



CITY OF HOUSTON DRAINAGE IMPACT FEE STUDY

Prepared for the Department of Public Works & Engineering

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Drainage Impact Fee Study For 2012 - 2022

Prepared for:

**City of Houston, Texas
Department of Public Works and Engineering**



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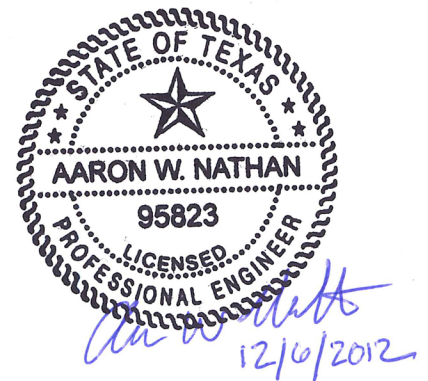
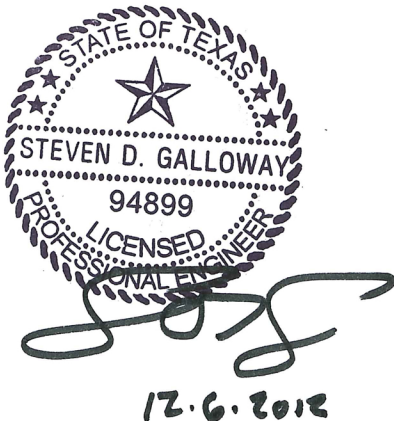




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Executive Summary

Introduction

Impact Fees are a mechanism for funding the public infrastructure necessitated by new development. They originated and evolved in Florida, California, and other fast-growing municipalities and counties, primarily in the Southern and Western United States. Across the country, they are used to fund various items, including police and fire facilities, parks, schools, roads, and utilities. In Texas, the legislature has allowed their use for water, wastewater, roadway, and drainage facilities. Since 1990, they have been used to fund public water and wastewater improvements in the City of Houston. They are being proposed for implementation for use in funding drainage infrastructure.

Drainage Impact Fees are a part of the City's ReBuild Houston Initiative, which took effect with the passage of the Proposition 1 Charter Amendment (a Special Election occurred on November 2, 2010 and passed via Ordinance No. 2010-879 on November 15, 2010). The full language is provided below. The drainage impact fee portion of ReBuild Houston is included within Section 22 (b)(i).

Section 22 - Dedicated Pay-As-You-Go Fund for Drainage and Streets.

To provide for the enhancement, improvement and ongoing renewal of Houston's drainage and streets, a dedicated, pay-as-you-go fund entitled the 'Dedicated Drainage and Street Renewal Fund' shall be established, applied and funded as follows:

- (a) The Dedicated Drainage and Street Renewal Fund shall be established as a dedicated, pay-as-you-go source of funding for the City's drainage and streets.*
- (b) To ensure the continued availability of the Dedicated Drainage and Street Renewal Fund as a pay-as-you-go source for the capital cost of future drainage and street needs, no more than 25% of each annual appropriation to the Fund may be used for maintenance and operation expenses, except where third party contracts, grants or payments may provide otherwise. The balance shall be used exclusively on a pay-as-you-go basis for capital costs of drainage and streets, including planning, engineering and right-of-way acquisition. The Fund may not be used to pay debt service. Beginning in the budget for fiscal year 2012, the Dedicated Drainage and Street Renewal Fund shall be funded annually in each budget adopted by the city council from the following sources, the first two of which are intended to supplement and not replace historic funding sources and the third and fourth of which are intended to confirm the City's commitment to continue historic funding:
 - (i) All proceeds of developer impact fees, which beginning in fiscal year 2012, and continuing thereafter shall be imposed in an equitable manner as provided by law to recover allocable costs of providing drainage and streets for properties under development.*
 - (ii) All proceeds of drainage charges, which beginning in fiscal year 2012, and continuing thereafter shall be imposed in an equitable manner as provided by law to recover allocable costs of providing drainage to benefiting properties, with drainage charges initially set at levels designed to generate at least \$125 million for fiscal year 2012.**



- (iii) *An amount equivalent to proceeds from \$0.118 of the City's ad valorem tax levy minus an amount equal to debt service for drainage and streets for any outstanding bonds or notes:*
- (A) *Issued prior to December 31, 2011, and*
 - (B) *Bonds or notes issued to refund them.*
- (iv) *All proceeds from third party contracts, grants or payments of any kind earmarked or dedicated to drainage or streets.*
- (c) *This Section is subject to modification as permitted by law or termination at the end of fiscal year 2031 (i.e., after 20 years of operation) if during fiscal year 2030 (i.e. 19th year of operation) such modification or termination is authorized by an affirmative vote of two-thirds of the City Council following a public hearing on the matter. If not so terminated, this Section shall continue in full force and effect for successive 20 year periods, subject in each case to modification or termination in the same manner.*
- (d) *Funding for the Dedicated Drainage and Street Renewal Fund that is not derived from ad valorem taxes levied by the City (i.e., that portion derived from fees, charges and third party payments) shall not be included in those revenues limited by this Charter.*

In the most basic terms, impact fees are meant to recover the incremental cost of each new unit of development in terms of new infrastructure needs. In the case of drainage impact fees, the infrastructure need is increased capacity within the City's drainage system. The purpose of this Impact Fee Study is to identify the fee per unit of new development allowed to fund these improvements in accordance with the enabling legislation, Chapter 395 of the Texas Local Government Code.

Impact Fees are a one-time fee and are charged only against new development. They are based on the cost of the improvements to the drainage system, both increasing the capacity of existing systems and constructing new systems, necessary to accommodate new growth. A Drainage Impact Fee would supplement the City's ability to fund drainage improvements; however, it would not replace existing funding mechanisms.

The primary goal of the Impact Fee program is to directly correlate fees with actual impacts and to spread the cost of needed improvements across all new developments. In this way, all new development shares the cost of expanding the drainage system in a predictable and equitable fashion.

Impact Fee Basics

Drainage Impact Fees are determined by several key variables, each described below in greater detail.

Impact Fee Study

The primary purpose of the Impact Fee Study is to determine the maximum impact fee per unit of new development allowed by state law. The determination of the maximum impact fee contained within this study is not a recommended fee level; the actual fee amount ultimately assessed is at the discretion of the Houston City Council, so long as it does not



exceed the maximum assessable by law as contained within this study. The study looks at a period of 10 years to project new growth and corresponding capacity needs, as required by state law. The study (and corresponding maximum fees) must be updated at least every five years. The study could be updated at any time, however, to accommodate significant changes in any of the key variables of the impact fee equation.

Service Areas

A Service Area is a geographic area within which a unique maximum impact fee is determined. All fees collected within the Service Area must be spent on eligible improvements within the same Service Area. For Drainage Impact Fees, the Service Area may include all or part of the land within the political subdivision or its extraterritorial jurisdiction (ETJ), 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.

For the City of Houston, it was determined that the fee would only include land within the City's corporate limits (no ETJ due to ReBuild Houston only including City Limits) and the Service Area boundaries are based on the TSARP (Tropical Storm Allison Recovery Project) Watershed boundaries. It should be noted that Service Areas include both developable and undevelopable land (i.e., lakes, bayous, etc.). The application of all of these provisions resulted in the creation of ten separate Service Areas.

Since each Service Area has a unique maximum impact fee, the maximum assessable per-unit fee for an identical property calculated within this study may vary from one Service Area to the next.

Land Use Assumptions

The Impact Fee determination is required to be based on the projected growth and corresponding capacity needs in a 10-year window. This study considers the years 2012-2022 (1/1/2012 – 12/31/2021). Acknowledging that the parameters of the study (the corporate boundaries most notably) do change over time (and this study needed to take a snapshot at one point in time); this study is based on conditions as they were on January 1, 2012. Within five years of adoption, or sooner if necessary, changes to these study parameters will be included in an update of the Impact Fee Study.

One of the key elements in the determination of the impact fee is the amount of new development anticipated over 10 years. In order to arrive at a reasonable projection of growth, demographic projections developed and adopted by HGAC (Houston-Galveston Area Council) were utilized to develop the Land Use Assumptions. Reasonable estimates of the amount of impervious area to be expected with that new development were also applied. Tables were created to present existing (2012), 10-year (2022), and ultimate (2040) population and employment data, along with impervious area.



Drainage Impact Fee Improvements Plan (DIFIP) for Impact Fees

The Drainage Impact Fee Improvements Plan (DIFIP), as it is referred to within this study, is the listing of projects described as the Capital Improvements Plan (CIP) within Chapter 395 of the Texas Local Government Code. This naming convention change was done to create a distinct and separate list of projects from the City's CIP. The DIFIP is simply the list of projects eligible for funding through impact fees. Capacity improvements may only include projects that are intended to accommodate future development. Mitigation of existing deficiencies and maintenance activities do not qualify as capacity improvements under impact fee law in Texas.

The cost of the DIFIP is one of the fundamental factors in the calculation of the per-unit impact fee amount. The DIFIP cost was calculated through evaluation of each eligible project. A standard methodology was utilized for estimating project delivery costs once the project scope was defined. Referencing recent drainage projects within Houston and the immediate vicinity, uniform costs were determined for the major items of work, associated construction items, and project delivery costs. It should be noted that these cost projections are based on conceptual level planning and are subject to refinement upon final design.

Only those projects listed in the DIFIP are eligible to utilize future impact fee funds collected from new development. Only the costs associated with providing the additional capacity necessitated by 10 years' growth can be used to calculate the maximum impact fee. In order to calculate the fee, the total cost of the DIFIP was reduced to eliminate (1) the portion of new capacity that will address existing needs, and (2) the portion of new capacity that will not be necessitated until beyond the 10-year growth window.

Impact Fee Calculation

In simplest terms, the maximum impact fee allowable by law is calculated by dividing the total cost of the DIFIP by the number of new units of development. In accordance with state law, both the cost of the DIFIP and the number of new units of development used in the equation are based on the growth and corresponding capacity needs projected to occur within a 10-year window. This calculation is performed for each Service Area individually; each Service Area has a stand-alone DIFIP and 10-year growth projections.

Collection and Use of Impact Fees

Funds collected within a Service Area can be used only on projects identified within the same Service Area. Fees must be utilized within 10 years of collection, or must be refunded with interest.

Adoption Process

Chapter 395 of the Texas Local Government Code stipulates a specific process for the adoption of Impact Fees. An Advisory Committee is required to review the Land Use Assumptions and DIFIP used in calculating the maximum fee and to provide its finding for consideration by the City Council. The composition of the Advisory Committee is required to adequately represent the building and development communities. The Advisory Committee is proposed to be the Planning Commission in the City of Houston. The City



Council must then conduct a public hearing on the Land Use Assumptions and DIFIP before considering an Impact Fee ordinance.

The Impact Fee ordinance is considered separately from the Land Use Assumptions and DIFIP. The Advisory Committee must review the Impact Fee ordinance and provide its findings to the City Council. Following receipt of the report by the Advisory Committee, the City Council is required to conduct a public hearing on the Impact Fee ordinance prior to adoption.

Following ordinance adoption, the Advisory Committee meets on a semiannual basis and advises the City Council of the need to update the Land Use Assumptions or DIFIP at any time within five years of adoption. Finally, the Advisory Committee oversees the proper administration of the Impact Fee, once in place, and advises the Council as necessary.



I. INTRODUCTION

Chapter 395 of the Texas Local Government Code (Chapter 395) describes the procedures and regulations that Texas cities must follow in order to create and implement impact fees within a political subdivision. In 2001, Senate Bill 243 (SB 243) was enacted, redefining the Impact Fee according to Chapter 395 as “a charge or assessment imposed by a political subdivision against a 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.”

Accordingly, the City of Houston has developed its Land Use Assumptions and Drainage Impact Fee Improvements Plans (DIFIP) to implement Drainage Impact Fees. The City has retained Kimley-Horn and Associates, Inc., to provide professional engineering services for the development of the drainage impact fee policy. This report includes details of the impact fee calculation methodology in accordance with Chapter 395, the applicable Land Use Assumptions, development of the DIFIP, and the Impact Fee calculations.

This report introduces and references two of the basic inputs to the Drainage Impact Fee: the **Land Use Assumptions** and the **Drainage Impact Fee Improvements Plan (DIFIP)**. Information from these two components is used extensively throughout the remainder of the report. This report consists of a detailed discussion of the methodology for the computation of impact fees. This discussion – **Methodology for Drainage Impact Fees and Impact Fee Calculation** addresses each of the components of the computation and calculations required for the policy. The components include:

- Service Areas
- Service Units
- Cost Per Service Unit
- Cost of the DIFIP
- Service Unit Calculation
- Maximum Assessable Impact Fee Per Service Unit
- Service Unit Demand Per Unit of Development
- Plan for Awarding the Drainage Impact Fee Credit

Lastly, using the information compiled above, this study details the maximum assessable drainage impact fee per service unit that the City of Houston may apply under Chapter 395.



II. LAND USE ASSUMPTIONS

A. PURPOSE AND OVERVIEW

In order to assess the drainage impact fee, Land Use Assumptions must be developed to provide a basis for growth projections within a political subdivision. As defined by Chapter 395, these assumptions include a description of changes in land use, densities, intensities, and populations within the Service Area. These assumptions are also useful to the City of Houston in determining the need and timing of capital improvements to serve future development.

Chapter 395 states that the Drainage Impact Fee and Capital Improvements Plan must contain specific enumeration of "...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." In the case of the Drainage Impact Fee, this demand was measured by comparing the existing impervious cover at the location of each improvement with those projected in the 10-year growth and conditions in 2040. Therefore, Land Use Assumptions must be developed for existing, 10-year growth, and conditions anticipated in 2040 within the watershed.

The Land Use Assumptions include the following components:

- **Methodology** – An overview of the general methodology used to generate the land use assumptions;
- **Impact Fee Service Areas** – Explanation of the division of Houston into Service Areas for drainage facilities;
- **Impervious Cover** – Data on population and employment within the Service Area for existing conditions (2012), the conditions at the furthest extent of the current HGAC planning window (2040), and growth projections by Service Area over the next ten years (2012 – 2022); and
- **Land Use** – Data on existing and 2040 land use conditions.

B. METHODOLOGY

The Land Use Assumptions prepared for the Drainage Impact Fee focused on current impervious cover in the City and anticipated growth in impervious cover. The impervious cover projections that were utilized in this report were done using reasonable and generally accepted planning principles. The following factors were considered in developing these projections:

- Growth trends in households and jobs from 2012 to 2040; and
- Impervious cover of each Service Area.



C. IMPACT FEE SERVICE AREAS

In order to set the Service Areas, consideration was made to the City of Houston corporate boundary, TSARP (Tropical Storm Allison Recovery Project) Watershed boundaries, and consultation with City staff. The Service Areas contain watersheds that drain to a common outfall point. The geographic boundary of the ten proposed impact fee Service Areas for drainage facilities is shown in **Sheet A1** of **Appendix A. Table 1** summarizes the Service Areas along with associated TSARP watersheds. It should be noted that the Clear Creek Service Area excludes area controlled by the Clear Lake Water Authority.

Table 1: Service Areas

Service Area	TSARP Watershed(s)	Area (sf)	Area (acres)
Addicks Reservoir	Addicks Reservoir	599,401,371	13,760
Barker Reservoir	Barker Reservoir	525,759,752	12,070
Brays Bayou	Brays Bayou	2,722,767,642	62,506
Buffalo / White Oak	Buffalo Bayou, White Oak Bayou	4,202,288,415	96,471
Clear Creek	Armand Bayou, Clear Creek	1,050,562,623	24,118
Greens Bayou	Greens Bayou	1,961,360,260	45,027
Hunting Bayou	Hunting Bayou	713,952,564	16,390
San Jacinto	Carpenters Bayou, Cypress Creek, Spring Creek, Willow Creek, Luce Bayou, Little Cypress Creek, Jackson Bayou, San Jacinto River	1,836,978,764	42,171
Ship Channel	Ship Channel	374,829,944	8,605
Sims / Vince	Sims Bayou, Vince Bayou	2,376,301,803	54,552
TOTAL AREA		16,364,203,138	375,670

D. IMPERVIOUS COVER

10-year growth (2022) and 2040 projected impervious information for the City was compiled using data provided by HGAC and the City. HGAC provided information regarding jobs, households, and population starting in the year 2005 and actual / projected demographic information for each year from 2005 to 2040. The information was provided for uniform 100,000 square-foot parcels that cover the entire extent of the region. An evaluation of the job and household growth trends was conducted for 2012 to 2022 and 2012 to 2040.

The City provided an impervious area breakdown of each Service Area in existing conditions (2012) based on the proposed Service Area boundaries. It should be noted that Service Areas include both developable and undevelopable land (i.e., lakes, bayous, etc.). By correlating the relationship between existing impervious cover and current (2012) household and job population for each Service Area and projecting a similar relationship for



future development, a reasonable estimate of 10-year and 2040 impervious cover could be determined. For areas where job or household numbers were projected to decrease, no reduction of impervious area was anticipated. It was not anticipated that a reduction in population or jobs would coincide with the restoration of open space and the removal of impervious area.

Table 2 summarizes each Service Area’s household, employment, and impervious projections for 2012, 2022, and 2040.

Table 2: Service Area Impervious Projections

Service Area	Year	Total Area		Total Impervious Area		Total Percent Impervious (%)	HGAC Projections (Total)	
		(ft ²)	(acres)	(ft ²)	(acres)		Households	Jobs
Addicks	2012	599,401,371	13,760	11,600,825	266	1.94%	2,129	767
	2022			13,551,162	311	2.26%	2,499	843
	2040			15,826,322	363	2.64%	2,918	987
Barker	2012	525,759,752	12,070	5,898,035	135	1.12%	497	269
	2022			8,024,934	184	1.53%	690	282
	2040			18,764,495	431	3.57%	1,642	485
Brays Bayou	2012	2,722,767,642	62,506	1,144,876,308	26,283	42.05%	266,624	456,870
	2022			1,222,283,000	28,060	44.89%	280,924	519,973
	2040			1,333,502,000	30,613	48.98%	294,304	597,742
Buffalo / White Oak	2012	4,202,288,415	96,471	1,653,534,157	37,960	39.35%	327,817	871,484
	2022			1,833,014,500	42,080	43.62%	351,031	955,437
	2040			2,043,199,500	46,905	48.62%	378,455	1,097,062
Clear Creek	2012	1,050,562,623	24,118	250,844,388	5,759	23.88%	24,475	33,589
	2022			276,733,800	6,353	26.34%	34,533	38,631
	2040			397,105,200	9,116	37.80%	49,863	54,404
Greens Bayou	2012	1,961,360,260	45,027	505,122,640	11,596	25.75%	56,982	110,149
	2022			633,454,200	14,542	32.30%	68,229	124,489
	2040			815,075,400	18,712	41.56%	88,013	159,443
Hunting Bayou	2012	713,952,564	16,390	252,201,944	5,790	35.32%	26,861	39,430
	2022			276,599,400	6,350	38.74%	31,336	49,213
	2040			353,579,400	8,117	49.52%	37,944	69,953
San Jacinto	2012	1,836,978,764	42,171	181,706,197	4,171	9.89%	26,066	19,067
	2022			247,171,200	5,674	13.46%	34,300	22,984
	2040			332,245,200	7,627	18.09%	46,376	29,994
Ship Chanel	2012	374,829,944	8,605	118,988,391	2,732	31.74%	5,571	16,127
	2022			148,063,142	3,399	39.50%	6,876	20,186
	2040			190,130,611	4,365	50.72%	9,094	25,365
Sims / Vince	2012	2,376,301,803	54,552	656,666,633	15,075	27.63%	97,233	98,800
	2022			870,868,800	19,992	36.65%	108,129	123,386
	2040			1,106,288,400	25,397	46.56%	131,267	177,048



III. DRAINAGE IMPACT FEE IMPROVEMENTS PLAN

Chapter 395 of the Texas Local Government Code dictates that impact fees “may be imposed only to pay the costs of constructing capital improvements or facility expansions” within the subject Service Area. A capital improvement, such as a storm water, drainage, or flood control facility that is owned and operated by the political subdivision, must be listed within the Drainage Impact Fee Improvements Plan (DIFIP) in order to be eligible for funding through the drainage impact fee. Drainage needs analyses previously prepared by the City were used to develop the list of projects for the DIFIP.

The City of Houston Comprehensive Drainage Plan (CDP) was used as the primary basis of the DIFIP. The CDP was originally prepared in 1999 and updated in 2003. The CDP identifies numerous drainage projects throughout the City limits based on inadequate or non-existent drainage facilities. Projects included in the CDP have been broken down into categories based on the need that generated the project.

As part of the ReBuild Houston program, areas of the City were prioritized for drainage improvements. These high need areas are referred to as the “5+5” areas. They include areas where specific projects have been adopted over the next 5 years (2012 – 2016), as well as areas where projects are anticipated in the following 5 years (2017 – 2021).

Projects from the CDP were selected for inclusion in the DIFIP through the following selection process:

1. All project classifications (from the CDP) were considered for the DIFIP. The following definitions were taken directly from the CDP.
 - a. *Category 1 – Existing storm sewer systems that have been determined to be inadequate and where flooding complaints have been reported within drainage boundaries.*
 - b. *Category 2 – Converting existing open-ditch systems (non-storm sewer areas) to storm sewer systems where previous flooding complaints have been reported. Proposed storm sewer systems for this category type address the main trunk system requirements only.*
 - c. *Category 3 – Existing storm sewer systems that have been determined to be inadequate and flooding complaints have not been reported within the systems drainage boundary.*
 - d. *Category 4 – Converting existing open-ditch systems (non-storm sewer areas) to storm sewer systems where previous flooding complaints have not been reported. Proposed storm sewer systems for this category type address the main trunk systems only.*
 - e. *Category 5 – Areas currently considered to be undeveloped and having no defined drainage system. For this category type, drainage areas and main (trunk) sewer systems were determined.*
 - f. *Category A – Existing storm sewer systems that have been determined to be adequate. These systems may or may not have reported flooding complaints.*



2. All Category 5 projects within an impact fee Service Area were considered for the DIFIP, regardless of its location. For the other project categories, only projects located within the City's "5+5" areas were considered for the DIFIP.
3. Only projects where a portion of the drainage area is anticipated to experience an increase in development based on HGAC land use projections were included in the DIFIP. This allows the project to incorporate capacity for future development.

Along with the CDP projects described above, sub-regional detention projects were included in the DIFIP. These projects were previously identified in the April 2008 Dodson & Associates, Inc. (Dodson) report titled "City of Houston Sub-Regional Detention Master Plan". Recommended sub-regional detention projects from the Dodson report were selected for inclusion in the DIFIP through the following selection process:

1. The recommended sub-regional detention projects within an impact fee Service Area were considered for the DIFIP.
2. Only projects where a portion of the drainage area is anticipated to experience an increase in development based on HGAC land use projections were included in the DIFIP. This allows the project to incorporate capacity for future development.

The following three sub-regional detention projects met these criteria and were added to the DIFIP:

- Project 1 East Detention Alternative 1-6 within the Buffalo/White Oak Service Area
- Project 2 Detention Alternative 2-5 within the Greens Bayou Service Area
- Project 9 Detention Alternative 8-3 within the Sims/Vince Service Area

The location of each project in the DIFIP is shown in **Sheets A2 – A7** of **Appendix A** and a list of the projects is included in **Appendix C**. The list includes one table per Service Area that includes DIFIP projects. Not every Service Area has a project that meet the criteria listed above; therefore, not every Service Area has a DIFIP project. Each table lists the location, length, and size of each CDP project within each Service Area.

The City assigned each of the CDP projects a drainage area identifier, length, and storm sewer size during the preparation of the CDP. These storm sewer sizes were determined based on a preliminary existing conditions analysis only. As part of this report, an analysis was performed to evaluate the selected CDP projects and develop a preliminary estimate for the size of the facilities necessary to accommodate future development. This analysis was done by overlaying HGAC existing (2012) and 2040 land use information with the drainage area of each project. A drainage coefficient was applied to each development parcel within a drainage area to account for its respective development type in both existing (2012) and 2040 conditions. The Rational Method coefficients selected were based on values published in the CDP and are consistent with the land use designation provided by HGAC for each parcel. **Table 3** below summarizes the land use designations from HGAC and the corresponding and Rational Method coefficients from the CDP.



