

# Technical Report

## WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY

### IMPACT FEE REPORT



**Nelisa Heddin Consulting, LLC**

P.O. Box 341855

Lakeway, TX 78734

(512) 589-1028

[nheddin@nelisaheddinconsulting.com](mailto:nheddin@nelisaheddinconsulting.com)

## Table of Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>WTCPUA BACKGROUND .....</b>	<b>3</b>
Installment Purchase Agreement.....	3
System Debt .....	3
System Revenues and Expenses.....	4
Impact Fee Fund.....	4
<b>PURPOSE OF REPORT.....</b>	<b>5</b>
<b>METHODOLOGY AND FINDINGS .....</b>	<b>6</b>
Step 1: Land Use Assumptions .....	6
Step 2: Existing Improvements .....	7
Step 3: Planned Improvements.....	7
Step 4: Capacity Analysis .....	7
Step 5: Determination of Costs to be Included in Fee.....	7
Step 6: Determination of Maximum Allowable Fee .....	8
Step 7: Determination of Rate Revenue Credit.....	8
<b>SUMMARY OF MAXIMUM ALLOWABLE FEES.....</b>	<b>9</b>
Maximum Allowable Fees .....	9

# Table of Contents





September 13, 2018

Mr. Rob Pugh  
General Manager  
West Travis County Public Utility Agency  
12117 Bee Cave Road  
Building 3, Ste 120  
Bee Cave, TX, 78738

Dear Mr. Pugh,

Nelisa Heddin Consulting (NH Consulting) is pleased to present the West Travis County Public Utility Agency (WTCPUA) with a Report for a Determination of the Maximum Allowable Impact Fee that can be charged by the PUA, based upon the Land Use Assumptions and Capital Improvements Plan adopted by the PUA Board of Directors. This report details our findings and recommendations. The project team reviewed available data and interviewed City staff to perform a detailed analysis by carefully examining the City's costs.

The enclosed report details the methodology utilized by the project team during the course of our analysis and describes our findings and recommendations.

It is a pleasure working with you and your staff. Please feel free to contact the NH Consulting office with any questions or comments regarding this report, at (512) 589-1028.

Sincerely,

Nelisa Heddin  
President

The West Travis County Public Utility Agency (PUA) has retained Murfee Engineering Company, Inc. (MEC) and Nelisa Heddin Consulting, LLC (NH Consulting) to perform an update to the PUA's impact fee study. This report details the results of that analysis.

Since its inception in 2012, the PUA established a goal of requiring future growth to pay for itself to the greatest extent possible. As the PUA has matured as an agency it has adopted policies and procedures to build cash balances in its Operating Fund, Facilities Fund, and Impact Fee Fund to meet operating reserve requirements.

The impact fees recommended in this report are due to a recently adopted Board policy, presented in Attachment A to this report, which allows cash-funding projects and retiring debt to the greatest extent possible. The impact fees presented herein assume<sup>1</sup>:

1. The impact fee attributable portion of capital improvement projects projected to be required over the next 10-years would be funded through cash purchases rather than the issuance of debt.
2. The PUA would retire a portion of existing debt associated with existing projects that are impact fee attributable as debt becomes callable.

As a result of these assumptions, the recommended maximum allowable impact fees reflect the reduction of interest expense that would otherwise be incurred had these projects been entirely debt funded.

Table 1 below outlines the maximum allowable impact fees determined through this analysis and also lists the historical fees adopted by the PUA.

---

<sup>1</sup> These are assumptions utilized to establish an impact fee. The actual project funding plan and debt retirement plan will be evaluated as necessary based upon actual operating conditions.





**Table 1**

	Water Highway 71	Water US 290	Wastewater
<b>Adopted Historical Impact Fee (Policy set at 50%)</b>	<b>\$ 4120-5180</b>	<b>\$ 4120-5180</b>	<b>\$5,250</b>
<b>2012 Impact Fee (Policy set at 50% for water and 66% for wastewater)</b>	<b>\$5,992</b>	<b>\$8,809</b>	<b>\$11,500</b>
<b>2015 Impact Fee (Policy set at 75%)</b>	<b>\$7,476</b>	<b>\$12,938</b>	<b>\$11,644</b>
<b>2018 Maximum Allowable Fee (at 100%)</b>	<b>\$4,196</b>	<b>\$6,821</b>	<b>\$8,742</b>

If the PUA adopts impact fees at the maximum allowable amount, the PUA will be able to fund approximately \$44M of the \$60M in future capital improvements as detailed in Schedules 1, 2, 3 and 4. In addition, the PUA may also be able to retire bond debt through cash from impact fees as outlined in Table 2:

**Table 2**

<b>Equity Funding (at 100% of maximum)</b>	<b>Water</b>	<b>Sewer</b>	<b>Total</b>
Projects Funded with Cash	\$38,290,406	\$5,715,882	\$44,006,288
Existing Debt Retired with Annual Payments in 10-Years	13,460,140	3,832,986	17,293,127
Existing Debt Retired when Callable	<u>16,550,079</u>	<u>12,845,994</u>	<u>29,396,072</u>
	\$68,300,625	\$22,394,862	\$90,695,487

## West Travis County Public Utility Agency

The PUA provides water and wastewater services to an estimated population of 45,000 people located in Travis and Hays counties. The PUA acquired the systems from the Lower Colorado River Authority (LCRA) in March 2012. Since that time, the PUA has continued to provide continuous and adequate service to the affected population.

