

**ORDINANCE O-2019-016  
AMENDING IMPACT FEES FOR NEW CONSTRUCTION  
&  
ADOPTION OF A LAND USE ASSUMPTIONS MAP  
&  
CAPITAL IMPROVEMENTS PLAN**

**AN ORDINANCE OF THE CITY OF MAGNOLIA, TEXAS, AMENDING CHAPTER 94 "UTILITIES" OF THE CODE OF ORDINANCES BY AMENDING THE CITY'S LAND USE ASSUMPTIONS, CAPITAL IMPROVEMENTS PLAN, AND IMPACT FEES FOR WATER AND WASTEWATER FACILITIES PURSUANT TO THE TEXAS LOCAL GOVERNMENT CODE ANNOTATED §395.001 ET. SEQ; DEFINING CERTAIN TERMS; PROVIDING FOR THE ASSESSMENT AND COLLECTION OF SUCH IMPACT FEES; CONTAINING OTHER PROVISIONS RELATING TO THE SUBJECT; CONTAINING A REPEALING CLAUSE; AND PROVIDING FOR SEVERABILITY.**

\* \* \* \* \*

**WHEREAS**, the City Council of the City of Magnolia, Texas ("City Council") has studied the present provisions of Chapter 94 "Utilities" of the Code of Ordinances of the City of Magnolia; and

**WHEREAS**, the City Council of the City of Magnolia, Texas (the "City") adopted impact fees for new construction in 1998, 2003 and 2008; and the 2008 Ordinance No 2008-136 adopting impact fees was codified into the City Code of Ordinance, Chapter 94, Article V;

**WHEREAS**, the City Council on or about May 24, 2010 adopted Ordinance 2010-176 amending impact fees for new construction in the time and manner as required by Chapter 395 of the Texas Local Government Code; and

**WHEREAS**, the City Council, pursuant to Chapter 395 of the Texas Local Government Code, determined on August 6, 2013 by minute order, not to update the 2008 land use assumptions, capital improvements plans or impact fees authorized by the 2008 impact fee Ordinance; and

**WHEREAS**, the City Council on or about January 14, 2014, adopted Ordinance No. O-2014-002 Amending Impact Fees for New Construction & Adoption of a Land Use Assumptions Map as required by Chapter 395 of the Texas Local Government Code; and

**WHEREAS**, the City Council on or about October 9, 2018, adopted Ordinance No. O-2018-018 Amending Impact Fees for New Construction & Adoption of a Land Use Assumptions Map as required by Chapter 395 of the Texas Local Government Code; and

**WHEREAS**, Section 395.052 of the Texas Local Government Code requires that the land use assumptions and capital improvement plan for which an impact fee is imposed shall be reviewed, evaluated, and updated at least every five years; and

**WHEREAS**, the City Council has reviewed and evaluated its land use assumptions, capital improvement plan, and impact fees for water and wastewater facilities in the time and manner required by law; and

**WHEREAS**, the City Council has employed qualified professionals to prepare updates to its land use assumptions, capital improvements plan, and impact fees for water and wastewater facilities for the City, and each was considered by the City's impact fee advisory committee, and such assumptions, plan, and proposed fees were filed with the City, along with the advisory committee's timely comments on the proposed amendments to the land use assumptions, capital improvements plan, and impact fees required by law; and

**WHEREAS**, the City Council has completed an Impact Fee Analysis, as presented in the "Water and Wastewater Capital Improvement Plans (CIP) and Impact Fees" report prepared by Strand Associates, Inc, ("Strand") on which to base the recommended amendment of fees and has caused to be prepared a new Capital Improvements Plan and Land Use Assumptions Map. The Strand report is attached to this Ordinance as Exhibit "A"; and

**WHEREAS**, the Capital Improvement Advisory Committee timely provided its written comments on the proposed amendments to the land use assumptions, capital improvements plan and impact fee; and

**WHEREAS**, the City of Magnolia has met all of the legal requirements and prerequisites for implementation and update of impact fees in accordance with Chapter 395 of the Texas Local Government Code; and

**WHEREAS**, the City Council called, gave notice of, and conducted a public hearing on such amendments, in the time and manner required by law; and

**WHEREAS**, the City Council now desires to approve and adopt such amendments to the land use assumptions, the capital improvement plan, and impact fees for water and wastewater facilities, all in accordance with said Chapter 395, Texas Local Government Code; and

**WHEREAS**, the amendments are intended to assess, impose and collect water and wastewater impact fees on new development, as established in this Ordinance, in order to finance public facilities, the demand for which is generated by new development in the designated service areas; and

**WHEREAS**, The City is authorized to enact this Ordinance in accordance with Chapter 395, Texas Local Government Code, which authorizes cities to enact or impose impact fees (capital recovery fees) on land within their corporate boundaries or extraterritorial jurisdictions, as charges or assessments imposed 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 such new development; and

**WHEREAS**, the City has caused to be attached to this Ordinance as Exhibit "B" the maximum allowable impact fees set forth in the "Water and Wastewater Capital Improvement Plans (CIP) and Impact Fees" prepared by Strand Associates, Inc; and

**WHEREAS**, the City has cause to be attached to this Ordinance as Exhibit "C" impact fees to be assessed and collected against new, nonexempt development on lands located within the

corporate boundaries of the City and the City's extra-territorial jurisdiction; (the "Impact Fee Service Area"); and

**WHEREAS**, the City Council finds it necessary to adopt the following amendments to Chapter 94 of the Code of Ordinances; now therefore,

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MAGNOLIA, TEXAS:**

**Section 1.** **Findings.** The foregoing recitals are hereby found to be true and correct and are hereby adopted as findings of fact and conclusions of law by the City Council and made a part hereof for all purposes.

**Section 2.** **Amendments.** Article V, "WATER AND WASTEWATER IMPACT FEES" of Chapter 94 "UTILITIES" of the City of Magnolia Code of Ordinances is hereby amended by amending sections 94-160 through 94-164, as shown in attached Exhibit "D" and incorporated herein for all purposes.

**Section 3.** **Repealing Clause.** All ordinances and parts of ordinances in conflict with the provisions of this ordinance are hereby repealed; provided, however, that such repeal shall be only to the extent of such inconsistency and in all other respects this ordinance shall be cumulative of other ordinances regulating and governing the subject matter covered by this ordinance.

**Section 4.** **Severability.** It is hereby declared to be the intention of the City Council that the phrases, clauses, sentences, paragraphs and sections of this ordinance be severable, and if any phrase, clause, sentence, paragraph or section of this Ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences or sections of this ordinance, and the remainder of this Ordinance shall be enforced as written.

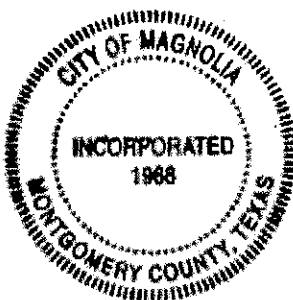
**Section 5.** **Compliance Clause and Effective Date.** The City Council finds, determines and declares that a sufficient written notice was posted, and this Ordinance was passed in accordance with the Open Meetings Act. The City Secretary is instructed to publish this Ordinance in the Official Newspaper of the City of Magnolia in the manner provided and for the time required by Section 52.011(a) of the Local Government Code, at which time this Ordinance takes effect.

**PASSED, APPROVED and ADOPTED** by the City Council of the City of Magnolia, Montgomery County, Texas on this the 13 th day of August 2019.

CITY OF MAGNOLIA, TEXAS



Todd Kana, Mayor



ATTEST:

  
Lynne George, CPM, TRMC  
City Secretary



**Exhibit A**

June 6, 2019

Mr. Paul Mendes, City Administrator  
City of Magnolia  
18111 Buddy Riley Boulevard  
Magnolia, TX 77354

Re: Water and Wastewater Capital Improvement Plans (CIP) and Impact Fees

Dear Paul,

Strand Associates, Inc.® (Strand) appreciates the opportunity to assist the City of Magnolia (City) in preparing forecasts of residential equivalent connections, proposed water and wastewater capital improvement projects, and opinions of probable construction cost (OPCCs) for water and wastewater system improvements. The proposed projects and costs were used by NewGen Strategies and Solutions, LLC (NewGen) to develop maximum allowable impact fees for water and wastewater. This letter summarizes the forecasted number of residential equivalent connections, recommended water and wastewater system improvements, OPCCs, and the maximum allowable impact fee developed by NewGen.

Projections for new connection and population growth were developed for the next ten years through discussions with City staff and reviewing both existing land use maps and known development plans. The evaluation projected the population served by the City's municipal utilities will increase by 8,798 new residential equivalent connections. Figure 1 shows the proposed land uses and was used to develop the number of residential equivalent connections presented in Table 1. Table 1 and Figure 1 are included as attachments to this letter.

Water and wastewater flows for the proposed development areas were developed based upon the City's Unified Development Code and Texas Commission on Environmental Quality (TCEQ) requirements.

The analysis revealed that the water and wastewater system improvements proposed are only required to service additional connections created by new developments. Table 2 and Figure 2 provide descriptions and costs for the water supply projects required to serve the new projected demands over the next 20 years. Table 3 and Figure 3 present the same information for the wastewater system. Tables 2 and 3 provide further breakdown to indicate portions of the costs that are attributable to the first ten years.

Impact Fee development is governed by Chapter 395 of the Texas Local Government Code—Financing Capital Improvements Required by New Development in Municipalities, Counties, and Certain Other Local Governments. NewGen developed the maximum assessable impact fees based on two methods.

