



# WATER & WASTEWATER IMPACT FEE STUDY

Prepared for:

**City of Jersey Village**

November 2, 2015



Prepared By:

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**CITY OF JERSEY VILLAGE**

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JRV14238

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Appendix B	Water & Wastewater Project Costs
Appendix C	Public Hearing Presentation – October 19, 2015
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## EXECUTIVE SUMMARY

The purpose of this report is to summarize the methodology used in the development and calculation of water and wastewater impact fees for the City of Jersey Village. The methodology used herein satisfies the requirements of the Texas Local Government Code Section 395 for the establishment of impact fees. Texas Local Government Code Section 395 requires an impact fee analysis before impact fees are set. Section 395 requires that land use assumptions and capital improvement plans be updated at least every five years, and the City of Jersey Village last performed an impact fee analysis in 2002.

### Maximum Allowable Water & Wastewater Impact Fees

The total projected costs include the projected capital improvement costs to serve 10-year development, the projected finance cost for the capital improvements, and the consultant cost for preparing and updating the Capital Improvements Plan. A 4.0% interest rate was used to calculate finance costs. The cost of water and wastewater capital improvements to serve development projected to occur between 2015 and 2025 is \$4,750,510 and \$1,685,833, respectively. The total maximum allowable water and wastewater impact fee is \$3,928. **Table ES.1** summarizes the total maximum allowable water and wastewater impact fee calculation for the City of Jersey Village.

**Table ES.1 City of Jersey Village Water & Wastewater Impact Fee Calculation**

Water Impact Fee	
Total Eligible Capital Improvement Costs	\$4,750,510
Finance Costs	\$1,580,169
Total Eligible Costs with Credit <sup>(1)</sup>	\$3,165,340
Growth in Service Units	1,092
<b>Maximum Allowable Water Impact Fee per Service Unit<sup>(2)</sup>:</b>	<b>\$2,899</b>
Wastewater Impact Fee <sup>(3)</sup>	
Total Eligible Capital Improvement Costs	\$1,685,833
Finance Costs	\$560,761
Total Eligible Costs with Credit <sup>(1)</sup>	\$1,123,297
Growth in Service Units	1,092
<b>Maximum Allowable Wastewater Impact Fee per Service Unit<sup>(2)</sup>:</b>	<b>\$1,029</b>
<b>Total Maximum Allowable Water &amp; Wastewater Impact Fee:</b>	<b>\$3,928</b>

<sup>(1)</sup> 50% of Total Capital Improvement Costs

<sup>(2)</sup> Total Eligible Costs/Growth in Service Units

<sup>(3)</sup> A wastewater impact fee will not be charged for installation of fire or irrigation water meters

## 1.0 BACKGROUND

Chapter 395 of the Texas Local Government Code requires an impact fee analysis before impact fees can be created and assessed. Chapter 395 defines an impact fee as “a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development.” In September 2001, Chapter 395 was amended creating the current procedure for implementing impact fees. Chapter 395 identifies the following items as impact fee eligible costs:

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

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

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

As a funding mechanism for capital improvements, impact fees allow cities to recover the costs associated with new or facility expansion in order to serve future development. Statutory requirements mandate that impact fees be based on a specific list of improvements identified in a capital improvements program and only the cost attributed (and necessitated) by new growth over a ten-year period may be considered. As projects in the program are completed, planned costs are updated with actual costs to more accurately

reflect the capital expenditure of the program. Additionally, new capital improvement projects may be added to the system.

In March 2014, the City of Jersey Village, Texas, authorized Freese and Nichols, Inc. (FNI) to update the 2002 Impact Fee Study for the City's water and wastewater systems. The purpose of this report is to address the methodology used in the development and calculation of water and wastewater impact fees for the City of Jersey Village. The methodology used herein satisfies the requirements of the Texas Local Government Code Chapter 395 for the establishment of water and wastewater impact fees, as seen in **Appendix A**.

As part of the impact fee update, FNI conducted two workshops with the City's appointed Capital Improvements Advisory Committee (CIAC). The CIAC's role includes recommending a growth rate for impact fee calculations, reviewing and recommending land use assumptions and Impact Fee Capital Improvements Plans (CIP), and recommending an impact fee rate to the City Council.

**Table 1.1** provides a list of abbreviations used in this report.

**Table 1.1 List of Abbreviations**

<b>Abbreviation</b>	<b>Full Nomenclature</b>
<b>Avg</b>	Average
<b>AWWA</b>	American Water Works Association
<b>CIAC</b>	Capital Improvements Advisory Committee
<b>CIP</b>	Capital Improvements Plan
<b>ESU</b>	Equivalent Service Unit
<b>ETJ</b>	Extraterritorial Jurisdiction
<b>FNI</b>	Freese and Nichols, Inc.
<b>gal</b>	Gallons
<b>gpcd</b>	Gallons per Capita per Day
<b>gpd</b>	Gallons per Day
<b>gpm</b>	Gallons per Minute
<b>I&amp;I</b>	Infiltration & Inflow
<b>MGD</b>	Million Gallons per Day
<b>TCEQ</b>	Texas Commission on Environmental Quality
<b>WWTP</b>	Wastewater Treatment Plant

## 2.0 LAND USE ASSUMPTIONS

To assist the City of Jersey Village in determining the need and timing of capital improvements to serve future development, a reasonable estimation of future growth is required. Growth and development projections were formulated based on assumptions pertaining to the type, location, quantity, and timing of various future land uses within the community. These land use assumptions, which include population projections, will become the basis for the preparation of impact fee capital improvement plans for water and wastewater facilities.

### 2.1 HISTORICAL & PROJECTED POPULATION

Population growth projections were established based on information being prepared by FNI for the City's Comprehensive Plan, as well as information on upcoming developments. The Comprehensive Plan estimates a 2015 population of 8,413 and an annual growth rate of approximately 2.0% each year. This percentage is higher than the historical average but due to the approaching completion of the Hwy 290 expansion and the current economic conditions, 2.0% reflects a reasonable increase in population over the next ten years. Historical census data as well as future population projections are shown in **Table 2.1**.

**Table 2.1 Historical and Future Population Projections**

Year	Total Population	Average Annual Population Growth	Average Annual Population Growth (%)
2000 <sup>(1)</sup>	6,880	-	-
2010 <sup>(1)</sup>	7,620	74	1.1%
2015 <sup>(2)</sup>	8,413	158	2.0%
2020 <sup>(2)</sup>	9,289	175	2.0%
2025 <sup>(2)</sup>	10,256	193	2.0%
2030 <sup>(2)</sup>	11,323	213	2.0%

<sup>(1)</sup> US Census – City of Jersey Village

<sup>(2)</sup> DRAFT Jersey Village Comprehensive Plan Update

### 2.2 GROWTH PROJECTIONS

FNI worked with the City to develop existing and future acreage distribution by land use type. According to information received from the City, growth is expected to continue in the next 10 years. The City is expected to need approximately 240 acres for developmental purposes during the next 10 years, with approximately 228 acres (approximately 66%) required for transit-oriented development. The transit-oriented development is a mixed use conceptual plan focused on walkability from proposed commuter



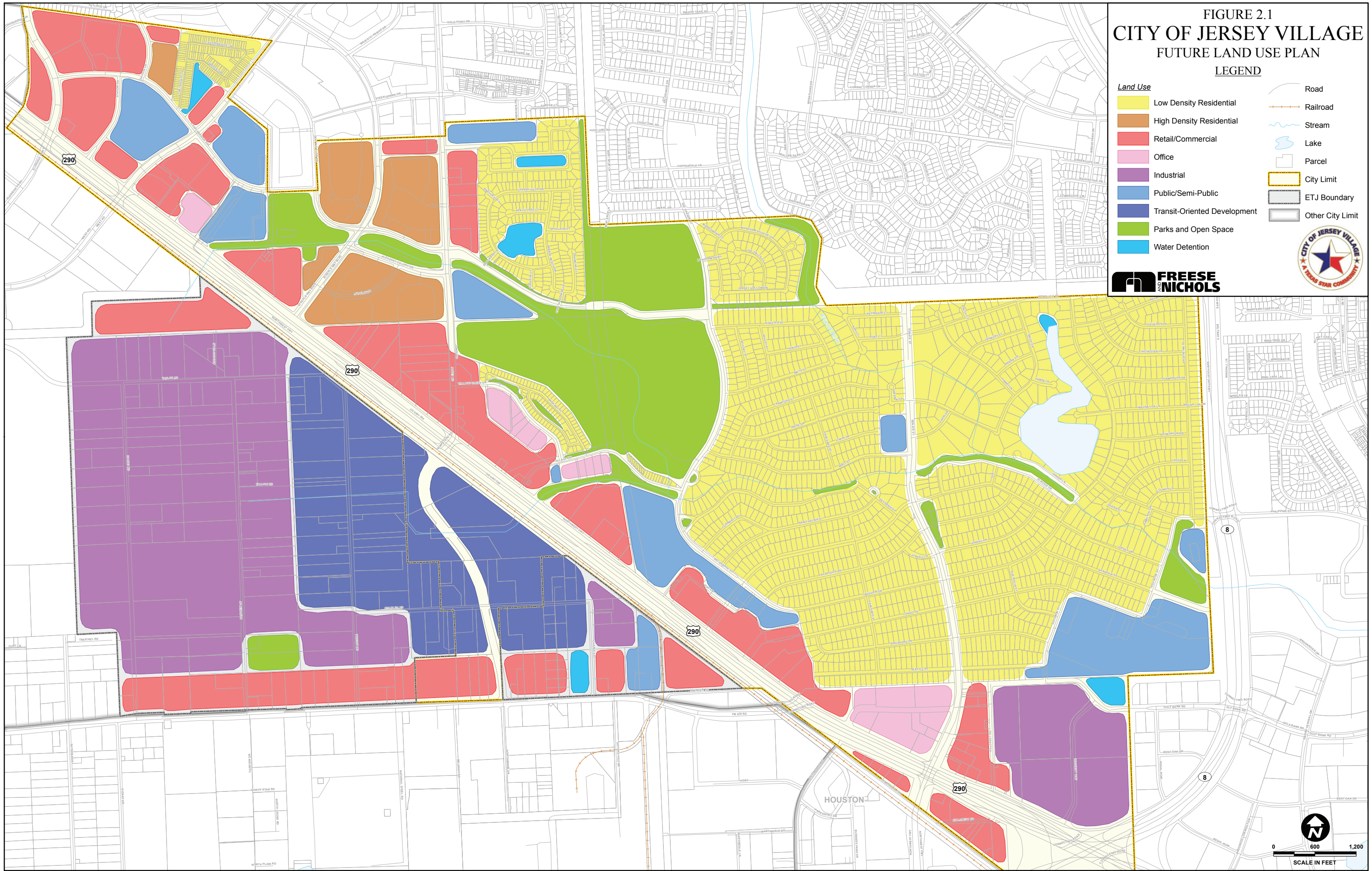
and light rail stations to a commercial development core. The existing land use includes acreage for detention in the same area that the future land use designates as transit-oriented development. The future land use plan shows detention acreage decreasing over the next 10 years but the detention acreage will be provided as part of the master-planned transit-oriented development. Residential uses will require approximately 80 acres (approximately 33%) with the vast majority of this development allocated for single family usage. **Table 2.2** presents the land use acreage by planning year for the water and wastewater service area designated by land use type. **Figure 2.1** shows the future land use throughout the City.

**Table 2.2 Existing and Future Land Use Projections**

Land Use	2015	2025	
	Total Acres	New Acres	Total Acres
Light-Density Residential	744	80	824
High-Density Residential	88	0	88
<i>Residential Subtotal</i>	<i>832</i>	<i>80</i>	<i>912</i>
Parks/Open Space/Public/ROW	909	0	909
Commercial/Industrial	831	0	831
Detention	103	-67	36
Transit-Oriented Development	0	228	228
<b>Total</b>	<b>2,676</b>	<b>241</b>	<b>2,917</b>

**FIGURE 2.1**  
**CITY OF JERSEY VILLAGE**  
**FUTURE LAND USE PLAN**  
**LEGEND**

- |                              |                  |
|------------------------------|------------------|
| <b>Land Use</b>              | Road             |
| Low Density Residential      | Railroad         |
| High Density Residential     | Stream           |
| Retail/Commercial            | Lake             |
| Office                       | Parcel           |
| Industrial                   | City Limit       |
| Public/Semi-Public           | ETJ Boundary     |
| Transit-Oriented Development | Other City Limit |
| Parks and Open Space         |                  |
| Water Detention              |                  |



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 Updated: Wednesday, June 16, 2010 10:52:28 AM



### 3.0 WATER SYSTEM CAPITAL IMPROVEMENTS PLAN

Water system impact fee capital improvements were identified in the City of Jersey Village 2002 Impact Fee Study. FNI utilized the 2015 future land use and updated water demand projections to verify the location and magnitude of the CIP projects. The recommended improvements will provide the required capacity and reliability to meet projected water demands through 2025. The water projects required to meet growth in the 10-year period were used in the impact fee analysis.

#### 3.1 EXISTING SYSTEM

Currently, Jersey Village provides potable water utilizing two elevated storage tanks and three ground water plants. The current surface water contract with the City of Houston is a take-or-pay contract for 22.5 million gallons per month with a maximum daily rate of 1.5 MGD to be delivered via up to two delivery points. The City of Houston charges overage rates for any amount over this maximum. **Table 3.1** presents the existing water supply facilities, including their pumping and storage capacities.

**Table 3.1 Existing Water Supply Facilities**

Water Supply Facilities	Water Source		Booster Pumps		Ground Storage (gal)	Elevated Storage (gal)
	Surface <sup>(1)</sup> (gpd)	Well (gpm)	No.	Capacity (gpm)		
Well Site 1 - 15601 Seattle Street	1,500,000	1,250	1	1100	880,000	-
			2	1100		
			3	1100		
Well Site 2 - 16600 Village Drive	-	900	1	250	420,000	250,000
			2	500		
			3	750		
			4	1100		
Well Site 3 - 12115 West Road	-	1,550	1	250	500,000	
			2	500		
			3	750		
			4	1000		
15402 Congo Lane	-	-	-	-	-	500,000
<b>Total</b>	<b>1,500,000</b>	<b>3,700</b>	<b>11</b>	<b>8,400</b>	<b>1,800,000</b>	<b>750,000</b>

<sup>(1)</sup> City of Houston Contract for Maximum Daily Usage Rate: 1.5 MGD

**Table 3.2** presents the average surface water production for the city over the past five years. The average daily usage over the past five years has been 1.4 MGD. The average gallons per capita per day (gpcd) has ranged from a low of 155 gpcd to a high of 224 gpcd during the 2011 drought. Public consumption includes all metered irrigation systems. **Table 3.3** shows historical water demands.

**Table 3.2 Historical Water Production in Million Gallons (2010 – 2014)**

Month	2010	2011	2012	2013	2014
January	28.6	27.9	29.0	30.3	29.0
February	23.7	26.0	27.0	28.1	26.1
March	28.3	40.6	35.1	41.9	28.5
April	36.8	52.7	41.3	39.2	38.7
May	40.2	64.7	51.4	43.2	45.2
June	38.9	72.1	58.3	51.6	45.0
July	31.6	80.8	41.6	55.5	49.0
August	50.8	80.2	56.1	65.4	55.7
September	42.3	65.6	50.1	57.7	42.7
October	54.3	52.0	46.1	41.9	39.8
November	39.1	41.1	46.0	35.9	34.0
December	37.5	30.8	34.7	31.5	31.0
<b>Total</b>	<b>405.6</b>	<b>426.1</b>	<b>452.1</b>	<b>634.5</b>	<b>516.7</b>
Daily Average	1.2	1.7	1.4	1.4	1.3
Impact Fee Eligible Population	7,620	7,772	7,928	8,086	8,248
Average Demand (gpcd)	163	224	179	177	155

**Table 3.3 Historical Water Demands**

Year	Water Connections	Average Day Demand (MGD)	Average Day Demand (gallons per connection per day)	Maximum Day Demand (MGD)	Maximum Day to Average Day Peaking Factor
2010	2,778	1.24	446	2.41	1.94
2011	2,847	1.74	611	3.32	1.91
2012	2,954	1.42	479	2.48	1.75
2013	3,015	1.43	474	3.60	2.51
2014	3,064	1.27	416	2.81	2.21
Average	-	1.42	485	2.92	2.06
Maximum	-	1.74	611	3.60	2.51

### 3.2 WATER DEMAND PROJECTIONS

The population, land use and historical water demand data was used to develop future water demands based on a projected average day per connection use and peaking factors. FNI utilized the 2015 future land use and updated water demand projections to verify the location and magnitude of the CIP projects.