The PUA was created in partnership through concurrent ordinances of the City of Bee Cave, Travis County Municipal Utility District #5 (now Lake Pointe Municipal Utility District), and Hays County as a vehicle to finance, own, and operate the West Travis County water and wastewater utility systems as a publicly owned utility. The PUA Board is currently comprised of five members, each appointed by each of the three sponsoring entities.

### Installment Purchase Agreement

In order to purchase the systems by a public entity rather than a divestiture to a private for-profit utility, the PUA was required to retire the debt which LCRA had outstanding against the systems. In March 2012, the principal balance of that debt exceeded \$140M, plus interest accrual. However, many of LCRA's bonds were not "callable." As such, immediately retiring the bonds would require the payment of defeasance costs, which would have added significant costs to ratepayers.

In order to avoid payment of additional defeasance costs, the PUA entered into an installment purchase agreement with the LCRA, which outlined specific timing for installment payments through 2019. These installment payments coincide with "call dates" associated with LCRA's bonds. Installment payments consist of the principal balance on the callable bonds, plus capitalized interest accrued. The PUA made its first installment payment to the LCRA in July 2012. Since that time, the PUA funded subsequent installment payments through the issuance of bonds. The PUA is scheduled to make its final \$15M installment payment to the LCRA in the Spring of 2019. Installment payments to the LCRA include both the principal balance on the bonds as well as accrued interest to date in which the installment payment is made.

### System Debt

Since its inception in 2012, the PUA has issued several series of revenue bonds. These issuances not only funded payments to the LCRA but also funded construction of existing and future capital improvement projects necessary to support regional growth.

In order to be rated for bonds, the PUA presented a financial pro forma which illustrated the PUA's ability to support its bonded indebtedness through rates and fees. In 2012, the PUA received an "A-" bond rating by Standard & Poors. In December, 2017 the PUA had its rating upgraded by Standard & Poors to "A positive" and "A1" by Moody's Investor Service. This improved rating is due to increased cash reserves and improved operational and financial management of the utility, including significant cost reductions and revenue enhancements.





## System Revenues and Expenses

The PUA is a non-taxing entity. Accordingly, the PUA's only available avenues for revenue recovery are through rates and fees charged to current and future customers of the system. To the extent the PUA does not recover the costs of providing future service to customers through impact fees, those costs must be recovered through rates. The PUA is allowed to set impact fees at an amount at or below the maximum allowable fee as determined by the impact fee calculation. So long as the PUA does not go above the maximum allowable fee, the PUA may use policy initiatives to determine the appropriate level of the impact fee. This balance must be considered when setting an appropriate impact fee, realizing that any portion of the costs not recovered by impact fees will need to be recovered through monthly rates charged to customers.

## Impact Fee Fund

Impact fees are only collected from new growth in the system. Existing customers are not subject to pay impact fees<sup>2</sup>. The PUA maintains impact fees collected in a separate fund. The PUA spends impact fee monies only for authorized purposes in compliance with Chapter 395 of the Texas Local Government Code. The PUA has created a plan for spending those funds in accordance with Chapter 395.

---

<sup>2</sup> Currently existing customers are not subject to impact fees with the exception of a currently existing customer who increases their level of service.



One of the most effective growth management tools available to public utilities is the use of new customer impact fees, which facilitates growth paying for itself vs. existing customers paying for this cost burden in rates. The PUA has adopted a ten-year Land Use Assumptions and Capital Improvements Plan (CIP) to service growth in the system, and the cost of the 10-year CIP is the basis for calculating impact fees. Impact fees are calculated by taking the total cost of the CIP divided by the projected growth in living unit equivalents (LUEs) in the system for water and wastewater. The last step in the process to adopt an impact fee is the determination of the maximum allowable impact fees per the guidelines set forth in Chapter 395 of the Texas Local Government Code.

Chapter 395 of the Texas Local Government Code provides specific requirements that cities, water districts and other political subdivisions in Texas must abide by while determining, assessing, and collecting Impact Fees. The process outlined for implementing or amending fees includes:

1. Development of Land Use Assumptions (LUA);
2. Development of Capital Improvement Plan (CIP) based on LUA;
3. Development of maximum impact fees;
4. Public hearing on LUA, CIP and impact fees;
5. Adoption of or amendment to LUA, CIP and impact fees;

NH Consulting has been retained by the PUA to determine the maximum allowable impact fee per requirements set forth in Chapter 395 of the Texas Local Government Code, based upon the Land Use Assumptions and Capital Improvements Plan adopted by the PUA Board of Directors.

This report is intended to outline the methodology utilized by NH Consulting in determining the maximum allowable impact fee that can be charged by the PUA.





In developing amendments to impact fees charged to the PUA's customers, it was first necessary to develop a future assumption of system growth. Next, capital improvements which are necessary to meet the needs of that growth are identified. Finally, a maximum allowable impact fee may be determined. Making this determination involves a systematic progression of steps, which are outlined below.

## **Step 1: Land Use Assumptions**

The PUA relied upon MEC to develop Land Use Assumptions, which have been summarized below. The values shown in Tables 3 and 4 are projected new living unit equivalents (LUEs) for each year in the study.