In developing the components of the financial model several assumptions were made, including:

- Financing
  - Project funding at 50 percent debt and 50 percent cash
  - 20-year debt terms at 4.25 percent interest for first five years
  - 20-year debt terms at 5 percent interest for last five years
- Timing and level of expenditures and revenues
  - As indicated on tables

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TBPE No. F-8405  
TBPLS No. 10030000



Mr. Paul Mendes, City Administrator  
 City of Magnolia  
 Page 2  
 June 6, 2019

- Interest Earned on Deposits
  - 1.49 percent
- Annual Service Unit Growth of approximately 880
- Applicable Impact Fee Credits

The maximum assessable impact fee costs include construction costs attributable to capital construction, design, and planning, including applicable inflation plus financing costs. This amount is then adjusted, if applicable, for existing fund balances and projected interest earned on the accounts during the impact fee period. Finally, a credit for either utility revenues generated by the new service units during the ten-year program period or a 50 percent credit for the total cost of implementing the impact fee CIP is subtracted to develop the maximum recoverable cost for the impact fee. The cost for the impact fee is then calculated by dividing the maximum recoverable cost by the growth in residential equivalent connections during the period. The following table was prepared by NewGen and presented to the Capital Improvement Advisory Committee (CIAC) on May 16, 2019.

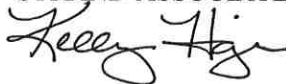
	<u>Water</u>	<u>Wastewater</u>
Recoverable Impact Fee CIP Costs	\$32,154,239	\$75,272,555
Financing Costs	\$8,799,317	\$19,687,121
Assigned Fund Balance	\$0	\$0
Interest Earnings	(\$1,539,553)	(\$2,409,769)
<b>Pre-Credit Recoverable Cost for Impact Fee</b>	<b>\$39,414,003</b>	<b>\$92,549,906</b>
Credit for Utility Revenues	(\$16,961,283)	(\$40,030,431)
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 22,452,720</b>	<b>\$52,519,475</b>
Ten Year Growth in Service Units	\$8,798	\$8,798
<b>Maximum Fee with Revenue Credit</b>	<b>\$ 2,552</b>	<b>\$5,969</b>
<b>Maximum Fee with 50% Credit</b>	<b>\$ 2,126</b>	<b>\$5,027</b>

The CIAC recommended the City Council use the 50 percent credit method developed by NewGen to set the maximum assessable impact fees for water and wastewater. The City may, at its discretion, use a lower impact fee. It should also be noted that these impact fees are for a single residential equivalent meter, which consists of 5/8-inch meter rated for maximum continuous flow of 10 gallons per minute. The impact fees for larger size services can be calculated through a direct proportion of the maximum continuous flows for various meters and sizes found in American Water Works Association (AWWA) C700, C701 and C702. A table summarizing the current values and ratios to a 5/8-inch meter may be found in Table 4 attached.

Additional detail regarding the development of the capital improvement projects and OPCCs will be included in the Water Master Plan and Wastewater Master Plan, which are in the process of being completed. Additional details and the schedules developed by NewGen to calculate the maximum accessible fee are included in the attached Water and Wastewater Appendices Please feel free to contact us with any questions you may have at (979) 836-7937.

Sincerely,

STRAND ASSOCIATES, INC.®



Kelly M. Hajek, P.E.



Ryan D. Tinsley, P.E., ENV SP

Enclosure

**Table 1 Future Connections**

Development Name	Expected New Connections <sup>3</sup>			
	10-Year		20-Year	
	Residential	Non-Residential	Residential	Non-Residential
BBQ Equity Partners	-	50	-	50
Escondido	400	25	590	25
Glen Oaks	224	-	530	-
Lone Star College		-		-
Halberdier/Buck Grass	-	24	-	24
Magnolia East, LLC	550	15	1,100	16
Mill Creek/Forestar	750	-	750	-
Magnolia Audubon	4,740	35	9,800	36
Magnolia Ridge/MI Homes	300	10	336	10
Magnolia M3 Ranch <sup>1</sup>	450	5	1,250	5
Mustang Ridge	75	-	350	-
Parkside Capital	-	5	40	5
PHP 316 Commerce Street	70	5	100	5
Windmill Estates	-	-	50	-
Woodard Tract	450	10	1,250	20
G.Bucio Properties/La Preferida Meat Market	-	5	-	5
Freh Hut <sup>2</sup>	-	5	-	5
Magnolia Road Investment LLC	-	5	100	5
Rubicon	-	5	-	5
Vision Source	-	5	-	5
Lone Star College	-	140	-	192
Other/Unallocated	422	18	750	17
<b>Total</b>	<b>8,431</b>	<b>367</b>	<b>16,996</b>	<b>430</b>

Notes:

<sup>1</sup> Formerly Rick Sheldon Property<sup>2</sup> Formerly Fuel Chief<sup>3</sup> Connections given in terms of Residential Equivalent Connections. Connections are cumulative from current conditions.



**Table 2 Water Supply and Distribution Projects**

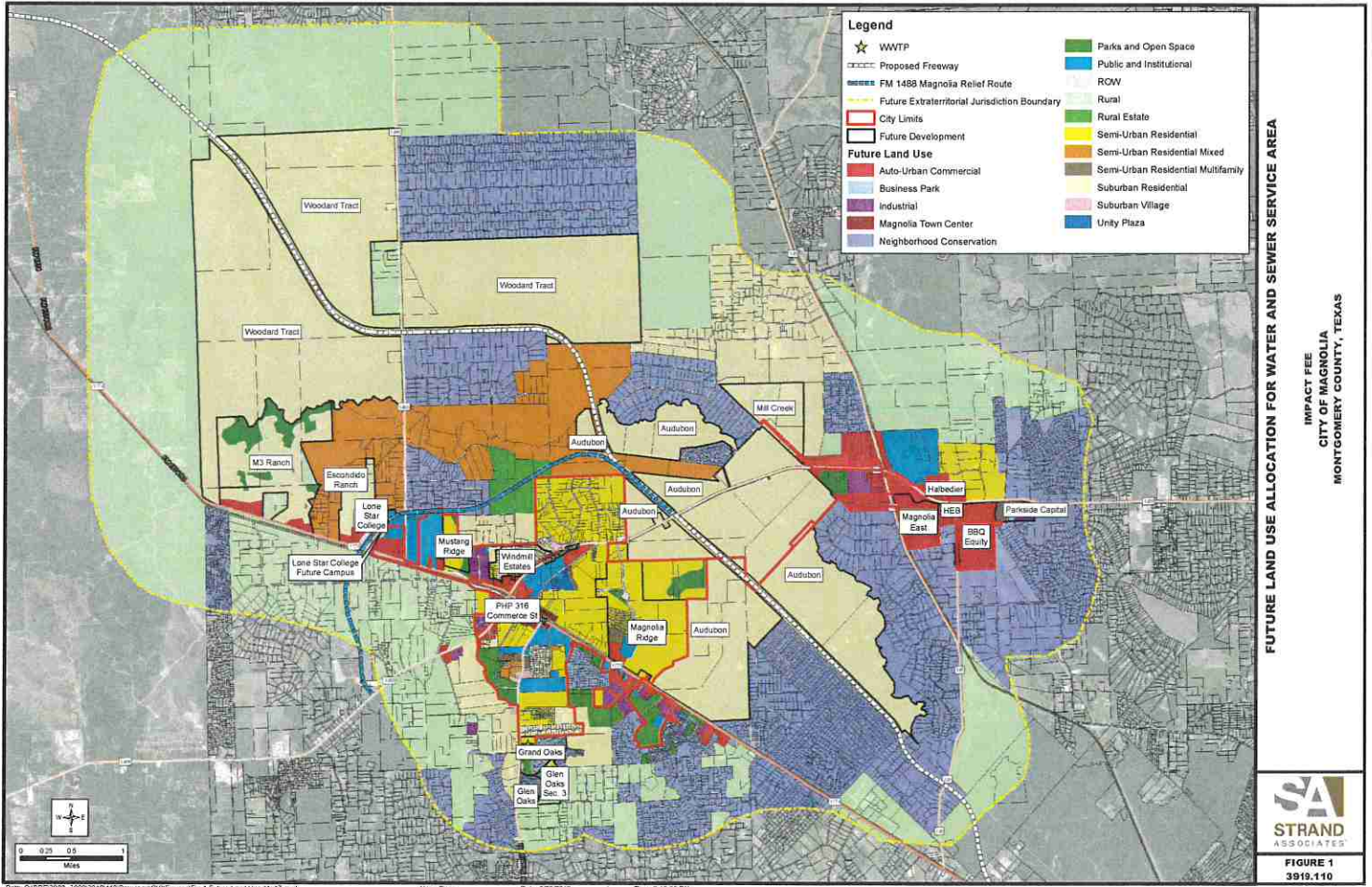
Project ID	Project Name	Year	Project Description	OPCC Attributable to 10-Year CIP	Total OPCC
S1	Plant No. 3	2021	Well Nos. 7 and 8 (Jasper and Evangeline Wells), Test Wells, Well Pump, 300,000-gallon GST, 750,000 gallon EST, Booster Pumping Station and Controls, and Chlorine Addition. Demolition of Elm Street Tank and Pumping Modifications at the Elm Street Plant.	\$10,592,000	\$10,592,000
S2	Well No. 8	2023	Well No. 9 (Jasper Well), Test Well, Well Pump, 3,000 LF of Raw Water Main to Existing Plant No. 2, also known as the Kelly Road Plant. Pump Improvements at Plant No. 2.	\$2,893,000	\$2,893,000
S3	Plant No. 4	2027	Well Nos. 10 and 11 (Jasper and Evangeline Wells), Jasper Test Well, Well Pump, 300,000-gallon GST, Booster Pumping Station and Controls, and Chlorine Addition.	\$5,201,820	\$6,669,000
S4	Plant No. 5	2030	Well Nos. 12 and 13-Jasper and Evangeline Wells, Well Pump, 500,000 EST, 300,000-gallon GST, Booster Pumping Station and Controls, and Chlorine Addition.	\$ -	\$7,996,000
S5	Plant No. 6	2034	Well Nos. 14 and 15-Jasper and Evangeline Wells, Well Pump, 5, 300,000-gallon GST, Booster Pumping Station and Controls, and Chlorine Addition.	\$ -	\$6,526,000
S6	500 K EST	2035	500,000-gallon EST at Plant No. 6	\$ -	\$2,747,000
S7	Plant No. 7	2037	Well Nos. 16 and 17-Jasper and Evangeline Wells, Well Pump, 500,000 EST, 300,000-gallon GST, Booster Pumping Station and Controls, and Chlorine Addition.	\$ -	\$8,182,000
D1	Audubon Plant No. 3 Connector-1	2021	16-inch water main connecting to the existing 16-inch Near Plant No. 3 to Projects D2 and D3. Estimated Distance 4,500 feet.	\$759,000	\$759,000
D2	Audubon Plant No. 3 Connector-2	2021	16-inch water main connecting to the existing 16-inch on FM 1488 to intersection of projects D1 and D3. Estimated Distance 3,250 feet.	\$483,000	\$483,000
D3	Audubon Plant No. 3 Connector-3	2021	16-inch water main from intersection of projects D2 and D3 to Plant No. 4 location. Estimated Distance 6,500 feet.	\$1,001,000	\$1,001,000
D4	Audubon Plant No. 4 Connector-1	2029	12-inch water main from Plant No. 4 location to 12-inch in Magnolia Ridge. Estimated Distance 6,400 feet	\$826,000	\$826,000
D5	Magnolia Ridge Plant No. 4 Connector	2029	12-inch water main from existing 12-inch in Magnolia Ridge to existing 12-inch on FM 1774. Estimated Distance 2250 feet	\$350,000	\$350,000
D6	Audubon Plant No. 4 Connector-3	2029	12-inch water main from Plant No. 4 to existing 12-inch on FM 1774. Estimated Distance 4,500 feet.	\$723,000	\$723,000
D7	FM 1774 Loop Completion	2025	12-inch water main connection on FM 1774 west of FM 1488. Estimated distance 2,500 feet.	\$366,000	\$366,000
D8	Kelly Plant Reinforcing	2023	16-inch water main from existing main on Kelly Road to intersection D9 and D10 projects. Estimated distance 4,250 feet	\$207,000	\$414,000
D9	FM1499 Relief Connector-1	2023	12-inch water main from main on FM 1486 to north end of project D8. Estimated distance 6,500 feet	\$302,000	\$604,000
D10	FM1499 Relief Connector-2	2029	12-inch water main from north end of project D8 to connector projects D11 and D12 intersection. Estimated distance 6,500 feet	\$928,500	\$1,857,000
D11	Interstate Connector-1	2034	16-inch water main from FM 1488 to projects D10 and D12 intersection. Estimated distance 8,000 feet	\$ -	\$725,000
D12	Interstate Connector-2	2034	16-inch water main from FM 1486 to projects D10 and D11 intersection. Estimated distance 16,000 feet	\$ -	\$3,002,000
D13	FM 1486 Connector-1	2023	12-inch water main on FM 1486 from 1774 to project D12 intersection. Estimated distance 11,000 feet	\$635,000	\$1,270,000
D14	FM 1486 Connector-2	2034	12-inch water main on FM 1486 north of project D12 intersection. Estimated distance 5,000 feet	\$ -	\$905,000
D15	Woodard Tract Plant No. 5 Connector-1	2029	16-inch main in Woodard Tract for Connection to Plant No. 5 to FM 1486. Estimated distance 7,500 feet.	\$500,500	\$1,001,000
D16	FM 1774 Plant No. 5 Connector-1	2029	16-inch main in Woodard Tract for Connection to Plant No. 5 to FM 1774. Estimated distance 6,500 feet.	\$862,500	\$1,725,000
D17	Woodard Tract-Plant No. 5 Connector-2	2029	16-inch main on FM 1774 connecting D16 to Existing Main at FM 1486. Estimated distance 8500 feet.	\$759,000	\$1,518,000
			Impact Fee Study and Update	\$29,500	\$29,500
			<b>Totals:</b>	<b>\$27,418,820</b>	<b>\$63,116,860</b>

