RP
09/10/2015
Item No. 4H

AN ORDINANCE 2015-09-10-0761

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AMENDING AND RECODIFYING IN PART CHAPTER 34 OF THE SAN ANTONIO CITY CODE TO REVISE AND ADOPT RULES FOR THE CITY OF SAN ANTONIO DRAINAGE UTILITY; ADOPTING A NEW RATE DESIGN FOR STORM WATER DRAINAGE CHARGES; APPROVING A REVISED SCHEDULE OF DRAINAGE CHARGES; EXEMPTING CERTAIN PROPERTIES FROM DRAINAGE CHARGES; PROVIDING FOR PENALTIES AND INTEREST; IMPLEMENTING AN APPEALS PROCESS; AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, in response regulations enacted by the U.S. Environmental Protection Agency ("EPA") in November 1990 requiring the City of San Antonio to develop storm water drainage plans, services, and programs, on May 13, 1993 the City Council passed Ordinance No. 77949 in order to provide funding to meet federal storm water regulations and to protect the public health and safety from loss of life and property caused by surface water overflows, surface water stagnation, and pollution arising from nonpoint source runoff within the city; and

WHEREAS, Ordinance No. 77949 established a schedule of storm water drainage rates based on the cost of providing drainage service to benefitted properties within the San Antonio city limits and directed the San Antonio Water System ("SAWS") to collect the drainage fees as an agent for the City using its billing system; and

WHEREAS, the storm water drainage system is not integrated into the SAWS sewer system, but is a City operated municipal separate storm sewer system ("MS4") dedicated to providing collection and conveyance of storm water, rain water, flood water, or other surface water into area rivers and basins consistent with state and federal regulations implemented to protect surface water quality; and

WHEREAS, by Ordinance No. 86711 adopted on September 25, 1997, the City Council declared the drainage of the City to be a public utility to be known as the City of San Antonio Drainage Utility ("Drainage Utility"), pursuant to the authority of Chapter 552, Subchapter C, of the Local Government Code, and dedicated to the Drainage Utility all present and future City owned property (real and personal), facilities, materials, and supplies constituting the City's drainage system to be used for the purpose of the Drainage Utility; and

WHEREAS, Ordinance No. 86711 authorized the assessment on every benefitted property within the service area of the Drainage Utility, the "storm water drainage service fee", a monthly usage fee originally created by Ordinance No. 77949; and

WHEREAS, the storm water drainage fee has been increased six times since 1993 and most recently in Ordinance No. 2007-09-20-0988, adopted on September 20, 2007, in order to support the Drainage Utility's cost of service; and

WHEREAS, in September 2012, the City Council rejected a request to increase the storm water drainage fees and instructed City staff to bring for Council consideration a revised schedule for

the drainage fees that would address certain rate inequities resulting from the existing rate tiers within the schedule of drainage fees; and

WHEREAS, in FY 2013 the City engaged the services of the professional engineering firm Kimley-Horn & Associates to evaluate the City's current storm water utility fee that is based on lot size and land use and includes "rate caps"; Kimley-Horn & Associates recommended that the City move to a fee structure based on impervious cover, concluding that impervious area has a direct relationship with storm water runoff volume and rate and is the best measure of drainage system usage; and

WHEREAS, in FY 2014 Kimley-Horn & Associates conducted the Storm Water Utility Comprehensive Study that measured the amount of impervious area for every benefitted property within the City limits and demonstrated that a more equitable schedule of drainage charges could be established based on an impervious cover rate methodology; the Kimley-Horn & Associates Storm Water Utility Comprehensive Study, dated August 14, 2015, is incorporated by reference into this ordinance as if set out herein word for word, and is available for public review in the City Clerk's Office and in the City's Transportation and Capital Improvements Department; and

WHEREAS, City staff has been working with stakeholders since October 2013 and over 30 stakeholder meetings have been held since January 2014; and

WHEREAS, the revised rate design for the proposed drainage charges, as described in **Exhibit B**, is the basis for the amended schedule of rates for residential accounts and non-residential accounts, which are intended to recover the Drainage Utility's cost of service and a contribution to fund future drainage system projects, as summarized in **Exhibit A**; and

WHEREAS, the effect of the proposed tiered storm water rates on most residential benefitted properties will be minimal with approximately 72% of customers remaining at or below their current monthly fee in FY 2016, and non-residential benefitted properties will experience a more equitable rate treatment compared to the current rate design as described in **Exhibit B**; and

WHEREAS, the schedule of tiered rates for 2016 to 2020 are intended to recover the Drainage Utility's cost of service which is estimated as follows with the percentage increase in rates for each fiscal year appearing in parenthesis: (1) FY 2016 - $45.0 million (10%); (2) FY 2017 - $48.2 million (7%); (3) FY 2018 - $50.2 million (4%); (4) FY 2019 - $51.2 million (2%); and (5) FY 2020 - $52.2 million (2%); and

WHEREAS, the City Council finds that pursuant to the Local Government Code, Section 552.045:

(a) it has the authority to establish a revised schedule of drainage charges imposed on all benefitted properties within the City limits based on the requirements outlined in Subchapter C, Chapter 552, Texas Local Government Code ("Subchapter C");

(b) the Drainage Utility will continue to provide drainage service to all benefitted properties within the City limits supported by drainage charges, subject to certain properties exempted in accordance with Subchapter C;

(c) the Drainage Utility will offer drainage service on nondiscriminatory, reasonable, and equitable terms; and

WHEREAS the proposed schedule of storm water drainage charges based on an impervious cover rate methodology are consistent with the requirements of the Texas Local Government Code, Chapter 552, Subchapter C and would result in more equitable rates in comparison to the current rate methodology for setting drainage charges based on property size and type of use; **NOW THEREFORE:**

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SAN ANTONIO:

SECTION 1. The City Council finds that: (1) all benefitted properties within the City of San Antonio receive storm water drainage service from the City of San Antonio Drainage Utility ("Drainage Utility"); (2) impervious cover increases storm water runoff and associated pollutants into the drainage facilities of the Drainage Utility and ultimately into local creeks, streams, and river waterways; and (3) it is equitable to assess storm water drainage charges based on impervious coverage of the natural surface of all benefitted properties within the Drainage Utility's service area.

SECTION 2. The revised rate design supporting the schedule of tiered rates based on an impervious cover methodology as described in **Exhibits A** and **B** is hereby approved.

SECTION 3. The proposed schedule of rates for the storm water drainage charges to be assessed on residential and non-residential benefitted properties for the Fiscal Year 2016 as set out in Section 7 "Drainage Utility Charges" and the proposed five-year rate plan through Fiscal Year 2020 as set out in **Exhibit C** are hereby approved.

SECTION 4. Consistent with Resolution No. 2015-04-02-0021R, passed by the City Council on April 2, 2015, the storm water drainage charges for school district benefitted properties within the Drainage Utility's service area shall remain at current rates for the period starting at 12:01 am on January 1, 2016 and ending at 11:59 pm on December 31, 2020. The City Council finds that it has the authority to establish this and other exemptions listed in the amendments to Chapter 34 pursuant to the Texas Local Government Code, Section 552.053 and Section 580.003.

SECTION 5. The City Council finds that in order to protect public safety, health and property; protect the water quality of area waterways resulting from the discharge of storm water; and establish equitable and nondiscriminatory terms and conditions for transferring storm water runoff to the Drainage Utility System, all improvements on benefitted properties must be subject to the same drainage engineering design standards and regulations.

SECTION 6. The Director is authorized to carry out the following activities related to implementation of this ordinance:

- Establish the "impervious area" (as that term is defined below) for each benefitted property in the Drainage Utility's service area based on the methodology and database of benefitted properties produced by the Storm Water Utility Comprehensive Study and make appropriate updates to maintain the integrity of the database.

- Determine the appropriate storm water drainage charges for each benefitted property based on the impervious area assessment.

- Continue the relation with SAWS as billing agent, and/or engage other service providers as appropriate, to ensure all benefitted properties within the Drainage Utility service area are billed for storm water drainage charges.

- Hear appeals of Impervious Area assessments for benefitted properties pursuant to the authority provided in the amendments to the City Code approved herewith.

- Decide billing complaints that are not satisfactorily addressed under SAWS billing dispute procedures found in Chapter 34, Article I, Divisions 3 to 7.

SECTION 7. The following sections of the City Code shall be recodified as part of Unified Development Code: Sections 34-1103(a) and 34-1111(b). The following sections of the City Code shall be amended and recodified within Chapter 34 of the City Code: Sec. 34-235, 34-1101, 34-1102, 34-1103(b), and 34-1111(a), and 34-1116, and as further set out in **Exhibit D**. The San Antonio Municipal Code, Chapter 34 is amended and recodified as follows:

ARTICLE VII. – DRAINAGE UTILITY

DIVISION 1. – CREATION OF A DRAINAGE UTILITY

Sec. 34-7.01. - Establishment of drainage utility, calculation of drainage charges; service area; exemptions, and dedication of assets.

(a) The provisions of the Texas Local Government Code, Chapter 402, Subchapter C (currently codified at Chapter 552, Subchapter C, entitled, "Municipal Drainage Utility Systems Act") were adopted with Ordinance No. 86711 (September 25, 1997) to create the City of San Antonio Drainage Utility (herein after "Drainage Utility"). Accordingly, the City Council hereby adopts the Municipal Drainage Utility Systems Act, as currently codified; declares the drainage of the City of San Antonio to be a public utility; and dedicates to the Drainage Utility all city owned property, real and personal, facilities, materials and supplies constituting the City's Drainage System as currently constituted and as may be acquired in the future, to be used for the purpose of the Drainage Utility.

(b) The service area for the Drainage Utility shall include all real property within the city limits of the City of San Antonio as now existing and all which may be annexed hereafter from time to time.

(c) The following property shall be exempt from the provisions of this Article:

1. real property with proper construction and maintenance of a Wholly Sufficient and Privately Owned Drainage System;

2. real property held and maintained in its natural state, until such time that the property is developed and all of the public infrastructure constructed has been accepted by the City;

3. a subdivided lot, until a structure or improvement has been built on the lot and a Certificate of Occupancy has been issued by the City;

4. real property owned by the State of Texas;

5. real property owned by public or private institutions of higher education; and

6. real property owned by the City of San Antonio constituting the Drainage System, including public streets, rights-of-way, facilities, and infrastructure that provide drainage service.

All other real property within the Drainage Utility service area shall be subject to this Article, including but not limited to, religious organization properties, railroad yards, cemetery properties, county properties, federal properties, City properties other than noted in Section 1(c)(6) above, and school district properties. School district properties shall be subject to the current rate structure for a five-year period, through December 31, 2020. Drainage Utility Charges for the properties that make up Joint Base San Antonio shall be subject to the current rate structure for two years, through December 31, 2017, or until the federal government appropriates funds for the payment of Drainage Utility Charges.

Sec. 34-7.02. - No effect on land owner obligations under city ordinances; no waiver of immunity.

(a) The establishment of the Drainage Utility by the City does not relieve private land owners, developers, other individuals and entities from their responsibility for complying with the obligations of other ordinances of the City or laws of the State of Texas that relate to floodplain and storm water management.

(b) The establishment of the Drainage Utility does not imply or warrant that a Benefitted Property will be free from flooding, storm water pollution, or stream erosion. The City makes no representation that all drainage problems will be remedied. This ordinance does not create additional duties on the part of the City or create new liability or remedies for any flooding, stream erosion, deterioration of water quality, or other damages. Nothing in this ordinance shall be deemed to waive the City's immunity under law or reduce the need or necessity for flood insurance.

Sec. 34.7.03. - Other laws.

(a) To the extent this Article conflicts with any other provisions in the City Code, the provisions shall be harmonized when possible; however, this Article shall control and supersede any other provision regarding the Drainage Utility.

DIVISION 2. – ADMINISTRATION OF DRAINAGE UTILITY

Sec. 34-7.04. - Definitions.

Terms defined herein are specific to this Article and shall not be construed as conflicting with similar terms in other parts of the City Code. Terms not otherwise defined herein shall be

given the definitions contained in Chapter 552, Subchapter C of the Texas Local Government Code.

(a) "The Act" shall mean the Municipal Drainage Utility Systems Act, codified in the Texas Local Government Code, Title 13 (Water and Utilities), Chapter 552 (Municipal Utilities), Subchapter C (Municipal Drainage Utility Systems).

(b) "Administrative Charges" shall mean miscellaneous fees, other than Drainage Utility Charges, established by the City Council to recover the actual cost associated with providing optional services to Users.

(c) "Assistant Director" shall mean the assistant director of the Department overseeing the Drainage Utility.

(d) "Benefitted Property" shall mean an Improved Lot or Tract within the drainage Service Area to which drainage service is provided and that is subject to the assessment of Drainage Utility Charges.

(e) "Cost of Service" shall mean the costs of providing drainage service to all Benefitted Properties, which shall be the total of:

1. prorated cost of the acquisition, whether by eminent domain or otherwise, of land, rights-of-way, options to purchase land, easements, and interests in land relating to structures, equipment, and facilities used in draining the Benefitted Properties;

2. prorated cost of the acquisition, construction, repair, and maintenance of structures, equipment, and facilities used in draining the Benefitted Properties;

3. prorated cost of architectural, engineering, legal, and related services, plans and specifications, studies, surveys, estimates of cost and of revenue, and all other expenses necessary or incident to planning, providing, or determining the feasibility and practicability of structures, equipment, and facilities used in draining the Benefitted Properties;

4. prorated cost of all machinery, equipment, furniture, and facilities necessary or incident to the provision and operation of draining the Benefitted Properties;

5. prorated cost of funding and financing charges and interest arising from construction projects and the start-up cost of a drainage facility used in draining the Benefitted Properties;

6. prorated cost of debt service and reserve requirements of structures, equipment, and facilities provided by revenue bonds or other drainage revenue-pledge securities or obligations issued by the City;

7. administrative costs of operating and maintaining the Drainage Utility; and

8. other costs as appropriate that are incident or related to the provision and operation of draining the Benefitted Properties.

(f) "Customer" see the definition of "User."

(g) "Department" shall mean the City's Transportation and Capital Improvements Department.

(h) "Director" shall mean the director of the Department.

(i) "Drainage" shall mean bridges, catch basins, channels, conduits, creeks, culverts, detention ponds, water quality ponds, ditches, draws, flumes, pipes, pumps, sloughs, treatment works, and appurtenances to those items, whether natural or artificial, or using force or gravity, that are used to draw off surface water from land, carry the water away, collect, store, or treat the water, or divert the water into natural or artificial watercourses.

(j) "Drainage Utility" shall mean the City of San Antonio Drainage Utility established by Ordinance No. 86711 adopted on September 25, 1997.

(k) "Drainage Utility Charges" shall mean the service fees imposed on Users and set out in a rate schedule to recover the cost of the service of furnishing drainage service for all Benefitted Properties, including any interest and penalties; and amounts made in contribution to funding of future Drainage System construction by the City.

(l) "Drainage System" shall mean all real and personal property owned or controlled in whole or in part by the City and dedicated to the Drainage Utility for the purpose of providing drainage service to Benefitted Properties, including any future additions, extensions, and improvements thereto and replacement thereof.

(m) "Facilities" shall mean the real, personal, or mixed property that is used in providing drainage service and included in the Drainage System.

(n) "Impervious Area" or "Impervious Cover" see City of San Antonio Unified Development Code, Appendix A – Definitions and Rules of Interpretation (roads, parking areas, buildings, pools, patios, sheds, driveways, private sidewalks, and other impermeable construction covering the natural land surface).

(o) "Improved Lot or Tract" shall mean a lot or tract that has a structure or other improvement on it that causes an Impervious Area or Surface.

(p) "Non-Residential Properties" shall mean all Benefitted Properties within the Service Area, other than Residential Properties.

(q) "Owner" shall mean the owner of record of Benefitted Property.

(r) "Public Utility" shall mean drainage service that is provided by the Drainage Utility to the Users of Benefitted Properties within the Service Area and that is based on:

1. an established schedule of rates;

2. use of the police power to implement the service; and

3. nondiscriminatory, reasonable, and equitable terms consistent with the Act.

(s) "Residential Properties" shall mean all Benefitted Properties within the Service Area used for single-family home, duplex, or mobile home land use.

(t) "Service Area" shall mean the city limits of the City of San Antonio, Texas as may be amended from time-to-time.

(u) "User" or "Customer" shall mean the person or entity that owns or occupies a Benefitted Property and who is responsible for paying the Drainage Utility Charges.

(v) "Wholly Sufficient and Privately Owned Drainage System" shall mean on-site drainage retention facilities designed to keep runoff from an Improved Lot or Tract from discharging into any natural or manmade waterway or drainage infrastructure including public streets, storm drains, culverts, drainage easements, or storm water ponds that are part of the Drainage System; for storms of magnitude up to and including the 1% annual chance (100-year) storm event, 24-hour duration, captured runoff must be removed from the retention system within 72 hours of the rainfall event without discharging into the Drainage System.

Sec. 34-7.05. - Drainage utility fund.

A separate fund has been created, known as the Storm Water Operating Fund, for the purpose of segregating, identifying, and controlling all revenues and expenses attributable to the Drainage Utility. All Drainage Utility Charges shall be deposited as collected and received into this fund and shall be used exclusively for drainage Cost of Service. Such utility revenues may be used for the operation, planning, engineering, inspection, construction, repair, maintenance, improvement, reconstruction, administration, debt issuance cost and debt service, and other reasonable and customary expenses associated with the operation of a utility system. It shall not be necessary that the expenditures from the Drainage Utility Fund for any authorized purpose specifically relate to or benefit any particular Benefited Property from which the revenues were collected.

Sec. 34-7.06. - Administration of drainage utility.

The Director or his designee shall be responsible for the administration and operation of the Drainage Utility, including, but not limited to, recommending regulations and procedures necessary for the administration of the Drainage Utility Charges which shall be authorized by the City Council, the resolution of challenges to the assessment of Impervious Area to Benefitted Property, the resolution of billing disputes, the development and implementation of maintenance and facility improvement programs, the provision of appropriate utility training to personnel, and the implementation of a state and federal regulatory compliance program. The Director shall keep an accurate record of all Benefitted Properties to which services and Facilities of the Drainage Utility are made available.

Sec. 34-7.07. - Drainage utility charges.

(a) The Drainage Utility Charge is hereby imposed upon each Benefitted Property within the Service Area. Drainage Utility Charges shall become effective on January 1, 2016. Thereafter, Drainage Utility Charges shall be billed to Benefitted Properties on a monthly basis for the duration of the Drainage Utility.

(b) For purposes of imposing Drainage Utility Charges, all Benefitted Properties within the Service Area are classified into the following Customer categories: (1) Residential Properties and (2) Non-Residential Properties.

(c) The Impervious Area value shall be determined by conducting an inventory of all Improved Lots in the Service Area and identifying the Impervious Area for each Improved Lot. The Impervious Area value shall be used in establishing Drainage Utility Charges for Residential Properties based on the amount of Impervious Area identified in the rate tiers in Sec. 34-7.07(d), and for Non-Residential Properties based on the methodology described in Sec. 34-7.07(e). The Director or his designee shall be responsible for determining the Impervious Area of Benefitted Property based on reliable data, including the appraisal roll, geographic information system technology, aerial photography, or other reliable means for determining Impervious Area. The Director may require additional information from the Owner, User, tenant, manager or developer to make the determination. The assessment of Impervious Area to Benefitted Properties may be revised by the Director based on the addition of structures or improvements to properties identified through the City's building permit process.

(d) Residential Properties shall be assigned a Rate Category and assessed a Drainage Utility Charge based on Impervious Area as provided in the following table:

Residential Rate Category	Impervious Area in Square Feet	FY 2016
Tier 1	≤ 2,750	$3.22
Tier 2	>2,750 – 4,220	$4.25
Tier 3	> 4,220	$8.98

(e) Non-Residential Properties shall be assigned a Rate Category and assessed a Drainage Utility Charge determined by a Base Fee and Impervious Fee in accordance with the values provided in the Sec. 34-7.07(e)(1) and Sec. 34-7.07(e)(2):

1. "Base Fee" shall mean a flat monthly fee assessed among all Non-Residential Benefitted Properties as determined by Bexar County Appraisal District property records. The FY 2016 is calculated at $55.77.

2. "Impervious Fee" shall mean a monthly fee assessed on all Non-Residential Benefitted Properties on a per square foot basis and prorated based on the percentage of Impervious Area within the Benefitted Property.

Non-Residential Rate Category	Percent Impervious Area	FY 2016
Tier 1	≤ 20%	$0.00025/sf
Tier 2	>20% - 40%	$0.00037/sf

Tier 3	>40% - 65%	$0.00050/sf
Tier 4	> 65%	$0.00062/sf

(f) The City Council may adjust the value and rate tiers in Sec. 34-7.07(d) and Sec. 34-7.07(e) at any time based upon the recommendation of the Director that the Cost of Service for the Drainage Utility warrants an adjustment in rates.

(g) No Drainage Utility Charge credit shall be given for the installation of drainage facilities required by the City Code or state law. However, a credit of up to thirty percent (30%) off the Impervious Fee portion of the monthly Drainage Utility Charges shall be available to Customers of Non-Residential Properties that voluntarily implement Low Impact Development water quality management practices in compliance with technical criteria adopted by the City.

(h)Pervious pavements and other pervious surfaces in compliance with technical criteria adopted by the City shall not be included in the Impervious Area calculation. Rail ballast areas shall be considered as thirty percent (30%) impervious based on industry standard runoff coefficients. Linear railroad track right-of-way systems outside of railroad yards intended to convey storm water throughout the Drainage Utility Area and that provide drainage service to Benefitted Properties shall not be included in the Impervious Area calculation.

Sec. 34-7.08. - Billing, payments, and penalties.

(a) Billing statements for the Drainage Utility Charges shall be rendered by the City for all Benefitted Properties within the drainage Service Area. Bills shall be payable when rendered and shall be considered received by the Customer, whether actually received or not, when deposited in the United States mail, postage prepaid, addressed to the Customer. Bills shall be rendered monthly for the previous month's service.

(b) The Director shall establish the "impervious area" for each benefitted property in the Drainage Utility's service area based on the methodology and database of benefitted properties produced by the Drainage Utility Fee Comprehensive Study and make appropriate updates to maintain the integrity of the database.

(c) The Director shall determine the appropriate storm water drainage charges for each benefitted property based on the impervious area assessment.

(d) The Director shall assume that each Drainage Utility account in the Service Area serves one or more Users of a Benefitted Property, and shall assess the monthly Drainage Utility Charge to the person responsible for payment of the Drainage Utility account. The Director shall calculate the Drainage Utility Charges for all Users. If there is more than one User of a Non-Residential Property, then the Drainage Utility Charges shall be assessed to the Owner of the Non-Residential Property, unless instructed by the Owner of the Non-Residential Property, in writing, to bill Users on a prorated basis.

(e) Bills are due and payable on the date specified thereon and if full payment is not made by the date specified, the bill shall become delinquent.

(f) The Director shall continue the relation with SAWS as billing agent, and/or engage other service providers as appropriate, to ensure all Benefitted Properties within the Drainage Utility service area are billed for storm water drainage charges. Drainage Utility Charges shall be billed by SAWS, or other designated billing agents, following their standard billing processes, and may be subjected to penalties, interest, and other terms.

(g) Any charge due hereunder which is not paid when due will subject the User to discontinuance of all utility services provided by the City and may be recovered in an action at law or in equity by the City including fixture of a lien against the property, as allowed by law.

(h) The City shall have access, at all reasonable times, to any Benefited Property served by the Drainage Utility for necessary inspection, repair of infrastructure or enforcement of this Article VII.

(i) The storm water drainage charges for school district Benefitted Properties within the Drainage Utility's service area shall remain at current rates for the period starting at 12:01 am on January 1, 2016 and ending at 11:59 pm on December 31, 2020. This is consistent with Resolution No. 2015-04-02-0021R, passed by the City Council on April 2, 2015.

(j) The Director shall decide billing complaints that are not satisfactorily addressed under SAWS billing dispute procedures found in Chapter 34, Article I, Divisions 3 to 7.

Sec. 34-7.09. - Appeal of impervious area assignment.

(a) A User may appeal the Impervious Area assigned to the User's Benefitted Property by submitting the request to the Assistant Director or his designee on a prescribed form. If the appeal results in a reassignment of Impervious Area to the Benefitted Property, the User will be entitled to a recalculation of Drainage Utility Charges which may result in a rate adjustment.

(b) The following procedures shall apply to all appeals of Impervious Area assignments:

1. The User shall have the burden of proof.

2. The Director shall develop a prescribed form for Users to appeal the amount of Impervious Area assigned to a Benefitted Property. The appeal shall be submitted to the Assistant Director or his designee following the procedure outlined below.

3. Any appeal of Impervious Area assignment shall be in writing and set forth in detail the grounds upon which relief is sought.

4. Appeals of Impervious Area assignments will be reviewed by the Assistant Director or his designee within twenty (20) business days from the date of receipt on the prescribed form. Following the twenty (20) day review period, the Assistant Director may request additional information necessary to make a determination as prescribed in Sec. 34-

7.09(b)(6). Any adjustment to Drainage Utility Charges resulting from such an appeal shall be prospective, but may be made retroactive for no more than three (3) billing periods prior to the receipt of the appeal.

5. The User requesting a reassignment of Impervious Area may be required, at the User's cost, to provide supplemental information to the Assistant Director, including, but not limited to, survey data certified by a Texas Registered Professional Land Surveyor (R.P.L.S.), design data certified by a Registered Professional Engineer (P.E.) licensed to practice in the State of Texas, or other documentation of Impervious Area. Failure to provide requested information may result in the denial of the appeal.

6. The Assistant Director's resolution of the appeal shall be provided to the User, in writing, within ten (10) business days following review of the initial request as described in Sec. 34-7.09(b)(4). If the User is successful in the appeal, the Assistant Director shall order the reassignment of Impervious Area to the Benefitted Property consistent with the resolution of the appeal. The Assistant Director shall also order the recalculation of Drainage Utility Charges which may result in a rate adjustment. If the recalculation results in a rate adjustment it will be granted effective the next billing period.

(c) If the Assistant Director denies the request to reassign Impervious Area to the Benefitted Property, the User may, within (10) ten business days from the date of notification, appeal the decision to the Director. The appeal shall be in writing, contain a succinct and clear statement of the User's argument and suggested remedy, and be filed with the Director's Office. The Director shall have fifteen (15) business days from the date the appeal is received to review the appeal, make a determination, and notify the User.

(d) Before imposing a lien for delinquent Drainage Utility Charges, the City shall send notice to the Owner of the Benefitted Property stating the amount of the charges owed, and of the owner's right to appeal the placement of the lien by producing evidence the delinquent charges are not rightfully owed, by providing such within ten (10) business days from the date of notification to the Director. The Director shall not file the lien if the Owner shows that the Drainage Utility Charge made the basis of the lien is not owed. When a person pays all of the charges, a lien filed pursuant to this Article, shall be released. The paying party shall be responsible for the filing costs of the release.

Sec. 34-7.10. - Credit application.

(a) A User of a Non-Residential Benefited Property may submit a request for credit as identified in Sec. 34-7.07(g) and (h) to the Assistant Director.

(b) A User of a Non-Residential Benefited Property may submit a request for credit if the User controls multiple contiguous parcels and can prove single ownership, purpose, and use, and the User has been assessed individual Base Fees as described in Sec. 34-7.07(e)(1) for each of the properties.

(c) The following procedures shall apply to all credit applications:

1. The User shall have the burden of proof.

2. The Director shall develop a prescribed form for Users to apply for credit to a Non-Residential Benefitted Property. The application shall be submitted to the Assistant Director or his designee following the procedure outlined below.

3. Any credit application shall be in writing and set forth in detail the grounds upon which relief is sought.

4. Credit requests will be reviewed by the Assistant Director or his designee within twenty (20) business days from the date of receipt on the prescribed form. Following the twenty (20) day review period, the Assistant Director may request additional information necessary to make a determination as prescribed in Sec. 34-7.10(c)(6). Any adjustment to Drainage Utility Charges resulting from the credit request shall be prospective.

5. The User requesting credit may be required, at the User's cost, to provide supplemental information to the Assistant Director, including, but not limited to, survey data certified by a Texas Registered Professional Land Surveyor (R.P.L.S.), design data certified by a Registered Professional Engineer (P.E.) licensed to practice in the State of Texas, or other documentation to supplement the credit request. Failure to provide requested information may result in the denial of the request.

6. The Assistant Director's resolution of the credit request shall be provided to the User, in writing, within ten (10) business days following review of the initial request as described in Sec. 34-7.10(c)(4). If the User is successful in the credit request, the Assistant Director shall order the recalculation of Drainage Utility Charges which may result in a rate adjustment. If the recalculation results in a rate adjustment it will be granted effective the next billing period.

(d) If the Assistant Director denies the credit request to the Benefitted Property, the User may, within (10) ten business days from the date of notification, appeal the decision to the Director. The appeal shall be in writing, contain a succinct and clear statement of the User's argument and suggested remedy, and be filed with the Director's Office. The Director shall have fifteen (15) business days from the date the appeal is received to review the appeal, make a determination, and notify the User.

(e) As part of the credit application, the User must commit in a written agreement to provide long-term maintenance of any credited system in accordance with a User prepared Operations and Maintenance plan, which will be on file with the City. Annual inspection and certification of the credited system shall be required by the User and made available to the City. Failure to adequately maintain the system will result in the removal of the credit amount. Credit applications must be renewed with property ownership changes.

SECTION 8. Severability. If any provision, section, subsection, sentence, clause or the application of same to any person or set of circumstances for any reason is held to be unconstitutional, void or invalid or for any reason unenforceable, the validity of the remaining portions of this ordinance or the application thereby shall remain in effect, it being the intent of the City Council of the City of San Antonio, Texas in adopting this ordinance, that no portion thereof or provision contained herein shall become inoperative or fail by any reasons of unconstitutionality of any other portion or provision.