**Table 3: Future Land Use Assumptions – Water**

	US 71 System	Highway 290 System	Total Water
2018	699	302	1001
2019	765	522	1287
2020	847	577	1424
2021	757	644	1401
2022	729	567	1296
2023	732	544	1276
2024	743	635	1378
2025	679	666	1345
2026	620	607	1227
2027	488	513	1001

**Table 4: Future Land Use Assumptions – Wastewater**

	Total Wastewater
2018	466
2019	397
2020	337
2021	309
2022	323
2023	312
2024	320
2025	257
2026	212
2027	161



## **Step 2: Existing Improvements**

Chapter 395 of the Texas Local Government Code regulates impact fees that utilities may charge. Chapter 395 requires that impact fees collected by a utility should be utilized to pay for capital improvements necessitated by growth. Capital improvements utilized in the calculation may include existing improvements that have excess capacity as well as future improvements that will meet growth needs. Such projects were isolated by MEC and are included in the impact fee calculation.

## **Step 3: Planned Improvements**

Planned improvements are improvements projected to be necessary in the future, which are driven by growth. Maintenance repair or replacement projects not driven by future growth may not be included in the impact fee calculation. MEC identified future projects that would be necessary to meet the needs of future growth based on projected timing of that growth.

## **Step 4: Capacity Analysis**

Once projects eligible for inclusion in the impact fee have been determined, the next step is to perform a capacity analysis for each of those improvements. State law stipulates that only costs associated with available capacity projected to meet future growth needs in the ten-year planning period can be included in the fee determination.

## **Step 5: Determination of Costs to be Included in Fee**

State law allows the following costs to be included in the impact fee calculation:

- ❖ Construction contract price;
- ❖ Surveying and engineering fees;
- ❖ Land acquisition costs;
- ❖ Projected interest and finance costs;
- ❖ Fees paid to a qualified engineer or financial consultant, preparing or updating the capital improvements plan.

As MEC estimated construction and engineering costs for each project in the CIP, NH Consulting used those cost estimates and grossed them up for legal and permitting costs as well as bond issuance costs (for bond funded projects) in order to arrive at an estimate of CIP costs in 2018 dollars. Given that many of the projects included in the CIP will be constructed in future years, NH Consulting then grossed up CIP cost estimates in order to account for future inflationary impacts to project costs, as described below.

- ❖ Allowable project design and construction costs, as described above, which were then inflated at 3% annually until projected project construction;
- ❖ Legal and permitting costs estimated at 1.5% of design and construction costs;
- ❖ Bond issuance costs estimated at 1.29% of design, construction, legal and permitting costs;
- ❖ Interest Expense (assumed a 30 year bond at 3.77% interest).



The total costs that may be included in the water impact fees are identified on Schedules 1 and 2; the costs that may be included in the wastewater impact fees are identified on Schedules 3 and 4.

### **Step 6: Determination of Maximum Allowable Fee**

NH Consulting determined a maximum allowable impact fee, which collects all revenues to pay for allowable projects and related fees within the ten-year study period. Schedules 5, 6, and 7 provide the impact fee reserve fund cash flow analysis detailing all expenses and revenues for the water utility. Schedule 8 provides the impact fee reserve fund cash flow analysis for the wastewater utility.

### **Step 7: Determination of Rate Revenue Credit**

In addition to describing the costs that can be included in the maximum impact fee calculation, Chapter 395 of the Texas Local Government Code also specifically states that the fee shall:

*“Provide a plan for awarding:*

- (a) A credit for the portion of ad valorem tax and utility service revenues generated by new service units during the program period that is used for the payment of improvements, including the payment of debt that is included in the capital improvements plan; or
- (b) In the alternative, a credit equal to 50 percent of the total projected cost of implementing the capital improvements plan.”

Accordingly, the utility may elect to adopt a fee that is equal to 50% of the calculated amount or develop a plan for awarding a credit for utility service revenues that are generated to pay for debt associated with assets in the capital improvements plan.

NH Consulting has performed the requisite credit calculation that determines the credit needed for both the water and the wastewater utility. In so doing, NH Consulting has identified the annual debt service for PUA issued bonds, which are associated with regional assets to be funded through rates. NH Consulting then determined the estimated LUEs in the system based on the current LUE count and projected growth in the system. Finally, NH Consulting divided the total debt service paid for regional projects through rates by the total LUEs that would pay those rates over the 10-year study period to determine the total credit which should be applied against the maximum allowable impact fee. The results of this analysis are presented on Schedules 9, 10, 11 and 12.



## Summary of Maximum Allowable Fees

### *Maximum Allowable Fees*

Table 5 below outlines the maximum allowable impact fees as well as the historical fees set by the PUA.

**Table 5: Calculation of Maximum Allowable Impact Fee**

	Water Highway 71	Water US 290	Wastewater
<b>Adopted Historical Impact Fee (Policy set at 50%)</b>	<b>\$ 4120-5180</b>	<b>\$ 4120-5180</b>	<b>\$5,250</b>
<b>2012 Impact Fee (Policy set at 50% for water and 66% for wastewater)</b>	<b>\$5,992</b>	<b>\$8,809</b>	<b>\$11,500</b>
<b>2015 Impact Fee (Policy set at 75%)</b>	<b>\$7,476</b>	<b>\$12,938</b>	<b>\$11,644</b>
<b>2018 Maximum Allowable Fee (at 100%)</b>	<b>\$4,196</b>	<b>\$6,821</b>	<b>\$8,742</b>

