipeline	Const	$480,000,000	$288,000,000	UD/UC	$288,000,000	$288,000,000	2024	2032	194 MGD	0%	$0	6%	$17,452,800	94%	$388,244,339
-	Kennedale Balancing Reservoir (Third Cell)	Const	$60,000,000	$36,000,000	UD/UC	$36,000,000	$36,000,000	2020	2032	165 MG	0%	$0	6%	$2,181,600	94%	$48,530,543
-	Cedar Creek (Marty Leonard) Wetlands Water Reuse	Const	$540,000,000	$324,000,000	UD/UC	$324,000,000	$324,000,000	2022	2032	88 MGD	0%	$0	6%	$19,634,400	94%	$436,774,881
-	Mary's Creek Indirect Water Reclamation	Const	$53,000,000	$31,800,000	UD/UC	$31,800,000	$31,800,000	2023	2028	10 MGD	0%	$0	14%	$4,496,520	86%	$39,181,413
-	EM Balancing Reservoir (Second Cell)	Const	$34,000,000	$20,400,000	UD/UC	$20,400,000	$20,400,000	2023	2026	120 MG	0%	$0	18%	$3,708,720	82%	$23,952,549
-	Second Richland-Chambers Wetlands Land Acquisition	Const	$24,000,000	$14,400,000	Proposed	$14,400,000	$14,400,000	2027	2029	80 MGD	0%	$0	12%	$1,745,280	88%	$18,159,949
-	Cedar Creek Section 4 Pipeline Replacement from 72-inch to 90-inch	Const	$109,000,000	$65,400,000	UD/UC	$65,400,000	$65,400,000	2024	2028	68 MGD	60%	$56,310,721	14%	$9,247,560	26%	$24,269,921
-	Cedar Creek Lake PS Header Pipe Replacement from 54-inch to 72-inch	Const	$7,000,000	$4,200,000	Proposed	$4,200,000	$4,200,000	2025	2028	40 MGD	60%	$3,616,285	14%	$593,880	26%	$1,558,619
-	Cedar Creek Section 2 Pipeline Replacement Phase 1 from 72-inch to 90/102-inch	Const	$154,000,000	$92,400,000	UD/UC	$92,400,000	$92,400,000	2020	2027	68 MGD	60%	$79,558,267	16%	$14,931,840	24%	$31,611,151
-	Cedar Creek Section 2 Pipeline Replacement Phase 2 from 72-inch to 102-inch	Const	$79,000,000	$47,400,000	Proposed	$47,400,000	$47,400,000	2024	2029	119 MGD	46%	$31,289,474	12%	$5,744,880	42%	$28,487,026
-	Joint Pipeline Section 1 & 6 (1D/1E) 108-inch Transmission Main	Const	$97,000,000	$58,200,000	UD/UC	$58,200,000	$58,200,000	2024	2029	246 MGD	0%	$0	12%	$7,053,840	88%	$73,396,462
-	Cedar Creek Pipeline Section 3 Replacement Phase 1 from 72-inch to 90-inch	Const	$130,000,000	$78,000,000	Proposed	$78,000,000	$78,000,000	2028	2032	68 MGD	60%	$67,159,576	6%	$4,726,800	34%	$37,989,933
						TRWD PROJECTS TOTAL	**$1,604,869,005**					**TRWD PROJECTS ELIGIBLE COSTS**		**$359,723,490**		
RAW WATER SUPPLY AND TREATMENT PLANTS																
W3-5B (2005 MP)	Westside WTP - Phase I (0.0-12.0 MGD)	Eng	--	--	Completed	$4,992,954	$4,992,954	2009	2009	12 MGD	58%	$4,155,734	42%	$2,097,041	0%	$0
W3-5B (2005 MP)	Westside WTP - Phase I (0.0-12.0 MGD)	Const	--	--	Completed	$46,847,759	$46,847,759	2009	2012	12 MGD	58%	$38,992,305	42%	$19,676,059	0%	$0
N2-5A (2005 MP)	Eagle Mountain Clearwell #3	Eng & Const	--	--	Completed	$2,968,644	$2,968,644	2011	2014	2.5 MGD	79%	$2,345,229	21%	$623,415	0%	$0
W3-8 (2017 MP)	Westside WTP Expansion to 15.0 MGD - Membrane Rack	Const	--	--	Completed	$500,000	$500,000	2016	2017	3 MGD	67%	$335,000	33%	$165,000	0%	$0
W3-8 (2017 MP)	Westside WTP Expansion to 18.0 MGD - Membrane Rack	Const	--	--	Completed	$590,048	$590,048	2020	2021	3 MGD	18%	$106,209	82%	$483,839	0%	$0
W3-8 (2017 MP)	Westside WTP Expansion to 21.0 MGD - Membrane Rack	Eng & Const	--	--	UD/UC	$5,614,880	$5,614,880	2023	2025	3 MGD	0%	$0	100%	$5,614,880	0%	$0
W3-8 (2017 MP)	Westside WTP Expansion to 24.0 MGD - Membrane Rack	Eng & Const	--	--	UD/UC	$5,204,827	$5,204,827	2026	2028	3 MGD	0%	$0	100%	$5,204,827	0%	$0
WTP-1 (2024 MP)	EMWTP Expansion to 140.0 MGD & NS-III HSPS Expansion	Eng	--	--	UD/UC	$14,845,068	$14,845,068	2024	2025	33 MGD	0%	$0	72%	$10,688,449	28%	$7,017,104
WTP-1 (2024 MP)[1]	EMWTP Expansion to 140.0 MGD & NS-III HSPS Expansion	CM	--	--	UD/UC	$5,000,000	$5,100,000	2025	2027	33 MGD	0%	$0	72%	$3,672,000	28%	$2,498,019
WTP-1 (2024 MP)[1]	EMWTP Expansion to 140.0 MGD & NS-III HSPS Expansion	Const	--	--	UD/UC	$250,000,000	$255,000,000	2025	2027	33 MGD	0%	$0	72%	$183,600,000	28%	$120,535,762
N2-20B (2005 MP)[1]	Second EM Raw Water PS Expansion	Eng	--	--	Proposed	$864,000	$881,280	2026	2027	60 MGD	0%	$0	50%	$440,640	50%	$440,640
N2-20B (2005 MP)[1]	Second EM Raw Water PS Expansion	Const	--	--	Proposed	$5,875,200	$5,992,704	2027	2029	60 MGD	0%	$0	50%	$2,996,352	50%	$5,058,370
N2-1 (2024 MP)[1]	EMWTP NS-II HSPS Expansion	Eng	--	--	Proposed	$633,600	$646,272	2026	2028	44 MGD	0%	$0	60%	$387,763	40%	$258,509
N2-1 (2024 MP)[1]	EMWTP NS-II HSPS Expansion	Const	--	--	Proposed	$4,308,500	$4,394,670	2028	2032	44 MGD	0%	$0	60%	$2,636,802	40%	$1,757,868
W3-8 (2017 MP)[1]	Westside WTP Expansion to 36.0 MGD & WS-III HSPS Expansion	Eng	--	--	Proposed	$4,194,000	$4,277,880	2031	2032	12 MGD	0%	$0	49%	$2,096,161	51%	$2,181,719
W3-8 (2017 MP)[1]	Westside WTP Expansion to 36.0 MGD & WS-III HSPS Expansion	Const	--	--	Proposed	$28,519,200	$29,089,584	2032	2034	12 MGD	0%	$0	49%	$14,253,896	51%	$25,045,251
						RAW WATER SUPPLY AND TREATMENT PLANTS TOTAL	**$386,946,570**					**RAW WATER SUPPLY AND TREATMENT PLANT ELIGIBLE COSTS**		**$254,637,124**		

FREESE AND NICHOLS

Fort Worth Water
Table 4-1 Water Impact Fee Eligible
Capital Improvement Projects 2025 - 2035