Table 3: Land Use Designations and C Values

Land Use	C Value
Water	1.00
Roads	0.74
Commercial	0.80
Government/Medical/Education	0.80
Industrial	0.70
Other	0.80
Residential*	0.59
Parks/Open Spaces	0.20
Undevelopable	
Unknown	
Vacant Developable	

* C Value for residential was based on average of the Single-Family Residential C Value (0.45) and Multi-Family Residential C Value (0.725).

Areas designated as “Undevelopable” or “Unknown” by HGAC have the same designation in existing (2012) and 2040 conditions. Therefore, the impact of the undevelopable and unknown areas on the change in C value between existing and future conditions is negligible. The C values for these land uses have been set at 0.20 for the purpose of this analysis.

Weighted C Values for existing (2012) and 2040 conditions were calculated for the individual drainage areas of each project to estimate the potential increase in capacity necessary for future growth for each project. The percent increase in the C value between existing (2012) and 2040 conditions was assumed to be equivalent to the percent increase in pipe capacity necessary to serve 2040 flows. Based on the increased pipe capacity, a new storm sewer size was estimated for each project based on the original sizes included in the CDP. The new storm sewer sizes are reflected in the tables in **Appendix C**.

It should be noted that the Impact Fee DIFIP establishes the list of projects for which Impact Fees may be utilized. Essentially, it establishes a list of projects for which an impact fee funding program can be established. Projects not included in the Impact Fee DIFIP are not eligible to receive impact fee funding. The Impact Fee DIFIP is different from a City’s construction CIP, which provides a short-term list of projects for which the City is committed to building. This Impact Fee DIFIP is simply an inventory of future projects needed to serve future development for which the Impact Fee is calculated.



IV. DRAINAGE IMPACT FEE METHODOLOGY

A. SERVICE AREA

The Service Areas used in the Drainage Impact Fee Study are shown in **Appendix A**. These Service Areas cover the entire boundary of the City of Houston as of January 1, 2012.

B. SERVICE UNIT

The service unit is a measure of use of the Capital Improvement facilities within the Service Area. The use of drainage Capital Improvements is measured by the amount of runoff generated. As impervious area increases, the volume and peak rate of runoff increases. Therefore, the use of the Capital Improvements facilities is directly tied to impervious area. For the purposes of the Drainage Impact Fee, a service unit is a measure of the increase in impervious area that occurs within the Service Area.

A service unit will be defined as additional 1,000 square feet of impervious cover. The total number of service units within each Service Area was calculated by estimating the amount of additional impervious area proposed to be added via development within the next 10 years, as derived from the Land Use Assumptions. Establishing service units as a measureable increase in impervious area rather than based on a land use provides a direct measurement of the use of the storm sewer system and allows for an equitable application of the drainage impact fee.

Table 4 summarizes the Service Units for each Service Area.

Table 4: Service Unit Calculation

Service Area	Column 1 Existing (2012) Impervious Area (sf)	Column 2 10-Year (2022) Projected Impervious Area (sf)	Column 3 10-Year Growth (2012 – 2022) (sf)	Column 4 Number of Service Units (1 Service Unit = 1,000 sf)
	(from Table 2)	(from Table 2)	(Column 2 – Column 1)	(Column 3/ 1,000 sf)
Addicks Reservoir	11,600,825	13,551,162	1,950,337	1,950.337
Barker Reservoir	5,898,035	8,024,934	2,126,899	2,126.899
Brays Bayou	1,144,876,308	1,222,283,000	77,406,692	77,406.692
Buffalo / White Oak	1,653,534,157	1,833,014,500	179,480,343	179,480.343
Clear Creek	250,844,388	276,733,800	25,889,412	25,889.412
Greens Bayou	505,122,640	633,454,200	128,331,560	128,331.560
Hunting Bayou	252,201,944	276,599,400	24,397,456	24,397.456
San Jacinto	181,706,197	247,171,200	65,465,003	65,465.003
Ship Channel	118,988,391	148,063,142	29,074,751	29,074.751
Sims / Vince	656,666,633	870,868,800	214,202,167	214,202.167



C. COST PER SERVICE UNIT

A fundamental step in the impact fee process is to establish the cost for each service unit. In the case of the drainage impact fee, this is the cost per 1,000 of additional impervious square feet of a proposed development. This cost per service unit is the cost to construct the portion of a drainage facility (size and linear foot) needed to accommodate a proposed development at a level of service corresponding to the City's standards. Although a service unit is based on 1,000 square feet of impervious cover, all development will be assessed the impact fee for each square foot of impervious area proposed. The cost per service unit is calculated for each Service Area based on a specific list of projects within that Service Area.

The second component of the cost per service unit is the number of service units in each Service Area. This number is the measure of the development growth that is projected to occur in the ten-year period. Chapter 395 requires that Impact Fees are assessed only to pay for growth projected to occur within the next ten years, a concept that will be covered in a later section of this report.

D. COST OF THE DIFIP

All of the project costs for the drainage system are eligible to be included in the Drainage Impact Fee Improvements Plan. Chapter 395 of the Texas Local Government Code specifies that the allowable costs are "...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."*

The planning level opinions of probable cost of the CDP projects in the DIFIP are based, in part, on the calculation of a unit cost of construction. This means that a cost per linear foot of storm drainage pipe is calculated based on an average price for the various components of drainage construction. This allows the probable cost to be determined by the type of facility being constructed, the number of pipes, and the length of the project.

Appendix B summarizes unit cost estimates for each proposed storm sewer size identified in the DIFIP projects. The following elements were built in to each pipe size's unit cost per linear foot:

- Removal of existing pipe and pavement (for replacement projects)
- Storm sewer pipe (assuming Reinforced Concrete Pipe)
- Manholes
- Inlets
- Replacement of pavement
- Dewatering



- Trench safety
- Traffic control
- Mobilization
- Engineering
- Contingency

The unit cost for each element was estimated on a per linear foot basis or as a percentage of the total construction cost. The unit cost estimates were created based on current (2012) bid tabulations from the City of Houston, guidance from the City, and experience performing comparable projects in the area. The planning level cost for each project was determined based on the storm sewer's equivalent unit cost.

The costs of the sub-regional detention pond projects were taken directly from the previously referenced April 2008 Dodson Report titled "City of Houston Sub-Regional Detention Master Plan".

E. SERVICE UNIT CALCULATION

As mentioned earlier in this report, impact fees may only be assessed for needs associated with development in the upcoming 10-year timeframe. The projects listed in the DIFIP will be constructed to convey both existing and future flows. Therefore, only a portion of the cost of the DIFIP is assessable to the impact fee. A two-step process was used to determine the portion of the DIFIP cost assessable to the impact fee.

1. The individual drainage area of each DIFIP project was evaluated to determine the existing and 2040 Rational Method coefficient. Based on these coefficients, the portion of the projects attributable to future growth was calculated using the following formula:

$$\text{Cost Attributable to Future Growth} = \text{Cost of Project} \times \frac{C_{\text{future}} - C_{\text{existing}}}{C_{\text{future}}}$$

2. The cost of each project in the individual service areas was again reduced to account for capacity related to 10-year growth only. This was accomplished using the impervious areas projections from the Land Use Assumptions. The Cost Attributable to Future Growth for each project was combined for a total value for the service area. The portion of the projects attributable to 10-year growth was calculated using the following formula:

$$\text{Percent Attributable to 10 Year Growth} = \frac{\text{Imp Area 2022} - \text{Imp Area existing}}{\text{Imp Area 2040} - \text{Imp Area existing}}$$

$$\begin{aligned} \text{Cost Attributable to 10 Year Growth} \\ &= \text{Cost Attributable to Future Growth} \\ &\times \text{Percent Attributable to 10 Year Growth} \end{aligned}$$



The Cost Attributable to 10-Year Growth represents the portion of the DIFIP projects that can be included within the drainage impact fee calculation. **Table 5** summarizes the percent of project costs are attributable to 10-year growth.

Table 5: Drainage Impact Fee Improvements Projects – Percent Attributable to 10-Year Growth

	<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>
Service Area	Existing Condition Impervious Area (sf)	10-Year (2022) Impervious Area (sf)	2040 Impervious Area (sf)	Percent Attributable to 10-Year Growth
	<i>(from Table 2)</i>	<i>(from Table 2)</i>	<i>(from Table 2)</i>	<i>(Column 2 – Column 1) / (Column 3 – Column 1)</i>
Addicks Reservoir	11,600,825	13,551,162	15,826,322	46.16%
Barker Reservoir	5,898,035	8,024,934	18,764,495	16.53%
Brays Bayou	1,144,876,308	1,222,283,000	1,333,502,000	41.04%
Buffalo / White Oak	1,653,534,157	1,833,014,500	2,043,199,500	46.06%
Clear Creek	250,844,388	276,733,800	397,105,200	17.70%
Greens Bayou	505,122,640	633,454,200	815,075,400	41.40%
Hunting Bayou	252,201,944	276,599,400	353,579,400	24.07%
San Jacinto	181,706,197	247,171,200	332,245,200	43.49%
Ship Channel	118,988,391	148,063,142	190,130,611	40.87%
Sims / Vince	656,666,633	870,868,800	1,106,288,400	47.64%

A breakdown of the costs associated with the DIFIP is shown in **Appendix C**.

Individual project cost projections can be seen in **Appendix C**. It should be noted that these tables reflect only conceptual-level opinions or assumptions regarding the portions of project costs that are recoverable through impact fees. Actual project costs are likely to change with time and are dependent on market and economic conditions that cannot be predicted. The Impact Fee DIFIP establishes the list of projects for which Impact Fees may be utilized. Essentially, it establishes a list of projects for which an impact fee funding program can be established. Projects not included in the Impact Fee DIFIP are not eligible to receive impact fee funding. The Impact Fee DIFIP is different from a City’s construction CIP, which provides a short-term list of projects for which the City is committed to building. This Impact Fee DIFIP is simply an inventory of projects needed to serve future development for which the Impact Fee is calculated. The cost projections utilized in this study should not be utilized for the City’s building program or construction CIP, as they are not based on a detailed design evaluation.



V. IMPACT FEE CALCULATION

A. MAXIMUM ASSESSABLE IMPACT FEE PER SERVICE UNIT

This section presents the maximum assessable impact fee rate calculated for new development. The maximum assessable fee is the total cost attributable to 10-year growth of the DIFIP divided by the total number of service units representing growth attributable to development within the 10-year period. The components of this calculation have been presented in previous sections of this report. The purpose of this section is to outline the computation of the impact fee and demonstrate the guidelines of Chapter 395 have been followed.

The calculations described in Section IV of this report have been performed for every improvement identified in the DIFIP within the Drainage Impact Fee Service Areas. The sum of the Costs Attributable to Growth has been calculated to determine the total cost of the DIFIP within each Service Area. Following this calculation, the Cost Per Service Unit and the Maximum Assessable Impact Fee is calculated. **Table 6** illustrates the steps of this computation.

B. PLAN FOR AWARDING THE DRAINAGE IMPACT FEE CREDIT

Chapter 395 of the Texas Local Government Code requires the Capital Improvements Plan for Drainage Impact Fees to contain specific enumeration of a plan for awarding the impact fee credit. Section 395.014 of the Code states:

“(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”

The City of Houston has determined that the maximum assessable impact fee per service unit shall be 50% of the total projected cost of implementing the Drainage Impact Fee Improvements Plan.

The *Total Cost Attributable to 10-Year Growth* (LINE 1) is taken from **Appendix C**. Therefore, based on the approach for determining the credit as described above, LINE 2 of **Table 6**, the *Percent of Fee Recoverable* is equal to 50%. LINE 1 is then multiplied by LINE 2 to yield the *Maximum Assessable Impact Fee Per Service Area* (LINE 3). LINE 4, the *Total Number of Service Units* for each Service Area was taken from **Table 4**. LINE 5 calculates the *Cost of DIFIP per Service Unit Attributable to 10-Year Growth*.



Table 6: Maximum Assessable Drainage Impact Fee Calculation Steps

LINE NO.	LINE DESCRIPTION
1	Total Cost Attributable to 10-Year Growth (From Appendix C)
2	Percent of Fee Recoverable (50%) (From Chapter 395 of Texas Local Government Code)
3	Maximum Assessable Fee per Service Area = (LINE 1 * LINE 2)
4	Total Number of Service Units (From Table 4)
5	Cost of DIFIP per Service Unit Attributable to 10-Year Growth = (LINE 3 / LINE 4)

C. MAXIMUM ASSESSABLE IMPACT FEE PER SERVICE UNIT

Table 7 summarizes the maximum assessable fee for each Service Area.

Table 7: Drainage Impact Fee Improvements Projects – Maximum Assessable Fee per Service Unit

Service Area	Total Costs Attributable to Future Growth (From Appendix C)	% Attributable to 10-Year Growth (from Table 5)	Total Cost Attributable to 10-Year Growth (LINE 1)	Maximum Assessable Fee per Service Area (LINE 3)	Number of Service Units (LINE 4; from Table 4)	Cost of DIFIP per Service Unit Attributable to 10-Year Growth (LINE 5)
Addicks Reservoir	\$0	46.16%	\$0	\$0	1,950.337	\$0.00/SU
Barker Reservoir	\$0	16.53%	\$0	\$0	2,126.899	\$0.00/SU
Brays Bayou	\$3,254,287	41.04%	\$1,335,559	\$667,780	77,406.692	\$8.63/SU
Buffalo / White Oak	\$12,769,312	46.06%	\$5,881,545	\$2,940,773	179,480.343	\$16.38/SU
Clear Creek	\$114,691	17.70%	\$20,300	\$10,150	25,889.412	\$0.39/SU
Greens Bayou	\$8,316,233	41.40%	\$3,442,920	\$1,721,460	128,331.560	\$13.41/SU
Hunting Bayou	\$2,076,154	24.07%	\$499,730	\$249,865	24,397.456	\$10.24/SU
San Jacinto	\$0	43.49%	\$0	\$0	65,465.003	\$0.00/SU
Ship Channel	\$0	40.87%	\$0	\$0	29,074.751	\$0.00/SU
Sims / Vince	\$51,472,918	47.64%	\$24,521,698	\$12,260,849	214,202.167	\$57.24/SU



VI. SAMPLE CALCULATIONS

Example 1:

- Development Type - One Unit of Single-Family Housing in Brays Bayou Service Area. 3,200 square feet of increased impervious area is proposed.

Drainage Impact Fee Calculation Steps – Example 1	
Step 1	Determine Development Unit and Impervious Area
	Development Type: 1 Dwelling Unit of Single-Family Detached Housing Number of Service Units: 3,200 square feet = 3.2 SU
Step 2	Determine Maximum Assessable Impact Fee Per Service Unit
	Brays Bayou Service Area : \$8.63/SU
Step 3	Determine Maximum Assessable Impact Fee
	Impact Fee = # of Service Units * Max. Fee Per Service Unit
	Impact Fee = 3.2 SU * \$8.63/SU Maximum Assessable Impact Fee = \$27.62

Example 2:

- Development Type – 5 acre Commercial Development in Sims/Vince Service Area. 175,500 square feet of increased impervious area is proposed.

Drainage Impact Fee Calculation Steps – Example 2	
Step 1	Determine Development Unit and Impervious Area
	Development Type: Commercial Development Number of Service Units = 175,500 square feet = 175.5 SU
Step 2	Determine Maximum Assessable Impact Fee Per Service Unit
	Sims/Vince Service Area: \$57.24/SU
Step 3	Determine Maximum Assessable Impact Fee
	Impact Fee = # of Service Units * Max. Fee Per Service Unit
	Impact Fee = 175.5 SU * \$57.24/SU Maximum Assessable Impact Fee = \$10,045.62



VII. CONCLUSION

The City of Houston has established a process to implement the assessment and collection of drainage impact fees through the adoption of an impact fee ordinance that is consistent with Chapter 395 of the Texas Local Government Code.

This report establishes the maximum allowable drainage impact fee that could be assessed by the City of Houston, as shown in the previously referenced **Table 7**. This document serves as a guide to the assessment of drainage impact fees pertaining to future development and the City's need for drainage improvements to accommodate that growth. Following the public hearing process, the City Council may establish an impact fee amount to be assessed (if any) up to the calculated maximum and establish the Drainage Impact Fee Ordinance accordingly.

In conclusion, it is our opinion that the data and methodology used in this analysis are appropriate and consistent with Chapter 395 of the Texas Local Government Code. Furthermore, the Land Use Assumptions and the proposed Drainage Impact Fee Improvements Plan (DIFIP) are appropriately incorporated into the development of the maximum assessable drainage impact fee.



APPENDICES

A. SERVICE AREA MAPPING

B. STORM SEWER UNIT COST ESTIMATES

C. PLANNING LEVEL OPINIONS OF PROBABLE COST

D. ORDINANCE NO. 2013-281

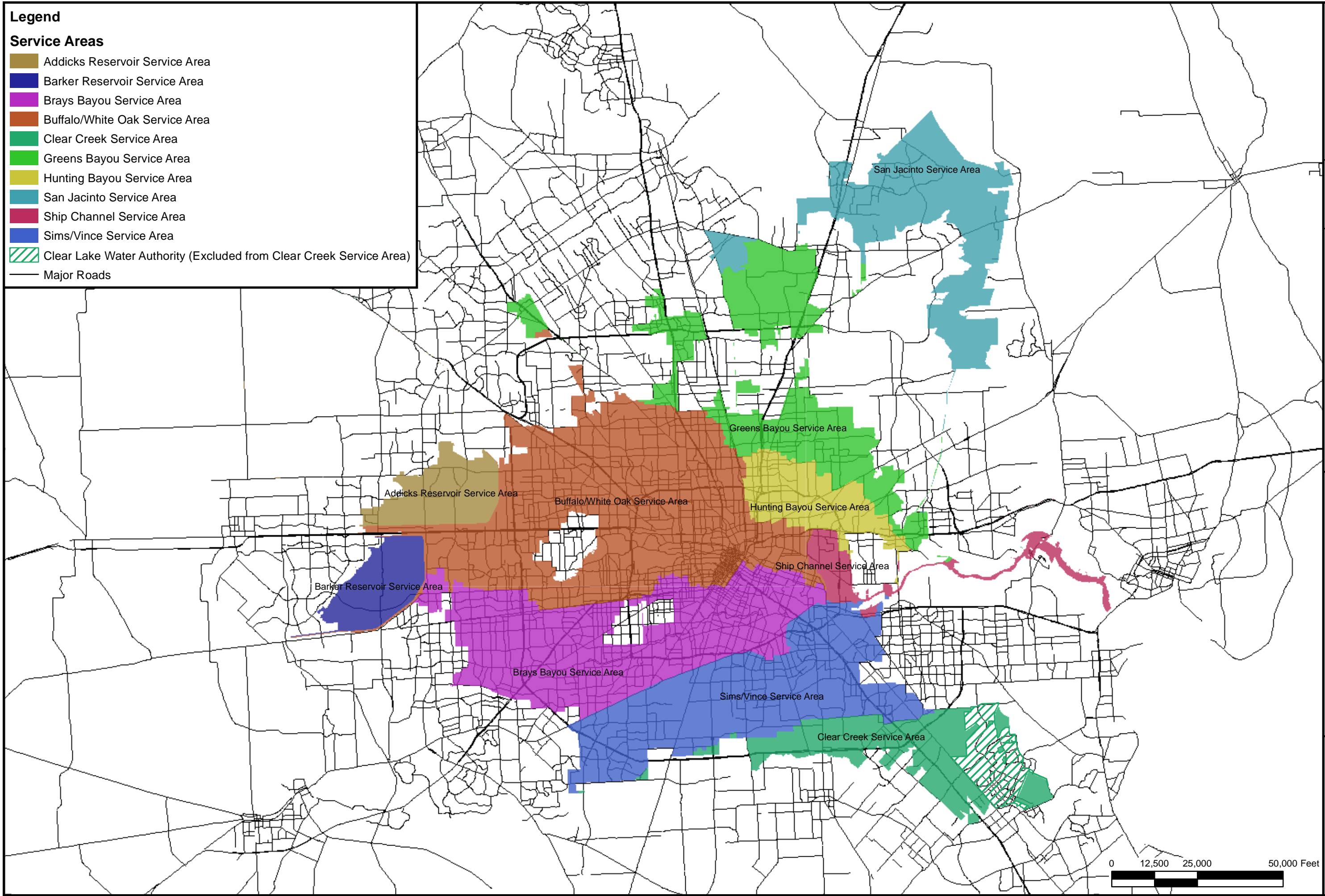


Appendix A – Service Area Mapping

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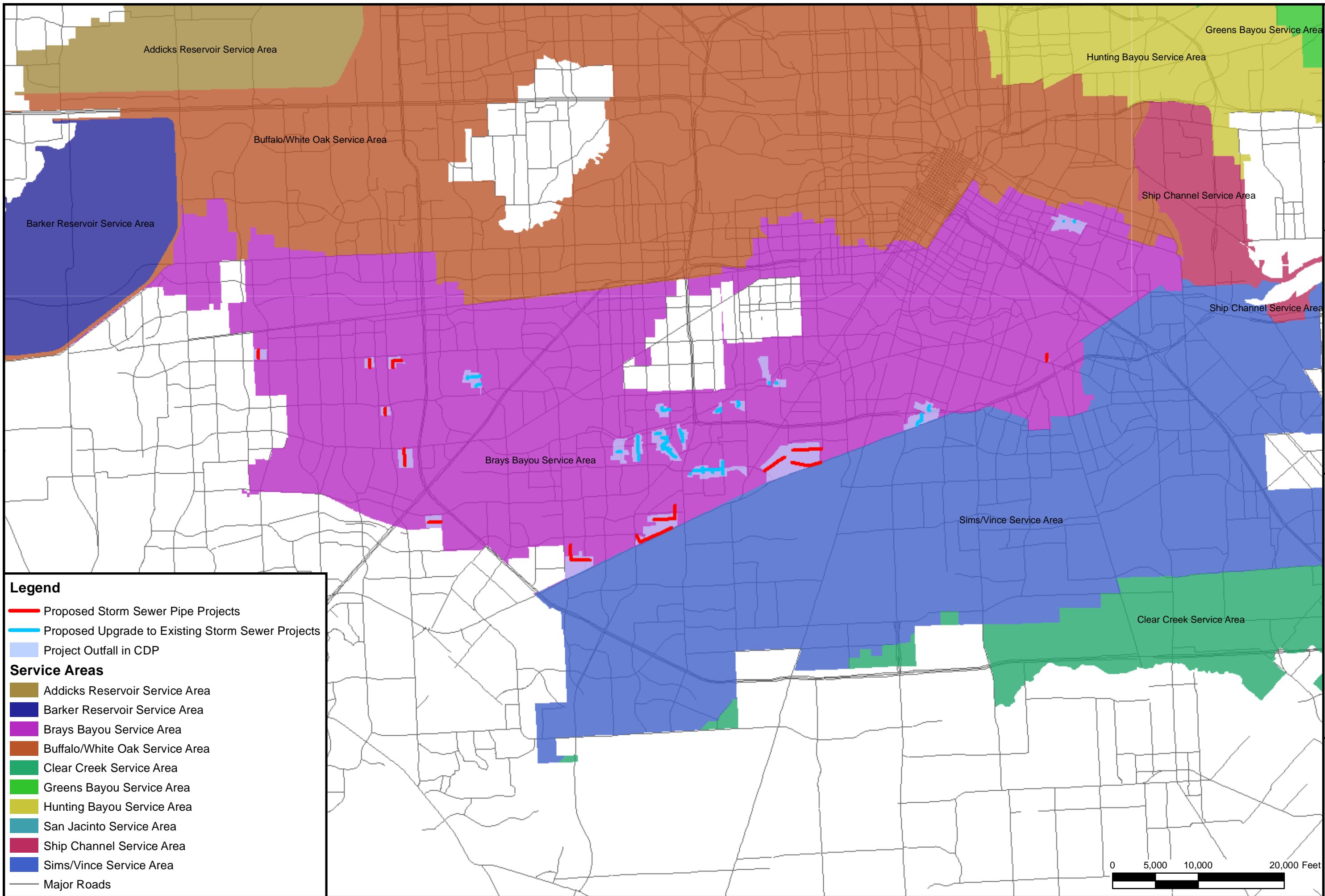
Service Areas