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Water Utility



Schedule 1  
Future CIP Projects, Before Interest Expense

Project	Year Scheduled	Design/ Construction Costs (2018 Cost)	Legal/ Permitting Costs (1.5%)	Issuance Costs	Subtotal (2018 Cost)	Future Cost	Capacity Increase	Capacity Used in 2018-2027	Units	Percent Allocation to 2018-2027 Growth	Cost Allocated to 2018-2027 Growth
<b>System Wide</b>											
Impact Fee Update	2023	42,680			42,680	49,478				100%	49,478
		\$ 42,680			\$ 42,680	\$ 49,478					\$ 49,478
System Hydraulic Modeling	2019	175,000			175,000	180,250				100%	180,250
Uplands WTP Expansion	2022	13,500,000	202,500		13,702,500	15,422,284	5.000	5.000	MGD	100%	15,422,284
Additional Water Supply Development	2020	1,000,000	15,000		1,015,000	1,076,814	0.375	0.143	MGD	38%	409,189
Raw Water Pump Station Expansion (Phase I)	2018	1,500,000	22,500		1,522,500	1,522,500	3.000	3.000	MGD	100%	1,522,500
Raw Water Pump Station Expansion (Phase II)	2025	1,650,000	24,750		1,674,750	2,059,731	7.000	2.100	MGD	30%	617,919
Raw Water Transmission Main No. 2	2018	5,000,000	75,000		5,075,000	5,075,000	16.500	5.115	MGD	31%	1,573,250
		\$ 22,825,000	\$ 339,750	\$ -	\$ 23,164,750	\$ 25,336,579					\$ 19,725,393
<b>US 290 System</b>											
SW Parkway Upgrade (Phase I)	2019	\$ 1,400,000	\$ 21,000		\$ 1,421,000	\$ 1,463,630	5000	2500	LUE	50%	\$ 731,815
SW Parkway Upgrade (Phase II)	2023	1,200,000	18,000		1,218,000	1,411,996	2500	2500	LUE	100%	1,411,996
Circle Drive Pump Station	2022	3,960,000	59,400		4,019,400	4,523,870	3000	3000	LUE	100%	4,523,870
1240 Conversion Water Line	2020	1,400,000	21,000		1,421,000	1,507,539	2700	1800	LUE	67%	1,005,026
1340 EST, Pump Station Upgrade & WL	2018	6,500,000	97,500		6,597,500	6,597,500	3000	2500	LUE	83%	5,497,917
RM1826 Phase V 16"	2028	-	-		-	-				-	-
Heritage Oaks Loop Line	2027	-	-		-	-				-	-
1420 Pump Station Upgrade	2023	1,300,000	19,500		1,319,500	1,529,662	1950	1500	LUE	77%	1,176,663
		\$ 15,760,000	\$ 236,400	\$ -	\$ 15,996,400	\$ 17,034,197					\$ 14,347,287
<b>State Highway 71 System</b>											
HPR Conversion and Upgrade to 1,500 gpm (add 750 gpm pump)	2019	\$ 275,000	\$ 4,125		\$ 279,125	\$ 287,499	375	375	LUE	100%	\$ 287,499
West Bee Cave PS Upgrade (Phases II & III)	2019	1,220,000	18,300		1,238,300	1,275,449	2500	2500	LUE	100%	1,275,449
Home Depot Pump Station Expansion & Conversion	2019	320,000	4,800		324,800	334,544	1500	700	LUE	47%	156,121
1080 Bee Cave Transmission Main	2019	4,900,000	73,500		4,973,500	5,122,705	5229	2500	LUE	48%	2,449,180
		\$ 6,715,000	\$ 100,725	\$ -	\$ 6,815,725	\$ 7,020,197					\$ 4,168,248
<b>TOTAL</b>		<b>\$ 45,342,680</b>				<b>\$ 49,440,451</b>					<b>\$ 38,290,406</b>