FORT WORTH

Project ID	Project Title	Project Phase	TRWD Project Cost	Fort Worth Participation Cost[2]	Project Status	Initial Project Cost	Project Cost in 2025 Dollars	Start Date	Completion Date	Added Capacity	% Allocated to Existing 2025 Capacity	Cost Allocated to Existing 2025 Capacity	% Allocated to 2025-2035 Impact Fees	Cost Allocated to 2025-2035 Impact Fees (2025 Dollars)	% Allocated to Impact Fees after 2035	Cost Allocated to Impact Fees after 2035
PUMP STATIONS AND REGIONAL TRANSMISSION LINES																
S2-3 (2005 MP)	35.7 MGD Total Capacity SS-III McCart PS Expansion	Eng & Const	--	--	Completed	$563,375	$563,375	2013	2013	10 MGD	99%	$940,759	1%	$6,112	0%	$0
W5-1 (2005 MP)	16.0 MGD Total Capacity WS-V Walsh Ranch PS	Eng	--	--	Completed	$173,000	$173,000	2015	2016	16 MGD	47%	$131,459	53%	$91,690	0%	$0
W5-1 (2005 MP)	16.0 MGD Total Capacity WS-V Walsh Ranch PS	Const	--	--	Completed	$1,729,685	$1,729,685	2016	2017	16 MGD	47%	$1,314,352	53%	$916,733	0%	$0
N2-1 (2005 MP)	NS-II 48-Inch Transmission Line	Eng & Const	--	--	Completed	$33,156,147	$33,156,147	2016	2020	48 MGD	46%	$27,093,129	10%	$3,315,615	44%	$25,915,167
W4-5 (2005 MP)	7.8 MGD SS-IV Sun Country PS	Eng	--	--	Completed	$1,126,029	$1,126,029	2021	2021	7.8 MGD	7%	$136,933	6%	$67,562	87%	$1,701,881
W4-5 (2005 MP)	7.8 MGD SS-IV Sun Country PS	Const	--	--	Completed	$5,588,670	$5,588,670	2022	2024	7.8 MGD	7%	$679,621	6%	$335,320	87%	$8,446,718
W4-4 (2017 MP)	30.0 MGD Total Capacity WS-IV Markum Ranch PS	Eng	--	--	UD/UC	$546,334	$546,334	2021	2022	30 MGD	0%	$0	52%	$284,094	48%	$455,575
W4-4 (2017 MP)	30.0 MGD Total Capacity WS-IV Markum Ranch PS	Const	--	--	UD/UC	$6,987,433	$6,987,433	2022	2024	30 MGD	0%	$0	52%	$3,633,465	48%	$5,826,653
W5-8 (2017 MP)	20.5 MGD Total Capacity WS-V Markum Ranch PS	Eng	--	--	UD/UC	$546,334	$546,334	2021	2022	20.5 MGD	0%	$0	7%	$38,243	93%	$882,676
W5-8 (2017 MP)	20.5 MGD Total Capacity WS-V Markum Ranch PS	Const	--	--	UD/UC	$6,987,433	$6,987,433	2022	2024	20.5 MGD	0%	$0	7%	$489,120	93%	$11,289,141
N2-1 (2017 MP)	70.0 MGD Total Capacity NS-II Northside PS Expansion	Eng & Const	--	--	UD/UC	$5,000,000	$5,000,000	2025	2026	12 MGD	0%	$0	95%	$4,750,000	5%	$422,044
S3-7 (2017 MP)[1]	55.7 MGD Total Capacity SS-III McCart PS Expansion	Eng	--	--	Proposed	$288,000	$293,760	2025	2027	20 MGD	0%	$0	84%	$246,758	16%	$47,002
S3-7 (2017 MP)[1]	55.7 MGD Total Capacity SS-III McCart PS Expansion	Const	--	--	Proposed	$1,958,400	$1,997,568	2027	2030	20 MGD	0%	$0	84%	$1,677,957	16%	$319,611
S3-11 (2017 MP)[1]	54.6 MGD Total Capacity SS-III Alta Mesa PS Expansion	Eng	--	--	Proposed	$216,000	$220,320	2030	2032	15 MGD	0%	$0	84%	$185,069	16%	$35,251
S3-11 (2017 MP)[1]	54.6 MGD Total Capacity SS-III Alta Mesa PS Expansion	Const	--	--	Proposed	$1,468,800	$1,498,176	2032	2035	15 MGD	0%	$0	84%	$1,258,468	16%	$239,708
N3-1 (2024 MP)[1]	NS-III 54-inch Transmission Line	Eng	--	--	UD/UC	$12,705,700	$12,959,814	2024	2026	60 MGD	0%	$0	60%	$7,775,888	40%	$8,751,379
N3-1 (2024 MP)[1]	NS-III 54-inch Transmission Line	Const	--	--	UD/UC	$86,398,500	$88,126,470	2026	2030	60 MGD	0%	$0	60%	$52,875,882	40%	$59,509,195
E2-1 (2024 MP)[1]	35.0 MGD Total Capacity HO to ES-II Booster PS & GST	Eng	--	--	Proposed	$3,000,000	$3,060,000	2025	2026	35 MGD	71%	$2,172,600	19%	$581,400	10%	$306,000
E2-1 (2024 MP)[1]	35.0 MGD Total Capacity HO to ES-II Booster PS & GST	Const	--	--	Proposed	$30,000,000	$30,600,000	2026	2030	35 MGD	71%	$36,677,311	19%	$5,814,000	10%	$5,165,818
E2-2 (2024 MP)[1]	ES-II 42-inch Parallel Water Line	Eng	--	--	Proposed	$5,148,900	$5,251,878	2025	2027	36 MGD	71%	$6,294,927	19%	$997,857	10%	$886,610
E2-2 (2024 MP)[1]	ES-II 42-inch Parallel Water Line	Const	--	--	Proposed	$35,012,600	$35,712,852	2027	2030	36 MGD	71%	$42,805,600	19%	$6,785,442	10%	$6,028,958
HO-5 (2024 MP)[1]	HO 42-inch Parallel Water Line	Eng	--	--	Proposed	$5,414,100	$5,522,382	2025	2027	36 MGD	71%	$6,619,155	19%	$1,049,253	10%	$932,275
HO-5 (2024 MP)[1]	HO 42-inch Parallel Water Line	Const	--	--	Proposed	$36,815,500	$37,551,810	2027	2030	36 MGD	71%	$45,009,785	19%	$7,134,844	10%	$6,339,406
#1 (2025 IF)[1]	24.2 MGD Total Capacity WS-V Walsh Ranch PS Expansion	Eng	--	--	Proposed	$115,200	$117,504	2031	2032	8 MGD	0%	$0	7%	$8,225	93%	$109,279
#1 (2025 IF)[1]	24.2 MGD Total Capacity WS-V Walsh Ranch PS Expansion	Const	--	--	Proposed	$783,400	$799,068	2032	2033	8 MGD	0%	$0	7%	$55,935	93%	$743,133
PUMP STATIONS AND REGIONAL TRANSMISSION LINES TOTAL							**$286,116,042**		**REGIONAL TRANSMISSION LINES AND PUMP STATIONS ELIGIBLE COST**					**$100,374,932**		
STORAGE TANKS																
N2-7/N3-5 (2005 MP)*	5.0 MG NS-II Sendera Ranch GST & PS	Eng & Const	--	--	Completed	$4,284,791	$4,284,791	2006	2008	5 MG	82%	$5,931,455	18%	$771,262	0%	$0
N4-2 (2005 MP)	1.0 MG NS-IV Crumb EST	Eng	--	--	Completed	$672,115	$672,115	2014	2015	1 MG	55%	$641,218	45%	$302,452	0%	$0
N4-2 (2005 MP)	1.0 MG NS-IV Crumb EST & Land Purchase	Const & Land	--	--	Completed	$4,068,060	$4,068,060	2014	2015	1 MG	55%	$3,881,054	45%	$1,830,627	0%	$0
N2-10 (2005 MP)	5.0 MG NS-II Caylor Road GST	Eng	--	--	Completed	$601,729	$601,729	2014	2015	5 MG	82%	$856,032	18%	$108,311	0%	$0
N2-10 (2005 MP)	5.0 MG NS-II Caylor Road GST	Const	--	--	Completed	$4,879,440	$4,879,440	2015	2016	5 MG	82%	$6,941,591	18%	$878,299	0%	$0
W5-2 (2017 MP)	1.0 MG WS-V Beggs Ranch EST	Eng	--	--	Completed	$367,820	$367,820	2016	2019	1 MG	13%	$47,817	4%	$14,713	83%	$305,291
W5-2 (2017 MP)	1.0 MG WS-V Beggs Ranch EST	Const	--	--	Completed	$2,752,000	$2,752,000	2019	2020	1 MG	13%	$357,760	4%	$110,080	83%	$2,284,160
W4-5 (2005 MP)	0.03 MG SS-IV Sun Country Hydropneumatic Tank	Eng	--	--	Completed	$1,126,029	$1,126,029	2021	2021	.03 MG	7%	$136,933	93%	$1,047,207	0%	$0
W4-5 (2005 MP)	0.03 MG SS-IV Sun Country Hydropneumatic Tank	Const	--	--	Completed	$5,588,670	$5,588,670	2022	2024	.03 MG	7%	$679,621	93%	$5,197,463	0%	$0
W3-3 (2017 MP)	3.0 MG WS-III Markum Ranch GST	Eng	--	--	UD/UC	$546,334	$546,334	2021	2022	3 MG	0%	$0	62%	$338,727	38%	$350,477
W3-3 (2017 MP)	3.0 MG WS-III Markum Ranch GST	Const	--	--	UD/UC	$6,987,433	$6,987,433	2022	2024	3 MG	0%	$0	62%	$4,332,208	38%	$4,482,486
W4-10 (2005 MP)	1.5 MG WS-IV EST	Eng	--	--	UD/UC	$884,888	$884,888	2021	2023	1.5 MG	0%	$0	47%	$415,897	53%	$927,810
W4-10 (2005 MP)	1.5 MG WS-IV EST	Const	--	--	UD/UC	$5,670,000	$5,670,000	2023	2024	1.5 MG	0%	$0	47%	$2,664,900	53%	$5,945,025
N3-7 (2017 MP)	2.0 MG NS-III Brookfield EST	Eng	--	--	UD/UC	$416,320	$416,320	2022	2024	2 MG	37%	$260,044	57%	$237,302	6%	$42,169
N3-7 (2017 MP)	2.0 MG NS-III Brookfield EST	Const	--	--	UD/UC	$8,968,000	$8,968,000	2025	2026	2 MG	37%	$5,601,638	57%	$5,111,760	6%	$908,374
N4-5 (2017 MP)	1.0 MG NS-IV Alpha EST	Eng	--	--	UD/UC	$500,701	$500,701	2023	2024	1 MG	0%	$0	33%	$165,231	67%	$566,332
N4-5 (2017 MP)	1.0 MG NS-IV Alpha EST	Const	--	--	UD/UC	$5,371,000	$5,371,000	2027	2029	1 MG	0%	$0	33%	$1,772,430	67%	$6,075,019
W5-5 (2017 MP)	1.5 MG WS-V EST	Eng	--	--	UD/UC	$727,678	$727,678	2021	2022	1.5 MG	0%	$0	4%	$29,107	96%	$1,213,587
W5-5 (2017 MP)	1.5 MG WS-V EST	Const	--	--	UD/UC	$7,450,879	$7,450,879	2022	2024	1.5 MG	0%	$0	4%	$298,035	96%	$12,426,220
N2-2 (2024 MP)[1]	5.0 MG NS-II Sendera Ranch GST	Eng	--	--	Proposed	$679,146	$679,146	2024	2025	5 MG	0%	$0	13%	$88,289	87%	$590,857
N2-2 (2024 MP)[1]	5.0 MG NS-II Sendera Ranch GST	Const	--	--	Proposed	$7,344,000	$7,490,880	2026	2028	5 MG	0%	$0	13%	$973,814	87%	$11,001,954
S3-10 (2017 MP)[1]	2.0 MG SS-III Proposed EST	Eng	--	--	Proposed	$2,340,000	$2,386,800	2027	2028	2 MG	0%	$0	87%	$2,076,516	13%	$310,284
S3-10 (2017 MP)[1]	2.0 MG SS-III Proposed EST	Const	--	--	Proposed	$15,912,000	$16,230,240	2028	2029	2 MG	0%	$0	87%	$14,120,309	13%	$3,561,935
W4-5 (2005 MP)[1]	1.0 MG SS-IV Proposed EST	Eng	--	--	Proposed	$1,170,000	$1,193,400	2029	2030	1 MG	7%	$83,538	3%	$35,802	90%	$1,074,060
W4-5 (2005 MP)[1]	1.0 MG SS-IV Proposed EST	Const	--	--	Proposed	$7,956,000	$8,115,120	2030	2031	1 MG	7%	$958,983	3%	$243,454	90%	$12,329,776
STORAGE TANKS TOTAL							**$97,959,473**					**STORAGE TANKS ELIGIBLE COSTS**		**$43,164,195**		
ENGINEERING STUDIES																
-	2017 Water Master Plan (2013-2033)	Study	--	--	Completed	$768,168	$768,168	2013	2016	-	60%	$460,901	40%	$307,267	0%	$0
-	2024 Northside Water Master Plan (2022-2047)	Study	--	--	Completed	$245,700	$245,700	2022	2024	-	12%	$29,484	40%	$98,280	48%	$117,936
-	Impact Fee Study (2025-2035)	Study	--	--	In Progress	$258,216	$258,216	2024	2025	-	0%	$0	100%	$258,216	0%	$0
ENGINEERING STUDIES TOTAL							**$1,272,084**					**ENGINEERING STUDIES ELIGIBLE COST**		**$663,763**		
GRAND TOTAL							**$2,377,163,174**					**WATER CIP ELIGIBLE COST**		**$758,563,504**		

[1]Inflation rate of 2% utilized for estimating future projects in 2025 dollars.

[2]City of Fort Worth cost participation is 60% of the TRWD project cost.

*City of Fort Worth cost participation.

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FIGURE D-1
CITY OF FORT WORTH
EXISTING WATER SYSTEM FACILITIES

LEGEND

- Pump Station
- Ground Storage Tank
- Elevated Storage Tank
- Hydropneumatic Tank
- Water Treatment Plant
- Road
- Lake
- Impact Fee Water Service Area
- Fort Worth City Limit
- Fort Worth ETJ Boundary
- Water Wholesale Customer
- Non-Wholesale Customer
- County Boundary

FORT WORTH®

FREESE AND NICHOLS

Sendera Ranch GST and PS
Willow Springs EST
Crumb EST
Caylor Road GSTs
North Beach GST and PS
Bradley EST
Lago Vista PS
Lake Country EST
Eagle Mountain WTP
Cantrell-Sansom PS
Northwest EST
Northside GST and PS
Jenkins Heights PS
Old North Side #1 PS
Fleetwood GST and PS
Beggs Ranch EST
Westland GST and PS
Westside PS
North Holly WTP
Randol Mill GST and PS
Meadowbrook EST
Westside WTP
South Holly WTP
Stagecoach GST and PS
Calmont EST
Eastside PS
Como GSTs and PS
Eastwood EST
Walsh Ranch GST and PS
Edwards Ranch PS
Southside GST and PS
Timberline EST
Ventana PS
Seminary Hill EST
Russom Ranch PS
Westside 4 HPT
Rolling Hills WTP
Alta Mesa GST and PS
Armstrong Ranch EST
McCart GST and PS
Sun Country EST,HPT, and PS

Wise County
Denton County
Parker County
Tarrant County
Johnson County
Ellis County

NORTHLAKE
ROANOKE
TROPHY CLUB
WESTLAKE
HASLET
KNOB HILL
JAY BIRD
Eagle Mountain Lake
SOUTHLAKE
KELLER
DFW AIRPORT
NORTH RICHLAND HILLS
HURST
HALTOM CITY
RICHLAND HILLS
LAKE WORTH
Lake Worth
SANSOM PARK
RIVER OAKS
WESTWORTH VILLAGE
WHITE SETTLEMENT
SAGINAW
BOAT CLUB
ALEDO
BENBROOK
Benbrook Lake
ALTAMESA
EDGECLIFF VILLAGE
FOREST HILL
KENNEDALE
EVERMAN
RISINGER
CROWLEY
BURLESON
BETHESDA WSC
DALWORTHINGTON GARDENS
Pantego
GRAND PRAIRIE
Joe Pool Lake