- Addicks Reservoir Service Area
- Barker Reservoir Service Area
- Brays Bayou Service Area
- Buffalo/White Oak Service Area
- Clear Creek Service Area
- Greens Bayou Service Area
- Hunting Bayou Service Area
- San Jacinto Service Area
- Ship Channel Service Area
- Sims/Vince Service Area
- Clear Lake Water Authority (Excluded from Clear Creek Service Area)
- Major Roads



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Legend


- Proposed Storm Sewer Pipe Projects
- Proposed Upgrade to Existing Storm Sewer Projects
- Project Outfall in CDP

Service Areas

- Addicks Reservoir Service Area
- Barker Reservoir Service Area
- Brays Bayou Service Area
- Buffalo/White Oak Service Area
- Clear Creek Service Area
- Greens Bayou Service Area
- Hunting Bayou Service Area
- San Jacinto Service Area
- Ship Channel Service Area
- Sims/Vince Service Area
- Major Roads

City of Houston, Texas

Drainage Impact Fee


















Drainage Impact Fee Improvement Plan
Projects - Brays Bayou Service Area

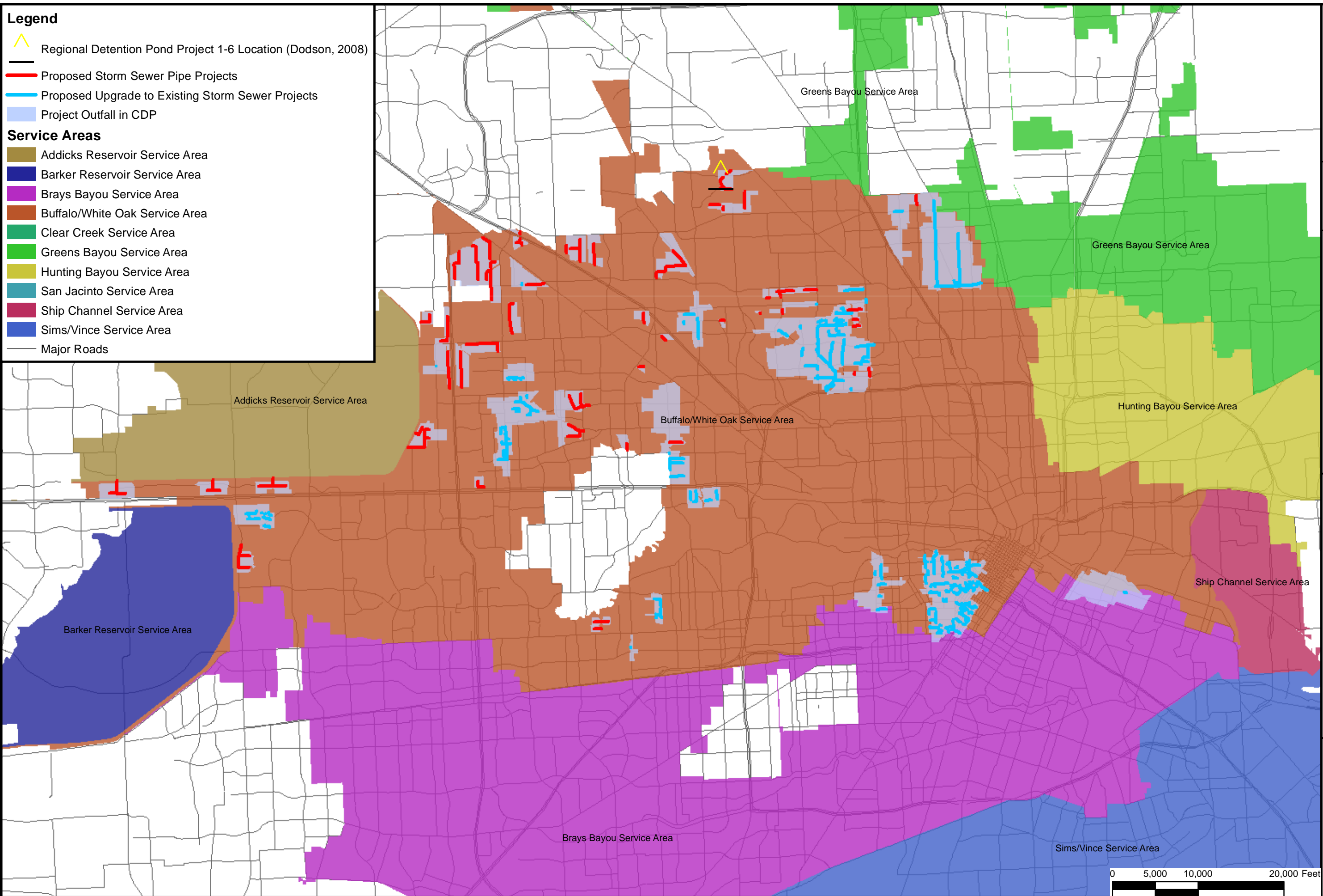
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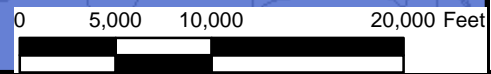
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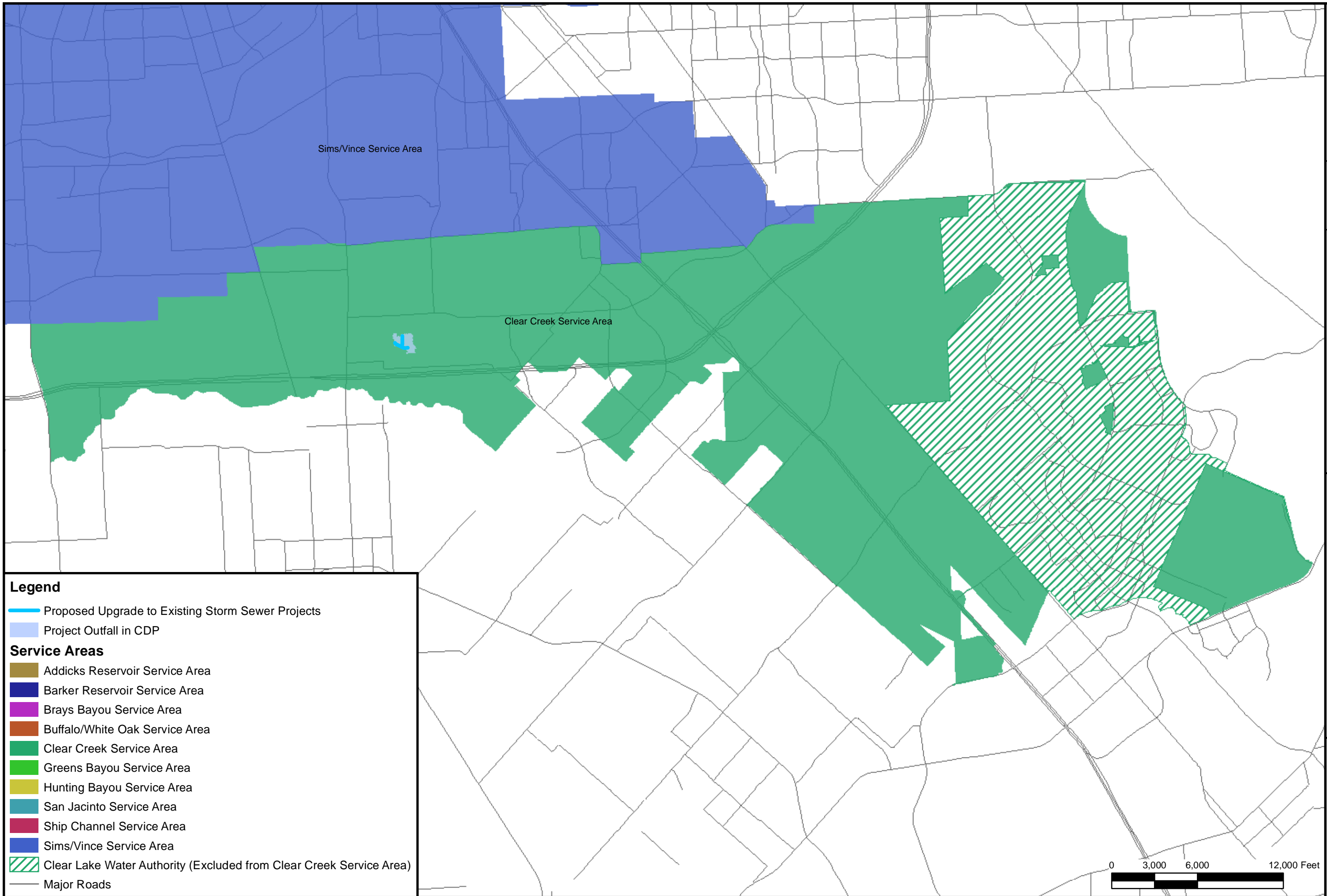
-  Regional Detention Pond Project 1-6 Location (Dodson, 2008)
 -  Proposed Storm Sewer Pipe Projects
 -  Proposed Upgrade to Existing Storm Sewer Projects
 -  Project Outfall in CDP
- Service Areas**
-  Addicks Reservoir Service Area
 -  Barker Reservoir Service Area
 -  Brays Bayou Service Area
 -  Buffalo/White Oak Service Area
 -  Clear Creek Service Area
 -  Greens Bayou Service Area
 -  Hunting Bayou Service Area
 -  San Jacinto Service Area
 -  Ship Channel Service Area
 -  Sims/Vince Service Area
 -  Major Roads





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Legend


-  Proposed Upgrade to Existing Storm Sewer Projects
-  Project Outfall in CDP

Service Areas

-  Addicks Reservoir Service Area
-  Barker Reservoir Service Area
-  Brays Bayou Service Area
-  Buffalo/White Oak Service Area
-  Clear Creek Service Area
-  Greens Bayou Service Area
-  Hunting Bayou Service Area
-  San Jacinto Service Area
-  Ship Channel Service Area
-  Sims/Vince Service Area
-  Clear Lake Water Authority (Excluded from Clear Creek Service Area)
-  Major Roads

City of Houston, Texas

Drainage Impact Fee



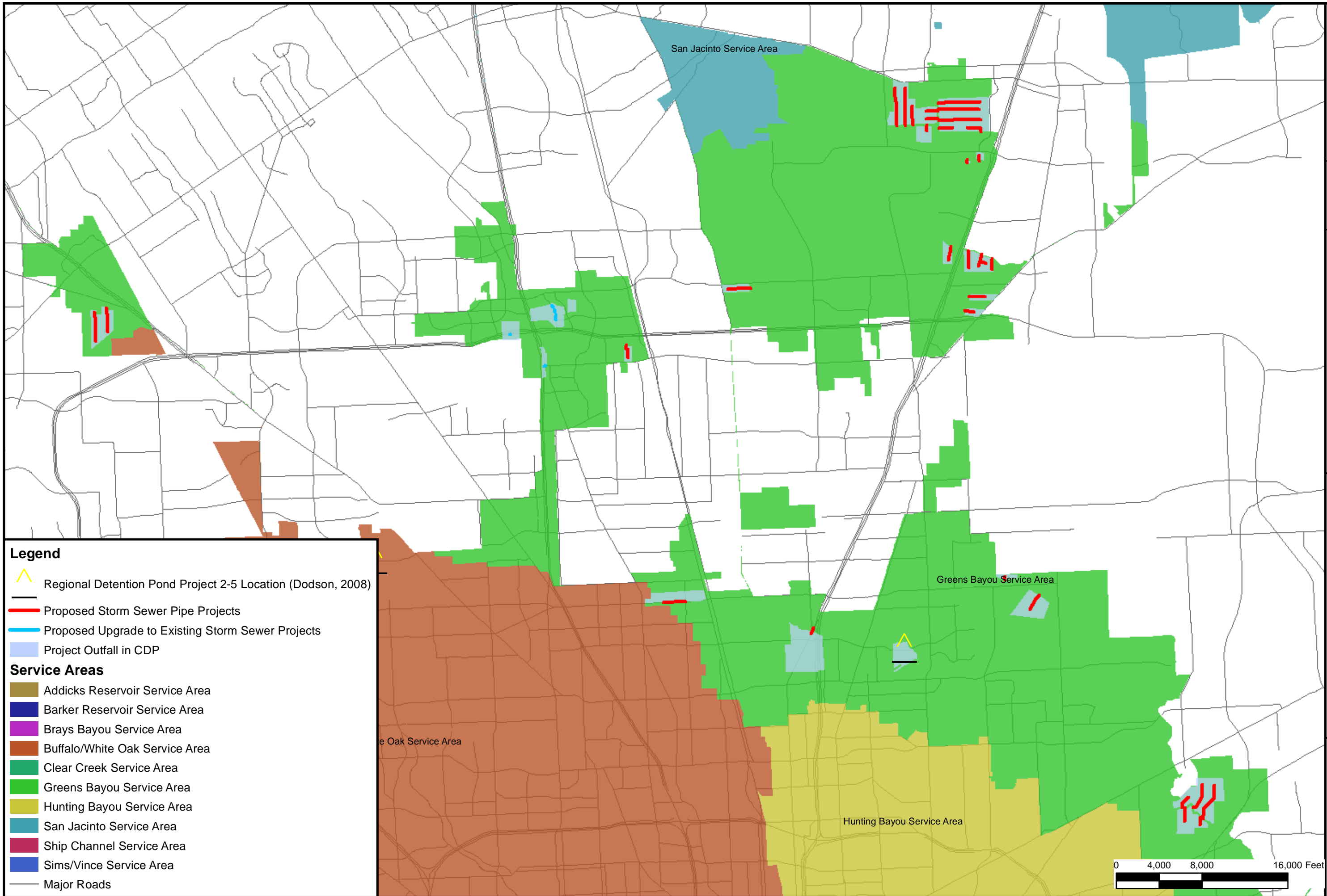
**Drainage Impact Fee Improvement Plan
Projects - Clear Creek Service Area**

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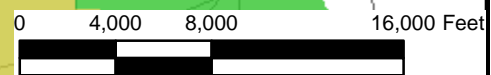


Legend

- Regional Detention Pond Project 2-5 Location (Dodson, 2008)
- Proposed Storm Sewer Pipe Projects
- Proposed Upgrade to Existing Storm Sewer Projects
- Project Outfall in CDP

Service Areas

- Addicks Reservoir Service Area
- Barker Reservoir Service Area
- Brays Bayou Service Area
- Buffalo/White Oak Service Area
- Clear Creek Service Area
- Greens Bayou Service Area
- Hunting Bayou Service Area
- San Jacinto Service Area
- Ship Channel Service Area
- Sims/Vince Service Area
- Major Roads



City of Houston, Texas

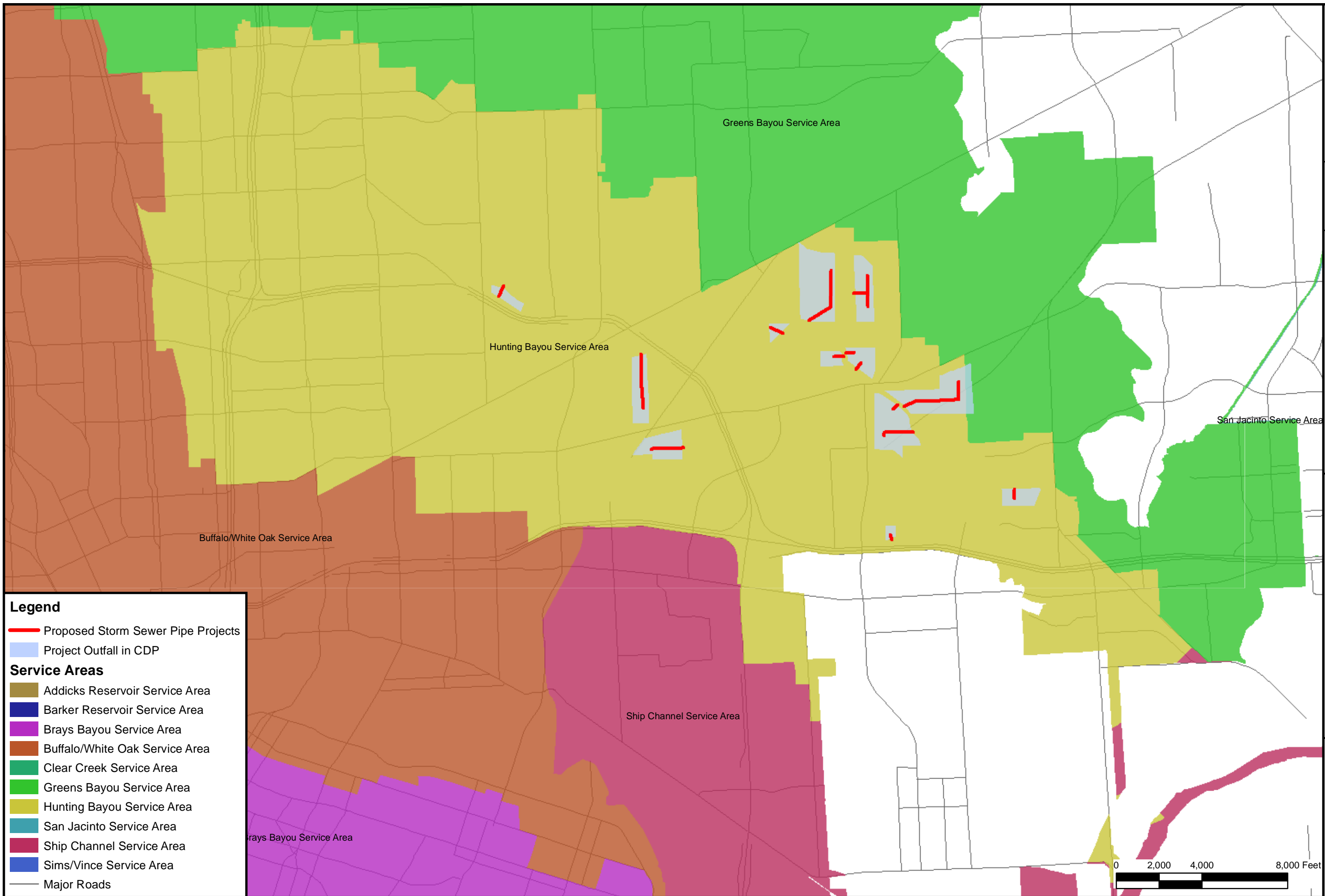
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Drainage Impact Fee Improvement Plan
Projects - Greens Bayou Service Area

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- Proposed Storm Sewer Pipe Projects
- Project Outfall in CDP

Service Areas

- Addicks Reservoir Service Area
- Barker Reservoir Service Area
- Brays Bayou Service Area
- Buffalo/White Oak Service Area
- Clear Creek Service Area
- Greens Bayou Service Area
- Hunting Bayou Service Area
- San Jacinto Service Area
- Ship Channel Service Area
- Sims/Vince Service Area
- Major Roads

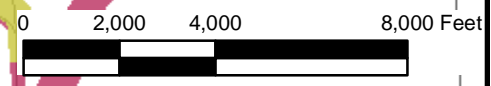
City of Houston, Texas

Drainage Impact Fee

Drainage Impact Fee Improvement Plan
Projects - Hunting Bayou Service Area
















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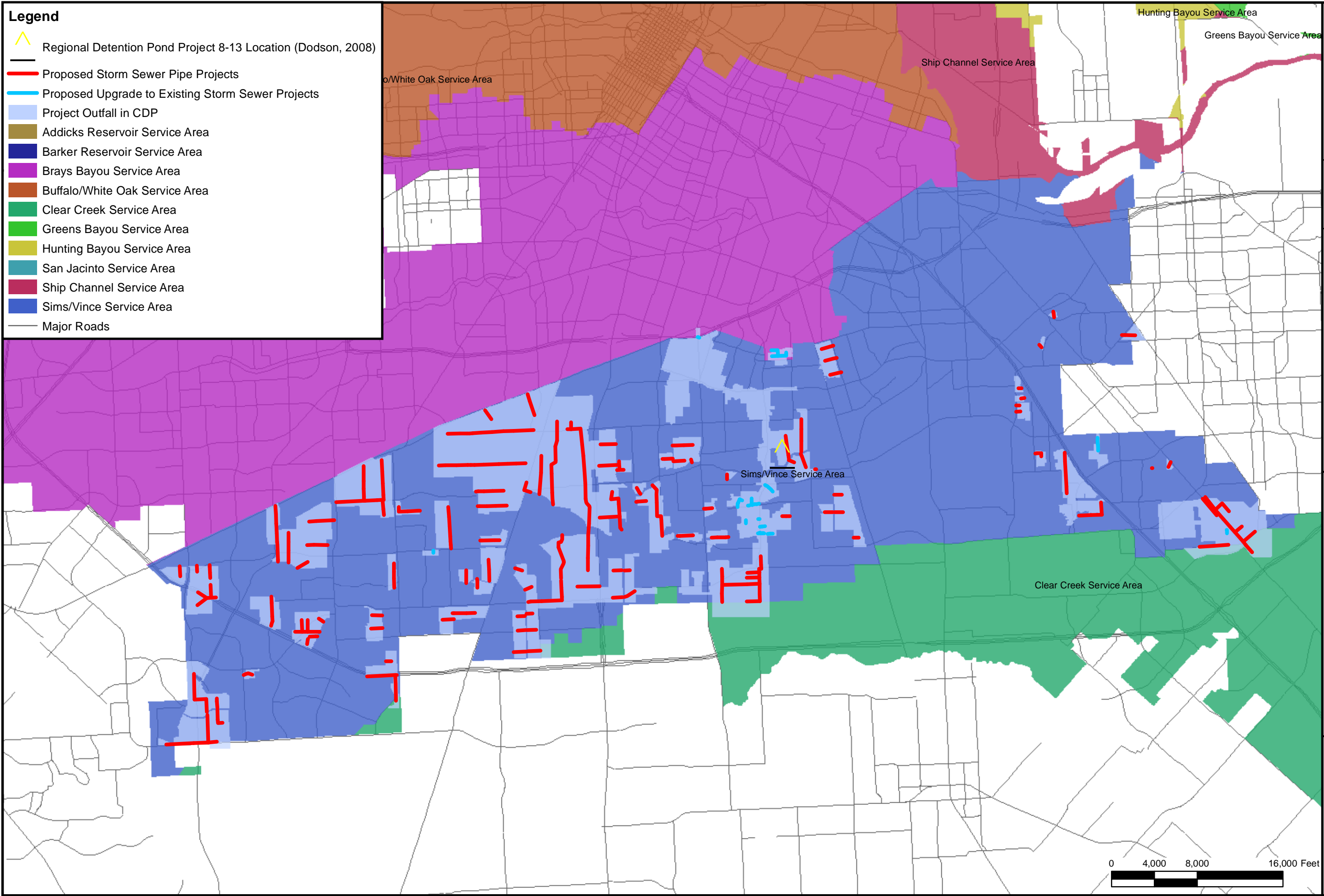
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-  Regional Detention Pond Project 8-13 Location (Dodson, 2008)
-  Proposed Storm Sewer Pipe Projects
-  Proposed Upgrade to Existing Storm Sewer Projects
-  Project Outfall in CDP
-  Addicks Reservoir Service Area
-  Barker Reservoir Service Area
-  Brays Bayou Service Area
-  Buffalo/White Oak Service Area
-  Clear Creek Service Area
-  Greens Bayou Service Area
-  Hunting Bayou Service Area
-  San Jacinto Service Area
-  Ship Channel Service Area
-  Sims/Vince Service Area
-  Major Roads



City of Houston, Texas

Drainage Impact Fee



**Drainage Impact Fee Improvement Plan
Projects - Sims / Vince Service Area**

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Appendix B – Storm Sewer Unit Cost Estimates