TARGETED CASH FUNDING 100%

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Water Utility



Schedule 2  
Existing Projects, Before Interest Expense

Project	Actual Project Cost	Issuance Cost	Total Project Cost	Capacity (MGD)	Current Capacity Used (MGD)	Capacity Used 2018-2027 (MGD)	Capacity Used Beyond 2027 (MGD)	Percent Allocation Current	Percent Allocation 2018-2027	Percent Allocation Beyond 2024	Costs Allocated to Current	Costs Allocated to 2018-2027 Growth	Costs Allocated Beyond 2027
<b>Systemwide</b>													
Uplands WTP Chem Building	\$ 2,141,458	\$ 27,624	\$ 2,169,082	20	15.14	4.86	-	76%	24%	0%	\$ 1,641,995	\$ 527,087	\$ -
Uplands WTP Plant	40,249,533	519,199	40,768,732	20	15.14	4.86	-	76%	24%	0%	30,861,930	9,906,802	-
Uplands Raw Water Intake Expansion	416,305	5,370	421,675	20	15.14	4.86	-	76%	24%	0%	319,208	102,467	-
High Service Pump Station 8 MGD to 14 MGD	4,034,066	52,037	4,086,103	20	15.14	4.86	-	76%	24%	0%	3,093,180	992,923	-
Uplands Clearwell #2	997,229	12,864	1,010,093	20	15.14	4.86	-	76%	24%	0%	764,640	245,453	-
	\$ 47,838,591	\$ 617,094	\$ 48,455,685								\$ 36,680,954	\$ 11,774,731	\$ -
<b>SH 71 System</b>													
Lazy 9 SW 71 Transmission Main	\$ 3,090,461	\$ 39,865	\$ 3,130,327	20	15.14	4.86	-	76%	24%	0%	\$ 2,369,657	\$ 760,669	\$ -
SH71 EST	1,955,487	25,225	1,980,712	3,000	1,150	1,850	-	38%	62%	0%	759,273	1,221,439	-
WEST BEE CAVE PS UPGRADE (PHASE I)	157,711	2,034	159,745	750	550	200	-	73%	27%	0%	117,147	42,599	-
Transmission Main from Uplands Plant to Bee Cave Pump Station	1,556,779	20,082	1,576,860	20	15.14	4.86	-	76%	24%	0%	1,193,683	383,177	-
Crystal Mountain EST	1,917,518	24,735	1,942,253	20	15.14	4.86	-	76%	24%	0%	1,470,286	471,968	-
Senna Hills By-Pass Line	559,677	7,220	566,897	20	15.14	4.86	-	76%	24%	0%	429,141	137,756	0
Hamilton Pool Road 1280 Pump Station Water Line	330,552	4,264	334,816	20	15.14	4.86	-	76%	24%	0%	253,455	81,360	-
Hamilton Pool Road Water Line	6,624,510	85,453	6,709,963	20	15.14	4.86	-	76%	24%	0%	5,079,442	1,630,521	-
Home Depot Pump Station	392,792	5,067	397,859	20	15.14	4.86	-	76%	24%	0%	301,179	96,680	-
Home Depot Ground Storage Tank	147,043	1,897	148,939	20	15.14	4.86	-	76%	24%	0%	112,747	36,192	-
Bee Cave Ground Storage Tank, Pump Station, Piping (off Cuernavaca)	699,851	9,028	708,879	20	15.14	4.86	-	76%	24%	0%	536,621	172,257	-
Bee Cave Water Line to Cuernavaca	990,492	12,777	1,003,269	20	15.14	4.86	-	76%	24%	0%	759,475	243,794	-
	\$ 18,422,873	\$ 237,646	\$ 18,660,518								\$ 13,382,106	\$ 5,278,413	\$ -
<b>US 290 System</b>													
Countyline Pump Station Upgrade 1800 gpm to 3450 gpm	\$ 1,684,429	\$ 21,728	\$ 1,706,157	20	15.14	4.86	-	76%	24%	0%	\$ 1,291,561	\$ 414,596	\$ -
290 Pipeline	-	-	-	-	-	-	-	-	-	-	-	-	-
a) 24" SWPPS to County Line	12,841,593	165,650	13,007,243	20	15.14	4.86	-	76%	24%	0%	9,846,483	3,160,760	-
b) 20" Countyline to 1420 HGL EST	3,411,212	44,003	3,455,215	20	15.14	4.86	-	76%	24%	0%	2,615,598	839,617	-
SH71 20" Transmission Main	3,630,945	46,837	3,677,782	20	15.14	4.86	-	76%	24%	0%	2,784,081	893,701	-
20" Main Uplands to SW Parkway (Easements)	506,714	6,536	513,250	20	15.14	4.86	-	76%	24%	0%	388,530	124,720	0
1420 Elevated storage	2,197,353	28,345	2,225,697	20	15.14	4.86	-	76%	24%	0%	1,684,853	540,844	-
Sawyer Ranch Road Ph 1 20"	1,183,948	15,272	1,199,220	20	15.14	4.86	-	76%	24%	0%	907,810	291,411	-
Sawyer RR Ph 1 (Darden Hill)	1,293,619	16,687	1,310,306	20	15.14	4.86	-	76%	24%	0%	991,902	318,404	-
SWPPS Upgrade tp 5,900 gpm	243,213	3,137	246,350	20	15.14	4.86	-	76%	24%	0%	186,487	59,863	-
1826 Phase IV 16" Water Line	1,006,560	12,984	1,019,544	20	15.14	4.86	-	76%	24%	0%	771,795	247,749	-
	\$ 27,999,585	\$ 361,181	\$ 28,360,766								\$ 21,469,100	\$ 6,891,666	\$ -
<b>Total</b>	<b>\$ 94,261,049</b>	<b>\$ 1,215,920</b>	<b>\$ 95,476,969</b>								<b>\$ 71,532,159</b>	<b>\$ 23,944,810</b>	<b>\$ -</b>

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Wastewater Utility

Schedule 3  
Future CIP Projects, Before Interest Expense



Project	Year Scheduled	Design/ Construction Costs (2018 Cost)	Legal/ Permitting Costs (1.5%)	Issuance Costs	Subtotal (2018 Cost)	Future Cost	Capacity Increase	Units	Percent Allocation to 2018-2027 Growth	Cost Allocated to 2018-2027 Growth
Impact Fee Study	2023	42,680			42,680	49,478			100%	49,478
100% Cash Funded Project Subtotal		\$ 42,680			\$ 42,680	\$ 49,478				\$ 49,478
Master Planning and Permitting	2020	175,000			175,000	185,658	0.5		100%	185,658
Future WWTP Expansion	2019	3,650,000	54,750		3,704,750	3,815,893	0.5	MGD	32%	1,221,086
Effluent Disposal Development	2019	5,500,000	82,500		5,582,500	5,749,975	0.375	MGD	61%	3,507,485
Bohls Service Area Expansion Lift Station & Force M	2026	780,000	11,700		791,700	1,002,902	500	LUEs	75%	752,176
Debt and Cash Funded Projects Subtotal		\$ 10,105,000	\$ 148,950	\$ -	\$ 10,253,950	\$ 10,754,427				\$ 5,666,404
Total and Future Projects		\$ 10,147,680	\$ 148,950	\$ -	\$ 10,296,630	\$ 10,803,905				\$ 5,715,882
Total Assumed Portion Funded by Cash	100%									