SECTION 9. Repealer. All ordinances, parts of ordinances resolutions and parts of resolutions in conflict with this ordinance are hereby repealed to the extent of conflict with this ordinance.

SECTION 10. Publishing and Effective Date. This ordinance shall be published and become effective according to law on customer bills issued on or after January 1, 2016.

SECTION 11. This Ordinance is effective immediately upon the receipt of eight affirmative votes; otherwise, it is effective ten days after passage.

PASSED AND APPROVED this 10th day of September, 2015.

M A Y O R
Ivy R. Taylor

ATTEST:

Leticia M. Vacek
City Clerk

APPROVED AS TO FORM:

Martha G. Sepeda
Acting City Attorney

Agenda Item:	**4H**
Date:	09/10/2015
Time:	11:13:25 AM
Vote Type:	Motion to Approve
Description:	An Ordinance amending Chapter 34 (Stormwater) of the San Antonio City Code relating to rates of the monthly storm water utility fee and restructuring the billing methodology using an impervious cover approach.
Result:	Passed

Voter	Group	Not Present	Yea	Nay	Abstain	Motion	Second
Ivy R. Taylor	Mayor		x				
Roberto C. Treviño	District 1		x				
Alan Warrick	District 2		x				
Rebecca Viagran	District 3		x				
Rey Saldaña	District 4		x				
Shirley Gonzales	District 5		x				
Ray Lopez	District 6		x			x	
Cris Medina	District 7		x				x
Ron Nirenberg	District 8		x				
Joe Krier	District 9		x				
Michael Gallagher	District 10		x				

Exhibit "A"

Storm Water Utility Fee Cost of Service

STORM WATER UTILITY FEE

Revised Methodology – Cost of Service

Revenue Requirements: A five-year rate plan has been developed. As a result of stakeholder feedback, increased revenue requirements and corresponding service improvements have been phased-in over three years to help mitigate rate increases. The increase in revenue needs shown in Fiscal Years 2019 and 2020 is solely due to inflationary costs.

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total Revenue Requirement	$ 40,731,080	$ 45,039,274	$ 48,160,795	$ 50,191,265	$ 51,173,541	$ 52,180,610
Year to Year Change	$ (202,399)	$ 4,308,194	$ 3,121,521	$ 2,030,470	$ 982,276	$ 1,007,069
Year to Year % Change	-0.5%	10.6%	6.9%	4.2%	2.0%	2.0%

Note: The revised fee will be effective January 1, 2016 and it is anticipated that only $43.5M will be collected; however, the rates established in FY2016 will correlate to the full $45M.

Program Enhancements: In addition to a more equitable rate structure and incentives to promote water quality improvements, several program enhancements have been included in the five-year rate plan. Key improvements are listed below.

FY 2016 Program Changes	Description	Cost
Storm Drain Assessment and Inventory	Begin 10-year program to clean, televise, map, and assess the condition of the 700-mile storm drain network	$650K
High Water Detection Maintenance	Maintenance of 50 new high water detection sites	$400K
Increased Vegetation Management	Increased mowing cycles along channels and roadways	$750K
Capital Project Funding	Provide funding for backlog of existing storm water capital/maintenance projects	$1.5M
FY 2017 Program Changes	**Description**	**Cost**
Targeted Street Sweeping Increase	Limited street sweeping increases to improve water quality	$500K
Median Enhancements	Enhance medians to require less watering and maintenance/mowing cycles	$500K
Leslie Road Service Center	Provides debt service payment to construct a new service center to house storm water staff and equipment	$1.5M
Increase in Capital Project Funding	Provide funding for backlog of existing storm water capital/maintenance projects	$500K
Increase in Storm Drain Assessment and Inventory Funding	10-year program to clean, televise, map, and assess the condition of the 700-mile storm drain network	$900K
FY 2018 Program Changes	**Description**	**Cost**
Increase in Capital Project Funding	Provide funding for backlog of existing storm water capital/maintenance projects	$1M

Table 1 –Service Improvements

Cost of Service: The estimated five-year cost of service is shown in the table below and has been imported into the multi-year budget rate analysis model to establish billing rates for the five-year planning period.

STORM WATER UTILITY FEE

Revised Methodology – Cost of Service

Program	FY 2015 Budget	FY 2016 Budget	FY 2017 Budget	FY 2018 Budget	FY 2019 Budget	FY 2020 Budget
CPI		2.57%	2.84%	2.75%	2.55%	2.55%
Tunnel Maintenance	$ 3,138,652	$ 3,916,301	$ 4,509,345	$ 4,633,352	$ 4,751,503	$ 4,872,666
Arterial & Collector Sweeping	$ 1,078,657	$ 1,106,378	$ 1,137,800	$ 1,169,089	$ 1,198,901	$ 1,229,473
Residential Sweeping	$ 1,401,932	$ 1,533,194	$ 2,076,736	$ 2,133,847	$ 2,188,260	$ 2,244,060
CBD Street Sweeping	$ 817,247	$ 838,250	$ 862,057	$ 885,763	$ 908,350	$ 931,513
Debris Removal	$ 1,314,248	$ 1,348,024	$ 1,386,308	$ 1,424,432	$ 1,460,755	$ 1,498,004
Channel Restoration	$ 2,845,555	$ 2,918,686	$ 3,001,576	$ 3,084,120	$ 3,162,765	$ 3,243,415
Concrete Repair	$ 1,641,976	$ 1,684,175	$ 1,732,005	$ 1,779,635	$ 1,825,016	$ 1,871,554
Natural Creekway	$ 1,329,795	$ 1,363,971	$ 1,402,708	$ 1,441,282	$ 1,478,035	$ 1,515,725
Mowing & Herbicide	$ 5,123,223	$ 5,379,151	$ 6,031,919	$ 6,197,797	$ 6,355,841	$ 6,517,915
Rapid Response	$ 1,464,673	$ 1,502,315	$ 1,544,981	$ 1,587,468	$ 1,627,948	$ 1,669,461
Public Rel. & Outreach	$ 257,448	$ 264,064	$ 271,563	$ 279,031	$ 286,147	$ 293,444
CIP Maintenance	$ 140,570	$ 185,640	$ 190,913	$ 196,163	$ 201,165	$ 206,295
Engineering	$ 1,838,430	$ 1,914,750	$ 2,119,128	$ 2,177,405	$ 2,232,928	$ 2,289,868
Administrative & Support	$ 2,955,702	$ 2,980,378	$ 3,065,021	$ 3,149,309	$ 3,229,617	$ 3,311,972
Capital Outlay	$ 808,431	$ 82,056	$ 84,386	$ 86,707	$ 88,918	$ 91,185
SAWS Services	$ 4,781,373	$ 4,904,254	$ 5,043,535	$ 5,182,232	$ 5,314,379	$ 5,449,896
Operating Totals	$ 30,937,911	$ 31,921,588	$ 34,459,982	$ 35,407,632	$ 36,310,526	$ 37,236,445
Transfer to GF Indirect Cost	$ 1,526,438	$ 1,565,667	$ 1,610,132	$ 1,654,411	$ 1,696,599	$ 1,739,862
Transfer to GF Other	$ 983,934	$ 1,009,221	$ 1,037,883	$ 1,066,425	$ 1,093,619	$ 1,121,506
Transfer to Capital Projects	$ 400,000	$ 1,900,000	$ 2,400,000	$ 3,400,000	$ 3,400,000	$ 3,400,000
Transfer to Debt Service	$ 6,882,797	$ 6,892,797	$ 6,902,797	$ 6,912,797	$ 6,922,797	$ 6,932,797
Leslie Rd Service Center	$ -	$ 1,500,000	$ 1,500,000	$ 1,500,000	$ 1,500,000	$ 1,500,000
Water Quality Incentive Progran	$ -	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000
Transfer to Grant	$ -	$ -	$ -	$ -	$ -	$ -
Total Transfers	$ 9,793,169	$ 13,117,686	$ 13,700,812	$ 14,783,633	$ 14,863,014	$ 14,944,165
Total Revenue Requiremen	$ 40,731,080	$ 45,039,274	$ 48,160,795	$ 50,191,265	$ 51,173,541	$ 52,180,610
Ending Balance	$ 547,278	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000
Year to Year Change	$ (202,399)	$ 4,308,194	$ 3,121,521	$ 2,030,470	$ 982,276	$ 1,007,069
Year to Year % Change	-0.5%	10.6%	6.9%	4.2%	2.0%	2.0%

Table 2 – Cost of Service

Exhibit "B"

Summary of Proposed Rate Design

STORM WATER UTILITY FEE

Revised Methodology – Account Summary

Background: The Storm Water Utility Fee was established by City Council in 1993 to fund various storm water management and operational services related to our federal storm sewer system permit. During FY 2014, TCI launched a comprehensive study to migrate the existing fee structure to a model based on impervious cover.

- Impervious cover has a direct relationship with storm water runoff volume and rate and is the best measure of drainage system usage
- Current fee structure does not fully take into account the impact properties have on the drainage system since it is currently based on lot size and land use and includes "rate caps"
- The current fee was last increased in FY 2008; however, service needs and costs have continued to rise

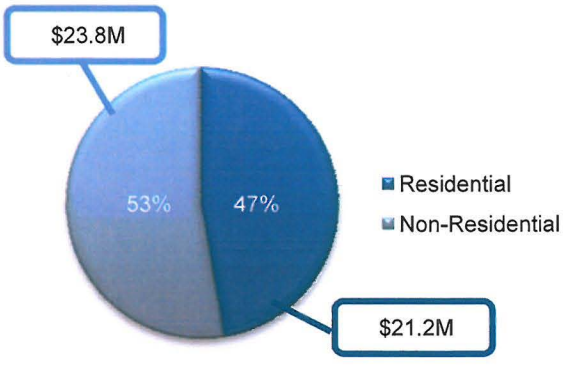
The goal of the revised rate structure is to improve rate-payer equity, recover funding needs, and to promote storm water best management practices.

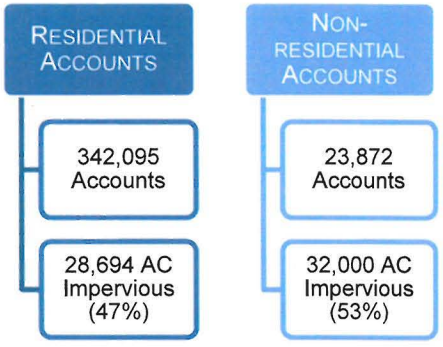
Revenue Requirements: A five-year rate plan has been developed. As a result of stakeholder feedback, increased revenue requirements and corresponding service improvements have been phased-in over three years to help mitigate rate increases. The increase in revenue needs shown in Fiscal Years 2019 and 2020 is solely due to inflationary costs.

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total Revenue Requirement	$ 40,731,080	$ 45,039,274	$ 48,160,795	$ 50,191,265	$ 51,173,541	$ 52,180,610
Year to Year Change	$ (202,399)	$ 4,308,194	$ 3,121,521	$ 2,030,470	$ 982,276	$ 1,007,069
Year to Year % Change	-0.5%	10.6%	6.9%	4.2%	2.0%	2.0%

Note: The revised fee will be effective January 1, 2016 and it is anticipated that only $43.5M will be collected; however, the rates established in FY2016 will correlate to the full $45M.

Budget Model: TCI has forecasted a revenue need of approximately $45M for FY 2016. The budget allocation for residential and non-residential accounts will be split in proportion to the amount of impervious area for each user class as illustrated below.





Non-Residential Accounts: Residential Accounts have very similar land use characteristics unlike Non-Residential Accounts; therefore, the rate structure was developed differently. A flat, per account monthly "Base Fee" will be assessed among all non-residential benefitted properties and a monthly "Impervious Fee" will be assessed on a cost per square foot. The "Impervious Fee" will include multiple tiers based

STORM WATER UTILITY FEE

Revised Methodology – Account Summary

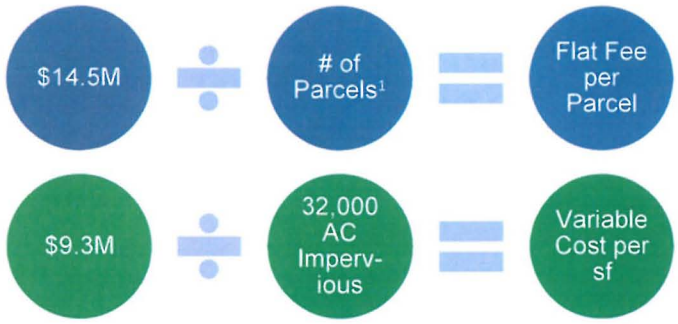
upon the percent of impervious area or "development intensity". This dual approach reduces the cost per square foot of impervious area which significantly reduces potential monthly fees from the rate structure proposed in 2014. Examples of base and impervious services are listed below along with the FY 2016 budget amount proportional to non-residential accounts.

BASE FEE

Street Sweeping
Mowing
Debris Removal
Engineering
MS4 Management
FY 2016 Budget
$14.5M (61%)

IMPERVIOUS FEE

Maintenance of Downtown Tunnel Systems, Dams, and HWDS
Pipe Televising
Channel Restoration
Concrete Pipe/Structure Repairs
Maintenance CIP
FY 2016 Budget
$9.3M (39%)



[1]In some cases there are multiple accounts located on one land parcel, only one Base Fee will be assessed per land parcel.

NON-RESIDENTIAL ACCOUNTS:

BASE FEE: FLAT $55.77 / MO

IMPERVIOUS FEE: VARIES PER SITE DEVELOPMENT INTENSITY TIERS

≤20% IC = $0.25 / 1,000 sf
>20%-40% IC = $0.37 / 1,000 sf
>40%-65% IC = $0.50 / 1,000 sf
>65% IC = $0.62 / 1,000 sf

- *Top 10 Accounts* monthly fees reduced by up to 83% from the previous proposal in 2014
- 24 accounts with monthly fee greater than $1,000 as opposed to 202 accounts with the previous proposal in 2014 (15 of the 24 accounts are less than $2,000)
- 27.4% of accounts remain at or below current fee
- 71.3% of accounts increase <$100 per month
- 1.1% of accounts increase between $100 and $500 per month
- 0.2% of accounts increase >$500 per month

TOP 10 ACCOUNTS[1]	REVISED	PREVIOUS
Port SA	$19,600	$61,200
Ft. Sam Houston	$13,600	$77,100
AT&T Center (County)	$4,100	$10,000
Sea World	$4,000	$12,300
Toyota	$3,900	$24,000
Port SA	$3,700	$11,300
Southwest Research	$3,600	$14,900
SA Airport (City)	$3,400	$8,400
Lackland AFB	$2,800	$13,100
SA Airport (City)	$1,800	$4,600

[1]Entities may have multiple accounts in addition to those listed.

Residential Accounts: A flat, per account monthly fee will be assessed among all residential benefitted properties and will be tiered based upon a range of impervious area. The existing residential rate structure is comprised of two tiers with approximately 90% of the accounts included in the higher rate tier of $4.25 per month. The lower tier has a monthly fee of $3.22. The new rate structure proposes to keep

STORM WATER UTILITY FEE

Revised Methodology – Account Summary

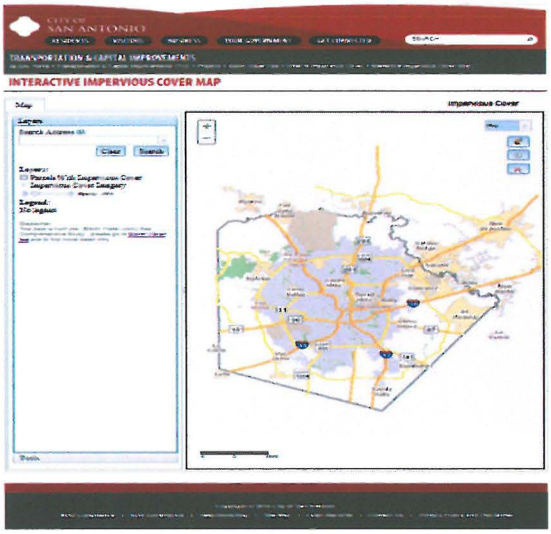
the monthly rate the same for these two tiers for the initial year, but introduces a third tier for those properties with a much larger amount of impervious area.

RESIDENTIAL ACCOUNTS:

≤2,750 sf (25%)	$3.22 / MO
>2,750-4,220 sf (50%)	$4.25 / MO
>4,220 sf (25%)	$8.98 / MO

- 16.4% of accounts decrease $1.03 per month from current fee
- 55.9% of accounts remain at current fee
- 3.6% of accounts increase $1.03 per month
- 23.7% of accounts increase $4.73 per month

Example Non-Residential Accounts: An interactive Impervious Cover Map has been developed so that any customer can review the calculated impervious cover on their parcel of land. The following images are taken from the interactive map and calculations of the proposed monthly fee are below. View the interactive map at www.sanantonio.gov/stormwaterfee.



RESTAURANT:
PARCEL AREA = 1.5 AC
IMP AREA = 1.3 AC
CURRENT FEE = $90
PROPOSED FEE = $91

APARTMENTS:
PARCEL AREA = 17.4 AC
IMP AREA = 10.2 AC
CURRENT FEE = $323
PROPOSED FEE = $276

STORM WATER UTILITY FEE

Revised Methodology – Account Summary

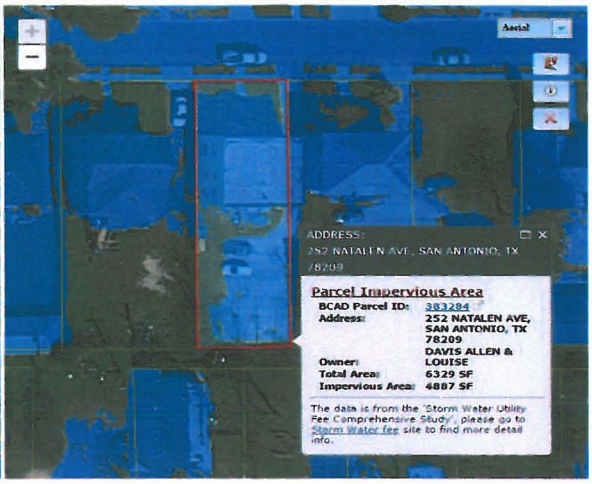
AUTO DEALERSHIP:

PARCEL AREA = 18.2 AC

IMP AREA = 14.2 AC

CURRENT FEE = $342

PROPOSED FEE = $441



MULTI-FAMILY >2 UNITS:

PARCEL AREA = 0.15 AC

IMP AREA = 0.11 AC

CURRENT FEE = $7

PROPOSED FEE = $59

OFFICE:

PARCEL AREA = 0.24 AC

IMP AREA = 0.16 AC

CURRENT FEE = $18

PROPOSED FEE = $59

CITY PARK:

PARCEL AREA = 0.40 AC

IMP AREA = 0.05 AC

CURRENT FEE = $18

PROPOSED FEE = $56

Exhibit "C"

Five-Year Rate Schedule

Exhibit "C"

Five-Year Rate Schedule

(a) Residential Properties shall be assigned a Rate Category and assessed a Drainage Utility Charge based on Impervious Area as provided in the following table:

Residential Rate Category	Impervious Area in Square Feet	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Tier 1	≤ 2,750	$3.22	$3.45	$3.56	$3.59	$3.63
Tier 2	>2,750 – 4,220	$4.25	$4.55	$4.69	$4.74	$4.79
Tier 3	> 4,220	$8.98	$9.61	$9.93	$10.02	$10.12

(b) Non-Residential Properties shall be assigned a Rate Category and assessed a Drainage Utility Charge determined by a Base Fee and Impervious Fee in accordance with the values provided in the following tables described below:

1. "Base Fee" shall mean a flat, per monthly fee assessed among all Non-Residential Benefitted Properties.

FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
$55.77	$59.69	$61.61	$62.21	$62.82

2. "Impervious Fee" shall mean a monthly fee assessed on all Non-Residential Benefitted Properties on a per square foot basis and prorated based on the percentage of Impervious Area within the Benefitted Property.

Non-Residential Rate Category	Percent Impervious Area	FY 2016 (per 1,000 Square Feet)	FY 2017 (per 1,000 Square Feet)	FY 2018 (per 1,000 Square Feet)
Tier 1	≤ 20%	$0. 25	$0.27	$0.28
Tier 2	>20% - 40%	$0.37	$0.40	$0.41
Tier 3	>40% - 65%	$0.50	$0.53	$0.55
Tier 4	> 65%	$0.62	$0.67	$0.69

Non-Residential Rate Category	Percent Impervious Area	FY 2019 (per 1,000 Square Feet)	FY 2020 (per 1,000 Square Feet)
Tier 1	≤ 20%	$0.28	$0.28
Tier 2	>20% - 40%	$0.42	$0.42
Tier 3	>40% - 65%	$0.56	$0.56
Tier 4	> 65%	$0.69	$0.70

(c) The proposed schedule of rates for the storm water drainage charges to be assessed on residential and non-residential benefitted properties for the Fiscal Year 2017 through Fiscal Year 2020 shall be considered and adopted as part of each fiscal year's budget.

Exhibit "D"

Chapter 34 of the San Antonio Municipal Code
Sections 34-235, 34-1101, 34-1102, 34-1103(b), 34-111(a), and 34-1116

Exhibit D

The City Code of the City of San Antonio, Chapter 34, Drainage Utility, is hereby amended by adding a new Division 1 and removing Sections 34-235, 34-1101, 34-1102, 34-1103, and 34-1111. Added language is underlined and deleted language is stricken through.

Chapter 34 Waters and Sewers
Article III Sewer Service and Rates
Division 4 Rates and Charges
Section 34-235 Schedule of rates for stormwater drainage, services and programs; billing and collection.

Chapter 34 Waters and Sewers
Article VII Drainage Utility
Section 34-1101 Declaring the drainage of the city to be a public utility.
Section 34-1102 Establishment and revision to drainage utility service area.
Section 34-1103 Establishment and revision of drainage charges.
Section 34-1111 Drainage utility fund.
Section 34-1116 Administration; rules and regulations.

Article VII - DRAINAGE UTILITY

DIVISION 1. – CREATION OF A DRAINAGE UTILITY

Sec. 34-7.01. - Establishment of drainage utility, calculation of drainage charges; service area; exemptions, and dedication of assets.

(a) The provisions of the Texas Local Government Code, Chapter 402, Subchapter C (currently codified at Chapter 552, Subchapter C, entitled, "Municipal Drainage Utility Systems Act") were adopted with Ordinance No. 86711 (September 25, 1997) to create the City of San Antonio Drainage Utility (herein after "Drainage Utility"). Accordingly, the City Council hereby adopts the Municipal Drainage Utility Systems Act, as currently codified; declares the drainage of the City of San Antonio to be a public utility; and dedicates to the Drainage Utility all city owned property, real and personal, facilities, materials and supplies constituting the City's Drainage System as currently constituted and as may be acquired in the future, to be used for the purpose of the Drainage Utility.

(b) The service area for the Drainage Utility shall include all real property within the city limits of the City of San Antonio as now existing and all which may be annexed hereafter from time to time.

(c) The following property shall be exempt from the provisions of this Article:

1. real property with proper construction and maintenance of a Wholly Sufficient and Privately Owned Drainage System;

2. real property held and maintained in its natural state, until such time that the property is developed and all of the public infrastructure constructed has been accepted by the City;

3. a subdivided lot, until a structure or improvement has been built on the lot and a Certificate of Occupancy has been issued by the City;

4. real property owned by the State of Texas;

5. real property owned by public or private institutions of higher education; and

6. real property owned by the City of San Antonio constituting the Drainage System, including public streets, rights-of-way, facilities, and infrastructure that provide drainage service.

All other real property within the Drainage Utility service area shall be subject to this Article, including but not limited to, religious organization properties, railroad yards, cemetery properties, county properties, federal properties, City properties other than noted in Section 1(c)(6) above, and school district properties. School district properties shall be subject to the current rate structure for a five-year period, through December 31, 2020. Drainage Utility Charges for the properties that make up Joint Base San Antonio shall be subject to the current rate structure for two years, through December 31, 2017, or until the federal government appropriates funds for the payment of Drainage Utility Charges.

Sec. 34-7.02. - No effect on land owner obligations under city ordinances; no waiver of immunity.

(a) The establishment of the Drainage Utility by the City does not relieve private land owners, developers, other individuals and entities from their responsibility for complying with the obligations of other ordinances of the City or laws of the State of Texas that relate to floodplain and storm water management.

(b) The establishment of the Drainage Utility does not imply or warrant that a Benefitted Property will be free from flooding, storm water pollution, or stream erosion. The City makes no representation that all drainage problems will be remedied. This ordinance does not create additional duties on the part of the City or create new liability or remedies for any flooding, stream erosion, deterioration of water quality, or other damages. Nothing in this ordinance shall be deemed to waive the City's immunity under law or reduce the need or necessity for flood insurance.

Sec. 34.7.03. - Other laws.

(a) To the extent this Article conflicts with any other provisions in the City Code, the provisions shall be harmonized when possible; however, this Article shall control and supersede any other provision regarding the Drainage Utility.

DIVISION 2. – ADMINISTRATION OF DRAINAGE UTILITY

Sec. 34-7.04. - Definitions.

Terms defined herein are specific to this Article and shall not be construed as conflicting with similar terms in other parts of the City Code. Terms not otherwise defined herein shall be given the definitions contained in Chapter 552, Subchapter C of the Texas Local Government Code.

(a) "The Act" shall mean the Municipal Drainage Utility Systems Act, codified in the Texas Local Government Code, Title 13 (Water and Utilities), Chapter 552 (Municipal Utilities), Subchapter C (Municipal Drainage Utility Systems).

(b) "Administrative Charges" shall mean miscellaneous fees, other than Drainage Utility Charges, established by the City Council to recover the actual cost associated with providing optional services to Users.

(c) "Assistant Director" shall mean the assistant director of the Department overseeing the Drainage Utility.

(d) "Benefitted Property" shall mean an Improved Lot or Tract within the drainage Service Area to which drainage service is provided and that is subject to the assessment of Drainage Utility Charges.

(e) "Cost of Service" shall mean the costs of providing drainage service to all Benefitted Properties, which shall be the total of:

1. prorated cost of the acquisition, whether by eminent domain or otherwise, of land, rights-of-way, options to purchase land, easements, and interests in land relating to structures, equipment, and facilities used in draining the Benefitted Properties;

2. prorated cost of the acquisition, construction, repair, and maintenance of structures, equipment, and facilities used in draining the Benefitted Properties;

3. prorated cost of architectural, engineering, legal, and related services, plans and specifications, studies, surveys, estimates of cost and of revenue, and all other expenses necessary or incident to planning, providing, or determining the feasibility and practicability of structures, equipment, and facilities used in draining the Benefitted Properties;

4. prorated cost of all machinery, equipment, furniture, and facilities necessary or incident to the provision and operation of draining the Benefitted Properties;

5. prorated cost of funding and financing charges and interest arising from construction projects and the start-up cost of a drainage facility used in draining the Benefitted Properties;

6. prorated cost of debt service and reserve requirements of structures, equipment, and facilities provided by revenue bonds or other drainage revenue-pledge securities or obligations issued by the City;

7. administrative costs of operating and maintaining the Drainage Utility; and

8. other costs as appropriate that are incident or related to the provision and operation of draining the Benefitted Properties.

(f) "Customer" see the definition of "User."

(g) "Department" shall mean the City's Transportation and Capital Improvements Department.

(h) "Director" shall mean the director of the Department.

(i) "Drainage" shall mean bridges, catch basins, channels, conduits, creeks, culverts, detention ponds, water quality ponds, ditches, draws, flumes, pipes, pumps, sloughs, treatment works, and appurtenances to those items, whether natural or artificial, or using force or gravity, that are used to draw off surface water from land, carry the water away, collect, store, or treat the water, or divert the water into natural or artificial watercourses.

(j) "Drainage Utility" shall mean the City of San Antonio Drainage Utility established by Ordinance No. 86711 adopted on September 25, 1997.

(k) "Drainage Utility Charges" shall mean the service fees imposed on Users and set out in a rate schedule to recover the cost of the service of furnishing drainage service for all Benefitted Properties, including any interest and penalties; and amounts made in contribution to funding of future Drainage System construction by the City.

(l) "Drainage System" shall mean all real and personal property owned or controlled in whole or in part by the City and dedicated to the Drainage Utility for the purpose of providing drainage service to Benefitted Properties, including any future additions, extensions, and improvements thereto and replacement thereof.

(m)"Facilities" shall mean the real, personal, or mixed property that is used in providing drainage service and included in the Drainage System.

(n) "Impervious Area" or "Impervious Cover" see City of San Antonio Unified Development Code, Appendix A – Definitions and Rules of Interpretation (roads, parking areas, buildings, pools, patios, sheds, driveways, private sidewalks, and other impermeable construction covering the natural land surface).

(o) "Improved Lot or Tract" shall mean a lot or tract that has a structure or other improvement on it that causes an Impervious Area or Surface.

(p) "Non-Residential Properties" shall mean all Benefitted Properties within the Service Area, other than Residential Properties.

(q) "Owner" shall mean the owner of record of Benefitted Property.

(r) "Public Utility" shall mean drainage service that is provided by the Drainage Utility to the Users of Benefitted Properties within the Service Area and that is based on:

1. an established schedule of rates;

2. use of the police power to implement the service; and

3. nondiscriminatory, reasonable, and equitable terms consistent with the Act.

(s) "Residential Properties" shall mean all Benefitted Properties within the Service Area used for single-family home, duplex, or mobile home land use.

(t) "Service Area" shall mean the city limits of the City of San Antonio, Texas as may be amended from time-to-time.

(u) "User" or "Customer" shall mean the person or entity that owns or occupies a Benefitted Property and who is responsible for paying the Drainage Utility Charges.

(v) "Wholly Sufficient and Privately Owned Drainage System" shall mean on-site drainage retention facilities designed to keep runoff from an Improved Lot or Tract from discharging into any natural or manmade waterway or drainage infrastructure including public streets, storm drains, culverts, drainage easements, or storm water ponds that are part of the Drainage System; for storms of magnitude up to and including the 1% annual chance (100-year) storm event, 24-hour duration, captured runoff must be removed from the retention system within 72 hours of the rainfall event without discharging into the Drainage System.