The design criteria used to project demands were developed after a review of historical data. Average day per connection demands ranged from 485 to 611 gallons per connection per day. Based on this historical data, an average day demand of 600 gallons per connection per day was selected. Historical water usage data indicated the maximum day to average day peaking factor ranged from 1.75 to 2.51 over the last five years. A peaking factor of 2.5 was selected for future year demands. In the absence of verified historical data, the Texas Commission on Environmental Quality (TCEQ) defines peak hourly demand as 1.25 times the maximum day demand. These design criteria are summarized in **Table 3.4**.

**Table 3.4 Projected Water Demand Design Criteria**

Gallons per Connection per Day	Maximum Day to Average Day Peaking Factor	Peak Hour to Maximum Day Peaking Factor
600	2.5	1.25

The water connections are projected to grow at the same rate as population growth (2% per year). **Table 3.5** presents the projected water demands for the City of Jersey Village using these criteria.

**Table 3.5 Projected Water Demands**

Year	Projected Water Connections	Average Day Demand (MGD)	Maximum Day Demand (MGD)	Peak Hour Demand (MGD)
2015	3,125	1.88	4.69	5.86
2020	3,451	2.07	5.18	6.47
2025	3,810	2.29	5.71	7.14

### 3.3 WATER SYSTEM CAPACITY ANALYSIS

As a public water utility, the City of Jersey Village must comply with the rules and regulations for public water systems set forth by the TCEQ in Chapter 290. The City is required to meet the TCEQ elevated storage capacity requirement of 100 gallons per connection and total storage capacity requirement of 200 gallons per connection. In addition to storage requirements, the City is also required to meet the pumping capacity requirements presented in **Table 3.6**.

**Table 3.6 TCEQ Service Pumping Requirements**

Condition	Service Pumping Capacity Requirement
If providing at least 200 gallons per connection of elevated storage	Two service pumps with a minimum combined capacity of 0.6 gallons per minute (gpm) per connection at each pressure plane.
If providing less than 200 gallons per connection of elevated storage	The lesser of (a) or (b):
	(a) Total pumping capacity of 2.0 gpm per connection
	(b) Total capacity of at least 1,000 gpm and the ability to meet peak hourly demands with the largest pump out of service

Note: Capacity requirement is from 30 TAC §290.45(b)(2)(F)

**Table 3.7** presents the City's existing and projected water demands and storage requirements. Currently, the City has a 22.5 million gallon per month surface water supply take-or-pay contract with a maximum daily rate of 1.5 MGD with the City of Houston, in addition to the three water wells with a total capacity of 5.33 MGD (3,700 gpm) for a total system capacity of 6.83 MGD. According to Chapter 290.45(b)(2)(F), the City is required to supply 0.6 gpm per connection. The required current supply is 2.70 MGD (40% of actual supply) and the City currently has an excess water supply of 4.13 MGD. Based on the projected connections, the water supply need for the year 2025 will increase to 3.29 MGD (48% of actual supply) and the City currently will have an excess water supply of 3.54 MGD.

The existing three water wells, with a capacity of 3,700 gpm, are in service, exercised regularly and available for use at any time. Due to pumpage fees outlined in the *North Harris County Regional Water Authority Groundwater Reduction Plan*, the City utilizes surface water instead of groundwater to reduce water supply cost.

It is recommended that the City of Jersey Village renegotiate the current surface water supply contract with the City of Houston. Over the past three years, the City of Jersey Village has purchased from the City of Houston, a minimum monthly surface water supply of 24.6 MG and experienced a maximum day demand of 3.60 MGD. As a result, FNI recommends that the City of Jersey Village pursue a contract renegotiation with the City of Houston for a minimum of 24.6 million gallons per month take-or-pay with a maximum daily rate of 6.0 MGD. The financial parameters set forth during renegotiation will determine the contractual amounts.

**Table 3.7 System Capacity and Projected Water Demands**

	Projected Water Demands, Pumping & Storage Needs			Current Supply or Capacity	Excess or (Deficient) Capacity		
	2015	2020	2025	2015	2015	2020	2025
Water Production <sup>(1)</sup> (GPD)	2,700,242	2,981,285	3,291,580	1,500,000 <sup>(2)</sup>	(1,200,242)	(1,481,285)	(1,791,580)
Water Production <sup>(3)</sup> (GPD)	2,700,242	2,981,285	3,291,580	6,828,000	4,127,758	3,846,715	3,536,420
Elevated Storage <sup>(4)</sup> (Gal)	312,528	345,056	380,970	750,000	437,472	404,944	369,030
Total Storage <sup>(5)</sup> (Gal)	625,056	690,112	761,940	1,630,000	1,004,944	939,888	868,060
Pumping Capacity <sup>(6)</sup> (gpm)	1,875	2,070	4,958	2,200	325	130	(2,758)

<sup>(1)</sup> Based on standard TCEQ requirement of 0.60 gpm/connection. Using City of Houston surface water supply only.

<sup>(2)</sup> Based on City of Houston water supply contract for 22.5 MG per month with a maximum daily rate of 1.5 MGD.

<sup>(3)</sup> Based on standard TCEQ requirement of 0.60 gpm/connection. Using City of Houston surface water supply and City of Jersey Village wells.

<sup>(4)</sup> Based on standard TCEQ requirement of 100 gallons/connection.

<sup>(5)</sup> Based on standard TCEQ requirement of 200 gallons/connection.

<sup>(6)</sup> Based on current firm pumping capacity at Well Site 1 and TCEQ Pumping Capacity requirements seen in Table 3.6.

According to Chapter 290.45(b)(2)(F), the required pumping capacity is dependent on the elevated storage provided. For the years 2015 and 2020, the City will provide 240 and 217 gallons per connection elevated storage and the City will be required to provide a minimum of 0.6 gpm per connection. For the year 2025, the elevated storage provided will be less than 200 gallons per connections. The City will be required to be able to meet peak hourly demands with the largest pump out of service. In order to satisfy this requirement, it is recommended that a second City of Houston/City of Jersey Village interconnect be added which includes a booster pump station with a minimum of three (3) 1,000 gpm booster pumps in order to meet the TCEQ service pumping requirement through 2025.

The existing ground storage tanks at Water Plant #1, with a total capacity of 880,000 gallons, and two elevated storage tanks, with a total capacity of 750,000 gallons, meet the current TCEQ total and elevated storage requirements. According to the standard TCEQ criteria of 100 gallons/connection elevated storage and 200 gallons/connections total storage, for the year 2025, the total required storage (ground and elevated) will be 0.76 MG and required elevated storage will be 0.38 MG. The City currently has 1.63 MG of total storage and 0.75 MG of elevated storage. Therefore, both the elevated and total storage requirements are met through 2025.

### 3.4 WATER CAPITAL IMPROVEMENTS PLAN

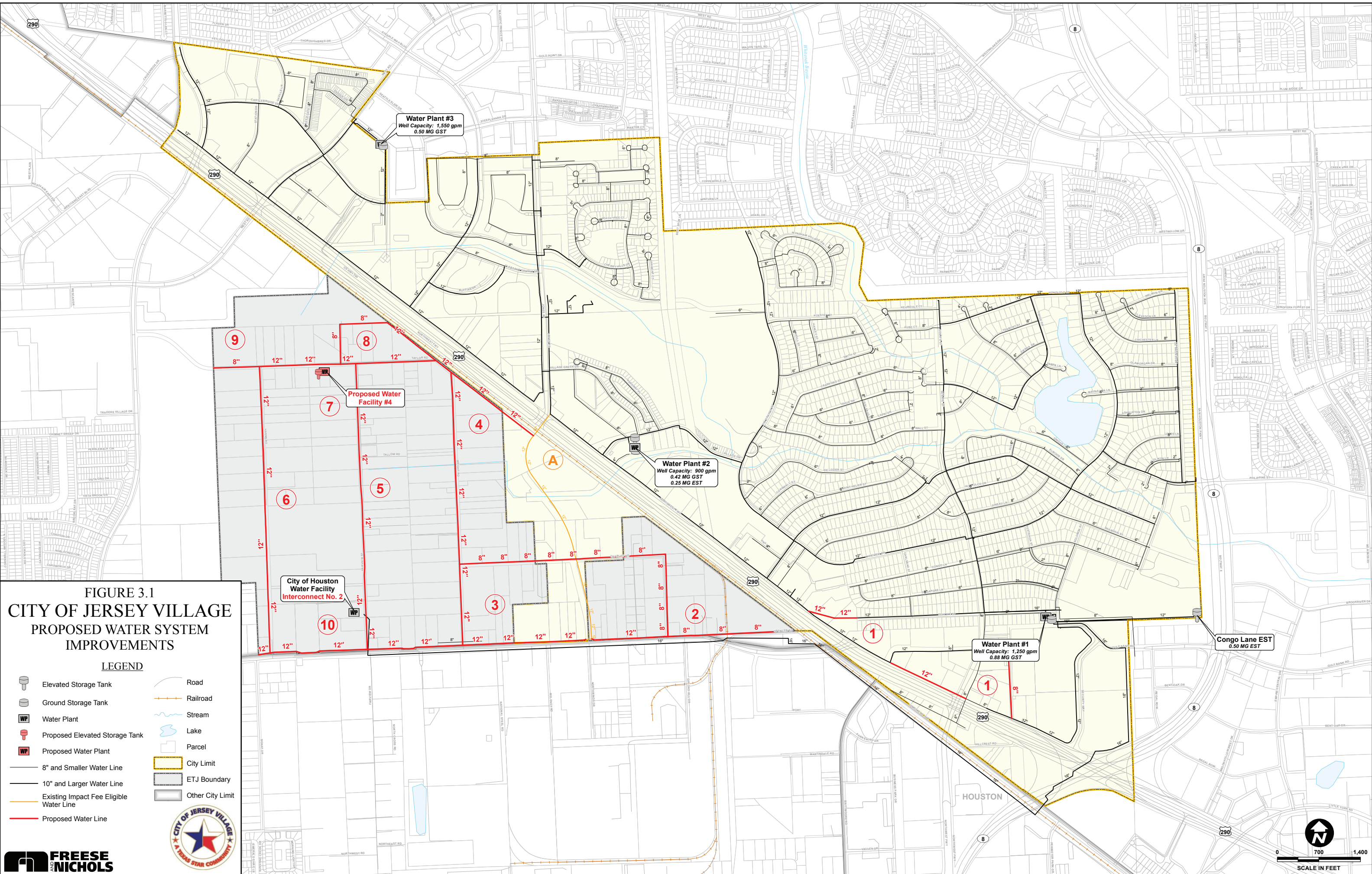
Water system impact fee capital improvements were identified in the City of Jersey Village 2002 Impact Fee Study. FNI utilized the 2015 future land use and updated water demand projections to verify the location and magnitude of the CIP projects.

A summary of the costs for each of the projects required for the 10-year growth period used in the impact fee analysis for the water system is shown in Error! Reference source not found.. Costs listed for the existing projects are based on actual design and construction costs provided by the City. Capacity serving existing development and development projected to occur beyond the 10-year period is not impact fee eligible for this update. Detailed cost estimates for the proposed water system projects are included in **Appendix B**. The costs are in 2015 dollars and include an allowance for engineering, surveying, and contingencies. Cost estimates do not include allowances for right-of-way acquisition. The recommended 10-year water system improvements are shown on **Figure 3.1**.

**Table 3.8 Proposed Water System Impact Fee Eligible Capital Projects**

No.	Description of Project	Capital Cost
<b>EXISTING</b>		
A	46-7102: Jones Rd Extension - Utilities	\$670,000
B	2014 Impact Fee Study	\$30,000
<b>Existing Project Sub-total</b>		<b>\$700,000</b>
<b>PROPOSED</b>		
1	Hwy 290 8" & 12" Water Line	\$605,900
2	FM 529 8" & 12" Water Line	\$847,400
3	Charles Road 8" & 12" Water Line Loop	\$903,900
4	Wright Road 12" Water Line	\$884,600
5	Fairview Street 12" Water Line	\$1,514,600
6	Harms Road 12" Water Line	\$1,711,200
7	Proposed Water Facility #4	\$5,645,700
8	Musgrove Lane 8" & 12" Water Line	\$393,300
9	Taylor Road 8" Water Line Extension	\$103,500
10	City of Houston Interconnect No. 2	\$1,145,400
<b>Proposed Project Sub-total</b>		<b>\$13,755,500</b>
<b>Total Capital Improvements Cost</b>		<b>\$14,455,500</b>





**FIGURE 3.1**  
**CITY OF JERSEY VILLAGE**  
**PROPOSED WATER SYSTEM**  
**IMPROVEMENTS**

**LEGEND**

- Elevated Storage Tank
- Ground Storage Tank
- Water Plant
- Proposed Elevated Storage Tank
- Proposed Water Plant
- 8" and Smaller Water Line
- 10" and Larger Water Line
- Existing Impact Fee Eligible Water Line
- Proposed Water Line
- Road
- Railroad
- Stream
- Lake
- Parcel
- City Limit
- ETJ Boundary
- Other City Limit



Created by Freese and Nichols, Inc.  
 Project: 2015-001  
 Location: Jersey Village, TX  
 Date: 11/15/15

#### **4.0 WASTEWATER SYSTEM CAPITAL IMPROVEMENTS PLAN**

Wastewater system impact fee capital improvements were identified in the City of Jersey Village 2002 Impact Fee Study. FNI utilized the 2015 future land use and updated wastewater load projections to verify the location and magnitude of the CIP projects. The wastewater projects required to meet growth in the 10-year period were used in the impact fee analysis and will provide the required capacity and reliability to meet projected wastewater flows through 2025.

#### **4.1 EXISTING SYSTEM**

There are currently two wastewater treatment plants that serve the City of Jersey Village: Castlebridge and White Oak Bayou Regional. The location of each wastewater treatment plant is presented on **Figure 4.1**. The City of Jersey Village owns 40% of the capacity in the White Oak Bayou Regional plant. The current City of Jersey Village share of the total capacity of the plants is 1.6 MGD. The current permitted capacity and total monthly wastewater flows at each wastewater treatment plant are shown in **Table 4.1**.



**Table 4.1 Historical Wastewater Flow to each WWTP in Million Gallons (2010 – 2014)**

Month	Castlebridge WWTP					White Oak Bayou Regional WWTP				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
January	7.3	6.2	6.2	7.8	8.2	27.3	28.0	29.7	29.9	27.4
February	5.5	5.2	6.7	6.4	7.4	38.1	24.1	30.3	25.2	25.1
March	5.8	5.7	6.5	6.7	8.0	20.8	26.0	29.9	25.8	28.1
April	5.1	5.6	6.7	7.0	7.4	28.6	25.1	26.8	26.7	26.7
May	5.3	5.8	6.8	6.9	8.0	30.7	25.7	24.5	28.1	30.7
June	5.5	5.6	6.7	7.0	7.5	30.2	26.9	33.6	27.2	31.6
July	6.9	5.9	8.1	7.0	7.7	37.4	28.6	34.7	27.5	55.9
August	5.8	5.6	7.0	6.8	7.7	31.2	28.8	27.4	28.7	28.6
September	6.3	5.5	6.8	7.4	8.1	30.6	27.0	28.5	28.0	27.5
October	5.6	6.0	7.0	7.6	8.0	28.4	29.4	27.6	29.4	27.8
November	6.0	5.7	6.7	8.0	8.0	26.0	27.1	25.2	27.3	26.0
December	5.7	6.1	7.3	8.0	9.4	26.1	29.8	27.6	27.4	29.5
<b>Total</b>	<b>70.9</b>	<b>68.9</b>	<b>82.5</b>	<b>86.6</b>	<b>95.6</b>	<b>355.5</b>	<b>326.5</b>	<b>345.7</b>	<b>331.2</b>	<b>364.7</b>
Daily Average	0.19	0.19	0.23	0.24	0.26	0.97	0.89	0.94	0.91	1.00
Permitted Capacity	0.8	0.8	0.8	0.8	0.8	2.0	2.0	2.0	2.0	2.0
Peak 3-mo Avg	0.2	0.2	0.2	0.3	0.3	1.1	1.0	1.1	1.0	1.3
3-mo Avg Permitted Capacity	26%	25%	31%	33%	35%	55%	48%	53%	48%	66%

The TCEQ provides design criteria to be used as minimum guidelines for wastewater collection, treatment, and disposal systems. As part of the permitting requirements, whenever flow measurement for any wastewater treatment plant reaches 75% of the permitted average flow for three consecutive months, design for expansion or upgrading the facility should be initiated. TCEQ recommends that the expansion be under construction when the plant reaches 90% of permitted average flow. Neither of the two WWTPs have exceeded 75% of permitted average flow over the last five years.