**Table 3 Wastewater Treatment and Collection Projects**

<b>Project ID</b>	<b>Project Name</b>	<b>Year</b>	<b>Project Description</b>	<b>OPCC Attributable to 10-Year CIP</b>	<b>Total OPCC</b>
1-1	Interim FM 1488 Pumping Station	2019	Short-term FM 1488 Pumping Station (2.45 mgd) and Force Main Improvements (12 inches)	\$3,900,000	\$3,900,000
C-1	Mustang Ridge Interceptor	2021	24-inch interceptor to serve Mustang Ridge (18 inches) and Lone Star College (15 inches)	\$2,500,000	\$3,100,000
C-2	M3 Ranch Interceptor	2021	48-inch interceptor to serve Escondido Ranch (18 inches) and M3 Ranch (30 inches)	\$2,700,000	\$3,390,000
1-2	Woodard Pumping Station	2021	Woodard Pumping Station (4.26 mgd), Force Main (16 inches), and Gravity Interceptor (30 inches) to FM 1488 Pumping Station	\$12,000,000	\$13,000,000
C-4	Spur 149 Discharge	2023	Increase size of gravity sewer to FM 1488 Pumping Station downstream of Spur 149 Force Main (15 to 36 inches)	\$3,400,000	\$5,210,000
1-3	Mill Creek WWTP Phase 1	2023	2.25 mgd DAF/9 mgd Peak	\$24,200,000	\$24,200,000
1-4	FM 1488 Pumping Station Mods	2023	New dual force main (24 inches) and pumps (9.0 mgd) to Mill Creek WWTP	\$6,600,000	\$7,700,000
1-5	South West Interceptor	2025	Miscellaneous development to Nichols Sawmill WWTP (30 inches)	\$6,900,000	\$7,900,000
C-3	Magnolia HS Pumping Station Removal	2026	Decommission pump station at high school and route 24 inches gravity sewer with Halbedier Development to Spur 149	\$1,500,000	\$1,500,000
C-5	Nichols Sawmill Replacement	2029	Replace Treatment Units 1 and 2 with new Treatment Unit	\$2,900,000	\$2,900,000
1-6	Mill Creek WWTP Phase 2	2031	4.5 mgd DAF/18 mgd Peak	\$-	\$24,200,000
1-7	FM 1488 Pumping Station Buildout	2031	Pump size increase to ultimate size (18 mgd)	\$-	\$1,000,000
			Impact Fee Study and Update	\$29,500	\$29,500
			<b>TOTAL</b>	<b>\$66,629,500</b>	<b>\$98,029,500</b>

**Table 4 Connection Equivalencies for Various Types and Sizes of Water Meters**

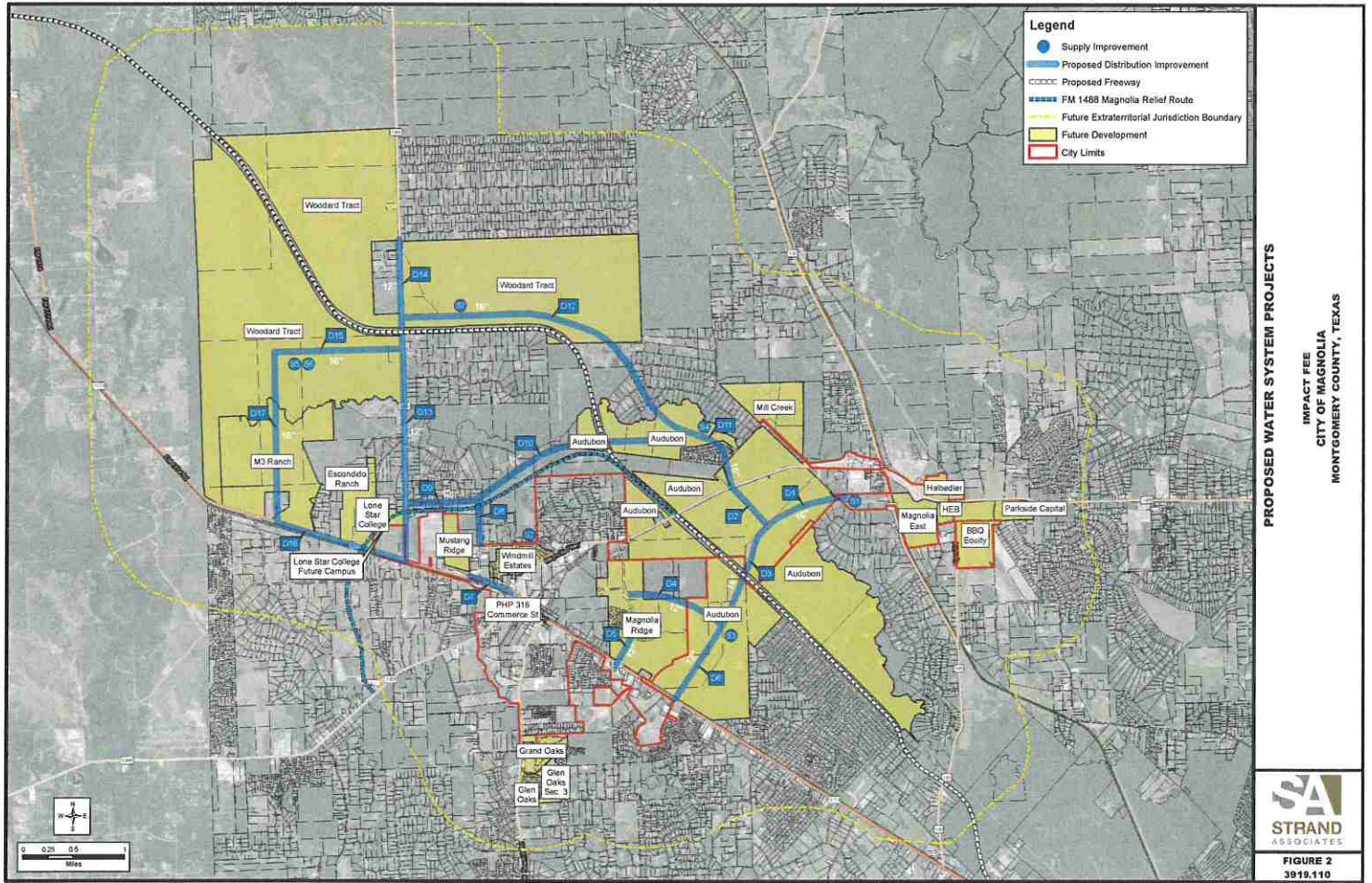
<b>Meter Size (inch)</b>	<b>Meter Type</b>	<b>Continuous Duty Maximum Flow Rate (gpm)</b>	<b>Ratio to 5/8-inch Meter</b>
5/8	Displacement Type	10	1.0
5/8 x 3/4	Displacement Type	10	1.0
3/4	Displacement Type	15	1.5
1	Displacement Type	25	2.5
1.5	Displacement Type	50	5.0
2	Displacement Type	80	8.0
2	Compound	80	8.0
3	Compound	175	17.5
3	Turbine Vertical Shaft	220	22.0
3	Turbine High Velocity	350	35.0
4	Compound	300	30.0
4	Turbine Vertical Shaft	420	42.0
4	Turbine High Velocity	650	65.0
6	Compound	675	67.5
6	Turbine Vertical Shaft	865	86.5
6	Turbine High Velocity	1,400	140.0
8	Compound	900	90.0
8	Turbine High Velocity	2,400	240.0
10	Turbine High Velocity	3,500	350.0
12	Turbine High Velocity	4,400	440.0