Sec. 34-7.05. - Drainage utility fund.

A separate fund has been created, known as the Storm Water Operating Fund, for the purpose of segregating, identifying, and controlling all revenues and expenses attributable to the Drainage Utility. All Drainage Utility Charges shall be deposited as collected and received into this fund and shall be used exclusively for drainage Cost of Service. Such utility revenues may be used for the operation, planning, engineering, inspection, construction, repair, maintenance, improvement, reconstruction, administration, debt issuance cost and debt service, and other reasonable and customary expenses associated with the operation of a utility system. It shall not be necessary that the expenditures from the Drainage Utility Fund for any authorized purpose specifically relate to or benefit any particular Benefited Property from which the revenues were collected.

Sec. 34-7.06. - Administration of drainage utility.

The Director or his designee shall be responsible for the administration and operation of the Drainage Utility, including, but not limited to, recommending regulations and procedures necessary for the administration of the Drainage Utility Charges which shall be authorized by the City Council, the resolution of challenges to the assessment of Impervious Area to Benefitted Property, the resolution of billing disputes, the development and implementation of maintenance and facility improvement programs, the provision of appropriate utility training to personnel, and the implementation of a state and federal regulatory compliance program. The Director shall keep an accurate record of all Benefitted Properties to which services and Facilities of the Drainage Utility are made available.

Sec. 34-7.07. - Drainage utility charges.

(a) The Drainage Utility Charge is hereby imposed upon each Benefitted Property within the Service Area. Drainage Utility Charges shall become effective on January 1, 2016.

Thereafter, Drainage Utility Charges shall be billed to Benefitted Properties on a monthly basis for the duration of the Drainage Utility.

(b) For purposes of imposing Drainage Utility Charges, all Benefitted Properties within the Service Area are classified into the following Customer categories: (1) Residential Properties and (2) Non-Residential Properties.

(c) The Impervious Area value shall be determined by conducting an inventory of all Improved Lots in the Service Area and identifying the Impervious Area for each Improved Lot. The Impervious Area value shall be used in establishing Drainage Utility Charges for Residential Properties based on the amount of Impervious Area identified in the rate tiers in Sec. 34-7.07(d), and for Non-Residential Properties based on the methodology described in Sec. 34-7.07(e). The Director or his designee shall be responsible for determining the Impervious Area of Benefitted Property based on reliable data, including the appraisal roll, geographic information system technology, aerial photography, or other reliable means for determining Impervious Area. The Director may require additional information from the Owner, User, tenant, manager or developer to make the determination. The assessment of Impervious Area to Benefitted Properties may be revised by the Director based on the addition of structures or improvements to properties identified through the City's building permit process.

(d) Residential Properties shall be assigned a Rate Category and assessed a Drainage Utility Charge based on Impervious Area as provided in the following table:

Residential Rate Category	Impervious Area in Square Feet	FY 2016
Tier 1	≤ 2,750	$3.22
Tier 2	>2,750 – 4,220	$4.25
Tier 3	> 4,220	$8.98

(e) Non-Residential Properties shall be assigned a Rate Category and assessed a Drainage Utility Charge determined by a Base Fee and Impervious Fee in accordance with the values provided in the Sec. 34-7.07(e)(1) and Sec. 34-7.07(e)(2):

1. "Base Fee" shall mean a flat monthly fee assessed among all Non-Residential Benefitted Properties as determined by Bexar County Appraisal District property records. The FY 2016 is calculated at $55.77.

2. "Impervious Fee" shall mean a monthly fee assessed on all Non-Residential Benefitted Properties on a per square foot basis and prorated based on the percentage of Impervious Area within the Benefitted Property.

Non-Residential Rate Category	Percent Impervious Area	FY 2016
Tier 1	≤ 20%	$0.00025/sf

Tier 2	>20% - 40%	$0.00037/sf
Tier 3	>40% - 65%	$0.00050/sf
Tier 4	> 65%	$0.00062/sf

(f) The City Council may adjust the value and rate tiers in Sec. 34-7.07(d) and Sec. 34-7.07(e) at any time based upon the recommendation of the Director that the Cost of Service for the Drainage Utility warrants an adjustment in rates.

(g) No Drainage Utility Charge credit shall be given for the installation of drainage facilities required by the City Code or state law. However, a credit of up to thirty percent (30%) off the Impervious Fee portion of the monthly Drainage Utility Charges shall be available to Customers of Non-Residential Properties that voluntarily implement Low Impact Development water quality management practices in compliance with technical criteria adopted by the City.

(h) Pervious pavements and other pervious surfaces in compliance with technical criteria adopted by the City shall not be included in the Impervious Area calculation. Rail ballast areas shall be considered as thirty percent (30%) impervious based on industry standard runoff coefficients. Linear railroad track right-of-way systems outside of railroad yards intended to convey storm water throughout the Drainage Utility Area and that provide drainage service to Benefitted Properties shall not be included in the Impervious Area calculation.

Sec. 34-7.08. - Billing, payments, and penalties.

(a) Billing statements for the Drainage Utility Charges shall be rendered by the City for all Benefitted Properties within the drainage Service Area. Bills shall be payable when rendered and shall be considered received by the Customer, whether actually received or not, when deposited in the United States mail, postage prepaid, addressed to the Customer. Bills shall be rendered monthly for the previous month's service.

(b) The Director shall establish the "impervious area" for each benefitted property in the Drainage Utility's service area based on the methodology and database of benefitted properties produced by the Drainage Utility Fee Comprehensive Study and make appropriate updates to maintain the integrity of the database.

(c) The Director shall determine the appropriate storm water drainage charges for each benefitted property based on the impervious area assessment.

(d) The Director shall assume that each Drainage Utility account in the Service Area serves one or more Users of a Benefitted Property, and shall assess the monthly Drainage Utility Charge to the person responsible for payment of the Drainage Utility account. The Director shall calculate the Drainage Utility Charges for all Users. If there is more than one User of a Non-Residential Property, then the Drainage Utility Charges shall be assessed to the Owner of the

Non-Residential Property, unless instructed by the Owner of the Non-Residential Property, in writing, to bill Users on a prorated basis.

(e) Bills are due and payable on the date specified thereon and if full payment is not made by the date specified, the bill shall become delinquent.

(f) The Director shall continue the relation with SAWS as billing agent, and/or engage other service providers as appropriate, to ensure all Benefitted Properties within the Drainage Utility service area are billed for storm water drainage charges. Drainage Utility Charges shall be billed by SAWS, or other designated billing agents, following their standard billing processes, and may be subjected to penalties, interest, and other terms.

(g) Any charge due hereunder which is not paid when due will subject the User to discontinuance of all utility services provided by the City and may be recovered in an action at law or in equity by the City including fixture of a lien against the property, as allowed by law.

(h) The City shall have access, at all reasonable times, to any Benefited Property served by the Drainage Utility for necessary inspection, repair of infrastructure or enforcement of this Article VII.

(i) The storm water drainage charges for school district Benefitted Properties within the Drainage Utility's service area shall remain at current rates for the period starting at 12:01 am on January 1, 2016 and ending at 11:59 pm on December 31, 2020. This is consistent with Resolution No. 2015-04-02-0021R, passed by the City Council on April 2, 2015,

(j) The Director shall decide billing complaints that are not satisfactorily addressed under SAWS billing dispute procedures found in Chapter 34, Article I, Divisions 3 to 7.

Sec. 34-7.09. - Appeal of impervious area assignment.

(a) A User may appeal the Impervious Area assigned to the User's Benefitted Property by submitting the request to the Assistant Director or his designee on a prescribed form. If the appeal results in a reassignment of Impervious Area to the Benefitted Property, the User will be entitled to a recalculation of Drainage Utility Charges which may result in a rate adjustment.

(b) The following procedures shall apply to all appeals of Impervious Area assignments:

1. The User shall have the burden of proof.

2. The Director shall develop a prescribed form for Users to appeal the amount of Impervious Area assigned to a Benefitted Property. The appeal shall be submitted to the Assistant Director or his designee following the procedure outlined below.

3. Any appeal of Impervious Area assignment shall be in writing and set forth in detail the grounds upon which relief is sought.

4. Appeals of Impervious Area assignments will be reviewed by the Assistant Director or his designee within twenty (20) business days from the date of receipt on the prescribed

form. Following the twenty (20) day review period, the Assistant Director may request additional information necessary to make a determination as prescribed in Sec. 34-7.09(b)(6). Any adjustment to Drainage Utility Charges resulting from such an appeal shall be prospective, but may be made retroactive for no more than three (3) billing periods prior to the receipt of the appeal.

5. The User requesting a reassignment of Impervious Area may be required, at the User's cost, to provide supplemental information to the Assistant Director, including, but not limited to, survey data certified by a Texas Registered Professional Land Surveyor (R.P.L.S.), design data certified by a Registered Professional Engineer (P.E.) licensed to practice in the State of Texas, or other documentation of Impervious Area. Failure to provide requested information may result in the denial of the appeal.

6. The Assistant Director's resolution of the appeal shall be provided to the User, in writing, within ten (10) business days following review of the initial request as described in Sec. 34-7.09(b)(4). If the User is successful in the appeal, the Assistant Director shall order the reassignment of Impervious Area to the Benefitted Property consistent with the resolution of the appeal. The Assistant Director shall also order the recalculation of Drainage Utility Charges which may result in a rate adjustment. If the recalculation results in a rate adjustment it will be granted effective the next billing period.

(c) If the Assistant Director denies the request to reassign Impervious Area to the Benefitted Property, the User may, within (10) ten business days from the date of notification, appeal the decision to the Director. The appeal shall be in writing, contain a succinct and clear statement of the User's argument and suggested remedy, and be filed with the Director's Office. The Director shall have fifteen (15) business days from the date the appeal is received to review the appeal, make a determination, and notify the User.

(d) Before imposing a lien for delinquent Drainage Utility Charges, the City shall send notice to the Owner of the Benefitted Property stating the amount of the charges owed, and of the owner's right to appeal the placement of the lien by producing evidence the delinquent charges are not rightfully owed, by providing such within ten (10) business days from the date of notification to the Director. The Director shall not file the lien if the Owner shows that the Drainage Utility Charge made the basis of the lien is not owed. When a person pays all of the charges, a lien filed pursuant to this Article, shall be released. The paying party shall be responsible for the filing costs of the release.

Sec. 34-7.10. - Credit application.

(a) A User of a Non-Residential Benefited Property may submit a request for credit as identified in Sec. 34-7.07(g) and (h) to the Assistant Director.

(b) A User of a Non-Residential Benefited Property may submit a request for credit if the User controls multiple contiguous parcels and can prove single ownership, purpose, and use, and the User has been assessed individual Base Fees as described in Sec. 34-7.07(e)(1) for each of the properties.

(c) The following procedures shall apply to all credit applications:

1. The User shall have the burden of proof.

2. The Director shall develop a prescribed form for Users to apply for credit to a Non-Residential Benefitted Property. The application shall be submitted to the Assistant Director or his designee following the procedure outlined below.

3. Any credit application shall be in writing and set forth in detail the grounds upon which relief is sought.

4. Credit requests will be reviewed by the Assistant Director or his designee within twenty (20) business days from the date of receipt on the prescribed form. Following the twenty (20) day review period, the Assistant Director may request additional information necessary to make a determination as prescribed in Sec. 34-7.10(c)(6). Any adjustment to Drainage Utility Charges resulting from the credit request shall be prospective.

5. The User requesting credit may be required, at the User's cost, to provide supplemental information to the Assistant Director, including, but not limited to, survey data certified by a Texas Registered Professional Land Surveyor (R.P.L.S.), design data certified by a Registered Professional Engineer (P.E.) licensed to practice in the State of Texas, or other documentation to supplement the credit request. Failure to provide requested information may result in the denial of the request.

6. The Assistant Director's resolution of the credit request shall be provided to the User, in writing, within ten (10) business days following review of the initial request as described in Sec. 34-7.10(c)(4). If the User is successful in the credit request, the Assistant Director shall order the recalculation of Drainage Utility Charges which may result in a rate adjustment. If the recalculation results in a rate adjustment it will be granted effective the next billing period.

(d) If the Assistant Director denies the credit request to the Benefitted Property, the User may, within (10) ten business days from the date of notification, appeal the decision to the Director. The appeal shall be in writing, contain a succinct and clear statement of the User's argument and suggested remedy, and be filed with the Director's Office. The Director shall have fifteen (15) business days from the date the appeal is received to review the appeal, make a determination, and notify the User.

(e) As part of the credit application, the User must commit in a written agreement to provide long-term maintenance of any credited system in accordance with a User prepared Operations and Maintenance plan, which will be on file with the City. Annual inspection and certification of the credited system shall be required by the User and made available to the City. Failure to adequately maintain the system will result in the removal of the credit amount. Credit applications must be renewed with property ownership changes.

~~**Sec. 34-235. - Schedule of rates for stormwater drainage, services and programs; billing and collection.**~~

~~(a) Definitions.~~

~~Benefitted property: Real property that is a parcel of property or lot within the corporate boundaries of the City of San Antonio to which stormwater drainage plans, programs, or services are made available and which receives water, wastewater, or electric utility service from the City of San Antonio. A parcel of property is a piece of land regardless of size under one (1) ownership, such ownership being further defined as the way in which property is legally described in duly recorded legal documents in the official public records of real property of the county in which the parcel of property is located. A lot is a designated property shown on a recorded plat duly recorded in the official public records of real property of the county in which the recorded plat is located.~~

~~Billing unit: A billing unit is benefitted property and is the smallest unit of real estate with a unique legal description according to the records of the Bexar Appraisal District.~~

~~Commercial/general stormwater customer: The owner or occupant of benefitted property not meeting the definitions of a residential, multifamily, or public stormwater customer as defined herein.~~

~~Multifamily stormwater customer: The owner or occupant of benefitted property containing a multiple family dwelling unit comprised of more than two (2) family units.~~

~~Public stormwater customer: The owner or occupant of benefitted property containing an improvement related to the provision of governmental services, public or private education, or religious activities and as so classified in records of the Bexar Appraisal District.~~

~~Residential stormwater customer: The owner or occupant of benefitted property containing a single or multiple family dwelling unit composed of two (2) or less family units.~~

~~(b) Schedules of rates. The following schedules of stormwater rates shall be effective with billings on or about October 1, 2007 and shall be applied to all billing units, except as provided by section 34-235(d), herein below. These rates may be included on other utility bills or may appear on a separate bill including only stormwater or drainage charges. Each billing unit ("unit") shall be assessed each month or fraction thereof in accordance with the following schedule:~~

~~Residential Stormwater Rate Schedule~~		
~~Tier~~	~~Billing Unit (SF)~~	~~Billing Unit Per Month Charge~~
~~1~~	~~0—4,999~~	~~$ 3.22~~
~~2~~	~~5,000 or more~~	~~4.25~~

~~Multifamily Stormwater Rate Schedule~~		
~~Tier~~	~~Billing Unit (SF)~~	~~Billing Unit Per Month Charge~~
~~1~~	~~0—21,999~~	~~$—7.19~~
~~2~~	~~22,000—43,999~~	~~22.39~~
~~3~~	~~44,000—131,999~~	~~67.90~~
~~4~~	~~132,000 or more~~	~~323.09~~

-

~~Commercial/General Stormwater Rate Schedule~~		
~~Tier~~	~~Billing Unit (SF)~~	~~Billing Unit Per Month Charge~~
~~1~~	~~0—21,999~~	~~$—18.32~~
~~2~~	~~22,000—43,999~~	~~50.12~~
~~3~~	~~44,000—86,999~~	~~89.82~~
~~4~~	~~87,000—131,999~~	~~154.81~~
~~5~~	~~132,000 or more~~	~~342.03~~

-

~~Public Stormwater Rate Schedule~~		
~~Tier~~	~~Billing Unit (SF)~~	~~Billing Unit Per Month~~

		Charge
1	0—21,999	$—18.15
2	22,000—43,999	49.64
3	44,000—86,999	89.66
4	87,000 or more	151.57

-

Such rates are based on the following information: for private benefitted property, the imprint of improvements as depicted in the records of the Bexar Appraisal District; for public benefitted property, the imprint of improvements as depicted on forms supplied by a public entity to the San Antonio water system; in the event the San Antonio water system should request such forms from a public entity, and no forms are forthcoming, the tier four (4) charge shall be assessed.

(c) Billing, collection, and management procedures.

(1) Initially the San Antonio water system shall be the primary agency responsible for billing, collection, and management of other stormwater service matters relating to stormwater rates. Billing and collection procedures for stormwater rates shall be the same, insofar as practicable, as those utilized by the San Antonio water system in billing and collecting for water and wastewater service, all as set forth in City Ordinance No. 72742, approved and adopted December 6, 1990, or such successor ordinance, or those billing and collection procedures utilized by other water purveyors with whom the San Antonio water system contracts with to assist in billing and collecting stormwater rates, all with the exception that no advance deposit to secure payment of the customer's final bill for stormwater charges shall be collected.

(2) Billing and collection procedures shall include a process by which customers may appeal the validity of amounts billed in accordance with the written criteria established by San Antonio water system Customer Service Policies.

(d) Exemptions. The following real property, only, shall be exempt from the provisions of this section:

(1) Benefitted property owned by the City of San Antonio and dedicated to right-of-way for public streets and/or to provide drainage service;

(2) Benefitted property with proper construction and maintenance of a privately owned drainage or stormwater system wholly sufficient to provide all the drainage or stormwater service for that property;

(3) Benefitted property held and maintained in its natural state on which no improvements currently exist and until such time that the property is developed and all of the public infrastructure has been accepted by the City of San Antonio for maintenance; and

(4) Benefitted property before a structure has been built on the property or before the City of San Antonio has finally approved the use of the property in accordance with the Unified Development Code.

(e) Relationship to San Antonio water system.

(1) Initially the responsibility for the stormwater program for purposes of compliance with the EPA's rules and regulations shall be facilitated and coordinated by the board; however, such program shall not be deemed to be a part of the "system" as that term is defined in City Ordinance No. 75686, approved and adopted April 30, 1992. All revenues and expenses and other accounts related to the stormwater program shall be accounted for on a full cost of service basis separate and apart from all other funds for which the board has responsibility.

(2) No later than one (1) year prior to the expiration of the initial permit issued by the EPA, city council shall reevaluate this section and determine whether such utility shall become a part of the "system" as that term is defined in City Ordinance No. 75686.

(f) Repayment of stormwater expenses. Funds advanced by the wastewater system for stormwater or drainage plans, programs, and services in an approximate amount of five million dollars ($5,000,000.00) to support the stormwater program shall be repaid from revenues generated by stormwater rates over a period not to exceed five (5) years from the effective date of this section. Once the specific amount of dollars expended by the wastewater system for stormwater or drainage plans, programs, and services has been finally determined, such specific amount is hereby authorized to be substituted for the approximate amount of five million dollars ($5,000,000.00) set out herein.

Sec. 34-1101. – Declaring the drainage of the city to be a public utility.

City council hereby adopts Texas Local Government Code Chapter 402 Subchapter C (entitled "Municipal Drainage Utility Systems"); declares the drainage of the city to be a public utility, to be known as the City of San Antonio Drainage Utility; and dedicates to the drainage utility all city-owned property, real and personal, facilities, materials and supplies constituting the city's drainage system as constituted on the effective date of this division and as may be acquired in the future, to be used for the purpose of the drainage utility.

(Ord. No. 86711, § 1, 9-25-97)

Sec. 34-1102. - Establishment and revision to drainage utility service area.

(a) Pursuant to the authority granted by Texas Local Government Code § 402.044(8)(B) the drainage service area includes all land within the municipal boundaries and unincorporated extraterritorial jurisdiction of the city.

(b) The drainage utility district area may be extended by future city council action to the extent and in a manner authorized by state law.

(Ord. No. 86711, § 1, 9-25-97)

Sec. 34-1103. Establishment and revision of drainage charges.

The city council hereby establishes drainage charges to be paid by users of benefitted property in the service area of the drainage utility. The determination of the schedule of drainage charges is deemed nondiscriminatory, reasonable and equitable to provide regional detention and retention ponds, watershed protection, land purchase, waterway enlargement, channelization, improved conveyance structures and administration of the drainage utility. The schedule of authorized drainage charges is as follows:

(a) Stormwater development fee. The stormwater development fee is a one time drainage charge assessed against developers who elect to have their property served by the drainage utility pursuant to section 35-4029(e) of this Code.

(1) The stormwater development fee shall be determined by acreage and property use according to the following schedule:

One family (unattached) and two family (duplex) developments: $1,200.00 per acre or $750.00 per lot, whichever is less

Residential development - Other than one family and two family: $1,600.00 per acre

Nonresidential (less than 65 percent impervious cover): $2,600.00 per acre

Nonresidential (65 percent or more impervious cover): $3,000.00 per acre

(2) The stormwater development fee shall not be assessed against drainage easements or rights of usage (if either is in a pervious condition) or permanent detention facilities.

(3) As part of the drainage report, required in section 35-4029(1) of this Code, the developer shall provide notice of intent to be served by the drainage utility district by filing a participation form as provided in Chapter 35, Exhibit B of this Code.

(b) Stormwater drainage service fee. The stormwater drainage service fee shall be billed and collected as prescribed in section 34-235 of this Code.

(Ord. No. 86711, § 1, 9-25-97)

Sec. 34-1104 - 34-1110. - Reserved

Sec. 34-1111. - Drainage utility fund.

(a) A separate fund shall be created, effective as of the effective date of this chapter, known as the drainage utility fund, for the purpose of identifying and controlling all revenues and expenses attributable to the drainage utility. All drainage charges collected by the city, except the stormwater drainage service fee, after the effective date of this chapter, and other monies city council may wish to designate for this fund, shall be deposited in

the drainage utility fund. Such utility revenues shall be used for the purposes of administration, studies, engineering, construction, reconstruction and other reasonable and customary charges associated with the operation of the drainage utility. The stormwater drainage service fee shall be deposited as prescribed in section 34-235 of this Code.

(b) Stormwater development fees shall be used specifically for the regional storm water management program as authorized in section 35-4029(e) of this Code. These funds shall be recorded and accounted for in a manner that insures that said funds are expended solely for expenses accrued by the regional stormwater management program. The balance of funds on deposit in the account at the end of any fiscal year shall remain in the account and not be absorbed into the general fund.

(Ord. No. 86711, § 1, 9-25-97)

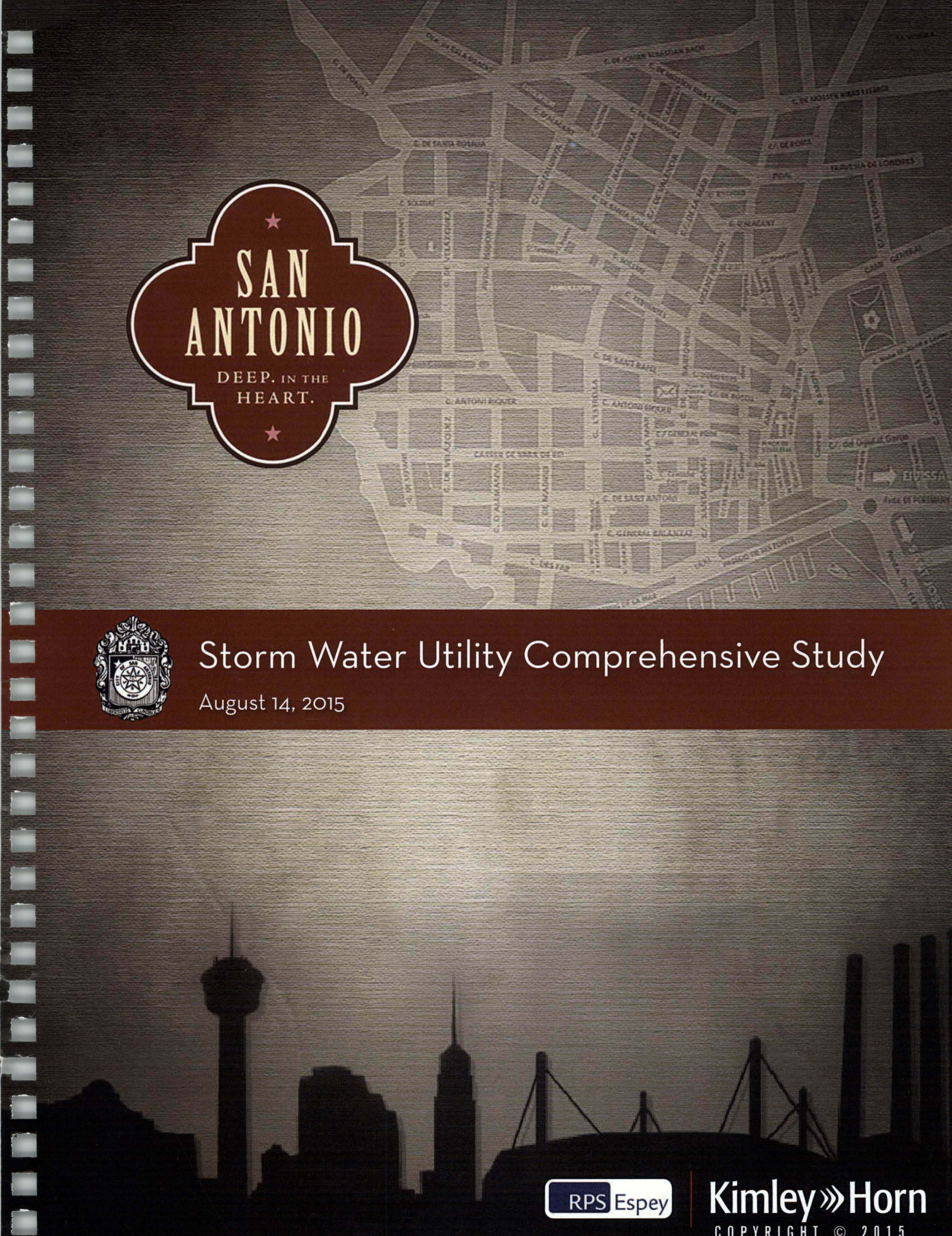
Sec. 34-1116. - Administration; rules and regulations.

(a) The director of the department of public works shall be responsible for the administration of this division. The director shall develop necessary rules, regulations and procedures necessary for the administration of the chapter including a methodology for considering variances.

(b) The director of public works shall develop a procedure to provide for appeals of drainage charge disputes. The procedure shall provide for a prompt hearing before and decision by the director.

(c) The decision of the director may be appealed to city council. Any appeal to city council shall be in writing and received within fifteen (15) days after the date of the director's decision. The city clerk shall upon receipt place the appeal on the next available city council agenda.

(Ord. No. 86711, § 1, 9-25-97)



Storm Water Utility Comprehensive Study

August 14, 2015

RPS Espey | Kimley»Horn

City of San Antonio, Texas

Storm Water Utility Comprehensive Study

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1.0 DATA GATHERING

All of the information used as the basis of the Storm Water Utility Fee Comprehensive Study was provided by the City and The San Antonio Water System (SAWS).

1.1 Data Acquisition

Data Received from the City:

- City Limits (received December 3, 2013): CosaBoundary.shp
- 2013 Bexar County Appraisal District (BCAD) parcel information and appraisal roll (provided via Hard Drive, received December 18, 2013): Parcel_2013_10_13.shp
- NRG NIR False Color GIS three-band aerial imagery (*.jp2 format, received November 22, 2013)
- Residential footprint information in GIS (received December 27, 2013): imprv_parts.shp2013
- BCAD parcel information and appraisal roll (provided via FTP, received January 14, 2014): Parcels.shp
- Updated San Antonio City Limits (received May 5, 2014): CosaBoundary.shp
- 2013 BCAD Update with Land Use Codes (received June 25, 2014)
- 2014 BCAD Appraisal Roll and Parcel Information (received July 28, 2014)
- FILO dataset to update impervious area with development services data (received July 28, 2014)
- First Release of 2015 BCAD Update (received June 2, 2015): 2015_GIS_Public_Parcels.shp
- FILO dataset to update impervious cover with development services data (received June 12, 2015)
- FILO dataset to update impervious cover with development services data (received June 22, 2015)

Data Received from SAWS

- SAWS Billing System Dataset (received December 12, 2013)
- SAWS Billing System Legend and Account Status Codes (receive December 20, 2014)
- SAWS Billing System Dataset (received February 5, 2014; 1st Update to provide additional fields)
- Additional BCAD ids for SAWS accounts that were unmatched (received March, 27, 2014)
- SAWS Billing System Dataset (received June 2, 2014; 2nd Update to provide additional accounts and BCAD property ids)
- Summary of Accounts Billed (received June 23, 2014)
- SAWS Billing System Dataset (received June 2, 2015)
- SAWS Billing System Dataset (received June 9, 2015)
- Additional BCAD ids for SAWS accounts that were unmatched (received June 29, 2015)

1.2 Land Data Collection and Evaluation

Parcel information and aerial imagery was provided by the City in the initial data acquisition. Additional parcel information was provided by the City in June 2015. The Consultant evaluated the data for completeness and accuracy. Completeness of the data was checked to determine if there was sufficient coverage throughout the City. The Consultant verified the availability of the infrared color band in the aerial imagery to assist in the impervious/pervious classification process. The general accuracy of the parcels was considered to be of sufficient quality for the analysis.

1.3 Cost of Service Information

Cost of service information for the project was developed by the City and provided to the Consultant. A summary of the information provided by the City can be found in Section 4 of this report.

2.0 Development of Impervious Cover Dataset

The Consultant was tasked with determining the impervious coverage for each Bexar County Appraisal District (BCAD) parcel located in the City limits. No impervious data had been previously gathered for non-residential properties within the City limits, and only structure footprint information was available for residential properties. Therefore, using aerial imagery and parcel data provided by the City, the Consultant performed the following procedure to determine impervious coverage throughout the City.