0 18,000
SCALE IN FEET

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Additional Impact Fee Eligible TRWD Projects

- Integrate Pipeline & Pump Stations
- Richland-Chambers Wetlands
- Cedar Creek Wetlands
- JRC1 Pump Station & Section 16 Pipeline
- Cedar Creek Pipeline Replacements
- Joint Pipeline Section 1D/1E

ENGINEERING STUDIES

2017 Water Master Plan 2013-2033
Impact Fee Study 2025-2035
2024 Northside Water Master Plan 2022-2047

FIGURE D-2
CITY OF FORT WORTH
2025 WATER IMPACT FEE STUDY
PROPOSED IMPROVEMENTS

LEGEND

Proposed Improvements
- Ground Storage Tank
- Elevated Storage Tank
- Pump Station
- WTP Water Treatment Plant
- Water Line Improvement
- Impact Fee Water Service Area

Existing Water System
- Hydropneumatic Tank
- Ground Storage Tank
- Elevated Storage Tank
- Pump Station
- TRWD Pump Station
- TRWD Water Line
- TRWD Balancing Reservoir
- Road
- Lake
- Fort Worth City Limit
- Fort Worth ETJ Boundary
- Water Wholesale Customer
- Non-Wholesale Customer
- County Boundary

FORT WORTH®

FREESE AND NICHOLS

Brookfield 2.0 MG EST
N3-7 (2017 MP)

Alpha 1.0 MG EST
N4-5 (2017 MP)

Sendera Ranch 5.0 MG GST & PS
Proposed Improvements
N2-7 (2005 MP), N3-5 (2005 MP), N2-2 (2024 MP)

Crumb 1.0 MG EST
N4-2 (2005 MP)

Caylor Road 5.0 MG GST
N2-10 (2005 MP)

NS-II 48-inch Water Line
N2-1 (2005 MP)

NS-III 54-inch Water Line
N3-1 (2024 MP)

Eagle Mountain RWPS
Proposed Improvements
N2-20B (2005 MP)

Eagle Mountain WTP
Expand Treatment Capacity to 140 MGD
NS-II HSPS Expansion
N2-5A (2005 MP), WTP-1 (2024 MP), N2-1 (2024 MP)

ES-II 42-inch Parallel Water Line
E2-2 (2024 MP)

HO - ES-II 4.0 MG GST & PS
E2-1 (2024 MP)

HO 42-inch Parallel Water Line
HO-5 (2024 MP)

Northside PS
N2-1 (2017 MP)

Beggs Ranch 1.0 MG EST
W5-2 (2017 MP)

Eagle Mountain Creek Balancing Reservoir

Westside WTP
Expand Treatment Capacity to 24 MGD
Expand Treatment Capacity to 36 MGD
W3-5B (2005 MP), W3-8 (2017 MP)

Mary's Creek Water Line & Indirect Reuse Pump Station

Walsh Ranch 2.5 MG GST & PS
Proposed Improvements
W5-1 (2005 MP), #1 (2025 IF)

Markum Ranch 3.0 MG GST & PS
W3-3 (2017 MP), W4-4 (2017 MP), W5-8 (2017 MP)

WS-V 1.5 MG EST
W5-5 (2017 MP)

WS-IV 1.5 MG EST
W4-10 (2005 MP)

Eagle Mountain Connection Raw Water Line & Pump Station

Alta Mesa 9.2 MG GST & PS
Proposed Improvements
S3-11 (2017 MP)

Sun Country 0.03 MG HP & PS
W4-5 (2005 MP)

McCart 5.0 MG GST & PS
Proposed Improvements
S2-3 (2005 MP), S3-7 (2017 MP)

Proposed SS-IV 1.0 MG EST
W4-5 (2005 MP)

Proposed SS-III 2.0 MG EST
S3-10 (2017 MP)

Kennedale Balancing Reservoir (Third Cell)

Denton County
Wise County
Parker County
Johnson County
Tarrant County
Ellis County

0 18,000
SCALE IN FEET

5.0 IMPACT FEE ANALYSIS

Table 5-1 summarizes the impact fee eligible costs for projects from **Table 4-1**. The calculated cumulative interest includes the following assumptions:

- Existing impact fee eligible CIP
  - Based on the actual interest for the already outstanding debt for the full term of the bond issuance.
- Future impact fee eligible CIP
  - Based on the project's start date.
  - Cash-funding Fort Worth projects under $5,000,000.
  - Utilizing a bond issuance cost of 2.0%.
  - Utilizing an interest rate of 4.0%.
  - Utilizing a TRWD bond term of 30 years.
  - Utilizing a Fort Worth bond term of 30 years.

A more detailed explanation of the cumulative interest is included in the impact fee credit analysis, which can be found in **Appendix D**.

Table 5-1 2025-2045 Impact Fee Eligible Costs

CIP Category	Total Growth Related Cost	% Allocated to 2025-2035 Impact Fees	2025-2035 Growth Related Cost
TRWD Projects	$1,604,869,005	22%	$359,723,490
Raw Water Supply/Treatment Plants	$386,946,570	66%	$254,637,124
Transmission Lines/Pump Stations	$286,116,042	35%	$100,374,932
Storage Tanks	$97,959,473	44%	$43,164,195
Engineering Studies	$1,272,084	52%	$663,763
ELIGIBLE IMPACT FEE CIP SUBTOTAL			**$758,563,504**
Cumulative Interest - Fort Worth			$177,116,012
Cumulative Interest - TRWD			$115,265,314
TOTAL IMPACT FEE ELIGIBLE COST			**$1,050,944,830**

5.1 SERVICE UNITS

Costs between various customer types and sizes are allocated through the application of equivalent meters. Since the 5/8" x 3/4" water meter is the most frequently used meter by the residential customer, a factor has been calculated to relate the capacities of other meter sizes to the 5/8" x 3/4" meter capacity. **Table 5-2** presents the factors developed using meter type and maximum flow rates information from the American Water Works Association (AWWA) M22 Sizing Water Service Lines and Meters Table 6-1.

Table 5-2 AWWA Meter Equivalency Factors

Meter Size	Meter Type	5/8" x 3/4" Equivalency Factor
5/8" x 3/4"	Multijet	1.00
3/4"	Multijet	1.50
1"	Multijet	2.50
1-1/2"	Multijet	5.00
2"	Multijet	8.00
3"	Turbine Class II	21.75
4"	Turbine Class II	37.50
6"	Turbine Class II	80.00
8"	Turbine Class II	140.00
10"	Turbine Class II	210.00

Appendix E contains the current number of water meters for residential and non-residential customers by meter size for the City of Fort Worth, as well as for the wholesale customers who provided this information to FNI. The number of equivalent meters was also calculated for the City and wholesale customers.

The next calculation step determines factors for population per residential meter and employment per non-residential meter. **Table 5-3** summarizes this calculation for the City of Fort Worth and wholesale customers using 2024 information.

Table 5-3 Development of Factors of 2024 Population and Employment by Equivalent Meter

Description	Residential	Non-Residential
City of Fort Worth		
Number of Equivalent Meters	379,224	123,177
Population / Employment	995,952	667,584
Population per Equivalent Meter	2.63	--
Employment per Equivalent Meter	--	5.42
Wholesale Customers		
Number of Equivalent Meters	171,859	80,820
Population / Employment	424,425	232,466
Population per Equivalent Meter	2.47	--
Employment per Equivalent Meter	--	2.88

FNI did not receive meter count information from two of Fort Worth's wholesale water customers; however, their meter counts were estimated based on growth since the previous impact fee study. The

number of equivalent meters used to calculate the wholesale customers' population/employment per equivalent meter in **Table 5-3** is the total number of equivalent meters served by Fort Worth for all its wholesale customers. In order to more accurately estimate the population/employment per equivalent meter, FNI divided the number of equivalent meters by the sum of population or employment served by Fort Worth.

The projected increase in equivalent meters between 2025 and 2035 uses the ratios in **Table 5-3** and the population and employment projections for 2025 and 2035 in *Exhibit A- Water Land Use Assumptions Report*. The calculation is shown below:

City of Fort Worth Increase in Equivalent Meters

Residential = Population Change / Population per Equivalent Meter
= (1,264,157 – 1,017,863) / 2.63
= 93,648 Service Units

Non- Residential = Employment Change / Employment per Equivalent Meter
= (775,564 – 683,904) / 5.42
= 16,911 Service Units

Fort Worth Total = Residential + Non-Residential
= 93,648 + 16,911
= 110,559 Service Units

Wholesale Customers Increase in Equivalent Meters

Residential = Population Change / Population per Equivalent Meter
= (507,653 – 433,898) / 2.47
= 29,860 Service Units

Non- Residential = Employment Change / Employment per Equivalent Meter
= (290,213 – 239,101) / 2.88
= 17,747 Service Units

Wholesale Total = Residential + Non-Residential
= 29,860 + 17,747
= 47,607 Service Units

Grand Total = Fort Worth Total + Wholesale Total
= 110,559 + 47,607
= 158,166 Service Units

5.2 MAXIMUM ALLOWABLE IMPACT FEE CALCULATION

Impact fees are the quotient of the total cost of eligible CIP for the study period from **Table 5-1** divided by the increase in equivalent meters from **Section 5.1**. This fee equals the water impact fee per service unit for a 5/8" x 3/4" water meter size.

Water Impact Fee per Service Unit = Max Infrastructure Cost / Increase in Equivalent Meters
= $1,050,944,830 / 158,166
= $6,644 per 5/8" x 3/4" equivalent meter

The maximum allowable impact fee that can be collected is calculated by subtracting a credit from the impact fee eligible cost. A detailed impact fee credit analysis is included in **Appendix D**. A summary of the maximum allowable water impact fee including the credit analysis is shown in **Table 5-4**.

Table 5-4 Water Impact Fee with Credit Analysis

Credit Analysis Methodology	
Preliminary Maximum Calculated Infrastructure Cost	$1,050,944,830
Minus the CREDIT	($26,461,479)
Max Allowable Calculated Infrastructure Cost	$1,024,483,351
Service Units	158,166
Max Allowable Impact Fee per Service Unit	**$6,477**

The water impact fees for meters other than 5/8" x 3/4" are the product of the fee per 5/8" x 3/4" equivalent meter multiplied by the respective equivalent meter factor from **Table 5-2**. The maximum allowable water impact fees are provided in **Table 5-5**.

Table 5-5 Water Impact Fees by Meter Size

Meter Size	5/8" x 3/4" Equivalency Factor	Calculated Impact Fee per Service Unit (Before Subtracting Credit)	Maximum Allowable Impact Fee (After Subtracting Credit)
5/8" x 3/4"	1.00	$6,644	$6,477
3/4"	1.50	$9,966	$9,715
1"	2.50	$16,610	$16,192
1-1/2"	5.00	$33,220	$32,385
2"	8.00	$53,152	$51,816
3"	21.75	$144,507	$140,874
4"	37.50	$249,150	$242,887
6"	80.00	$531,520	$518,160
8"	140.00	$930,160	$906,780
10"	210.00	$1,395,240	$1,360,170

Appendix A
Existing Water Pumping Facilities

APPENDIX A
Existing Water Pumping Capacities

North Holly Plant:
Four 27.4 MGD and two 15.0 MGD pumps. Total pumping capacity of 139.6 MGD.

South Holly Plant:
Four 30.2 MGD and one 15.0 MGD pumps. Total pumping capacity of 135.8 MGD.

Rolling Hills Plant:
SS-II HSPS:
Five 30.0 MGD, one 22.0 MGD, one 20.0 MGD, and one 10 MGD pumps. Total pumping capacity of 202.0 MGD.
ES-II HIPS:
Four 30.0 MGD, one 20.0 MGD, and one 17.0 MGD pumps. Total pumping capacity of 157.0 MGD.

Eagle Mountain Plant:
NS-II HSPS:
Four 21.7 MGD, two 15.0 MGD, and one 23.4 MGD pumps. Two 15.0 MGD pumps do not operate with others due to low head conditions. Total pumping capacity of 110.2 MGD.
NS-III HSPS:
Three 3.6 MGD, two 8.6 MGD, and two 23.4 MGD pumps. Total pumping capacity of 74.8 MGD.
NS-IV HSPS:
Three 3.9 MGD pumps. Total pumping capacity of 11.7 MGD.