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Wastewater Utility



Schedule 4  
Existing Projects, Before Interest Expense

Project	Actual Project Cost	Issuance Costs	Total Cost	Capacity	Current Capacity Used	Capacity Used 2018-2027	Capacity Used Beyond 2027	Units	Percent Allocation Current	Percent Allocation 2018-2027	Percent Allocation Beyond 2027	Costs Allocated to Current	Costs Allocated to 2018-2027 Growth	Costs Allocated Beyond 2027
<b>Systemwide</b>														
Lakepointe WWTP	\$ 15,317,630	\$ 197,590	\$ 15,515,220	0.675	0.410	0.265	-	MGD	61%	39%	0%	\$ 9,424,060	\$ 6,091,161	\$ -
Bee Cave Regional System	8,499,620	109,641	8,609,261	1.000	0.612	0.388	-	MGD	61%	39%	0%	5,268,868	3,340,393	-
Spillman Effluent Irrigation System	530,458	6,843	537,301	1.000	0.612	0.388	-	MGD	61%	39%	0%	328,828	208,473	-
CCNG Lift Station	141,970	1,831	143,801	1.000	0.612	0.388	-	MGD	61%	39%	0%	88,006	55,795	-
RM 620 WW Line	1,262,030	16,280	1,278,309	1.000	0.612	0.388	-	MGD	61%	39%	0%	782,325	495,984	-
Hwy 71 WW Line	998,809	12,884	1,011,693	1.000	0.612	0.388	-	MGD	61%	39%	0%	619,156	392,537	-
Bohl's Effluent Pond and Lift Station	3,816,591	49,232	3,865,823	0.325	0.201	0.124	-	MGD	62%	38%	0%	2,390,863	1,474,960	-
Bohl's WWTP	5,570,796	71,860	5,642,656	0.325	0.201	0.124	-	MGD	62%	38%	0%	3,489,766	2,152,890	-
Bohl's Regional Lift Station/FM	2,101,571	27,109	2,128,680	0.325	0.201	0.124	-	MGD	62%	38%	0%	1,316,507	812,173	-
Little Barton Creek Interceptor	2,750,000	35,474	2,785,474	0.267	0.038	0.229	-	MGD	14%	86%	0%	396,434	2,389,039	-
	\$ 40,989,476	\$ 528,744	\$ 41,518,219									\$ 24,104,814	\$ 17,413,406	\$ -
TRUE														



West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Water Utility

Schedule 5  
Impact Fee Calculation - System Wide

Maximum Allowable Impact Fee	\$	2,775
Interest Rate		1.50%



Year	Beginning Balance	Cash Funding Future Projects	Annual Debt Service for Previously Issued Debt	Pay Debt Principal for Previously Issued Debt when Callable	Total Annual Expenditures	New LUEs	Impact Fee Revenues at 100% Collection	Subtotal	Interest Income	Ending Balance
through 2018		(3,095,750)			(3,095,750)	1,000	2,774,901	(320,849)	(4,813)	(325,662)
2019	(325,662)	(180,250)	(661,895)		(842,145)	1,287	3,571,298	2,403,491	36,052	2,439,543
2020	2,439,543	(409,189)	(661,895)		(1,071,084)	1,423	3,948,684	5,317,143	79,757	5,396,900
2021	5,396,900	-	(661,895)		(661,895)	1,400	3,884,861	8,619,866	129,298	8,749,164
2022	8,749,164	(15,422,284)	(661,895)		(16,084,180)	1,295	3,593,497	(3,741,519)	(56,123)	(3,797,641)
2023	(3,797,641)	(49,478)	(661,895)		(711,373)	1,276	3,540,774	(968,241)	(14,524)	(982,764)
2024	(982,764)	-	(661,895)		(661,895)	1,377	3,821,039	2,176,379	32,646	2,209,025
2025	2,209,025	(617,919)	(661,895)		(1,279,815)	1,344	3,729,467	4,658,677	69,880	4,728,557
2026	4,728,557	-	(661,895)		(661,895)	1,227	3,404,803	7,471,466	112,072	7,583,538
2027	7,583,538	-	(661,895)		(661,895)	1,001	2,777,676	9,699,318	145,490	9,844,808
2028	9,844,808		(661,895)	(9,182,913)	(9,844,808)		-	-		-