2.1 Initial Impervious Area Identification Process

The Consultant received extensive GIS information from the City. For the purposes of the impervious area classification, the Consultant used the following information:

- City Limits (received December 3, 2013): *CosaBoundary.shp*
- First Release of 2015 BCAD Update (received June 2, 2015): *2015_GIS_Public_Parcels.shp*
- NRG NIR False Color GIS three-band aerial imagery (*.jp2 format, received November 22, 2013)
- Residential footprint information in GIS (received December 27, 2013): *imprv_parts.shp*
- FILO dataset to update impervious cover with development services data (received June 22, 2015)

The City limits were used as the boundary of the aerial imagery to be evaluated as part of this process. The aerial imagery was broken up into approximately 47 ten-square mile subareas to allow for efficient data processing. For each of the subareas, the following steps were taken:

1. Image classification was performed on the subarea using supervised classification techniques available on the Image Classification Toolbar of ESRI's ArcGIS software. The Consultant developed a temporary signature (.sig) file consisting of training samples coded as either pervious or impervious. These training areas summarized the statistics of the three image bands on groupings of similar pixels throughout the subarea. Visually, the statistics appear as different colors or textures in the image.
2. The temporary signature file was then applied to each subarea to locate common areas of similar classification and identified those areas as impervious or pervious. If a pixel value is found on the chosen aerial that did not adequately match a classification class established by the Consultant in step 1, ArcGIS used built-in interpolation statistics and methodologies to determine whether or not the area was impervious.
3. Based on the impervious area coverage developed in step 2, the Consultant then modified the training signatures by adding new training samples and modifying previously defined samples in an effort to provide more distinction in areas where the computer based classification was in error. Steps 2 and 3 were repeated up to 3 times to improve the classification accuracy of each subarea.
4. The thematic raster file created at the end of step 3 was used as the preliminary impervious classification.

The preliminary classified images were then enhanced using the following procedures:

1. The preliminary images were combined with existing single-family residential building footprint data provided by the City to improve the accuracy of the residential impervious classification.

2. A high-pass Majority Filter was then executed on the classification image. This filter replaces outlier cells based on the majority value in their contiguous neighborhoods. For example, an individual impervious cell surrounded by pervious area, would be replaced with the pervious value.

The results of the GIS analysis showed various cover classifications consistently resulted in erroneous pervious values. These classifications included the following:

- Dead/Dormant grass or dirt resembled pavement/building rooftops and were classified as impervious.
- Shadows on pavement resembled shadows on grass/previous surfaces/between tree canopies. Shadows located on impervious surfaces were classified as pervious and vice versa.
- Dark-colored vehicles resembled shadows. These vehicles were classified as pervious.
- Asphalt and worn concrete pavement resembled shadows. These areas were classified as pervious.
- Tree canopies hovering over impervious surfaces were classified as pervious.

Though the Consultant added and modified training samples to reduce the erroneous areas, not all erroneous classifications were identified by the classification algorithms available in ArcGIS.

2.2 Visual Inspection

Each subarea's raster was manually inspected and edited to relieve some of the areas of concern listed in Section 2.1. A team of GIS technicians inspected the results of the Initial Impervious Area Identification process one square mile at a time. Areas that were misidentified by the preliminary classification procedure were manually corrected. The end result of this process was a revised impervious area image for each of the subareas.

2.3 Quality Control Process

Following the manual edits for each subarea, a quality control process was set forth by both the City and the Consultant to ensure at least 90% accuracy was met for each subarea. The initial quality control process performed by the Consultant consisted of the following:

1. Using the Create Random Points tool available in ArcGIS, 100 random points for each subarea raster were created.
2. Using aerial imagery only, the Consultant assigned the true value of impervious or pervious for each selected point.
3. The value assigned in step 2 was compared to the classification assigned through the processes described in sections 2.1 and 2.2.
4. The Consultant verified that the value from step 2 equals the value from step 3 for at least 90 out of the 100 points for each subarea. The average subarea resulted in an accuracy of 96 out of 100 points.

The second quality control process was performed by City staff. The Consultant provided the subarea impervious information to the City. The City selected properties to visit and perform on-site observations to evaluate the accuracy of the impervious identification. In addition, the City reviewed the impervious

identification against other aerial imagery datasets to identify mislabeled areas. The results of these efforts were provided to the Consultant, who adjusted the impervious identification in response.

2.4 Impervious Assignment to Parcels

The final impervious raster for each subarea was intersected with each BCAD parcel using spatial overlay analysis within ArcGIS (from 2015_GIS_Public_Parcels.shp) to determine each parcel's respective imperviousness. The impervious analysis was limited to areas located within the corporate City limits.

3.0 ACCOUNT REVIEW AND EVALUATION

The Consultant reviewed existing accounts in the SAWS billing account file and evaluated the data provided to convert the current storm water utility customers over to the new impervious area based fee structure. Impervious area is calculated at the parcel level and must be integrated into the SAWS billing system. To accomplish this integration, existing SAWS accounts will be linked into the BCAD parcel database based on a property id number.

3.1 Current Billing Structure

The current SAWS billing structure is based on the user of the utilities associated with a parcel rather than the owner of the parcel. The storm water utility account is tied to the water tap accounts in the SAWS billing system rather than based on the parcel. For this reason, there can be multiple parcels associated with one storm water account and multiple storm water accounts associated with one parcel. The disadvantage of the current system is that it is difficult to distribute the fee in non-standard scenarios, such as to a shopping center with combined impervious cover and multiple storm water accounts. It is also difficult to collect the storm water utility fee for a developed parcel that is not receiving other utility services but continues to use the drainage system.

The advantage of the current system is that the storm water fee is tied to the water and wastewater utility, each of which are more readily disconnected than the storm water utility. This ties the payment, therefore the collection rate, of all fees to the availability of all services.

3.2 Current Storm Water Fee Schedule

The current storm water fee schedule is based on the land area of a parcel. The parcel is classified by land use (Residential, Multifamily, Commercial, and Public). Monthly charges are determined by a tiered rate structure based on the land area in square feet. The current fee structure caps rates for customers in the highest tiers by applying a limitless upper range to the highest tiers in each land use customer class. This effectively redistributes the impact that larger properties have on the drainage system and results in higher fees for the lower tiers. The current schedule does not take into account the amount of impervious area on a property, and therefore the parcel's impact to the storm water system. The prime motivation for considering a new impervious area based rate structure and fee schedule is this fundamental lack of equity as well as the availability of a more appropriate basis for determining a proportional impact to the drainage system.

Table 3.1 Current Storm Water Fee Schedule

Customer Class/Tier	Billing Unit (Sq. Ft.)	Current Monthly Charge
RESIDENTIAL RATES		
Tier 1	0 - 4,999	$3.22
Tier 2	5,000 or more	4.25
MULTIFAMILY RATES		
Tier 1	0 - 21,999	$7.19
Tier 2	22,000 - 43,999	22.39
Tier 3	44,000 - 131,999	67.90
Tier 4	132,000 or more	323.09
COMMERCIAL/GENERAL RATES		
Tier 1	0 - 21,999	$18.32
Tier 2	22,000 - 43,999	50.12
Tier 3	44,000 - 86,999	89.82
Tier 4	87,000 - 131,999	154.81
Tier 5	132,000 or more	342.03
PUBLIC STORM WATER RATES		
Tier 1	0 - 21,999	$18.15
Tier 2	22,000 - 43,999	49.64
Tier 3	44,000 - 86,999	89.66
Tier 4	87,000 - or more	151.57

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3.1 Current Summary of Accounts Billed and Revenue Generated

The following is a summary of the number of bills and revenue collected by SAWS for May 2015. The number of bills sent out may be higher than actual number of accounts since there are instances where multiple bills are sent for one account in a month.

Table 3.2 Current Accounts Billed and Revenue Generated

SAN ANTONIO WATER SYSTEM STORM WATER PROGRAM REVENUES AND ACCOUNTS THE MONTH OF MAY 2015			
	NUMBER OF BILLS		REVENUES
RESIDENTIAL			
TIER 1	34,900	$	134,860.68
TIER 2	308,615		1,301,213.18
SUBTOTAL	343,515		1,436,073.86
MULTIFAMILY			
TIER 1	3,479		22,161.83
TIER 2	208		3,712.61
TIER 3	320		19,912.69
TIER 4	671		225,391.35
SUBTOTAL	4,678		271,178.48
COMMERCIAL			
TIER 1	7,278		138,659.36
TIER 2	3,568		172,475.27
TIER 3	2,232		197,235.98
TIER 4	1,026		150,355.27
TIER 5	2,045		682,285.62
SUBTOTAL	16,149		1,341,011.50
PUBLIC			
TIER 1	943		22,036.31
TIER 2	329		18,412.70
TIER 3	271		24,475.64
TIER 4	1,066		172,703.57
SUBTOTAL	2,609		237,628.22
UNASSIGNED UNASSIGN			
TOTAL	366,951		3,285,892.06
BILLING ADJUSTMENTS			574.02
NET BILLINGS		$	3,286,466.08

The following is a year over year summary of the number of accounts billed by SAWS, Annual Change in accounts, and Net Billing for the months of April and May in years 2014 and 2015.

Table 3.3 Current Monthly Accounts Billed and Net Billings

Month	Number of Accounts Billed	Annual Change	Net Billings
April 2015	366,734	7.8%	$3,282,171
April 2014	340,096		
May 2015	366,951	7.8%	$3,286,466
May 2014	340,358		

3.4 Account/Parcel impervious assignment and calculation

An account review of the SAWS billing database delivered on June 9, 2015 was performed to determine how the account data integrates with BCAD parcel data and how properties are classified and coded within the billing system.

The billing system storm water account data was in the form of two distinct datasets, active accounts and closed accounts. The active accounts were the first considered to conduct an impervious rate study to determine an equitable and proportional method to apportion the cost of drainage service throughout the City. The closed accounts are only used to assign remaining impervious cover. Closed accounts are included in the billing file submitted to the City for use if these accounts were reopened. The Consultant discovered that more than 25% of the accounts in this initial dataset did not have BCAD information or had incorrect BCAD information. The Consultant worked with the City to identify the accounts and produce an updated file based on geo-coding the address information to determine the BCAD property ID associated with the accounts. The City also provided development services permit data describing increases to impervious cover in the time period since the flight date of the aerial imagery.

The comma delimited active billing system file was converted into an Excel table that could be joined to the parcel based impervious shapefile layer described in section 2. The join was based on the unique parcel property ID assigned to all parcels by Bexar County Appraisal District (BCAD) within Bexar County. This produced a GIS file that had Active SAWS accounts with impervious data and pertinent BCAD data associated with them when there was a common property ID match between files. This file is exported from a GIS shapefile into a comma delimited format for import into Excel.

Once an Excel table is created from the joined file it is segmented into Residential, Non-Residential, and Exempt customer classes based on the existing SAWS storm water codes. Exception reports of Residential and Non-residential accounts that did not have a parcel match were also created for further review. To determine the amount of revenue needed from each customer class the total amount of impervious must be determined for each.

Before this can be done special accounts are identified and removed if they are in the active accounts dataset and their impervious impact is included as separate line items if it is warranted. More information on these special accounts is contained in Appendix C and Table 3.4.

3.4.1 Special Exceptions

1. Military - US Military accounts are included and fully accounted for in the total non-residential impervious cover and total parcels. Federal property is not a discretionary exemption per Texas statute.

2. Railyard - Railyards are included in the totals but their ballast areas are calculated at 30% with all other impervious areas in railyards calculated at 100% as discussed in Section 4.4.

3. Exempt - A number of accounts with "State of Texas" and "University" in the owner name were identified in the active storm water account file and removed from consideration for total impervious cover and total parcel number.

4. School – On April 2, 2015 the City council adopted a resolution (2015-04-02-0021A, Appendix C) to freeze the schools at their current annual rate of $484,008/year for five years so their total impervious and total parcel count were removed from consideration. 308 school sites were removed from the SAWS billing system calculation based on parcel identification numbers. New school sites that will be developed in the five year time frame will be assessed a fee per the current utility fee structure.

5. Fiesta Texas - Fiesta Texas was not considered for a storm water account charge based on draft information provided by their engineer stating it is a private drainage system because it retains all storm water on site during a 1% annual chance (100-year) storm event and none is conveyed by public infrastructure.

6. Duplicate accounts - The parcels with duplicate storm water accounts had to be identified and removed from consideration for total impervious cover and total parcels since parcels with multiple accounts on them would be counted more than once.

3.4.2 Assumptions

The average impervious cover for non-residential accounts was calculated at 33,898 square feet. This equates to an average impervious percentage of 72%. There are 228 active non-residential accounts that do not have a BCAD match. The average impervious cover of 33,898 square feet was assumed for these properties. In addition, there are 42 non-residential accounts with a BCAD match but without impervious cover associated with the parcel. For these accounts, the average impervious percentage was applied to the land area to assume impervious coverage.

Residential accounts that do not have impervious information receive an R2 billing code or a typical residential classification. Total impervious for residential, for purposes of calculating impervious amounts, was taken at the 95th percentile to account for large outliers that are not representative of the ratio of residential to non-residential class and need further review during fee implementation. As an example, one account in the residential class is over 1.2 million square feet.

3.5 Active Account Review

Results of the join and query of 2015 BCAD parcel geometry/property id data and 2015 SAWS billing account data discussed in section 3.4 are provided below.

Table 3.4 SAWS Account Review

	Description	Value
1	Active SAWS accounts	365,965
a	Account – parcel match (95%)	349,143
b	Accounts with no parcel id information	15,186
c	Accounts with a parcel id and no parcel match	1,635
d	Parcels with multiple active accounts	3,491
2	Exempt Active SAWS accounts	14,204
a	Account – parcel match (48%)	6,855
b	Accounts with unallocated impervious	284
c	Unallocated Impervious	15,771,496 ft2
3	Closed SAWS accounts	25,251
a	Account – parcel match (70%)	17,599
b	Accounts with unallocated impervious	14,309
c	Unallocated Impervious	93,646,516 ft2
4	Parcels with impervious cover and no account	411,962
a	Account – parcel match (88%)	360,269
b	Parcels with unallocated impervious	10,001
c	Unallocated Impervious	93,103,829 ft2

3.5.1 SAWS accounts with no parcel match

Based on the account review above, the Consultant found that some SAWS storm water accounts did not have an accurate match into the BCAD parcel database or did not have a BCAD property ID number associated with them. For these accounts it is recommended that the appropriate parcel be identified before initial billings begin using the new impervious rate structure on January 1, 2016.

3.5.2 Vacant, Exempt, and Blank Accounts

Accounts that are identified as "vacant" are currently not being charged. These accounts include accounts which are developed but are not currently receiving water and wastewater utility service. This is inconsistent with the Texas Municipal Drainage Utility Systems Act Section 552.052. Developed property, unless otherwise specifically exempted, must be charged to remain consistent with State statute and sound utility billing principles. The current policy is in effect due to the basic architecture of the SAWS billing system, which does not consider an account active if it does not have an active water, wastewater, electricity, or solid waste account as well. The resolution identified for this issue is to build the capability into the billing system to be able to send a bill to the parcel landowner once an account for the tenant goes inactive.

The storm water billing code system also labels accounts that are not being charged as exempt or leaves the label blank. This terminology is inconsistent with the Texas Municipal Drainage Utility Systems Act, Section 552.052, which specifies mandatory and discretionary exemptions. The Consultant recommends that the coding be updated to include only residential (r), non-residential (nr), exempt (ex), or no bill (nb). Accounts listed as exempt should only include mandatory exemptions as specified in the statute and discretionary exemptions as adopted by the City. No accounts should have a blank storm water code entry.

3.5.3 Multiple accounts on a single parcel and multiple parcels on a single account

Multiple accounts on a single parcel are currently handled differently based on the ownership of the property. When one of the utility accounts is billed to the owner of the parcel, the entire storm water utility fee is placed on that account. When none of the utility accounts are billed to the owner of the parcel, the storm water utility fee is distributed equally among all accounts. Some parcels contain multiple accounts with varying storm water land use codes, charges, and exemptions. The current structure will be preserved and duplicate accounts will be delivered to SAWS distributed in the same proportion they were received.

There are instances where a single utility account serves multiple parcels. The account review identified 34,551 parcels with no existing SAWS accounts. Existing utility accounts with multiple parcels should be reviewed to determine if the associated impervious value captures the parcels with no SAWS account. The Consultant recommends BCAD property IDs be carried in a notes field or a reference tap number be used to denote a charge is levied on another account or, inversely, that a storm water charge includes impervious area from surrounding parcels.

3.6 Summary Table

Key account information from the summary table below is used as inputs into the budget model to set residential and non-residential rates. The key information used is total parcels, adjusted impervious cover, percent residential/non-residential split, and revenue need from each customer class. More discussion about how these are used is included in section 4 of the report.

Table 3.5: Summary Table

	Total Accounts	Total Parcels	Duplicate #	Duplicate Adjusted Impervious	Percent Split	Revenue Needed
Residential	342,095	340,664	1,431	1,249,928,359	47%	$21,064,456
Non-Residential	23,872	21,410	2,060	1,393,904,027	53%	$23,490,810
Active SAWS Accounts	23,870	21,810	2,060	1,430,600,748		
Military Bases	2	3	0	59,287,784	FY 2016 Budget	$45,039,274
Railroads	0	4	0	7,944,672	Existing School Revenue	$ 484,008
(Exempts)	34	34	0	4,504,367	Adjusted Budget Need	$44,555,266
(Schools)	384	373	11	99,424,810		

4.0 Fee Structure Evaluation

4.1 Cost-of-Service Analysis

The City developed the following 5-year cost-of-service revenue needs forecast to support this study. The revenue increase and services required will be phased in over a three year period. To support the Storm Water Utility Fee Comprehensive Study, a five year Cost of Service revenue needs forecast was developed. The forecast includes revenue needs associated with the current service programs and program changes/enhancements proposed for the next five years.

As most of the growth in the revenue requirement is phased in over FY 2016, 2017, and 2018, the following tables detail the major program changes for each of those years. Revenue requirement growth beginning in FY 2019-2020 is primarily attributed to projected Consumer Price Index, or CPI, inflation.

Table 4.1 Cost-of-Service Analysis

FY 2016 Program Changes	Description	Cost
Storm Drain Assessment and Inventory	Begin 10-year program to clean, televise, map, and assess the condition of the 700-mile storm drain network	$650K
High Water Detection Maintenance	Maintenance of 50 new high water detection sites	$400K
Increased Vegetation Management	Increased mowing cycles along channels and roadways	$750K
Capital Project Funding	Provide funding for backlog of existing storm water capital/maintenance projects	$1.5M
FY 2017 Program Changes	**Description**	**Cost**
Targeted Street Sweeping Increase	Limited street sweeping increases to improve water quality	$500K
Median Enhancements	Enhance medians to require less watering and maintenance/mowing cycles	$500K
Leslie Road Service Center	Provides debt service payment to construct a new service center to house storm water staff and equipment	$1.5M
Increase in Capital Project Funding	Provide funding for backlog of existing storm water capital/maintenance projects	$500K
Increase in Storm Drain Assessment and Inventory Funding	10-year program to clean, televise, map, and assess the condition of the 700-mile storm drain network	$900K
FY 2018 Program Changes	**Description**	**Cost**
Increase in Capital Project Funding	Provide funding for backlog of existing storm water capital/maintenance projects	$1M

Table 4.2 Storm Water Utility Fee Five-Year Forecast: July 29, 2015

Program	FY 2015 Budget	FY 2016 Budget	FY 2017 Budget	FY 2018 Budget	FY 2019 Budget	FY 2020 Budget
CPI		2.57%	2.84%	2.75%	2.55%	2.55%
Tunnel Maintenance	$3,138,652	$3,916,301	$4,509,345	$4,633,352	$4,751,503	$4,872,666
Arterial & Collector Street Sweeping	$1,078,657	$1,106,378	$1,137,800	$1,169,089	$1,198,901	$1,229,473
Residential Street Sweeping	$1,401,932	$1,533,194	$2,076,736	$2,133,847	$2,188,260	$2,244,060
CBD Street Sweeping	$817,247	$838,250	$862,057	$885,763	$908,350	$931,513
Debris Removal	$1,314,248	$1,348,024	$1,386,308	$1,424,432	$1,460,755	$1,498,004
Channel Restoration	$2,845,555	$2,918,686	$3,001,576	$3,084,120	$3,162,765	$3,243,415
Concrete Repair	$1,641,976	$1,684,175	$1,732,005	$1,779,635	$1,825,016	$1,871,554
Natural Creekway	$1,329,795	$1,363,971	$1,402,708	$1,441,282	$1,478,035	$1,515,725
Mowing & Herbicide	$5,123,223	$5,379,151	$6,031,919	$6,197,797	$6,355,841	$6,517,915
Rapid Response (Tree & Manholes)	$1,464,673	$1,502,315	$1,544,981	$1,587,468	$1,627,948	$1,669,461
Public Rel. & Outreach	$257,448	$264,064	$271,563	$279,031	$286,147	$293,444
CIP Maintenance	$140,570	$185,640	$190,913	$196,163	$201,165	$206,295
Engineering & Impervious	$1,838,430	$1,914,750	$2,119,128	$2,177,405	$2,232,928	$2,289,868
Administrative & Support Costs	$2,955,702	$2,980,378	$3,065,021	$3,149,309	$3,229,617	$3,311,972
Capital Outlay	$808,431	$82,056	$84,386	$86,707	$88,918	$91,185
SAWS Services	$4,781,373	$4,904,254	$5,043,535	$5,182,232	$5,314,379	$5,449,896
Operating Totals	$30,937,911	$31,921,588	$34,459,982	$35,407,632	$36,310,526	$37,236,445
Transfer to GF Indirect Cost	$1,526,438	$1,565,667	$1,610,132	$1,654,411	$1,696,599	$1,739,862
Transfer to GF Other	$983,934	$1,009,221	$1,037,883	$1,066,425	$1,093,619	$1,121,506
Transfer to Capital Projects	$400,000	$1,900,000	$2,400,000	$3,400,000	$3,400,000	$3,400,000
Transfer to Debt Service	$6,882,797	$6,892,797	$6,902,797	$6,912,797	$6,922,797	$6,932,797
Leslie Rd Service Center	$-	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
Water Quality Incentive Program	$-	$250,000	$250,000	$250,000	$250,000	$250,000
Total Transfers	$9,793,169	$13,117,686	$13,700,812	$14,783,633	$14,863,014	$14,944,165
Total Revenue Requirement	$40,731,080	$45,039,274	$48,160,795	$50,191,265	$51,173,541	$52,180,610
Ending Balance	$547,278	$500,000	$500,000	$500,000	$500,000	$500,000
Year to Year Change		$4,308,194	$3,121,521	$2,030,470	$982,276	$1,007,069
Year to Year % Change		10.58%	6.93%	4.22%	1.96%	1.97%

This budget detail was imported into the multi-year budget customer user-fee rate analysis model to establish billing rates for the five-year planning period.

4.2 Fee Structure

The utility rate structure was developed by the City and is based on the impervious area on each BCAD parcel in the City.

- Fees are assigned to residential properties using three tiers based on the amount of impervious area on property parcels. Tier 1 represents 25% of property parcels with the lowest amount of impervious area, Tier 2 represents the middle 50%, and Tier 3 the largest 25%. Each tier is assigned a monthly fee that applies to all properties within a tier. Through stakeholder engagements it was specified that Tier 1 and Tier 2 rates for FY16 will remain at the FY15 values and Tier 3 adjusted to provide the specified revenue amount for FY16.

- Non-residential properties are assigned two fees, a Base Fee and an Impervious Fee. The City determined the split between the Base Fee and Impervious Fee assignment requirements through analysis of the utility budget to determine which service costs are distributed across all non-residential customers on a per customer basis and which services relate to the amount of storm water runoff produced by the installation of impervious area on properties. The split specified for this study is 39% Impervious Fee and 61% Base Fee. For Impervious Fee assignment, properties are assigned to one of four development intensity tiers based on percentage of impervious area: Tier 1 $\leq$20%, Tier 2 >20%-40%, Tier 3 >40%-65%, and Tier 4 >65%.

- The revenue burden split between residential and non-residential customer classifications is based on the ratio of total impervious area throughout the City for the two customer classes. The split specified for this study is 47% residential and 53% non-residential.

4.2.1 Use of Impervious Area to Assign Utility Fees

The rationale for an impervious area fee basis is simple. Replacing natural ground cover with impervious coverage results in more runoff volume, higher peak flow rates, and increased pollutant discharge to receiving waters. Those impacts result in an increased use of the utility system, and in turn translate into capital project, operating, and administrative costs borne by the storm water management program and funded by the utility service fee. The relationship between impervious area and storm water runoff is direct, proportional, and well documented. Thus, impervious area is an appropriate surrogate for measuring use of the drainage utility system associated with increased storm water runoff volume, peak rate of flow, and pollutant content, and is consistent with the cost of providing services and drainage facilities.

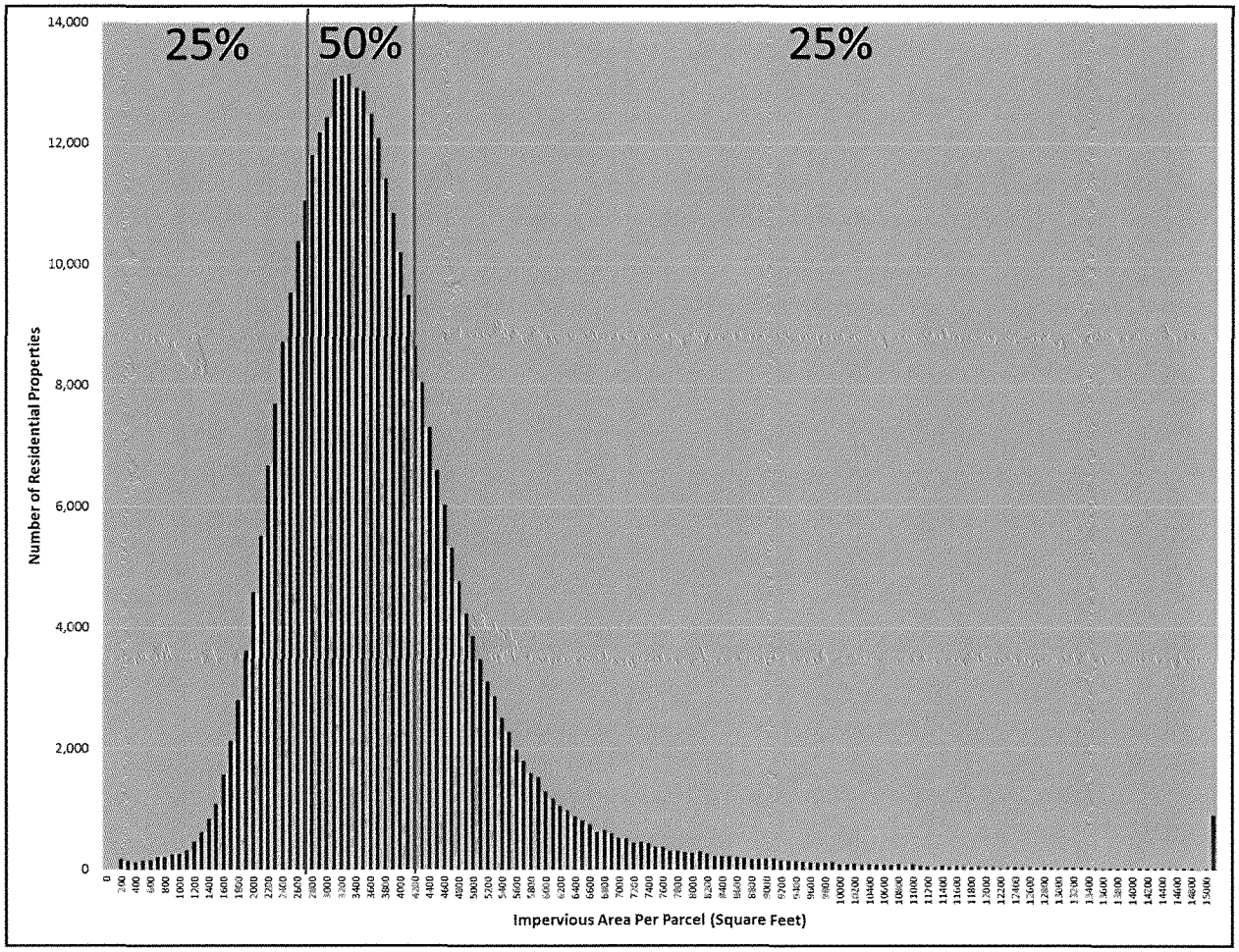
For this reason, the use of impervious area (building footprint, driveways/walkways and parking areas) on property parcels to establish the drainage utility user-fee is the preferred assignment method for the majority of Texas drainage utilities and for drainage utilities throughout the United States. The cities of Amarillo, Austin, El Paso, Fort Worth, Houston and Lubbock use impervious area for user-fee assignment. Additionally, Dallas is evaluating its utilities and is considering transitioning to impervious area fee assignment basis.

4.2.2 Single-Family Residential Properties

Based on examination of the distribution of parcel-specific impervious area, a three-tiered rate structure is recommended for single-family properties. Figure 4.1 presents the distribution of parcel specific impervious area values for single-family properties. The impervious values range from no impervious to

30,000 square feet of impervious. The distribution of the impervious areas is greatly skewed by the properties classified as residential in the SAWS billing system with impervious area in excess of 30,000 square feet. With the outliers removed the distribution of residential properties more closely approximates a normal distribution and it is the total impervious area of this subset of residential properties that is used in the ratio of impervious area of all residential properties in the city to all non-residential properties in the city. This split of 47% residential and 53% non-residential is then used to calculate the revenue requirements from each land use class.

Figure 4.1: Residential Impervious Area Distribution Histogram



Three customer tiers were established based on quartile evaluation for properties with up to 30,000 square feet impervious area. The central 50 percent of properties were used to define the impervious area value limits for the "Typical" property classification- 2,750 to 4,220 square feet of impervious area. The average impervious area for the properties within this classification is approximately 3,450 square feet. The lower 25 percent of properties are defined as the "Small" classification which applies to properties with less than 2,750 square feet impervious area. The highest 25 percent of properties was used to define the "Large" classification which applies to properties with greater than 4,220 square feet of impervious area.