Error! Reference source not found. summarizes the 2010 to 2014 Jersey Village wastewater flow contributions to both treatment plants. The flows shown include some infiltration and inflow (I & I) entering the collection system.

**Table 4.2 Total Historical Wastewater Flow in Million Gallons (2010 – 2014)**

Month	2010 <sup>(1)</sup>	2011 <sup>(1)</sup>	2012 <sup>(1)</sup>	2013	2014
January	18.2	17.4	18.1	21.8	15.2
February	20.8	14.9	18.8	17.4	15.4
March	14.2	16.1	18.4	18.7	17.0
April	16.6	15.7	17.4	20.0	15.4
May	17.6	16.1	16.6	18.9	15.0
June	17.6	16.4	20.1	18.0	16.5
July	21.8	17.3	22.0	20.0	21.3
August	18.2	17.1	20.9	18.8	27.9
September	18.6	16.3	18.8	20.4	19.9
October	17.0	17.7	19.0	19.6	19.9
November	16.4	16.6	17.7	18.0	19.0
December	16.1	18.0	19.3	16.0	26.1
<b>Total</b>	<b>213.1</b>	<b>199.5</b>	<b>227.2</b>	<b>227.6</b>	<b>228.8</b>
Daily Average	0.58	0.55	0.62	0.62	0.63
Impact Fee Eligible Population	7,620	7,772	7,928	8,086	8,248
Average Flow (gpcd)	77	70	79	77	76

<sup>(1)</sup> January 2010 – July 2012 approximated as 40% of total White Oak Bayou Regional WWTP effluent flow

Based on the average flows shown in Error! Reference source not found. and an estimated impact fee ligible population of 8,248 in 2014, the per capita wastewater flow is 76 gallons per capita per day (gpcd). This average flow has ranged from 70 to 78 gpcd. **Table 4.3** shows historical wastewater loads.

**Table 4.3 Historical Wastewater Flows**

Year	Wastewater Connections	Average Annual Daily Flow (MGD)	Average Daily Flow (gallons per connection per day)
2010	2,778	0.58	209
2011	2,847	0.55	193
2012	2,954	0.62	210
2013	3,015	0.62	206
2014	3,064	0.63	206
Average	-	0.60	205
Maximum	-	0.63	210

## 4.2 WASTEWATER FLOW PROJECTIONS

Wastewater system impact fee capital improvements were identified in the City of Jersey Village 2002 Impact Fee Study. FNI utilized the 2015 future land use and updated wastewater load projections to verify the location and magnitude of the CIP projects.

The design criteria used to project loads was developed after a review of historical data. Average day per connection loads ranged from 193 to 210 gallons per connection per day. Based on this historical data, an average day flow of 210 gallons per connection per day was selected. Historical wastewater treatment plant flow data indicated the wet weather peaking factor was higher for the White Oak Bayou Service Area. As a result, each wastewater treatment plant service area was assigned a separate wet weather peaking factor. The design criteria for projected wastewater flow calculations are summarized in **Table 4.4**. **Table 4.5** presents the projected wastewater flows for the City of Jersey Village.

**Table 4.4 Projected Wastewater Flow Design Criteria**

Gallons per Connection per Day	Wet Weather Peaking Factor	
	Castlebridge Service Area	White Oak Bayou Service Area
210	3.5	4.0

**Table 4.5 Projected Wastewater Flows**

Year	Castlebridge Service Area			White Oak Bayou Service Area		
	Projected Wastewater Connections <sup>(1)</sup>	Average Annual Daily Flow (MGD)	Peak Wet Weather Flow (MGD)	Projected Wastewater Connections <sup>(1)</sup>	Average Annual Daily Flow (MGD)	Peak Wet Weather Flow (MGD)
2015	1,290	0.27	0.95	1,835	0.39	1.54
2020	1,616	0.34	1.19	1,835	0.39	1.54
2025	1,975	0.41	1.45	1,835	0.39	1.54

<sup>(1)</sup> Assumes growth is served exclusively by the Castlebridge WWTP.

### 4.3 WASTEWATER SYSTEM CAPACITY ANALYSIS

When sizing future gravity sewer lines for future wastewater loading, improvements were sized to prevent surcharging and maintain a minimum velocity of 2 feet/second and a maximum velocity of 8 feet/second utilizing TCEQ minimum slope requirements. Error! Reference source not found. presents the existing and projected wastewater flows for the City versus system capacity. The existing treatment plants will provide sufficient capacity for the City through the year 2025.

**Table 4.6 Wastewater System Capacity and Projected Wastewater Flows**

		Projected Wastewater Load <sup>(1)</sup>			Permitted Capacity	Excess or (Deficient) Capacity		
		2015	2020	2025	2015	2015	2020	2025
White Oak Bayou Regional WWTP	Average Wastewater Flow <sup>(2)</sup> (MGD)	0.39	0.39	0.39	0.80 <sup>(3)</sup>	0.41	0.41	0.41
	Peak 2-hour Wastewater Flow <sup>(2)</sup> (gpm)	1,071	1,071	1,071	2,222 <sup>(4)</sup>	1,152	1,152	1,152
Castlebridge WWTP	Average Wastewater Flow (MGD)	0.27	0.34	0.41	0.80	0.53	0.46	0.39
	Peak 2-hour Wastewater Flow (gpm)	658	825	1,008	1,885	1,227	1,060	877

<sup>(1)</sup> Based on the assumption that growth occurs exclusively in the Castlebridge WWTP Service Area.

<sup>(2)</sup> Based on the percentage of the plant which Jersey Village owns (40%).

<sup>(3)</sup> White Oak Bayou Regional WWTP has a permitted average annual capacity of 2.0 MGD.

<sup>(4)</sup> White Oak Bayou Regional WWTP has a permitted 2-hour peak capacity of 5,556 gpm.

#### 4.4 WASTEWATER CAPITAL IMPROVEMENTS PLAN

Wastewater system impact fee capital improvements were identified in the City of Jersey Village 2002 Impact Fee Study. FNI utilized the 2015 future land use and updated wastewater load projections to verify the location and magnitude of the CIP projects.

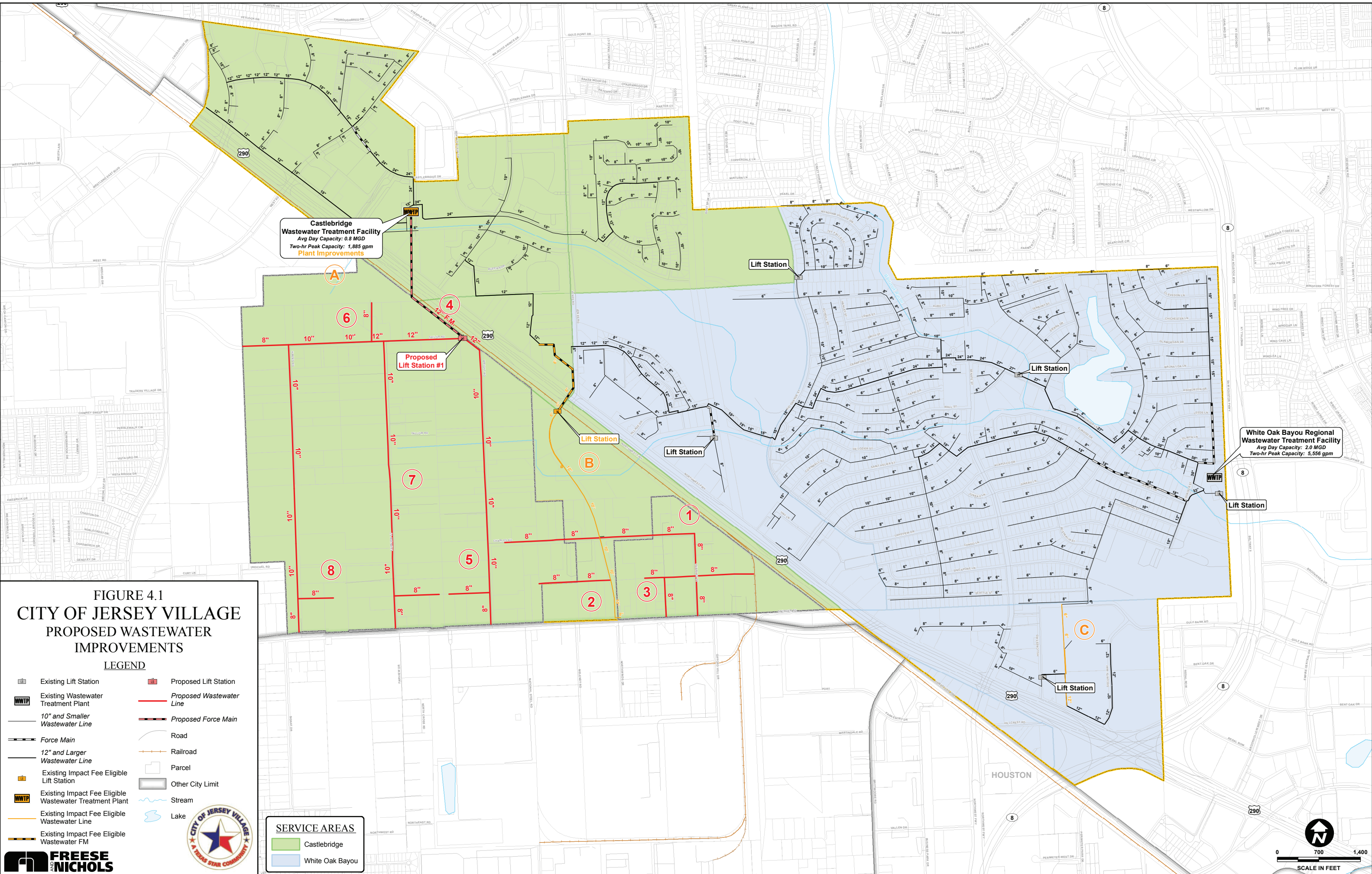
A summary of the costs for each of the projects required for the 10-year growth period used in the impact fee analysis for the wastewater systems is shown in Error! Reference source not found.. Costs listed for the existing projects are based on actual design and construction costs provided by the City. Capacity serving existing development and development projected to occur beyond the 10-year period is not impact fee eligible for this update.

Detailed cost estimates for the proposed water and wastewater system projects are included in **Appendix B**. The costs are in 2015 dollars and include an allowance for engineering, surveying, and contingencies. Cost estimates do not include allowances for right-of-way acquisition. The recommended wastewater system improvements are shown on **Figure 4.1**.

**Table 4.7 Proposed Wastewater System Impact Fee Eligible Capital Projects**

No.	Description of Project	Capital Cost
<b>EXISTING</b>		
A	46-7064: Castlebridge WWTP	\$37,316
B	46-7066: Jones Rd Sewer Extension	\$539,543
C	46-7106: Senate Sewer Extension	\$30,000
D	2014 Impact Fee Study	\$30,000
<b>Existing Project Sub-total</b>		<b>\$636,859</b>
<b>PROPOSED</b>		
1	Charles Road 8" Wastewater Line	\$565,800
2	Jones Road Area 8" Wastewater Line	\$162,900
3	Charles Road Area 8" Wastewater Line	\$317,400
4	Proposed Lift Station #1 & 12" Force Main	\$791,700
5	Wright Road 10" Wastewater Line	\$775,600
6	Taylor Road 8", 10" & 12" Wastewater Line	\$897,000
7	Fairview Street 10" Wastewater Line	\$792,200
8	Harms Road 10" Wastewater Line	\$775,600
<b>Proposed Project Sub-total</b>		<b>\$5,078,200</b>
<b>Total Impact Fee Eligible Capital Improvements Cost</b>		<b>\$5,715,059</b>





**Castlebridge Wastewater Treatment Facility**  
 Avg Day Capacity: 0.8 MGD  
 Two-hr Peak Capacity: 1,885 gpm  
 Plant Improvements

**White Oak Bayou Regional Wastewater Treatment Facility**  
 Avg Day Capacity: 2.0 MGD  
 Two-hr Peak Capacity: 5,556 gpm

**FIGURE 4.1**  
**CITY OF JERSEY VILLAGE**  
**PROPOSED WASTEWATER**  
**IMPROVEMENTS**

**LEGEND**

- Existing Lift Station
- Proposed Lift Station
- Existing Wastewater Treatment Plant
- Proposed Wastewater Line
- 10" and Smaller Wastewater Line
- Proposed Force Main
- Force Main
- 12" and Larger Wastewater Line
- Existing Impact Fee Eligible Lift Station
- Existing Impact Fee Eligible Wastewater Treatment Plant
- Existing Impact Fee Eligible Wastewater Line
- Existing Impact Fee Eligible Wastewater FM
- Road
- Railroad
- Parcel
- Other City Limit
- Stream
- Lake

**SERVICE AREAS**

- Castlebridge
- White Oak Bayou



## 5.0 IMPACT FEE ANALYSIS

The previous impact fee ordinance was adopted in August of 2001. This ordinance set the water and wastewater impact fees for seven areas of the City using a land-use based method. This project updates the 2001 ordinance and calculates the maximum allowable impact fee which could be assessed by the City.

The impact fee analysis involves determining the utilization of existing and proposed projects required as defined by the capital improvement plan to serve new development over the next 10-year time period. For existing or proposed projects, the impact fee is calculated as a percentage of the project cost, based upon the percentage of the project's capacity required to serve development projected to occur between 2015 and 2025. Capacity serving existing development and development projected to occur beyond the 10-year period is not impact fee eligible for this update.

### 5.1 SERVICE UNITS

According to Chapter 395 of the Texas Local Government Code, the maximum impact fee may not exceed the amount determined by dividing the cost of capital improvements required by the total number of service units attributed to new development during the impact fee eligibility period. A water service unit is defined as service equivalent to a water connection for a single-family residence. The City of Jersey Village does not directly meter wastewater flows and bills for wastewater services based on the customer's water consumption. Therefore, a wastewater service unit is defined as the wastewater service provided to a customer with a water connection for a single-family residence.

The service associated with public, commercial, and industrial connections is converted into service units based upon the capacity of the meter used to provide service. The number of service units required to represent each meter size is based on the safe maximum operating capacity of the appropriate meter type. The American Water Works Association (AWWA) provides a safe maximum operating capacity for each meter size – this is the maximum impact a meter of that size can have on the water system. The service unit equivalent is the ratio of the safe maximum operating capacity of the meter in question to the safe maximum operating capacity of a 5/8" meter. The service unit equivalent for each meter size used by the City is listed in **Table 5.1**.

**Table 5.1 Service Unit Equivalencies**

Meter Size	Meter Type	Safe Maximum Operating Capacity <sup>(1)</sup> (gpm)	Service Unit Equivalent
5/8"	Displacement	15	1.0
3/4"	Displacement	25	1.7
1"	Displacement	40	2.7
1-1/4"	Displacement	45	3.0
1-1/2"	Displacement	50	3.3
2"	Compound	160	10.7
3"	Compound	320	21.3
4"	Compound	500	33.3
6"	Compound	1,000	66.7
8"	Compound	1,600	106.7
10"	Compound	2,300	153.3

<sup>(1)</sup> Safe maximum operating capacity is based on AWWA standards C700 and C702

**Table 5.2** shows the water and wastewater service units for 2015 and the projected service units for 2025. Typically, in Jersey Village, single-family residences are served with 5/8-inch water meters. Larger meters represent public, commercial, and industrial water use. The City provided data that included the meter size of each active water meter as of April 2015. The number of water meters by meter size was increased at a rate of 2% per year and the equivalent service units by meter size were calculated using **Table 5.1**.