FUTURE LAND USE ALLOCATION FOR WATER AND SEWER SERVICE AREA

IMPACT FEE  
CITY OF MAGNOLIA  
MONTGOMERY COUNTY, TEXAS



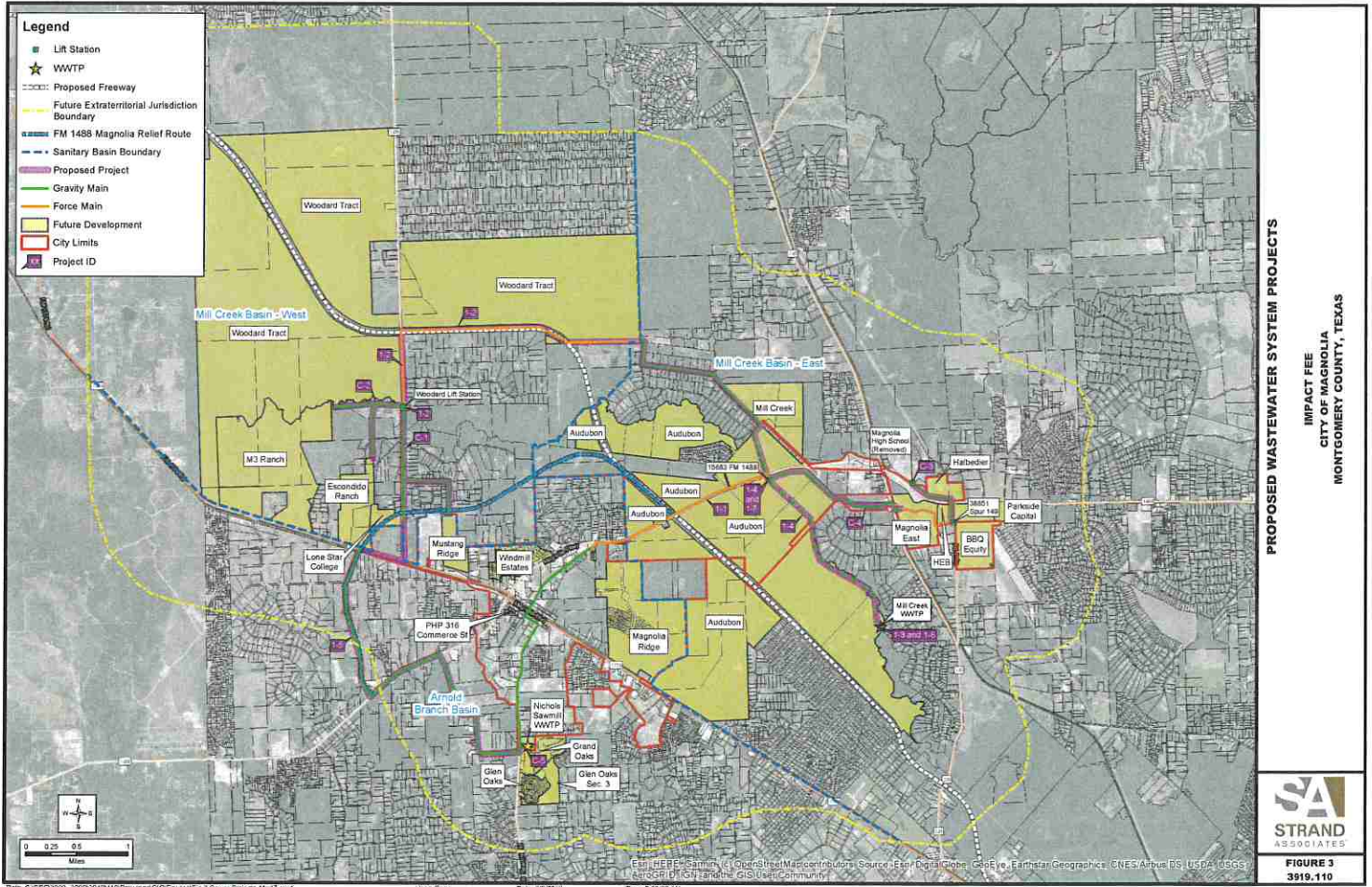


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## SUMMARY OF WATER IMPACT FEE DETERMINATION

Water Service Area

Recoverable Impact Fee CIP Costs	\$ 16,077,120	Table 2 Water Supply and Distribution Projects
Financing Cost	4,399,658	See Detail Below
Existing Fund Balance	-	Water Appendices - page 1
Interest Earnings	(1,770,453)	Water Appendices - page 3
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 18,706,326</b>	<b>Sum of Above</b>
Equivalent Connections	8,798	Table 1 Future Connections
<b>Maximum Assessable Impact Fee</b>	<b>\$ 2,126</b>	<b>Max. Recoverable Cost Divided by Equiv. Conn.</b>

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through Impact fees after adjusting for the 50% credit. Reference is Table 2 Water Supply and Distribution Projects. In 2001, the Impact Fee Statute was amended to include either a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee or a credit equal to 50% of the total cost of implementing the impact fee capital improvement plan. The City has elected to use the 50% credit.

### Financing Costs:

Represents the interest costs associated with debt financing the new Impact fee project costs. Interest costs are derived from the City's Financial Advisor.

New Annual Debt Service	\$ 12,430,843	Water Appendices - page 2
Principal Component (New and Existing Debt)	(8,031,185)	Water Appendices - page 1
Financing Costs	<u>\$ 4,399,658</u>	

### Existing Fund Balance:

Represents Impact fee revenue collected but not yet expended or assigned. Per discussions with City staff, all available balances have been fully encumbered or are assigned to prior Impact fee projects. Reference is page 1 of Water Appendices.

### Interest Earnings:

Represents the interest earned on cash flows and assumes a 1.49% annual interest rate per the most recent investment portfolio. The Impact Fee Statute states that interest earnings are funds of the Impact fee account and are held to the same restrictions as Impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 3 of Water Appendices.

### Maximum Recoverable Cost for Impact Fee:

Represents the sum of Recoverable Impact Fee CIP Costs (after 50% credit) and Financing Costs less Existing Fund Balance and Interest Earnings.

### Equivalent Connections:

Represents the growth in equivalent water connections over the ten-year timeframe (i.e. service units). A service unit is a standardized measure of use attributable to an individual unit of development calculated in accordance with generally accepted engineering standards. Reference is Table 1 Future Connections.

### Maximum Assessable Impact Fee:

Represents Maximum Recoverable Cost for Impact Fee divided by Equivalent Connections. This is the maximum Impact fee that can be assessed by the City.



# City of Magnolia - 2019 Water Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Impact Fee Calculation Assumptions

#### Water Service Area

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	1.49%
Annual Service Unit Growth <sup>(2)</sup>	880
Existing Fund Balance <sup>(3)</sup>	-
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ -
Non-Debt Funded Project Cost <sup>(5)</sup>	8,045,935
New Project Cost Funded Through New Debt <sup>(6)</sup>	8,031,185
Total Recoverable Project Cost <sup>(7)</sup>	\$ 16,077,120

#### II. New Debt Issues Assumptions

Year	Principal <sup>(8)</sup>	Interest <sup>(9)</sup>	Term
1	\$ -	4.25%	20
2	3,415,758	4.25%	20
3	-	4.25%	20
4	1,143,671	4.25%	20
5	-	4.25%	20
6	110,376	5.00%	20
7	-	5.00%	20
8	1,669,937	5.00%	20
9	-	5.00%	20
10	1,691,443	5.00%	20
Total	\$ 8,031,185		

#### III. Capital Expenditure Assumptions

Year	Annual Capital Expenditures <sup>(10)</sup>
1	\$ 14,750
2	3,415,758
3	1,138,586
4	2,282,257
5	1,519,810
6	491,600
7	418,016
8	1,706,729
9	593,438
10	2,248,088
11	1,120,460
12	563,814
13	563,814
Total	16,077,120

- (1) Per Investment Portfolio Quarter Ending March 2019  
 (2) Derived from Table 1 Future Connections  
 (3) Per discussions with City Staff and City files, assumes already encumbered or assigned  
 (4) Per discussions with City Staff and City files, not applicable  
 (5) Per discussions with City Staff and City files, assumes 50% of project costs are non-debt funded  
 (6) Per discussions with City Staff and City files, assumes 50% of project costs are new debt funded  
 (7) Table 2 Water Supply and Distribution Projects  
 (8) New debt issuances based on engineer project timeline  
 (9) Estimated interest on future debt from City's Financial Advisor May 2019  
 (10) Assumes new debt proceeds expended over a 3-year timeframe  
 Non-debt funded capital expenditures allocated per discussions with City Staff

**City of Magnolia - 2019 Water Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Debt Service and Expense Summary**  
**Water Service Area**