For each of these classification ranges a fee was assigned to each property. Tier 1 and Tier 2's fees are based on the current billing rates for residential properties in the City. Tier 3's billing rate is determined by the remaining revenue need required of the residential land use class.

Table 4.3: Residential Tiers

Tiers	Range of Impervious Values (sqft)	Count	FY 16 Fee Values
Tier 1	0-2,750	77,212	$3.22
Tier 2	2,750-4,220	181,693	$4.25
Tier 3	≥4,220	81,759	$8.98
TOTAL		340,664	

Table 4.3 includes the number of accounts associated with each customer classification for the single-family tiers. Since the average impervious area value for mobile homes, condominiums and duplex dwelling units is similar to the value for "small" single-family houses, they will typically be assigned to Tier 1.

4.2.3 Non-Residential Properties

Commercial/Multi-Family/Public

Non-residential properties are evaluated on a case-by-case basis due to their highly variable impervious area. To determine the fee for non-residential properties, three factors were chiefly considered:

1. The ratio of impervious area associated with non-residential properties to residential properties across the entire city.
2. The revenue need for drainage related expenditures such as capital costs, operations and maintenance, and debt service for Fiscal Year 2016.
3. The Base fee which distributes the real cost of drainage related services whose provision are not directly related to amounts of impervious cover.

Non-residential properties account for approximately 53% of the impervious area assessed in the study. The revenue need from each customer class is determined by this ratio. The revenue requirement for non-residential is then distributed amongst drainage services that are not directly impacted by the parcel specific amounts of impervious area. A base fee is levied to all non-residential properties to account for these services. The remaining revenue required from non-residential is distributed amongst all impervious area in the active non-residential customer class. The following table summarizes the costs the City assigned to the base and impervious classifications:

Table 4.4: Non-Residential Base/Impervious Fee Cost Allocation

Base Fee (FY 2016 Budget - $14.5M, 61%)	Impervious Fee (FY 2016 Budget - $9.3M, 39%)
Street Sweeping	Maintenance of Downtown Tunnel Systems, Dams, and HWDS
Mowing	Pipe Televising
Debris Removal	Channel Restoration
Engineering	Concrete Pipe/Structure Repairs
MS4 Management	Maintenance CIP

The non-residential cost/1,000 square foot fee is set from this revenue requirement with an intensity factor applied based on the percentage of impervious cover on the parcel. The following table summarizes the proposed tiers:

Table 4.5: Non-Residential Tiers

Development Density Tiers	Count	Fee Values	FY 2016 Fee Values
≤20% Impervious Cover	1,220	0.4X	$0.25/1,000 sf impervious
>20%-40% Impervious Cover	1,570	0.6X	$0.37/1,000 sf impervious
>40%-65% Impervious Cover	4,561	0.8X	$0.50/1,000 sf impervious
>65% Impervious Cover	14, 059	X	$0.62/1,000 sf impervious
Total	21,410		

The total impervious assigned to non-residential properties as described in Table 3.5 is 1,393,904,027 square feet. The non-residential tiers listed above reduce the effective impact of a portion of this area. Therefore, the total impervious associate with non-residential properties should be reduced to calculate the impervious fee. By applying the non-residential tiers detailed above, the non-residential effective impervious area is reduced to 1,225,519,350 square feet.

Identifying Additional Utility Rate Base - Based on the current architecture of the SAWS billing system, there are cases where the drainage utility fee for multiple properties are tied to one account. In these cases, only the billed account is labeled with a drainage utility designation, and the other accounts are labeled exempt.

It is recommended that a review of non-residential SAWS "exempt" customer records be done to determine if the properties associated with these accounts should be subject to the drainage fee. Properties identified by SAWS may be added to the billing rate base before the new fee structure is implemented in January 2016.

In addition, developed properties have been identified that are not currently receiving a storm water billing. As these properties are brought into the billing system, the total amount of impervious area and revenue will increase. For the purpose of revenue projections in this report, only the impervious area associated with active billing accounts is considered in this revenue projection exercise and in the projection of customer billing rates for fiscal years 2016-2020 presented in Section 4.5 of this report.

4.3 Customer Credit/Incentive Program Recommendations

4.3.1 Background

In order to develop recommendations for a customer credit/incentive program, a review was performed on thirty-two (32) storm water utility credit/incentive programs, both in the state of Texas and nationwide, to develop guidelines for a credit program associated with the drainage utility. The primary reference for program identification was EPA publication EPA-833-F-09-001, *Managing Wet Weather with Green Infrastructure, Municipal Handbook, Incentive Mechanisms (2009)* (http://water.epa.gov/infrastructure/greeninfrastructure/upload/gi_munichandbook_incentives.pdf), and knowledge of other Texas programs. While there is significant variation between programs throughout the state and country, the following general principles are recommended for consideration by the City of San Antonio:

1. Credits are applicable only for activities that *exceed* minimum City land development code or state requirements for storm water runoff management. Utility credits are not appropriate for meeting minimum code requirements. For example, if a customer constructs detention or water quality treatment storage volume in addition to the required minimum for code compliance, a credit is appropriate.

2. The customer must commit in a written agreement to provide long-term maintenance and monitoring for any storm water management practice for which a credit is issued.

3. An application by the customer is required for credit to be considered. The burden for requesting a credit is with the customer, not the City. This simplifies administrative burden.

4. Applications must be renewed periodically (~every 3-5 years). This ensures that customers periodically review operations and maintenance requirements for consistency with current City requirements and, in the case of property ownership change, the new customer is apprised of responsibility to maintain the credit.

5. Annual inspection and certification reporting is required by owner. This promotes proactive maintenance and operation of the credited system. A select number of inspection and certification reports can be audited by the City for verification, but this will reduce the inspection burden for the City.

6. Credits apply only to non-residential customers but may be expanded to residential customers in the future. This limits the City's administrative burden while allowing credit possibilities for larger customers that typically have significant opportunity for management practice retrofit or incorporation with new construction.

7. Typical credit categories and function:
    a. Detention-flood hazard mitigation, stream erosion mitigation
    b. Retention/Wet Ponds-water quality
    c. Filtration-water quality
    d. Infrastructure Maintenance-flood hazard mitigation, water quality
    e. Green Infrastructure-water quality
        i. Rain gardens/bioretention
        ii. Bioswales
        iii. Permeable pavement
        iv. Vegetated swales
        v. Rainwater harvesting
        vi. Green roof
    f. Public Education-water quality

4.3.2 Credit/Incentive Program Fiscal Basis Considerations

From the review of other drainage utility credit programs, there is limited information available on the fiscal basis for assigning user-fee credits. Credits range from 5 to 100 percent of the user fee. The Consultant recommends that credits be developed considering cost savings to the utility. Additionally, impact of the award of user fee credits on utility revenue should be investigated to ensure that the award of customer credits does not negatively impact the ability of the utility to support basic drainage management service programs and meet bond debt service requirements.

Currently, the San Antonio utility revenue stream supports a broad range of drainage system maintenance and rehabilitation programs, and capital improvement projects. The budget percentages can be used to establish a maximum allowable credit for various customer performed activities. The following breakdown of the budget was provided by the City.

Table 4.6: Cost of Service (Operating Expenses)

Cost of Service (Operating Expenses)	FY 2016 Budget
Tunnels & Dams, HWDS, Pipe Televising	$3,916,301
Arterial & Collector Street Sweeping	$1,106,378
Residential Street Sweeping	$1,533,194
CBD Street Sweeping	$838,250
Debris Removal	$1,348,024
Channel Restoration	$2,918,686
Concrete Repair	$1,684,175
Natural Creekway	$1,363,971
Mowing and Herbicide	$5,379,151
Rapid Response (Trees, Manholes, etc.)	$1,502,315
Public Relations & Outreach	$264,064
CIP Maintenance	$185,640
Engineering and Contracts Management	$1,914,750
Administrative & Support Costs	$2,980,378
Capital Outlay	$82,056
SAWS Services	$4,904,254
Total Operating Expenses	**$31,921,588**

Budget Category	FY 2016 Budget
Total Operating Expenses	***$31,921,588***
Transfer to General Fund	$2,574,889
Transfer to Capital Projects	$1,900,000
Transfer to Debt Service	$6,892,797
New Service Center	$1,500,000
Total Transfers	***$13,117,686***
Total FY 2016 Appropriations	**$45,039,274**

CIP Debt Service and Cash Funded Capital Projects are over 20% of the total budget, with a focus of flood hazard mitigation and minor allocations for water quality protection/improvement. Therefore, a credit of 20% - 30% may be appropriate for customer on-site construction of drainage management facilities.

Alternate approaches for establishing user fee credits include 1) avoided costs to the utility (Austin), 2) providing impervious area credit per unit on-site storage volume (Houston), 3) arbitrarily setting credit amounts-this appears to be the majority approach nationally.

4.3.3 Example Credit/Incentive Programs

City of Austin-Under the avoided cost approach, maintenance activities for commercial development on-site ponds are allowed a 20% user-fee credit. By City code, commercial properties are responsible for on-site pond long-term maintenance. The City drainage utility is responsible for maintaining pond systems that serve single-family development. This differential in service level is the basis for the credit percentage. The 20% value was developed by estimating what City cost would be for performing maintenance of the total commercial pond inventory and relating this cost to the total impervious area served by the commercial pond inventory. This was done as part of the 1993 cost of service study. To receive the credit, customers must execute a customer agreement stating they will maintain the ponds. The City performs annual compliance inspection and serves notice of deficiencies. Participation is 22% of the commercial customer base (4,100 accounts). This is a high level of participation considering that commercial development prior to 1976 did not require detention and therefore cannot apply for this credit.

City of Houston- Houston provides Impervious Area Credit per unit of additional Storage Volume to assign credits for excess detention and the application of Low Impact Development (LID) techniques. The approach considers all storage volume to be detention volume. For small developments Houston allows a credit of 5 square feet impervious area reduction for each cubic foot of on-site storage above the City required storage; for large developments, the credit is 2 square feet impervious area reduction for each cubic foot of storage above the City required storage. Credits can be up to 100 percent of the user fee. The customer must commit to long-term maintenance. The City also allows a credit for maintenance of public drainage channels on a case by case basis. The City has detailed technical/design criteria, administrative procedures and customer agreements requiring long-term maintenance and self-inspection to support the credit program. The City retains the right to inspect to confirm compliance and can request an annual compliance report from the customer. Since the adoption of the credit program in 2011, participation has been very limited, with less than 1% of accounts participating.

City of Fort Worth -Percentage user-fee credits are available to commercial customers for a range of activities. The maximum credit allowed is 40%. The City did not conduct an avoided cost analysis in establishing the percentages for credit; credit amounts were developed in discussion with a citizen Task Force. No credit is allowed for flood hazard mitigation detention because it is mandatory by City Code. The range of activities and credit amounts are as follows:

- Industrial Permit Compliance-10%
- Detention Maintenance-5%
- Zero Discharge-40%
- Channel Protection Detention-10%
- Water Quality Treatment-25%

- Inlet Trash Collection-10%
- Parking Lot Sweeping-5%
- Student Education-10%
- Adopt a Creek-10%

The City requires annual self-reports and the City has the right to perform inspections to confirm compliance. Since the adoption of the program in 2012, participation has been less than 1% of the commercial customer base.

Other National Programs-A review of credit programs cited in the above referenced EPA publication indicates no nominal standards for credit amounts awarded for activities. Credit amounts for various activities range from 5% - 100%. Available on-line resources do not indicate the fiscal basis for credits. It does not appear that most credits are based on avoided cost analysis or limiting credits to assure that the integrity of the utility revenue stream is sustained (i.e. meeting critical O&M services and debt service requirements). Some programs limit credits to only activities that exceed minimum drainage management requirements while others allow credits for meeting regulatory requirements (not recommended). It appears that, generally credit percentages are assigned on an arbitrary basis to provide incentives.

4.3.4 Recommended Credit/Incentive Programs

Principles-Any consideration of customer credits/incentives should be founded on: 1) an analysis of impact to utility revenue to ensure that basic City services remain adequately funded, 2) the administrative burden associated with the program and 3) consistency with the goals of the City's drainage management program.

Current Program Focus is Flood Hazard Reduction-Currently, the City's drainage management program capital expenditures funded by drainage utility revenue are primarily focused on flood hazard reduction. The water quality component is limited. Operational funding is also primarily focused on flood hazard mitigation but there are notable expenditures for street sweeping and National Pollutant Discharge Elimination System (NPDES) compliance which are water quality focused.

Setting Credit Limits-In place of conducting a complex avoided cost analysis, it is appropriate to structure a credit/incentives program around current City drainage utility revenue allocations. For example, since the City currently allocates over 20% of utility revenue for CIP support, then on-site Low Impact Development (LID) construction could be credited up to 20% to 30% of the user-fee to reflect a CIP expense off-set. Therefore, a maximum customer credit limit is appropriate to assure that customer fees reflect use of the drainage system and preserve adequate utility revenue to support all drainage management program activities. In the early years of the program, revenue impact will be very small as LID is incorporated into new commercial/multifamily/public development, but over many years the impact on revenue will compound. Unless LID implementation results in a reduction in drainage management service demand consistent with credit amount, customer rates will increase to support the LID implementation subsidy through the Credit/Incentive program.

LID Incentives-Technical criteria for all credits will have to be established. For LID credits, the San Antonio River Authority (SARA) design standards for LID elements and supporting *effective impervious area* calculation spreadsheet provides a good, locally developed basis for establishing the credit calculation procedure. The effective impervious area evaluation methodology was developed by the Denver Urban Drainage and Flood Control District (Urban Storm Drainage Criteria Manual Volume 3, August 2011) and

applies to both storage volume and conveyance base LID elements. SARA has developed a spreadsheet and made it available to the City for administration of the Credit/Incentives program.

LID implementation reduces runoff volume and pollutant loadings to receiving waters; there is little reduction in peak runoff flows related to large, flood-causing storm events. Therefore, with LID implementation the City will still have a continuing need for utility revenue to support drainage system maintenance and rehabilitation, and flood hazard reduction CIP. For example, street sweeping demand will not be significantly decreased with LID implementation.

The City should establish a level of desired performance criteria to promote through the incentive program, and use the criteria as a benchmark for incentives. One starting point for setting these criteria could be the pollutant removal goals for the Edwards Aquifer Recharge or Transition Zone, which are established in the Texas Administrative Code as 80% removal of Total Suspended Solids (TSS).

Applies to Non-Residential Development-The program should initially be in place for non-residential customers. It can later be expanded to residential customers after the administrative process is well established. Administration requires written agreements with each participant and periodic inspection and enforcement to ensure LID functionality.

4.3.5 Summary of Credit/Incentives Program Core Principle Recommendations

1) **Applicable only to Non-Residential Customers,**
2) **The incentive should be limited to the impervious portion of the non-residential fee;**
3) **Set an upper limit for credit to any single customer, 30%,**
4) **Credit at 30% if LIDs are designed in compliance with adopted criteria and performance requirements, and treats runoff from 100% of the impervious area,**
5) **If treating runoff from less than 100% of the impervious area, or if the performance requirements are only partially achieved, the credit is proportionally reduced,**
6) **The customer is responsible for long-term Operations and Maintenance (O&M) and annual inspection reporting,**
7) **Credit terminated if LID not properly maintained.**

4.4 Rail Systems Considerations

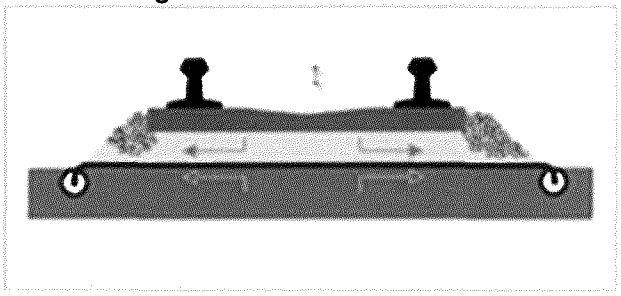
4.4.1 Background

By state statute, railway systems are not exempt from the drainage utility user-fee. Rail track systems increase storm water runoff which is conveyed by the City drainage utility system. However, there are mitigating factors that need to be considered in assigning drainage utility fees to rail systems as applied to tracked areas. The understanding of rail system construction and impacts on storm water runoff flow is detailed below along with recommendations for assigning the storm water utility user-fee to railroad property.

4.4.2 Rail Systems Impact on Storm Water Runoff

Rail systems are typically ballasted with open-graded gravel to distribute the rail traffic weight loading, and provide drainage away from the track structure. The open-graded (large open voids between individual gravel particles) nature of the ballast allows rainfall incident to the track structure to percolate downward unimpeded to the sub-ballast/sub-grade that supports the track system. The sub- ballast/sub-grade is compacted or becomes compacted over time and is contoured vertically to route the storm water run-off horizontally away from the track system. This is illustrated in Figure 4.2.

Figure 4.2: Rail Cross Section



Directing drainage away from the rails and cross ties reduces rotting of the ties and ground saturation of the supporting sub-grade, both of which enhance the structural integrity of the supporting soils below the ballast/sub-ballast layer. As a result, a significant percentage of rainfall incident to the ballasted area can become runoff, especially during events of heavy rainfall.

4.4.3 Runoff Coefficient and Equivalent Impervious Cover Applicable to Railyards

An equivalent impervious area methodology was developed for assigning the storm water utility user- fee to railroad property using a standard engineering hydrologic modeling approach. Appendix B is a compilation of Rational Method runoff coefficient tables from eleven sources that include values for railyards, including the Texas Department of Transportation as one of the sources. The Rational Method is a standard engineering practice applied nationwide to translate rainfall rates into storm water runoff rates from land areas. The method is used in San Antonio to size urban drainage infrastructure to manage flows resulting from large storm events. Runoff potential is characterized by a runoff coefficient. In all cases the runoff coefficient for railyards are higher than for undeveloped land. The variation in reported values is small. From these sources, the following values have been selected as most representative for San Antonio:

Railyard Areas	0.2-0.4
Unimproved Land	0.1-0.3
Single-Family	0.3-0.5

Single-family development provides an impervious cover comparison benchmark. Typical single-family development is equivalent to approximately 40% impervious cover under the San Antonio Unified Development Code-Table 504-4, including housing/flatwork and streets/ sidewalks. *From this analysis, a runoff equivalency factor applicable to railyards representative of from 20% to 30% impervious cover is recommended.*

These values recognize that in comparison to asphalt and concrete paved surfaces, railway ballast provides some peak flow attenuation as water is temporally stored and moves through the ballast matrix and provides some infiltration as water moves horizontally away from the track structure through the inter-track ballast layer. As a result, railway ballast systems have a reduced impact on the drainage utility system from a peak flow rate perspective even though the underground sub-ballast footprint is considered impervious. In summary, to account for this mitigating factor, it is recommended that the area encompassing the entire railyard tracked area shall have storm water rates assessed based on a 20% to 30% Equivalent Impervious Cover factor.

4.4.4 Rail Track Systems Outside of Railyards

Rail rights-of-way outside railyards serve an important drainage function within the drainage utility service area. The rail rights-of-way conveys rainwater that falls on the tracks together with runoff from other sources, including a portion of City drainage flows that are carried along the rail rights-of-way before discharging into streams and rivers, or re-entering the City's drainage infrastructure. In recognition of the cooperative drainage function that rail rights-of-way play within the Storm Water Utility service area, it is recommended that rail track systems outside of railyards not be considered benefitted property under the proposed rate design structure.

4.4.5 Other Railroad Buildings and Parking /Storage Areas

Other railroad improvements, such as buildings, storage facilities, and parking areas that may include asphalt, concrete and compacted graveled surfaces should be assessed storm water user-fee based on the actual impervious area footprint determination applicable to all non-residential benefitted properties throughout the City.

4.5 Multi-Year Budget, Customer Billing Rate Analysis

Enterprise Fund Budget Model (Storm Water Operating Fund): An enterprise fund budget model was configured in Microsoft Excel for a five-year planning period. A printout of the model configured for this study follows this discussion (Table 4.8). Customer billing rates are calculated based on utility funding needs. The model accounts for revenue, operating expenses, transfers in and out, required ending balance, annual carryover, and also calculates debt coverage ratio. Green shading is used to identify the rows/cells for model input variables, all other values are calculated by the spreadsheet. Calculated billing rates are summarized in the yellow shaded area.

The model is configured to evaluate the customer rate structure developed by the City summarized as follows:

- Fee assignment split between the residential property customer class and the non-residential customer class based on the percentage of total impervious area associated with each customer class City-wide. The split is 53% non-residential and 47% residential. This split is incorporated into the budget model.

- Fee assignment to residential properties based on land parcel impervious area using three tiers representative of the lowest 25% (Tier 1 ≤2,750 square feet), middle 50% (Tier 2 >2,750-4,220 square feet) and largest 25% (Tier 3 >4,220 square feet) of impervious area values. For FY16 Tier 1 and Tier 2 rates are fixed at the FY15 values of $3.22/month and $4.25/month and the Tier 3 rate is calculated to meet budget requirements. However, accounting for uncollected bad debt increases these values slightly.

- Fee assignment to non-residential properties using a combination of a Base Fee and an Impervious Fee. Through budget analyses, the City determined that 61% of the proposed FY16 budget is related to base services and 39% is related to services for managing the amount of storm water runoff from properties which is directly related to impervious area. This split is incorporated into the budget model.

- The non-residential impervious fee is segmented into four development intensity tiers based on percentage of land-parcel impervious cover as follows: Tier 1 <20% (0.4), Tier2 >20%-40% (0.6), Tier 3 >40%-65% (0.8), and Tier 4 >65% (1.0). Thus, less intensely developed properties are charged less per square foot of impervious area in consideration of the buffering potential for storm water runoff offered by the vegetated portion of a land parcel.

The model allows adjustment of the following variables to assess funding policy scenarios:

- Annual growth rate of the utility rate base, applied in years 2-5, percent
- Uncollected billings (Bad Debt), applied in years 2-5, percent of total
- New non-residential development Low Impact Development credit percentage, assumes 100% participation by new development
- Existing non-residential development Low Impact Development retrofit implementation-annual percentage, assumed at same credit percentage as for new development

The City's July 24, 2015 5-year forecast used in the budget model specified a Transfer Out line item to account for the revenue loss associated with LID implementation on non-residential properties. In this scenario, both LID variables are set to zero, which turns off the model's internal calculation of LID impact on customer rates.

The model inputs include (green shaded in Table 4.8):

- Beginning Balance in year one, $500,000
- School Districts annual revenue is frozen at the FY 15 value, $484,008
- Non Drainage Fee Revenues, zero
- Transfers In, zero
- Operating Requirements: July 24, 2015 5-year forecast
- Transfers Out: July 24, 2015 5-year forecast

- Required Ending Balance-July 24, 2015 5-year forecast, $500,000
- Number of billing units in each customer class in year-one, necessary to provide a unified basis for fee calculation across the residential and non-residential impervious fee portions of the utility rate base on an equal weighting basis.
    - Residential 413,029 (developed from SAWS active residential accounts)
    - Non-Residential 179,636 (from effective impervious area joined to SAWS active accounts)

  The unified billing basis is required to account for the difference in impervious area fee assignment weighting between the residential and non-residential customer classifications. Because of the non-residential Base Fee, impervious area is charged less per square foot for non-residential properties in comparison to residential property. Additionally, the percentage impervious area intensity factors are accommodated in the application of the unified billing basis.
- Non-Residential SAWS active accounts land parcel records in year one (number of accounts), used in base fee calculation, 21,410.
- Non-Residential SAWS active accounts effective impervious area in year-one, total amount of effective impervious area after intensity reduction factors were applied to each land parcel, used in Impervious Fee calculation, 1,225,519,350 square feet.
- Annual growth rate-1%, Uncollected Billings-1%, LID-0%

All other values in the model are calculated.

- Monthly Fee (customer billing rates)
- Total Drainage Fee Revenue , Residential Revenue and Non-Residential Revenue
- Revenue Bond Debt Coverage Ratio is calculated as Total Revenue less Total Operating Expenses divided by Revenue Bond Debt Service. Debt Coverage Ratio expresses the amount of revenue available for debt service after operating requirements are met.

Customer Billing Rates for Impervious Portion of Customer Rate Base are calculated as follows:

$$\frac{\text{Total Requirements+Ending balance-Beginning Balance-Non Drainage Fee Revenue -Total transfers In}}{\text{Total Utility Impervious Rate Base-(Uncollected+Credits)}}$$

Non-Residential Base Charge is calculated as follows:

$$\frac{\text{Non-Residential Base Charge Amount}}{\text{Number of Non-Residential SAWS Parcel Records-(Reduction for Uncollected)}}$$

Table 4.7: Customer Billing Rates from Model

Fiscal Year	2016	2017	2018	2019	2020
Monthly Fee					
Single-Family Residential Tier 1 ($/Month)	$3.22	$3.45	$3.56	$3.59	$3.63
Single-Family Residential Tier 2 ($/Month)	$4.25	$4.55	$4.69	$4.74	$4.79
Single-Family Residential Tier 3 ($/Month)	$8.98	$9.61	$9.93	$10.02	$10.12
Non-Residential (per 1000 sq-ft impervious area, >65%IA)	$0.62	$0.67	$0.69	$0.69	$0.70
Non-Residential (per 1000 sq-ft impervious area, 40%-65% IA)	$0.50	$0.53	$0.55	$0.56	$0.56
Non-Residential (per 1000 sq-ft impervious area, 20%-40% IA)	$0.37	$0.40	$0.41	$0.42	$0.42
Non-Residential (per 1000 sq-ft impervious area, <20% IA)	$0.25	$0.27	$0.28	$0.28	$0.28
Non-Residential Account Base Charge	$55.77	$59.69	$61.61	$62.21	$62.82

Funding Policy Specified by City

- **5-Year Budget Forecast, July 24, 2015**
- **LID Credit, Transfer Out line Item-$250,000/year**
- **Growth-1%**
- **Uncollected (Bad Debt)-1%**

Table 4.8: City of San Antonio Drainage Utility Fund

City of San Antonio-Drainage Utility Fund (Storm Water Operating Fund)
Budget Driven Customer Rates, 07-24-2015 Budget Values

	2016	2017	2018	2019	2020
BEGINNING BALANCE (A)	500,000	500,000	500,000	500,000	500,000
REVENUE					
Drainage Fee					
Single-Family Residential	21,064,453	22,540,218	23,500,166	23,964,558	24,440,671
Non Residential-Impervious Charge (O)	9,161,425	9,803,270	10,220,773	10,422,748	10,629,821
Non Residential-Base Charge (L)	14,329,397	15,333,307	15,986,325	16,302,235	16,626,117
School Districts @ FY15	484,000	484,000	484,000	484,000	484,000
Total Drainage Fee Revenue (B)	45,039,274	48,160,795	50,191,265	51,173,541	52,180,610
Non Drainage Fee					
Transfers from Equipment & Renewal Fund	-	-	-	-	-
Interest on Time Deposits	-	-	-	-	-
Recovery of Expenditures	-	-	-	-	-
Miscellaneous Revenue	-	-	-	-	-
	-	-	-	-	-
Total Non Drainage Fee Revenue (C)	-	-	-	-	-
TOTAL REVENUE (D)	45,039,274	48,160,795	50,191,265	51,173,541	52,180,610
TRANSFERS IN					
General Fund	-	-	-	-	-
Stormwater Development Fund	-	-	-	-	-
Total Transfers In (E)	-	-	-	-	-
TOTAL AVAILABLE FUNDS (A+D+E=F)	45,539,274	48,660,795	50,691,265	51,673,541	52,680,610
OPERATING REQUIREMENTS					
Tunnel Maintenance	3,918,301	4,509,345	4,633,352	4,751,503	4,872,666
Arterial & Collector Street Sweeping	1,106,378	1,137,800	1,169,089	1,198,901	1,229,473
Residential Street Sweeping	1,533,194	2,076,736	2,133,847	2,188,260	2,244,060
CBD Street Sweeping	836,250	862,057	885,763	908,350	931,513
Debris Removal	1,348,024	1,386,308	1,424,432	1,460,755	1,498,004
Channel Restoration	2,918,686	3,001,576	3,084,120	3,162,765	3,243,415
Concrete Repair	1,684,175	1,732,005	1,779,635	1,825,018	1,871,554
Natural Creekway	1,363,971	1,402,708	1,441,282	1,478,035	1,515,725
Mowing & Herbicide	5,379,151	6,031,919	6,197,797	6,355,841	6,517,915
Rapid Response (Tree & Manholes)	1,502,315	1,544,981	1,587,468	1,627,948	1,669,461
Public Rel. & Outreach	264,064	271,563	279,031	286,147	293,444
CIP Maintenance	185,640	190,913	196,163	201,165	206,295
Engineering & Impervious Management	1,914,750	2,119,128	2,177,405	2,232,928	2,289,868
Administrative & Support Costs	2,980,378	3,065,021	3,149,309	3,229,617	3,311,972
Capital Outlay	82,056	84,386	86,707	88,918	91,185
SAWS Services	4,904,254	5,043,535	5,182,232	5,314,379	5,449,696
TOTAL OPERATING EXPENSES (G)	31,921,588	34,459,982	35,407,632	36,310,527	37,236,445
TRANSFERS OUT					
Transfer to GF Indirect Cost	1,565,667	1,610,132	1,654,411	1,696,599	1,739,862
Transfer to GF Other	1,009,221	1,037,883	1,066,425	1,093,619	1,121,506
Transfer to Capital Projects	1,900,000	2,400,000	3,400,000	3,400,000	3,400,000
Transfer to Debt Service	6,892,797	6,902,797	6,912,797	6,922,797	6,932,797
Leslie Rd Service Center	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Water Quality Incentive Program	250,000	250,000	250,000	250,000	250,000
Transfer to Grant	-	-	-	-	-
	-	-	-	-	-
TOTAL TRANSFERS OUT (H)	13,117,686	13,700,812	14,783,633	14,863,014	14,944,165
TOTAL REQUIREMENTS (G+H=I)	45,039,274	48,160,795	50,191,265	51,173,541	52,180,610
ENDING BALANCE=Operating Reserve (J)	500,000	500,000	500,000	500,000	500,000
Required Ending Balance	-	-	-	-	-
Revenue Bond Debt Coverage Ratio	1.90	1.98	2.14	2.15	2.16

Fiscal Year	2016	2017	2018	2019	2020
Monthly Fee					
Single-Family Residential Tier 1 ($/Month)	$3.22	$3.45	$3.56	$3.59	$3.63
Single-Family Residential Tier 2 ($/Month)	$4.25	$4.55	$4.69	$4.74	$4.79
Single-Family Residential Tier 3 ($/Month)	$8.98	$9.61	$9.93	$10.02	$10.12
Non-Residential (per 1000 sq-ft impervious area, >65%IA)	$0.62	$0.67	$0.69	$0.69	$0.70
Non-Residential (per 1000 sq-ft impervious area, 40%-65% IA)	$0.50	$0.53	$0.55	$0.56	$0.56
Non-Residential (per 1000 sq-ft impervious area, 20%-40% IA)	$0.37	$0.40	$0.41	$0.42	$0.42
Non-Residential (per 1000 sq-ft impervious area, <20% IA)	$0.25	$0.27	$0.28	$0.28	$0.28
Non-Residential Account Base Charge	$55.77	$59.69	$61.61	$62.21	$62.82
$/Billing Unit/Month=(I+J-A-C-E)/(K-(Uncollected+Credits))					
Base Charge= L/(M-Uncollected)					
Non Res Impervious Charge=O/(N-(Uncollected+Credits))					
Billing Units					
Single-Family Residential Billing Units	413,029	417,159	421,331	425,544	429,800
Non Residential Impervious Billing Units	179,636	181,432	183,247	185,079	186,930
Total Billing Units (K)	592,665	598,592	604,578	610,623	616,730
		Growth Rate (%)	1.0		
		New Commercial LID Credit (%)		0.0	
		Uncollected Billings (% of total)		1.0	
		Existing Com LID Adoption Rate (%annual@credit%)		0.0	
Non-Residential SAWS Parcel Records (M)	21,410	21,624	21,840	22,059	22,279
Non-Residential Effective Impervious area (sq-ft) (N)	1,225,519,350	1,237,774,544	1,250,152,289	1,262,653,812	1,275,280,350

Impervious Area Split-47% Residential/53% Non-Residential, Non-Residential Fee Split-39% Impervious/61% Base Fee, School Districts Frozen @ FY15 rates, Fiesta Texas exempt-Not included, Military bases (Fort Sam, Martindale & Lackland)- Included, LID included as budget line item Transfer Out

Rate Impact: At the time of preparation of this report, it is the City's plan to transition to the new rate structure at the start of January 2016. This will provide a three month lead time for customers to plan for changes in the charge. For FY16, a review of rate impact for non-residential customers indicates that 27% of accounts will see their monthly charge remain at or below their current monthly fee. Approximately 0.2% of customers will see an increase above $500/month.