Westside Plant:
WS-III HSPS:
Two 9.8 MGD pumps. Total pumping capacity of 19.6 MGD.
WS-IV HSPS:
Two 6.3 MGD pumps. Total pumping capacity of 12.6 MGD.

Southside II Pressure Plane:
Edwards Ranch Station:
Two 16.1 MGD and one 10.1 MGD electrically driven centrifugal units, as well as one 5.0 MGD emergency generator pump. Total pumping capacity of 47.3 MGD.

South Side Reservoir Station:
Two 5.8 MGD electrically driven centrifugal units. Total pumping capacity of 11.6 MGD.

Southside III Pressure Plane:
Russom Ranch Station:
One 6.0 MGD and one 5.0 MGD electrically driven centrifugal units, as well as one 9.0 MGD electric and gas unit. Total pumping capacity of 20.0 MGD.

Alta Mesa Station:
Two 10.1 MGD, one 9.4 MGD, and one 5.0 MGD electrically driven centrifugal units, as well as one 5.0 MGD emergency generator pump. Total pumping capacity of 39.6 MGD.

McCart Station:
Two 10.5 MGD, one 10.1 MGD, and one 4.6 MGD electrically driven centrifugal units. Total pumping capacity of 35.7 MGD.

Northside II Pressure Plane:

Old Northside Station:
Two 5.8 MGD and one 3.5 MGD electrically driven pumps, and one 4.5 MGD gas driven pump. Total pumping capacity of 19.6 MGD.

Cantrell-Sansom Station:
One 5.0 MGD, one 3.0 MGD, and one 2.0 MGD electrically driven centrifugal units. Total pumping capacity of 10.0 MGD.

North Beach Station:
One 2.0 MGD electrically driven centrifugal unit. Total pumping capacity of 2.0 MGD.

New Northside Station:
Two 18.4 MGD, two 13.0 MGD, and one 12.0 MGD electrically driven centrifugal units. Total pumping capacity of 74.8 MGD.

Northside III Pressure Plane:

Jenkins Heights Station:
Two 3.4 MGD and one 2.0 MGD electrically driven centrifugal units. Total pumping capacity of 8.8 MGD.

North Beach Station:
Two 4.0 MGD and one 2.9 MGD electrically driven centrifugal units. Total pumping capacity of 10.9 MGD.

Sendera Ranch Station:
One 5.8 MGD and three 10.1 MGD electrically driven centrifugal units. Total pumping capacity 36.1 MGD.

Northside IV Pressure Plane:

Lago Vista Station:
Two 0.2 MGD and two 0.5 MGD electrically driven centrifugal units. Total pumping capacity of 1.4 MGD.

Sendera Ranch Station:
Two 3.7 MGD electrically driven centrifugal units. Total pumping capacity of 7.4 MGD.

Westside II Pressure Plane:

Westside Station:
Two 6.8 MGD and one 7.0 MGD gas driven standby unit. Total pumping capacity of 20.6 MGD.

Como Station:
Three 15.1 MGD, one 10.1 MGD electrically driven centrifugal units, and one 5.8 MGD emergency generator. Total pumping capacity of 61.2 MGD.

Westside III Pressure Plane:

Stagecoach Road Station:
Two 8.0 MGD and two 5.0 MGD electrically driven centrifugal units, as well as one 5.0 MGD emergency generator. Total pumping capacity of 31.0 MGD.

Westside IV Pressure Plane:

Westland Pump Station:

Two 3.0 MGD and two 5.0 MGD electrically driven centrifugal units. Total pumping capacity of 16.0 MGD.

Ventana Pump Station:

Two 2.0 MGD, one 1.5 MGD, and one 0.1 MGD electrically driven centrifugal units. Total pumping capacity of 5.6 MGD.

Westside V Pressure Plane:

Walsh Ranch Pump Station:

Two 8.06 MGD and two 0.86 MGD electrically driven centrifugal units. Total pumping capacity of 17.84 MGD.3

Eastside II Pressure Plane:

Eastside Station:

One 22.0 MGD, one 17.0 MGD and three 10.1 MGD electrically driven centrifugal units and one 7.0 MGD Gas-driven standby unit. Total pumping capacity of 76.3 MGD.

Randol Mill Station:

One 10.1 MGD and two 5.0 MGD electrically driven centrifugal units. Total pumping capacity of 20.1 MGD.

Fleetwood Station:

One 3.0 MGD and two 2.0 MGD electrically driven centrifugal units. Total pumping capacity of 7.0 MGD.

Appendix B
Existing Distribution System Storage

APPENDIX B
Existing Distribution System Storage

Table B-1 Existing Storage Capacity Summary

Storage Tank	Capacity (MG)	Pressure Plane Served
Northside Ground Reservoir	4.00	Holly, NS-II
Como Ground Storage Reservoir	8.00	Holly, WS-II
Southside Ground Storage Reservoir	5.00	Holly, SS-II
Eastwood Elevated Tank	1.50	ES-II
Timberline Elevated Tank	2.00	ES-II
Meadowbrook Elevated Tank	2.00	ES-II
Randol Mill Ground Storage Reservoir	6.00	ES-II
Fleetwood Ground Storage Reservoir	5.50	ES-II
Northwest Elevated Tank	1.00	NS-II
Caylor Road Ground Storage Reservoirs	10.00	NS-II
North Beach Street Ground Storage Reservoir	5.50	NS-II, NS-III, ES-II
Lake Country Elevated Tank	0.50	NS-III
Sendera Ranch Ground Storage Reservoir	5.00	NS-II, NS-III, NS-IV
Bradley Elevated Tank	2.00	NS-III
Willow Spring Elevated Tank	2.00	NS-III
Crumb Elevated Tank	1.00	NS-IV
Seminary Hill Elevated Tank	2.00	SS-II
Alta Mesa Ground Storage Reservoir	9.20	SS-II, SS-III
McCart Ground Storage Reservoir	5.00	SS-II, SS-III
Armstrong Ranch Elevated Tank	2.00	SS-III
Sun Country Elevated Tank	2.00	SS-III, SS-IV
Sun Country Hydropneumatic Tank	0.03	SS-IV
Calmont Elevated Tank	1.00	WS-II
Stagecoach Ground Storage Reservoir	5.50	WS-II, WS-III
Westland Ground Storage Reservoir	5.00	WS-III, WS-IV
Walsh Ranch Ground Storage Reservoir	2.50	WS-IV, WS-V
Walsh Ranch Standpipe	0.06	WS-V
Beggs Ranch Elevated Tank	1.00	WS-V
Total	**96.29**	**--**

Table B-2 Existing Clearwell Capacity Summary

Water Treatment Plant	Capacity (MG)
Eagle Mountain WTP	10.50
Holly WTP	20.00
Rolling Hills WTP	17.20
Westside WTP	18.00
Total	**65.70**

Appendix C
Water CIP Projects

Appendix C
Water CIP Projects

TARRANT REGIONAL WATER DISTRICT PROJECTS

Project Title: **Richland-Chambers Wetlands**

Description: Construction of wetlands near Richland-Chambers Reservoir.

Purpose: Provide an additional raw water supply to the Integrated Pipeline Project.

Allocation: This project is allocated 26% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected growth in demand (2025—2035), divided by the added capacity from the Richland-Chambers Wetlands project (89.6 MGD).

Project Title: **Eagle Mountain Connection Raw Water Line and Pump Station**

Description: Construction of raw water line and pump station from Benbrook Lake to Eagle Mountain Lake.

Purpose: Provide additional raw water supplies to the Eagle Mountain Water Treatment Plant (WTP) and the Westside WTP.

Allocation: This project is allocated 25% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the proportion need of the raw water supply from Lake Benbrook to provide supply for the Westside WTP and the Eagle Mountain WTP to serve 10-year projected growth.

Project Title: **Integrated Pipeline and Pump Station**

Description: Construction of raw water line and pump station from Benbrook Lake to Eagle Mountain Lake.

Purpose: Provide an additional raw water line to provide additional raw water supplies.

Allocation: This project is allocated 56% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected growth in demand (2025—2035), approximately 60% of which will be supplied through this project (as indicated by TRWD), divided by the capacity added by the Integrated Pipeline and Pump Stations (160 MGD).

Appendix C
Water CIP Projects

Project Title: **Integrated Pipeline JRC1 Lake PS and Section 16 Pipeline**

Description: Construction of raw water line and pump station from Benbrook Lake to Eagle Mountain Lake.

Purpose: Provide an additional raw water line to provide additional raw water supply.

Allocation: This project is allocated 6% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected growth in demand (2025—2035), approximately 60% of which will be supplied through this project (as indicated by TRWD), divided by the capacity added by the Integrated Pipeline and Pump Station (194 MGD).

Project Title: **Kennedale Balancing Reservoir (Third Cell)**

Description: Construction of an additional cell at the Kennedale Balancing Reservoir

Purpose: Provide additional storage capacity for water supply.

Allocation: This project is allocated 6% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Project Title: **Cedar Creek (Marty Leonard) Wetlands Water Reuse**

Description: Construction of a wetland facility northwest of the Cedar Creek Reservoir.

Purpose: Allow water reclamation and enhance supply storage and yield of the Cedar Creek Reservoir.

Allocation: This project is allocated 6% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Appendix C
Water CIP Projects

Project Title: **Mary's Creek Indirect Water Reclamation**

Description: Construction of a tie-in to the District's existing discharge pipeline into Eagle Mountain Lake

Purpose: Allow for the reclamation of treated water exiting the Mary's Creek Water Reclamation Facility.

Allocation: This project is allocated 14% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Project Title: **Eagle Mountain Balancing Reservoir (Second Cell)**

Description: Construction of a storage reservoir in west Fort Worth

Purpose: Provide additional water supply for the City of Fort Worth Westside Water Treatment Plant.

Allocation: This project is allocated 18% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Project Title: **Second Richland-Chambers Wetlands Land Acquisition**

Description: Construction of wetlands near Richland-Chambers Reservoir.

Purpose: Provide an additional raw water supply to the Integrated Pipeline.

Allocation: This project is allocated 12% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Appendix C
Water CIP Projects

Project Title: **Cedar Creek Section 4 Pipeline Replacement from 72-inch to 90-inch**

Description: Upsizing of a 72-inch pipe to 90-inch.

Purpose: Provide additional capacity for the Section 4 pipeline.

Allocation: This project is allocated 14% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Project Title: **Cedar Creek Lake Pump Station Header Pipe Replacement from 54-inch to 72-inch**

Description: Upsizing of a 54-inch pipe to 72-inch.

Purpose: Provide additional capacity for the Section 4 pipeline.

Allocation: This project is allocated 14% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Project Title: **Cedar Creek Section 2 Pipeline Replacement Phase 1 from 72-inch to 90/102-inch**

Description: Upsizing of a 72-inch pipe to 90/102-inch.

Purpose: Provide additional capacity for the Section 2 pipeline.

Allocation: This project is allocated 16% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Appendix C
Water CIP Projects

Project Title: **Cedar Creek Section 2 Pipeline Replacement Phase 2 from 72-inch to 102-inch**

Description: Upsizing of a 72-inch pipe to 102-inch.

Purpose: Provide additional capacity for the Section 2 pipeline.

Allocation: This project is allocated 12% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Project Title: **Joint Pipeline Section 1 & 6 (1D/1E) 108-inch Transmission Main**

Description: Construction of a 108-inch transmission main.

Purpose: Provide a connection from the Integrated Pipeline at the Kennedale Balancing Reservoir to the Rolling Hills Water Treatment Plant.

Allocation: This project is allocated 12% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Project Title: **Cedar Creek Pipeline Section 3 Replacement from 72-inch to 90-inch**

Description: Upsizing of a 72-inch pipe to 90-inch.

Purpose: Provide additional capacity for the Section 3 pipeline.

Allocation: This project is allocated 6% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined by utilizing the projected 10-year growth in maximum day demand for the served pressure planes.

Appendix C
Water CIP Projects

RAW WATER SUPPLY AND TREATMENT PLANTS

Project Title: **Westside WTP – Phase 1 (0.0 – 12.0 MGD) (W3-5B – 2005 MP)**

Description: Design and construction of new 12 MGD WTP. This project includes improvements at the Westside WTP to account for an ultimate capacity of 36 MGD.