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Water Utility

Schedule 6  
Impact Fee Calculation - Hwy 290

Maximum Allowable Impact Fee	\$	4,243
Interest Rate		1.50%



Year	Beginning Balance	Cash Funding Future Projects	Annual Debt Service for Previously Issued Debt	Pay Debt Principal for Previously Issued Debt when Callable	Total Annual Expenditures	New LUEs	Impact Fee Revenues at 100% Collection	Subtotal	Interest Income	Ending Balance
through 2018		(5,497,917)			(5,497,917)	302	1,281,451	(4,216,466)	(63,247)	(4,279,713)
2019	(4,279,713)	(731,815)	(387,402)		(1,119,217)	522	2,214,958	(3,183,973)	(47,760)	(3,231,732)
2020	(3,231,732)	(1,005,026)	(387,402)		(1,392,428)	577	2,448,334	(2,175,826)	(32,637)	(2,208,464)
2021	(2,208,464)	-	(387,402)		(387,402)	644	2,732,630	136,764	2,051	138,815
2022	138,815	(4,523,870)	(387,402)		(4,911,273)	567	2,405,902	(2,366,555)	(35,498)	(2,402,053)
2023	(2,402,053)	(2,588,659)	(387,402)		(2,976,062)	544	2,308,308	(3,069,807)	(46,047)	(3,115,854)
2024	(3,115,854)	-	(387,402)		(387,402)	635	2,694,441	(808,815)	(12,132)	(820,947)
2025	(820,947)	-	(387,402)		(387,402)	666	2,825,981	1,617,631	24,264	1,641,895
2026	1,641,895	-	(387,402)		(387,402)	607	2,575,631	3,830,123	57,452	3,887,575
2027	3,887,575	-	(387,402)		(387,402)	513	2,176,769	5,676,942	85,154	5,762,096
2028	5,762,096		(387,402)	(5,374,693)	(5,762,096)		-	-		-

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Water Utility



Schedule 7  
Impact Fee Calculation - Hwy 71

Maximum Allowable Impact Fee	\$	1,566
Interest Rate		1.50%

Year	Beginning Balance	Cash Funding Future Projects	Annual Debt Service for Previously Issued Debt	Pay Debt Principal for Previously Issued Debt when Callable	Total Annual Expenditures	New LUEs	Impact Fee Revenues at 100% Collection	Subtotal	Interest Income	Ending Balance
through 2018		-			-	699	1,094,834	1,094,834	16,423	1,111,256
2019	1,111,256	(4,168,248)	(296,716)		(4,464,965)	765	1,198,209	(2,155,500)	(32,332)	(2,187,832)
2020	(2,187,832)	-	(296,716)		(296,716)	847	1,326,644	(1,157,905)	(17,369)	(1,175,273)
2021	(1,175,273)	-	(296,716)		(296,716)	757	1,185,678	(286,311)	(4,295)	(290,606)
2022	(290,606)	-	(296,716)		(296,716)	729	1,141,822	554,500	8,318	562,818
2023	562,818	-	(296,716)		(296,716)	732	1,146,521	1,412,622	21,189	1,433,812
2024	1,433,812	-	(296,716)		(296,716)	743	1,163,750	2,300,846	34,513	2,335,358
2025	2,335,358	-	(296,716)		(296,716)	679	1,063,508	3,102,150	46,532	3,148,682
2026	3,148,682	-	(296,716)		(296,716)	620	971,097	3,823,063	57,346	3,880,409
2027	3,880,409	-	(296,716)		(296,716)	488	764,347	4,348,040	65,221	4,413,261
2028	4,413,261		(296,716)	(4,116,544)	(4,413,261)		-	-		-

Growth Allocable Principle Amount Issued \$ 5,278,413

Debt Assumptions 3.77%  
30

Total Cash Funded Projects	\$	4,168,248	TRUE
Total Debt Funded Projects		5,278,413	TRUE
	\$	9,446,661	TRUE

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Wastewater Utility



Schedule 8  
Impact Fee Calculation

Maximum Allowable Impact Fee	\$ 8,979
Interest Rate	1.50%

Year	Beginning Balance	Cash Funding	Previously Issued Debt	Pay Debt Principal for Previously Issued Debt when Callable	Total Annual Expenditures	New LUEs	Impact Fee Revenues at 100% Collection	Subtotal	Interest Income	Ending Balance
through 2018		-			-	466	4,184,350	4,184,350	62,765	4,247,116
2019	4,247,116	(4,728,570)	(978,863)		(5,707,433)	397	3,564,779	2,104,462	31,567	2,136,029
2020	2,136,029	(185,658)	(978,863)		(1,164,520)	337	3,026,022	3,997,530	59,963	4,057,493
2021	4,057,493	-	(978,863)		(978,863)	309	2,774,601	5,853,231	87,798	5,941,030
2022	5,941,030	-	(978,863)		(978,863)	323	2,900,312	7,862,478	117,937	7,980,415
2023	7,980,415	(49,478)	(978,863)		(1,028,341)	312	2,801,539	9,753,614	146,304	9,899,918
2024	9,899,918	-	(978,863)		(978,863)	320	2,873,374	11,794,429	176,916	11,971,345
2025	11,971,345	-	(978,863)		(978,863)	257	2,307,678	13,300,161	199,502	13,499,663
2026	13,499,663	(752,176)	(978,863)		(1,731,039)	212	1,903,610	13,672,234	205,084	13,877,317
2027	13,877,317	-	(978,863)		(978,863)	161	1,445,666	14,344,120	215,162	14,559,282
2028	14,559,282		(978,863)	(13,580,419)	(14,559,282)		-	0		0

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Water Utility



Schedule 9  
Rate Revenue Credit - System Wide

<b>Maximum Allowable Impact Fee</b>	<b>\$ 2,775</b>
-------------------------------------	-----------------