4.6 Goals for Future Billing Accounts

1. Fields Recommended for each storm water account in SAWS

The Consultant recommends the following fields be carried at a minimum for all storm water accounts in the SAWS billing system.

BCAD Property ID	Storm water Code or Customer Class	Total Area (SF)	Impervious Area (SF)	% Impervious Area
Adjusted Impervious Area (SF)	Base Fee (Non-Residential only)	Impervious Fee	Total Fee	Credit Amount

2. Data Link to SAWS Billing System

SAWS should have a mandatory BCAD field for each new account set up in the system so that every account in SAWS references a physical parcel boundary. It will take time to add this information to all older accounts in the SAWS billing system but this policy should be implemented immediately to ensure that all new accounts created will have an associated BCAD property ID. If an account is not located in a designated BCAD parcel boundary then a code to signify the property is right of way should be entered in this field.

For locations where BCAD has assigned a property id of "0", this should be entered.

BCAD does not create property IDs for some tax-exempt parcels, such as those owned by the City. The Consultant recommends a request be made by the City to BCAD to populate these parcels with property IDs so that they can be appropriately identified and tracked between the City and SAWS.

The common link between the Consultant and SAWS for the data transfer to update all storm water accounts within the SAWS billing system will be the tap number that was provided to the Consultant. The data transfer will include the fields mentioned above to the extent practicable, in addition to background information that includes the BCAD State code and original SAWS storm water code for the account.

The common link between the City and SAWS will be the BCAD parcel ID. Other codes related to the tap account number may also be included to assist in the identification of specific buildings on parcels for future coordination on account appeals, updates to accounts, new accounts, annexations, etc.

3. Land Use Determination

The initial land use basis for each parcel is the current billing classification for the existing storm water utility, as provided by SAWS. Properties currently billed as a residential property in the SAWS system are classified as residential for the new utility, and properties billed as non-residential are classified as non-residential. Properties billed as residential with greater than 30,000 square feet of impervious area need to be studied further to verify whether the residential land use is appropriate.

Classifications for properties not currently classified in the SAWS system will be determined from BCAD records for the parcel. The principal land use classifications will be either "residential" or "non-residential."

Where possible, additional information from BCAD can be used to help determine if parcels contain land uses specifically considered or mandated for an exemption.

4.7 SAWS/City Billing System Implementation Work Plan/Charter

The final deliverable by the Consultant is a master billing dataset to update the storm water utility portion of the SAWS billing system. SAWS will import impervious cover for every parcel within the City into the SAWS billing system based on a unique Tap number provided in the dataset. The following work plan describes the items that need attention before the first day of billing.

1. *Continue billing all accounts for storm water that are currently being billed.*

   All accounts currently billed should continue to be billed, even though the file transfer from the consultant to update the billing system may have a value of zero for impervious cover or may not have a record of the account at all. The most likely reasons for this discrepancy are 1) the account was setup after aerial photography was flown by which impervious cover was determined for the parcel, or 2) there was no match into the BCAD parcel database by way of a common BCAD property id number.

   An exception report should be generated by SAWS after the transfer of the billing system update file to identify accounts that need to be preserved and researched in the SAWS billing system before the update that may overwrite previous information. The City will provide impervious cover data since the date the aerial imagery was flown gathered from the City development review department to facilitate this research.

2. *Clear up exception and land use differences between BCAD parcels and SAWS accounts.*

   Two datasets have been transmitted to SAWS that will require attention to assure a successful implementation of the billing system update.

   The first is an "exemptions" dataset that represents all utility accounts that have been linked to BCAD that only have an exempt storm water code yet have impervious cover associated with them. A determination should be made for each account as to whether it is linked to another billed account, it is truly exempt (such as a university, state property, or right-of-way), or if it improperly designated as exempt and should be billed. The exempt issue is discussed in greater detail in section 3.5.

The second dataset transmitted was a listing of all accounts that have a storm water code in SAWS, which is an indicator for land use, that are inconsistent with the land use code provided by BCAD for the parcel to which the utility account is tied. This presents another conflict in the data and a determination should be made for each account using aerial imagery and other sources as to whether the BCAD or SAWS land use will be used for the parcel.

3. *Begin to build "storm water only" accounts for those accounts with impervious cover but no link into the SAWS billing system.*

   There will be a number of accounts that have impervious cover that do not have a link into the SAWS billing system for the reasons stated above. The Consultant recommends these accounts be set up as "storm water only" accounts or tied to an existing SAWS account if possible starting with properties with the largest amount of impervious cover. This work plan assures that those properties with the largest amount of uncollected revenue will be incorporated into the billing system more quickly.

4. *Provide a sample "new storm water utility billing charge" on each customer bill 30-60 days before first day of billing.*

   The method for communicating this information should be determined by SAWS and the City.

5. *Coordinate with City on method of populating and updating the website setup to deliver storm water utility fee information to the public.*

6. *Coordinate with City on appeals process.*

   The City and SAWS have determined SAWS will handle calls regarding the bill, basic storm water utility questions, residential tiers, requirements to initiate an impervious area appeal, coding errors, or other similar questions. The City will handle the process and approval of the impervious area appeal itself and retain responsibility for comparing and/or updating the customer supplied information with the impervious area layer in GIS or database containing the impervious values.

7. *The City will establish Policies and Procedures for how to determine and update impervious area for new development, re-development, additions, demolitions, and newly annexed areas.*

8. *The City and SAWS will establish a common transfer file type and scheduled delivery of impervious cover data and a method by which to import this date into the billing system.*

   The BCAD property ID has been determined to be the best common identifier between physical property and storm water utility accounts but more information may need to be shared such as tap numbers when the need to identify specific buildings on a parcel arises.

5.0 RECOMMENDATIONS FOR ORDINANCE REVISIONS

The City's storm water rates were first established on May 13, 1993 (Ordinance No. 77949), but the City of San Antonio Drainage Utility was not created until September 25, 1997 (Ordinance No. 86711) under Chapter 552 of the Texas Local Government Code. The statutory requirements for the establishment and operation of a municipal drainage utility system are specified in the Texas Local Government Code, Chapter 552, Subchapter C-The Municipal Drainage Utility Systems Act. The Act requires the adoption by ordinance of certain provisions to legally establish a drainage utility. These include declaring drainage to be a public utility, dedication of drainage assets to the utility, establishment of the utility service area, specifying exemptions, cost-of-service analysis, specifying the method for user-fee assignment to property and customer billing, and segregation of funds. The Act specifies that the utility must offer services on nondiscriminatory, reasonable and equitable terms; and that customer rates must be equitable for similar services in all areas of the service area.

The Act is presented in Appendix A. Current City code provisions need to be revised and amended to be consistent with the Act, to expand overall ordinance content and detail, and to support the change to impervious area based user-fee assignment.

Current City Code provisions are contained in Section 34-235 through Section 34-1116. The following major issues are identified for consideration in the development of the ordinance for adoption of the impervious area based user fee customer rate structure:

5.1 Definitions

The definitions section of the ordinance should be made consistent with the current version of the Act and expanded to define terms associated with the adoption of the impervious area based user fee assignment methodology and associated customer user-fee rate structure. This includes defining impervious area and correcting the definition of "benefitted property" to be consistent with the Act. The current definition of "benefitted property" in the City Code requires that the property must receive other City utility services in order to be subject to the drainage utility user-fee; the Act does not place this condition in defining "benefitted property." All developed properties that discharge to the City's drainage system are subject to the user-fee unless specifically exempted by law.

5.2 Current Rate Structure

Shown on Table 3.1, the current rate structure is based on land parcel area and land use. For non-residential properties (commercial, multi-family and public), the customer tiers are broad and the highest tier in each customer class is capped at an upper limit. Therefore, within a tier smaller properties pay the same rate as larger properties with size range differences up to a factor of three. For example, a multi-family properties of size 1 acre pays the same fee as a property of size 3 acres. Also, smaller properties in the highest tiers with capped rates pay fees 1.7 to 4.7 times higher than properties slightly smaller that fall into the next lower tier. The capped rates for the highest tiers results in the largest properties not

paying an equitable share for the cost of service and thus being subsidized by the entire base of smaller residential and non-residential customers. It is analogous to getting unlimited free potable water service once use exceeds say 10,000 gallons in a month. The other City utilities-water, wastewater and electric power do not provide this type of "free subsidized" service to very large users; this would not be consistent with cost-of-service principles.

The transition to impervious area user-fee assignment basis will greatly improve customer equity because impervious area is directly related to storm water runoff potential. Each non-residential property land parcel will be assigned a custom user-fee based on the amount of measured impervious area. Additionally, three customer rate tiers are proposed for residential user-fee assignment; this will significantly improve customer equity for single-family customers. Detail on the impervious area rate structure proposed for implementation is provided in Section 4 of this report.

5.3 Service Area

The current service area is specified to include the extraterritorial jurisdiction area. The City does not collect the user-fee in the ETJ nor does it provide service in the ETJ so the service area should be corrected to include only the City's municipal limits (City Limits).

5.4 SAWS Relationship

The current code provisions detail the initial financial and service relationship with SAWS. Although SAWS provides significant support services, this is an administrative issue and does not need to be carried forward in the new ordinance.

5.5 Segregation of Income

The City currently segregates the drainage utility income and manages it as a separate enterprise in the Storm Water Operations Fund. This existing management fund should be referenced by name in the ordinance.

5.6 Detention Fee in Lieu of (FILO)

FILO is currently combined with the drainage utility in the code provisions. FILO is not part of the drainage utility and it is land development related. FILO has a separate enterprise fund (Storm Water Regional Facilities Fund). FILO should be separated from the drainage utility in the code to avoid confusion.

5.7 Customer Appeals

The appeals process will change with the switchover to impervious area user-fee assignment. Transportation and Capital Improvements (TCI) will have significant involvement is response to questions of impervious area amount and assuring that new land development data is transmitted to SAWS. This process as it relates to customer interaction should be detailed in the ordinance.

5.8 Exemptions

Currently, the only discretionary exemption exercised by the City is for lands dedicated to rights-of-way for public streets and/or to provide drainage service. This is appropriate as streets serve as the primary collector and conveyance of storm water runoff into the storm drain system and into waterways. This exemption should be carried forward into the new ordinance.

An exemption should be added for rail rights-of-way outside of railyards in recognition of the cooperative joint-use drainage function that rail rights-of way play within the utility service area as described in Section 4.3.4 of this report.

5.9 Customer Credit

A customer credit of up to 30 percent of the impervious fee is proposed for the implementation of LID as detailed in Section 4.2 of this report. This should be included in the ordinance provisions specific to the drainage utility charge.

5.10 Additional Clauses Recommended

Clauses addressing the following issues are recommended to protect City interests.

1) The establishment of the drainage utility does not relieve development from providing drainage improvements in connection with land development as required by other ordinances of the City or laws of the State of Texas.
2) The establishment of the drainage utility does not imply or warrant that a benefitted property will be free from flooding, storm water pollution, or stream erosion. The establishment of the drainage utility does not reduce the need for flood insurance.
3) Reference should be made to the adoption of this study as the basis for the revised rate structure and customer billing rates.

5.11 Effective Date

The effective date of the ordinance should be specified in the ordinance. The current plan is to adopt the transition to impervious area based user-fee assignment as part of the FY2016 budget with the effective date of January 1, 2016.

Appendix A:

Texas Local Government Code, Chapter 552,

Subchapter C. – The Municipal Drainage Utility Systems Act

SUBCHAPTER C. MUNICIPAL DRAINAGE UTILITY SYSTEMS

Sec. 552.041. SHORT TITLE. This subchapter may be cited as the Municipal Drainage Utility Systems Act.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991.

Renumbered from Local Government Code, Section 402.041 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Sec. 552.042. LEGISLATIVE FINDING. (a) The legislature finds that authority is needed to:

(1) permit municipalities to establish a municipal drainage utility system within the established service area;

(2) provide rules for the use, operation, and financing of the system;

(3) protect the public health and safety in municipalities from loss of life and property caused by surface water overflows, surface water stagnation, and pollution arising from nonpoint source runoff within the boundaries of the established service area;

(4) delegate to municipalities the power to declare, after a public hearing, a drainage system created under this

subchapter to be a public utility;

(5) prescribe bases on which a municipal drainage utility system may be funded and fees in support of the system may be assessed, levied, and collected;

(6) provide exemptions of certain persons from this subchapter; and

(7) prescribe other rules related to the subject of municipal drainage.

(b) This subchapter is remedial.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1989, 71st Leg., ch. 1230, Sec. 1(b), eff. Aug. 28, 1989; Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991.

Renumbered from Local Government Code, Section 402.042 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Sec. 552.043. APPLICATION OF SUBCHAPTER TO MUNICIPALITIES. This subchapter applies to any municipality.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1989, 71st Leg., ch. 1230, Sec. 1(c), eff. Aug. 28, 1989; Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991.

Renumbered from Local Government Code, Section 402.043 by Acts

2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Sec. 552.044. DEFINITIONS. In this subchapter:

(1)(A) "Benefitted property" means an improved lot or tract to which drainage service is made available under this subchapter.

(B) "Benefitted property," in a municipality with a population of more than 1.18 million located primarily in a county with a population of 2 million or more which is operating a drainage utility system under this chapter, means a lot or tract, but does not include land appraised for agricultural use, to which drainage service is made available under this subchapter and which discharges into a creek, river, slough, culvert, or other channel that is part of the municipality's drainage utility system. Sections 552.053(c)(2) and (c)(3) do not apply to a municipality described in this subdivision.

(2) "Cost of service" as applied to a drainage system service to any benefitted property means:

(A) the prorated cost of the acquisition, whether by eminent domain or otherwise, of land, rights-of-way, options to purchase land, easements, and interests in land relating to structures, equipment, and facilities used in

draining the benefitted property;

(B) the prorated cost of the acquisition, construction, repair, and maintenance of structures, equipment, and facilities used in draining the benefitted property;

(C) the prorated cost of architectural, engineering, legal, and related services, plans and specifications, studies, surveys, estimates of cost and of revenue, and all other expenses necessary or incident to planning, providing, or determining the feasibility and practicability of structures, equipment, and facilities used in draining the benefitted property;

(D) the prorated cost of all machinery, equipment, furniture, and facilities necessary or incident to the provision and operation of draining the benefitted property;

(E) the prorated cost of funding and financing charges and interest arising from construction projects and the start-up cost of a drainage facility used in draining the benefitted property;

(F) the prorated cost of debt service and reserve requirements of structures, equipment, and facilities provided by revenue bonds or other drainage revenue-pledge securities or obligations issued by the municipality; and

(G) the administrative costs of a drainage utility system.

(3) "Drainage" means bridges, catch basins, channels, conduits, creeks, culverts, detention ponds, ditches, draws, flumes, pipes, pumps, sloughs, treatment works, and appurtenances to those items, whether natural or artificial, or using force or gravity, that are used to draw off surface water from land, carry the water away, collect, store, or treat the water, or divert the water into natural or artificial watercourses.

(4) "Drainage charge" means:

(A) the levy imposed to recover the cost of the service of the municipality in furnishing drainage for any benefitted property; and

(B) if specifically provided by the governing body of the municipality by ordinance, an amount made in contribution to funding of future drainage system construction by the municipality.

(5) "Drainage system" means the drainage owned or controlled in whole or in part by the municipality and dedicated to the service of benefitted property, including provisions for additions to the system.

(6) "Facilities" means the property, either real, personal, or mixed, that is used in providing drainage and included in the system.

(7) "Public utility" means a drainage service that is

regularly provided by the municipality through municipal property dedicated to that service to the users of benefitted property within the service area and that is based on:

(A) an established schedule of charges;

(B) the use of the police power to implement the service; and

(C) nondiscriminatory, reasonable, and equitable terms as declared under this subchapter.

(8) "Service area" means the municipal boundaries and any other land areas outside the municipal boundaries which, as a result of topography or hydraulics, contribute overland flow into the watersheds served by the drainage system of a municipality; provided, however, that in no event may a service area extend farther than the boundaries of a municipality's current extraterritorial jurisdiction, nor, except as provided by Section 552.0451, may a service area of one municipality extend into the boundaries of another municipality. The service area is to be established in the ordinance establishing the drainage utility. Provided, that no municipality shall extend a service area outside of its municipal boundaries except:

(A) a municipality of more than 500,000 population located within 50 miles of an international border;

(B) a municipality all or part of which is located over or within the Edwards Aquifer recharge zone or the

Edwards Aquifer transition zone, as designated by the Texas Natural Resource Conservation Commission; or

(C) as provided by Section 552.0451.

(9) "User" means the person or entity who owns or occupies a benefitted property.

(10) "Improved lot or tract" means a lot or tract that has a structure or other improvement on it that causes an impervious coverage of the soil under the structure or improvement.

(11) "Wholly sufficient and privately owned drainage system" means land owned and operated by a person other than a municipal drainage utility system the drainage of which does not discharge into a creek, river, slough, culvert, or other channel that is part of a municipal drainage utility system.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1989, 71st Leg., ch. 1230, Sec. 1(d), eff. Aug. 28, 1989; Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991; Acts 1993, 73rd Leg., ch. 674, Sec. 1, eff. Aug. 30, 1993; Acts 1993, 73rd Leg., ch. 773, Sec. 1, eff. June 18, 1993; Acts 1995, 74th Leg., ch. 35, Sec. 1, eff. Sept. 1, 1995; Acts 1995, 74th Leg., ch. 76, Sec. 11.258, eff. Sept. 1, 1995; Acts 1997, 75th Leg., ch. 633, Sec. 1, eff. Sept. 1, 1997; Acts 1999, 76th Leg., ch. 62, Sec. 13.22, eff. Sept. 1, 1999; Acts 2001, 77th Leg., ch. 669, Sec. 108, eff. Sept. 1, 2001.

Amended by:

Acts 2007, 80th Leg., R.S., Ch. 520 (S.B. 688), Sec. 1, eff. June 16, 2007.

Renumbered from Local Government Code, Section 402.044 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Amended by:

Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.77(5), eff. April 1, 2009.

Acts 2011, 82nd Leg., R.S., Ch. 1163 (H.B. 2702), Sec. 101, eff. September 1, 2011.

Sec. 552.045. ADOPTION OF SYSTEM; RULES. (a) Subject to the requirements in Subsections (b) and (c), the governing body of the municipality, by a majority vote of its entire membership, may adopt this subchapter by an ordinance that declares the adoption and that declares the drainage of the municipality to be a public utility.

(b) Before adopting the ordinance, the governing body must find that:

(1) the municipality will establish a schedule of drainage charges against all real property in the proposed service area subject to charges under this subchapter;

(2) the municipality will provide drainage for all

real property in the proposed service area on payment of drainage charges, except real property exempted under this subchapter; and

(3) the municipality will offer drainage service on nondiscriminatory, reasonable, and equitable terms.

(c) Before adopting the ordinance, the governing body must publish a notice in a newspaper of general circulation in the municipality stating the time and place of a public hearing to consider the proposed ordinance. The proposed ordinance must be published in full in the notice. The governing body shall publish the notice three times before the date of the hearing. The first publication must occur on or before the 30th day before the date of the hearing.

(d) After passage of the ordinance adopting this subchapter, the municipality may levy a schedule of drainage charges. The municipality must hold a public hearing on the charges before levying the charges. The municipality must give notice of the hearing in the manner provided by Subsection (c). The proposed schedule of drainage charges, as originally adopted or as revised, must be published in the notice.

(e) The municipality by ordinance may adopt and enforce rules as it considers appropriate to operate the drainage utility system. Provided, however, that the prohibitions contained in Section 212.003(a) of the Local Government Code

relating to quasi-zoning and other land use regulations in the extraterritorial jurisdiction of a municipality shall apply to any rule or ordinance adopted or enacted by the municipality under this Act, except that rates may be established using impervious cover measurements relating to land use and building size.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1989, 71st Leg., ch. 1230, Sec. 1(e), eff. Aug. 28, 1989; Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991.

Renumbered from Local Government Code, Section 402.045 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Sec. 552.0451. EXTENSION OF SERVICE AREA BY CERTAIN MUNICIPALITIES. (a) A municipality with a population of more than 900,000 located in one or more counties with a population of less than 1.5 million as of the 1990 federal census may extend its service area:

(1) into the boundaries of another municipality if:

(A) before the extension water from the municipality to which the service area is to be extended regularly drains into the drainage system of the municipality extending its service area; and

(B) the extension is provided for by an interlocal agreement between the municipalities; or

(2) beyond its municipal boundaries into an unincorporated area of its extraterritorial jurisdiction if:

(A) before the extension water from the area to which the service area is to be extended regularly drains into the drainage system of the municipality extending its service area; and

(B) the extension is provided for by an interlocal agreement between the municipality extending its service area and the county containing the area to which the service area is to be extended.

(b) An interlocal agreement under Subsection (a) may:

(1) contain provisions necessary for the operation of a drainage system within the area to which the service area is extended; and

(2) provide for charges for treatment of drainage water and methods of assessment of the charges to an owner of a lot or tract of benefitted property in the area to which the service area is extended.

(c) Charges and methods of assessment agreed to under Subsection (b)(2) must comply with Section 552.047.

Added by Acts 1993, 73rd Leg., ch. 773, Sec. 2, eff. June 18, 1993.

Renumbered from Local Government Code, Section 402.0451 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Amended by:

Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.77(6), eff. April 1, 2009.

Sec. 552.046. INCORPORATION OF EXISTING FACILITIES. The municipality may incorporate existing drainage facilities, materials, and supplies into the drainage utility system.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991.

Renumbered from Local Government Code, Section 402.046 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Sec. 552.047. DRAINAGE CHARGES. (a) The governing body of the municipality may charge a lot or tract of benefitted property for drainage service on any basis other than the value of the property, but the basis must be directly related to drainage and the terms of the levy, and any classification of the benefitted properties in the municipality must be nondiscriminatory, equitable, and reasonable.

(b) In setting the schedule of charges for drainage service, the governing body must base its calculations on an inventory of the lots and tracts within the service area. The governing body may use approved tax plats and assessment rolls for that purpose. The governing body may also consider the land use made of the benefitted property. The governing body may consider the size, in area, the number of water meters, and topography of a parcel of benefitted property, in assessing the drainage charge to the property.

(c) The governing body may fix rates for drainage charges in advance and may change, adjust, and readjust the rates and charges for drainage service from time to time. The rates must be equitable for similar services in all areas of the service area.

(d) Unless a person's lot or tract is exempted under this subchapter, the person may not use the drainage system for the lot or tract unless the person pays the full, established, drainage charge.

(e) Users residing within the established service area, but outside the municipality's boundaries, may appeal rates established for drainage charges under Section 13.043(b), Water Code.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16,

1991; Acts 1995, 74th Leg., ch. 76, Sec. 11.259, eff. Sept. 1, 1995; Acts 1997, 75th Leg., ch. 633, Sec. 2, eff. Sept. 1, 1997.

Renumbered from Local Government Code, Section 402.047 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Amended by:

Acts 2013, 83rd Leg., R.S., Ch. 170 (H.B. 1600), Sec. 2.87, eff. September 1, 2013.

Acts 2013, 83rd Leg., R.S., Ch. 171 (S.B. 567), Sec. 87, eff. September 1, 2013.

Sec. 552.048. BILLINGS; DEPOSIT NOT REQUIRED. (a) The municipality may bill drainage charges, identified separately, with the municipality's other public utility billings. Any delinquent billings may be collected on the benefitted property under the procedure prescribed by this subchapter.

(b) The municipality may not require a deposit for drainage service as a precondition to accepting surface flow in the drainage utility system.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991.

Renumbered from Local Government Code, Section 402.048 by Acts

2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Sec. 552.049. SEGREGATION OF INCOME. The income of a drainage utility system must be segregated and completely identifiable in municipal accounts. If drainage charges are solely for the cost of service, the municipality may transfer the charges in whole or in part to the municipal general fund, except for any part collected outside municipal boundaries and except for any part pledged to retire any outstanding indebtedness or obligation incurred, or as a reserve for future construction, repair, or maintenance of the drainage system. If the governing body has levied, in the drainage charge, an amount in contribution to the funding of future system improvements, including replacement, new construction, or extension, that amount is not transferable to the general fund.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1989, 71st Leg., ch. 1230, Sec. 1(f), eff. Aug. 28, 1989; Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991.

Renumbered from Local Government Code, Section 402.049 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Sec. 552.050. DELINQUENT CHARGES. (a) Any charge due hereunder which is not paid when due may be recovered in an action at law by the municipality. In addition to any other remedies or penalties provided at law or in this subchapter, failure of a user of the municipal utilities within the service area to pay the charges promptly when due shall subject such user to discontinuance of any utility services provided by the municipality, and municipalities are hereby empowered to enforce this provision against delinquent users. The employees of the utility established in accordance with this subchapter shall have access, at all reasonable times, to any benefitted properties served by the drainage utility for inspection or repair or for the enforcement of the provisions of this subchapter.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991.

Renumbered from Local Government Code, Section 402.050 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Sec. 552.051. DRAINAGE REVENUE BONDS. By majority vote of the governing body, the municipality may issue drainage revenue bonds. The municipality may use Chapter 1201, Government Code.

In addition, the municipality may pledge income received by contracts for the provision of drainage to other governments or governmental subdivisions located inside or outside the service area.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991; Acts 2001, 77th Leg., ch. 1420, Sec. 8.350, eff. Sept. 1, 2001.

Renumbered from Local Government Code, Section 402.051 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Sec. 552.052. DISCONTINUATION OF DRAINAGE SYSTEM. (a) If, after at least five years of substantially continuous operation of a municipal drainage system, the governing body of the municipality determines that the system should be discontinued, that the powers under this subchapter should be revoked, and that provision for municipal drainage should be made by other revenues, the governing body may adopt an ordinance to that effect after providing notice and a public hearing as provided by Section 552.045.

(b) If the municipality discontinues a system under Subsection (a), it may not adopt a system under this subchapter for at least five years after the discontinuation.

(c) A discontinuation does not affect a written obligation incurred by the municipality for funding or for the purchase of equipment, materials, or labor for the drainage system that is not then fully paid or otherwise discharged.

(d) A claim for damages based on an alleged failure of the drainage system that is filed with the municipality before the adoption of the ordinance discontinuing the drainage system is not abated by the discontinuation.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1989, 71st Leg., ch. 1230, Sec. 1(g), eff. Aug. 28, 1989; Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991.

Renumbered from Local Government Code, Section 402.052 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Amended by:

Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.77(7), eff. April 1, 2009.

This section was amended by the 84th Legislature. Pending publication of the current statutes, see H.B. 1662, 84th Legislature, Regular Session, for amendments affecting this section.

Sec. 552.053. EXEMPTIONS. (a) A governmental entity or

person described by Subsection (b) and a lot or tract in which the governmental entity or person holds a freehold interest may be exempt from this subchapter and all ordinances, resolutions, and rules adopted under this subchapter.

(b) The following may be exempt:

(1) this state;

(2) a county;

(3) a municipality;

(4) a school district.