**I. New Debt Service Detail**

Year	Series 1	Series 2	Series 3	Series 4	Series 5	Series 6	Series 7	Series 8	Series 9	Series 10	Total Annual New Debt Service
1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	-	256,933	-	-	-	-	-	-	-	-	256,933
3	-	256,933	-	-	-	-	-	-	-	-	256,933
4	-	256,933	-	86,027	-	-	-	-	-	-	342,959
5	-	256,933	-	86,027	-	-	-	-	-	-	342,959
6	-	256,933	-	86,027	-	8,857	-	-	-	-	351,816
7	-	256,933	-	86,027	-	8,857	-	-	-	-	351,816
8	-	256,933	-	86,027	-	8,857	-	134,000	-	-	485,816
9	-	256,933	-	86,027	-	8,857	-	134,000	-	-	485,816
10	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
11	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
12	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
13	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
14	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
15	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
16	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
17	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
18	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
19	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
20	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
21	-	256,933	-	86,027	-	8,857	-	134,000	-	135,726	621,542
22	-	-	-	86,027	-	8,857	-	134,000	-	135,726	364,609
23	-	-	-	86,027	-	8,857	-	134,000	-	135,726	364,609
24	-	-	-	-	-	8,857	-	134,000	-	135,726	278,583
25	-	-	-	-	-	8,857	-	134,000	-	135,726	278,583
26	-	-	-	-	-	-	-	134,000	-	135,726	269,726
27	-	-	-	-	-	-	-	134,000	-	135,726	269,726
28	-	-	-	-	-	-	-	-	-	135,726	135,726
29	-	-	-	-	-	-	-	-	-	135,726	135,726
	\$ -	\$ 5,138,655	\$ -	\$ 1,720,535	\$ -	\$ 177,137	\$ -	\$ 2,680,001	\$ -	\$ 2,714,516	\$ 12,430,843

**II. Summary of Annual Expenses**

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Total Expense
1	\$ -	\$ 14,750	\$ -	\$ -	\$ 14,750
2	256,933	3,415,758	(3,415,758)	-	256,933
3	256,933	1,138,586	-	-	1,395,519
4	342,959	2,282,257	(1,143,671)	-	1,481,545
5	342,959	1,519,810	-	-	1,862,769
6	351,816	491,600	(110,376)	-	733,040
7	351,816	418,016	-	-	769,832
8	485,816	1,706,729	(1,669,937)	-	522,608
9	485,816	593,438	-	-	1,079,254
10	621,542	2,248,088	(1,691,443)	-	1,178,188
11	621,542	1,120,460	-	-	1,742,002
12	621,542	563,814	-	-	1,185,356
13	621,542	563,814	-	-	1,185,356
14	621,542	-	-	-	621,542
15	621,542	-	-	-	621,542
16	621,542	-	-	-	621,542
17	621,542	-	-	-	621,542
18	621,542	-	-	-	621,542
19	621,542	-	-	-	621,542
20	621,542	-	-	-	621,542
21	621,542	-	-	-	621,542
22	364,609	-	-	-	364,609
23	364,609	-	-	-	364,609
24	278,583	-	-	-	278,583
25	278,583	-	-	-	278,583
26	269,726	-	-	-	269,726
27	269,726	-	-	-	269,726
28	135,726	-	-	-	135,726
29	135,726	-	-	-	135,726
	\$ 12,430,843	\$ 16,077,120	\$ (8,031,185)	\$ -	\$ 20,476,778

(1) Water Appendices - page 2 Section I

(2) Water Appendices - page 1 Section III

(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding annual debt service, not applicable here

**City of Magnolia - 2019 Water Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Revenue Test**  
**Water Service Area**

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ -
1	\$ 2,126	880	\$ 1,870,633	\$ 14,750	\$ 1,855,883	\$ 13,826	1,869,709
2	2,126	880	1,870,633	256,933	1,613,700	39,881	3,523,289
3	2,126	880	1,870,633	1,395,519	475,114	56,037	4,054,440
4	2,126	880	1,870,633	1,481,545	389,087	63,310	4,506,837
5	2,126	880	1,870,633	1,862,769	7,863	67,210	4,581,911
6	2,126	880	1,870,633	733,040	1,137,592	76,746	5,796,249
7	2,126	880	1,870,633	769,832	1,100,800	94,565	6,991,614
8	2,126	880	1,870,633	522,608	1,348,024	114,218	8,453,856
9	2,126	880	1,870,633	1,079,254	791,378	131,858	9,377,093
10	2,126	880	1,870,633	1,178,188	692,445	144,877	10,214,415
11	-	-	-	1,742,002	(1,742,002)	139,217	8,611,629
12	-	-	-	1,185,356	(1,185,356)	119,482	7,545,755
13	-	-	-	1,185,356	(1,185,356)	103,601	6,464,000
14	-	-	-	621,542	(621,542)	91,683	5,934,141
15	-	-	-	621,542	(621,542)	83,788	5,396,387
16	-	-	-	621,542	(621,542)	75,776	4,850,620
17	-	-	-	621,542	(621,542)	67,644	4,296,722
18	-	-	-	621,542	(621,542)	59,391	3,734,570
19	-	-	-	621,542	(621,542)	51,015	3,164,043
20	-	-	-	621,542	(621,542)	42,514	2,585,014
21	-	-	-	621,542	(621,542)	33,886	1,997,359
22	-	-	-	364,609	(364,609)	27,044	1,659,793
23	-	-	-	364,609	(364,609)	22,015	1,317,199
24	-	-	-	278,583	(278,583)	17,551	1,056,167
25	-	-	-	278,583	(278,583)	13,661	791,245
26	-	-	-	269,726	(269,726)	9,780	531,300
27	-	-	-	269,726	(269,726)	5,907	267,481
28	-	-	-	135,726	(135,726)	2,974	134,729
29	-	-	-	135,726	(135,726)	996	-
			\$ 18,706,325	\$ 20,476,778		\$ 1,770,453	

**City of Magnolia - 2019 Water Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Impact Fee Calculation**  
**Water Service Area**

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.5243	1.0000	880	1,341	\$ 14,750	\$ 22,484
2	28	1.5019	1.0000	880	1,321	256,933	385,896
3	27	1.4799	1.0000	880	1,302	1,395,519	2,065,208
4	26	1.4582	1.0000	880	1,283	1,481,545	2,160,328
5	25	1.4368	1.0000	880	1,264	1,862,769	2,676,336
6	24	1.4157	1.0000	880	1,245	733,040	1,037,734
7	23	1.3949	1.0000	880	1,227	769,832	1,073,819
8	22	1.3744	1.0000	880	1,209	522,608	718,271
9	21	1.3542	1.0000	880	1,191	1,079,254	1,461,545
10	20	1.3343	1.0000	880	1,174	1,178,188	1,572,099
11	19	1.3147	1.0000	-	-	1,742,002	2,290,291
12	18	1.2954	1.0000	-	-	1,185,356	1,535,563
13	17	1.2764	1.0000	-	-	1,185,356	1,513,019
14	16	1.2577	1.0000	-	-	621,542	781,705
15	15	1.2392	1.0000	-	-	621,542	770,229
16	14	1.2210	1.0000	-	-	621,542	758,921
17	13	1.2031	1.0000	-	-	621,542	747,779
18	12	1.1854	1.0000	-	-	621,542	736,800
19	11	1.1680	1.0000	-	-	621,542	725,983
20	10	1.1509	1.0000	-	-	621,542	715,325
21	9	1.1340	1.0000	-	-	621,542	704,823
22	8	1.1173	1.0000	-	-	364,609	407,394
23	7	1.1009	1.0000	-	-	364,609	401,413
24	6	1.0848	1.0000	-	-	278,583	302,200
25	5	1.0688	1.0000	-	-	278,583	297,763
26	4	1.0532	1.0000	-	-	269,726	284,064
27	3	1.0377	1.0000	-	-	269,726	279,893
28	2	1.0225	1.0000	-	-	135,726	138,774
29	1	1.0075	1.0000	-	-	135,726	136,737
					12,559		\$ 26,702,395

Annual Interest Rate: 1.49%

Present Value of Initial Impact Fee Fund Balance \$ -

Total Escalated Expense for Entire Period \$ 26,702,395

Less Future Value of Initial Impact Fee Fund Balance -

Sub-Total \$ 26,702,395

Total Escalated Service Units 12,559

Impact Fee for Water Service Area \$ 2,126

**City of Magnolia - 2019 Water Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Impact Fee Project Funding**  
**Water Service Area**