Purpose: A new WTP is recommended to meet the demands in the northwest part of the City. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 42% to growth in the study period, as it is required to provide capacity to meet projected water demands in the Westside Pressure Planes. Allocation was determined using the projected growth in demand (2025—2035), divided by the ultimate capacity of the treatment plant (36 MGD).

Project Title: **Eagle Mountain Clearwell #3 (N2-5A – 2005 MP)**

Description: Design and construction of the third clearwell at the Eagle Mountain WTP.

Purpose: The completion of the third clearwell adds 2.5 MG of capacity as well as allows for the full 105 MGD capacity to be utilized at the WTP. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 21% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected growth in demand, divided by the ultimate capacity (14 MG).

Project Title: **Westside WTP Expansion 12 MGD to 15 MGD – Membrane Rack (W3-8 – 2017 MP)**

Description: Construction of a 3 MGD expansion of the Westside WTP.

Purpose: An expansion of the WTP capacity from 12 MGD to 15 MGD is recommended to meet the demands in the northwest part of the City. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 33% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected 2035 demand in the Westside III/IV/V Pressure Planes, divided by the added capacity of the treatment plant expansion, less the allocation to existing 2025 capacity, since the capacity will be fully utilized during the planning period.

Appendix C
Water CIP Projects

Project Title: **Westside WTP Expansion 15 MGD to 18 MGD – Membrane Rack (W3-8 – 2017 MP)**

Description: Construction of a 3 MGD expansion of the Westside WTP.

Purpose: An expansion of the WTP capacity from 15 MGD to 18 MGD is recommended to meet the demands in the northwest part of the City. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 82% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected 2035 demand in the Westside III/IV/V Pressure Planes, divided by the added capacity of the treatment plant expansion, less the allocation to existing 2025 capacity, since the capacity will be fully utilized during the planning period.

Project Title: **Westside WTP Expansion 18 MGD to 21 MGD – Membrane Rack (W3-8 – 2017 MP)**

Description: Construction of a 3 MGD expansion of the Westside WTP.

Purpose: An expansion of the WTP capacity from 18 MGD to 21 MGD is recommended to meet the demands in the northwest part of the City. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 100% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected 2035 demand in the Westside III/IV/V Pressure Planes, divided by the added capacity of the treatment plant expansion, less the allocation to existing 2025 capacity, since the capacity will be fully utilized during the planning period.

Project Title: **Westside WTP Expansion 21 MGD to 24 MGD – Membrane Rack (W3-8 – 2017 MP)**

Description: Construction of a 3 MGD expansion of the Westside WTP.

Purpose: An expansion of the WTP capacity from 21 MGD to 24 MGD is recommended to meet the demands in the northwest part of the City. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 100% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected 2035 demand in the Westside III/IV/V Pressure Planes, divided by the added capacity of the treatment plant expansion, less the allocation to existing 2025 capacity, since the capacity will be fully utilized during the planning period.

Appendix C
Water CIP Projects

Project Title: **Eagle Mountain WTP Expansion from 110 MGD to 140 MGD (WTP-1 – 2024 MP)**

Description: Design and construction of Eagle Mountain WTP expansion to treat 140 MGD.

Purpose: An expansion of Eagle Mountain WTP to be increased further to 140 MGD because of the growth of the City's north side and Alliance Airport, and because of the projected water demand increase. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 72% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected growth in max day demand (2025—2035) in the Northside Pressure Plane removing capacity from the Northside PS Expansion, divided by the capacity added from the Eagle Mountain WTP Expansion (33 MGD).

Project Title: **Second Eagle Mountain Raw Water Pump Station Expansion**

Description: Design and construction of the Second Eagle Mountain Raw Water PS expansion.

Purpose: An expansion of Second Eagle Mountain Raw Water PS to be increased because of the projected water demand increase. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 50% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected growth in max day demand (2025—2035) in the Northside Pressure Planes, divided by the ultimate capacity of the Second Eagle Mountain Raw Water PS (224 MGD).

Project Title: **Eagle Mountain WTP Northside – II HSPS Expansion (N2-1 – 2024 MP)**

Description: Design and construction of the EMWTP Northside – II HSPS expansion.

Purpose: An expansion of EMWTP Northside – II HSPS to be increased by 44 MGD because of the projected water demand increase. This project was recommended in the *2024 Northside Water Master Plan Update*.

Allocation: This project is allocated 60% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected growth in max day demand (2025—2035) in the Northside II Pressure Plane, divided by the capacity added from the EMWTP Northside II HSPS Expansion (44 MGD).

Appendix C
Water CIP Projects

Project Title: **Westside WTP Expansion to 36MGD and Westside – III HSPS Expansion (W3-8 – 2017 MP)**

Description: Design and construction of a 12 MGD expansion of the Westside WTP.

Purpose: An expansion of the WTP capacity from 24 MGD to 36 MGD is recommended to meet the demands in the northwest part of the City. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 49% to growth in the study period, as it is required to provide capacity to meet projected water demands. Allocation was determined using the projected 2035 demand in the Westside III/IV/V Pressure Planes, divided by the added capacity of the treatment plant expansion.

Appendix C
Water CIP Projects

PUMP STATIONS AND REGIONAL TRANSMISSION LINES

Project Title: **35.7 MGD Total Capacity Southside – III McCart PS Expansion (S2-3 – 2005 MP)**

Description: Design and construction of an expansion to the McCart Pump Station with an expanded capacity from 25 to 35 MGD.

Purpose: A larger pump station is necessary to provide additional pumping capacity to the Southside II Pressure Plane and redeveloping areas. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 1% to growth in the study period. Allocation was determined assuming the remaining capacity is projected to be fully utilized in the planning period.

Project Title: **16.0 MGD Total Capacity Westside – V Walsh Ranch PS (W5-1 – 2005 MP)**

Description: Design and construction of a new Westside V Pump Station with a capacity of 16 MGD.

Purpose: A new pump station is necessary to address the projected new population growth in the Westside V Pressure Plane. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 53% to growth in the study period. Allocation was determined assuming the remaining capacity is projected to be fully utilized in the planning period.

Project Title: **Northside – II 48-inch Transmission Line (N2-1 – 2005 MP)**

Description: Design and construction of a 48-inch transmission line in the Northside II Pressure Plane. This project runs from Cromwell Marine Creek Road to Texas Sage Trail.

Purpose: A large transmission line is necessary to address the projected new population growth in the area. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 10% to growth in the study period. Allocation was determined using the projected growth in demand (2025—2035) in the Northside II Pressure Plane, divided by the added capacity of the transmission line (48 MGD).

Appendix C
Water CIP Projects

Project Title: **7.8 MGD Southside – IV Sun Country PS (W4-5 – 2005 MP)**

Description: Design and construction of a new Southside IV Pump Station with a capacity of 7.8 MGD.

Purpose: A larger pump station is necessary to provide additional pumping capacity to the Southside IV Pressure Plane and redeveloping areas. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 6% to growth in the study period. Allocation was determined using the projected growth in demand (2025—2035) in the Southside IV Pressure Plane, divided by the firm capacity of the Sun Country PS (7.8 MGD).

Project Title: **30.0 MGD Total Capacity Westside – IV Markum Ranch PS (W4-4 – 2017 MP)**

Description: Design and construction of a new Westside IV Pump Station with a capacity of 30 MGD.

Purpose: A new pump station is necessary to address the projected new population growth in the Westside IV Pressure Plane. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 52% to growth in the study period. Allocation was determined using the projected growth in demand (2025—2035) in the Westside IV Pressure Plane, divided by the total capacity of the Markum Ranch PS (30 MGD).

Project Title: **20.5 MGD Total Capacity Westside – V Markum Ranch PS (W5-8 – 2017 MP)**

Description: Design and construction of a new Westside V Pump Station with a capacity of 20.5 MGD.

Purpose: A new pump station is necessary to address the projected new population growth in the Westside V Pressure Plane. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 7% to growth in the study period. Allocation was determined using the projected growth in demand (2025—2035) in the Westside V Pressure Plane, divided by the total capacity of the Markum Ranch PS (20.5 MGD).

Appendix C
Water CIP Projects

Project Title: **70.0 MGD Total Capacity Northside – II PS Expansion (N2-1 – 2017 MP)**

Description: Design and construction of an expansion to the Northside Pump Station with an expanded capacity from 58 to 70 MGD.

Purpose: A larger pump station is necessary to provide additional pumping capacity to the Northside II Pressure Plane and redeveloping areas. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project was allocated 95% to growth in the study period. Allocation was determined using the projected growth in demand (2025—2035) for the Northside II Pressure Plane, divided by the total Northside II Pressure Plane pumping capacity (185 MGD).

Project Title: **55.7 MGD Total Capacity Southside – III McCart PS Expansion (S3-7 – 2017 MP)**

Description: Design and construction of an expansion to the McCart Pump Station with an expanded capacity from 35.7 to 55.7 MGD.

Purpose: A larger pump station is necessary to provide additional pumping capacity to the Southside III Pressure Plane and redeveloping areas. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 84% to growth in the study period. Allocation was determined using the projected peak hour demand (2035) in the Southside III Pressure Plane, divided by the 2035 firm capacity of the Southside III Pressure Plane (119.8 MGD).

Project Title: **54.6 MGD Total Capacity Southside – III Alta Mesa PS Expansion (S3-11 – 2017 MP)**

Description: Design and construction of an expansion to the Alta Mesa Pump Station with an expanded capacity from 40.6 to 55.6 MGD.

Purpose: A larger pump station is necessary to provide additional pumping capacity to the Southside III Pressure Plane and redeveloping areas. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 84% to growth in the study period. Allocation was determined using the projected peak hour demand (2035) in the Southside III Pressure Plane, divided by the 2035 firm capacity of the Southside III Pressure Plane (119.8 MGD).

Appendix C
Water CIP Projects

Project Title: **Northside – III 54-inch Transmission Line (N3-1 – 2024 MP)**

Description: Design and construction of an a 54-inch transmission main that will distribute water from the Eagle Mountain WTP.

Purpose: This project will alleviate the velocity and headloss increase projected to occur due to increased demand from growth in the Northside III pressure plane observed in the existing transmission main distributing water from the Eagle Mountain WTP. This project was recommended in the *2024 Northside Water Master Plan Update*.

Allocation: This project is allocated 60% to growth in the study period. Allocation was determined using the projected max day demand (2035) in the Northside III Pressure Plane, divided by the capacity added by the 54-inch line (60 MGD).

Project Title: **35.0 MGD Total Capacity Holly to Eastside – II Booster PS and GST (E2-1 – 2024 MP)**

Description: Design and construction of a 35 MGD pump station and 4 MG ground storage tank.

Purpose: This project helps reduce the flow transferred from Northside II into Eastside II at the North Beach GST. Allowing for growth in Northside II to have sufficient water supply. This project was recommended in the *2024 Northside Water Master Plan Update*.

Allocation: This project is allocated 19% to growth in the study period. Allocation was determined using the Northside II to Eastside II transfer capacity, divided by the pumping capacity of the pump station. (35 MGD).

Project Title: **Eastside – II 42-inch Parallel Water Line (E2-2 – 2024 MP)**

Description: Design and construction of a parallel 42-inch water line.

Purpose: This project helps reduce the flow transferred from Northside II into Eastside II at the North Beach GST. Allowing for growth in Northside II to have sufficient water supply. This project was recommended in the *2024 Northside Water Master Plan Update*.

Allocation: This project is allocated 19% to growth in the study period. Allocation was determined using the Northside II to Eastside II transfer capacity, divided by the pumping capacity of the pump station. (35 MGD).

Appendix C
Water CIP Projects

Project Title: **Holly 42-inch Parallel Water Line (HO-5 – 2024 MP)**

Description: Design and construction of a parallel 42-inch water line.

Purpose: This project helps reduce the flow transferred from Northside II into Eastside II at the North Beach GST. Allowing for growth in Northside II to have sufficient water supply. This project was recommended in the *2024 Northside Water Master Plan Update*.