(c) The following shall be exempt from the provisions of any rules or ordinances adopted by a municipality pursuant to this Act:

(1) property with proper construction and maintenance of a wholly sufficient and privately owned drainage system;

(2) property held and maintained in its natural state, until such time that the property is developed and all of the public infrastructure constructed has been accepted by the municipality in which the property is located for maintenance; and

(3) a subdivided lot, until a structure has been built on the lot and a certificate of occupancy has been issued by the municipality in which the property is located.

(d) A municipality may exempt property owned by a religious organization that is exempt from taxation pursuant to

Section 11.20, Tax Code, from drainage charges under this subchapter.

(e) The following property is exempt from drainage charges under Section 552.047 and all ordinances, resolutions, and rules adopted under this subchapter:

(1) property owned by a county in which a municipality described by Section 552.044(8)(A) is located;

(2) property owned by a school district located wholly or partly in a municipality described by Section 552.044(8)(A); and

(3) property owned by a municipal housing authority of a municipality described by Section 552.044(8)(A).

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991; Acts 1993, 73rd Leg., ch. 674, Sec. 2, eff. Aug. 30, 1993; Acts 1993, 73rd Leg., ch. 773, Sec. 3, eff. June 18, 1993.

Renumbered from Local Government Code, Section 402.053 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Amended by:

Acts 2009, 81st Leg., R.S., Ch. 278 (S.B. 874), Sec. 1, eff. May 30, 2009.

Acts 2009, 81st Leg., R.S., Ch. 539 (S.B. 1522), Sec. 1,

eff. June 19, 2009.

Acts 2011, 82nd Leg., R.S., Ch. 91 (S.B. 1303), Sec. 16.6 , eff. September 1, 2011.

Acts 2011, 82nd Leg., R.S., Ch. 1230 (S.B. 609), Sec. 1, eff. June 17, 2011.

Sec. 552.054. EFFECT OF SUBCHAPTER. This subchapter does not:

(1) enhance or diminish the authority of a home-rule municipality to establish a drainage utility under Article XI, Section 5, of the Texas Constitution;

(2) preclude a municipality from utilizing revenues, other than drainage utility revenues, for drainage purposes; or

(3) preclude a municipality from imposing impact fees or other charges for drainage authorized by law.

Added by Acts 1989, 71st Leg., ch. 1230, Sec. 1(h), eff. Aug. 28, 1989. Amended by Acts 1991, 72nd Leg., ch. 852, Sec. 1, eff. June 16, 1991.

Renumbered from Local Government Code, Section 402.054 by Acts 2007, 80th Leg., R.S., Ch. 885 (H.B. 2278), Sec. 3.76(a)(2), eff. April 1, 2009.

Appendix B:

Railyard Impervious Research- Sample Runoff Coefficients

Source: FHWA-NH1-10-009
HECZZ Urban Drainage Design Manual 2009

Table 3-1. Runoff Coefficients for Rational Formula.[14]	
Type of Drainage Area	Runoff Coefficient, C*
Business:	
Downtown areas	0.70 - 0.95
Neighborhood areas	0.50 - 0.70
Residential:	
Single-family areas	0.30 - 0.50
Multi-units, detached	0.40 - 0.60
Multi-units, attached	0.60 - 0.75
Suburban	0.25 - 0.40
Apartment dwelling areas	0.50 - 0.70
Industrial:	
Light areas	0.50 - 0.80
Heavy areas	0.60 - 0.90
Parks, cemeteries	0.10 - 0.25
Playgrounds	0.20 - 0.40
Railroad yard areas	0.20 - 0.40
Unimproved areas	0.10 - 0.30
Lawns:	
Sandy soil, flat, 2%	0.05 - 0.10
Sandy soil, average, 2 - 7%	0.10 - 0.15
Sandy soil, steep, 7%	0.15 - 0.20
Heavy soil, flat, 2%	0.13 - 0.17
Heavy soil, average, 2 - 7%	0.18 - 0.22
Heavy soil, steep, 7%	0.25 - 0.35
Streets:	
Asphaltic	0.70 - 0.95
Concrete	0.80 - 0.95
Brick	0.70 - 0.85
Drives and walks	0.75 - 0.85
Roofs	0.75 - 0.95
*Higher values are usually appropriate for steeply sloped areas and longer return periods because infiltration and other losses have a proportionally smaller effect on runoff in these cases.	

Rational Formula

Runoff Coefficient (C)

- Coefficient that represents the fraction of rainfall that becomes runoff

- Depends on type of surface, character of the soil, Shape of the drainage area, Slope of the watershed, amount and type of surface storage, land use, duration of rainfall, intensity of rainfall etc.

Table 1: Runoff coefficients.[1]

description of area	runoff coefficients
Business:	
downtown areas	0.70–0.95
neighborhood areas	0.50–0.70
Residential:	
single-family areas	0.30–0.50
multi-units, detached	0.40–0.60
multi-units, attached	0.60–0.70
residential (suburban)	0.25–0.40
apartment dwelling areas	0.50–0.70
Industrial:	
light areas	0.50–0.80
heavy areas	0.60–0.90
parks, cemeteries	0.10–0.25
playgrounds	0.20–0.35
railroad yard areas	0.20–0.40
unimproved areas	0.10–0.30

Source: IOWA DOT Design Manual 4A-4

200 acres will be no less than 3 hours in duration.

(2) For design purposes, the rainfall duration for drainage areas more than 200 acres will be no less than 6 hours in duration.

b. Intensity-duration Curves. Figure 9.1, City of Houston IDF Curves, depicts the intensity-duration curves to be used for storm sewer and roadside ditch design in the City of Houston and the ETJ. These curves were derived from the National Weather Service publications referenced in this Chapter.

2. Application of Run-off Calculation Models.

a. Rational Method: The rational method will be used for design on areas served by storm sewers up to 600 acres in size and for areas served by roadside ditches up to 500 acres in size.

b. Rainfall Run-off Modeling: Rainfall run-off modeling will be applied to areas greater than 500 acres in size that are drained by an open channel. Rainfall run-off modeling can be used for modeling of storm sewer areas greater than 600 acres provided the model considers the storage and ponding in streets. If the modeling is associated with establishing a flood-prone area for purposes of a FEMA submittal, the models must be acceptable to that agency.

3. Coefficients for the Rational Method.

a. Calculation of Run-off Coefficient.

(1) The run-off coefficient C values in the rational method formula will vary based on the land use. Land use types and C-values which can be used are as follows:

Land Use Type	Run-off Coefficient (C)
Residential Districts	
Lots more than 1/2 acre	0.35
Lots 1/4 - 1/2 acre	0.45
Lots less than 1/4 acre	0.55
Multi-Family areas	
Less than 20 Service Units/Acre	0.65
20 Service Units/Acre or Greater	0.80
Business Districts	0.80
Industrial Districts	
Light Areas	0.65
Heavy Areas	0.75
Railroad Yard Areas	0.30
Parks/Open Areas	0.18

Source: City of Houston Design Manual

K = Dimensionless coefficient to account for antecedent precipitation as follows, except the product of $C \cdot K$ shall not exceed 1.0.

TABLE 2.2.1.1

ANTICEDENT PRECIPITATION COEFFICIENTS

Design Storm	K
10% and more frequent	1.0
4%	1.1
2%	1.2
1%	1.25

TABLE 2.2.1.2

RUNOFF COEFFICIENTS

LAND USE/ZONING	AVERAGE PERCENT IMPERVIOUS	AVERAGE PERCENT PERVIOUS	RATIONAL METHOD "C"
1. Business			
Downtown Area	95	5	0.87
Neighborhood Areas	85	15	0.81
2. Residential			
Single-Family Areas	35	65	0.51
Multifamily Areas	60	40	0.66
Churches & Schools	75	25	0.75
3. Industrial			
Light Areas	60	40	0.66
Heavy Areas	80	20	0.78
Parks, Cemeteries	10	90	0.36
Railroad Yard Areas	25	75	0.45
4. Undeveloped Areas	0	100	0.3

Source: Lawrenceville, Georgia Storm Water Design Manual

Table 2.5-1
Recommended Runoff Coefficient Values

Description of Area	Runoff Coefficients (C)
Lawns:	
Sandy soil, flat, 2%	0.10
Sandy soil, average, 2 – 7%	0.15
Sandy soil, steep, > 7%	0.20
Clay soil, flat, 2%	0.17
Clay soil, average, 2 – 7%	0.22
Clay soil, steep, > 7%	0.35
Unimproved areas (forest)	0.15
Business:	
Downtown areas	0.95
Neighborhood areas	0.70
Residential:	
Single-family areas	0.50
Multi-units, detached	0.60
Multi-units, attached	0.70
Suburban	0.40
Apartment dwelling areas	0.70
Industrial:	
Light areas	0.70
Heavy areas	0.80
Parks, cemeteries	0.25
Playgrounds	0.35
Railroad yard areas	0.40
Streets:	
Asphaltic and Concrete	0.95
Brick	0.85
Drives, walks, and roofs	0.95
Gravel areas	0.50
Graded or no plant cover	
Sandy soil, flat, 0 – 5%	0.30
Sandy soil, flat, 5 – 10%	0.40
Clayey soil, flat, 0 – 5%	0.50
Clayey soil, average, 5 – 10%	0.60

Runoff Coefficient

The assignment of the runoff coefficient (C) is somewhat subjective. At the time the rainfall producing runoff occurs, the coefficient varies with topography, land use, vegetal cover, soil type, and moisture content of the soil. In selecting the runoff coefficient, consider the future characteristics of the watershed. If land use varies within a watershed, you must consider watershed segments individually, and you can calculate a weighted runoff coefficient value.

The following table suggests ranges of C values for various categories of ground cover. This table is typical of design guides found in civil engineering texts dealing with hydrology. You must subjectively assign a C value based on what you see or anticipate in the watershed with reference to the table.

Runoff Coefficients for Urban Watersheds

Type of Drainage Area	Runoff Coefficient
Business:	
• downtown areas	0.70-0.95
• neighborhood areas	0.30-0.70
Residential:	
• single-family areas	0.30-0.50
• multi-units, detached	0.40-0.60
• multi-units, attached	0.60-0.75
• suburban	0.35-0.40
• apartment dwelling areas	0.30-0.70
Industrial:	
• light areas	0.30-0.80
• heavy areas	0.60-0.90
Parks, cemeteries	0.10-0.25
Playgrounds	0.30-0.40
Railroad yards	0.30-0.40
Unimproved areas:	
• sand or sandy loam soil, 0-3%	0.15-0.20
• sand or sandy loam soil, 3-5%	0.20-0.25
• black or loessial soil, 0-3%	0.18-0.25
• black or loessial soil, 3-5%	0.25-0.30
• black or loessial soil, >5%	0.70-0.80
• deep sand area	0.05-0.15
• steep grassed slopes	0.70
Lawns:	
• sandy soil, flat 2%	0.05-0.10
• sandy soil, average 2-7%	0.10-0.15
• sandy soil, steep 7%	0.15-0.20
• heavy soil, flat 2%	0.13-0.17
• heavy soil, average 2-7%	0.18-0.22
• heavy soil, steep 7%	0.25-0.35

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Table 8.03b
Value of Runoff Coefficient (C) for Rational Formula

Land Use	C	Land Use	C
Business:		Lawns:	
Downtown areas	0.70-0.95	Sandy soil, flat, 2%	0.05-0.10
Neighborhood areas	0.50-0.70	Sandy soil, ave., 2-7%	0.10-0.15
Residential:		Sandy soil, steep, 7%	0.15-0.20
Single-family areas	0.30-0.50	Heavy soil, flat, 2%	0.13-0.17
Multi units, detached	0.40-0.60	Heavy soil, ave., 2-7%	0.18-0.22
Multi units, Attached	0.60-0.75	Heavy soil, steep, 7%	0.25-0.35
Suburban	0.25-0.40		
Industrial:			0.30-0.60
Light areas	0.50-0.80		0.20-0.50
Heavy areas	0.60-0.90	Agricultural land:	
Parks, cemeteries	0.10-0.25	Bare packed soil	0.30-0.60
Playgrounds	0.20-0.35	Smooth	0.20-0.50
Railroad yard areas	0.20-0.40	Rough	0.20-0.40
Unimproved areas	0.10-0.30	Cultivated rows	0.10-0.25
Streets:		Heavy soil no crop	0.15-0.45
Asphalt	0.70-0.95	Heavy soil with crop	0.05-0.25
Concrete	0.80-0.95	Sandy soil no crop	0.05-0.25
Brick	0.70-0.85	Sandy soil with crop	0.10-0.25
Drives and walks	0.75-0.85	Pasture	
Roofs	0.75-0.85	Heavy soil	0.15-0.45
		Sandy soil	0.05-0.25
		Woodlands	0.05-0.25

NOTE: The designer must use judgement to select the appropriate C value within the range for the appropriate land use. Generally, larger areas with permeable soils, flat slopes, and dense vegetation should have lowest C values. Smaller areas with slowly permeable soils, steep slopes, and sparse vegetation should be assigned highest C values.

Source: American Society of Civil Engineers

Table 1: General runoff coefficients for the rational method. After Viessman and Lewis (2003).

Description	Runoff Coefficient
Business	
Downtown Areas	0.70–0.95
Neighborhood Areas	0.50–0.70
Residential	
Single-family	0.30–0.50
Multi-family detached	0.40–0.60
Multi-family attached	0.60–0.75
Residential suburban	0.25–0.40
Apartments	0.50–0.70
Parks, cemetaries	0.10–0.25
Playgrounds	0.20–0.35
Railroad yards	0.20–0.40
Unimproved areas	0.10–0.30
Drives and walks	0.75–0.85
Roofs	0.75–0.95
Streets	
Asphalt	0.70–0.95
Concrete	0.80–0.95
Brick	0.70–0.85
Lawns; sandy soils	
Flat, 2% slopes	0.05–0.10
Average, 2%–7% slopes	0.10–0.15
Steep, 7% slopes	0.15–0.20
Lawns; heavy soils	
Flat, 2% slopes	0.13–0.17
Average, 2%–7% slopes	0.18–0.22
Steep, 7% slopes	0.25–0.35

4. Storm Intensity

Storm intensity, i, is a function of geographic location, design exceedence frequency (or return interval), and storm duration.[4] It is true that the greater the return interval (hence, the lower the exceedence frequency), the greater the precipitation intensity for a given storm duration. Furthermore, as storm duration increases average precipitation intensity decreases.

The relation between these three components, storm duration, storm intensity, and storm return interval, is represented by a family of curves called the *intensity-duration-frequency* curves, or IDF curves. The IDF curves can be determined by analysis of storms for a particular site or by the use of standard meteorological atlases, such as TP-40 1963 and HYDRO-35 1977.[5]

[4] Actually, i is the *average* storm intensity for a storm with a duration equal to the time of concentration for the watershed.

[5] Although not included in this version of this paper, new precipitation data are being developed for IDF relations by National Oceanic and Atmospheric Agency.

Runoff Coefficient Table

Area Description	Runoff Coefficient C
Business	
Downtown	0.70-0.95
Neighborhood	0.50-0.70
Residential	
Single-Family	0.30-0.50
Multiunits, detached	0.40-0.60
Multiunits, attached	0.60-0.75
Residential (suburban)	0.25-0.40
Apartment	0.50-0.70
Industrial	
Light	0.50-0.80
Heavy	0.60-0.90
Parks, cemeteries	0.10-0.25
Playgrounds	0.20-0.35
Railroad yard	0.20-0.35
Unimproved	0.10-0.30
Character of surface	**Runoff Coefficient C**
Pavement	
Asphaltic and concrete	0.70-0.95
Brick	0.70-0.85
Roofs	0.75-0.95
Lawns, sandy soil	
Flat, 2 percent	0.05-0.10
Average, 2-7 percent	0.10-0.15
Steep, 7 percent	0.15-0.20
Lawns, heavy soil	
Flat, 2 percent	0.13-0.17
Average, 2-7 percent	0.18-0.22
Steep, 7 percent	0.25-0.35

Related Topics:
Rational Equation
Rational Method Overview
Basin Data

Source: Allen County, Ohio Stormwater Design Specifications 2001

Developments on highly permeable soils, such as Spinks and certain Casco and Fox soils, with a permeability rate of six (6) inches per hour or greater, may reduce the imperviousness coefficient on agricultural, open space, and yard areas by 50 percent of the tabulated values.

Runoff Coefficients for Petitioned Ditch Projects (Table 1)

Road R/W		0.80
Railroad		0.35
Agricultural		0.20
Residential	x ⟨2 Ac	0.25
	2 ∃x ⟨ 1	0.30
	x ′1	0.35
Industrial		0.50-0.90
Commercial (Mall)		0.85-0.95
Grass (Parks, etc.)		0.20
Woods (Light to dense underbrush)		0.10-0.30

Values of c, Runoff Coefficient (Table 2)

Character of Surface	Runoff Coefficients
Pavement	
Asphalt and concrete	0.70 to 0.95
Brick	0.70 to 0.85
Roofs	0.75 to 0.95
Lawns, sandy soil	
Flat (2 percent)	0.05 to 0.10
Average (2 to 7 percent)	0.10 to 0.15
Steep (> 7 percent)	0.15 to 0.20
Lawns, heavy soil	
Flat (2 percent)	0.13 to 0.17
Average (2 to 7 percent)	0.18 to 0.22
Steep (> 7 percent)	0.25 to 0.35
Composite c-values	
Business	
Downtown	0.70 to 0.95
Neighborhood	0.50 to 0.70
Residential	
Single Family	0.30 to 0.50
Multi-units, detached	0.40 to 0.60
Multi-units, attached	0.60 to 0.75
Residential (suburban)	0.25 to 0.40
Apartment	0.50 to 0.70
Industrial	
Light	0.50 to 0.80
Heavy	0.60 to 0.90
Parks, cemeteries	0.10 to 0.25
Playgrounds	0.20 to 0.35
Railroad yards	0.20 to 0.35
Unimproved	0.10 to 0.30

Note: The ranges of c values presented are typical for return periods of 2–10 years. Higher values are appropriate for larger design storms. Suggested multiplier factors for larger design storms are

Storm	Multiplier
25-year	1.15
50-year	1.20
100-year	1.25

Note: Adjusted n-value cannot exceed 1.00.

Table 2 Values of c, runoff coefficient. (Courtesy of ASCE & Water Environmental Federation, Design and Construction of Urban Stormwater Management Systems.)

Table 3: Roughness Coefficients (Manning's "N") for Sheet Flow

Tables Index
Civ246 Frontpage
Subjects & Courses
Homepage

Table 2 Print Version

Values of Runoff Coefficient (C) for Rational Formula

Land Use	C	Land Use	C
Business:		***Lawns:***	
Downtown areas	0.70 - 0.95	Sandy soil, flat, 2%	0.05 - 0.10
Neighborhood areas	0.50 - 0.70	Sandy soil, avg., 2-7%	0.10 - 0.15
		Sandy soil, steep, 7%	0.15 - 0.20
		Heavy soil, flat, 2%	0.13 - 0.17
		Heavy soil, avg., 2-7%	0.18 - 0.22
		Heavy soil, steep, 7%	0.25 - 0.35
Residential:		***Agricultural land:***	
		Bare packed soil	
		*Smooth	0.30 - 0.60
		*Rough	0.20 - 0.50
		Cultivated rows	
Single-family areas	0.30 - 0.50	*Heavy soil, no crop	0.30 - 0.60
Multi units, detached	0.40 - 0.60	*Heavy soil, with crop	0.20 - 0.50
Munti units, attached	0.60 - 0.75	*Sandy soil, no crop	0.20 - 0.40
Suburban	0.25 - 0.40	*Sandy soil, with crop	0.10 - 0.25
		Pasture	
		*Heavy soil	0.15 - 0.45
		*Sandy soil	0.05 - 0.25
		Woodlands	0.05 - 0.25
Industrial:		*Streets:*	
Light areas	0.50 - 0.80	Asphaltic	0.70 - 0.95
Heavy areas	0.60 - 0.90	Concrete	0.80 - 0.95
		Brick	0.70 - 0.85
Parks, cemeteries	0.10 - 0.25	Unimproved areas	0.10 - 0.30
Playgrounds	0.20 - 0.35	Drives and walks	0.75 - 0.85
Railroad yard areas	0.20 - 0.40	Roofs	0.75 - 0.95

***Note:** The designer must use judgement to select the appropriate "C" value within the range. Generally, larger areas with permeable soils, flat slopes and dense vegetation should have the lowest "C" values. Smaller areas with dense soils, moderate to steep slopes, and sparse vegetation should assigned the highest "C" values.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

VALUES OF RUNOFF COEFFICIENTS FOR USE IN DESIGNING STORMWATER DETENTION FACILITIES PER MWRD REQUIREMENTS

The following runoff coefficients ("C" values) are to be used in calculating stormwater detention maximum allowable release rates, required storage volumes, and minimum upstream bypass rates, using the MWRD Modified Rational Method.

Project Site Condition/Surface Type	***Runoff Coefficient, C***
Natural, undeveloped state (pre-disturbed) Used in calculating maximum allowable release rate, $Q_{allow} = CI_3A$, where I_3 is the 3-year rainfall intensity* for the time of concentration of the undeveloped site and A is the project site area.	**0.15**
Developed or pre-developed state (disturbed)	
Surface type:	
Impervious (e.g. hard roofs, pavements)	**0.90**
Pervious (e.g. turf, planting beds)	**0.45**
Gravel, loose, unbound (e.g. RR yard ballast areas)	**0.75**
Water surface (e.g. wet ponds/retention basins)	**1.00**
Used to calculate composite C** in determining 100-year stormwater detention inflow rates, $Q = CI_{100}A$ for various times of duration.	
Upstream bypass area Used to calculate upstream area bypass flow rate. Consider off-site upstream area as developed using above C values for applicable surface types. Also consider impact of upstream area detention requirements.	**0.35** (minimum)

* Use rainfall intensity/duration data from *U.S. Weather Bureau Technical Paper 40.* For data and detention calculation procedure, request MWRD handout entitled *"Detailed Steps for Determining Allowable Release Rate and Required Flood Storage"*

** Composite C is calculated as a weighted average. Multiply the area of each type of surface within the project site by the respective runoff coefficient; add the results and divide the sum by the total project area.

MWRD LSS Section; JRR 3-27-03

Appendix C:

Exceptions

Exempt Properties

Military Bases

Railyard Properties

Resolution 2015-04-02-0021A

School Properties

STATE AND HIGHER EDUCATION PROPERTIES TO BE EXEMPT

BCAD Parcel ID Merge	Street Number	Street Name	Owner	Existing SAWS SW Code	Proposed SAWS SW Code	TotaAreaSF	IMP_SF
684327	7802	RICHARD FRANK	STATE OF TEXAS	M1	NR1	279.24	17.51801846
558205	9006	HUEBNER	STATE OF TEXAS	C2	NR4	687.65	687.6479124
684334	7801	RICHARD FRANK	STATE OF TEXAS	M1	NR4	917.84	809.7944108
484840	5203	CALLAGHAN	STATE OF TEXAS	C2	NR3	1,234.05	764.4538634
109145	401	QUINCY	STATE OF TEXAS	C1	NR4	2,069.29	1950.039137
413908	1252	BANDERA	STATE OF TEXAS	C3	NR4	2,584.62	1748.061939
420629	100	LOOP 410	STATE OF TEXAS	C5	NR4	2,678.85	2425.01127
1002844	1704	BANDERA	STATE OF TEXAS	C4	NR4	4,276.06	3392.505337
105874	715	CROCKETT	STATE OF TEXAS	P1	NR4	8,016.67	7598.055145
105543	723	HOUSTON	STATE OF TEXAS	C1	NR4	9,216.44	8894.803372
469986	2355	GOLIAD	STATE OF TEXAS	C1	NR3	10,015.00	5916.836573
587040	10750	IOTA	STATE OF TEXAS	C3	NR4	13,446.77	11450.50922
630722	9906	IOTA	STATE OF TEXAS	C3	NR4	15,595.28	15143.46577
108808	800	FLORES	STATE OF TEXAS	P2	NR4	18,430.53	15290.5271
101991	330	DWYER	STATE OF TEXAS	C2	NR4	28,124.72	26161.52708
457972	408	BUSHICK	UNIVERSITY OF THE INCARNATE WORD OF SAN ANTONIO	C2	NR4	41,556.52	36866.41463
437240	3141	CULEBRA	ST MARYS UNIVERSITY OF S A	C1	NR4	42,007.52	29084.85664
1166588	22255	US HWY 281	STATE OF TEXAS	C2	NR4	45,063.07	33310.0001
505330	1258	BABCOCK	STATE OF TEXAS	P3	NR4	54,478.92	37090.87606
420617	214	LOOP 410	STATE OF TEXAS	C3	NR2	62,871.34	19842.89567
420617	212	LOOP 410	STATE OF TEXAS	C3	NR2	62,871.34	19842.89567
404227	541	DIVISION	UNIVERSITY OF TEXAS SYSTEM	P1	NR1	63,160.15	10666.41137
480973	1803	GENERAL MCMULLEN	STATE OF TEXAS	P3	NR4	65,354.79	59588.85994
694480	22503	US HWY 281	STATE OF TEXAS	C3	NR1	73,427.73	4458.99548
694480	22503	US HWY 281	STATE OF TEXAS	C3	NR1	73,427.73	4458.99548
398026	701	PYRON	STATE OF TEXAS	P1	NR4	113,415.62	76010.45308
106018	321	CENTER	STATE OF TEXAS	P1	NR4	175,134.93	153524.0227
101328	318	ALAMO PLAZA	STATE OF TEXAS	P4	NR3	179,768.71	71956.04323
466769	6801	REPUBLIC	UNIVERSITY OF THE INCARNATE WORD OF SAN ANTONIO	C1	NR1	187,361.69	5218.481608
596299	6550	WALZEM	STATE OF TEXAS	P2	NR2	287,882.80	104364.3352
469657	6502	NEW BRAUNFELS	STATE OF TEXAS	P4	NR3	289,033.21	165452.6398
596300	6550	WALZEM	STATE OF TEXAS	P4	NR4	330,210.56	274748.4254
469098	9303	LOOP 410	STATE OF TEXAS	P4	NR4	604,041.39	420508.1235
469253	9350	PRESA	TEXAS A&M UNIVERSITY SYSTEM	P4	NR1	1,809,817.78	246150.597
1051267	6711	NEW BRAUNFELS	STATE OF TEXAS	P4	NR2	15,352,233.29	3511172.284
748644	12861	GALM	STATE OF TEXAS	P1	NR1	355,892,149.77	1086266.342

Military Base Parcel Summary

		Parcel ID	Total Area (SF)	Total Impervious (SF)	Percent Impervious
Fort Sam Houston					
	Base	501901	110,841,013	36,208,475	33%
	Officer Housing	-1040	4,578,423	1,935,440	42%
	Brook Army Medical	-1040	8,256,483	4,942,213	60%
	Housing	1058934	1373197.16	259,280	19%
	Housing	1058935	135039.75	52,443	39%
	Housing	1058936	152059.65	64,296	42%
	Housing	1058937	164329.48	64,709	39%
	Housing	1058938	2909442.74	1,084,419	37%
	Housing	1058939	4085726.23	1,215,132	30%
	Housing	1058941	4501783.75	1,604,805	36%
	Housing	1058942	1235972.2	430,320	35%
	Housing	1058945	214359.27	69,153	32%
	Housing	1058946	396699.65	141,000	36%
	Housing	1058947	231367.4	70,266	30%
	Housing	1058948	484352.84	161,563	33%
	Housing	1058949	2247790.2	892,326	40%
	Housing	1058950	164767.61	101,142	61%
		Total	**141,972,807**	**49,296,982**	**35%**

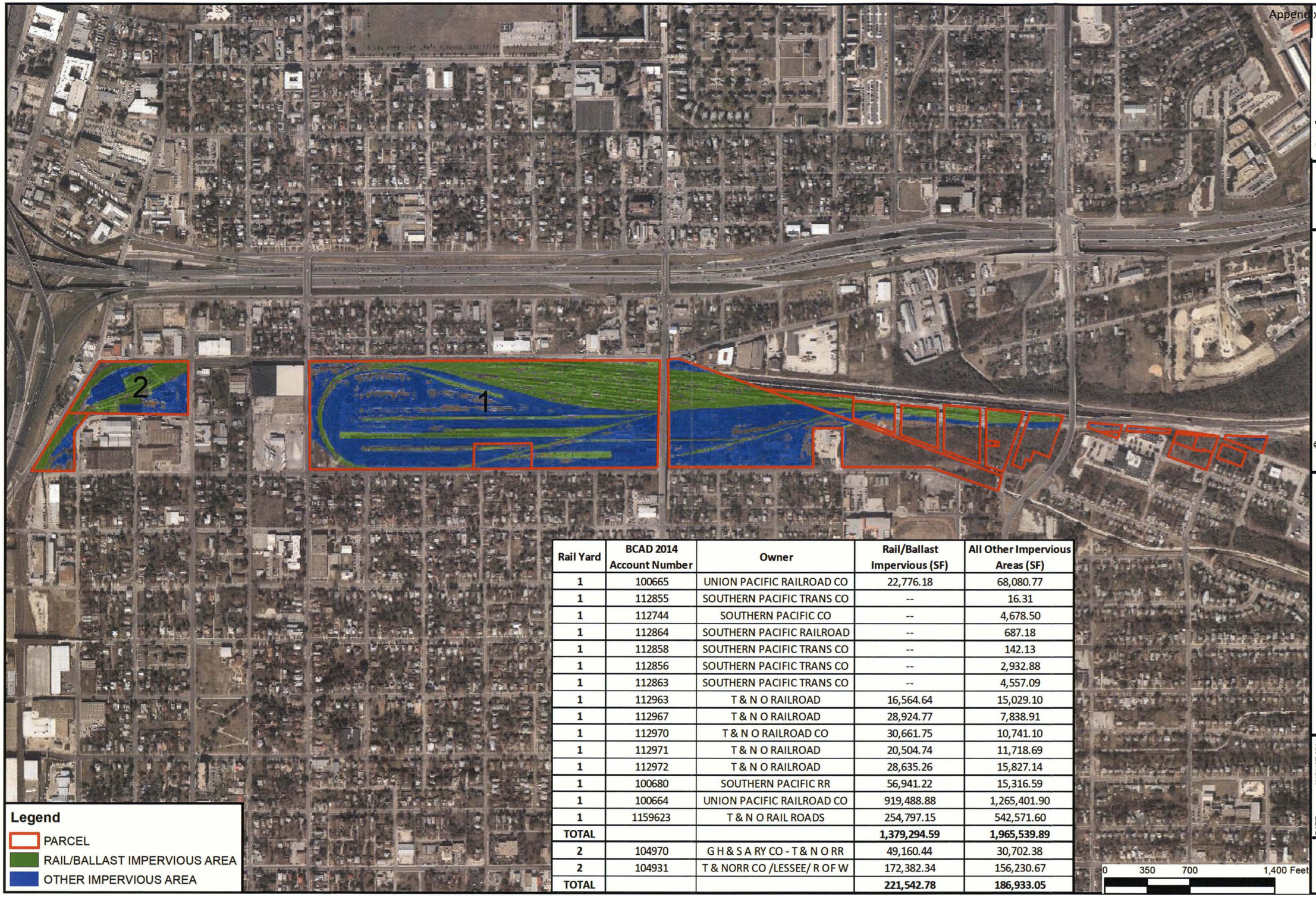
Martindale AAF	**Parcel ID**	**Total Area (SF)**	**Total Impervious (SF)**	**Percent Impervious**
	-1040	9,325,159	1,583,924	17%