Base Year 2019  
Escalation Factor <sup>(1)</sup> 3.18%  
Escalate Costs? Yes

<u>Impact Fee Project Name <sup>(2)</sup></u>	<u>Year</u>	<u>Cost In Service Area <sup>(2)</sup></u>	<u>Escalated Costs</u>	<u>Impact Fee Eligible Cost <sup>(2)</sup></u>	<u>Impact Fee Recoverable Cost</u>	<u>Debt Funded Proposed <sup>(3)</sup></u>	<u>Non-Debt Funded <sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
S1-Plant No. 3	2021	\$ 10,592,000	\$ 11,275,328	\$ 11,275,328	\$ 5,637,664	\$ 2,818,832	\$ 2,818,832	\$ 5,637,664
S2-Well No. 9	2023	2,893,000	3,278,316	3,278,316	1,639,158	819,579	819,579	1,639,158
S3-Plant No. 4	2027	8,669,000	8,563,780	8,679,748	3,339,874	1,669,937	1,669,937	3,339,874
S4-Plant No. 5	2030	7,996,000	11,277,280	-	-	-	-	-
S5-Plant No. 6	2034	6,526,000	10,429,921	-	-	-	-	-
S6-Plant No. 6 EST	2035	2,747,000	4,529,687	-	-	-	-	-
S7-Plant No. 7	2037	8,182,000	14,362,175	-	-	-	-	-
D1-Audubon Plant 3 Connector-1	2021	759,000	807,966	807,966	403,983	201,991	201,991	403,983
D2-Audubon Plant 3 Connector-2	2021	483,000	514,160	514,160	257,080	128,540	128,540	257,080
D3-Audubon Plant 3 Connector-3	2021	1,001,000	1,065,578	1,065,578	532,789	266,395	266,395	532,789
D4-Audubon Plant 4 Connector-1	2029	826,000	1,129,109	1,129,109	564,555	282,277	282,277	564,555
D5-Magnolia Ridge Plant 4 Connector	2029	350,000	478,436	478,436	239,218	119,609	119,609	239,218
D6-Audubon Plant 4 Connector-2	2029	723,000	988,312	988,312	494,156	247,078	247,078	494,156
D7-FM 1774 Loop Completion	2025	366,000	441,504	441,504	220,752	110,376	110,376	220,752
D8-Kelly Plant Reinforcing	2023	414,000	469,140	234,570	117,285	58,643	58,643	117,285
D9-FM1499 Relief Connector-1	2023	604,000	684,446	342,223	171,112	85,556	85,556	171,112
D10-FM1499 Relief Connector-2	2029	1,857,000	2,538,446	1,269,223	634,611	317,306	317,306	634,611
D11-Interstate Connector-1	2034	725,000	1,158,703	-	-	-	-	-
D12-Interstate Connector-2	2034	3,002,000	4,797,828	-	-	-	-	-
D13-FM 1488 Connector-1	2023	1,270,000	1,439,150	719,575	359,788	179,894	179,894	359,788
D14-FM 1488 Connector-2	2034	905,000	1,446,380	-	-	-	-	-
D15-Woodard Tract Plant 5 Connector-1	2029	1,001,000	1,368,327	684,164	342,082	171,041	171,041	342,082
D16-FM 1774 Plant 5 Connector-1	2029	1,725,000	2,358,007	1,179,003	589,502	294,751	294,751	589,502
D17-Woodard Tract Plant 5 Connector-2	2029	1,518,000	2,075,046	1,037,523	518,762	259,381	259,381	518,762
Water Impact Fee Study	2019	29,500	29,500	29,500	14,750	-	14,750	14,750
<b>Total</b>		<b>\$ 63,163,500</b>	<b>\$ 87,506,627</b>	<b>\$ 32,154,239</b>	<b>\$ 16,077,120</b>	<b>\$ 8,031,185</b>	<b>\$ 8,045,935</b>	<b>\$ 16,077,120</b>

(1) Engineering News Report Construction Cost Index, 1998-2018

(2) Table 2 Water Supply and Distribution Projects

(3) Per discussions with City staff and City files

**SUMMARY OF WASTEWATER IMPACT FEE DETERMINATION**  
Wastewater Service Area

Recoverable Impact Fee CIP Costs	\$ 37,636,278	Table 3 Wastewater Treatment and Collection Projects
Financing Cost	9,843,560	See Detail Below
Existing Fund Balance	-	Wastewater Appendices - page 1
Interest Earnings	(3,253,732)	Wastewater Appendices - page 3
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 44,226,106</b>	<b>Sum of Above</b>
Equivalent Connections	8,798	Table 1 Future Connections
<b>Maximum Assessable Impact Fee</b>	<b>\$ 5,027</b>	<b>Max. Recoverable Cost Divided by Equiv. Conn.</b>

Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through Impact fees after adjusting for the 50% credit. Reference is Table 3 Wastewater Treatment and Collection Projects. In 2001, the Impact Fee Statute was amended to include either a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee or a credit equal to 50% of the total cost of implementing the impact fee capital improvement plan. The City has elected to use the 50% credit.

Financing Costs:

Represents the interest costs associated with debt financing the new Impact fee project costs. Interest costs are derived from the City's Financial Advisor.

New Annual Debt Service	\$ 28,654,324	Wastewater Appendices - page 2
Principal Component (New and Existing Debt)	(18,810,764)	Wastewater Appendices - page 1
Financing Costs	<u>\$ 9,843,560</u>	

Existing Fund Balance:

Represents Impact fee revenue collected but not yet expended or assigned. Per discussions with City staff, all available balances have been fully encumbered or are assigned to prior Impact fee projects. Reference is page 1 of Wastewater Appendices.

Interest Earnings:

Represents the interest earned on cash flows and assumes a 1.49% annual interest rate per the most recent investment portfolio. The Impact Fee Statute states that interest earnings are funds of the Impact fee account and are held to the same restrictions as Impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 3 of Wastewater Appendices.

Maximum Recoverable Cost for Impact Fee:

Represents the sum of Recoverable Impact Fee CIP Costs (after 50% credit) and Financing Costs less Existing Fund Balance and Interest Earnings.

Equivalent Connections:

Represents the growth in equivalent wastewater connections over the ten-year timeframe (i.e. service units). A service unit is a standardized measure of use attributable to an individual unit of development calculated in accordance with generally accepted engineering standards. Reference is Table 1 Future Connections.

Maximum Assessable Impact Fee:

Represents Maximum Recoverable Cost for Impact Fee divided by Equivalent Connections. This is the maximum Impact fee that can be assessed by the City.

# City of Magnolia - 2019 Wastewater Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Impact Fee Calculation Assumptions

#### Wastewater Service Area

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	1.49%
Annual Service Unit Growth <sup>(2)</sup>	880
Existing Fund Balance <sup>(3)</sup>	-
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ -
Non-Debt Funded New Project Cost <sup>(5)</sup>	18,825,514
New Project Cost Funded Through New Debt <sup>(6)</sup>	18,810,764
Total Recoverable Project Cost <sup>(7)</sup>	\$ 37,636,278

#### II. New Debt Issues Assumptions

Year	Principal <sup>(8)</sup>	Interest <sup>(9)</sup>	Term
1	\$ 1,005,959	4.25%	20
2	4,577,408	4.25%	20
3	-	4.25%	20
4	9,688,767	4.25%	20
5	-	4.25%	20
6	2,080,859	5.00%	20
7	466,724	5.00%	20
8	-	5.00%	20
9	-	5.00%	20
10	991,046	5.00%	20
Total	\$ 18,810,764		

#### III. Capital Expenditure Assumptions

Year	Annual Capital Expenditures <sup>(10)</sup>
1	\$ 1,020,709
2	4,912,728
3	1,861,122
4	11,549,889
5	4,755,392
6	5,310,448
7	4,389,933
8	849,194
9	849,194
10	1,146,621
11	330,349
12	330,349
13	330,349
Total	\$ 37,636,278

- (1) Per Investment Portfolio Quarter Ending March 2019  
 (2) Derived from Table 1 Future Connections  
 (3) Per discussions with City Staff and City files, assumes already encumbered or assigned  
 (4) Per discussions with City Staff and City files  
 (5) Per discussions with City Staff and City files, assumes 50% of project costs are non-debt funded  
 (6) Per discussions with City Staff and City files, assumes 50% of project costs are new debt funded  
 (7) Table 3 Wastewater Treatment and Collection Projects  
 (8) New debt issuances based on engineer project timeline  
 (9) Estimated interest on future debt from City's Financial Advisor May 2019  
 (10) Assumes new debt proceeds expended over a 3-year timeframe  
 Non-debt funded capital expenditures allocated per discussions with City Staff



**City of Magnolia - 2019 Wastewater Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Debt Service and Expense Summary**  
**Wastewater Service Area**

**I. New Debt Service Detail**

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 75,668	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,668
2	75,668	344,312	-	-	-	-	-	-	-	-	419,980
3	75,668	344,312	-	-	-	-	-	-	-	-	419,980
4	75,668	344,312	-	728,787	-	-	-	-	-	-	1,148,767
5	75,668	344,312	-	728,787	-	-	-	-	-	-	1,148,767
6	75,668	344,312	-	728,787	-	166,974	-	-	-	-	1,315,741
7	75,668	344,312	-	728,787	-	166,974	37,451	-	-	-	1,353,192
8	75,668	344,312	-	728,787	-	166,974	37,451	-	-	-	1,353,192
9	75,668	344,312	-	728,787	-	166,974	37,451	-	-	-	1,353,192
10	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
11	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
12	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
13	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
14	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
15	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
16	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
17	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
18	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
19	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
20	75,668	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,432,716
21	-	344,312	-	728,787	-	166,974	37,451	-	-	79,524	1,357,048
22	-	-	-	728,787	-	166,974	37,451	-	-	79,524	1,012,736
23	-	-	-	728,787	-	166,974	37,451	-	-	79,524	1,012,736
24	-	-	-	-	-	166,974	37,451	-	-	79,524	283,949
25	-	-	-	-	-	166,974	37,451	-	-	79,524	283,949
26	-	-	-	-	-	-	37,451	-	-	79,524	116,975
27	-	-	-	-	-	-	-	-	-	79,524	79,524
28	-	-	-	-	-	-	-	-	-	79,524	79,524
29	-	-	-	-	-	-	-	-	-	79,524	79,524
	\$ 1,513,361	\$ 6,886,238	\$ -	\$ 14,575,749	\$ -	\$ 3,339,470	\$ 749,023	\$ -	\$ -	\$ 1,580,483	\$ 28,654,324