**Table 5.2 Projected Water & Wastewater Service Units for 2015-2025**

Meter Size	2015 Meters	2015 Service Units	2025 Meters	2025 Service Units	Projected Growth in Service Units
5/8"	2,851	2,851	3,475	3,475	624
3/4"	3	5	4	6	1
1"	127	339	155	413	74
1 1/4"	2	6	2	7	1
1 1/2"	28	93	34	114	21
2"	99	1,056	121	1,287	231
3"	8	171	10	208	37
4"	5	167	6	203	36
6"	2	133	3	200	67
<b>Total</b>	<b>3,125</b>	<b>4,821</b>	<b>3,810</b>	<b>5,913</b>	<b>1,092</b>

**Table 3.7** summarizes the City's existing and projected population, connections and equivalent services units.

**Table 5.3 Projected Population, Connections and ESUs**

	Planning Period	
	2015	2025
Estimated Impact Fee Eligible Population	8,413	10,256
Impact Fee Eligible Connections	3,125	3,810
Impact Fee Eligible Equivalent Service Units (ESUs) <sup>(1)</sup>	4,821	5,913

<sup>(1)</sup> ESUs (Equivalent Service Units) developed using AWWA standards for safe maximum operating capacity.

## 5.2 WATER & WASTEWATER CAPACITY ANALYSIS

Existing and proposed water and wastewater projects were evaluated to determine the proportion of the project that will be utilized within the next 10 years. The 10-year utilization will define the percentage of the project cost that is impact fee eligible. A summary of the project costs required for the 10-year growth period used in the impact fee analysis for both the water and wastewater systems are shown in **Tables 5.4** and **5.5**, respectively. Detailed project costs are included in **Appendix B**. The 2015 percent utilization is the portion of a project's capacity required to serve existing development and is therefore not included in the impact fee analysis. The 2025 percent utilization is the portion of the project's capacity that will be utilized by 2025. The 2015-2025 percent utilization is the portion of the project's capacity required to serve growth from 2015 to 2025. The portion of a project's total cost that is used to serve growth projected to occur from 2015 through 2025 is calculated as the total project cost multiplied by the 2015-2025 percent utilization. Only this portion of the cost is used in the impact fee analysis.

**Table 5.4 Cost Allocation for Water Impact Fee Calculation**

No.	Description of Project	Percent Utilization			Project Cost	Costs Based on 2015 Dollars		
		2015*	2025	2015-2025		Current Development	10-Year (2015-2025)	Beyond 2025
<b>EXISTING</b>								
A	46-7102: Jones Rd Extension - Utilities	0%	60%	60%	\$670,000	\$0	\$402,000	\$268,000
B	2014 Impact Fee Study	0%	100%	100%	\$30,000	\$0	\$30,000	\$0
<b>Existing Project Sub-total</b>					<b>\$700,000</b>	<b>\$0</b>	<b>\$432,000</b>	<b>\$268,000</b>
<b>PROPOSED</b>								
1	Hwy 290 8" & 12" Water Line	0%	80%	80%	\$605,900	\$0	\$484,720	\$121,180
2	FM 529 8" & 12" Water Line	0%	30%	30%	\$847,400	\$0	\$254,220	\$593,180
3	Charles Road 8" & 12" Water Line Loop	0%	20%	20%	\$903,900	\$0	\$180,780	\$723,120
4	Wright Road 12" Water Line	0%	30%	30%	\$884,600	\$0	\$265,380	\$619,220
5	Fairview Street 12" Water Line	0%	30%	30%	\$1,514,600	\$0	\$454,380	\$1,060,220
6	Harms Road 12" Water Line	0%	30%	30%	\$1,711,200	\$0	\$513,360	\$1,197,840
7	Proposed Water Facility #4	0%	30%	30%	\$5,645,700	\$0	\$1,693,710	\$3,951,990
8	Musgrove Lane 8" & 12" Water Line	0%	30%	30%	\$393,300	\$0	\$117,990	\$275,310
9	Taylor Road 8" Water Line Extension	0%	10%	10%	\$103,500	\$0	\$10,350	\$93,150
10	City of Houston Interconnect No. 2	0%	30%	30%	\$1,145,400	\$0	\$343,620	\$801,780
<b>Proposed Project Sub-total</b>					<b>\$13,755,500</b>	<b>\$0</b>	<b>\$4,318,510</b>	<b>\$9,436,990</b>
<b>Total Capital Improvements Cost</b>					<b>\$14,455,500</b>	<b>\$0</b>	<b>\$4,750,510</b>	<b>\$9,704,990</b>

\* Utilization in 2015 on Proposed Projects indicates a portion of the project that will be used to address deficiencies within the existing system, and therefore are not eligible for impact fee cost recovery for future growth.

**Table 5.5 Cost Allocation for Wastewater Impact Fee Calculation**

No.	Description of Project	Percent Utilization			Project Cost	Costs Based on 2015 Dollars		
		2015*	2025	2015-2025		Current Development	10-Year (2015-2025)	Beyond 2025
<b>EXISTING</b>								
A	46-7064: Castlebridge WWTP	25%	100%	75%	\$37,316	\$9,329	\$27,987	\$0
B	46-7066: Jones Rd Sewer Extension	0%	60%	60%	\$539,543	\$0	\$323,726	\$215,817
C	46-7106: Senate Sewer Extension	50%	100%	50%	\$30,000	\$15,000	\$15,000	\$0
D	2014 Impact Fee Study	0%	100%	100%	\$30,000	\$0	\$30,000	\$0
<b>Existing Project Sub-total</b>					<b>\$636,859</b>	<b>\$24,329</b>	<b>\$396,713</b>	<b>\$215,817</b>
<b>PROPOSED</b>								
1	Charles Road 8" Wastewater Line	0%	30%	30%	\$565,800	\$0	\$169,740	\$396,060
2	Jones Road Area 8" Wastewater Line	0%	30%	30%	\$162,900	\$0	\$48,870	\$114,030
3	Charles Road Area 8" Wastewater Line	0%	30%	30%	\$317,400	\$0	\$95,220	\$222,180
4	Proposed Lift Station #1 & 12" Force Main	0%	30%	30%	\$791,700	\$0	\$237,510	\$554,190
5	Wright Road 10" Wastewater Line	0%	20%	20%	\$775,600	\$0	\$155,120	\$620,480
6	Taylor Road 8", 10" & 12" Wastewater Line	0%	30%	30%	\$897,000	\$0	\$269,100	\$627,900
7	Fairview Street 10" Wastewater Line	0%	20%	20%	\$792,200	\$0	\$158,440	\$633,760
8	Harms Road 10" Wastewater Line	0%	20%	20%	\$775,600	\$0	\$155,120	\$620,480
<b>Proposed Project Sub-total</b>					<b>\$5,078,200</b>	<b>\$0</b>	<b>\$1,289,120</b>	<b>\$3,789,080</b>
<b>Total Capital Improvements Cost</b>					<b>\$5,715,059</b>	<b>\$24,329</b>	<b>\$1,685,833</b>	<b>\$4,004,897</b>

\* Utilization in 2015 on Proposed Projects indicates a portion of the project that will be used to address deficiencies within the existing system, and therefore are not eligible for impact fee cost recovery for future growth.

### 5.3 MAXIMUM IMPACT FEE CALCULATION

Chapter 395 of the Texas Local Government Code states that the maximum impact fee may not exceed the amount determined by dividing the cost of capital improvements required by the total number of service units attributed to new development during the impact fee eligibility period.

Chapter 395 also requires that the impact fee, actually charged, be either discounted 50% from the computed maximum fee or establish a reimbursement method for ad valorem tax and utility service revenues generated and take a credit for any debt payment included in the CIP.

The City of Jersey Village has historically used the 50% credit option due to the complexity of tracking impact fees and the implementation of the required reimbursement method. For these reasons, the 50% credit option was used for this study. The total projected costs include the projected capital improvement costs to serve 10-year development, the projected finance cost for the capital improvements, and the consultant cost for preparing and updating the Capital Improvements Plan. A 4.0% interest rate was used to calculate finance costs. Error! Reference source not found. summarizes the total maximum allowable water and wastewater impact fee calculation for each of the two areas. A comparison graph showing impact fees in benchmark cities is presented on **Figure 5.1**.

**Table 5.6 Water & Wastewater Impact Fee Calculation**

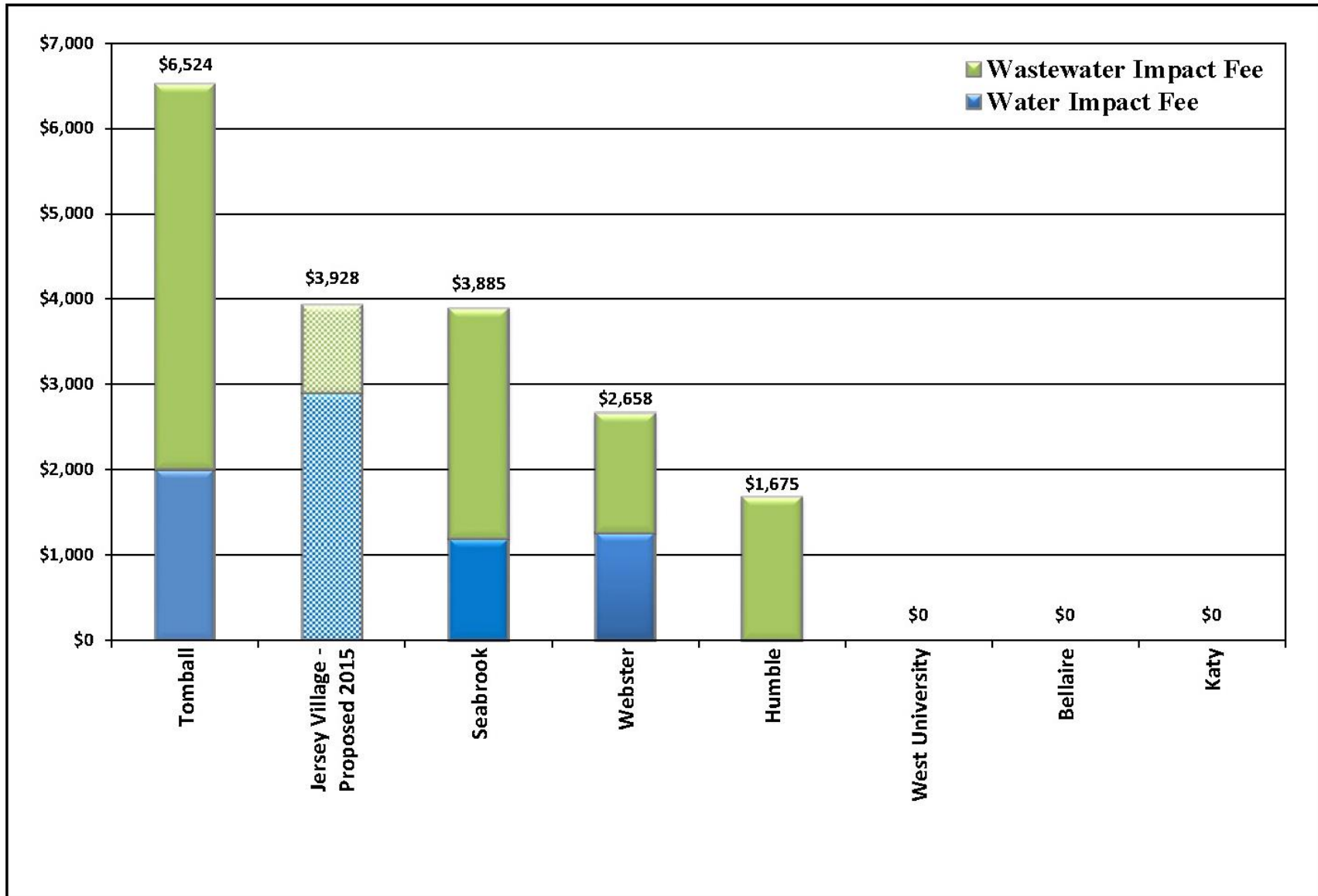
Water Impact Fee	
Total Eligible Capital Improvement Costs	\$4,750,510
Finance Costs	\$1,580,169
Total Eligible Costs with Credit <sup>(1)</sup>	\$3,165,340
Growth in Service Units	1,092
<b>Maximum Allowable Water Impact Fee per Service Unit<sup>(2)</sup>:</b>	<b>\$2,899</b>
Wastewater Impact Fee <sup>(3)</sup>	
Total Eligible Capital Improvement Costs	\$1,685,833
Finance Costs	\$560,761
Total Eligible Costs with Credit <sup>(1)</sup>	\$1,123,297
Growth in Service Units	1,092
<b>Maximum Allowable Wastewater Impact Fee per Service Unit<sup>(2)</sup>:</b>	<b>\$1,029</b>
<b>Total Maximum Allowable Water &amp; Wastewater Impact Fee:</b>	<b>\$3,928</b>

<sup>(1)</sup> 50% of Total Capital Improvement Costs

<sup>(2)</sup> Total Eligible Costs/Growth in Service Units

<sup>(3)</sup> A wastewater impact fee will not be charged for installation of fire or irrigation water meters

**Figure 5.1 Water & Wastewater Impact Fee per Service Unit Comparison**



## **6.0 IMPACT FEE ADOPTION**

### **6.1 PUBLIC HEARING**

The amended Chapter 395 of the Texas Local Government Code requires a public hearing to be held to present any update of the impact fee. The presentation shall include a discussion of the new land use assumptions and capital improvements plan. The public hearing was held on October 19, 2015 at the Jersey Village City Hall. The presentation by Freese and Nichols, Inc. at the public hearing is included in **Appendix C**.

### **6.2 ORDINANCE**

Once the public hearing is held, the political subdivision shall approve or disapprove the amendment of the capital improvement plan and modification of the impact fee within 30 days after the public hearing. At a City Council meeting on October 19, 2015, Council adopted the impact fee update assessment that was presented at the public hearing through Ordinance 2015-33. A copy of the City Ordinance adopting the impact fee update assessment is included in **Appendix D**.



**APPENDIX A**  
**CHAPTER 395, TEXAS LOCAL GOVERNMENT CODE**

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**CHAPTER 395. FINANCING CAPITAL IMPROVEMENTS REQUIRED BY NEW  
DEVELOPMENT IN MUNICIPALITIES, COUNTIES, AND CERTAIN OTHER LOCAL  
GOVERNMENTS**

**SUBCHAPTER A. GENERAL PROVISIONS**

**§ 395.001. Definitions**

In this chapter:

(1) "Capital improvement" means any of the following facilities that have a life expectancy of three or more years and are owned and operated by or on behalf of a political subdivision:

(A) water supply, treatment, and distribution facilities; wastewater collection and treatment facilities; and storm water, drainage, and flood control facilities; whether or not they are located within the service area; and

(B) roadway facilities.

(2) "Capital improvements plan" means a plan required by this chapter that identifies capital improvements or facility expansions for which impact fees may be assessed.

(3) "Facility expansion" means the expansion of the capacity of an existing facility that serves the same function as an otherwise necessary new capital improvement, in order that the existing facility may serve new development. The term does not include the repair, maintenance, modernization, or expansion of an existing facility to better serve existing development.

(4) "Impact fee" means a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development. The term includes amortized charges, lump-sum charges, capital recovery fees, contributions in aid of construction, and any other fee that functions as described by this definition. The term does not include:

(A) dedication of land for public parks or payment in lieu of the dedication to serve park needs;

(B) dedication of rights-of-way or easements or construction or dedication of on-site or off-site water distribution, wastewater collection or drainage facilities, or streets, sidewalks, or curbs if the dedication or construction is required by a valid ordinance and is necessitated by and attributable to the new development;

(C) lot or acreage fees to be placed in trust funds for the purpose of reimbursing developers for oversizing or constructing water or sewer mains or lines; or

(D) other pro rata fees for reimbursement of water or sewer mains or lines extended by the political subdivision.