Allocation: This project is allocated 19% to growth in the study period. Allocation was determined using the Northside II to Eastside II transfer capacity, divided by the pumping capacity of the pump station. (35 MGD).

Project Title: **24.2 MGD Total Capacity Westside – V Walsh Ranch PS Expansion (#1 – 2025 IF)**

Description: Design and construction of an expansion to the Walsh Ranch Pump Station with an expanded capacity from 16 to 24.2 MGD.

Purpose: This project helps reduce the flow transferred from Northside II into Eastside II at the North Beach GST. Allowing for growth in Northside II to have sufficient water supply.

Allocation: This project is allocated 7% to growth in the study period. Allocation was determined using the projected Westside V Pressure Plane peak hour demand (2035), divided by the added capacity of all Westside V pump stations. (21 MGD).

Appendix C
Water CIP Projects

STORAGE TANKS

Project Title: **5.0 MG Northside – II Sendera Ranch GST and PS (N2-7/N3-5 – 2005 MP)**

Description: Design and construction of a 5 MG ground storage tank at the Sendera Ranch Pump Station.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 18% to growth in the study period. Allocation was determined assuming the remaining capacity is projected to be fully utilized in the planning period. The tank will be 82% utilized in 2025, which was determined using the projected demand for 2025 in the Northside II Pressure Plane, divided by the existing storage in Northside II.

Project Title: **1.0 MG Northside – IV Crumb EST (N4-2 – 2005 MP)**

Description: Design and construction of a 1.0 MG elevated storage tank for the Northside IV Pressure Plane.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed in the Northside IV Pressure Plane. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 45% to growth in the study period. Allocation was determined assuming the remaining capacity is projected to be fully utilized in the planning period. The tank will be 55% utilized in 2025, which was determined using the projected demand for 2025 in the Northside IV Pressure Plane, divided by the existing storage in Northside IV.

Appendix C
Water CIP Projects

Project Title: **5.0 MG Caylor Road GST (N2-10 – 2005 MP)**

Description: Design and construction of a second 5.0 MG ground storage tank for the Northside II Pressure Plane.

Purpose: This improvement is to provide additional storage facilities that are needed in the Northside II Pressure Plane. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 18% to growth in the study period. Allocation was determined assuming the remaining capacity is projected to be fully utilized in the planning period. The tank will be 82% utilized in 2025, which was determined using the projected demand for 2025 in the Northside II Pressure Plane, divided by the existing storage in Northside II.

Project Title: **1.0 MG Westside – V Beggs Ranch EST (N4-2 – 2005 MP)**

Description: Design and construction of a 1.0 MG elevated storage tank for the Westside V Pressure Plane.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed in the Westside V Pressure Plane. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 4% to growth in the study period. Allocation was determined by using the growth in demand in the Westside V Pressure Plane, divided by the existing storage in Westside V.

Appendix C
Water CIP Projects

Project Title: **0.03 MG Southside – IV Sun Country Hydropneumatic Tank (W4-5 – 2005 MP)**

Description: Design and construction of a 0.03 MG hydropneumatic tank for the Southside IV Pressure Plane.

Purpose: In order to meet operational storage requirements and future water demand due to the projected population, additional storage facilities are needed in the Southside IV Pressure Plane. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 93% to growth in the study period. Allocation was determined assuming the remaining capacity is projected to be fully utilized in the planning period. The tank will be 7% in 2025, which was determined based on the number of connections projected in the Southside IV Pressure Plane. TCEQ Chapter 290.45 states, "If pressure tanks are used, a maximum capacity of 30,000 gallons is sufficient for systems of up to 2,500 connections."

Project Title: **3.0 Westside – III Markum Ranch GST (W3-3 – 2017 MP)**

Description: Design and construction of a 3.0 MG ground storage tank for the Westside III Pressure Plane.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed in the Westside III Pressure Plane. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 62% to growth in the study period. Allocation was determined using the projected peak hourly demand (2035) for the Westside V Pressure Plane, divided by the added capacity from the ground storage tank (3.0 MG).

Project Title: **1.5 MG Westside – IV EST (W4-10 – 2005 MP)**

Description: Design and construction of a 1.0 MG elevated storage tank for the Westside IV Pressure Plane.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed in the Westside IV Pressure Plane. This project was recommended in the *2005 Water Master Plan Update*.

Allocation: This project is allocated 47% to growth in the study period. Allocation was determined by using the projected demand (2035) in the Westside IV Pressure Plane, divided by the existing storage in Westside IV.

Appendix C
Water CIP Projects

Project Title: **2.0 MG Northside – III Brookfield EST (N3-7 – 2017 MP)**

Description: Design and construction of a 2.0 MG elevated storage tank for the Northside III Pressure Plane.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed in the Northside III Pressure Plane. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 57% to growth in the study period. Allocation was determined by using the projected growth in peak hourly demand (2025–2035) in the Northside III Pressure Plane, divided by the added capacity of the tank (2 MG).

Project Title: **1.0 MG Northside – IV Alpha EST (N4-5 – 2017 MP)**

Description: Design and construction of a 1.0 MG elevated storage tank for the Northside IV Pressure Plane.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed in the Northside IV Pressure Plane. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 33% to growth in the study period. Allocation was determined by using the projected growth in peak hourly demand (2025–2035) in the Northside IV Pressure Plane, divided by the added capacity of the tank (1 MG).

Project Title: **1.5 MG Westside – V EST (W5-5 – 2017 MP)**

Description: Design and construction of a 1.5 MG elevated storage tank for the Westside V Pressure Plane.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed in the Westside V Pressure Plane. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 4% to growth in the study period. Allocation was determined by using the projected growth in peak hourly demand (2025–2035) in the Westside V Pressure Plane, divided by the 2035 Westside V storage capacity (2.5 MG).

Appendix C
Water CIP Projects

Project Title: **5.0 MG Northside – II Sendera Ranch GST (N2-2 – 2024 MP)**

Description: Design and construction of a 5.0 MG ground storage tank for the Northside II Pressure Plane.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed in the Westside V Pressure Plane. This project was recommended in the *2024 Northside Water Master Plan Update*.

Allocation: This project is allocated 13% to growth in the study period. Allocation was determined by using the projected growth in demand (2025–2035) in the Northside II Pressure Plane, divided by the added capacity of the ground storage tank (5 MG).

Project Title: **2.0 MG Southside – III EST (S3-10 – 2017 MP)**

Description: Design and construction of a 2.0 MG elevated storage tank for the Southside III Pressure Plane.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed in the Southside III Pressure Plane. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 87% to growth in the study period. Allocation was determined by using the projected demand (2035) in the Southside III Pressure Plane, divided by the 2035 Southside III storage capacity (5.9 MG).

Project Title: **1.0 MG Southside – IV EST (S3-10 – 2017 MP)**

Description: Design and construction of a 1.0 MG elevated storage tank for the Southside IV Pressure Plane.

Purpose: In order to meet operational storage requirements and higher water demand due to the projected population, additional storage facilities are needed in the Southside IV Pressure Plane. This project was recommended in the *2017 Water Master Plan Update*.

Allocation: This project is allocated 3% to growth in the study period. Allocation was determined by using the projected growth in demand (2025–2035) in the Southside IV Pressure Plane, divided by added capacity of the elevate tank (1 MG).

Appendix C
Water CIP Projects

ENGINEERING STUDIES

Project Title: **2017 Water Master Plan (2013 – 2033)**

Description: An engineering study to update the 2005 Water Master Plan.

Purpose: The water master plan projects system flows and requirements for the 20-year period from 2013 to 2033. The water master plan guides the capital improvements program to ensure cost effective expansion of the system.

Allocation: 40% of the cost for the 2017 Water Master Plan can be allocated to the study period as 8 of the 20 years of the plan's useful life are within the study period.

Project Title: **2024 Northside Water Master Plan (2022– 2047)**

Description: An engineering study to update the Northside Pressure Planes from the 2017 Water Master Plan.

Purpose: The water master plan projects system flows and requirements for the 25-year period from 2022 to 2047. The water master plan guides the capital improvements program to ensure cost effective expansion of the system.

Allocation: 40% of the cost for the 2024 Northside Water Master Plan can be allocated to the study period as 10 of the 25 years of the plan's useful life are within the study period.

Project Title: **Impact Fee Study (2025 – 2035)**

Description: An engineering study to revise the impact fee ordinance and recalculate the maximum allowable fee which can be assessed.

Purpose: By statute, the impact fee report and ordinance must be updated every five years.

Allocation: 100% of the cost for the 2025 impact fee study can be allocated to the study period as all ten years are within the study period. The impact fee covers water and wastewater, with 50% of costs allocated to each. This study replaces the 2022 Impact Fee Study, therefore the costs associated with the 2022 Impact Fee Study are not eligible for the 2025 impact fee update.

Appendix D
Impact Fee Credit Analysis

TECHNICAL MEMORANDUM

Innovative approaches
Practical results
Outstanding service

801 Cherry Street, Suite 2800 ■ Fort Worth, Texas 76102 ■ 817-735-7300 ■ fax 817-735-7492 www.freese.com

TO: Matt Kusnir, P.E., Fort Worth Water
Julie Perez, P.E., Fort Worth Water

FROM: Kara Shuror, Freese and Nichols, Inc.
Nicholas McCormick, P.E., Freese and Nichols, Inc.

SUBJECT: 2025 Fort Worth Water/Wastewater Impact Fee Update: Credit Methodology Memorandum

DATE: March 7, 2025

1.0 INTRODUCTION

In accordance with Texas Local Government Code (TLGC), Chapter 395, the City of Fort Worth commissioned Freese and Nichols, Inc. (FNI), to conduct a Water and Wastewater Impact Fee Study. For this study, FNI completed the maximum allowable impact fee calculation, including the rate credit analysis in compliance with Chapter 395. The calculated impact fee includes the outstanding debt service (principal and interest) of existing facilities with excess capacity and the projected debt service (principal and interest) of the future facilities identified in the 10-year Capital Improvement Plan (CIP). This memorandum establishes the methodology utilized for the rate credit analysis and summarizes the preliminary results.

2.0 DEBT SERVICE INTEREST CALCULATION

When calculating the impact fee, eligible interest is based on existing and future debt service. The existing debt service is debt service associated with existing facilities with excess capacity, while the future debt service is based on future facilities.

For the existing impact fee eligible facilities, the interest considered in the impact fee is based on the outstanding debt as documented in established debt schedules. Specifically, the existing debt service is based upon impact fee eligible outstanding debt for Fort Worth, Trinity River Authority (TRA), and Tarrant Regional Water District (TRWD). The interest included in the impact fee is the total impact fee eligible interest for the term of the existing debt, per discussions with City staff.

The interest for the future facilities is calculated using the assumptions in **Table 1**. The proposed debt is based upon the 10-year water and wastewater impact fee eligible CIP. In the CIP, if a project's start date is in 2025 or

later and has a cost greater than $5 million, it is assumed that it will be financed with long term debt. Any amounts under $5 million are assumed to be cash-funded. The interest included in the impact fee is the total impact fee eligible interest for the term of the debt.

Table 1: Future Debt Service Assumptions

Debt Service Details	Assumption
Bond Issuance Cost	2.0%
Interest Rate	4.0%
Fort Worth Term	30 years
TRWD Term	30 years
TRA Term	20 years

3.0 RATE CREDIT CALCULATION

The rate credit methodology was developed by FNI and was applied to the impact fee calculation. Chapter 395 prescribes that a utility must provide a credit to account for any portion of ad valorem tax or utility service revenues that would also be reflected in the developed impact fees and paid by new service units in the program period. The utility may choose to do a detailed rate credit analysis, or automatically cap the maximum allowable impact fee at 50% of the impact fee eligible infrastructure costs. In this case, a rate credit analysis was performed to determine the applicable credit for the program period.

The purpose of this credit is to ensure that new growth is not charged twice for the portion of capital improvements attributed to them, once through the impact fee and then again through water or wastewater rates. The code does not specifically address the way in which this credit is to be calculated. Each utility should calculate the credit in a way that is consistent with the operation of the fund, the way they finance capital improvements, and the way these capital improvements costs are represented in utility rates. The next section describes how Fort Worth's credit was calculated.