**II. Summary of Annual Expenses**

<u>Year</u>	<u>New Annual Debt Service <sup>(1)</sup></u>	<u>Annual Capital Expenditures <sup>(2)</sup></u>	<u>Annual Bond Proceeds <sup>(3)</sup></u>	<u>Existing Annual Debt Service <sup>(3)</sup></u>	<u>Total Expense</u>
1	\$ 75,668	\$ 1,020,709	\$ (1,005,959)	\$ -	\$ 90,418
2	419,980	4,912,728	(4,577,408)	-	765,300
3	419,980	1,861,122	-	-	2,281,102
4	1,148,767	11,549,889	(9,688,767)	-	3,009,890
5	1,148,767	4,755,392	-	-	5,904,159
6	1,315,741	5,310,448	(2,080,859)	-	4,545,330
7	1,353,192	4,389,933	(466,724)	-	5,276,401
8	1,353,192	849,194	-	-	2,202,387
9	1,353,192	849,194	-	-	2,202,387
10	1,432,716	1,146,621	(991,046)	-	1,588,291
11	1,432,716	330,349	-	-	1,763,065
12	1,432,716	330,349	-	-	1,763,065
13	1,432,716	330,349	-	-	1,763,065
14	1,432,716	-	-	-	1,432,716
15	1,432,716	-	-	-	1,432,716
16	1,432,716	-	-	-	1,432,716
17	1,432,716	-	-	-	1,432,716
18	1,432,716	-	-	-	1,432,716
19	1,432,716	-	-	-	1,432,716
20	1,432,716	-	-	-	1,432,716
21	1,357,048	-	-	-	1,357,048
22	1,012,736	-	-	-	1,012,736
23	1,012,736	-	-	-	1,012,736
24	283,949	-	-	-	283,949
25	283,949	-	-	-	283,949
26	116,975	-	-	-	116,975
27	79,524	-	-	-	79,524
28	79,524	-	-	-	79,524
29	79,524	-	-	-	79,524
	\$ 28,654,324	\$ 37,636,278	\$ (18,810,764)	\$ -	\$ 47,479,838

(1) Wastewater Appendices - page 2 Section I

(2) Wastewater Appendices - page 1 Section III

(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding annual debt service, not applicable here

City of Magnolia - 2019 Wastewater Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Revenue Test  
Wastewater Service Area

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial						\$	-
1	\$ 5,027	880	\$ 4,422,611	\$ 90,418	\$ 4,332,193	\$ 32,275	4,364,467
2	5,027	880	4,422,611	755,300	3,667,311	92,352	8,124,130
3	5,027	880	4,422,611	2,281,102	2,141,508	137,004	10,402,642
4	5,027	880	4,422,611	3,009,890	1,412,721	165,524	11,980,887
5	5,027	880	4,422,611	5,904,159	(1,481,549)	167,478	10,666,816
6	5,027	880	4,422,611	4,545,330	(122,719)	158,021	10,702,118
7	5,027	880	4,422,611	5,276,401	(853,790)	153,101	10,001,429
8	5,027	880	4,422,611	2,202,387	2,220,224	165,562	12,387,215
9	5,027	880	4,422,611	2,202,387	2,220,224	201,110	14,808,549
10	5,027	880	4,422,611	1,588,291	2,834,320	241,763	17,884,632
11	-	-	-	1,763,065	(1,763,065)	253,346	16,374,913
12	-	-	-	1,763,065	(1,763,065)	230,851	14,842,699
13	-	-	-	1,763,065	(1,763,065)	208,021	13,287,656
14	-	-	-	1,432,716	(1,432,716)	187,312	12,042,252
15	-	-	-	1,432,716	(1,432,716)	168,756	10,778,292
16	-	-	-	1,432,716	(1,432,716)	149,923	9,495,498
17	-	-	-	1,432,716	(1,432,716)	130,809	8,193,591
18	-	-	-	1,432,716	(1,432,716)	111,411	6,872,286
19	-	-	-	1,432,716	(1,432,716)	91,723	5,531,293
20	-	-	-	1,432,716	(1,432,716)	71,743	4,170,319
21	-	-	-	1,357,048	(1,357,048)	52,028	2,865,299
22	-	-	-	1,012,736	(1,012,736)	35,148	1,887,711
23	-	-	-	1,012,736	(1,012,736)	20,582	895,556
24	-	-	-	283,949	(283,949)	11,228	622,836
25	-	-	-	283,949	(283,949)	7,165	346,052
26	-	-	-	116,975	(116,975)	4,285	233,361
27	-	-	-	79,524	(79,524)	2,885	156,722
28	-	-	-	79,524	(79,524)	1,743	78,940
29	-	-	-	79,524	(79,524)	584	-
			\$ 44,226,106	\$ 47,479,838		\$ 3,253,732	

City of Magnolia - 2019 Wastewater Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Impact Fee Calculation  
Wastewater Service Area

Year	Number of Years to End of Period	Future Value Escalation		Annual Service Units		Annual Expense	
		Interest Rate Factor	Recovery Fee Factor	Actual	Escalated	Actual	Escalated
1	29	1.5243	1.0000	880	1,341	\$ 90,418	\$ 137,826
2	28	1.5019	1.0000	880	1,321	755,300	1,134,411
3	27	1.4799	1.0000	880	1,302	2,281,102	3,375,770
4	26	1.4582	1.0000	880	1,283	3,009,890	4,388,897
5	25	1.4368	1.0000	880	1,264	5,904,159	8,482,808
6	24	1.4157	1.0000	880	1,245	4,545,330	6,434,632
7	23	1.3949	1.0000	880	1,227	5,276,401	7,359,916
8	22	1.3744	1.0000	880	1,209	2,202,387	3,026,951
9	21	1.3542	1.0000	880	1,191	2,202,387	2,982,511
10	20	1.3343	1.0000	880	1,174	1,588,291	2,119,314
11	19	1.3147	1.0000	-	-	1,763,065	2,317,984
12	18	1.2954	1.0000	-	-	1,763,065	2,283,953
13	17	1.2764	1.0000	-	-	1,763,065	2,250,421
14	16	1.2577	1.0000	-	-	1,432,716	1,801,907
15	15	1.2392	1.0000	-	-	1,432,716	1,775,453
16	14	1.2210	1.0000	-	-	1,432,716	1,749,387
17	13	1.2031	1.0000	-	-	1,432,716	1,723,704
18	12	1.1854	1.0000	-	-	1,432,716	1,698,398
19	11	1.1680	1.0000	-	-	1,432,716	1,673,463
20	10	1.1509	1.0000	-	-	1,432,716	1,648,895
21	9	1.1340	1.0000	-	-	1,357,048	1,538,880
22	8	1.1173	1.0000	-	-	1,012,736	1,131,573
23	7	1.1009	1.0000	-	-	1,012,736	1,114,960
24	6	1.0848	1.0000	-	-	283,949	308,021
25	5	1.0688	1.0000	-	-	283,949	303,499
26	4	1.0532	1.0000	-	-	116,975	123,193
27	3	1.0377	1.0000	-	-	79,524	82,522
28	2	1.0225	1.0000	-	-	79,524	81,310
29	1	1.0075	1.0000	-	-	79,524	80,117
					12,559		\$ 63,130,676

Annual Interest Rate:	1.49%
Present Value of Initial Impact Fee Fund Balance	\$ -
Total Escalated Expense for Entire Period	\$ 63,130,676
Less Future Value of Initial Impact Fee Fund Balance	-
Sub-Total	\$ 63,130,676
Total Escalated Service Units	12,559
Impact Fee for Wastewater Service Area	\$ 5,027

**City of Magnolia - 2019 Wastewater Impact Fee Study**  
 Capital Improvement Plan for Impact Fees  
 Impact Fee Project Funding  
 Wastewater Service Area

Base Year 2019  
 Escalation Factor <sup>(1)</sup> 3.18%  
 Escalate Costs? Yes

<u>Impact Fee Project Name <sup>(2)</sup></u>	<u>Year</u>	<u>Cost In</u> <u>Service Area <sup>(2)</sup></u>	<u>Escalated</u> <u>Costs</u>	<u>Impact Fee</u> <u>Eligible Cost <sup>(2)</sup></u>	<u>Impact Fee</u> <u>Recoverable Cost</u>	<u>Debt-Funded</u> <u>Proposed <sup>(3)</sup></u>	<u>Non-Debt</u> <u>Funded <sup>(3)</sup></u>	<u>Impact Fee</u> <u>Recoverable Cost</u>
1-1-Interim FM 1488 PS	2020	\$ 3,900,000	\$ 4,023,835	\$ 4,023,835	\$ 2,011,918	\$ 1,005,959	\$ 1,005,959	\$ 2,011,918
C-1-Mustang Ridge Interceptor	2021	3,100,000	3,299,992	2,661,284	1,330,642	665,321	665,321	1,330,642
C-2-M3 Ranch Interceptor	2021	3,390,000	3,608,701	2,874,187	1,437,093	718,547	718,547	1,437,093
1-2-Woodard PS	2021	13,000,000	13,838,676	12,774,163	6,387,081	3,193,541	3,193,541	6,387,081
C-4-Spur 149 Discharge	2023	5,210,000	5,903,915	3,852,843	1,926,421	963,211	963,211	1,926,421
1-3-Mill Creek WWTP Ph. 1	2023	24,200,000	27,423,176	27,423,176	13,711,588	6,855,794	6,855,794	13,711,588
1-4-FM 1488 PS Mods	2023	7,700,000	8,725,556	7,479,048	3,739,524	1,869,762	1,869,762	3,739,524
1-5-South West Interceptor	2025	7,900,000	9,529,732	8,323,437	4,161,718	2,080,859	2,080,859	4,161,718
C-3-Magnolia HS PS Removal	2026	1,500,000	1,866,897	1,866,897	933,449	466,724	466,724	933,449
C-5-Nichols Sawmill Replacement	2029	2,900,000	3,964,186	3,964,186	1,982,093	991,046	991,046	1,982,093
1-6-Mill Creek WWTP Ph. 2	2031	24,200,000	35,214,582	-	-	-	-	-
1-7-FM 1488 PS Buildout	2031	1,000,000	1,455,148	-	-	-	-	-
Wastewater Impact Fee Study	2019	29,500	29,500	29,500	14,750	-	14,750	14,750
<b>Total</b>		<b>\$ 98,029,500</b>	<b>\$ 118,883,896</b>	<b>\$ 75,272,555</b>	<b>\$ 37,636,278</b>	<b>\$ 18,810,764</b>	<b>\$ 18,825,514</b>	<b>\$ 37,636,278</b>