However, an item included in the capital improvements plan may not be required to be constructed except in accordance with Section 395.019(2), and an owner may not be required to construct or dedicate facilities and to pay impact fees for those facilities.

(5) "Land use assumptions" includes a description of the service area and projections of changes in land uses, densities, intensities, and population in the service area over at least a 10-year period.

(6) "New development" means the subdivision of land; the construction, reconstruction, redevelopment, conversion, structural alteration, relocation, or enlargement of any structure; or any use or extension of the use of land; any of which increases the number of service units.

(7) "Political subdivision" means a municipality, a district or authority created under Article III, Section 52, or Article XVI, Section 59, of the Texas Constitution, or, for the purposes set forth by Section 395.079, certain counties described by that section.

(8) "Roadway facilities" means arterial or collector streets or roads that have been designated on an officially adopted roadway plan of the political subdivision, together with all necessary appurtenances. The term includes the political subdivision's share of costs for roadways and associated improvements designated on the federal or Texas highway system, including local matching funds and costs related to utility line relocation and the establishment of curbs, gutters, sidewalks, drainage appurtenances, and rights-of-way.

(9) "Service area" means the area within the corporate boundaries or extraterritorial jurisdiction, as determined under Chapter 42, of the political subdivision to be served by the capital improvements or facilities expansions specified in the capital improvements plan, except roadway facilities and storm water, drainage, and flood control facilities. The service area, for the purposes of this chapter, may include all or part of the land within the political subdivision or its extraterritorial jurisdiction, except for roadway facilities and storm water, drainage, and flood control facilities. For roadway facilities, the service area is limited to an area within the corporate boundaries of the political subdivision and shall not exceed six miles. For storm water, drainage, and flood control facilities, the service area may include all or part of the land within the political subdivision or its extraterritorial jurisdiction, but shall not exceed the area actually served by the storm water, drainage, and flood control facilities designated in the capital improvements plan and shall not extend across watershed boundaries.

(10) "Service unit" means a standardized measure of consumption, use, generation, or discharge attributable to an individual unit of development calculated in accordance with generally accepted engineering or planning standards and based on historical data and trends applicable to the political subdivision in which the individual unit of development is located during the previous 10 years.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989. Amended by Acts 1989, 71st Leg., ch. 566, § 1(e), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 1, eff. Sept. 1, 2001.

## **SUBCHAPTER B. AUTHORIZATION OF IMPACT FEE**

### **§ 395.011. Authorization of Fee**

(a) Unless otherwise specifically authorized by state law or this chapter, a governmental entity or political subdivision may not enact or impose an impact fee.

(b) Political subdivisions may enact or impose impact fees on land within their corporate boundaries or extraterritorial jurisdictions only by complying with this chapter, except that impact fees may not be enacted or imposed in the extraterritorial jurisdiction for roadway facilities.

(c) A municipality may contract to provide capital improvements, except roadway facilities, to an area outside its corporate boundaries and extraterritorial jurisdiction and may charge an impact fee under the contract, but if an impact fee is charged in that area, the municipality must comply with this chapter.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.012. Items Payable by Fee**

(a) An impact fee may be imposed only to pay the costs of constructing capital improvements or facility expansions, including and limited to the:

(1) construction contract price;

(2) surveying and engineering fees;

(3) land acquisition costs, including land purchases, court awards and costs, attorney's fees, and expert witness fees; and

(4) fees actually paid or contracted to be paid to an independent qualified engineer or financial consultant preparing or updating the capital improvements plan who is not an employee of the political subdivision.

(b) Projected interest charges and other finance costs may be included in determining the amount of impact fees only if the impact fees are used for the payment of principal and interest on bonds, notes, or other obligations issued by or on behalf of the political subdivision to finance the capital improvements or facility expansions identified in the capital improvements plan and are not used to reimburse bond funds expended for facilities that are not identified in the capital improvements plan.

(c) Notwithstanding any other provision of this chapter, the Edwards Underground Water District or a river authority that is authorized elsewhere by state law to charge fees that function as impact fees may use impact fees to pay a staff engineer who prepares or updates a capital improvements plan under this chapter.

(d) A municipality may pledge an impact fee as security for the payment of debt service on a bond, note, or other obligation issued to finance a capital improvement or public facility expansion if:

(1) the improvement or expansion is identified in a capital improvements plan; and

(2) at the time of the pledge, the governing body of the municipality certifies in a written order, ordinance, or resolution that none of the impact fee will be used or expended for an improvement or expansion not identified in the plan.

(e) A certification under Subsection (d)(2) is sufficient evidence that an impact fee pledged will not be used or expended for an improvement or expansion that is not identified in the capital improvements plan.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989. Amended by Acts 1995, 74th Leg., ch. 90, § 1, eff. May 16, 1995.

### **§ 395.013. Items Not Payable by Fee**

Impact fees may not be adopted or used to pay for:

(1) construction, acquisition, or expansion of public facilities or assets other than capital improvements or facility expansions identified in the capital improvements plan;

(2) repair, operation, or maintenance of existing or new capital improvements or facility expansions;

(3) upgrading, updating, expanding, or replacing existing capital improvements to serve existing development in order to meet stricter safety, efficiency, environmental, or regulatory standards;

(4) upgrading, updating, expanding, or replacing existing capital improvements to provide better service to existing development;

(5) administrative and operating costs of the political subdivision, except the Edwards Underground Water District or a river authority that is authorized elsewhere by state law to charge fees that function as impact fees may use impact fees to pay its administrative and operating costs;

(6) principal payments and interest or other finance charges on bonds or other indebtedness, except as allowed by Section 395.012.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.014. Capital Improvements Plan**

(a) The political subdivision shall use qualified professionals to prepare the capital improvements plan and to calculate the impact fee. The capital improvements plan must contain specific enumeration of the following items:

(1) a description of the existing capital improvements within the service area and the costs to upgrade, update, improve, expand, or replace the improvements to meet existing needs and usage and stricter safety, efficiency, environmental, or regulatory standards, which shall be prepared by a qualified professional engineer licensed to perform the professional engineering services in this state;

(2) an analysis of the total capacity, the level of current usage, and commitments for usage of capacity of the existing capital improvements, which shall be prepared by a qualified professional engineer licensed to perform the professional engineering services in this state;

(3) a description of all or the parts of the capital improvements or facility expansions and their costs necessitated by and attributable to new development in the service area based on the approved land use assumptions, which shall be prepared by a qualified professional engineer licensed to perform the professional engineering services in this state;

(4) a definitive table establishing the specific level or quantity of use, consumption, generation, or discharge of a service unit for each category of capital improvements or facility expansions and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, and industrial;

(5) the total number of projected service units necessitated by and attributable to new development within the service area based on the approved land use assumptions and calculated in accordance with generally accepted engineering or planning criteria;

(6) the projected demand for capital improvements or facility expansions required by new service units projected over a reasonable period of time, not to exceed 10 years; and

(7) 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 are 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.

(b) The analysis required by Subsection (a)(3) may be prepared on a systemwide basis within the service area for each major category of capital improvement or facility expansion for the designated service area.

(c) The governing body of the political subdivision is responsible for supervising the implementation of the capital improvements plan in a timely manner.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 2, eff. Sept. 1, 2001.

### **§ 395.015. Maximum Fee Per Service Unit**

(a) The impact fee per service unit may not exceed the amount determined by subtracting the amount in Section 395.014(a)(7) from the costs of the capital improvements described by Section 395.014(a)(3) and dividing that amount by the total number of projected service units described by Section 395.014(a)(5).

(b) If the number of new service units projected over a reasonable period of time is less than the total number of new service units shown by the approved land use assumptions at full development of the service area, the maximum impact fee per service unit shall be calculated by dividing the costs of the part of the capital improvements necessitated by and attributable to projected new service units described by Section 395.014(a)(6) by the projected new service units described in that section.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 3, eff. Sept. 1, 2001.

### **§ 395.016. Time for Assessment and Collection of Fee**

(a) This subsection applies only to impact fees adopted and land platted before June 20, 1987. For land that has been platted in accordance with Subchapter A, Chapter 212, or the subdivision or platting procedures of a political subdivision before June 20, 1987, or land on which new development occurs or is proposed without platting, the political subdivision may assess the impact fees at any time during the development approval and building process. Except as provided by Section 395.019, the political subdivision may collect the fees at either the time of recordation of the subdivision plat or connection to the political subdivision's water or sewer system or at the time the political subdivision issues either the building permit or the certificate of occupancy.

(b) This subsection applies only to impact fees adopted before June 20, 1987, and land platted after that date. For new development which is platted in accordance with Subchapter A, Chapter 212, or the subdivision or platting procedures of a political subdivision after June 20, 1987, the political subdivision may assess the impact fees before or at the time of recordation. Except as provided by Section 395.019, the political subdivision may collect the fees at either the time of recordation of the subdivision plat or connection to the political subdivision's water or sewer system or at the time the political subdivision issues either the building permit or the certificate of occupancy.

(c) This subsection applies only to impact fees adopted after June 20, 1987. For new development which is platted in accordance with Subchapter A, Chapter 212, or the subdivision or platting procedures of a political subdivision before the adoption of an impact fee, an impact fee may not be collected on any service unit for which a valid building permit is issued within one year after the date of adoption of the impact fee.

(d) This subsection applies only to land platted in accordance with Subchapter A, Chapter 212, or the subdivision or platting procedures of a political subdivision after adoption of an impact fee adopted after June 20, 1987. The political subdivision shall assess the impact fees before or at the time of recordation of a subdivision plat or other plat under Subchapter A, Chapter 212, or the subdivision or platting ordinance or procedures of any political subdivision in the official records of the county clerk of the county in which the tract is located. Except as provided by Section 395.019, if the political subdivision has water and wastewater capacity available:

(1) the political subdivision shall collect the fees at the time the political subdivision issues a building permit;

(2) for land platted outside the corporate boundaries of a municipality, the municipality shall collect the fees at the time an application for an individual meter connection to the municipality's water or wastewater system is filed; or

(3) a political subdivision that lacks authority to issue building permits in the area where the impact fee applies shall collect the fees at the time an application is filed for an individual meter connection to the political subdivision's water or wastewater system.

(e) For land on which new development occurs or is proposed to occur without platting, the political subdivision may assess the impact fees at any time during the development and building process and may collect the fees at either the time of recordation of the subdivision plat or connection to the political subdivision's water or sewer system or at the time the political subdivision issues either the building permit or the certificate of occupancy.

(f) An "assessment" means a determination of the amount of the impact fee in effect on the date of occurrence provided in this section and is the maximum amount that can be charged per service unit of such development. No specific act by the political subdivision is required.

(g) Notwithstanding Subsections (a)-(e) and Section 395.017, the political subdivision may reduce or waive an impact fee for any service unit that would qualify as affordable housing under 42 U.S.C. Section 12745, as amended, once the service unit is constructed. If affordable housing as defined by 42 U.S.C. Section 12745, as amended, is not constructed, the political subdivision may reverse its decision to waive or reduce the impact fee, and the political subdivision may assess an impact fee at any time during the development approval or building process or after the building process if an impact fee was not already assessed.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989. Amended by Acts 1997, 75th Leg., ch. 980, § 52, eff. Sept. 1, 1997.

Amended by Acts 2001, 77th Leg., ch. 345, § 4, eff. Sept. 1, 2001.

### **§ 395.017. Additional Fee Prohibited; Exception**

After assessment of the impact fees attributable to the new development or execution of an agreement for payment of impact fees, additional impact fees or increases in fees may not be assessed against the tract for any reason unless the number of service units to be developed on the tract increases. In the event of the increase in the number of service units, the impact fees to be imposed are limited to the amount attributable to the additional service units.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.018. Agreement With Owner Regarding Payment**

A political subdivision is authorized to enter into an agreement with the owner of a tract of land for which the plat has been recorded providing for the time and method of payment of the impact fees.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.



### **§ 395.019. Collection of Fees if Services Not Available**

Except for roadway facilities, impact fees may be assessed but may not be collected in areas where services are not currently available unless:

(1) the collection is made to pay for a capital improvement or facility expansion that has been identified in the capital improvements plan and the political subdivision commits to commence construction within two years, under duly awarded and executed contracts or commitments of staff time covering substantially all of the work required to provide service, and to have the service available within a reasonable period of time considering the type of capital improvement or facility expansion to be constructed, but in no event longer than five years;

(2) the political subdivision agrees that the owner of a new development may construct or finance the capital improvements or facility expansions and agrees that the costs incurred or funds advanced will be credited against the impact fees otherwise due from the new development or agrees to reimburse the owner for such costs from impact fees paid from other new developments that will use such capital improvements or facility expansions, which fees shall be collected and reimbursed to the owner at the time the other new development records its plat; or

(3) an owner voluntarily requests the political subdivision to reserve capacity to serve future development, and the political subdivision and owner enter into a valid written agreement.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.020. Entitlement to Services**

Any new development for which an impact fee has been paid is entitled to the permanent use and benefit of the services for which the fee was exacted and is entitled to receive immediate service from any existing facilities with actual capacity to serve the new service units, subject to compliance with other valid regulations.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.021. Authority of Political Subdivisions to Spend Funds to Reduce Fees**

Political subdivisions may spend funds from any lawful source to pay for all or a part of the capital improvements or facility expansions to reduce the amount of impact fees.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.022. Authority of Political Subdivision to Pay Fees**

Political subdivisions and other governmental entities may pay impact fees imposed under this chapter.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.023. Credits Against Roadway Facilities Fees**

Any construction of, contributions to, or dedications of off-site roadway facilities agreed to or required by a political subdivision as a condition of development approval shall be credited against roadway facilities impact fees otherwise due from the development.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.024. Accounting For Fees and Interest**

(a) The order, ordinance, or resolution levying an impact fee must provide that all funds collected through the adoption of an impact fee shall be deposited in interest-bearing accounts clearly identifying the category of capital improvements or facility expansions within the service area for which the fee was adopted.

(b) Interest earned on impact fees is considered funds of the account on which it is earned and is subject to all restrictions placed on use of impact fees under this chapter.

(c) Impact fee funds may be spent only for the purposes for which the impact fee was imposed as shown by the capital improvements plan and as authorized by this chapter.

(d) The records of the accounts into which impact fees are deposited shall be open for public inspection and copying during ordinary business hours.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.025. Refunds**

(a) On the request of an owner of the property on which an impact fee has been paid, the political subdivision shall refund the impact fee if existing facilities are available and service is denied or the political subdivision has, after collecting the fee when service was not available, failed to commence construction within two years or service is not available within a reasonable period considering the type of capital improvement or facility expansion to be constructed, but in no event later than five years from the date of payment under Section 395.019(1).

(b) Repealed by Acts 2001, 77th Leg., ch. 345, § 9, eff. Sept. 1, 2001.

(c) The political subdivision shall refund any impact fee or part of it that is not spent as authorized by this chapter within 10 years after the date of payment.

(d) Any refund shall bear interest calculated from the date of collection to the date of refund at the statutory rate as set forth in Section 302.002, Finance Code, or its successor statute.

(e) All refunds shall be made to the record owner of the property at the time the refund is paid. However, if the impact fees were paid by another political subdivision or governmental entity, payment shall be made to the political subdivision or governmental entity.

(f) The owner of the property on which an impact fee has been paid or another political subdivision or governmental entity that paid the impact fee has standing to sue for a refund under this section.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989. Amended by Acts 1997, 75th Leg., ch. 1396, § 37, eff. Sept. 1, 1997.

Amended by Acts 1999, 76th Leg., ch. 62, § 7.82, eff. Sept. 1, 1999; Acts 2001, 77th Leg., ch. 345, § 9, eff. Sept. 1, 2001.