Storm Sewer Unit Cost Rates

Pipe Diameter (in)	Unit Cost Rate (\$/ln ft)
24	\$310.00
30	\$340.00
36	\$370.00
42	\$380.00
48	\$440.00
54	\$470.00
60	\$500.00
66	\$540.00
72	\$570.00
78	\$640.00
84	\$730.00
96	\$830.00
108	\$920.00
120	\$1,120.00
132	\$1,280.00
144	\$1,480.00
156	\$1,610.00
168	\$1,860.00
180	\$2,060.00
192	\$2,250.00
204	\$2,640.00
216	\$2,900.00
228	\$3,100.00
240	\$3,420.00
252	\$3,810.00
264	\$4,200.00
276	\$4,460.00
288	\$4,970.00

Notes:

1. Unit Cost Rates were developed based on City of Houston Bid Tabs for storm sewer projects constructed in 2010 and 2011.
2. Unit Cost Rates include the following:
 - Removal of existing pipe and pavement
 - Storm sewer pipe
 - Manholes
 - Inlets
 - Replacement of pavement
 - Groundwater control
 - Storm Water Pollution Prevention Plan (SW3P)
 - Trench safety
 - Traffic control
 - Mobilization
 - Engineering and contingency (20%)
3. Unit Cost Rates do not include the following:
 - Relocation of existing utilities
 - Acquisition of additional right-of-way



Appendix C – Planning Level Opinions of Probable Cost

Brays Bayou Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
1	D0122	1	U	0.70%	47 LF of 42"	\$17,860	\$125
					103 LF of 42"	\$39,140	\$274
2	D0124	1	U	0.48%	47 LF of 66"	\$25,380	\$122
					200 LF of 66"	\$108,000	\$518
3	D0149	1	U	1.19%	195 LF of 42"	\$74,100	\$882
					131 LF of 42"	\$49,780	\$592
					98 LF of 42"	\$37,240	\$443
					251 LF of 36"	\$92,870	\$1,105
4	D0155	1	U	1.63%	251 LF of 30"	\$85,340	\$1,391
					179 LF of 30"	\$60,860	\$992
					183 LF of 30"	\$62,220	\$1,014
					396 LF of 36"	\$146,520	\$2,388
5	D0180	1	U	0.20%	557 LF of 36"	\$206,090	\$412
					117 LF of 48"	\$51,480	\$103
					268 LF of 96"	\$222,440	\$445
					41 LF of 96"	\$34,030	\$68
					130 LF of 48"	\$57,200	\$114
					278 LF of 96"	\$230,740	\$461
					64 LF of 36"	\$23,680	\$47
					304 LF of 42"	\$115,520	\$231
					401 LF of 72"	\$228,570	\$457
					475 LF of 96"	\$394,250	\$789
					298 LF of 42"	\$113,240	\$226
					870 LF of 96"	\$722,100	\$1,444
					47 LF of 48"	\$20,680	\$41
					812 LF of 96"	\$673,960	\$1,348
					58 LF of 96"	\$48,140	\$96
					253 LF of 96"	\$209,990	\$420
301 LF of 36"	\$111,370	\$223					
70 LF of 48"	\$30,800	\$62					
315 LF of 36"	\$116,550	\$233					
308 LF of 48"	\$135,520	\$271					
6	D0208	1	U	0.25%	53 LF of 54"	\$24,910	\$62
					36 LF of 54"	\$16,920	\$42
					370 LF of 54"	\$173,900	\$435
					381 LF of 42"	\$144,780	\$362
7	D0212	1	U	0.41%	319 LF of 42"	\$121,220	\$303
					243 LF of 60"	\$121,500	\$498
					294 LF of 42"	\$111,720	\$458
					309 LF of 54"	\$145,230	\$595
					244 LF of 30"	\$82,960	\$340
8	D0220	1	U	0.12%	300 LF of 54"	\$141,000	\$578
					300 LF of 42"	\$114,000	\$467
					219 LF of 36"	\$81,030	\$97
					74 LF of 48"	\$32,560	\$39
					226 LF of 48"	\$99,440	\$119
					285 LF of 30"	\$96,900	\$116
					137 LF of 54"	\$64,390	\$77
					310 LF of 96"	\$257,300	\$309
					349 LF of 84"	\$254,770	\$306
					359 LF of 54"	\$168,730	\$202
					23 LF of 108"	\$21,160	\$25
					360 LF of 54"	\$169,200	\$203
					272 LF of 36"	\$100,640	\$121
					302 LF of 72"	\$172,140	\$207
					300 LF of 54"	\$141,000	\$169
					271 LF of 96"	\$224,930	\$270
215 LF of 30"	\$73,100	\$88					
368 LF of 84"	\$268,640	\$322					
298 LF of 54"	\$140,060	\$168					
298 LF of 48"	\$131,120	\$157					
191 LF of 42"	\$72,580	\$87					
312 LF of 36"	\$115,440	\$139					
9	D0290	1	U	0.81%	367 LF of 36"	\$135,790	\$1,100
					296 LF of 36"	\$109,520	\$887
10	D0320	1	U	0.18%	244 LF of 30"	\$82,960	\$149
					328 LF of 78"	\$209,920	\$378
					315 LF of 66"	\$170,100	\$306
					122 LF of 78"	\$78,080	\$141
					40 LF of 78"	\$25,600	\$46
					135 LF of 78"	\$86,400	\$156
250 LF of 60"	\$125,000	\$225					
					304 LF of 54"	\$142,880	\$257

Brays Bayou Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
10	D0320	1	U	0.18%	253 LF of 54"	\$118,910	\$214
					350 LF of 66"	\$189,000	\$340
					250 LF of 36"	\$92,500	\$167
					233 LF of 48"	\$102,520	\$185
					167 LF of 42"	\$63,460	\$114
11	D0325	1	U	0.13%	425 LF of 48"	\$187,000	\$243
12	D0601	1	U	0.47%	159 LF of 42"	\$60,420	\$284
					365 LF of 36"	\$135,050	\$635
					252 LF of 30"	\$85,680	\$403
13	D0864	1	U	0.18%	124 LF of 36"	\$45,880	\$83
14	D0880	3	U	0.27%	180 LF of 36"	\$66,600	\$180
15	D0881	1	U	0.11%	25 LF of 36"	\$9,250	\$10
16	D0889	1	U	6.19%	246 LF of 48"	\$108,240	\$6,700
					194 LF of 36"	\$71,780	\$4,443
					68 LF of 48"	\$29,920	\$1,852
					165 LF of 36"	\$61,050	\$3,779
17	D0891	3	U	6.10%	414 LF of 72"	\$235,980	\$14,395
					263 LF of 72"	\$149,910	\$9,145
					20 LF of 72"	\$11,400	\$695
					24 LF of 72"	\$13,680	\$834
					236 LF of 72"	\$134,520	\$8,206
					335 LF of 72"	\$190,950	\$11,648
					79 LF of 72"	\$45,030	\$2,747
					25 LF of 72"	\$14,250	\$869
					332 LF of 48"	\$146,080	\$8,911
18	D1380	1	U	0.37%	178 LF of 60"	\$89,000	\$329
					94 LF of 60"	\$47,000	\$174
					149 LF of 60"	\$74,500	\$276
					181 LF of 60"	\$90,500	\$335
					307 LF of 54"	\$144,290	\$534
					313 LF of 54"	\$147,110	\$544
					243 LF of 42"	\$92,340	\$342
19	D8014	5	P	4.96%	599 LF of 54"	\$281,530	\$13,964
					657 LF of 60"	\$328,500	\$16,294
					747 LF of 84"	\$545,310	\$27,047
20	D8018	5	P	51.80%	463 LF of 54"	\$217,610	\$112,722
					480 LF of 54"	\$225,600	\$116,861
21	D8028	5	P	0.01%	954 LF of 54"	\$448,380	\$45
22	D8033	5	P	40.62%	421 LF of 42"	\$159,980	\$64,984
					383 LF of 60"	\$191,500	\$77,787
23	D8036	5	P	0.40%	805 LF of 54"	\$378,350	\$1,513
					1138 LF of 66"	\$614,520	\$2,458
24	D9026	5	P	19.55%	582 LF of 60"	\$291,000	\$56,891
					1312 LF of 96"	\$1,088,960	\$212,892
					1511 LF of 120"	\$1,692,320	\$330,849
25	D9036	5	P	4.86%	1036 LF of 60"	\$518,000	\$25,175
					1155 LF of 72"	\$658,350	\$31,996
					1884 LF of 96"	\$1,563,720	\$75,997
26	D9040	5	P	8.85%	663 LF of 60"	\$331,500	\$29,338
					839 LF of 60"	\$419,500	\$37,126
27	D9042	5	P	12.44%	739 LF of 36"	\$273,430	\$34,015
28	D9043	5	P	4.24%	2383 LF of 96"	\$1,977,890	\$83,863
					1328 LF of 72"	\$756,960	\$32,095
					408 LF of 54"	\$191,760	\$8,131
29	D9044	5	P	0.08%	1344 LF of 54"	\$631,680	\$505
					1286 LF of 72"	\$733,020	\$586
					2220 LF of 96"	\$1,842,600	\$1,474
30	D9045	5	P	7.73%	1442 LF of 108"	\$1,326,640	\$102,549
					966 LF of 60"	\$483,000	\$37,336
					1169 LF of 96"	\$970,270	\$75,002
31	D9046	5	P	47.72%	868 LF of 72"	\$494,760	\$236,099
					961 LF of 108"	\$884,120	\$421,902
					1084 LF of 144"	\$1,604,320	\$765,582

Total Costs Attributable to Future Growth (Sum of above project costs)	\$3,141,037
Drainage Impact Fee Study Costs (per Service Area)	\$113,250
Total Adjusted Costs Attributable to Future Growth (Sum of above two values)	\$3,254,287
Percent Attributable to 10-Year Growth (from Table 5)	41.04%
Total Costs Attributable to 10-Year Growth (LINE 1 from Table 7)	\$1,335,559
Percent of Fee Recoverable (LINE 2 from Table 7)	50%
Maximum Assessable Fee (LINE 3 from Table 7)	\$667,780
Total Number of Service Units (LINE 4 from Table 7; Column 4 from Table 4)	77,406.692 SU
Cost of DIFIP per Service Unit Attributable to 10-Year Growth (LINE 5 from Table 7)	\$8.63 /SU

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
1	E0082	1	U	0.75%	297 LF of 78"	\$190,080	\$1,426
					218 LF of 42"	\$82,840	\$621
					185 LF of 42"	\$70,300	\$527
					298 LF of 66"	\$160,920	\$1,207
					298 LF of 36"	\$110,260	\$827
					28 LF of 60"	\$14,000	\$105
					536 LF of 60"	\$268,000	\$2,010
					296 LF of 72"	\$168,720	\$1,265
					946 LF of 60"	\$473,000	\$3,548
2	E0090	1	U	0.09%	32 LF of 66"	\$17,280	\$16
					362 LF of 78"	\$231,680	\$209
					309 LF of 78"	\$197,760	\$178
					297 LF of 78"	\$190,080	\$171
					46 LF of 78"	\$29,440	\$26
					257 LF of 72"	\$146,490	\$132
3	E0156	A	U	0.56%	303 LF of 54"	\$142,410	\$128
					136 LF of 48"	\$59,840	\$335
4	E0159	1	U	1.30%	183 LF of 96"	\$151,890	\$1,975
					335 LF of 96"	\$278,050	\$3,615
					359 LF of 96"	\$297,970	\$3,874
					229 LF of 60"	\$114,500	\$1,489
					389 LF of 60"	\$194,500	\$2,529
					300 LF of 60"	\$150,000	\$1,950
					134 LF of 42"	\$50,920	\$662
					109 LF of 2 - 132"	\$279,040	\$3,628
					113 LF of 60"	\$56,500	\$735
					247 LF of 42"	\$93,860	\$1,220
					1001 of 132" and 96"	\$2,112,110	\$27,457
					346 LF of 48"	\$152,240	\$1,979
					401 LF of 48"	\$176,440	\$2,294
					329 LF of 48"	\$144,760	\$1,882
					61 LF of 48"	\$26,840	\$349
					250 LF of 42"	\$95,000	\$1,235
					569 LF of 54"	\$267,430	\$3,477
					324 LF of 42"	\$123,120	\$1,601
					249 LF of 42"	\$94,620	\$1,230
					789 LF of 42"	\$299,820	\$3,898
					200 LF of 54"	\$94,000	\$1,222
					838 LF of 54"	\$393,860	\$5,120
					157 LF of 54"	\$73,790	\$959
					208 LF of 60"	\$104,000	\$1,352
					210 LF of 42"	\$79,800	\$1,037
					577 LF of 42"	\$219,260	\$2,850
					71 LF of 48"	\$31,240	\$406
					272 LF of 48"	\$119,680	\$1,556
					68 LF of 54"	\$31,960	\$415
					511 LF of 96"	\$424,130	\$5,514
					300 LF of 2 - 132"	\$768,000	\$9,984
					322 of 132" and 96"	\$679,420	\$8,832
					254 LF of 78"	\$162,560	\$2,113
					25 LF of 78"	\$16,000	\$208
					476 LF of 96"	\$395,080	\$5,136
					248 LF of 96"	\$205,840	\$2,676
					11 LF of 96"	\$9,130	\$119
					16 LF of 96"	\$13,280	\$173
					343 LF of 78"	\$219,520	\$2,854
					67 LF of 78"	\$42,880	\$557
					436 LF of 78"	\$279,040	\$3,628
					424 LF of 78"	\$271,360	\$3,528
					192 LF of 78"	\$122,880	\$1,597
					275 LF of 60"	\$137,500	\$1,788
					280 LF of 78"	\$179,200	\$2,330
					448 LF of 78"	\$286,720	\$3,727
					201 LF of 48"	\$88,440	\$1,150
					83 LF of 48"	\$36,520	\$475
					267 LF of 48"	\$117,480	\$1,527
					11 LF of 72"	\$6,270	\$82
11 LF of 72"	\$6,270	\$82					
10 LF of 72"	\$5,700	\$74					
338 LF of 72"	\$192,660	\$2,505					
399 LF of 72"	\$227,430	\$2,957					
14 LF of 66"	\$7,560	\$98					
11 LF of 66"	\$5,940	\$77					

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
4	E0159	1	U	1.30%	290 LF of 66"	\$156,600	\$2,036
					35 LF of 66"	\$18,900	\$246
					18 LF of 66"	\$9,720	\$126
					331 LF of 66"	\$178,740	\$2,324
					245 LF of 42"	\$93,100	\$1,210
					24 LF of 66"	\$12,960	\$168
					571 LF of 78"	\$365,440	\$4,751
					34 LF of 54"	\$15,980	\$208
					14 LF of 60"	\$7,000	\$91
					36 LF of 96"	\$29,880	\$388
					515 LF of 96"	\$427,450	\$5,557
					215 LF of 60"	\$107,500	\$1,398
					269 LF of 60"	\$134,500	\$1,749
					593 LF of 2 - 132"	\$1,518,080	\$19,735
					200 LF of 96"	\$166,000	\$2,158
					360 LF of 96"	\$298,800	\$3,884
					29 LF of 108"	\$26,680	\$347
					135 LF of 60"	\$67,500	\$878
					156 of 132" and 96"	\$329,160	\$4,279
					620 LF of 60"	\$310,000	\$4,030
					468 LF of 60"	\$234,000	\$3,042
					94 LF of 42"	\$35,720	\$464
					165 LF of 42"	\$62,700	\$815
					158 LF of 48"	\$69,520	\$904
					611 of 132" and 120"	\$1,466,400	\$19,063
					121 of 132" and 120"	\$290,400	\$3,775
					144 of 132" and 120"	\$345,600	\$4,493
					112 LF of 42"	\$42,560	\$553
					214 LF of 42"	\$81,320	\$1,057
					322 LF of 36"	\$119,140	\$1,549
					467 LF of 2 - 132"	\$1,195,520	\$15,542
					215 LF of 60"	\$107,500	\$1,398
					169 LF of 78"	\$108,160	\$1,406
					342 of 132" and 96"	\$721,620	\$9,381
					295 LF of 42"	\$112,100	\$1,457
					220 LF of 36"	\$81,400	\$1,058
					171 LF of 36"	\$63,270	\$823
					358 LF of 36"	\$132,460	\$1,722
					371 LF of 78"	\$237,440	\$3,087
					202 LF of 36"	\$74,740	\$972
					89 LF of 2 - 132"	\$227,840	\$2,962
					1032 of 132" and 96"	\$2,177,520	\$28,308
					105 LF of 42"	\$39,900	\$519
					201 LF of 30"	\$68,340	\$888
					181 LF of 30"	\$61,540	\$800
					170 LF of 30"	\$57,800	\$751
					139 LF of 30"	\$47,260	\$614
					187 LF of 42"	\$71,060	\$924
					307 LF of 48"	\$135,080	\$1,756
					291 LF of 42"	\$110,580	\$1,438
154 LF of 60"	\$77,000	\$1,001					
267 LF of 96"	\$221,610	\$2,881					
197 LF of 96"	\$163,510	\$2,126					
250 LF of 30"	\$85,000	\$1,105					
357 of 132" and 96"	\$753,270	\$9,793					
318 of 132" and 96"	\$670,980	\$8,723					
766 of 132" and 96"	\$1,616,260	\$21,011					
620 LF of 108"	\$570,400	\$7,415					
307 LF of 36"	\$113,590	\$1,477					
211 LF of 60"	\$105,500	\$1,372					
176 LF of 96"	\$146,080	\$1,899					
266 LF of 96"	\$220,780	\$2,870					
321 LF of 96"	\$266,430	\$3,464					
162 LF of 96"	\$134,460	\$1,748					
297 LF of 108"	\$273,240	\$3,552					
42 LF of 96"	\$34,860	\$453					
280 LF of 36"	\$103,600	\$1,347					
555 LF of 36"	\$205,350	\$2,670					
274 LF of 48"	\$120,560	\$1,567					
275 LF of 36"	\$101,750	\$1,323					
368 LF of 78"	\$235,520	\$3,062					
522 LF of 36"	\$193,140	\$2,511					
203 LF of 60"	\$101,500	\$1,320					

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
4	E0159	1	U	1.30%	129 LF of 60"	\$64,500	\$839
					61 LF of 78"	\$39,040	\$508
5	E0160	3	U	4.67%	196 LF of 36"	\$72,520	\$3,387
					300 LF of 36"	\$111,000	\$5,184
					319 LF of 36"	\$118,030	\$5,512
6	E0190	1	U	1.50%	72 LF of 60"	\$36,000	\$540
					334 LF of 60"	\$167,000	\$4,309
7	E0369	1	U	2.58%	271 LF of 2 - 132"	\$693,760	\$17,899
					264 LF of 2 - 132"	\$675,840	\$17,437
					253 LF of 2 - 132"	\$647,680	\$16,710
					85 of 156" and 132"	\$245,650	\$6,338
					71 of 156" and 132"	\$205,190	\$5,294
					126 of 156" and 132"	\$364,140	\$9,395
					267 LF of 60"	\$133,500	\$3,444
					435 of 168" and 156"	\$1,509,450	\$38,944
					656 of 168" and 156"	\$2,276,320	\$58,729
					573 of 156" and 132"	\$1,655,970	\$42,724
					131 of 156" and 132"	\$378,590	\$9,768
					285 of 156" and 132"	\$823,650	\$21,250
					592 of 156" and 132"	\$1,710,880	\$44,141
					867 of 156" and 132"	\$2,505,630	\$64,645
					450 of 156" and 132"	\$1,300,500	\$33,553
					34 of 156" and 132"	\$98,260	\$2,535
					231 of 156" and 132"	\$667,590	\$17,224
					279 LF of 60"	\$139,500	\$3,599
					38 LF of 96"	\$31,540	\$814
					227 LF of 48"	\$99,880	\$2,577
					190 LF of 96"	\$157,700	\$4,069
					191 LF of 96"	\$158,530	\$4,090
					352 LF of 108"	\$323,840	\$8,355
					50 LF of 96"	\$41,500	\$1,071
					197 LF of 2 - 132"	\$504,320	\$13,011
					287 of 168" and 156"	\$995,890	\$25,694
					74 of 156" and 132"	\$213,860	\$5,518
					328 LF of 72"	\$186,960	\$4,824
					155 LF of 54"	\$72,850	\$1,880
					202 LF of 96"	\$167,660	\$4,326
					219 LF of 96"	\$181,770	\$4,690
					78 LF of 108"	\$71,760	\$1,851
					219 LF of 108"	\$201,480	\$5,198
					297 LF of 108"	\$273,240	\$7,050
					204 of 156" and 132"	\$589,560	\$15,211
					39 of 156" and 132"	\$112,710	\$2,908
					240 LF of 96"	\$199,200	\$5,139
					61 LF of 96"	\$50,630	\$1,306
					203 LF of 96"	\$168,490	\$4,347
					452 LF of 108"	\$415,840	\$10,729
					270 of 132" and 108"	\$594,000	\$15,325
					396 of 132" and 108"	\$871,200	\$22,477
					239 of 156" and 132"	\$690,710	\$17,820
					36 of 156" and 132"	\$104,040	\$2,684
					129 of 156" and 132"	\$372,810	\$9,618
					18 of 168" and 156"	\$62,460	\$1,611
					285 of 156" and 132"	\$823,650	\$21,250
					717 of 168" and 156"	\$2,487,990	\$64,190
					272 of 168" and 156"	\$943,840	\$24,351
					50 of 132" and 108"	\$110,000	\$2,838
48 LF of 2 - 132"	\$122,880	\$3,170					
88 LF of 108"	\$80,960	\$2,089					
260 LF of 120"	\$291,200	\$7,513					
132 LF of 120"	\$147,840	\$3,814					
283 of 156" and 132"	\$817,870	\$21,101					
44 of 156" and 132"	\$127,160	\$3,281					
330 LF of 108"	\$303,600	\$7,833					
430 LF of 120"	\$481,600	\$12,425					
207 of 156" and 132"	\$598,230	\$15,434					
84 of 156" and 132"	\$242,760	\$6,263					
234 of 156" and 132"	\$676,260	\$17,448					
219 of 156" and 132"	\$632,910	\$16,329					
74 of 156" and 132"	\$213,860	\$5,518					
234 of 156" and 132"	\$676,260	\$17,448					
53 of 156" and 132"	\$153,170	\$3,952					
93 LF of 96"	\$77,190	\$1,992					