FNI utilized the projected Service Unit Equivalents (SUE), developed as part of the Land Use Assumptions, to determine the pro rata share of the existing debt (interest and principal) attributable to each SUE on the system for each year of the impact fee period (2025 – 2034). The resulting cost per SUE was multiplied by the cumulative growth in SUE's for each year of the impact fee period, resulting in the portion of the existing debt (interest and principal) that future customers would pay for in water/wastewater rates. This represents the credit to the impact fees required to avoid "double counting" and this credit was subtracted from the total impact fee eligible

infrastructure costs. **Table 2** summarizes the results of the water credit calculation. **Table 3** summarizes the results of the wastewater credit calculation.

Table 2: Preliminary Water Credit Analysis Summary

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Water Impact Fee Eligible Interest + Principle for 10-Year Period	$11,622,373	$21,817,018	$21,856,757	$21,450,199	$21,453,998	$22,721,657	$28,883,186	$28,793,473	$28,729,032	$28,632,339
Total Service Unit Equivalents (SUE) Each Year	755,080	770,897	786,713	802,530	818,346	834,163	849,980	865,796	881,613	897,429
Cost per SUE	$15.39	$28.30	$27.78	$26.73	$26.22	$27.24	$33.98	$33.26	$32.59	$31.90
Cumulative SUE's in 10-Year Period	15,817	31,633	47,450	63,266	79,083	94,900	110,716	126,533	142,349	158,166
Portion Paid by Growth in 10-Year Period	**$243,453**	**$895,246**	**$1,318,268**	**$1,690,999**	**$2,073,262**	**$2,584,958**	**$3,762,251**	**$4,208,056**	**$4,638,726**	**$5,046,260**
Total Credit	**$26,461,479**									

Table 3: Preliminary Wastewater Credit Analysis Summary

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Wastewater Impact Fee Eligible Interest + Principle for 10-Year Period	$11,532,345	$11,533,780	$11,560,501	$11,254,371	$11,255,551	$11,220,174	$11,087,227	$11,089,166	$11,091,710	$11,086,567
Total Service Unit Equivalents (SUE) Each Year	626,883	640,227	653,570	666,914	680,257	693,601	706,944	720,288	733,631	746,975
Cost per SUE	$18.40	$18.02	$17.69	$16.88	$16.55	$16.18	$15.68	$15.40	$15.12	$14.84
Cumulative SUE's in 10-Year Period	13,344	26,687	40,031	53,374	66,718	80,061	93,405	106,748	120,092	133,435
Portion Paid by Growth in 10-Year Period	**$245,471**	**$480,770**	**$708,069**	**$900,703**	**$1,103,910**	**$1,295,124**	**$1,464,892**	**$1,643,436**	**$1,815,654**	**$1,980,437**
Total Credit	$11,638,466									

4.0 MAXIMUM ALLOWABLE IMPACT FEE CALCULATION

The maximum allowable impact fees are the result of taking the total cost of expansion for the study period, minus the calculated credit, and dividing by the increase in SUE's. This fee equals the maximum allowable impact fee per service unit for a 5/8" x 3/4" water meter. A summary of the maximum allowable impact fee calculation for both water and wastewater is shown in **Table 4**.

Table 4: Preliminary Credit Analysis Summary

	Water	Wastewater
Preliminary Maximum Calculated Infrastructure Cost	$1,050,944,830	$841,408,968
Minus the CREDIT	**($26,461,479)**	**($11,638,466)**
Max Allowable Calculated Infrastructure Cost	$1,024,483,351	$829,770,502
Service Units	158,166	133,435
Max Allowable Impact Fee per Service Unit	**$6,477**	**$6,218**

Appendix E
Water Meter Summary

Appendix E
Water Meter Summary

City of Fort Worth **% of Water Demands Served by FTW (2025):** **100%**

Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	221,072	221,072	221,072
3/4"	1.50	2,698	2,698	4,047
1"	2.50	22,201	22,201	55,503
1-1/2"	5.00	2,040	2,040	10,200
2"	8.00	2,163	2,163	17,304
3"	21.75	43	43	935
4"	37.50	98	98	3,675
6"	80.00	163	163	13,040
8"	140.00	46	46	6,440
10"	210.00	3	3	630
	TOTAL	**250,527**	**250,527**	**332,846**
Non-Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	7474	7,474	7,474
3/4"	1.50	47	47	71
1"	2.50	4241	4,241	10,603
1-1/2"	5.00	2409	2,409	12,045
2"	8.00	5885	5,885	47,080
3"	21.75	429	429	9,331
4"	37.50	349	349	13,088
6"	80.00	172	172	13,760
8"	140.00	65	65	9,100
10"	210.00	24	24	5,040
	TOTAL	**21,095**	**21,095**	**127,592**

Wholesale Customer: **City of Aledo** **% of Water Demands Served by FTW (2025):** **100%**

Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	48	48	48
3/4"	1.50	1,815	1,815	2,723
1"	2.50	0	0	0
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**1,863**	**1,863**	**2,771**
Non-Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	0	0	0
1"	2.50	37	37	93
1-1/2"	5.00	15	15	75
2"	8.00	28	28	224
3"	21.75	3	3	65
4"	37.50	3	3	113
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**86**	**86**	**570**

Appendix E
Water Meter Summary

Wholesale Customer: **Benbrook Water Authority (Emergency Use Only)** **% of Water Demands Served by FTW (2025):** **0%**

Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	5,128	0	0
3/4"	1.50	42	0	0
1"	2.50	3,169	0	0
1-1/2"	5.00	5	0	0
2"	8.00	3	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**8,347**	**0**	**0**
Non-Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	157	0	0
3/4"	1.50	6	0	0
1"	2.50	325	0	0
1-1/2"	5.00	71	0	0
2"	8.00	228	0	0
3"	21.75	38	0	0
4"	37.50	2	0	0
6"	80.00	5	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**832**	**0**	**0**

Wholesale Customer: **Bethesda Water Supply Corportation** **% of Water Demands Served by FTW (2025):** **70%**

Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	10,623	7,436	7,436
3/4"	1.50	78	55	83
1"	2.50	49	34	85
1-1/2"	5.00	3	2	10
2"	8.00	3	2	16
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**10,756**	**7,529**	**7,630**
Non-Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	173	121	121
3/4"	1.50	23	16	24
1"	2.50	54	38	95
1-1/2"	5.00	20	14	70
2"	8.00	55	39	312
3"	21.75	5	4	87
4"	37.50	7	5	188
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**337**	**237**	**897**

Appendix E
Water Meter Summary

Wholesale Customer: **City of Burleson** **% of Water Demands Served by FTW (2025):** **100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	14,459	14,459	14,459
3/4"	1.50	3	3	5
1"	2.50	266	266	665
1-1/2"	5.00	8	8	40
2"	8.00	1	1	8
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**14,737**	**14,737**	**15,177**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	479	479	479
3/4"	1.50	7	7	11
1"	2.50	340	340	850
1-1/2"	5.00	151	151	755
2"	8.00	339	339	2,712
3"	21.75	65	65	1,414
4"	37.50	8	8	300
6"	80.00	1	1	80
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**1,390**	**1,390**	**6,601**

Wholesale Customer: **City of Crowley** **% of Water Demands Served by FTW (2020):** **100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	6,796	6,796	6,796
3/4"	1.50	0	0	0
1"	2.50	24	24	60
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**6,820**	**6,820**	**6,856**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	159	159	159
3/4"	1.50	0	0	0
1"	2.50	105	105	263
1-1/2"	5.00	32	32	160
2"	8.00	100	100	800
3"	21.75	12	12	261
4"	37.50	2	2	75
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**410**	**410**	**1,718**

Appendix E
Water Meter Summary

Wholesale Customer: Dallas Fort Worth International Airport Board

% of Water Demands Served by FTW (2020): 28%

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	0	0	0
1"	2.50	0	0	0
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**0**	**0**	**0**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	4	1	1
3/4"	1.50	0	0	0
1"	2.50	10	3	8
1-1/2"	5.00	37	10	50
2"	8.00	351	98	784
3"	21.75	149	42	914
4"	37.50	78	22	825
6"	80.00	30	8	640
8"	140.00	5	1	140
10"	210.00	0	0	0
	TOTAL	**664**	**185**	**3,362**

Wholesale Customer: City of Dalworthington Gardens

% of Water Demands Served by FTW (2020): 0%

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	482	0	0
3/4"	1.50	64	0	0
1"	2.50	343	0	0
1-1/2"	5.00	9	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**898**	**0**	**0**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	61	0	0
3/4"	1.50	14	0	0
1"	2.50	44	0	0
1-1/2"	5.00	5	0	0
2"	8.00	25	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**149**	**0**	**0**

Appendix E
Water Meter Summary

Wholesale Customer: **City of Edgecliff Village** **% of Water Demands Served by FTW (2025):** **100%**

Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	90	90	90
3/4"	1.50	1,615	1,615	2,423
1"	2.50	52	52	130
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**1,757**	**1,757**	**2,643**
Non-Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	0	0	0
1"	2.50	0	0	0
1-1/2"	5.00	13	13	65
2"	8.00	11	11	88
3"	21.75	5	5	109
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**29**	**29**	**262**

Wholesale Customer: **City of Everman (Emergency Use Only)** **% of Water Demands Served by FTW (2025):** **50%**

Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	1,831	916	1,374
1"	2.50	8	4	10
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**1,839**	**920**	**1,384**
Non-Residential Meters				
Meter Size	**Service Unit Equivalency Factor**	**Number of Meters**	**Number of Meters Served by Ft. Worth**	**SUE Meters Served by Ft. Worth**
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	150	75	113
1"	2.50	8	4	10
1-1/2"	5.00	6	3	15
2"	8.00	21	11	88
3"	21.75	3	2	44
4"	37.50	1	1	38
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**189**	**96**	**308**

Appendix E
Water Meter Summary

Wholesale Customer: **City of Forest Hill** **% of Water Demands Served by FTW (2025):** **100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	4,429	4,429	6,644
1"	2.50	7	7	18
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**4,436**	**4,436**	**6,662**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	166	166	249
1"	2.50	69	69	173
1-1/2"	5.00	37	37	185
2"	8.00	62	62	496
3"	21.75	1	1	22
4"	37.50	2	2	75
6"	80.00	1	1	80
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**338**	**338**	**1,280**

Wholesale Customer: **City of Grand Prairie** **% of Water Demands Served by FTW (2025):** **3.00%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	1,016	1,016
3/4"	1.50	0	0	0
1"	2.50	0	25	63
1-1/2"	5.00	0	9	45
2"	8.00	0	2	16
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**0**	**1,052**	**1,140**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	137	137
3/4"	1.50	0	0	0
1"	2.50	0	159	398
1-1/2"	5.00	0	164	820
2"	8.00	0	549	4,392
3"	21.75	0	14	305
4"	37.50	0	8	300
6"	80.00	0	10	800
8"	140.00	0	6	840
10"	210.00	0	2	420
	TOTAL	**0**	**1,049**	**8,412**

Appendix E
Water Meter Summary

Wholesale Customer: **City of Haltom City** **% of Water Demands Served by FTW (2020):** **100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	11,174	11,174	11,174
3/4"	1.50	0	0	0
1"	2.50	3	3	8
1-1/2"	5.00	0	0	0
2"	8.00	38	38	304
3"	21.75	1	1	22
4"	37.50	1	1	38
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**11,217**	**11,217**	**11,546**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	1306	1,306	1,306
3/4"	1.50	0	0	0
1"	2.50	7	7	18
1-1/2"	5.00	0	0	0
2"	8.00	33	33	264
3"	21.75	3	3	65
4"	37.50	1	1	38
6"	80.00	2	2	160
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**1,352**	**1,352**	**1,851**

Wholesale Customer: **City of Haslet** **% of Water Demands Served by FTW (2025):** **100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	1,857	1,857	1,857
3/4"	1.50	9	9	14
1"	2.50	58	58	145
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**1,924**	**1,924**	**2,016**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	57	57	57
3/4"	1.50	0	0	0
1"	2.50	46	46	115
1-1/2"	5.00	15	15	75
2"	8.00	64	64	512
3"	21.75	8	8	174
4"	37.50	3	3	113
6"	80.00	1	1	80
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**194**	**194**	**1,126**