(1) Engineering News Report Construction Cost Index, 1988-2018

(2) Table 3 Wastewater Treatment and Collection Projects

(3) Per discussions with City staff and City files

**Exhibit B**

**Maximum Fee with 50% Credit**

Meter Size (inch)	Meter Type	Continuous Duty		Water Impact Fee	Wastewater Impact Fee
		Maximum Flow Rate (gpm)	Ratio to 5/8-inch Meter		
5/8	Displacement Type	10	1.0	\$2,126	\$5,027
5/8 x 3/4	Displacement Type	10	1.0	2,126	5,027
3/4	Displacement Type	15	1.5	3,189	7,541
1	Displacement Type	25	2.5	5,315	12,568
1.5	Displacement Type	50	5.0	10,630	25,135
2	Displacement Type	80	8.0	17,008	40,216
2	Compound	80	8.0	17,008	40,216
3	Compound	175	17.5	37,205	87,973
3	Turbine Vertical Shaft	220	22.0	46,772	110,594
3	Turbine High Velocity	350	35.0	74,410	175,945
4	Compound	300	30.0	63,780	150,810
4	Turbine Vertical Shaft	420	42.0	89,292	211,134
4	Turbine High Velocity	650	65.0	138,190	326,755
6	Compound	675	67.5	143,505	339,323
6	Turbine Vertical Shaft	865	86.5	183,899	434,836
6	Turbine High Velocity	1,400	140.0	297,640	703,780
8	Compound	900	90.0	191,340	452,430
8	Turbine High Velocity	2,400	240.0	510,240	1,206,480
10	Turbine High Velocity	3,500	350.0	744,100	1,759,450
12	Turbine High Velocity	4,400	440.0	935,440	2,211,880

In the event a meter size or type is requested that is not listed here, City staff will need to rely on AWWA standards or manufacturer specifications for the related ratio for flow as compared to the 5/8 inch rate shown above.

**Exhibit C**

## Proposed Impact Fees

Meter Size (inch)	Meter Type	Continuous Duty		Water Impact Fee	Wastewater Impact Fee
		Maximum Flow Rate (gpm)	Ratio to 5/8-inch Meter		
5/8	Displacement Type	10	1.0	\$1,600	\$3,200
5/8 x 3/4	Displacement Type	10	1.0	1,600	3,200
3/4	Displacement Type	15	1.5	2,400	4,800
1	Displacement Type	25	2.5	4,000	8,000
1.5	Displacement Type	50	5.0	8,000	16,000
2	Displacement Type	80	8.0	12,800	25,600
2	Compound	80	8.0	12,800	25,600
3	Compound	175	17.5	28,000	56,000
3	Turbine Vertical Shaft	220	22.0	35,200	70,400
3	Turbine High Velocity	350	35.0	56,000	112,000
4	Compound	300	30.0	48,000	96,000
4	Turbine Vertical Shaft	420	42.0	67,200	134,400
4	Turbine High Velocity	650	65.0	104,000	208,000
6	Compound	675	67.5	108,000	216,000
6	Turbine Vertical Shaft	865	86.5	138,400	276,800
6	Turbine High Velocity	1,400	140.0	224,000	448,000
8	Compound	900	90.0	144,000	288,000
8	Turbine High Velocity	2,400	240.0	384,000	768,000
10	Turbine High Velocity	3,500	350.0	560,000	1,120,000
12	Turbine High Velocity	4,400	440.0	704,000	1,408,000

In the event a meter size or type is requested that is not listed here, City staff will need to rely on AWWA standards or manufacturer specifications for the related ratio for flow as compared to the 5/8 inch rate shown above.

## EXHIBIT D

### CHAPTER 94 "UTILITIES"

#### ARTICLE V. – WATER AND WASTEWATER IMPACT FEES

##### **Sec. 94-160. - Land use assumptions.**

The land use assumptions for years 2019 to 2029 included in the "City of Magnolia Infrastructure Master Plan and Capital Recovery Fee Determination 2008 to 2018," prepared by O'Malley Engineers, LLP, "Water and Wastewater Capital Improvement Plans (CIP) and Impact Fees" prepared by Strand Associates, Inc., same being attached to the ordinance O-2019-016 as exhibit "A" from which this article is derived and made a part hereof for all purposes, are hereby in all things approved and adopted.

##### **Sec. 94-161. - Capital improvement.**

The capital improvements plan for years 2019 to 2029 included in "City of Magnolia Infrastructure Master Plan and Capital Recovery Fee Determination 2008 to 2018," prepared by O'Malley Engineers, LLP, the "Water and Wastewater Capital Improvement Plans (CIP) and Impact Fees" prepared by Strand Associates, Inc., attached to the ordinance O-2019-016 as exhibit "A" from which this article is derived and made a part hereto for all purposes, is hereby in all things approved and adopted.

##### **Sec. 94-162. - Impact fees approved.**

The impact fees set forth in the "City of Magnolia Infrastructure Master Plan and Capital Recovery Fee Determination 2008 to 2018," prepared by O'Malley Engineers, LLP, attached to the ordinance from which this article is derived and made a part hereof for all purposes, are hereby levied against new nonexempt development on lands located within the corporate boundaries of the city and to the city's extra-territorial jurisdiction. The impact fees to be assessed and collected are set out in exhibit "B" attached to the ordinance from which this article is derived and made a part hereof for all purposes.

- (a) The maximum assessable impact fees set forth in the "Water and Wastewater Capital Improvement Plans (CIP) and Impact Fees" prepared by Strand Associates, Inc. attached to ordinance O-2019-016 as Exhibit "B" are made a part hereof for all purposes.
- (b) The impact fees to be assessed are set out in Exhibit "C" attached to ordinance O-2019-016 and made a part hereof for all purposes, are hereby levied against new, nonexempt development on lands located within the corporate boundaries of the City and to the City's extra-territorial jurisdiction in accordance with Sec. 94-163.
- (c) Any amendments to impact fees may be made by ordinance in accordance with Chapter 395 of the Local Government Code, as amended and said amended fees are to be incorporated into the City Fee Schedules.



**Sec. 94-163. - Assessment of impact fees.**

- (a) Assessment of impact fees for new development shall be made as follows:
- (1) For land which is unplatted at the time of application for a building permit or utility connection, or for a new development which has received final plat approval prior to or on June 20, 1987, and for which no replatting is required pursuant to the city's subdivision regulations prior to development, assessment shall occur at the time application is made for the building permit or utility connection, whichever occurs first, and shall be the amount of the ~~maximum impact~~ **assessed impact** fee per service unit **as currently adopted by the City in its City Fee Schedule.** ~~as set forth in Exhibit B to the ordinance from which this article is derived, schedule 1, then in effect.~~
  - (2) For new developments that have filed applications for approval pursuant to the city's subdivision regulations after the effective date of the ordinance from which this article is derived, or for which replatting results in an increase in the number of service units after such date, assessment shall be at the time of final plat approval, and shall be the amount of the ~~maximum impact~~ **assessed impact** fee per service unit **as currently adopted by the City in its City Fee Schedule for the new or additional service units.** ~~set forth in Exhibit B to the ordinance from which this article is derived, schedule 1, then in effect.~~
- (b) Following initial assessment of impact fees for a new development pursuant to subsection (a) of this section, the amount of the ~~maximum impact~~ **assessed impact** fee per service unit for any such development may not be increased unless the owner proposed to change the approved development and increase the number of service units, in which case the impact fee shall be reassessed at the ~~maximum impact~~ **assessed impact** fee per service unit as set forth **and currently adopted by the City in its City Fee Schedule for the new or additional service units.** ~~in Exhibit B to the ordinance from which this article is derived, schedule 1, then in effect for such additional service units.~~
- (c) Following the lapse or expiration of approval of a new development, a new assessment shall be performed at the time a new application for such development is filed at the ~~maximum impact~~ **assessed impact** fee per service unit as set forth **and currently adopted by the City in its City Fee Schedule** ~~in Exhibit B to the ordinance from which this article is derived, schedule 1, then in effect.~~
- (d) ~~Regardless of the other provisions of this Section 94.163 for new development that is platted before the adoption of an amended impact fee and for which a building permit is issued within one year from the date of adoption of the amended impact fee, the city will assess the prior impact fee that existed before the amendment.~~
- (e) ~~The impact fees to be assessed may be amended time to time and shall be the impact fees listed in the then current City Fee Schedule.~~

**Sec. 94-164. - Collection of impact fees.**

- (a) ~~The impact fees herein imposed or as may be later amended shall be collected on any service unit located in the Impact Fee Service area for which a valid building permit is issued or as otherwise allowed by Texas Local Government Code Chapter 395, as amended.~~
- (b) ~~Notwithstanding the above, the city may 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.~~

~~(a) For residential developments or other plats platted after the effective date of this article, the impact fees due shall be collected at the time the city issues a building permit. The impact fees to be paid and collected are listed in exhibit B to the ordinance from which this article is derived, schedule 2. If the building permit for which an impact fee has been paid has expired, and a new application is thereafter filed, the impact fees due shall be computed using the impact fees listed in exhibit B to the ordinance from which this article is derived, schedule 2, then in effect, and previous payments of the impact fees shall be credited against the new fees due.~~

~~(b) For land on which new development occurs or is proposed to occur without platting, the political subdivision may assess the impact fees listed in exhibit B to the ordinance from which this article is derived, schedule 1, then in effect at any time during the development and building process and may collect the impact fees listed in exhibit B to the ordinance from which this article is derived, schedule 2, then in effect 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. If the building permit for which an impact fee has been paid has expired, and a new application is thereafter filed, the impact fees due shall be computed using the impact fees listed in exhibit B to the ordinance from which this article is derived, schedule 2, then in effect, and previous payments of the impact fees shall be credited against the new fees due.~~

~~(c) For land platted outside the corporate boundaries of the city and in its extraterritorial jurisdiction, the impact fees listed in exhibit B to the ordinance from which this article is derived, schedule 2, then in effect shall be collected at the time an application for an individual meter connection to the city's water or wastewater system is filed.~~

~~(d) If the lot or tract was platted prior to June 20, 1987, the impact fee imposed by this section shall be collected in full at the time of issuance of the building permit for the service units or at the time the water meter is installed, whichever occurs first. The impact fees to be paid and collected are listed in exhibit B to the ordinance from which this article is derived, schedule 2.~~