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
7	E0369	1	U	2.58%	36 of 156" and 132"	\$104,040	\$2,684
					316 LF of 2 - 132"	\$808,960	\$20,871
					565 of 156" and 132"	\$1,632,850	\$42,128
					278 of 156" and 132"	\$803,420	\$20,728
					192 of 156" and 132"	\$554,880	\$14,316
					193 of 156" and 132"	\$557,770	\$14,390
					169 of 156" and 132"	\$488,410	\$12,601
					308 of 156" and 132"	\$890,120	\$22,965
					178 of 156" and 132"	\$514,420	\$13,272
					174 LF of 2 - 132"	\$445,440	\$11,492
					252 LF of 2 - 132"	\$645,120	\$16,644
					142 LF of 60"	\$71,000	\$1,832
					170 LF of 60"	\$85,000	\$2,193
					182 LF of 60"	\$91,000	\$2,348
					59 LF of 96"	\$48,970	\$1,263
					237 LF of 96"	\$196,710	\$5,075
					53 LF of 96"	\$43,990	\$1,135
					545 of 156" and 132"	\$1,575,050	\$40,636
					271 of 156" and 132"	\$783,190	\$20,206
					54 of 156" and 132"	\$156,060	\$4,026
					309 LF of 2 - 132"	\$791,040	\$20,409
					178 LF of 2 - 132"	\$455,680	\$11,757
					43 of 168" and 156"	\$149,210	\$3,850
					275 of 168" and 156"	\$954,250	\$24,620
					296 of 156" and 132"	\$855,440	\$22,070
					31 of 156" and 132"	\$89,590	\$2,311
					178 LF of 96"	\$147,740	\$3,812
					54 of 168" and 156"	\$187,380	\$4,834
					132 of 156" and 132"	\$381,480	\$9,842
					29 of 156" and 132"	\$83,810	\$2,162
390 LF of 108"	\$358,800	\$9,257					
414 LF of 108"	\$380,880	\$9,827					
145 LF of 96"	\$120,350	\$3,105					
22 LF of 96"	\$18,260	\$471					
8	E0380	1	U	3.28%	229 LF of 60"	\$114,500	\$3,756
					223 LF of 60"	\$111,500	\$3,657
					34 LF of 60"	\$17,000	\$558
					173 LF of 60"	\$86,500	\$2,837
					114 LF of 60"	\$57,000	\$1,870
					126 LF of 60"	\$63,000	\$2,066
					140 LF of 66"	\$75,600	\$2,480
9	E0403	1	U	0.60%	150 LF of 60"	\$75,000	\$450
					196 LF of 60"	\$98,000	\$588
					88 LF of 60"	\$44,000	\$264
					217 LF of 30"	\$73,780	\$443
					271 LF of 36"	\$100,270	\$602
					71 LF of 36"	\$26,270	\$158
					71 LF of 42"	\$26,980	\$162
					140 LF of 42"	\$53,200	\$319
					17 LF of 48"	\$7,480	\$45
					39 LF of 48"	\$17,160	\$103
					313 LF of 48"	\$137,720	\$826
					74 LF of 48"	\$32,560	\$195
					131 LF of 30"	\$44,540	\$267
					282 LF of 36"	\$104,340	\$626
					275 LF of 48"	\$121,000	\$726
					317 LF of 54"	\$148,990	\$894
10	E0406	1	U	3.65%	267 LF of 48"	\$117,480	\$705
					92 LF of 42"	\$34,960	\$210
					157 LF of 48"	\$69,080	\$414
					320 of 54" and 42"	\$272,000	\$9,928
					234 of 54" and 42"	\$198,900	\$7,260
					213 of 54" and 42"	\$181,050	\$6,608
					501 of 54" and 42"	\$425,850	\$15,544
11	E0409	1	U	2.39%	266 of 54" and 42"	\$226,100	\$8,253
					318 of 54" and 42"	\$270,300	\$9,866
					27 of 54" and 42"	\$22,950	\$838
					290 LF of 42"	\$110,200	\$4,022
					82 of 66" and 42"	\$75,440	\$1,803
12	E0509	1	U	0.59%	185 of 78" and 42"	\$188,700	\$4,510
					237 of 78" and 42"	\$241,740	\$5,778
					280 LF of 54"	\$131,600	\$776
					26 LF of 54"	\$12,220	\$72

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
12	E0509	1	U	0.59%	860 of 54" and 42"	\$731,000	\$4,313
13	E0548	1	U	3.99%	86 LF of 36"	\$31,820	\$1,270
					62 LF of 54"	\$29,140	\$1,163
14	E0714	1	U	0.13%	237 LF of 72"	\$135,090	\$176
					177 LF of 42"	\$67,260	\$87
					159 LF of 66"	\$85,860	\$112
					164 LF of 66"	\$88,560	\$115
					300 LF of 72"	\$171,000	\$222
					59 LF of 72"	\$33,630	\$44
					84 LF of 42"	\$31,920	\$41
					214 LF of 48"	\$94,160	\$122
					54 LF of 48"	\$23,760	\$31
					227 LF of 48"	\$99,880	\$130
					28 LF of 60"	\$14,000	\$18
					261 LF of 60"	\$130,500	\$170
					38 LF of 48"	\$16,720	\$22
					322 LF of 36"	\$119,140	\$155
					67 LF of 36"	\$24,790	\$32
273 LF of 36"	\$101,010	\$131					
15	E0789	1	U	24.08%	264 LF of 30"	\$89,760	\$21,614
					280 LF of 30"	\$95,200	\$22,924
16	E0790	1	U	3.36%	186 LF of 30"	\$63,240	\$2,125
					278 LF of 36"	\$102,860	\$3,456
					193 LF of 30"	\$65,620	\$2,205
					234 LF of 42"	\$88,920	\$2,988
					190 LF of 30"	\$64,600	\$2,171
					91 LF of 60"	\$45,500	\$1,529
					286 LF of 48"	\$125,840	\$4,228
					281 LF of 36"	\$103,970	\$3,493
279 LF of 42"	\$106,020	\$3,562					
17	E5028	4	P	2.00%	394 LF of 48"	\$173,360	\$3,467
18	E5029	2	P	1.55%	186 LF of 48"	\$81,840	\$1,269
					365 LF of 42"	\$138,700	\$2,150
19	E5031	2	P	1.09%	383 LF of 48"	\$168,520	\$1,837
20	E5045	2	P	0.75%	350 LF of 36"	\$129,500	\$971
					248 LF of 42"	\$94,240	\$707
					152 LF of 48"	\$66,880	\$502
21	E5047	2	P	1.27%	314 LF of 42"	\$119,320	\$1,515
					328 LF of 48"	\$144,320	\$1,833
22	E5048	4	P	0.47%	416 LF of 48"	\$183,040	\$860
23	E5049	2	P	3.30%	102 LF of 36"	\$37,740	\$1,245
					265 LF of 36"	\$98,050	\$3,236
					500 LF of 42"	\$190,000	\$6,270
					215 LF of 54"	\$101,050	\$3,335
24	E5052	2	P	4.00%	382 LF of 60"	\$191,000	\$7,640
					371 LF of 66"	\$200,340	\$8,014
					325 LF of 72"	\$185,250	\$7,410
25	E5071	5	P	26.50%	153 LF of 36"	\$56,610	\$15,002
26	E5072	5	P	3.22%	412 LF of 54"	\$193,640	\$6,235
27	E5081	5	P	37.22%	392 LF of 48"	\$172,480	\$64,197
28	E5082	5	P	3.28%	294 LF of 54"	\$138,180	\$4,532
					369 LF of 42"	\$140,220	\$4,599
					272 LF of 48"	\$119,680	\$3,926
					163 LF of 54"	\$76,610	\$2,513
29	E5083	5	P	27.53%	500 LF of 42"	\$190,000	\$52,307
					500 LF of 48"	\$220,000	\$60,566
					500 LF of 60"	\$250,000	\$68,825
30	E5084	5	P	6.16%	246 LF of 60"	\$123,000	\$7,577
					261 LF of 60"	\$130,500	\$8,039
					500 LF of 48"	\$220,000	\$13,552
					500 LF of 42"	\$190,000	\$11,704
31	E5101	5	P	8.26%	500 LF of 42"	\$190,000	\$15,694
32	E5105	5	P	11.22%	369 LF of 108"	\$339,480	\$38,090
					289 LF of 108"	\$265,880	\$29,832
					500 LF of 108"	\$460,000	\$51,612
					500 LF of 108"	\$460,000	\$51,612
					500 LF of 108"	\$460,000	\$51,612
					321 LF of 108"	\$295,320	\$33,135
					193 LF of 108"	\$177,560	\$19,922
					148 LF of 108"	\$136,160	\$15,277
					321 LF of 108"	\$295,320	\$33,135
					290 LF of 108"	\$266,800	\$29,935
500 LF of 108"	\$460,000	\$51,612					

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
32	E5105	5	P	11.22%	206 LF of 108"	\$189,520	\$21,264
					162 LF of 108"	\$149,040	\$16,722
					500 LF of 78"	\$320,000	\$35,904
					500 LF of 78"	\$320,000	\$35,904
					500 LF of 96"	\$415,000	\$46,563
					500 LF of 78"	\$320,000	\$35,904
					500 LF of 108"	\$460,000	\$51,612
					63 LF of 108"	\$57,960	\$6,503
33	E5112	2	P	0.77%	264 LF of 78"	\$168,960	\$1,301
					95 LF of 66"	\$51,300	\$395
					317 LF of 78"	\$202,880	\$1,562
					297 LF of 78"	\$190,080	\$1,464
					281 LF of 96"	\$233,230	\$1,796
					307 LF of 66"	\$165,780	\$1,277
34	E5113	5	P	35.90%	302 LF of 78"	\$193,280	\$69,388
					225 LF of 78"	\$144,000	\$51,696
					500 LF of 54"	\$235,000	\$84,365
					500 LF of 48"	\$220,000	\$78,980
					500 LF of 42"	\$190,000	\$68,210
35	E5116	5	P	0.01%	321 LF of 42"	\$121,980	\$12
					105 LF of 42"	\$39,900	\$4
					324 LF of 54"	\$152,280	\$15
					487 LF of 66"	\$262,980	\$26
					373 LF of 78"	\$238,720	\$24
					337 LF of 66"	\$181,980	\$18
					149 LF of 54"	\$70,030	\$7
					436 LF of 42"	\$165,680	\$17
					243 LF of 54"	\$114,210	\$11
36	E5118	5	P	22.70%	358 LF of 66"	\$193,320	\$43,884
					386 LF of 54"	\$181,420	\$41,182
37	E5129	5	P	0.13%	80 LF of 42"	\$30,400	\$40
					146 LF of 42"	\$55,480	\$72
					500 LF of 36"	\$185,000	\$241
38	E5136	5	P	0.09%	500 LF of 42"	\$190,000	\$171
					215 LF of 48"	\$94,600	\$85
39	E5139	5	P	21.16%	500 LF of 42"	\$190,000	\$40,204
					215 LF of 66"	\$116,100	\$24,567
					500 LF of 48"	\$220,000	\$46,552
40	E5160	5	P	30.42%	500 LF of 54"	\$235,000	\$71,487
					381 LF of 48"	\$167,640	\$50,996
					1418 LF of 60"	\$709,000	\$215,678
					1319 LF of 84"	\$962,870	\$292,905
					1115 LF of 108"	\$1,025,800	\$312,048
41	E5164	5	P	0.01%	500 LF of 78"	\$320,000	\$32
					438 LF of 66"	\$236,520	\$24
					500 LF of 96"	\$415,000	\$42
					500 LF of 120"	\$560,000	\$56
					239 LF of 120"	\$267,680	\$27
					500 LF of 72"	\$285,000	\$29
					500 LF of 132"	\$640,000	\$64
					230 LF of 132"	\$294,400	\$29
					500 LF of 108"	\$460,000	\$46
					258 LF of 84"	\$188,340	\$1,092
42	E5168	4	P	0.58%	307 LF of 78"	\$196,480	\$1,140
					500 LF of 78"	\$320,000	\$1,856
					500 LF of 66"	\$270,000	\$1,566
					500 LF of 66"	\$270,000	\$1,566
					295 LF of 108"	\$271,400	\$4,994
43	E5169	5	P	1.84%	500 LF of 96"	\$415,000	\$7,636
					305 LF of 108"	\$280,600	\$5,163
					268 LF of 108"	\$246,560	\$4,537
					500 LF of 78"	\$320,000	\$5,888
					500 LF of 66"	\$270,000	\$4,968
					316 LF of 96"	\$262,280	\$13,298
44	E5170	5	P	5.07%	223 LF of 96"	\$185,090	\$9,384
					500 LF of 78"	\$320,000	\$16,224
					164 LF of 96"	\$136,120	\$6,901
					500 LF of 66"	\$270,000	\$13,689
					500 LF of 78"	\$320,000	\$16,224
45	E5171	5	P	0.29%	140 LF of 96"	\$116,200	\$337
					322 LF of 78"	\$206,080	\$598
					441 LF of 66"	\$238,140	\$691
					465 LF of 54"	\$218,550	\$634

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
46	E5172	5	P	2.02%	500 LF of 108"	\$460,000	\$9,292
					500 LF of 42"	\$190,000	\$3,838
					500 LF of 78"	\$320,000	\$6,464
					500 LF of 78"	\$320,000	\$6,464
					500 LF of 66"	\$270,000	\$5,454
					500 LF of 48"	\$220,000	\$4,444
47	E5175	5	P	3.15%	500 LF of 96"	\$415,000	\$8,383
					500 LF of 120"	\$560,000	\$17,640
					500 LF of 108"	\$460,000	\$14,490
48	E5176	5	P	0.04%	368 LF of 132"	\$471,040	\$14,838
					408 LF of 132"	\$522,240	\$209
					446 LF of 120"	\$499,520	\$200
					500 LF of 108"	\$460,000	\$184
					500 LF of 96"	\$415,000	\$166
49	E5177	5	P	2.50%	435 LF of 96"	\$361,050	\$144
					368 LF of 96"	\$305,440	\$7,636
					330 LF of 96"	\$273,900	\$6,848
					314 LF of 96"	\$260,620	\$6,516
					489 LF of 96"	\$405,870	\$10,147
					445 LF of 78"	\$284,800	\$7,120
					335 LF of 66"	\$180,900	\$4,523
					283 LF of 66"	\$152,820	\$3,821
					397 LF of 66"	\$214,380	\$5,360
					450 LF of 54"	\$211,500	\$33,502
50	E5183	5	P	15.84%	293 LF of 48"	\$128,920	\$20,421
					242 LF of 48"	\$106,480	\$16,866
					313 LF of 42"	\$118,940	\$43,710
51	E5184	5	P	36.75%	351 LF of 42"	\$133,380	\$63,836
52	E5185	5	P	47.86%	500 LF of 66"	\$270,000	\$44,523
53	E5191	5	P	16.49%	500 LF of 78"	\$320,000	\$52,768
					87 LF of 78"	\$55,680	\$9,182
					173 LF of 78"	\$110,720	\$18,258
					500 LF of 66"	\$270,000	\$44,523
					500 LF of 66"	\$270,000	\$44,523
					500 LF of 54"	\$235,000	\$38,752
					500 LF of 96"	\$415,000	\$68,434
					364 LF of 66"	\$196,560	\$32,413
					500 LF of 96"	\$415,000	\$68,434
					500 LF of 96"	\$415,000	\$68,434
					525 LF of 54"	\$246,750	\$32,645
54	E5192	5	P	13.23%	282 LF of 96"	\$234,060	\$30,966
					676 LF of 66"	\$365,040	\$48,295
					555 LF of 78"	\$355,200	\$46,993
					478 LF of 96"	\$396,740	\$52,489
55	E5196	5	P	1.42%	390 LF of 42"	\$148,200	\$2,104
					399 LF of 48"	\$175,560	\$2,493
					463 LF of 42"	\$175,940	\$2,498
					91 LF of 42"	\$34,580	\$491
56	W0135	3	U	0.18%	177 LF of 36"	\$65,490	\$118
57	W0155	3	U	0.34%	234 LF of 48"	\$102,960	\$350
					127 LF of 60"	\$63,500	\$216
					121 LF of 60"	\$60,500	\$206
					136 LF of 60"	\$68,000	\$231
					347 LF of 60"	\$173,500	\$590
					132 LF of 60"	\$66,000	\$224
					37 LF of 60"	\$18,500	\$63
					240 LF of 60"	\$120,000	\$408
					271 LF of 48"	\$119,240	\$405
					310 LF of 54"	\$145,700	\$495
					166 LF of 36"	\$61,420	\$209
					95 LF of 36"	\$35,150	\$120
					116 LF of 36"	\$42,920	\$146
					101 LF of 36"	\$37,370	\$127
					34 LF of 48"	\$14,960	\$51
					270 LF of 48"	\$118,800	\$404
					117 LF of 42"	\$44,460	\$151
					88 LF of 36"	\$32,560	\$111
					34 LF of 36"	\$12,580	\$43
					229 LF of 42"	\$87,020	\$296
376 LF of 54"	\$176,720	\$601					
402 LF of 48"	\$176,880	\$601					
81 LF of 36"	\$29,970	\$102					
121 LF of 36"	\$44,770	\$152					

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
57	W0155	3	U	0.34%	64 LF of 42"	\$24,320	\$83
					130 LF of 48"	\$57,200	\$194
					122 LF of 48"	\$53,680	\$183
					49 LF of 48"	\$21,560	\$73
					28 LF of 96"	\$23,240	\$79
					361 LF of 42"	\$137,180	\$466
					154 LF of 108"	\$141,680	\$482
					56 LF of 84"	\$40,880	\$139
					136 LF of 60"	\$68,000	\$231
58	W0308	A	U	2.24%	23 LF of 96"	\$19,090	\$428
59	W0381	3	U	1.08%	208 LF of 54"	\$97,760	\$1,056
					281 LF of 30"	\$95,540	\$1,032
					284 LF of 60"	\$142,000	\$1,534
					237 LF of 54"	\$111,390	\$1,203
					320 LF of 54"	\$150,400	\$1,624
					434 LF of 54"	\$203,980	\$2,203
					57 LF of 54"	\$26,790	\$289
					41 LF of 54"	\$19,270	\$208
					83 LF of 42"	\$31,540	\$341
					275 LF of 42"	\$104,500	\$1,129
					224 LF of 42"	\$85,120	\$919
					328 LF of 36"	\$121,360	\$1,311
					113 LF of 42"	\$42,940	\$464
					198 LF of 42"	\$75,240	\$813
					84 LF of 42"	\$31,920	\$345
					331 LF of 42"	\$125,780	\$1,358
					278 LF of 66"	\$150,120	\$1,621
					280 LF of 72"	\$159,600	\$1,724
					58 LF of 96"	\$48,140	\$520
					62 LF of 30"	\$21,080	\$228
					315 LF of 24"	\$97,650	\$1,055
					97 LF of 30"	\$32,980	\$356
					308 LF of 66"	\$166,320	\$1,796
					656 LF of 72"	\$373,920	\$4,038
					59 LF of 42"	\$22,420	\$242
					293 LF of 60"	\$146,500	\$1,582
					30 LF of 54"	\$14,100	\$152
					97 LF of 54"	\$45,590	\$492
352 LF of 60"	\$176,000	\$1,901					
81 LF of 48"	\$35,640	\$385					
60	W0392	1	U	0.06%	287 LF of 42"	\$109,060	\$65
					265 LF of 42"	\$100,700	\$60
					267 LF of 42"	\$101,460	\$61
					217 LF of 42"	\$82,460	\$49
					72 LF of 30"	\$24,480	\$15
					115 LF of 30"	\$39,100	\$23
					332 LF of 60"	\$166,000	\$100
					134 LF of 54"	\$62,980	\$38
					409 LF of 42"	\$155,420	\$93
					36 LF of 54"	\$16,920	\$10
					272 LF of 42"	\$103,360	\$62
					298 LF of 54"	\$140,060	\$84
					204 LF of 54"	\$95,880	\$58
					17 LF of 54"	\$7,990	\$5
					35 LF of 72"	\$19,950	\$12
					284 LF of 72"	\$161,880	\$97
					263 LF of 72"	\$149,910	\$90
					97 LF of 66"	\$52,380	\$31
					153 LF of 66"	\$82,620	\$50
					405 LF of 96"	\$336,150	\$202
					563 LF of 72"	\$320,910	\$193
					365 LF of 72"	\$208,050	\$125
					252 LF of 72"	\$143,640	\$86
					71 LF of 42"	\$26,980	\$16
					305 LF of 60"	\$152,500	\$92
					100 LF of 60"	\$50,000	\$30
					213 LF of 96"	\$176,790	\$106
					393 LF of 96"	\$326,190	\$196
310 of 156" and 78"	\$697,500	\$419					
204 LF of 42"	\$77,520	\$47					
285 LF of 30"	\$96,900	\$58					
436 LF of 42"	\$165,680	\$99					
26 LF of 42"	\$9,880	\$6					

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
60	W0392	1	U	0.06%	77 LF of 42"	\$29,260	\$18
					51 LF of 78"	\$32,640	\$20
					35 LF of 42"	\$13,300	\$8
					445 LF of 30"	\$151,300	\$91
					304 LF of 30"	\$103,360	\$62
					93 LF of 30"	\$31,620	\$19
					185 LF of 96"	\$153,550	\$92
					263 LF of 96"	\$218,290	\$131
					220 LF of 42"	\$83,600	\$50
61	W0404	1	U	1.29%	477 LF of 156"	\$767,970	\$9,907
					315 LF of 156"	\$507,150	\$6,542
					74 LF of 30"	\$25,160	\$325
					385 LF of 60"	\$192,500	\$2,483
					413 LF of 60"	\$206,500	\$2,664
					441 LF of 54"	\$207,270	\$2,674
					375 LF of 42"	\$142,500	\$1,838
					519 LF of 42"	\$197,220	\$2,544
					385 LF of 42"	\$146,300	\$1,887
					589 LF of 42"	\$223,820	\$2,887
					65 LF of 36"	\$24,050	\$310
					139 LF of 48"	\$61,160	\$789
					427 LF of 48"	\$187,880	\$2,424
					28 LF of 42"	\$10,640	\$137
					107 LF of 144"	\$158,360	\$2,043
					41 LF of 144"	\$60,680	\$783
					283 LF of 54"	\$133,010	\$1,716
					517 LF of 216"	\$1,499,300	\$19,341
					589 LF of 36"	\$217,930	\$2,811
62	W0434	3	U	3.92%	20 LF of 72"	\$11,400	\$447
					143 LF of 72"	\$81,510	\$3,195
					170 LF of 72"	\$96,900	\$3,798
					146 LF of 72"	\$83,220	\$3,262
					195 LF of 48"	\$85,800	\$3,363
					36 LF of 48"	\$15,840	\$621
					102 LF of 48"	\$44,880	\$1,759
					323 LF of 42"	\$122,740	\$4,811
					101 LF of 36"	\$37,370	\$1,465
					185 LF of 78"	\$118,400	\$4,641
					130 LF of 48"	\$57,200	\$2,242
					146 LF of 54"	\$68,620	\$2,690
					46 LF of 54"	\$21,620	\$848
63	W0507	3	U	1.14%	290 LF of 66"	\$156,600	\$1,785
					36 LF of 54"	\$16,920	\$193
					130 LF of 48"	\$57,200	\$652
					224 LF of 54"	\$105,280	\$1,200
					204 LF of 48"	\$89,760	\$1,023
					34 LF of 48"	\$14,960	\$171
					198 LF of 42"	\$75,240	\$858
					221 LF of 36"	\$81,770	\$932
					389 LF of 42"	\$147,820	\$1,685
					411 LF of 42"	\$156,180	\$1,780
					317 LF of 36"	\$117,290	\$1,337
64	W0564	1	U	0.07%	278 LF of 30"	\$94,520	\$66
					285 LF of 30"	\$96,900	\$68
					65 LF of 24"	\$20,150	\$14
					623 LF of 48"	\$274,120	\$192
					273 LF of 30"	\$92,820	\$65
					222 LF of 36"	\$82,140	\$57
65	W0571	1	U	0.51%	421 LF of 30"	\$143,140	\$730
					573 LF of 42"	\$217,740	\$1,110
					38 LF of 30"	\$12,920	\$66
					267 LF of 30"	\$90,780	\$463
66	W0656	3	U	0.69%	319 LF of 36"	\$118,030	\$814
67	W0679	1	U	0.53%	294 LF of 36"	\$108,780	\$577
					279 LF of 36"	\$103,230	\$547
					183 LF of 42"	\$69,540	\$369
					280 LF of 54"	\$131,600	\$697
					400 LF of 48"	\$176,000	\$933
					230 LF of 36"	\$85,100	\$451
					272 LF of 48"	\$119,680	\$634
					462 LF of 54"	\$217,140	\$1,151
					376 LF of 120"	\$421,120	\$2,232
265 LF of 54"	\$124,550	\$660					