Appendix E
Water Meter Summary

Wholesale Customer: **City of Hudson Oaks** **% of Water Demands Served by FTW (2025): 50%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	854	427	641
1"	2.50	10	5	13
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**864**	**432**	**654**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	39	20	30
1"	2.50	53	27	68
1-1/2"	5.00	15	8	40
2"	8.00	72	36	288
3"	21.75	6	3	65
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	1	1	210
	TOTAL	**186**	**95**	**701**

Wholesale Customer: **City of Hurst** **% of Water Demands Served by FTW (2025): 96%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	9,630	9,245	9,245
3/4"	1.50	1	1	2
1"	2.50	1,548	1,486	3,715
1-1/2"	5.00	37	36	180
2"	8.00	7	7	56
3"	21.75	1	1	22
4"	37.50	1	1	38
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**11,225**	**10,777**	**13,258**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	603	579	579
3/4"	1.50	0	0	0
1"	2.50	440	422	1,055
1-1/2"	5.00	292	280	1,400
2"	8.00	286	275	2,200
3"	21.75	38	36	783
4"	37.50	22	21	788
6"	80.00	6	6	480
8"	140.00	1	1	140
10"	210.00	0	0	0
	TOTAL	**1,688**	**1,620**	**7,425**

Appendix E
Water Meter Summary

Wholesale Customer: **City of Keller** **% of Water Demands Served by FTW (2025): 100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	14,308	14,308	14,308
3/4"	1.50	192	192	288
1"	2.50	368	368	920
1-1/2"	5.00	9	9	45
2"	8.00	6	6	48
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**14,883**	**14,883**	**15,609**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	814	814	814
3/4"	1.50	63	63	95
1"	2.50	669	669	1,673
1-1/2"	5.00	108	108	540
2"	8.00	334	334	2,672
3"	21.75	54	54	1,175
4"	37.50	12	12	450
6"	80.00	0	0	0
8"	140.00	3	3	420
10"	210.00	0	0	0
	TOTAL	**2,057**	**2,057**	**7,839**

Wholesale Customer: **City of Kennedale** **% of Water Demands Served by FTW (2025): 20%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	2,581	516	516
3/4"	1.50	0	0	0
1"	2.50	242	48	120
1-1/2"	5.00	4	1	5
2"	8.00	6	1	8
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**2,833**	**566**	**649**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	259	52	52
3/4"	1.50	0	0	0
1"	2.50	64	13	33
1-1/2"	5.00	11	2	10
2"	8.00	45	9	72
3"	21.75	3	1	22
4"	37.50	3	1	38
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**385**	**78**	**227**

Appendix E
Water Meter Summary

Wholesale Customer: **Lake Worth** **% of Water Demands Served by FTW (2025):** **80%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	1,582	1,266	1,899
1"	2.50	186	149	373
1-1/2"	5.00	0	0	0
2"	8.00	1	1	8
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**1,769**	**1,416**	**2,280**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	113	90	135
1"	2.50	145	116	290
1-1/2"	5.00	47	38	190
2"	8.00	120	96	768
3"	21.75	19	15	326
4"	37.50	6	5	188
6"	80.00	0	0	0
8"	140.00	1	1	140
10"	210.00	0	0	0
	TOTAL	**451**	**361**	**2,037**

Wholesale Customer: **City of North Richland Hills** **% of Water Demands Served by FTW (2025):** **53%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	20,488	10,859	16,289
1"	2.50	993	526	1,315
1-1/2"	5.00	5	3	15
2"	8.00	15	8	64
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**21,501**	**11,396**	**17,683**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	827	438	657
1"	2.50	448	237	593
1-1/2"	5.00	73	39	195
2"	8.00	887	470	3,760
3"	21.75	8	4	87
4"	37.50	22	12	450
6"	80.00	4	2	160
8"	140.00	3	2	280
10"	210.00	0	0	0
	TOTAL	**2,272**	**1,204**	**6,182**

Appendix E
Water Meter Summary

Wholesale Customer: **Town of Northlake** **% of Water Demands Served by FTW (2025):** **20%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	6,997	1,399	2,099
1"	2.50	80	16	40
1-1/2"	5.00	29	6	30
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**7,106**	**1,421**	**2,169**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	0	0	0
1"	2.50	81	16	40
1-1/2"	5.00	0	0	0
2"	8.00	239	48	384
3"	21.75	67	13	283
4"	37.50	5	1	38
6"	80.00	2	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**394**	**78**	**745**

Wholesale Customer: **City of Richland Hills** **% of Water Demands Served by FTW (2025):** **60%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	2,829	1,697	2,546
1"	2.50	88	53	133
1-1/2"	5.00	18	11	55
2"	8.00	19	11	88
3"	21.75	1	1	22
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**2,955**	**1,773**	**2,844**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	10	6	9
1"	2.50	79	47	118
1-1/2"	5.00	31	19	95
2"	8.00	46	28	224
3"	21.75	4	2	44
4"	37.50	2	1	38
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**172**	**103**	**528**

Appendix E
Water Meter Summary

Wholesale Customer: **City of River Oaks (Emergency Use Only)** **% of Water Demands Served by FTW (2025): 50%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	2,746	1,373	2,060
1"	2.50	96	48	120
1-1/2"	5.00	26	13	65
2"	8.00	23	12	96
3"	21.75	1	1	22
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**2,892**	**1,447**	**2,363**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	130	65	98
1"	2.50	27	14	35
1-1/2"	5.00	24	12	60
2"	8.00	19	10	80
3"	21.75	1	1	22
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**201**	**102**	**295**

Wholesale Customer: **City of Roanoke** **% of Water Demands Served by FTW (2025): 100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	2,388	2,388	3,582
1"	2.50	142	142	355
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**2,530**	**2,530**	**3,937**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	193	193	290
1"	2.50	172	172	430
1-1/2"	5.00	68	68	340
2"	8.00	313	313	2,504
3"	21.75	19	19	413
4"	37.50	19	19	713
6"	80.00	3	3	240
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**787**	**787**	**4,930**

Appendix E
Water Meter Summary

Wholesale Customer: **City of Saginaw** **% of Water Demands Served by FTW (2025): 100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	7,870	7,870	11,805
1"	2.50	12	12	30
1-1/2"	5.00	0	0	0
2"	8.00	35	35	280
3"	21.75	3	3	65
4"	37.50	1	1	38
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**7,921**	**7,921**	**12,218**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	162	162	243
1"	2.50	154	154	385
1-1/2"	5.00	9	9	45
2"	8.00	134	134	1,072
3"	21.75	12	12	261
4"	37.50	7	7	263
6"	80.00	2	2	160
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**480**	**480**	**2,429**

Wholesale Customer: **Sansom Park (Emergency Use Only)** **% of Water Demands Served by FTW (2025): 0%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	1,413	0	0
3/4"	1.50	0	0	0
1"	2.50	0	0	0
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**1,413**	**0**	**0**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	110	0	0
3/4"	1.50	0	0	0
1"	2.50	1	0	0
1-1/2"	5.00	0	0	0
2"	8.00	1	0	0
3"	21.75	4	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**116**	**0**	**0**

Appendix E
Water Meter Summary

Wholesale Customer: **City of Southlake** **% of Water Demands Served by FTW (2025):** **100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	951	951	1,427
1"	2.50	8,770	8,770	21,925
1-1/2"	5.00	0	0	0
2"	8.00	27	27	216
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**9,748**	**9,748**	**23,568**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	48	48	72
1"	2.50	929	929	2,323
1-1/2"	5.00	0	0	0
2"	8.00	577	577	4,616
3"	21.75	5	5	109
4"	37.50	43	43	1,613
6"	80.00	7	7	560
8"	140.00	2	2	280
10"	210.00	0	0	0
	TOTAL	**1,611**	**1,611**	**9,573**

Wholesale Customer: **Trinity River Authority (Emergency Use Only)** **% of Water Demands Served by FTW (2020):** **0%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	0	0	0
1"	2.50	0	0	0
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**0**	**0**	**0**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	0	0	0
1"	2.50	0	0	0
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**0**	**0**	**0**

Appendix E
Water Meter Summary

Wholesale Customer: **Trophy Club Municipal Utility District No. 1** **% of Water Demands Served by FTW (2025): 85%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	2,326	1,977	1,977
3/4"	1.50	142	121	182
1"	2.50	2,257	1,918	4,795
1-1/2"	5.00	1	1	5
2"	8.00	1	1	8
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**4,727**	**4,018**	**6,967**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	47	40	40
3/4"	1.50	4	3	5
1"	2.50	70	60	150
1-1/2"	5.00	31	26	130
2"	8.00	122	104	832
3"	21.75	46	39	848
4"	37.50	17	14	525
6"	80.00	34	29	2,320
8"	140.00	3	3	420
10"	210.00	0	0	0
	TOTAL	**374**	**318**	**5,270**

Wholesale Customer: **Town of Westlake** **% of Water Demands Served by FTW (2025): 100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	144	144	216
1"	2.50	551	551	1,378
1-1/2"	5.00	52	52	260
2"	8.00	10	10	80
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**757**	**757**	**1,934**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	42	42	63
1"	2.50	54	54	135
1-1/2"	5.00	15	15	75
2"	8.00	81	81	648
3"	21.75	4	4	87
4"	37.50	18	18	675
6"	80.00	2	2	160
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**216**	**216**	**1,843**

Appendix E
Water Meter Summary

Wholesale Customer: **Town of Westover Hills** **% of Water Demands Served by FTW (2025):** **100%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	12	12	18
1"	2.50	90	90	225
1-1/2"	5.00	160	160	800
2"	8.00	47	47	376
3"	21.75	2	2	44
4"	37.50	1	1	38
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**312**	**312**	**1,501**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	3	3	3
3/4"	1.50	0	0	0
1"	2.50	0	0	0
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**3**	**3**	**3**

Wholesale Customer: **City of Westworth Village** **% of Water Demands Served by FTW (2020):** **100%**

*Meter count information not received. Meter counts estimated based on previous IF study.

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	543	543	815
1"	2.50	6	6	15
1-1/2"	5.00	0	0	0
2"	8.00	3	3	24
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**552**	**552**	**854**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	3	3	5
1"	2.50	15	15	38
1-1/2"	5.00	6	6	30
2"	8.00	18	18	144
3"	21.75	2	2	44
4"	37.50	1	1	38
6"	80.00	1	1	80
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**46**	**46**	**379**

Appendix E
Water Meter Summary

Wholesale Customer: **City of White Settlement** **% of Water Demands Served by FTW (2025):** **85%**

*Meter count information not received. Meter counts estimated based on previous IF study.

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	5,282	4,490	4,490
3/4"	1.50	0	0	0
1"	2.50	0	0	0
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**5,282**	**4,490**	**4,490**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	500	425	425
3/4"	1.50	0	0	0
1"	2.50	86	73	183
1-1/2"	5.00	56	48	240
2"	8.00	239	203	1,624
3"	21.75	35	30	653
4"	37.50	9	8	300
6"	80.00	2	2	160
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**927**	**789**	**3,585**

Wholesale Customer: **City of Willow Park** **% of Water Demands Served by FTW (2025):** **33%**

Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	1,960	647	971
1"	2.50	103	34	85
1-1/2"	5.00	0	0	0
2"	8.00	0	0	0
3"	21.75	0	0	0
4"	37.50	0	0	0
6"	80.00	0	0	0
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**2,063**	**681**	**1,056**
Non-Residential Meters				
Meter Size	Service Unit Equivalency Factor	Number of Meters	Number of Meters Served by Ft. Worth	SUE Meters Served by Ft. Worth
5/8" x 3-4"	1.00	0	0	0
3/4"	1.50	63	21	32
1"	2.50	51	17	43
1-1/2"	5.00	21	7	35
2"	8.00	42	14	112
3"	21.75	9	3	65
4"	37.50	6	2	75
6"	80.00	3	1	80
8"	140.00	0	0	0
10"	210.00	0	0	0
	TOTAL	**195**	**65**	**442**

FREESE AND NICHOLS, INC.
801 CHERRY STREET, SUITE 2800
FORT WORTH, TEXAS 76102
817-735-7300

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