Total Debt Service Included in Rates for Regional Projects \$ 2,061,953

	Total Estimated LUE Count	Estimated Annual Debt Service for Regional Projects Allocated to Rates
2018	17,803	\$ 2,061,953
2019	19,090	\$ 2,061,953
2020	20,513	\$ 2,061,953
2021	21,913	\$ 2,061,953
2022	23,208	\$ 2,061,953
2023	24,484	\$ 2,061,953
2024	25,861	\$ 2,061,953
2025	27,205	\$ 2,061,953
2026	28,432	\$ 2,061,953
2027	29,433	\$ 2,061,953
	237,942	\$20,619,532
<b>Total Credit for Rate</b>		<b>\$86.66</b>

<b>Total Recommended Impact Fee</b>	<b>\$ 2,688.24</b>
-------------------------------------	--------------------

Regional CIP Projects	Total Cost	Growth Allocation	Rates Allocation*
Future CIP	\$ 25,386,057	\$ 25,386,057	\$ -
Existing CIP	48,455,685	11,774,731	36,680,954
	<b>\$ 73,841,742</b>	<b>\$ 37,160,789</b>	<b>\$ 36,680,954</b>

\*Rates allocation assumes 100% of future projects are funded by impact fees.

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Water Utility



Schedule 10  
Rate Revenue Credit - 290 System

<b>Maximum Allowable Impact Fee</b>	<b>\$ 4,243</b>
-------------------------------------	-----------------

Total Debt Service Included in Rates for Regional Projects \$ 1,206,846

	Total Estimated LUE Count	Estimated Annual Debt Service for Regional Projects Allocated to Rates
2018	8,268	\$ 1,206,846
2019	8,790	\$ 1,206,846
2020	9,367	\$ 1,206,846
2021	10,011	\$ 1,206,846
2022	10,578	\$ 1,206,846
2023	11,122	\$ 1,206,846
2024	11,757	\$ 1,206,846
2025	12,423	\$ 1,206,846
2026	13,030	\$ 1,206,846
2027	13,543	\$ 1,206,846
<b>Total Credit for Rate</b>	<b>108,889</b>	<b>\$12,068,465</b>
		<b>\$110.83</b>

<b>Total Recommended Impact Fee</b>	<b>\$ 4,132.38</b>
-------------------------------------	--------------------

Regional CIP Projects	Total Cost	Growth Allocation	Rates Allocation*
Future CIP	\$ 17,034,197	\$ 17,034,197	\$ -
Existing CIP	28,360,766	6,891,666	21,469,100
	\$ 45,394,963	\$ 23,925,863	\$ 21,469,100

\*Rates allocation assumes 100% of future projects are funded by impact fees.

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Water Utility



Schedule 11  
Rate Revenue Credit - 71 System

<b>Maximum Allowable Impact Fee</b>	<b>\$ 1,566</b>
-------------------------------------	-----------------

Total Debt Service Included in Rates for Regional Projects \$ 752,251

	Total Estimated LUE Count	Estimated Annual Debt Service for Regional Projects Allocated to Rates
2015	9,535	\$ 752,251
2016	10,300	\$ 752,251
2017	11,146	\$ 752,251
2018	11,902	\$ 752,251
2019	12,630	\$ 752,251
2020	13,362	\$ 752,251
2021	14,104	\$ 752,251
2022	14,782	\$ 752,251
2023	15,402	\$ 752,251
2024	15,890	\$ 752,251
	129,053	\$7,522,508
<i>Total Credit for Rate</i>		<b>\$58.29</b>

<b>Total Recommended Impact Fee</b>	<b>\$ 1,508.00</b>
-------------------------------------	--------------------

Regional CIP Projects	Total Cost	Growth Allocation	Rates Allocation*
Future CIP	\$ 7,020,197	\$ 7,020,197	\$ -
Existing CIP	18,660,518	5,278,413	13,382,106
	\$ 25,680,715	\$ 12,298,609	\$ 13,382,106

\*Rates allocation assumes 100% of future projects are funded by impact fees.

West Travis County Public Utility Agency  
2018 Impact Fee Analysis - Wastewater Utility



Schedule 12  
Rate Revenue Credit

<b>Maximum Allowable Impact Fee</b>	<b>\$ 8,979</b>
-------------------------------------	-----------------

Total Debt Service Included in Rates for Regional Projects \$ 1,355,008

	Total Estimated LUE Count	Estimated Annual Debt Service for Regional Projects Allocated to Rates
2018	4,252	\$ 1,355,008
2019	4,649	\$ 1,355,008
2020	4,986	\$ 1,355,008
2021	5,295	\$ 1,355,008
2022	5,618	\$ 1,355,008
2023	5,930	\$ 1,355,008
2024	6,250	\$ 1,355,008
2025	6,506	\$ 1,355,008
2026	6,718	\$ 1,355,008
2027	6,880	\$ 1,355,008
	57,084	\$13,550,083
<b>Total Credit for Rate</b>		<b>\$237.37</b>

<b>Total Allowable Impact Fee</b>	<b>\$ 8,741.92</b>
-----------------------------------	--------------------

Regional CIP Projects	Total Cost	Growth Allocation	Rates Allocation*
Future CIP	\$ 10,803,905	\$ 10,803,905	\$ -
Existing CIP	41,518,219	17,413,406	24,104,814
	\$ 52,322,124	\$ 28,217,310	\$ 24,104,814

\*Rates allocation assumes 100% of future projects are funded by impact fees.