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth					
67	W0679	1	U	0.53%	290 LF of 60"	\$145,000	\$769					
					366 LF of 60"	\$183,000	\$970					
					290 LF of 54"	\$136,300	\$722					
					353 LF of 120"	\$395,360	\$2,095					
68	W0681	1	U	1.20%	188 LF of 54"	\$88,360	\$1,060					
					191 LF of 30"	\$64,940	\$779					
					84 LF of 42"	\$31,920	\$383					
					808 LF of 66"	\$436,320	\$5,236					
					478 LF of 60"	\$239,000	\$2,868					
					709 LF of 66"	\$382,860	\$4,594					
					49 LF of 60"	\$24,500	\$294					
					263 LF of 60"	\$131,500	\$1,578					
					244 LF of 42"	\$92,720	\$1,113					
					245 LF of 48"	\$107,800	\$1,294					
					69	W0682	1	U	0.74%	249 LF of 66"	\$134,460	\$995
										243 LF of 48"	\$106,920	\$791
299 LF of 48"	\$131,560	\$974										
179 LF of 60"	\$89,500	\$662										
73 LF of 60"	\$36,500	\$270										
246 LF of 60"	\$123,000	\$910										
251 LF of 60"	\$125,500	\$929										
253 LF of 54"	\$118,910	\$880										
114 LF of 42"	\$43,320	\$321										
246 LF of 60"	\$123,000	\$910										
486 LF of 48"	\$213,840	\$1,582										
257 LF of 54"	\$120,790	\$894										
251 LF of 60"	\$125,500	\$929										
245 LF of 60"	\$122,500	\$907										
969 LF of 66"	\$523,260	\$3,872										
545 LF of 78"	\$348,800	\$2,581										
412 LF of 78"	\$263,680	\$1,951										
70	W0686	1	U	0.91%	305 LF of 48"	\$134,200	\$1,221					
					275 LF of 42"	\$104,500	\$951					
					272 LF of 30"	\$92,480	\$842					
					81 LF of 42"	\$30,780	\$280					
					312 LF of 30"	\$106,080	\$965					
					289 LF of 42"	\$109,820	\$999					
					341 LF of 144"	\$504,680	\$4,593					
					420 LF of 96"	\$348,600	\$3,172					
					196 LF of 30"	\$66,640	\$606					
					357 LF of 96"	\$296,310	\$2,696					
					190 LF of 66"	\$102,600	\$934					
					263 LF of 30"	\$89,420	\$814					
					220 LF of 30"	\$74,800	\$681					
					222 LF of 30"	\$75,480	\$687					
					195 LF of 30"	\$66,300	\$603					
					44 LF of 30"	\$14,960	\$136					
					254 LF of 30"	\$86,360	\$786					
					231 LF of 42"	\$87,780	\$799					
					67 LF of 36"	\$24,790	\$226					
					316 LF of 42"	\$120,080	\$1,093					
					66 LF of 42"	\$25,080	\$228					
					107 LF of 42"	\$40,660	\$370					
					310 LF of 42"	\$117,800	\$1,072					
					304 LF of 30"	\$103,360	\$941					
					318 LF of 30"	\$108,120	\$984					
					271 LF of 42"	\$102,980	\$937					
					342 LF of 30"	\$116,280	\$1,058					
					231 LF of 42"	\$87,780	\$799					
					278 LF of 54"	\$130,660	\$1,189					
					275 LF of 30"	\$93,500	\$851					
					252 LF of 36"	\$93,240	\$848					
					264 LF of 42"	\$100,320	\$913					
					354 LF of 108"	\$325,680	\$2,964					
					325 LF of 108"	\$299,000	\$2,721					
					316 LF of 108"	\$290,720	\$2,646					
					297 LF of 30"	\$100,980	\$919					
347 LF of 96"	\$288,010	\$2,621										
287 LF of 42"	\$109,060	\$992										
281 LF of 30"	\$95,540	\$869										
333 LF of 72"	\$189,810	\$1,727										
328 LF of 96"	\$272,240	\$2,477										
309 LF of 84"	\$225,570	\$2,053										

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
70	W0686	1	U	0.91%	324 LF of 48"	\$142,560	\$1,297
					310 LF of 60"	\$155,000	\$1,411
					230 LF of 168"	\$427,800	\$3,893
					230 LF of 168"	\$427,800	\$3,893
					235 LF of 168"	\$437,100	\$3,978
					229 LF of 156"	\$368,690	\$3,355
					243 LF of 30"	\$82,620	\$752
					23 LF of 30"	\$7,820	\$71
					246 LF of 30"	\$83,640	\$761
					33 LF of 30"	\$11,220	\$102
					313 LF of 108"	\$287,960	\$2,620
					327 LF of 48"	\$143,880	\$1,309
					289 LF of 42"	\$109,820	\$999
					285 LF of 42"	\$108,300	\$986
					269 LF of 30"	\$91,460	\$832
					334 LF of 30"	\$113,560	\$1,033
					315 LF of 42"	\$119,700	\$1,089
					74 LF of 30"	\$25,160	\$229
					168 LF of 30"	\$57,120	\$520
					194 LF of 30"	\$65,960	\$600
					218 LF of 36"	\$80,660	\$734
					285 LF of 54"	\$133,950	\$1,219
					277 LF of 48"	\$121,880	\$1,109
					250 LF of 48"	\$110,000	\$1,001
					286 LF of 30"	\$97,240	\$885
					257 LF of 36"	\$95,090	\$865
					174 LF of 36"	\$64,380	\$586
					84 LF of 42"	\$31,920	\$290
					334 LF of 48"	\$146,960	\$1,337
					234 LF of 42"	\$88,920	\$809
					313 LF of 30"	\$106,420	\$968
					344 LF of 60"	\$172,000	\$1,565
					313 LF of 54"	\$147,110	\$1,339
					62 LF of 54"	\$29,140	\$265
					191 LF of 54"	\$89,770	\$817
					245 LF of 42"	\$93,100	\$847
					342 LF of 48"	\$150,480	\$1,369
					277 LF of 42"	\$105,260	\$958
					205 LF of 30"	\$69,700	\$634
					218 LF of 30"	\$74,120	\$674
					67 LF of 30"	\$22,780	\$207
					252 LF of 30"	\$85,680	\$780
					196 LF of 36"	\$72,520	\$660
					191 LF of 36"	\$70,670	\$643
					307 LF of 42"	\$116,660	\$1,062
					300 LF of 72"	\$171,000	\$1,556
					28 LF of 72"	\$15,960	\$145
					250 LF of 78"	\$160,000	\$1,456
					272 LF of 84"	\$198,560	\$1,807
					271 LF of 66"	\$146,340	\$1,332
281 LF of 66"	\$151,740	\$1,381					
267 LF of 60"	\$133,500	\$1,215					
232 LF of 72"	\$132,240	\$1,203					
235 LF of 72"	\$133,950	\$1,219					
346 LF of 60"	\$173,000	\$1,574					
246 LF of 30"	\$83,640	\$761					
270 LF of 66"	\$145,800	\$1,327					
48 LF of 36"	\$17,760	\$162					
279 LF of 66"	\$150,660	\$1,371					
266 LF of 60"	\$133,000	\$1,210					
255 LF of 60"	\$127,500	\$1,160					
244 LF of 54"	\$114,680	\$1,044					
250 LF of 54"	\$117,500	\$1,069					
243 LF of 42"	\$92,340	\$840					
264 LF of 42"	\$100,320	\$913					
319 LF of 48"	\$140,360	\$1,277					
325 LF of 42"	\$123,500	\$1,124					
327 LF of 36"	\$120,990	\$1,101					
315 LF of 84"	\$229,950	\$2,093					
309 LF of 48"	\$135,960	\$1,237					
339 LF of 60"	\$169,500	\$1,542					
379 LF of 48"	\$166,760	\$1,518					
305 LF of 54"	\$143,350	\$1,304					

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
70	W0686	1	U	0.91%	271 LF of 42"	\$102,980	\$937
					339 LF of 54"	\$159,330	\$1,450
					30 LF of 54"	\$14,100	\$128
					323 LF of 60"	\$161,500	\$1,470
					350 LF of 60"	\$175,000	\$1,593
					346 LF of 54"	\$162,620	\$1,480
					285 LF of 30"	\$96,900	\$882
					661 LF of 78"	\$423,040	\$3,850
					279 LF of 54"	\$131,130	\$1,193
					343 LF of 96"	\$284,690	\$2,591
					940 LF of 108"	\$864,800	\$7,870
					372 LF of 42"	\$141,360	\$1,286
					704 LF of 54"	\$330,880	\$3,011
					220 LF of 156"	\$354,200	\$3,223
					357 LF of 66"	\$192,780	\$1,754
					275 LF of 54"	\$129,250	\$1,176
					225 LF of 48"	\$99,000	\$901
					273 LF of 30"	\$92,820	\$845
					328 LF of 42"	\$124,640	\$1,134
					331 LF of 48"	\$145,640	\$1,325
					290 LF of 48"	\$127,600	\$1,161
					548 LF of 42"	\$208,240	\$1,895
					286 LF of 72"	\$163,020	\$1,483
					238 LF of 30"	\$80,920	\$736
					284 LF of 42"	\$107,920	\$982
					316 LF of 78"	\$202,240	\$1,840
					130 LF of 30"	\$44,200	\$402
					216 LF of 30"	\$73,440	\$668
					263 LF of 36"	\$97,310	\$886
					300 LF of 42"	\$114,000	\$1,037
					287 LF of 132"	\$367,360	\$3,343
					350 LF of 54"	\$164,500	\$1,497
					277 LF of 132"	\$354,560	\$3,226
326 LF of 144"	\$482,480	\$4,391					
289 LF of 168"	\$537,540	\$4,892					
238 LF of 144"	\$352,240	\$3,205					
96 LF of 36"	\$35,520	\$323					
271 LF of 36"	\$100,270	\$912					
485 LF of 48"	\$213,400	\$1,942					
289 LF of 48"	\$127,160	\$1,157					
71	W1004	2	P	3.27%	1392 LF of 54"	\$654,240	\$21,394
72	W1005	2	P	6.43%	471 LF of 66"	\$254,340	\$16,354
					970 LF of 66"	\$523,800	\$33,680
					519 LF of 48"	\$228,360	\$14,684
					1018 LF of 84"	\$743,140	\$47,784
73	W1026	2	P	1.94%	2020 LF of 120"	\$2,262,400	\$145,472
					1493 LF of 66"	\$806,220	\$15,641
74	W1050	5	P	5.34%	912 LF of 120"	\$1,021,440	\$54,545
					1592 LF of 60"	\$796,000	\$42,506
					5 LF of 120"	\$5,600	\$299
					1763 LF of 72"	\$1,004,910	\$53,662
					5 LF of 84"	\$3,650	\$195
75	W1051	5	P	0.10%	832 LF of 84"	\$607,360	\$32,433
					1637 LF of 60"	\$818,500	\$819
					2 LF of 60"	\$1,000	\$1
					459 LF of 78"	\$293,760	\$294
					1518 LF of 48"	\$667,920	\$668
76	W1052	5	P	3.50%	579 LF of 66"	\$312,660	\$313
					830 LF of 48"	\$365,200	\$12,782
77	W1070	5	P	8.66%	1277 LF of 72"	\$727,890	\$63,035
					1360 LF of 78"	\$870,400	\$75,377
					1293 LF of 120"	\$1,448,160	\$125,411
					1273 LF of 66"	\$687,420	\$59,531
78	W1072	5	P	11.08%	889 LF of 54"	\$417,830	\$46,296
79	W1073	5	P	1.41%	797 LF of 54"	\$374,590	\$5,282
80	W1074	5	P	7.40%	865 LF of 54"	\$406,550	\$30,085
81	W1080	5	P	32.91%	971 LF of 54"	\$456,370	\$150,191
					1484 LF of 2 - 132"	\$3,799,040	\$1,250,264
					902 LF of 72"	\$514,140	\$169,203
82	W1081	5	P	0.13%	818 LF of 60"	\$409,000	\$532
					1290 LF of 108"	\$1,186,800	\$1,543
					714 LF of 60"	\$357,000	\$464
83	W1083	5	P	13.01%	1666 LF of 72"	\$949,620	\$123,546

Buffalo/White Oak Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
83	W1083	5	P	13.01%	1548 LF of 84"	\$1,130,040	\$147,018
					945 LF of 108"	\$869,400	\$113,109
84	W1085	5	P	7.35%	656 LF of 54"	\$308,320	\$22,662
					649 LF of 60"	\$324,500	\$23,851
85	W1086	5	P	26.67%	847 LF of 48"	\$372,680	\$99,394
					1065 LF of 78"	\$681,600	\$181,783
86	W1087	5	P	23.38%	819 LF of 48"	\$360,360	\$84,252
					397 LF of 66"	\$214,380	\$50,122
87	W1090	5	P	16.46%	1608 LF of 66"	\$868,320	\$142,925
					779 LF of 66"	\$420,660	\$69,241
88	W1092	5	P	33.33%	2016 LF of 96"	\$1,673,280	\$557,704
					2223 LF of 2 - 132"	\$5,690,880	\$1,896,770
89	W1093	5	P	24.38%	1797 LF of 60"	\$898,500	\$219,054
					2489 LF of 72"	\$1,418,730	\$345,886
90	E5118	5	N/A	22.70%	Project 1East Detention Alternative 1-6	\$453,352	\$102,911

Total Costs Attributable to Future Growth (Sum of above project costs)	\$12,656,062
Drainage Impact Fee Study Costs (per Service Area)	\$113,250
Total Adjusted Costs Attributable to Future Growth (Sum of above two values)	\$12,769,312
Percent Attributable to 10-Year Growth (from Table 5)	46.06%
Total Costs Attributable to 10-Year Growth (LINE 1 from Table 7)	\$5,881,545
Percent of Fee Recoverable (LINE 2 from Table 7)	50%
Maximum Assessable Fee (LINE 3 from Table 7)	\$2,940,773
Total Number of Service Units (LINE 4 from Table 7; Column 4 from Table 4)	179,480.343 SU
Cost of DIFIP per Service Unit Attributable to 10-Year Growth (LINE 5 from Table 7)	\$16.38 /SU

Clear Creek Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
1	A0083	1	U	0.21%	94 LF of 36"	\$34,780	\$73
					220 LF of 36"	\$81,400	\$171
					193 LF of 42"	\$73,340	\$154
					39 LF of 42"	\$14,820	\$31
					223 LF of 36"	\$82,510	\$173
					466 LF of 48"	\$205,040	\$431
					250 LF of 42"	\$95,000	\$200
					18 LF of 42"	\$6,840	\$14
					245 LF of 30"	\$83,300	\$175
					24 LF of 42"	\$9,120	\$19

Total Costs Attributable to Future Growth (Sum of above project costs)	\$1,441
Drainage Impact Fee Study Costs (per Service Area)	\$113,250
Total Adjusted Costs Attributable to Future Growth (Sum of above two values)	\$114,691
Percent Attributable to 10-Year Growth (from Table 5)	17.70%
Total Costs Attributable to 10-Year Growth (LINE 1 from Table 7)	\$20,300
Percent of Fee Recoverable (LINE 2 from Table 7)	50%
Maximum Assessable Fee (LINE 3 from Table 7)	\$10,150
Total Number of Service Units (LINE 4 from Table 7; Column 4 from Table 4)	25,889,412 SU
Cost of DIFIP per Service Unit Attributable to 10-Year Growth (LINE 5 from Table 7)	\$0.39 /SU

Greens Bayou Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
1	P0144	5	U	10.77%	98 LF of 30"	\$33,320	\$3,589
					63 LF of 30"	\$21,420	\$2,307
					205 LF of 60"	\$102,500	\$3,311
2	P0163	5	U	3.23%	214 LF of 60"	\$107,000	\$3,456
					45 LF of 78"	\$28,800	\$930
					257 LF of 84"	\$187,610	\$6,060
					227 LF of 60"	\$113,500	\$3,666
3	P0169	5	U	29.67%	41 LF of 48"	\$18,040	\$5,352
4	P1024	5	P	6.27%	547 LF of 48"	\$240,680	\$15,091
					346 LF of 54"	\$162,620	\$10,196
5	P1025	5	P	12.14%	635 LF of 60"	\$317,500	\$38,545
					931 LF of 48"	\$409,640	\$49,730
6	P1032	5	P	8.34%	663 LF of 48"	\$291,720	\$24,329
					558 LF of 60"	\$279,000	\$23,269
					567 LF of 72"	\$323,190	\$26,954
7	P1033	5	P	7.85%	698 LF of 48"	\$307,120	\$24,109
					716 LF of 60"	\$358,000	\$28,103
					813 LF of 66"	\$439,020	\$34,463
					716 LF of 72"	\$408,120	\$32,037
					556 LF of 78"	\$355,840	\$27,933
8	P1034	5	P	16.21%	861 LF of 48"	\$378,840	\$61,410
					836 LF of 60"	\$418,000	\$67,758
					757 LF of 66"	\$408,780	\$66,263
					495 LF of 78"	\$316,800	\$51,353
					577 LF of 96"	\$478,910	\$77,631
9	P1039	5	P	12.43%	829 LF of 36"	\$306,730	\$38,127
					481 LF of 42"	\$182,780	\$22,720
10	P1061	5	P	40.52%	1204 LF of 60"	\$602,000	\$243,930
					1337 LF of 78"	\$855,680	\$346,722
					314 LF of 108"	\$288,880	\$117,054
					693 LF of 96"	\$575,190	\$233,067
11	P1066	5	P	41.46%	1153 LF of 66"	\$622,620	\$258,138
					357 LF of 96"	\$296,310	\$122,850
					1014 LF of 96"	\$841,620	\$348,936
12	P1067	5	P	64.78%	760 LF of 66"	\$410,400	\$265,857
					518 LF of 78"	\$331,520	\$214,759
13	P1124	4	P	2.37%	269 LF of 108"	\$247,480	\$5,865
					357 LF of 2 - 156"	\$1,149,540	\$27,244
14	P1134	1	P	4.08%	1093 LF of 60"	\$546,500	\$22,297
					1006 LF of 48"	\$442,640	\$18,060
15	P1170	5	P	55.29%	327 LF of 54"	\$153,690	\$84,975
16	P1172	5	P	0.16%	963 LF of 96"	\$799,290	\$1,279
					666 LF of 108"	\$612,720	\$980
17	P1180	5	P	61.66%	381 LF of 84"	\$278,130	\$171,495
					878 LF of 72"	\$500,460	\$308,584
18	P1181	5	P	63.73%	679 LF of 60"	\$339,500	\$216,363
					538 LF of 84"	\$392,740	\$15,592
19	P1187	5	P	3.97%	1551 LF of 66"	\$837,540	\$33,250
					680 LF of 48"	\$299,200	\$11,878
					597 LF of 72"	\$340,290	\$57,271
20	P1188	5	P	16.83%	955 LF of 66"	\$515,700	\$86,792
					692 LF of 54"	\$325,240	\$54,738
					567 LF of 66"	\$306,180	\$60,930
21	P1198	5	P	19.90%	856 LF of 54"	\$402,320	\$80,062
					770 LF of 42"	\$292,600	\$58,227
					654 LF of 30"	\$222,360	\$135,640
22	P1210	5	P	61.00%	424 LF of 30"	\$144,160	\$87,938
					551 LF of 48"	\$242,440	\$150,264
23	P1211	5	P	61.98%	625 LF of 60"	\$312,500	\$193,688
					673 LF of 72"	\$383,610	\$237,761
					892 LF of 48"	\$392,480	\$200,008
24	P1212	5	P	50.96%	723 LF of 66"	\$390,420	\$198,958
					680 LF of 48"	\$299,200	\$178,981
25	P1214	5	P	59.82%	408 LF of 60"	\$204,000	\$122,033
					191 LF of 66"	\$103,140	\$61,698
					588 LF of 48"	\$258,720	\$16,532
26	P1221	5	P	6.39%	309 LF of 30"	\$105,060	\$35,090
27	P1222	5	P	33.40%	584 LF of 30"	\$198,560	\$47,376
28	P1226	5	P	23.86%	1281 LF of 60"	\$640,500	\$241,981
					385 LF of 66"	\$207,900	\$78,545
29	P1227	5	P	37.78%	961 LF of 54"	\$451,670	\$3,704
					330 LF of 60"	\$165,000	\$1,353
30	P1228	5	P	0.82%	744 LF of 60"	\$372,000	\$68,857
31	P1229	5	P	18.51%			

Greens Bayou Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
31	P1229	5	P	18.51%	1799 LF of 78"	\$1,151,360	\$213,117
					1075 LF of 96"	\$892,250	\$165,155
					311 LF of 120"	\$348,320	\$64,474
32	P1230	5	P	16.76%	264 LF of 60"	\$132,000	\$22,123
					885 LF of 54"	\$415,950	\$69,713
33	P1231	5	P	4.00%	302 LF of 60"	\$151,000	\$6,040
					829 LF of 48"	\$364,760	\$14,590
34	P1232	5	P	8.17%	1121 LF of 72"	\$638,970	\$52,204
					867 LF of 96"	\$719,610	\$58,792
					452 LF of 96"	\$375,160	\$30,651
					1111 LF of 54"	\$522,170	\$42,661
35	P1233	5	P	41.50%	274 LF of 108"	\$252,080	\$20,595
					886 LF of 60"	\$443,000	\$183,845
					1677 LF of 78"	\$1,073,280	\$445,411
					773 LF of 96"	\$641,590	\$266,260
					207 LF of 108"	\$190,440	\$79,033
36	P0081	1	N/A	1.97%	386 LF of 120"	\$432,320	\$179,413
					Project 2 Detention Alternative 2-5	\$640,225	\$12,612

Total Costs Attributable to Future Growth (Sum of above project costs)	\$8,202,983
Drainage Impact Fee Study Costs (per Service Area)	\$113,250
Total Adjusted Costs Attributable to Future Growth (Sum of above two values)	\$8,316,233
Percent Attributable to 10-Year Growth (from Table 5)	41.40%
Total Costs Attributable to 10-Year Growth (LINE 1 from Table 7)	\$3,442,920
Percent of Fee Recoverable (LINE 2 from Table 7)	50%
Maximum Assessable Fee (LINE 3 from Table 7)	\$1,721,460
Total Number of Service Units (LINE 4 from Table 7; Column 4 from Table 4)	128,331.560 SU
Cost of DIFIP per Service Unit Attributable to 10-Year Growth (LINE 5 from Table 7)	\$13.41 /SU

Hunting Bayou Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
1	H1068	5	P	4.25%	570 LF of 54"	\$267,900	\$11,386
2	H1078	5	P	66.07%	659 LF of 54"	\$309,730	\$204,639
3	H1079	5	P	38.23%	1218 LF of 120"	\$1,364,160	\$521,518
					793 LF of 96"	\$658,190	\$251,626
					912 LF of 78"	\$583,680	\$223,141
4	H1084	5	P	54.68%	403 LF of 54"	\$189,410	\$103,569
5	H1085	5	P	7.18%	398 LF of 54"	\$187,060	\$13,431
6	H1086	5	P	8.35%	498 LF of 54"	\$234,060	\$19,544
7	H1092	5	P	0.17%	786 LF of 66"	\$424,440	\$722
					750 LF of 72"	\$427,500	\$727
					957 LF of 48"	\$421,080	\$716
8	H1098	5	P	19.84%	391 LF of 60"	\$195,500	\$38,787
					603 LF of 66"	\$325,620	\$64,603
					528 LF of 48"	\$232,320	\$46,092
9	H1101	5	P	26.55%	287 LF of 48"	\$126,280	\$33,527
10	H1102	5	P	1.55%	1049 LF of 54"	\$493,030	\$7,642
					651 LF of 84"	\$475,230	\$7,366
					1154 LF of 96"	\$957,820	\$14,846
					601 LF of 108"	\$552,920	\$8,570
11	H1103	5	P	8.39%	441 LF of 66"	\$238,140	\$19,980
					157 LF of 48"	\$69,080	\$5,796
					538 LF of 54"	\$252,860	\$21,215
					556 LF of 42"	\$211,280	\$17,726
12	H1115	5	P	0.15%	441 LF of 60"	\$220,500	\$331
13	H1123	5	P	66.07%	248 LF of 48"	\$109,120	\$72,096
14	H1145	5	P	25.68%	687 LF of 66"	\$370,980	\$95,268
					833 LF of 48"	\$366,520	\$94,122
					655 LF of 42"	\$248,900	\$63,918

Total Costs Attributable to Future Growth (Sum of above project costs)	\$1,962,904
Drainage Impact Fee Study Costs (per Service Area)	\$113,250
Total Adjusted Costs Attributable to Future Growth (Sum of above two values)	\$2,076,154
Percent Attributable to 10-Year Growth (from Table 5)	24.07%
Total Costs Attributable to 10-Year Growth (LINE 1 from Table 7)	\$499,730
Percent of Fee Recoverable (LINE 2 from Table 7)	50%
Maximum Assessable Fee (LINE 3 from Table 7)	\$249,865
Total Number of Service Units (LINE 4 from Table 7; Column 4 from Table 4)	24,397.456 SU
Cost of DIFIP per Service Unit Attributable to 10-Year Growth (LINE 5 from Table 7)	\$10.24 /SU