## **SUBCHAPTER C. PROCEDURES FOR ADOPTION OF IMPACT FEE**

### **§ 395.041. Compliance With Procedures Required**

Except as otherwise provided by this chapter, a political subdivision must comply with this subchapter to levy an impact fee.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.0411. Capital Improvements Plan**

The political subdivision shall provide for a capital improvements plan to be developed by qualified professionals using generally accepted engineering and planning practices in accordance with Section 395.014.

Added by Acts 2001, 77th Leg., ch. 345, § 5, eff. Sept. 1, 2001.

### **§ 395.042. Hearing on Land Use Assumptions and Capital Improvements Plan**

To impose an impact fee, a political subdivision must adopt an order, ordinance, or resolution establishing a public hearing date to consider the land use assumptions and capital improvements plan for the designated service area.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 5, eff. Sept. 1, 2001.

### **§ 395.043. Information About Land Use Assumptions and Capital Improvements Plan Available to Public**

On or before the date of the first publication of the notice of the hearing on the land use assumptions and capital improvements plan, the political subdivision shall make available to the public its land use assumptions, the time period of the projections, and a description of the capital improvement facilities that may be proposed.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 5, eff. Sept. 1, 2001.

**§ 395.044. Notice of Hearing on Land Use Assumptions and Capital Improvements Plan**

(a) Before the 30th day before the date of the hearing on the land use assumptions and capital improvements plan, the political subdivision shall send a notice of the hearing by certified mail to any person who has given written notice by certified or registered mail to the municipal secretary or other designated official of the political subdivision requesting notice of the hearing within two years preceding the date of adoption of the order, ordinance, or resolution setting the public hearing.

(b) The political subdivision shall publish notice of the hearing before the 30th day before the date set for the hearing, in one or more newspapers of general circulation in each county in which the political subdivision lies. However, a river authority that is authorized elsewhere by state law to charge fees that function as impact fees may publish the required newspaper notice only in each county in which the service area lies.

(c) The notice must contain:

(1) a headline to read as follows:

"NOTICE OF PUBLIC HEARING ON LAND USE ASSUMPTIONS AND CAPITAL  
IMPROVEMENTS PLAN RELATING TO POSSIBLE ADOPTION OF IMPACT FEES"

(2) the time, date, and location of the hearing;

(3) a statement that the purpose of the hearing is to consider the land use assumptions and capital improvements plan under which an impact fee may be imposed; and

(4) a statement that any member of the public has the right to appear at the hearing and present evidence for or against the land use assumptions and capital improvements plan.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 5, eff. Sept. 1, 2001.

**§ 395.045. Approval of Land Use Assumptions and Capital Improvements Plan Required**

(a) After the public hearing on the land use assumptions and capital improvements plan, the political subdivision shall determine whether to adopt or reject an ordinance, order, or resolution approving the land use assumptions and capital improvements plan.

(b) The political subdivision, within 30 days after the date of the public hearing, shall approve or disapprove the land use assumptions and capital improvements plan.

(c) An ordinance, order, or resolution approving the land use assumptions and capital improvements plan may not be adopted as an emergency measure.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 5, eff. Sept. 1, 2001.

**§ 395.0455. Systemwide Land Use Assumptions**

(a) In lieu of adopting land use assumptions for each service area, a political subdivision may, except for storm water, drainage, flood control, and roadway facilities, adopt systemwide land use assumptions, which cover all of the area subject to the jurisdiction of the political subdivision for the purpose of imposing impact fees under this chapter.

(b) Prior to adopting systemwide land use assumptions, a political subdivision shall follow the public notice, hearing, and other requirements for adopting land use assumptions.

(c) After adoption of systemwide land use assumptions, a political subdivision is not required to adopt additional land use assumptions for a service area for water supply, treatment, and distribution facilities or wastewater collection and treatment facilities as a prerequisite to the adoption of a capital improvements plan or impact fee, provided the capital improvements plan and impact fee are consistent with the systemwide land use assumptions.

Added by Acts 1989, 71st Leg., ch. 566, § 1(b), eff. Aug. 28, 1989.

**§ 395.047. Hearing on Impact Fee**

On adoption of the land use assumptions and capital improvements plan, the governing body shall adopt an order or resolution setting a public hearing to discuss the imposition of the impact fee. The public hearing must be held by the governing body of the political subdivision to discuss the proposed ordinance, order, or resolution imposing an impact fee.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 5, eff. Sept. 1, 2001.

**§ 395.049. Notice of Hearing on Impact Fee**

(a) Before the 30th day before the date of the hearing on the imposition of an impact fee, the political subdivision shall send a notice of the hearing by certified mail to any person who has given written notice by certified or registered mail to the municipal secretary or other designated official of the political subdivision requesting notice of the hearing within two years preceding the date of adoption of the order or resolution setting the public hearing.

(b) The political subdivision shall publish notice of the hearing before the 30th day before the date set for the hearing, in one or more newspapers of general circulation in each county in which the political subdivision lies. However, a river authority that is authorized elsewhere by state law to charge fees that function as impact fees may publish the required newspaper notice only in each county in which the service area lies.

(c) The notice must contain the following:

(1) a headline to read as follows:

"NOTICE OF PUBLIC HEARING ON ADOPTION OF IMPACT FEES"

- (2) the time, date, and location of the hearing;
- (3) a statement that the purpose of the hearing is to consider the adoption of an impact fee;
- (4) the amount of the proposed impact fee per service unit; and
- (5) a statement that any member of the public has the right to appear at the hearing and present evidence for or against the plan and proposed fee.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 5, eff. Sept. 1, 2001.

#### **§ 395.050. Advisory Committee Comments on Impact Fees**

The advisory committee created under Section 395.058 shall file its written comments on the proposed impact fees before the fifth business day before the date of the public hearing on the imposition of the fees.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 5, eff. Sept. 1, 2001.

#### **§ 395.051. Approval of Impact Fee Required**

(a) The political subdivision, within 30 days after the date of the public hearing on the imposition of an impact fee, shall approve or disapprove the imposition of an impact fee.

(b) An ordinance, order, or resolution approving the imposition of an impact fee may not be adopted as an emergency measure.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 5, eff. Sept. 1, 2001.

#### **§ 395.052. Periodic Update of Land Use Assumptions and Capital Improvements Plan Required**

(a) A political subdivision imposing an impact fee shall update the land use assumptions and capital improvements plan at least every five years. The initial five-year period begins on the day the capital improvements plan is adopted.

(b) The political subdivision shall review and evaluate its current land use assumptions and shall cause an update of the capital improvements plan to be prepared in accordance with Subchapter B.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 6, eff. Sept. 1, 2001.

**§ 395.053. Hearing on Updated Land Use Assumptions and Capital Improvements Plan**

The governing body of the political subdivision shall, within 60 days after the date it receives the update of the land use assumptions and the capital improvements plan, adopt an order setting a public hearing to discuss and review the update and shall determine whether to amend the plan.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

**§ 395.054. Hearing on Amendments to Land Use Assumptions, Capital Improvements Plan, or Impact Fee**

A public hearing must be held by the governing body of the political subdivision to discuss the proposed ordinance, order, or resolution amending land use assumptions, the capital improvements plan, or the impact fee. On or before the date of the first publication of the notice of the hearing on the amendments, the land use assumptions and the capital improvements plan, including the amount of any proposed amended impact fee per service unit, shall be made available to the public.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

**§ 395.055. Notice of Hearing on Amendments to Land Use Assumptions, Capital Improvements Plan, or Impact Fee**

(a) The notice and hearing procedures prescribed by Sections 395.044(a) and (b) apply to a hearing on the amendment of land use assumptions, a capital improvements plan, or an impact fee.

(b) The notice of a hearing under this section must contain the following:

(1) a headline to read as follows:

"NOTICE OF PUBLIC HEARING ON AMENDMENT OF IMPACT FEES"

(2) the time, date, and location of the hearing;

(3) a statement that the purpose of the hearing is to consider the amendment of land use assumptions and a capital improvements plan and the imposition of an impact fee; and

(4) a statement that any member of the public has the right to appear at the hearing and present evidence for or against the update.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 345, § 7, eff. Sept. 1, 2001.

### **§ 395.056. Advisory Committee Comments on Amendments**

The advisory committee created under Section 395.058 shall file its written comments on the proposed amendments to the land use assumptions, capital improvements plan, and impact fee before the fifth business day before the date of the public hearing on the amendments.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.057. Approval of Amendments Required**

(a) The political subdivision, within 30 days after the date of the public hearing on the amendments, shall approve or disapprove the amendments of the land use assumptions and the capital improvements plan and modification of an impact fee.

(b) An ordinance, order, or resolution approving the amendments to the land use assumptions, the capital improvements plan, and imposition of an impact fee may not be adopted as an emergency measure.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.0575. Determination That No Update of Land Use Assumptions, Capital Improvements Plan or Impact Fees is Needed**

(a) If, at the time an update under Section 395.052 is required, the governing body determines that no change to the land use assumptions, capital improvements plan, or impact fee is needed, it may, as an alternative to the updating requirements of Sections 395.052-395.057, do the following:

(1) The governing body of the political subdivision shall, upon determining that an update is unnecessary and 60 days before publishing the final notice under this section, send notice of its determination not to update the land use assumptions, capital improvements plan, and impact fee by certified mail to any person who has, within two years preceding the date that the final notice of this matter is to be published, give written notice by certified or registered mail to the municipal secretary or other designated official of the political subdivision requesting notice of hearings related to impact fees. The notice must contain the information in Subsections (b)(2)-(5).

(2) The political subdivision shall publish notice of its determination once a week for three consecutive weeks in one or more newspapers with general circulation in each county in which the political subdivision lies. However, a river authority that is authorized elsewhere by state law to charge fees that function as impact fees may publish the required newspaper notice only in each county in which the service area lies. The notice of public hearing may not be in the part of the paper in which legal notices and classified ads appear and may not be smaller than one-quarter page of a standard-size or tabloid-size newspaper, and the headline on the notice must be in 18-point or larger type.



(b) The notice must contain the following:

(1) a headline to read as follows:

"NOTICE OF DETERMINATION NOT TO UPDATE  
LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS  
PLAN, OR IMPACT FEES";

(2) a statement that the governing body of the political subdivision has determined that no change to the land use assumptions, capital improvements plan, or impact fee is necessary;

(3) an easily understandable description and a map of the service area in which the updating has been determined to be unnecessary;

(4) a statement that if, within a specified date, which date shall be at least 60 days after publication of the first notice, a person makes a written request to the designated official of the political subdivision requesting that the land use assumptions, capital improvements plan, or impact fee be updated, the governing body must comply with the request by following the requirements of Sections 395.052-395.057; and

(5) a statement identifying the name and mailing address of the official of the political subdivision to whom a request for an update should be sent.

(c) The advisory committee shall file its written comments on the need for updating the land use assumptions, capital improvements plans, and impact fee before the fifth business day before the earliest notice of the government's decision that no update is necessary is mailed or published.

(d) If, by the date specified in Subsection (b)(4), a person requests in writing that the land use assumptions, capital improvements plan, or impact fee be updated, the governing body shall cause an update of the land use assumptions and capital improvements plan to be prepared in accordance with Sections 395.052-395.057.

(e) An ordinance, order, or resolution determining the need for updating land use assumptions, a capital improvements plan, or an impact fee may not be adopted as an emergency measure.

Added by Acts 1989, 71st Leg., ch. 566, § 1(d), eff. Aug. 28, 1989.

**§ 395.058. Advisory Committee**

(a) On or before the date on which the order, ordinance, or resolution is adopted under Section 395.042, the political subdivision shall appoint a capital improvements advisory committee.

(b) The advisory committee is composed of not less than five members who shall be appointed by a majority vote of the governing body of the political subdivision. Not less than 40 percent of the membership of the advisory committee must be representatives of the real estate, development, or building industries who are not employees or officials of a political subdivision or governmental entity.

If the political subdivision has a planning and zoning commission, the commission may act as the advisory committee if the commission includes at least one representative of the real estate, development, or building industry who is not an employee or official of a political subdivision or governmental entity. If no such representative is a member of the planning and zoning commission, the commission may still act as the advisory committee if at least one such representative is appointed by the political subdivision as an ad hoc voting member of the planning and zoning commission when it acts as the advisory committee. If the impact fee is to be applied in the extraterritorial jurisdiction of the political subdivision, the membership must include a representative from that area.

(c) The advisory committee serves in an advisory capacity and is established to:

(1) advise and assist the political subdivision in adopting land use assumptions;

(2) review the capital improvements plan and file written comments;

(3) monitor and evaluate implementation of the capital improvements plan;

(4) file semiannual reports with respect to the progress of the capital improvements plan and report to the political subdivision any perceived inequities in implementing the plan or imposing the impact fee; and

(5) advise the political subdivision of the need to update or revise the land use assumptions, capital improvements plan, and impact fee.

(d) The political subdivision shall make available to the advisory committee any professional reports with respect to developing and implementing the capital improvements plan.

(e) The governing body of the political subdivision shall adopt procedural rules for the advisory committee to follow in carrying out its duties.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

## **SUBCHAPTER D. OTHER PROVISIONS**

### **§ 395.071. Duties to be Performed Within Time Limits**

If the governing body of the political subdivision does not perform a duty imposed under this chapter within the prescribed period, a person who has paid an impact fee or an owner of land on which an impact fee has been paid has the right to present a written request to the governing body of the political subdivision stating the nature of the unperformed duty and requesting that it be performed within 60 days after the date of the request. If the governing body of the political subdivision finds that the duty is required under this chapter and is late in being performed, it shall cause the duty to commence within 60 days after the date of the request and continue until completion.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.072. Records of Hearings**

A record must be made of any public hearing provided for by this chapter. The record shall be maintained and be made available for public inspection by the political subdivision for at least 10 years after the date of the hearing.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.073. Cumulative Effect of State and Local Restrictions**

Any state or local restrictions that apply to the imposition of an impact fee in a political subdivision where an impact fee is proposed are cumulative with the restrictions in this chapter.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.074. Prior Impact Fees Replaced by Fees Under This Chapter**

An impact fee that is in place on June 20, 1987, must be replaced by an impact fee made under this chapter on or before June 20, 1990. However, any political subdivision having an impact fee that has not been replaced under this chapter on or before June 20, 1988, is liable to any party who, after June 20, 1988, pays an impact fee that exceeds the maximum permitted under Subchapter B by more than 10 percent for an amount equal to two times the difference between the maximum impact fee allowed and the actual impact fee imposed, plus reasonable attorney's fees and court costs.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.075. No Effect on Taxes or Other Charges**

This chapter does not prohibit, affect, or regulate any tax, fee, charge, or assessment specifically authorized by state law.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.076. Moratorium on Development Prohibited**

A moratorium may not be placed on new development for the purpose of awaiting the completion of all or any part of the process necessary to develop, adopt, or update land use assumptions, a capital improvements plan, or an impact fee.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 441, § 2, eff. Sept. 1, 2001.

### **§ 395.077. Appeals**

(a) A person who has exhausted all administrative remedies within the political subdivision and who is aggrieved by a final decision is entitled to trial de novo under this chapter.

(b) A suit to contest an impact fee must be filed within 90 days after the date of adoption of the ordinance, order, or resolution establishing the impact fee.

(c) Except for roadway facilities, a person who has paid an impact fee or an owner of property on which an impact fee has been paid is entitled to specific performance of the services by the political subdivision for which the fee was paid.

(d) This section does not require construction of a specific facility to provide the services.

(e) Any suit must be filed in the county in which the major part of the land area of the political subdivision is located. A successful litigant shall be entitled to recover reasonable attorney's fees and court costs.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.078. Substantial Compliance With Notice Requirements**

An impact fee may not be held invalid because the public notice requirements were not complied with if compliance was substantial and in good faith.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

### **§ 395.079. Impact Fee for Storm Water, Drainage, and Flood Control in Populous County**

(a) Any county that has a population of 3.3 million or more or that borders a county with a population of 3.3 million or more, and any district or authority created under Article XVI, Section 59, of the Texas Constitution within any such county that is authorized to provide storm water, drainage, and flood control facilities, is authorized to impose impact fees to provide storm water, drainage, and flood control improvements necessary to accommodate new development.

(b) The imposition of impact fees authorized by Subsection (a) is exempt from the requirements of Sections 395.025, 395.052-395.057, and 395.074 unless the political subdivision proposes to increase the impact fee.

(c) Any political subdivision described by Subsection (a) is authorized to pledge or otherwise contractually obligate all or part of the impact fees to the payment of principal and interest on bonds, notes, or other obligations issued or incurred by or on behalf of the political subdivision and to the payment of any other contractual obligations.

(d) An impact fee adopted by a political subdivision under Subsection (a) may not be reduced if:

(1) the political subdivision has pledged or otherwise contractually obligated all or part of the impact fees to the payment of principal and interest on bonds, notes, or other obligations issued by or on behalf of the political subdivision; and

(2) the political subdivision agrees in the pledge or contract not to reduce the impact fees during the term of the bonds, notes, or other contractual obligations.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989.

Amended by Acts 2001, 77th Leg., ch. 669, § 107, eff. Sept. 1, 2001.

**§ 395.080. Chapter Not Applicable to Certain Water-Related Special Districts**

(a) This chapter does not apply to impact fees, charges, fees, assessments, or contributions:

(1) paid by or charged to a district created under Article XVI, Section 59, of the Texas Constitution to another district created under that constitutional provision if both districts are required by law to obtain approval of their bonds by the Texas Natural Resource Conservation Commission; or

(2) charged by an entity if the impact fees, charges, fees, assessments, or contributions are approved by the Texas Natural Resource Conservation Commission.

(b) Any district created under Article XVI, Section 59, or Article III, Section 52, of the Texas Constitution may petition the Texas Natural Resource Conservation Commission for approval of any proposed impact fees, charges, fees, assessments, or contributions. The commission shall adopt rules for reviewing the petition and may charge the petitioner fees adequate to cover the cost of processing and considering the petition. The rules shall require notice substantially the same as that required by this chapter for the adoption of impact fees and shall afford opportunity for all affected parties to participate.

Added by Acts 1989, 71st Leg., ch. 1, § 82(a), eff. Aug. 28, 1989. Amended by Acts 1995, 74th Leg., ch. 76, § 11.257, eff. Sept. 1, 1995.

**§ 395.081. Fees for Adjoining Landowners in Certain Municipalities**

(a) This section applies only to a municipality with a population of 105,000 or less that constitutes more than three-fourths of the population of the county in which the majority of the area of the municipality is located.

(b) A municipality that has not adopted an impact fee under this chapter that is constructing a capital improvement, including sewer or waterline or drainage or roadway facilities, from the municipality to a development located within or outside the municipality's boundaries, in its discretion, may allow a landowner whose land adjoins the capital improvement or is within a specified distance from the capital improvement, as determined by the governing body of the municipality, to connect to the capital improvement if:

(1) the governing body of the municipality has adopted a finding under Subsection (c); and

(2) the landowner agrees to pay a proportional share of the cost of the capital improvement as determined by the governing body of the municipality and agreed to by the landowner.

(c) Before a municipality may allow a landowner to connect to a capital improvement under Subsection (b), the municipality shall adopt a finding that the municipality will benefit from allowing the landowner to connect to the capital improvement. The finding shall describe the benefit to be received by the municipality.

(d) A determination of the governing body of a municipality, or its officers or employees, under this section is a discretionary function of the municipality and the municipality and its officers or employees are not liable for a determination made under this section.

Added by Acts 1997, 75th Leg., ch. 1150, § 1, eff. June 19, 1997.

**§ 395.082. Certification of Compliance Required**

(a) A political subdivision that imposes an impact fee shall submit a written certification verifying compliance with this chapter to the attorney general each year not later than the last day of the political subdivision's fiscal year.

(b) The certification must be signed by the presiding officer of the governing body of a political subdivision and include a statement that reads substantially similar to the following: "This statement certifies compliance with Chapter 395, Local Government Code."

(c) A political subdivision that fails to submit a certification as required by this section is liable to the state for a civil penalty in an amount equal to 10 percent of the amount of the impact fees erroneously charged. The attorney general shall collect the civil penalty and deposit the amount collected to the credit of the housing trust fund.

Added by Acts 2001, 77th Leg., ch. 345, § 8, eff. Sept. 1, 2001.



**APPENDIX B**  
**WATER AND WASTEWATER PROJECT COSTS**

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**WATER SYSTEM  
CAPITAL IMPROVEMENT PLAN PROJECT COSTS**

# City of Jersey Village Water CIP Projects



## OPINION OF PROBABLE COST

November 2, 2015

### Construction Project

1

**Project Description**

**Hwy 290 8" & 12" Water Line**

**Detailed Description**

Design and install an 8" water line from Senate Ave to Hillcrest Rd, south along Hillcrest Rd to Hwy 290 and a 12" water line northwest along Hwy 290 from Senate Ave to Dillard Dr and looping back to Seattle St from Hwy 290 to serve projected development.

**Purpose**

Complete the Hwy 290 Water Line Loop

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" Pipe	2,100	LF	\$120	\$252,000
2	8" Pipe	1,700	LF	\$80	\$136,000
3	Fire Hydrants	10	EA	\$3,500	\$35,000
4	12" Gate Valves	4	EA	\$3,000	\$12,000
5	8" Gate Valves	2	EA	\$2,000	\$4,000

SUBTOTAL:	\$439,000
CONTINGENCY 20%	\$87,800
TOTAL ESTIMATED CONSTRUCTION COST:	\$526,800
ENG/SURVEY 15%	\$79,100
SUBTOTAL:	\$605,900

**PROJECT TOTAL \$605,900**





# City of Jersey Village Water CIP Projects



## OPINION OF PROBABLE COST

November 2, 2015

### Construction Project Number

4

#### Project Description

Wright Road 12" Water Line

#### Detailed Description

Design and install a 12" water line along Wright Road from Charles Road to Hwy 290 and along Hwy 290 from Wright Road to Jones Road to serve projected development.

#### Purpose

Extend Water Service Along Wright Road and Complete the Water Line Loop along Hwy 290

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" Pipe	4,900	LF	\$120	\$588,000
2	Fire Hydrants	10	EA	\$3,500	\$35,000
3	12" Gate Valves	6	EA	\$3,000	\$18,000
SUBTOTAL:					\$641,000
CONTINGENCY 20%					\$128,200
TOTAL ESTIMATED CONSTRUCTION COST:					\$769,200
ENG/SURVEY 15%					\$115,380
SUBTOTAL:					\$884,600

**PROJECT TOTAL** **\$884,600**



# City of Jersey Village Water CIP Projects



**OPINION OF PROBABLE COST**

**November 2, 2015**

**Construction Project Number**

**6**

**Project Description**

**Harms Road 12" Water Line**

**Detailed Description**

**Design and install a 12" water line along Harms Road from FM 529 to Taylor Road, along FM 529 from Harms Road to Fairview Road and along Taylor Road from Harms Road to Fairview Road to serve projected development.**

**Purpose**

**Extend Water Service Along Harms Road and Complete the Water Line Loop Along FM 529 and Taylor Road**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	12" Pipe	9,500	LF	\$120	\$1,140,000
2	Fire Hydrants	20	EA	\$3,500	\$70,000
3	12" Gate Valves	10	EA	\$3,000	\$30,000

	<b>SUBTOTAL:</b>				\$1,240,000
	<b>CONTINGENCY</b>		20%		\$248,000
	<b>TOTAL ESTIMATED CONSTRUCTION COST:</b>				\$1,488,000
	<b>ENG/SURVEY</b>		15%		\$223,200
	<b>SUBTOTAL:</b>				\$1,711,200

**PROJECT TOTAL** **\$1,711,200**



# City of Jersey Village Water CIP Projects



## OPINION OF PROBABLE COST

November 2, 2015

### Construction Project Number

7

#### Project Description

Proposed Water Facility #4

#### Detailed Description

Design and install a 3,000 gpm pump station and 1 MG ground storage tank at proposed water facility #4 to serve projected development from second City of Houston interconnect.

#### Purpose

Provide Water Service to Proposed Development

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Clear/Grub, Prepare Site, Demolition (1 Acre)	1	LS	\$ 15,000.00	\$15,000
2	1.0 MGD Ground Storage Tank	1	LS	\$ 1,250,000.00	\$1,250,000
3	3,000 GPM Booster Pump Station	1	LS	\$ 555,000.00	\$555,000
4	Booster Pump Building/Control Station	1	LS	\$ 200,000.00	\$200,000
5	Booster Pump Station and Site Electrical	1	LS	\$ 650,000.00	\$650,000
6	Yard Piping and Appurtenances	1	LS	\$ 200,000.00	\$200,000
7	Water Distribution/Transmission Line	1	LS	\$ 510,000.00	\$510,000
8	Site Improvements	1	LS	\$ 100,000.00	\$100,000
9	SWPPP	1	LS	\$ 5,000.00	\$5,000
SUBTOTAL:					\$3,485,000
CONTINGENCY 20%					\$697,000
TOTAL ESTIMATED CONSTRUCTION COST:					\$4,182,000
ENG/SURVEY 15%					\$627,300
OH&P 15%					\$627,300
MOBILIZATION 5%					\$209,100
SUBTOTAL:					\$5,645,700
<b>PROJECT TOTAL</b>					<b>\$5,645,700</b>



# City of Jersey Village Water CIP Projects



## OPINION OF PROBABLE COST

November 2, 2015

### Construction Project Number

9

#### Project Description

**Taylor Road 8" Water Line Extension**

#### Detailed Description

**Design and install an 8" water line along Taylor Road to the west of Harms Road to serve projected development.**

#### Purpose

Extend Water Service Along Taylor Road West of Harms Road

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" Pipe	800	LF	\$80	\$64,000
2	Fire Hydrants	2	EA	\$3,500	\$7,000
3	8" Gate Valves	2	EA	\$2,000	\$4,000
SUBTOTAL:					\$75,000
CONTINGENCY 20%					\$15,000
SUBTOTAL:					\$90,000
ENG/SURVEY 15%					\$13,500
SUBTOTAL:					\$103,500

### PROJECT TOTAL

\$103,500

# City of Jersey Village

## Water CIP Projects



### OPINION OF PROBABLE COST

November 2, 2015

## Construction Project Number

**10**

#### Project Description

City of Houston Interconnect No. 2

#### Detailed Description

Design and install a second interconnect with the City of Houston.

#### Purpose

Second Interconnect with the City of Houston

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	City of Houston Interconnect No. 2 Piping and Meter Vault	1	EA	\$830,000	\$830,000
				SUBTOTAL:	\$830,000
				CONTINGENCY 20%	\$166,000
				SUBTOTAL:	\$996,000
				ENG/SURVEY 15%	\$149,400
				SUBTOTAL:	\$1,145,400

**PROJECT TOTAL \$1,145,400**

**WASTEWATER SYSTEM  
CAPITAL IMPROVEMENT PLAN PROJECT COSTS**

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# City of Jersey Village Wastewater CIP Projects



OPINION OF PROBABLE COST

November 2, 2015

## Construction Project

1

**Project Description**

**Charles Road 8" Wastewater Line**

**Detailed Description**

**Design and install an 8" wastewater line from FM 529 north and west along Charles Road to Wright Road to serve projected development.**

**Purpose**

Extend Wastewater Service Along Charles Road

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" Pipe	4,600	LF	\$80	\$368,000
2	60" Diameter Manhole	7	EA	\$6,000	\$42,000

SUBTOTAL:		\$410,000
CONTINGENCY	20%	\$82,000
TOTAL ESTIMATED CONSTRUCTION COST:		\$492,000
ENG/SURVEY	15%	\$73,800
SUBTOTAL:		\$565,800

**PROJECT TOTAL \$565,800**

# City of Jersey Village Wastewater CIP Projects



**OPINION OF PROBABLE COST**

**November 2, 2015**

**Construction Project** **2**

**Project Description**  
Jones Road Area 8" Wastewater Line

**Detailed Description**  
 Design and install an 8" wastewater line from Jones Road to serve projected development.

**Purpose**  
 Extend Wastewater Service from Jones Road

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" Pipe	1,250	LF	\$80	\$100,000
2	60" Diameter Manhole	3	EA	\$6,000	\$18,000
SUBTOTAL:					\$118,000
CONTINGENCY				20%	\$23,600
TOTAL ESTIMATED CONSTRUCTION COST:					\$141,600
ENG/SURVEY				15%	\$21,240
SUBTOTAL:					\$162,900

**PROJECT TOTAL** **\$162,900**

**City of Jersey Village  
Wastewater CIP Projects**



**OPINION OF PROBABLE COST**

November 2, 2015

**Construction Project Number** **3**

**Project Description**

Charles Road Area 8" Wastewater Line

**Detailed Description**

Design and install an 8" wastewater line from Charles Road to serve projected development.

**Purpose**

Extend Wastewater Service from Charles Road

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" Pipe	2,500	LF	\$80	\$200,000
2	60" Diameter Manhole	5	EA	\$6,000	\$30,000
SUBTOTAL:					\$230,000
CONTINGENCY 20%					\$46,000
TOTAL ESTIMATED CONSTRUCTION COST:					\$276,000
ENG/SURVEY 15%					\$41,400
SUBTOTAL:					\$317,400

**PROJECT TOTAL** **\$317,400**



# City of Jersey Village

## Wastewater CIP Projects



OPINION OF PROBABLE COST

November 2, 2015

**Construction Project Number** **4**

**Project Description**

**Proposed Lift Station #1 & 12" Force Main**

**Detailed Description**

**Design and install proposed lift station #1 and 12" force main to serve projected development.**

**Purpose**

**Provide Wastewater Service to Proposed Development**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	1.1 MGD Lift Station Expansion	1	EA	\$0	\$0
2	12" Force Main	2,900	LF	\$84	\$243,600
3	20" Boring and Casing	600	LF	\$550	\$330,000
SUBTOTAL:					\$573,600
CONTINGENCY					20% \$114,800
SUBTOTAL:					\$688,400
ENG/SURVEY					15% \$103,300
SUBTOTAL:					\$791,700

**PROJECT TOTAL** **\$791,700**



# City of Jersey Village Wastewater CIP Projects



**OPINION OF PROBABLE COST**

**November 2, 2015**

## Construction Project Number

**6**

**Project Description**

**Taylor Road 8", 10" & 12" Wastewater Line**

**Detailed Description**

**Design and install a 12" wastewater line along Taylor Road from Hwy 290 to Musgrove Lane, a 10" wastewater line from Musgrove lane to Harms Road, an 8" wastewater line along Musgrove Lane and an 8" wastewater line along Taylor Road west of Harms Road to serve projected development.**

**Purpose**

Extend Wastewater Service Along Taylor Road and Musgrove Lane

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" Pipe	1,500	LF	\$80	\$120,000
2	10" Pipe	2,900	LF	\$100	\$290,000
3	12" Pipe	1,600	LF	\$120	\$192,000
4	60" Diameter Manhole	8	EA	\$6,000	\$48,000

SUBTOTAL:	\$650,000
<b>CONTINGENCY 20%</b>	<b>\$130,000</b>
SUBTOTAL:	\$780,000
<b>ENG/SURVEY 15%</b>	<b>\$117,000</b>
SUBTOTAL:	\$897,000

**PROJECT TOTAL**

**\$897,000**

**City of Jersey Village**  
**Wastewater CIP Projects**



**OPINION OF PROBABLE COST**

**November 2, 2015**

**Construction Project Number** | **7**

**Project Description**

**Fairview Street 10" Wastewater Line**

**Detailed Description**

**Design and install a 10" wastewater line along Fairview Street to serve projected development.**

**Purpose**

**Extend Wastewater Service Along Fairview Street**

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" Pipe	1,350	LF	\$80	\$108,000
2	10" Pipe	4,300	LF	\$100	\$430,000
3	60" Diameter Manhole	6	EA	\$6,000	\$36,000
SUBTOTAL:					\$574,000
CONTINGENCY				20%	\$114,800
SUBTOTAL:					\$688,800
ENG/SURVEY				15%	\$103,400
SUBTOTAL:					\$792,200

**PROJECT TOTAL** | **\$792,200**

# City of Jersey Village Wastewater CIP Projects



## OPINION OF PROBABLE COST

November 2, 2015

**Construction Project Number**

**8**

**Project Description**

Harms Road 10" Wastewater Line

**Detailed Description**

Design and install a 10" wastewater line along Harms Road to serve projected development.