Sims/Vince Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
1	C0052	1	U	5.58%	274 LF of 42"	\$104,120	\$5,810
					242 LF of 30"	\$82,280	\$4,591
					305 LF of 42"	\$115,900	\$6,467
					236 LF of 42"	\$89,680	\$5,004
					86 LF of 54"	\$40,420	\$2,255
					275 LF of 42"	\$104,500	\$5,831
					280 LF of 48"	\$123,200	\$6,875
					340 LF of 42"	\$129,200	\$7,209
					406 LF of 54"	\$190,820	\$10,648
					203 LF of 120"	\$227,360	\$12,687
					216 LF of 120"	\$241,920	\$13,499
					309 LF of 48"	\$135,960	\$7,587
					186 LF of 120"	\$208,320	\$11,624
					72 LF of 66"	\$38,880	\$2,170
					106 LF of 66"	\$57,240	\$3,194
					230 LF of 48"	\$101,200	\$5,647
					251 LF of 42"	\$95,380	\$5,322
					237 LF of 42"	\$90,060	\$5,025
					68 LF of 96"	\$56,440	\$3,149
					54 LF of 48"	\$23,760	\$1,326
					156 LF of 78"	\$99,840	\$5,571
					236 LF of 48"	\$103,840	\$5,794
					58 LF of 48"	\$25,520	\$1,424
					156 LF of 48"	\$68,640	\$3,830
					32 LF of 48"	\$14,080	\$786
					96 LF of 48"	\$42,240	\$2,357
					117 LF of 54"	\$54,990	\$3,068
30 LF of 66"	\$16,200	\$904					
64 LF of 48"	\$28,160	\$1,571					
33 LF of 48"	\$14,520	\$810					
2	C0247	1	U	0.20%	219 LF of 72"	\$124,830	\$250
					352 LF of 66"	\$190,080	\$380
					230 LF of 66"	\$124,200	\$248
					275 LF of 72"	\$156,750	\$314
3	C0315	1	U	2.19%	113 LF of 72"	\$64,410	\$129
					327 LF of 72"	\$186,390	\$4,082
4	C0380	1	U	0.35%	583 LF of 30"	\$198,220	\$694
					149 LF of 36"	\$55,130	\$193
					771 LF of 48"	\$339,240	\$1,187
					270 LF of 48"	\$118,800	\$416
					564 LF of 36"	\$208,680	\$730
					270 LF of 42"	\$102,600	\$359
5	C0383	1	U	3.13%	144 LF of 36"	\$53,280	\$186
					158 LF of 66"	\$85,320	\$2,671
6	C0549	3	U	2.20%	236 LF of 30"	\$80,240	\$1,765
7	C1029	5	P	37.68%	90 LF of 36"	\$33,300	\$12,547
					428 LF of 36"	\$158,360	\$59,670
8	C1030	5	P	0.56%	318 LF of 66"	\$171,720	\$962
					949 LF of 54"	\$446,030	\$2,498
9	C1041	5	P	0.01%	262 LF of 42"	\$99,560	\$10
					63 LF of 42"	\$23,940	\$2
10	C1049	5	P	3.49%	503 LF of 42"	\$191,140	\$6,671
11	C1051	2	P	10.80%	49 LF of 60"	\$24,500	\$2,646
12	C1054	2	P	2.07%	821 LF of 132"	\$1,050,880	\$21,753
					648 LF of 72"	\$369,360	\$7,646
					1342 LF of 120"	\$1,503,040	\$31,113
					987 LF of 96"	\$819,210	\$16,958
13	C1057	5	P	7.08%	381 LF of 54"	\$179,070	\$12,678
					157 LF of 54"	\$73,790	\$5,224
					308 LF of 54"	\$144,760	\$10,249
14	C1066	5	P	0.09%	404 LF of 54"	\$189,880	\$171
15	C1067	5	P	5.00%	331 LF of 48"	\$145,640	\$7,282
16	C1070	5	P	31.65%	304 LF of 42"	\$115,520	\$36,562
17	C1071	5	P	0.06%	300 LF of 54"	\$141,000	\$85
18	C1104	5	P	64.10%	265 LF of 78"	\$169,600	\$108,714
					871 LF of 60"	\$435,500	\$279,156
19	C1106	5	P	59.76%	283 LF of 66"	\$152,820	\$91,325
					850 LF of 60"	\$425,000	\$253,980
20	C1107	5	P	61.87%	359 LF of 66"	\$193,860	\$119,941
					702 LF of 54"	\$329,940	\$204,134
21	C1117	5	P	14.43%	109 LF of 30"	\$37,060	\$5,348
					1054 LF of 54"	\$495,380	\$71,483
					280 LF of 54"	\$131,600	\$18,990

Sims/Vince Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
22	C1121	5	P	15.91%	563 LF of 60"	\$281,500	\$44,787
23	C1122	5	P	51.29%	846 LF of 72"	\$482,220	\$247,331
					1022 LF of 96"	\$848,260	\$435,073
					235 LF of 120"	\$263,200	\$134,995
24	C1123	5	P	59.82%	1030 LF of 108"	\$947,600	\$566,854
					1082 LF of 96"	\$898,060	\$537,219
					947 LF of 60"	\$473,500	\$283,248
25	C1143	5	P	71.39%	95 LF of 48"	\$41,800	\$29,841
					366 LF of 48"	\$161,040	\$114,966
26	C1145	5	P	35.66%	635 LF of 48"	\$279,400	\$99,634
					148 LF of 66"	\$79,920	\$28,499
27	C1146	5	P	10.16%	534 LF of 60"	\$267,000	\$27,127
					260 LF of 72"	\$148,200	\$15,057
					780 LF of 60"	\$390,000	\$39,624
28	C1147	2	P	21.06%	787 LF of 84"	\$574,510	\$120,992
					940 LF of 120"	\$1,052,800	\$221,720
					674 LF of 120"	\$754,880	\$158,978
					1217 LF of 60"	\$608,500	\$128,150
					791 LF of 108"	\$727,720	\$153,258
					715 LF of 48"	\$314,600	\$66,255
					799 LF of 120"	\$894,880	\$188,462
					778 LF of 108"	\$715,760	\$150,739
					904 LF of 84"	\$659,920	\$138,979
					1101 LF of 42"	\$418,380	\$88,111
					2329 LF of 2 - 132"	\$5,962,240	\$1,255,648
					462 LF of 120"	\$517,440	\$108,973
					1167 LF of 42"	\$443,460	\$93,393
605 LF of 156"	\$974,050	\$205,135					
1165 LF of 2 - 132"	\$2,982,400	\$628,093					
29	C1150	5	P	10.35%	1232 LF of 48"	\$542,080	\$56,105
					210 LF of 60"	\$105,000	\$10,868
30	C1151	5	P	6.79%	2009 LF of 108"	\$1,848,280	\$125,498
					1774 LF of 132"	\$2,270,720	\$154,182
					1469 LF of 108"	\$1,351,480	\$91,765
31	C1153	5	P	48.40%	273 LF of 54"	\$128,310	\$62,102
32	C1154	5	P	60.41%	926 LF of 60"	\$463,000	\$279,698
					115 LF of 60"	\$57,500	\$34,736
33	C1155	5	P	37.89%	156 LF of 66"	\$84,240	\$31,919
					607 LF of 48"	\$267,080	\$101,197
					205 LF of 42"	\$77,900	\$29,516
34	C1156	5	P	5.95%	843 LF of 60"	\$421,500	\$25,079
					934 LF of 78"	\$597,760	\$35,567
35	C1161	5	P	0.18%	115 LF of 96"	\$95,450	\$5,679
					159 LF of 54"	\$74,730	\$135
36	C1162	5	P	19.79%	504 LF of 54"	\$236,880	\$426
					788 LF of 96"	\$654,040	\$129,435
37	C1165	5	P	43.39%	148 LF of 96"	\$122,840	\$24,310
					1160 LF of 120"	\$1,299,200	\$563,723
					1868 LF of 72"	\$1,064,760	\$461,999
38	C1167	5	P	34.59%	1920 LF of 78"	\$1,228,800	\$533,176
					1034 LF of 168"	\$1,923,240	\$834,494
					239 LF of 168"	\$444,540	\$192,886
					683 LF of 144"	\$1,010,840	\$349,650
					1161 LF of 96"	\$963,630	\$333,320
39	C1168	5	P	25.86%	1141 LF of 54"	\$536,270	\$185,496
					989 LF of 132"	\$1,265,920	\$437,882
					1348 LF of 96"	\$1,118,840	\$289,332
40	C1170	5	P	29.67%	1267 LF of 132"	\$1,621,760	\$419,387
					1694 LF of 66"	\$914,760	\$236,557
					117 LF of 144"	\$173,160	\$44,779
					1524 LF of 108"	\$1,402,080	\$415,997
					1416 LF of 156"	\$2,279,760	\$676,405
					2410 LF of 216"	\$6,989,000	\$2,073,636
					346 LF of 228"	\$1,072,600	\$318,240
					901 LF of 108"	\$828,920	\$245,941
					644 LF of 108"	\$592,480	\$175,789
41	C1172	5	P	37.35%	342 LF of 42"	\$129,960	\$38,559
					1202 LF of 168"	\$2,235,720	\$663,338
42	C1177	5	P	32.53%	1012 LF of 144"	\$1,497,760	\$444,385
					743 LF of 108"	\$683,560	\$255,310
					621 LF of 108"	\$571,320	\$213,388
					1854 LF of 78"	\$1,186,560	\$385,988

Sims/Vince Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
42	C1177	5	P	32.53%	951 LF of 108"	\$874,920	\$284,611
					1075 LF of 144"	\$1,591,000	\$517,552
					1014 LF of 156"	\$1,632,540	\$531,065
					785 of 108" and 96"	\$1,373,750	\$446,881
					290 of 108" and 96"	\$507,500	\$165,090
43	C1178	5	P	5.28%	555 LF of 108"	\$510,600	\$26,960
					207 LF of 132"	\$264,960	\$13,990
					1037 LF of 60"	\$518,500	\$27,377
					783 LF of 84"	\$571,590	\$30,180
44	C1180	5	P	43.57%	1025 LF of 60"	\$512,500	\$223,296
					840 LF of 72"	\$478,800	\$208,613
					687 LF of 96"	\$570,210	\$248,440
					173 LF of 108"	\$159,160	\$69,346
45	C1181	5	P	14.39%	462 LF of 54"	\$217,140	\$31,246
					1203 LF of 66"	\$649,620	\$93,480
					140 LF of 66"	\$75,600	\$10,879
46	C1183	5	P	43.63%	919 LF of 60"	\$459,500	\$200,480
					879 LF of 72"	\$501,030	\$218,599
					303 LF of 132"	\$387,840	\$169,215
					504 LF of 120"	\$564,480	\$246,283
					334 LF of 132"	\$427,520	\$186,527
47	C1185	5	P	8.06%	918 LF of 108"	\$844,560	\$368,482
					1072 LF of 66"	\$578,880	\$46,658
48	C1189	5	P	18.95%	902 LF of 48"	\$396,880	\$31,989
					954 LF of 60"	\$477,000	\$90,392
49	C1190	5	P	41.52%	243 LF of 60"	\$121,500	\$23,024
					211 LF of 72"	\$120,270	\$49,936
50	C1199	5	P	34.00%	616 LF of 60"	\$308,000	\$127,882
					111 LF of 72"	\$63,270	\$21,512
					1175 LF of 72"	\$669,750	\$227,715
51	C1201	5	P	28.53%	822 LF of 48"	\$361,680	\$122,971
					144 LF of 30"	\$48,960	\$13,968
					1494 LF of 66"	\$806,760	\$230,169
					1136 LF of 96"	\$942,880	\$269,004
					276 LF of 66"	\$149,040	\$42,521
52	C1211	5	P	23.61%	2122 LF of 66"	\$1,145,880	\$326,920
					112 LF of 54"	\$52,640	\$12,428
53	C1213	5	P	45.98%	365 LF of 54"	\$171,550	\$40,503
					153 LF of 54"	\$71,910	\$33,064
54	C1216	5	P	22.47%	571 LF of 54"	\$268,370	\$123,397
					944 LF of 48"	\$415,360	\$93,331
55	C1221	5	P	15.64%	177 LF of 60"	\$88,500	\$13,841
					965 LF of 54"	\$453,550	\$70,935
					834 LF of 54"	\$391,980	\$61,306
					432 LF of 42"	\$164,160	\$25,675
56	C1224	5	P	3.89%	92 LF of 132"	\$117,760	\$4,581
					509 LF of 144"	\$753,320	\$29,304
					1108 LF of 132"	\$1,418,240	\$55,170
					130 LF of 144"	\$192,400	\$7,484
					397 LF of 120"	\$444,640	\$17,296
					2578 LF of 156"	\$4,150,580	\$161,458
					1396 LF of 60"	\$698,000	\$27,152
					1068 LF of 96"	\$886,440	\$34,483
					529 LF of 42"	\$201,020	\$7,820
					1093 LF of 60"	\$546,500	\$21,259
					723 LF of 96"	\$600,090	\$23,344
					889 LF of 66"	\$480,060	\$18,674
					1119 LF of 96"	\$928,770	\$36,129
					723 LF of 132"	\$925,440	\$36,000
443 LF of 120"	\$496,160	\$19,301					
57	C1227	5	P	21.82%	1068 LF of 54"	\$501,960	\$109,528
58	C1229	5	P	15.34%	1114 LF of 84"	\$813,220	\$124,748
59	C1230	5	P	18.31%	915 LF of 96"	\$759,450	\$139,055
					227 LF of 108"	\$208,840	\$38,239
					851 LF of 54"	\$399,970	\$73,235
					763 LF of 66"	\$412,020	\$75,441
60	C1231	5	P	1.44%	916 LF of 54"	\$430,520	\$6,199
					916 LF of 72"	\$522,120	\$7,519
					1680 LF of 96"	\$1,394,400	\$20,079
					154 LF of 108"	\$141,680	\$2,040
					750 LF of 42"	\$285,000	\$4,104
61	C1234	5	P	11.76%	779 LF of 84"	\$568,670	\$8,189
					890 LF of 60"	\$445,000	\$52,332

Sims/Vince Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
61	C1234	5	P	11.76%	604 LF of 54"	\$283,880	\$33,384
					796 LF of 42"	\$302,480	\$35,572
62	C1239	5	P	0.44%	396 LF of 54"	\$186,120	\$819
					126 LF of 72"	\$71,820	\$316
63	C1241	5	P	7.27%	1092 LF of 48"	\$480,480	\$34,931
					1084 LF of 48"	\$476,960	\$34,675
					522 LF of 60"	\$261,000	\$18,975
					277 LF of 96"	\$229,910	\$16,714
					830 LF of 96"	\$688,900	\$50,083
					662 LF of 48"	\$291,280	\$21,176
					621 LF of 96"	\$515,430	\$172,102
64	C1243	5	P	33.39%	657 LF of 72"	\$374,490	\$125,042
					416 LF of 72"	\$237,120	\$79,174
					449 LF of 54"	\$211,030	\$70,463
					597 LF of 108"	\$549,240	\$183,391
65	C1254	5	P	13.86%	927 LF of 54"	\$435,690	\$60,387
66	C1256	5	P	12.70%	159 LF of 72"	\$90,630	\$11,510
					524 LF of 54"	\$246,280	\$31,278
67	C1260	5	P	24.57%	502 LF of 48"	\$220,880	\$28,052
					545 LF of 42"	\$207,100	\$50,884
68	C1263	5	P	17.86%	1218 LF of 48"	\$535,920	\$95,715
					471 LF of 96"	\$390,930	\$69,820
					397 LF of 78"	\$254,080	\$45,379
					1098 LF of 60"	\$549,000	\$98,051
69	C1268	5	P	15.45%	992 LF of 60"	\$496,000	\$88,586
					514 LF of 48"	\$226,160	\$34,942
70	C1269	5	P	30.91%	1202 LF of 144"	\$1,778,960	\$549,877
					1095 LF of 120"	\$1,226,400	\$379,080
					1002 LF of 108"	\$921,840	\$284,941
					1405 LF of 96"	\$1,166,150	\$360,457
71	C1271	5	P	18.18%	614 LF of 66"	\$331,560	\$60,278
					283 LF of 66"	\$152,820	\$27,783
72	C1272	5	P	47.98%	904 LF of 108"	\$831,680	\$399,040
					759 LF of 72"	\$432,630	\$207,576
73	C1273	5	P	9.07%	693 LF of 54"	\$325,710	\$29,542
					181 LF of 54"	\$85,070	\$7,716
74	C1276	5	P	35.48%	797 LF of 72"	\$454,290	\$161,182
					1359 LF of 72"	\$774,630	\$274,839
					2575 LF of 72"	\$1,467,750	\$520,758
					2543 LF of 144"	\$3,763,640	\$1,335,339
75	C1278	5	P	38.63%	1061 LF of 66"	\$572,940	\$221,327
					551 LF of 66"	\$297,540	\$128,269
76	C1280	5	P	43.11%	1297 LF of 96"	\$1,076,510	\$464,083
					1799 LF of 144"	\$2,662,520	\$1,147,812
					1092 LF of 144"	\$1,616,160	\$696,727
					1810 LF of 96"	\$1,502,300	\$647,642
					1475 LF of 144"	\$2,183,000	\$941,091
77	C1281	5	P	24.29%	879 LF of 72"	\$501,030	\$121,700
					841 LF of 108"	\$773,720	\$187,937
					801 LF of 132"	\$1,025,280	\$249,041
					1413 LF of 144"	\$2,091,240	\$507,962
					860 LF of 180"	\$1,771,600	\$430,322
78	C1284	5	P	46.10%	328 LF of 192"	\$738,000	\$179,260
					301 LF of 156"	\$484,610	\$223,405
					1050 LF of 132"	\$1,344,000	\$619,584
					1035 LF of 96"	\$859,050	\$396,022
79	C1285	5	P	24.45%	616 LF of 84"	\$449,680	\$207,302
					244 LF of 144"	\$361,120	\$88,294
					668 LF of 132"	\$855,040	\$209,057
80	C1286	5	P	21.38%	1136 LF of 96"	\$942,880	\$230,534
					1016 LF of 120"	\$1,137,920	\$243,287
81	C1289	5	P	23.48%	2024 LF of 60"	\$1,012,000	\$237,618
82	C1290	5	P	8.32%	1417 LF of 54"	\$665,990	\$55,410
					1301 LF of 96"	\$1,079,830	\$89,842
83	C1291	5	P	4.51%	1173 LF of 156"	\$1,888,530	\$85,173
					919 LF of 156"	\$1,479,590	\$66,730
					841 LF of 96"	\$698,030	\$31,481
					707 LF of 156"	\$1,138,270	\$51,336
					1171 LF of 156"	\$1,885,310	\$85,027
					386 LF of 66"	\$208,440	\$9,401
					902 LF of 96"	\$748,660	\$33,765
					1441 LF of 96"	\$1,196,030	\$53,941
					1504 of 132" and 120"	\$3,609,600	\$162,793

Sims/Vince Service Area

Project	Outfall	Project Category	Proposed Pipe / Upgrade to Existing	Increase in C Value	Project Description	Project Cost	Project Cost Attributable to Future Growth
83	C1291	5	P	4.51%	1864 LF of 72"	\$1,062,480	\$47,918
84	C1295	5	P	15.29%	1177 LF of 66"	\$635,580	\$97,180
85	C1296	5	P	21.39%	1151 LF of 84"	\$840,230	\$179,725
86	C1297	5	P	13.42%	745 LF of 60"	\$372,500	\$49,990
87	C1298	5	P	35.02%	715 LF of 66"	\$386,100	\$135,212
88	C1299	5	P	15.64%	857 LF of 66"	\$462,780	\$72,379
89	C1300	5	P	2.38%	550 LF of 54"	\$258,500	\$6,152
90	C1301	5	P	26.53%	874 LF of 60"	\$437,000	\$115,936
					331 LF of 96"	\$274,730	\$72,886
					1902 LF of 132"	\$2,434,560	\$645,889
					1015 LF of 132"	\$1,299,200	\$344,678
					230 LF of 132"	\$294,400	\$78,104
643 LF of 60"	\$321,500	\$85,294					
91	C1302	5	P	50.14%	2072 LF of 36"	\$766,640	\$384,393
92	C1304	5	P	11.61%	673 LF of 72"	\$383,610	\$44,537
93	C1305	5	P	9.92%	705 LF of 60"	\$352,500	\$34,968
94	C1307	5	P	58.75%	512 LF of 108"	\$471,040	\$276,736
95	C1308	5	P	3.76%	1107 LF of 78"	\$708,480	\$26,639
96	C1309	5	P	17.29%	915 LF of 72"	\$521,550	\$90,176
97	C1310	5	P	22.43%	757 LF of 96"	\$628,310	\$140,930
98	C1311	5	P	1.55%	1285 LF of 96"	\$1,066,550	\$16,532
					637 LF of 66"	\$343,980	\$5,332
99	C1312	5	P	15.01%	1633 LF of 132"	\$2,090,240	\$313,745
					715 LF of 96"	\$593,450	\$89,077
100	C1316	5	P	4.79%	1030 LF of 108"	\$947,600	\$45,390
					1122 LF of 78"	\$718,080	\$34,396
					1144 LF of 132"	\$1,464,320	\$70,141
101	C1324	5	P	60.78%	724 LF of 84"	\$528,520	\$321,234
102	C1325	5	P	36.72%	780 LF of 108"	\$717,600	\$263,503
103	C1326	5	P	20.17%	482 LF of 54"	\$226,540	\$45,693
104	C1329	5	P	20.45%	752 LF of 78"	\$481,280	\$98,422
105	C1334	5	P	48.57%	384 LF of 60"	\$192,000	\$93,254
					347 LF of 78"	\$222,080	\$107,864
106	C1336	5	P	4.30%	1458 LF of 96"	\$1,210,140	\$52,036
107	C1339	5	P	45.69%	1660 LF of 120"	\$1,859,200	\$849,468
108	C1340	5	P	0.10%	243 LF of 36"	\$89,910	\$90
					274 LF of 48"	\$120,560	\$121
					386 LF of 36"	\$142,820	\$143
					295 LF of 60"	\$147,500	\$148
					226 LF of 60"	\$113,000	\$113
109	C1342	5	P	44.35%	2019 LF of 78"	\$1,292,160	\$573,073
					1555 LF of 60"	\$777,500	\$344,821
110	C1343	5	P	18.38%	627 LF of 2 - 120"	\$1,404,480	\$258,143
					1410 LF of 96"	\$1,170,300	\$215,101
111	C0051	1	N/A	50.47%	Project 8 Detention Alternative 8-13	\$2,293,144	\$1,157,350
	C1122	5					

Total Costs Attributable to Future Growth (Sum of above project costs)	\$51,359,668
Drainage Impact Fee Study Costs (per Service Area)	\$113,250
Total Adjusted Costs Attributable to Future Growth (Sum of above two values)	\$51,472,918
Percent Attributable to 10-Year Growth (from Table 5)	47.64%
Total Costs Attributable to 10-Year Growth (LINE 1 from Table 7)	\$24,521,698
Percent of Fee Recoverable (LINE 2 from Table 7)	50%
Maximum Assessable Fee (LINE 3 from Table 7)	\$12,260,849
Total Number of Service Units (LINE 4 from Table 7; Column 4 from Table 4)	214,202.167 SU
Cost of DIFIP per Service Unit Attributable to 10-Year Growth (LINE 5 from Table 7)	\$57.24 /SU



Appendix D – Ordinance No. 2013-281

This ordinance was prepared by the City of Houston, adopted on April 3, 2013, and is incorporated herein for reference.

City of Houston, Texas, Ordinance No. 2013-281

ORDINANCE ADOPTING DRAINAGE IMPACT FEES IN ACCORDANCE WITH CHAPTER 395 OF THE TEXAS LOCAL GOVERNMENT CODE (“CHAPTER 395”); AMENDING CHAPTER 47 OF THE CODE OF ORDINANCES OF HOUSTON, TEXAS AND CONTAINING FINDINGS AND OTHER PROVISIONS RELATING TO THE FOREGOING SUBJECT; CONTAINING A SAVINGS CLAUSE; AND PROVIDING FOR SEVERABILITY.