**Purpose**

Extend Wastewater Service Along Harms Road

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	8" Pipe	1,200	LF	\$80	\$96,000
2	10" Pipe	4,300	LF	\$100	\$430,000
3	60" Diameter Manhole	6	EA	\$6,000	\$36,000
SUBTOTAL:					\$562,000
CONTINGENCY 20%					\$112,400
SUBTOTAL:					\$674,400
ENG/SURVEY 15%					\$101,200
SUBTOTAL:					\$775,600

**PROJECT TOTAL \$775,600**

**APPENDIX C**  
**Public Hearing Presentation - October 19, 2015**

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**WATER & WASTEWATER  
IMPACT FEE UPDATE**

**CITY COUNCIL**

**PUBLIC HEARING**

**October 19, 2015**

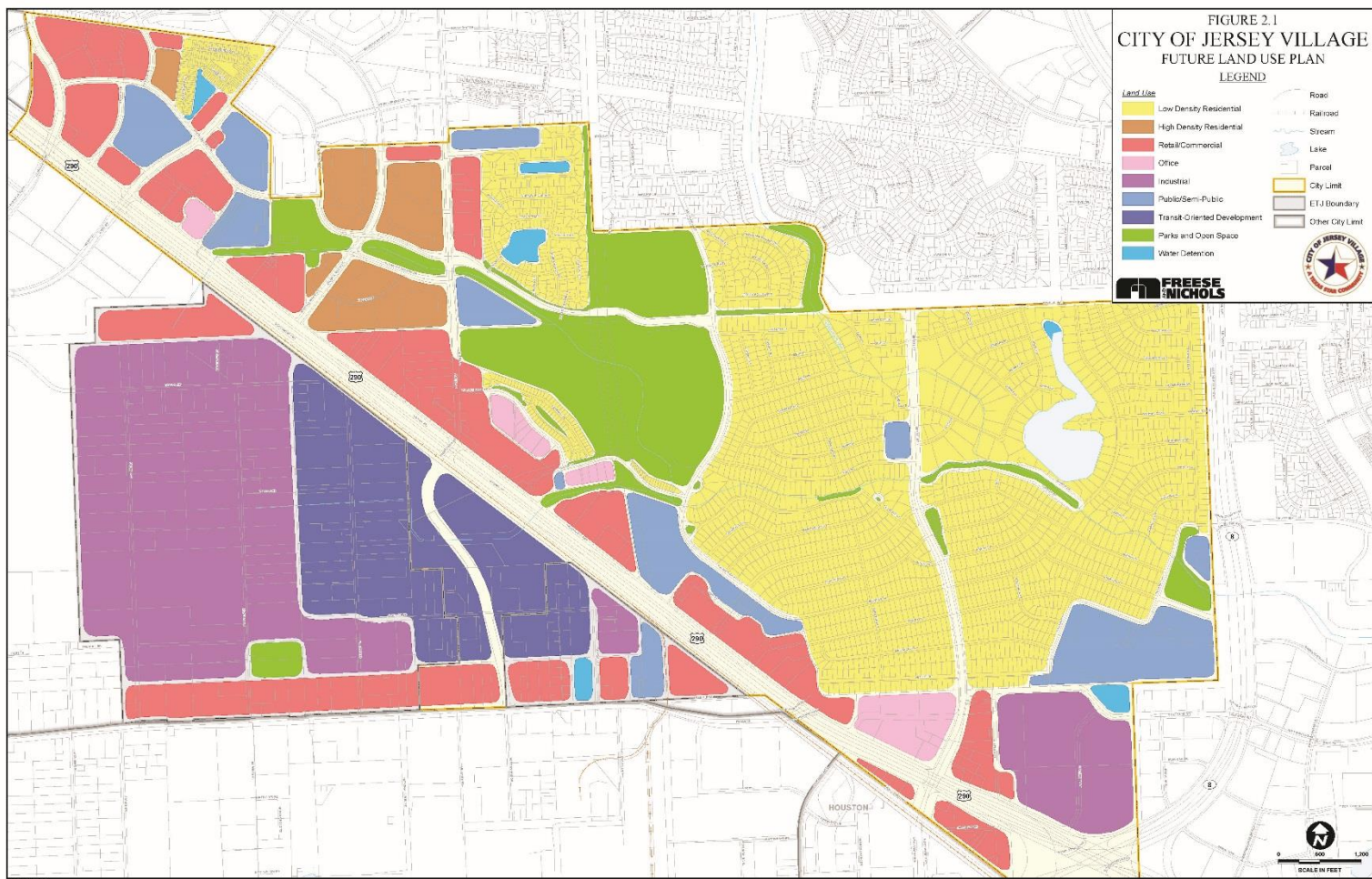
# Impact Fee Process

- ✓ **Step 1** • Establish the CIAC
- ✓ **Step 2** • Identify Service Areas
- ✓ **Step 3** • Develop Land Use Assumptions
- ✓ **Step 4** • Develop Capital Improvements Plan
- ✓ **Step 5** • Impact Fee Calculations & Report Preparation
- ✓ **Step 6** • CIAC Presentations
- Step 7** • Public Hearings & Council Approval
- Step 8** • Adopt Impact Fee Ordinance



## 2015 Water & Wastewater Impact Fee Study Method

- Based on 2015 Comprehensive Plan Update



# Impact Fee Calculations & Report Preparation

## Water & Wastewater Impact Fee Calculation

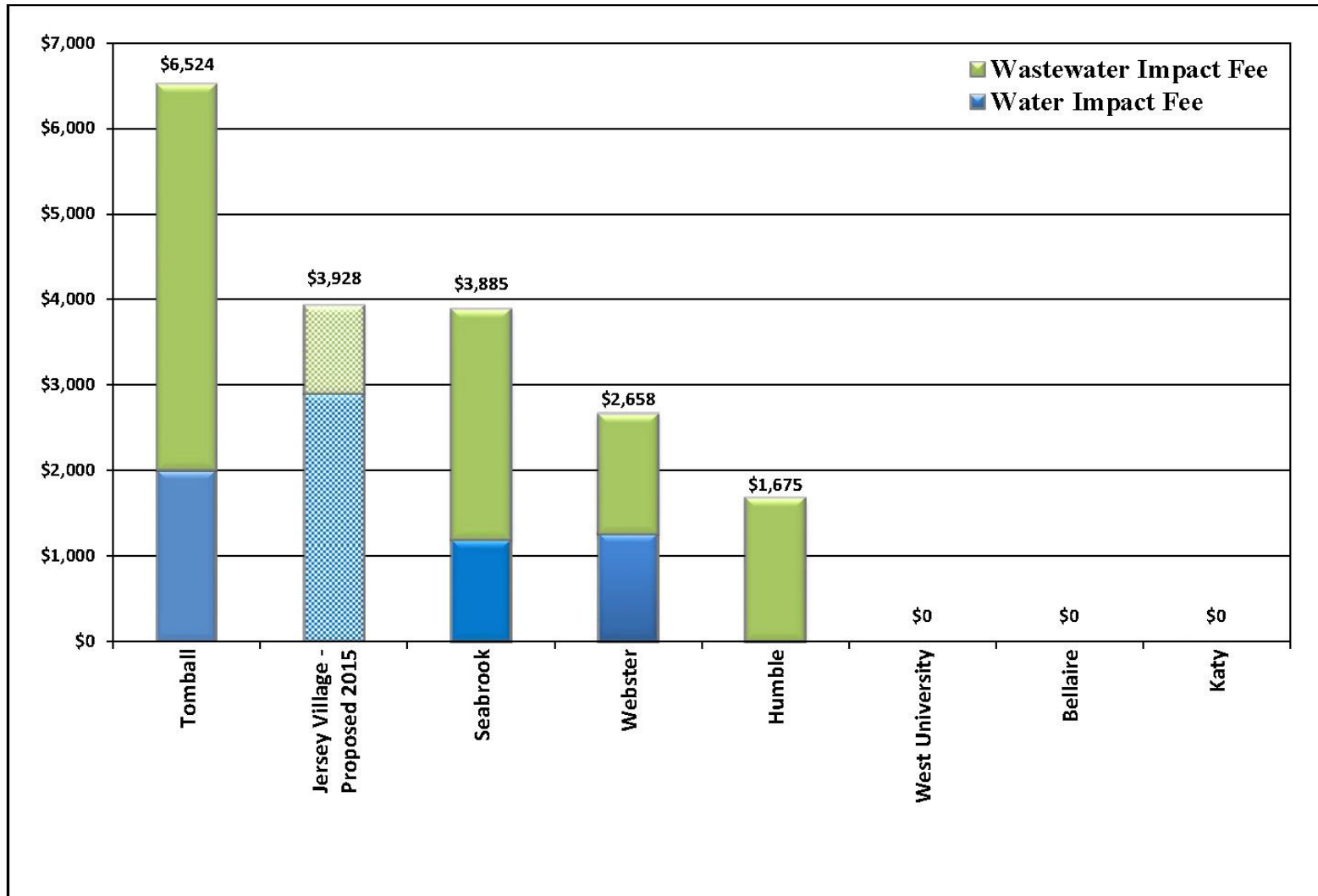
Water Impact Fee	
Total Eligible Capital Improvement Costs	\$4,750,510
Finance Costs	\$1,580,169
Total Eligible Costs with Credit <sup>(1)</sup>	\$3,165,340
Growth in Service Units	1,092
<b>Maximum Allowable Water Impact Fee per Service Unit<sup>(2)</sup>:</b>	<b>\$2,899</b>
Wastewater Impact Fee	
Total Eligible Capital Improvement Costs	\$1,685,833
Finance Costs	\$560,761
Total Eligible Costs with Credit <sup>(1)</sup>	\$1,123,297
Growth in Service Units	1,092
<b>Maximum Allowable Wastewater Impact Fee per Service Unit<sup>(2)</sup>:</b>	<b>\$1,029</b>
<b>Total Maximum Allowable Water &amp; Wastewater Impact Fee:</b>	<b>\$3,928</b>

<sup>(1)</sup> 50% of Total Capital Improvement Costs

<sup>(2)</sup> Total Eligible Costs/Growth in Service Units

# Impact Fee Calculations & Report Preparation


## Impact Fee Comparison



# Proposed Water & Wastewater Impact Fee

Meter Size	Service Unit Equivalent	Water Impact Fee <sup>(1)</sup>	Wastewater Impact Fee <sup>(2)</sup>
5/8"	1.0	\$2,899	\$1,029
3/4"	1.7	\$4,927	\$1,748
1"	2.7	\$7,826	\$2,777
1-1/2"	3.3	\$9,565	\$3,394
2"	10.7	\$31,014	\$11,005
3"	21.3	\$61,738	\$21,907
4"	33.3	\$96,520	\$34,249
6"	66.7	\$193,330	\$68,601
8"	106.7	\$309,270	\$109,741
10"	153.3	\$444,340	\$157,669

**Impact Fee  
Per Service Unit**



- (1) A water impact fee will not be charged for a single irrigation meter up to and including 1" in size, when installed in addition to a regular residential service meter for new and existing residences.
- (2) A wastewater impact fee will not be charged for the installation of fire or irrigation water meters.

# Remaining Impact Fee Schedule

<b>Description</b>	<b>Date</b>	<b>Action By</b>	<b>Complete</b>
<b>Workshop with City Council</b>	8/17/2015	City Staff, FNI, City Council	✓
<b>Council Resolution on Public Hearing</b>	8/17/2015	City Staff, City Council	✓
<b>Submit Advertising for Public Hearing</b>	By 9/3/2015	City Staff, FNI	✓
<b>Conduct Public Hearing</b>	10/19/2015	City Staff, FNI	✓
<b>Reading &amp; Adoption of Impact Fee Ordinance</b>	10/19/2015	City Staff, City Council	
<b>Submit Final Impact Fee Report</b>	By 11/3/2015	FNI	



## CONTACT INFORMATION:

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**APPENDIX D**  
**City Ordinance No. xxxx**

**ORDINANCE NO. 2015-33**

**AN ORDINANCE OF THE CITY OF JERSEY VILLAGE, TEXAS, ADOPTING UPDATED LAND USE ASSUMPTIONS, A CAPITAL IMPROVEMENTS PLAN, AND IMPACT FEES FOR WATER AND WASTEWATER FACILITIES IN ACCORDANCE WITH CHAPTER 395 OF THE TEXAS LOCAL GOVERNMENT CODE; MAKING CERTAIN FINDINGS RELATED TO THE SUBJECT; AND PROVIDING FOR SEVERABILITY.**

**WHEREAS**, by Ordinance No. 90-14, passed, approved, and adopted on May 21, 1990, the City of Jersey Village, Texas ("City") adopted land use assumptions and a capital improvements plan and imposed impact fees on new development within the City to recover capital costs associated with water and wastewater facilities provided to serve such new development, all in accordance with Article 1269j-4.11, Texas Revised Civil Statutes (now Chapter 395 of the Texas Local Government Code); and

**WHEREAS**, by Ordinance No. 95-14, passed, approved, and adopted on June 19, 1995 as amended by Ordinance 01-25, passed, approved, and adopted on August 20, 2001 updating the land use assumptions and capital improvements plan and impact fees on new development within the City to recover capital costs associated with water and wastewater facilities provided to serve such new development, all in accordance with Chapter 395 of the Texas Local Government Code); and

**WHEREAS**, Chapter 395 of the Texas Local Government Code requires the City to update periodically its land use assumptions, capital improvements plan, and impact fees; and

**WHEREAS**, the City Council of the City finds that the land use assumptions, capital improvements plan, and impact fees currently in effect should be updated; and

**WHEREAS**, the City secured the firm of Freese and Nichols, Inc., to prepare updated land use assumptions and a capital improvements plan and to calculate proposed impact fees, and a copy of such firm's report and recommendation is attached to this Ordinance as Exhibit A; and

**WHEREAS**, the City Council has received written comments from the Capital Improvements Advisory Committee in accordance with Section 395.058 of the Texas Local Government Code; and has held a public hearing as required by law, at which hearing all persons desiring to be heard were heard on the amendment of land use assumptions and a capital improvements plan and the imposition of an impact fee; and

**WHEREAS**, the City Council now desires to adopt updated land use assumptions and an updated capital improvements plan and to impose updated impact fees on new development within the City and its extraterritorial jurisdiction; **NOW THEREFORE**,

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF JERSEY VILLAGE, TEXAS THAT:**



**Section 1.** The facts and recitations set forth in the preamble of this Ordinance are hereby found to be true and correct and are hereby adopted, ratified and confirmed.

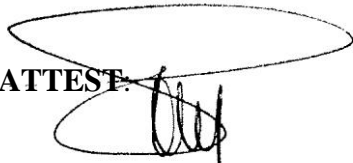
**Section 2.** The land use assumptions, capital improvements plan, and proposed impact fees set forth in the "2015 Draft Water and Wastewater Impact Fee Study" prepared by Freese and Nichols, Inc., attached hereto as Exhibit A and made a part hereof for all purposes, are hereby approved and adopted.

**Section 3.** The impact fees, set forth in Table 5.7 on page 5-7 of Exhibit A, are hereby levied against new development on lands located within the City and its extraterritorial jurisdiction and shall be paid to the City at the earlier of the time such lands are subdivided or at the time a building permit is issued; provided, however, such impact fees shall not be due and payable until such time as the utility service for which the impact fee is imposed is available to such lands. The impact fees levied by this Ordinance are subject to the provisions of Chapter 395 of the Texas Local Government Code.

**Section 4.** In the event any clause phrase, provision, sentence, or part of this Ordinance or the application of the same to any person or circumstances shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Ordinance as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Jersey Village, Texas, declares that it would have passed each and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional, whether there be one or more parts.

**PASSED, APPROVED, AND ADOPTED** this 19th day of October 2015.

  
Justin Ray, Mayor

**ATTEST:**  
  
Lorri Coody, City Secretary



**Exhibit A to the Ordinance**  
**Freese Nichols Draft Water and**  
**Wastewater Impact Fee Study**