* * * *

WHEREAS, Houston voters approved an amendment to the City Charter known as Proposition 1 on the ballot, commonly referred to as “ReBuild Houston,” at an election held on November 2, 2010, to “provide for the enhancement, improvement and ongoing renewal of Houston’s drainage and streets by creating a Dedicated Pay-As-You-Go Fund for Drainage and Streets”; and

WHEREAS, the Charter amendment embodied in Proposition 1 was included in the City Charter as Article IX, Section 22, and reads in pertinent part, “All proceeds of developer impact fees, which beginning in fiscal year 2012, and continuing thereafter shall be imposed in an equitable manner as provided by law to recover allocable costs of providing drainage and streets for properties under development”; and

WHEREAS, City Council passed Ordinance No. 2011-0254, effective date April 6, 2011, to create a Municipal Drainage and Utility System and establish a schedule of drainage charges to help fund ReBuild Houston; and

WHEREAS, City Council passed Ordinance No. 2011-1168, effective date December 14, 2011, which created the City Fee Schedule and provided for removing fees from the Code of Ordinances in order to increase administrative efficiency and reduce costs to tax payers; and

WHEREAS, City Council passed Ordinance No. 2012-0097, authorizing a professional services agreement with Kimley-Horn and Associates, Inc., countersigned

on February 7, 2012, in part to develop land use assumptions and a capital improvement plan for the calculation of impact fees consistent with Article IX, Section 22 (the "Study"); and

WHEREAS, City Council received the Study, which the City Secretary's Office made available to the public on December 12, 2012; and

WHEREAS, the City published notice of a public hearing on adoption of land use assumptions and a capital improvement plan for possible adoption of impact fees for drainage in the Houston Chronicle on December 16, 2012, in accordance with Chapter 395; and

WHEREAS, City Council held a public hearing on January 16, 2013, and upon adoption of the aforementioned land use assumptions and a capital improvement plan, known internally as the Drainage Impact Fee Improvement Plan and

WHEREAS, City Council adopted the aforementioned land use assumptions and the Drainage Impact Fee Improvement Plan on January 30, 2013; and

WHEREAS, the City published notice of a public hearing on the adoption of drainage impact fees in accordance with Chapter 395 on February 3, 2013 in the Houston Chronicle, in accordance with Chapter 395; and

WHEREAS, the Planning Commission held a special meeting on February 21, 2013 to review and comment upon the drainage impact fees per service unit in each respective service area as proposed by the Study and recommended by the Department of Public Works and Engineering;

WHEREAS, on February 26, 2013, the City Secretary received and made available to the public the Planning Commission's special meeting minutes, containing the comments on the drainage impact fees per service unit in each respective service area;

WHEREAS, City Council held a public hearing on the adoption of drainage impact fees on March 6, 2013, in accordance with Chapter 395, City Council now intends to adopt impact fees; and

WHEREAS, City Council intends to adopt the maximum fee per service unit as the actual impact fee per service unit, and therefore, no increases to the actual impact fee per service unit may occur until the City amends the drainage impact fee improvement plan; **NOW, THEREFORE**,

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF HOUSTON, TEXAS:

Section 1. That the findings contained in the preamble of this Ordinance are determined to be true and correct and are hereby adopted as part of this Ordinance.

Section 2. That, based upon Section V.C. of the Study and the recommendations of the Planning Commission and the Department of Public Works and Engineering, City Council hereby adopts the drainage impact fees per service unit in the table below (“service unit rates”):

SERVICE AREA	SERVICE UNIT RATES
Addicks Reservoir	\$0.00
Barker Reservoir	\$0.00
Brays Bayou	\$8.63
Buffalo / White Oak	\$16.38
Clear Creek	\$0.39
Greens Bayou	\$13.41
Hunting Bayou	\$10.24
San Jacinto	\$0.00
Ship Channel	\$0.00
Sims / Vince	\$17.72

Section 3. That City Council hereby accepts from the Planning Commission comments concerning the Proposed Amendments, which were placed on file with the City Secretary on February 26, 2013, and are attached hereto as “Exhibit B”.

Section 4. That the Director of the Finance Department shall amend the City Fee Schedule to reflect the unit service rates established by this Ordinance.

Section 5. That Chapter 47 of the Code of Ordinances, Houston, Texas, is hereby amended to add Article XV to read as follows:

“ARTICLE XV. DRAINAGE IMPACT FEES

DIVISION 1. GENERAL PROVISIONS

Sec. 47-881. Purpose.

This article is intended to ensure the provision of adequate public drainage facilities to serve new development in the city by requiring each such development to pay its pro rata share of the costs of drainage capital improvements necessitated by and attributable to such new development.

Sec. 47-882. Authority.

This article is adopted pursuant to Chapter 395 of the Texas Local Government Code and pursuant to the Houston City Charter, Article IX, Section 22. The provisions of this article shall not be construed to limit the power of the city to utilize other methods authorized under state law or pursuant to other city powers to accomplish the purposes set forth herein, either in substitution for or in conjunction with this article.

Sec. 47-883. Definitions.

As used in this article, the following terms and phrases shall have the following meanings:

Assessment means the determination of the amount of the service unit rate that may be imposed on new development pursuant to this article as determined at the time specified in section 47-891 of this Code.

Building permit means:

- a. With respect to buildings or premises within the corporate limits of the city, the general permit required by the Construction Code; or
- b. With respect to buildings or premises outside the corporate limits of the city or for which a general

permit under the Construction Code is not required, a plumbing permit under the Construction Code or under section 47-14 of this Code.

Credit means a certain number of service units attributable to an improved lot with impervious surface for purposes of article XIV of this chapter.

Drainage means water transported by or detained in features and improvements, whether natural or man-made, such as streets, curbs, bridges, catch basins, channels, conduits, creeks, culverts, detention ponds, ditches, draws, flumes, pipes, pumps, sloughs, treatment works, and any appurtenances, that use force or gravity to draw off surface water from land, carry the water away, collect, store, or treat the water, or divert the water into natural or man-made watercourses.

Drainage benefit area means an area within the city's extraterritorial jurisdiction that may reasonably connect to the city's drainage system.

Drainage capital improvement or drainage impact fee improvement means a drainage facility with a life expectancy of three or more years, to be owned or operated by or on behalf of the city.

Drainage capital improvement plan or drainage impact fee improvement plan means the plan adopted by city council at least every ten years, as may be amended from time to time, identifying the drainage facilities and their associated costs, necessitated by and attributable to new development, to be financed in whole or in part through drainage impact fees imposed and collected pursuant to this article.

Drainage facility means an improvement to land designed or utilized, in whole or part, for the purpose of collecting, storing, pumping or conveying drainage, including an existing facility, the capacity of which has been expanded to service new development. *Drainage facility* includes land, roads, easements or structures and all appurtenances associated with such facilities.

Drainage impact fee means a fee imposed by city council on new development to fund or reimburse the costs of drainage capital improvements necessitated by and attributable to such new development. Drainage impact fees do not include requirements for

the dedication or construction of rights-of-way or easements for such facilities, nor payment by persons receiving service from a drainage facility of connection charges imposed to reimburse a property owner for the costs of extending such drainage facility.

Drainage service area means an area designated as such by city council within a certain watershed boundary located within the corporate limits of the city.

Drainage system means the drainage and drainage facilities owned or controlled in whole or in part by the city, including provisions for additions to the system. Drainage system components, including but not limited to streets, sidewalks, other dedicated improvements, and supporting rights-of-way shall not be considered residential or nonresidential property as defined herein.

Impervious surface means any area that has been compacted or covered such that it does not readily absorb water or does not allow water to percolate through to undisturbed underlying soil strata. Surface materials considered impervious shall include, but not be limited to, bricks, pavers, concrete, asphalt, compacted oil-dirt, compacted or decomposed shale, oyster shell, gravel, or granite, and other similar materials. Surface features utilizing such materials and considered impervious shall include, but not be limited to, decks, foundations (whether pier and beam or slab), building roofs, parking and driveway areas, sidewalks, compacted or rolled areas, paved recreation areas, swimming pools, and other features or surfaces that are built or laid on the surface of the land and have the effect of increasing, concentrating, or otherwise altering water runoff so that flows are not readily absorbed.

Improved lot means a lot or a tract of land on which the city has recorded impervious surface as determined under Article XIV of this chapter.

New development means a project involving the construction, reconstruction, redevelopment, conversion, structural alteration, relocation or enlargement of any structure, or any use or extension of the use of land, that requires either the issuance of a building permit or connection to the city's drainage system and has not been exempted from compliance by this article or state law.

Offset means the amount of the reduction of a drainage impact fee, determined under this article or pursuant to administrative guidelines, that is equal to the value of a drainage

facility or portion thereof included in the drainage impact fee improvement plan and is constructed or financed by a property owner without reimbursement from other city funds.

Plat means the plan or map of a subdivision to be filed for record with the county clerk in the county in which the property is located. *Plat* includes a replat, but excludes a development plat.

Property owner means the owner in fee of a tract or parcel of land upon which new development is to be located, or his authorized representative.

Service unit means 1,000 square feet of impervious surface rounded to the nearest ten square feet for purposes of impact fee calculation.

Service unit rate means the drainage impact fee that the city charges per service unit within a certain drainage service area.

Sec. 47-884. Drainage impact fees, in general.

(a) Except as otherwise provided herein, each new development within any of the city's drainage service areas shall pay a drainage impact fee for drainage facilities necessitated by and attributable to that development as provided in division 2 of this article. Drainage impact fees shall be assessed against and collected from new development on the basis of service units and shall vary depending on the drainage service area in which the property is located.

(b) The maximum drainage impact fee per service unit assessed against a new development is provided in the drainage impact fee improvement plan. The service unit rates shall never exceed the maximum drainage impact fee per service unit.

(c) The service unit rates shall be published in the city fee schedule and shall be collected from new development as stated in this article. On July 1 of each year beginning on July 1, 2018, and to the extent allowed by subsection (b), the director shall cause the service unit rates in the city fee schedule to be adjusted by an amount equal to the percentage increase (if any) in the designated index for the preceding calendar year multiplied by the service unit rates. The director shall annually calculate the effective service unit rates for each drainage service area on or before June 1 of each year and make all calculations available in his or her office upon request for public inspection.

For purposes of this subsection, the term *designated index* shall mean the United States Producers Price Index for All Commodities (1982=100), as published by the Bureau of Labor Statistics, U.S. Department of Labor. If such index is subject to adjustment later, then the city shall use the adjusted index, together with any correlation factor necessary to relate the later adjusted index to the earlier index, as published by the entity publishing the index, or if such publication is discontinued, the designated index shall then refer to comparable statistics on changes in the cost of living for urban consumers as the same may be computed and published by an agency of the United States or by a responsible financial periodical of recognized authority, which agency or periodical shall be selected by the city.

(d) City council may amend drainage impact fees to be collected from new developments without amending the service unit rates or drainage impact fee improvement plan adopted herein, as long as the impact fees to be collected do not exceed the maximum drainage impact fees per service unit that may be assessed for such facilities.

Sec. 47-885. Drainage service areas

(a) The department shall keep, update, and make available to the public maps of the drainage service areas. The drainage service areas may be amended from time to time as part of a new or amended drainage impact fee improvement plan. When the city's corporate limits are altered by general purpose annexation to include land within a natural watershed boundary, the land so annexed shall become part of a drainage service area.

(b) At the time of assessment, the utility official shall determine the appropriate drainage service area or areas for the new development based on the developer's application and the map(s) attached to the most recent land use assumptions adopted by city council.

Secs. 47-886--47-890. Reserved.

DIVISION 2. ASSESSMENT, COLLECTION AND COMPUTATION OF DRAINAGE IMPACT FEES

Sec. 47-891. Assessment of fees.

Assessment of drainage impact fees against new development shall be based on the drainage impact fee per service unit within the applicable drainage service area, established by city council. Except as otherwise provided herein, the utility official shall assess a drainage

impact fee on any building permit application for new development submitted after _____,¹ 2014, at the time the building permit application is submitted.

Sec. 47-892. Time of fee collection.

Drainage impact fees shall be collected at or before the time of issuance of building permits.

Sec. 47-893. Computation of fees.

The department shall compute the drainage impact fees in the following manner:

- (1) Except as otherwise provided in this section, the drainage impact fee shall be calculated by multiplying the applicable service unit rate by the number of service units generated by the new development, rounded to the nearest hundredth.
- (2) The drainage impact fee for new development on an improved lot shall be reduced by a credit determined by the utility official to be equal to the existing impervious surface on which drainage fees are being paid at the time a building permit application is submitted.
- (3) Development of low and moderate cost single family housing is exempt from payment of impact fees. To qualify for this exemption, a house must be a single family residence located within the city limits having an initial purchase price as certified by the property owner that does not exceed the latest available 12-month listing for median price single family housing in the city as published by the Real Estate Center at Texas A&M University. In the event the initial purchase price exceeds this amount, the property owner making the certification shall pay to the city the full amount of the impact fee as calculated under this section. If publication of the median price for single family housing is discontinued by the Real Estate Center at the Texas A & M University, the mayor is authorized to select another publication that lists the median price of single family houses in the city.

¹ The City Secretary shall insert the month and day of this Ordinance's effective date.

- (4) If the new development involves the alteration of existing structures, new impervious surface created by such altered structure or structures shall be converted to additional service units. If the impervious surface for the new development exceeds the existing impervious surface, the amount of the drainage impact fee due shall be the number of additional service units, rounded to the nearest hundredth, multiplied by the drainage impact fee per service unit then in effect. If the impervious surface for the new development is less than or equal to the existing impervious surface, no impact fee is due.
- (5) The amount of each drainage impact fee due shall be reduced by any allowable adjustments in the manner provided in section 47-894 of this Code.
- (6) If the property owner proposes to increase the number of service units for development following payment of the drainage impact fee, the additional drainage impact fees collected for such new service units shall be determined in the same manner as provided in this section.

Sec. 47-894. Determination of service units.

(a) The utility official shall determine the number of service units generated from a new development based on the information contained in the building permit application along with digital map data associated with tax plats and assessment rolls or other similar, reliable data from independent sources authorized by the director.

(b) If the utility official determines that sufficient information is provided along with the building permit application to demonstrate that no drainage will ever flow off all or a significant portion of the property, the director may approve an adjustment in the number of service units. Before an adjustment is made, the property owner shall covenant not to change the property to allow drainage to flow off the property without first obtaining a building permit and paying impact fees on any new development. The director may develop guidelines to determine the amount of drainage that will flow off the property and what constitutes a significant portion of the property.

Sec. 47-895. Offsets against drainage impact fees.

(a) A property owner may receive an offset pursuant to a development agreement approved by the city, if

- (1) The property owner constructs or finances a drainage facility included in the drainage impact fee improvement plan;
- (2) The property owner does not receive reimbursement for the drainage facility constructed or financed by the property owner;
- (3) The drainage facility serves only the city drainage system; and
- (4) The offset does not include on-site drainage for the property.

(b) A drainage facility constructed for an offset pursuant to a development agreement must be constructed within the drainage service area in which the property is located. The offset may be associated with the plat of the property that is to be served by the constructed or financed drainage facility. The amount of the offset shall be determined pursuant to rules established in this section and any administrative guidelines promulgated by the director. In no event shall the offset allowable under this subsection exceed the amount of the drainage impact fees due.

(c) Any offset associated with new development shall be applied against the drainage impact fee due at the time that the fee for the building permit is collected.

(d) Any offset provided under this section shall have no effect on on-site drainage requirements associated with the property.

Sec. 47-896. Development agreements in drainage benefit areas.

If the director determines that adequate capacity exists within the drainage system, a property owner within a drainage benefit area may voluntarily enter into a development agreement to connect to the drainage system. The director may authorize a development agreement to allow the property owner to construct facilities consistent with section 47-895 of this Code, and any associated rules and guidelines, or pay charges equivalent to drainage impact fees. The drainage impact fee improvement plan, as amended in accordance with Chapter 395 of the Local Government Code, shall account for the connections pursuant to development agreements under this section and shall include projections for voluntary connections to the drainage system from the drainage benefit area.

Secs. 47-897--47-900. Reserved.

DIVISION 3. ADMINISTRATION

Sec. 47-901. Accounting.

(a) All drainage impact fees collected within a certain drainage service area shall be deposited in a dedicated fund to which interest is allocated in accordance with Section 22, Article IV of the City Charter. All such amounts, together with all interest earned thereon, shall be used solely for the purposes set forth in subsection (b).

(b) The drainage impact fees collected pursuant to this article shall be used to finance or recoup the costs of any drainage impact fee improvements identified in the drainage impact fee improvement plan for the applicable drainage service area, including but not limited to the construction contract price, surveying and engineering fees, land acquisition costs (including land purchases, court awards and costs, attorneys' fees, and expert witness fees) and fees paid to an independent qualified engineer or financial consultant for preparing or updating the drainage impact fee improvement plan.

(c) Disbursement of funds shall be authorized by the department at such times as are reasonably necessary to carry out the purposes intended by this article; provided, however, that funds shall be expended within a reasonable period of time, but not to exceed ten years from the date drainage impact fees are deposited in the fund.

(d) An owner of property for which a drainage impact fee has been paid is entitled to a refund for all or a portion of the fee in the following circumstances:

- (1) The city denies service to the property on which the impact fees were paid; and
 - a. The city has the drainage facilities to provide service to the property;
 - b. The city has not constructed the drainage facilities within five years of the date the impact fees were collected; or
 - c. The city has not spent the impact fees within 10 years of the date the impact fees were collected.

- (2) After receiving a completed application for an impact fee refund, the department shall issue a refund to the record property owner. The refund shall include interest calculated from the date of collection to the date of refund at the statutory rate provided in Texas Local Government Code Section 395.024, or its successor statute. A drainage impact fee shall be considered expended on a first-in, first-out basis.
- (3) If a refund is due pursuant to paragraph (2), the department shall divide the difference between the amount of expenditures and the amount of the fees collected by the total number of service units for which drainage impact fees have been paid within the service area for the period to determine the refund due per service unit. The refund to the owner shall be calculated by:
 - a. Multiplying the refund due per service unit by the number of service units of the development for which the fee was paid; and
 - b. Determining interest due based on the amount calculated under subsection (d)(3)a.
- (4) Upon completion of all the drainage facilities identified in the drainage impact fee improvement plan for the drainage service area, the department shall recalculate the drainage impact fee per service unit using the actual costs for the drainage facilities. If the maximum drainage impact fee per service unit based upon actual cost is less than the drainage impact fee per service unit paid, the city shall refund the difference if such difference exceeds the drainage impact fee paid by more than ten percent. If the difference is less than ten percent, no refund shall be due. Refund to the record owner shall be calculated by:
 - a. Multiplying such difference by the number of service units of the development for which the drainage impact fee was paid; and
 - b. Determining interest due based on the amount calculated under subsection (d)(4)a.
- (e) The department shall establish adequate financial and accounting controls to ensure that drainage impact fees disbursed from the fund are utilized solely for the purposes authorized. The department

shall maintain and keep financial records for drainage impact fees that shall show the source and disbursement of all fees collected or expended within a certain drainage service area. The records of the fund into which drainage impact fees are deposited shall be open for public inspection and copying during ordinary business hours.

(f) Nothing in this article shall prevent the city from paying all or part of the drainage impact fees due for a new development pursuant to criteria adopted by city council.

Sec. 47-902. Impact fee appeals.

(a) The property owner or applicant for a new development may appeal the following administrative decisions to an administrative hearing official appointed by the director:

- (1) The applicability of a drainage impact fee to the development;
- (2) The amount of the drainage impact fee due;
- (3) The determination of service units;
- (4) The applicability of any credit or offset to the development;
- (5) The amount of any credit or offset; or
- (6) The amount of a refund due, if any.

(b) The burden of proof shall be upon the applicant to demonstrate that the administrative decision was not made in accordance with this article or applicable state law.

(c) The applicant shall file a written notice of appeal with the director within 30 days following the date of the decision from which an appeal is made. If the notice of appeal is accompanied by a payment or other sufficient security satisfactory to the department in an amount equal to the original determination of the drainage impact fee due, the development application may be processed while the appeal is pending. In addition to any other amount collected, the director shall collect from the applicant an administrative fee in accordance with Section 1-14 before considering the applicant's appeal.

Sec. 47-903. Relief procedures.

(a) Any person who has paid a drainage impact fee, or an owner of land for which a drainage impact fee has been paid, may petition city council to determine whether any duty required by this article or by chapter 395 of the Texas Local Government Code has not been performed within the time so prescribed. The petition shall be in writing and delivered to the city secretary and shall state the nature of the unperformed duties and request that the duties be performed within 60 days of the request. If city council determines that the performance of the duty is required pursuant to this article and is late in being performed, it shall cause performance of the duty to commence within 60 days of the date of the request and to continue until completion. This subsection shall not apply to matters subject to appeal pursuant to section 47-902 of this Code.

(b) City council may grant a variance from any requirement of this article, upon written request by the property owner subject to the article following a public hearing, but only upon finding that a strict application of such requirement would, when regarded as a whole, result in confiscation of the property.

(c) If city council grants a variance to the amount of the drainage impact fee due for a new development under this section, it shall cause to be appropriated from other city funds the amount of the reduction in the drainage impact fee to the fund for the drainage service area in which the property is located.

Sec. 47-904. Storm water drainage letters.

(a) A storm water drainage letter associated with a new development shall automatically expire unless the developer makes progress towards completion of the new development within two years after the developer obtains the storm water drainage letter. If prior to expiration, the developer presents the utility official with evidence of progress towards completion of the project, then the developer shall have an additional two years to complete the project or make additional progress towards completion of the project.

(b) Progress towards completion of the project shall consist of one or more of the following:

- (1) Payment or other provision of consideration authorized under this article for drainage impact fees on the new development;

- (2) Execution of a performance bond, naming the city as obligee, for public infrastructure associated with the new development;
- (3) Provision to the utility official of a copy of a substantially complete application necessary for completion of the new development that the developer has filed and actively pursued with the city or any local, state, or federal agency of competent jurisdiction; or
- (4) Presentation to the utility official of documentation conclusively showing that the developer has spent, in aggregate, more than five percent of the most recent appraised market value of the property associated with the new development towards the development of infrastructure facilities.”


Section 7. The Department of Public Works and Engineering shall begin collecting drainage impact fees no sooner than one year after the effective date of this Ordinance.

Section 8. If any provision, section, subsection, sentence, clause, or phrase of this Ordinance, or the application of same to any person or set of circumstances, is for any reason held to be unconstitutional, void or invalid, the validity of the remaining portions of this Ordinance or their application to other persons or sets of circumstances shall not be affected thereby, it being the intent of the City Council in adopting this Ordinance that no portion hereof or provision or regulation contained herein shall become inoperative or fail by reason of any unconstitutionality, voidness or invalidity of any other portion hereof, and all provisions of this Ordinance are declared to be severable for that purpose.

Section 9. This Ordinance shall take effect immediately upon final passage and approval by the Mayor; however, in the event the Mayor fails to sign this Ordinance within five days of its passage and adoption, it shall take effect in accordance with Article VI, Section 6 of the Houston City Charter.

PASSED on first reading this 27th day of March, 2013

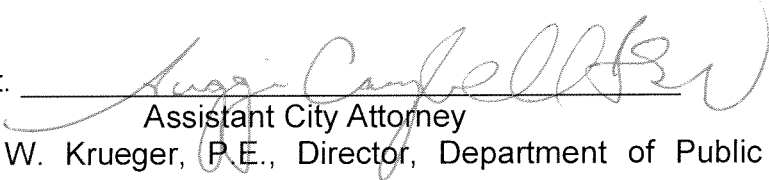
PASSED AND FINALLY APPROVED on second reading this 3rd day of April, 2013.



Mayor of the City of Houston

Pursuant to Article VI, Section 6, Houston City Charter, the effective date of the foregoing Ordinance is _____.

City Secretary

Prepared by Legal Dept. 
ALC; asw 03/12/2013 Assistant City Attorney
Requested by Daniel W. Krueger, P.E., Director, Department of Public Works & Engineering
L.D. File No. 0420900113001

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