Lackland AFB	**Parcel ID**	**Total Area (SF)**	**Total Impervious (SF)**	**Percent Impervious**
Inside City Limits	1058498*	23,510,303	7,258,490	31%
Inside City Limits	-1040	6,999,709	1,148,387	16%
Outside City Limits	-1040	-	-	-
Outside City Limits	-1040	-	-	-
	Total	**30,510,012**	**8,406,877**	**28%**

*Parcel impervious is currently in rate base

RAILYARD PROPERTIES - 30% IMPERVIOUS FOR BALLAST

BCAD Parcel ID Merge	Street Number	Street Name	Owner	Existing SAWS SW Code	Proposed SAWS SW Code	TotaAreaSF	IMP_SF
614477	5140	SERVICE CENTER	SOUTHERN PACIFIC TRANS CO	C5	NR4	3,946.96	2806.34952
100665	1201	SHERMAN	UNION PACIFIC RAILROAD CO	C5	NR4	97,685.29	90856.9558
502276	4651	FM 78	SOUTHERN PACIFIC TRANS. CO	C5	NR4	220,892.81	213455.672
502280	5135	GIBBS-SPRAWL	SOUTHERN PACIFIC TRANS CO	C5	NR4	245,166.70	203578.125
104931	1323	HACKBERRY	T & NORR CO /LESSEE/ R OF W	C5	NR4	372,652.11	328613.001
100664	1200	DUVAL	UNION PACIFIC RAILROAD CO	C5	NR4	2,448,228.07	2184890.79



Rail Yard	BCAD 2014 Account Number	Owner	Rail/Ballast Impervious (SF)	All Other Impervious Areas (SF)
1	100665	UNION PACIFIC RAILROAD CO	22,776.18	68,080.77
1	112855	SOUTHERN PACIFIC TRANS CO	--	16.31
1	112744	SOUTHERN PACIFIC CO	--	4,678.50
1	112864	SOUTHERN PACIFIC RAILROAD	--	687.18
1	112858	SOUTHERN PACIFIC TRANS CO	--	142.13
1	112856	SOUTHERN PACIFIC TRANS CO	--	2,932.88
1	112863	SOUTHERN PACIFIC TRANS CO	--	4,557.09
1	112963	T & N O RAILROAD	16,564.64	15,029.10
1	112967	T & N O RAILROAD	28,924.77	7,838.91
1	112970	T & N O RAILROAD CO	30,661.75	10,741.10
1	112971	T & N O RAILROAD	20,504.74	11,718.69
1	112972	T & N O RAILROAD	28,635.26	15,827.14
1	100680	SOUTHERN PACIFIC RR	56,941.22	15,316.59
1	100664	UNION PACIFIC RAILROAD CO	919,488.88	1,265,401.90
1	1159623	T & N O RAIL ROADS	254,797.15	542,571.60
TOTAL			**1,379,294.59**	**1,965,539.89**
2	104970	G H & S A RY CO - T & N O RR	49,160.44	30,702.38
2	104931	T & NORR CO /LESSEE/ R OF W	172,382.34	156,230.67
TOTAL			**221,542.78**	**186,933.05**

Legend

- PARCEL
- RAIL/BALLAST IMPERVIOUS AREA
- OTHER IMPERVIOUS AREA

0 350 700 1,400 Feet

Kimley»Horn
Engineering Firm Registration No. F-928
12750 Merit Drive, Suite 1000
Dallas, Texas 75251
(972) 770-1300 Phone
(972) 239-3820 Fax

I

City of San Antonio, Texas
Drainage Utility

Rail Yard Impervious Evaluation

DATE:	AUGUST 2014
DESIGN:	MPB
DRAWN:	KEH
CHECKED:	SDG
KHA NO.:	061258007

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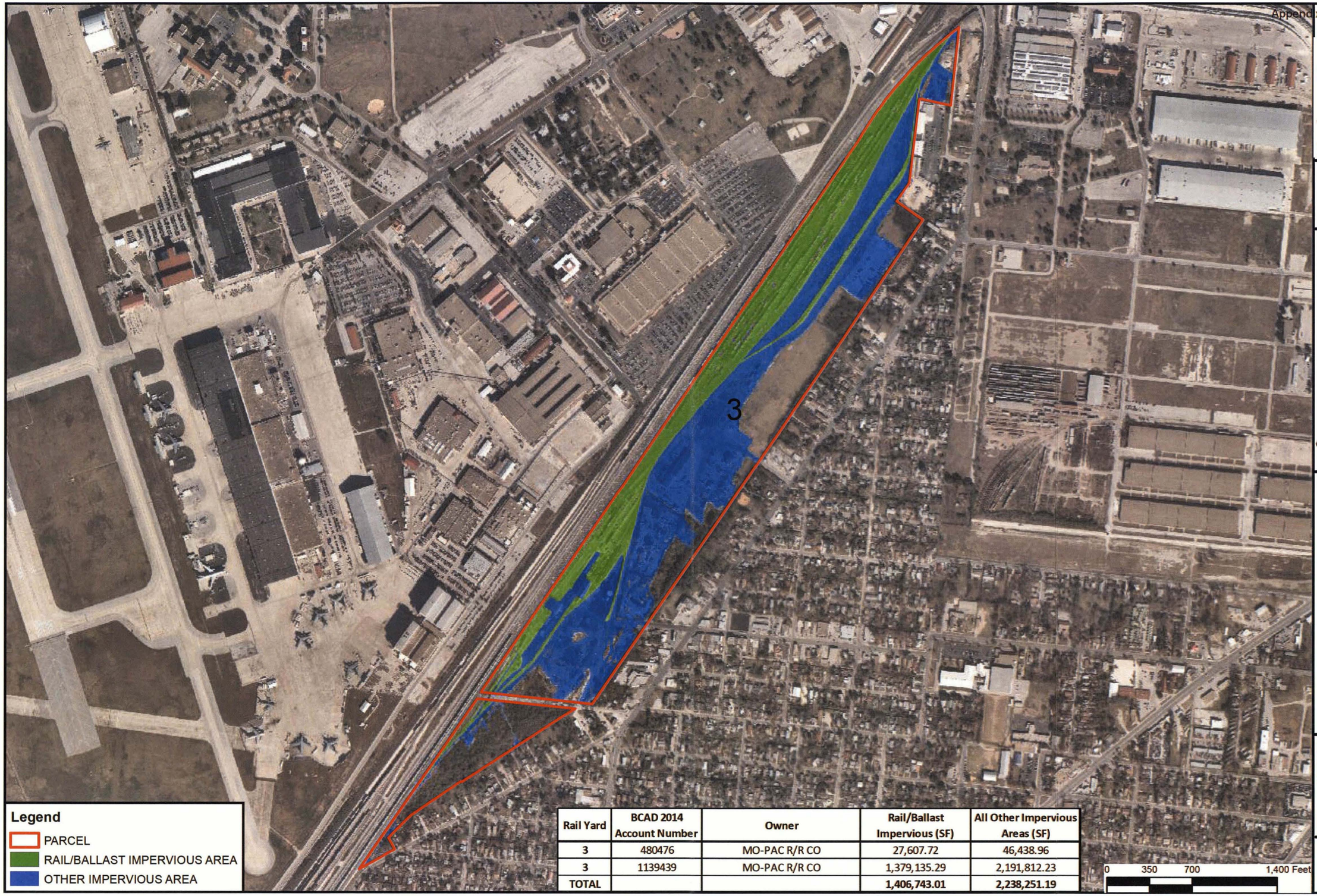

Rail Yard	BCAD 2014 Account Number	Owner	Rail/Ballast Impervious (SF)	All Other Impervious Areas (SF)
3	480476	MO-PAC R/R CO	27,607.72	46,438.96
3	1139439	MO-PAC R/R CO	1,379,135.29	2,191,812.23
TOTAL			**1,406,743.01**	**2,238,251.19**

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Dallas, Texas 75251
(972) 770-1300 Phone
(972) 239-3820 Fax

City of San Antonio, Texas
Drainage Utility

Rail Yard Impervious Evaluation

DATE: AUGUST 2014
DESIGN: MPB
DRAWN: KEH
CHECKED: SDG
KHA NO.: 061258007

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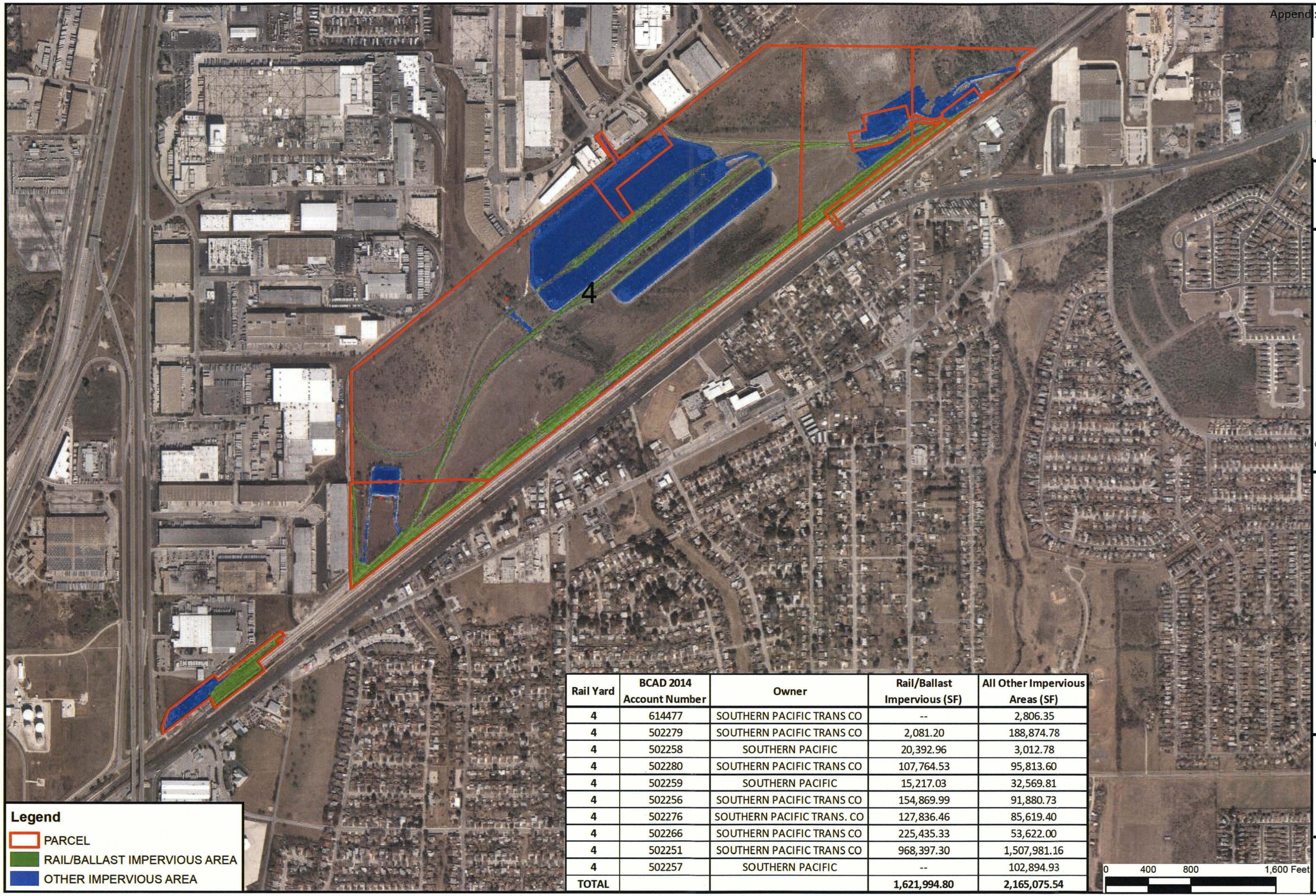

Rail Yard	BCAD 2014 Account Number	Owner	Rail/Ballast Impervious (SF)	All Other Impervious Areas (SF)
4	614477	SOUTHERN PACIFIC TRANS CO	--	2,806.35
4	502279	SOUTHERN PACIFIC TRANS CO	2,081.20	188,874.78
4	502258	SOUTHERN PACIFIC	20,392.96	3,012.78
4	502280	SOUTHERN PACIFIC TRANS CO	107,764.53	95,813.60
4	502259	SOUTHERN PACIFIC	15,217.03	32,569.81
4	502256	SOUTHERN PACIFIC TRANS CO	154,869.99	91,880.73
4	502276	SOUTHERN PACIFIC TRANS. CO	127,836.46	85,619.40
4	502266	SOUTHERN PACIFIC TRANS CO	225,435.33	53,622.00
4	502251	SOUTHERN PACIFIC TRANS CO	968,397.30	1,507,981.16
4	502257	SOUTHERN PACIFIC	--	102,894.93
TOTAL			**1,621,994.80**	**2,165,075.54**

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(972) 770-1300 Phone
(972) 239-3820 Fax

I

City of San Antonio, Texas
Drainage Utility

Rail Yard Impervious Evaluation

DATE:	AUGUST 2014
DESIGN:	MPB
DRAWN:	KEH
CHECKED:	SDG
KHA NO.:	061258007

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LB
04/02/15
Item No. 4B

A RESOLUTION 2015-04-02-0021R

IN SUPPORT OF A FIVE YEAR FREEZE OF STORM WATER UTILITY FEES FOR INDEPENDENT SCHOOL DISTRICTS IN SAN ANTONIO.

* * * * * *

WHEREAS, presently, Texas Local Government Code, Chapter 552, Subchapter C (Municipal Drainage Utility Systems Act) and Chapter 580 leaves the decision on whether or not to exempt properties owned by school districts from storm water utility fees to local officials; and

WHEREAS, the City is in the process of restructuring the storm water utility rate structure to a fee based on impervious area and school districts often have properties with large amounts of impervious area; and

WHEREAS, City staff will be proposing, as part of the rate restructure, a five-year storm water fee rate schedule which will include a freeze for school district properties; **NOW THERFORE:**

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SAN ANTONIO:

SECTION 1. City Council supports a five-year freeze for school district properties as part of the rate restructure to impervious area which will be formally considered at a later date.

SECTION 2. City staff is directed to bring forward a proposed five-year storm water fee freeze for school districts as part of the rate restructure to impervious area.

SECTION 3. This Resolution is effective immediately upon the receipt of eight affirmative votes; otherwise, it is effective ten days after passage.

PASSED AND APPROVED THIS 2nd day of April, 2015.

Ivy R. Taylor

M A Y O R
Ivy R. Taylor

ATTEST:

Leticia M. Vacek
City Clerk

APPROVED AS TO FORM:

Martha G. Sepeda
Acting City Attorney

Agenda Item:	**4B**
Date:	04/02/2015
Time:	11:13:30 AM
Vote Type:	Motion to Approve
Description:	A Resolution stating the City's position on Storm Water Fees relating to School Districts.
Result:	Passed

Voter	Group	Not Present	Yea	Nay	Abstain	Motion	Second
Ivy R. Taylor	Mayor		x				
Roberto C. Trevino	District 1		x				
Alan Warrick	District 2		x				
Rebecca Viagran	District 3		x				x
Rey Saldaña	District 4		x			x	
Shirley Gonzales	District 5		x				
Ray Lopez	District 6		x				
Cris Medina	District 7		x				
Ron Nirenberg	District 8		x				
Joe Krier	District 9		x				
Michael Gallagher	District 10		x				

SCHOOL PROPERTIES - SPECIAL BILLING FROZEN TO FY15

BCAD Parcel ID Merge	Street Number	Street Name	Owner	Existing SAWS SW Code	Proposed SAWS SW Code	TotaAreaSF	IMP_SF
555230	8400	LOOP 1604	0	P4	NR4	0.00	0
555230	8400	LOOP 1604	0	P4	NR4	0.00	0
420910	1116	AUSTIN HWY	ALAMO HEIGHTS I S D	P4	NR4	131,412.47	98016.9318
530416	703	TRAFALGAR	ALAMO HEIGHTS I S D	P4	NR3	411,352.04	174780.078
494363	7800	BROADWAY	ALAMO HEIGHTS I S D	P4	NR2	432,164.52	164100.651
1062337	100	WOODRIDGE	ALAMO HEIGHTS I S D	P4	NR3	432,673.34	249199.44
495409	7607	NEW BRAUNFELS	ALAMO HEIGHTS I S D	P4	NR3	751,539.70	366511.181
466497	3900	SOUTHCROSS	EAST CENTRAL I S D	P4	NR3	423,250.53	271884.263
695584	6100	SINCLAIR	EAST CENTRAL I S D	P4	NR3	443,297.87	202400.884
467725	3736	MILITARY	EAST CENTRAL I S D	P4	NR3	604,273.60	255998.796
466727	3602	WW WHITE	EAST CENTRAL I S D	P4	NR3	824,782.42	381118.114
991370	5903	LOOP 410	EAST CENTRAL I S D	P4	NR2	1,773,085.24	513205.973
430653	131	GUTHRIE	EDGEWOOD I S D	P1	NR4	7,153.64	6986.46555
430071	216	PURCELL	EDGEWOOD I S D	P3	NR3	43,103.76	24671.5806
393664	1210	MEMORIAL	EDGEWOOD I S D	P3	NR3	90,550.05	38751.6182
420012	403	SAN DARIO	EDGEWOOD I S D	P3	NR4	109,393.20	76195.851
429326	611	36TH	EDGEWOOD I S D	P4	NR4	149,728.51	122686.977
424292	3014	RIVAS	EDGEWOOD I S D	P4	NR4	150,396.51	123344.207
409426	4415	MONTEREY	EDGEWOOD I S D	P4	NR4	188,051.64	130219.052
407048	1731	DAHLGREEN	EDGEWOOD I S D	P4	NR3	194,655.62	122687.248
410804	5358	COMMERCE	EDGEWOOD I S D	P4	NR4	203,384.84	185589.126
539067	1930	HERBERT	EDGEWOOD I S D	P4	NR4	209,930.49	136831.077
478911	115	LAS PALMAS	EDGEWOOD I S D	P4	NR3	231,424.23	140336.538
408961	900	SAN EDUARDO	EDGEWOOD I S D	P4	NR3	236,109.16	141072.491
1121859	3011	RUIZ	EDGEWOOD I S D	P4	NR3	265,204.46	171057.701
430150	2803	CASTROVILLE	EDGEWOOD I S D	P4	NR3	266,774.53	168166.956
395159	1602	THOMPSON PLACE	EDGEWOOD I S D	P4	NR4	280,461.27	194722.119
410603	5622	CESAR CHAVEZ	EDGEWOOD I S D	P4	NR2	287,508.83	110018.607
482421	627	ACME	EDGEWOOD I S D	P3	NR3	293,865.80	134821.325
459118	400	AURORA	EDGEWOOD I S D	P4	NR3	299,096.44	151261.089
459118	400	AURORA	EDGEWOOD I S D	P3	NR3	299,096.44	151261.089
395098	2525	GENERAL MCMULLEN	EDGEWOOD I S D	P4	NR3	338,025.83	161816.511
429009	563	40TH	EDGEWOOD I S D	P4	NR2	340,664.15	104663.996
496532	6515	COMMERCE	EDGEWOOD I S D	P4	NR3	435,748.84	195084.164
392571	1507	CERALVO	EDGEWOOD I S D	P4	NR3	551,713.79	284817.935
392967	1227	MEMORIAL	EDGEWOOD I S D	P4	NR3	573,857.31	303163.289
395152	1922	GENERAL MCMULLEN	EDGEWOOD I S D	P4	NR3	636,079.14	275411.754
395152	1626	THOMPSON PLACE	EDGEWOOD I S D	P4	NR3	636,079.14	275411.754
407394	607	34TH	EDGEWOOD I S D	P4	NR4	674,314.66	514045.96
431534	3306	RUIZ	EDGEWOOD I S D	P4	NR3	1,106,838.19	346484.225
532364	3823	FORTUNA	EDGEWOOD ISD	P4	NR4	42,714.33	32496.4015
1098660	415	36TH	EDGEWOOD ISD	P4	NR3	327,628.06	202322.48
398652	126	HUFF	HARLANDALE I S D	P1	NR4	7,749.91	7182.82083
393521	4102	APOLLO	HARLANDALE I S D	P3	NR4	60,221.52	42717.9595
399758	101	SAYERS	HARLANDALE I S D	P3	NR3	71,171.70	37206.9594
398836	115	HUFF	HARLANDALE I S D	P4	NR4	130,283.26	107410.021
445808	7026	FLORES	HARLANDALE I S D	P4	NR3	133,569.60	72834.9484
439476	632	VESTAL PLACE	HARLANDALE I S D	P4	NR4	139,082.22	92911.4759
445755	102	GENEVIEVE	HARLANDALE I S D	P4	NR3	141,390.51	91800.8136
399737	5200	FLORES	HARLANDALE I S D	P4	NR4	150,224.96	116079.919
438244	2717	PLEASANTON	HARLANDALE I S D	P4	NR3	157,615.82	99215.9995
403761	851	STONEWALL	HARLANDALE I S D	P4	NR3	190,214.45	105829.57
475144	12121	LOOP 410	HARLANDALE I S D	P4	NR4	229,199.18	149241.305

SCHOOL PROPERTIES - SPECIAL BILLING FROZEN TO FY15

BCAD Parcel ID Merge	Street Number	Street Name	Owner	Existing SAWS SW Code	Proposed SAWS SW Code	TotaAreaSF	IMP_SF
417965	635	RAYBURN	HARLANDALE I S D	P4	NR3	246,004.83	149814.113
404063	804	STONEWALL	HARLANDALE I S D	P4	NR3	272,654.03	173459.994
401373	300	HUFF	HARLANDALE I S D	P4	NR4	290,345.83	203191.57
405530	1610	FITCH	HARLANDALE I S D	P4	NR3	340,401.68	150890.739
438941	1111	VESTAL PLACE	HARLANDALE I S D	P1	NR3	343,321.49	170231.253
398097	931	SOUTHCROSS	HARLANDALE I S D	P4	NR3	346,930.20	186171.461
401051	135	SOUTHCROSS	HARLANDALE I S D	P4	NR3	349,043.32	212714.398
474704	906	MARCH	HARLANDALE I S D	P4	NR2	435,866.48	157083.134
518123	9131	YETT	HARLANDALE I S D	P4	NR3	466,698.13	268639.486
449824	142	AMBER PLACE	HARLANDALE I S D	P4	NR3	515,035.02	239230.345
473009	625	GILLETTE	HARLANDALE I S D	P4	NR2	517,591.51	204746.516
999824	701	SOUTHCROSS	HARLANDALE I S D	P4	NR3	611,273.18	310773.971
999824	743	SOUTHCROSS	HARLANDALE I S D	P4	NR3	611,273.18	310773.971
475146	12115	LOOP 410	HARLANDALE I S D	P4	NR4	645,042.98	494740.784
518170	422	HUTCHINS PLACE	HARLANDALE I S D	P4	NR3	648,458.43	327961.061
518139	422	ASHLEY	HARLANDALE I S D	P4	NR2	778,880.86	266058.826
418584	114	GERALD	HARLANDALE I S D	P4	NR3	1,038,080.74	565120.774
439567	503	FORMOSA	HARLANDALE I S D	P4	NR3	1,173,323.90	613896.11
393520	4002	ROOSEVELT	HARLANDALE I S D	C1	NR2	1,599,495.60	569339.902
393520	1115	96TH	HARLANDALE I S D	P3	NR2	1,599,495.60	569339.902
393520	4002	ROOSEVELT	HARLANDALE I S D	P4	NR2	1,599,495.60	569339.902
591435	5855	MIDCROWN	JUDSON I S D	P4	NR2	306,984.21	91933.668
674064	7203	WOODLAKE	JUDSON I S D	P4	NR3	796,368.06	332486.185
623084	6351	LAKEVIEW	JUDSON I S D	P4	NR2	861,927.89	274473.117
1147756	17222	FM 2252	JUDSON IND SCHOOL DIST	P4	NR2	717,334.23	255099.539
1135442	6808	WOODLAKE	JUDSON IND SCHOOL DIST	P4	NR1	1,626,092.97	228750.14
499836	2543	MACARTHUR	NORTH EAST I S D	P1	NR3	12,063.84	7023.20907
500014	10211	SOMMERS	NORTH EAST I S D	C1	NR4	30,612.70	25435.068
497346	107	RAMPART	NORTH EAST I S D	P2	NR4	36,382.18	34085.8777
545259	10414	BROADWAY	NORTH EAST I S D	P2	NR4	148,221.85	141095.625
603887	8961	TESORO	NORTH EAST I S D	P4	NR4	165,249.11	144781.13
642271	14674	JUDSON	NORTH EAST I S D	P4	NR1	188,785.77	30046.4881
642270	14920	JUDSON	NORTH EAST I S D	P4	NR2	191,333.64	63191.2282
497236	103	RAMPART	NORTH EAST I S D	P4	NR4	198,315.23	143131.29
630118	3623	HIGHPOINT	NORTH EAST I S D	P4	NR3	213,059.38	128767.863
1168073	3915	WEST	NORTH EAST I S D	P4	NR3	300,559.91	170075.66
617424	3736	PERRIN CENTRAL	NORTH EAST I S D	P4	NR4	328,469.65	304052.629
471350	6523	CASCADE PLACE	NORTH EAST I S D	P4	NR3	353,854.83	189708.748
500018	2635	MACARTHUR	NORTH EAST I S D	P4	NR3	370,386.13	186970.659
488564	2627	KERRYBROOK	NORTH EAST I S D	P4	NR3	371,950.98	220256.633
488517	7235	DEWHURST	NORTH EAST I S D	P4	NR2	392,233.40	86418.3577
591600	5222	STAHL	NORTH EAST I S D	P4	NR3	421,838.14	264591.783
542032	4311	CLEAR SPG	NORTH EAST I S D	P4	NR3	425,745.94	190257.099
521904	10727	MEMORY	NORTH EAST I S D	P4	NR3	428,536.62	217598.11
670505	16650	REDLAND	NORTH EAST I S D	P4	NR3	435,809.75	259953.671
535362	5933	ROYAL RIDGE	NORTH EAST I S D	P4	NR3	439,067.13	180108.251
604749	302	HEIMER	NORTH EAST I S D	P4	NR4	440,444.43	265821.818
589951	5311	MERLIN	NORTH EAST I S D	P4	NR2	441,042.40	163652.4
1129189	527	PIKE	NORTH EAST I S D	P4	NR3	443,969.16	204254.761
497334	8223	MCCULLOUGH	NORTH EAST I S D	P4	NR3	444,276.63	200483.068
610374	5602	FOUNTAINWOOD	NORTH EAST I S D	P4	NR3	444,737.04	253648.63
617047	13901	HIGGINS	NORTH EAST I S D	P4	NR3	457,250.88	231753.637
482857	1103	ALLENA	NORTH EAST I S D	P4	NR3	471,745.60	244768.337

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BCAD Parcel ID Merge	Street Number	Street Name	Owner	Existing SAWS SW Code	Proposed SAWS SW Code	TotaAreaSF	IMP_SF
546896	12634	EL SENDERO	NORTH EAST I S D	P4	NR3	483,170.39	257933.438
502018	4618	WALZEM	NORTH EAST I S D	P4	NR3	485,485.86	237492.102
617669	16080	HENDERSON PASS	NORTH EAST I S D	P4	NR3	486,671.73	251208.991
686370	2800	HUNTERS GREEN	NORTH EAST I S D	P4	NR3	500,790.85	324668.854
685585	6111	FOX CRK	NORTH EAST I S D	P4	NR3	511,009.02	265001.879
689755	2550	ENCINO RIO	NORTH EAST I S D	P4	NR3	519,018.73	239053.169
500212	2569	LOOP 410	NORTH EAST I S D	P4	NR3	538,787.36	242007.819
500020	10333	BROADWAY	NORTH EAST I S D	P4	NR4	545,299.12	476393.48
490459	1802	LARKSPUR	NORTH EAST I S D	P4	NR4	553,863.68	367382.138
669714	802	SILVER SPRUCE	NORTH EAST I S D	P4	NR2	565,575.28	176029.217
506247	4415	BLOOMDALE	NORTH EAST I S D	P4	NR3	570,982.51	288013.163
500110	3250	NACOGDOCHES	NORTH EAST I S D	P4	NR2	578,256.18	197744.475
672018	15806	O'CONNOR	NORTH EAST I S D	P4	NR3	596,381.90	270845.623
679891	16311	HUEBNER	NORTH EAST I S D	P4	NR3	612,315.00	297634.049
534069	3250	THOUSAND OAKS	NORTH EAST I S D	P4	NR3	681,103.48	303523.214
995744	21019	WILDERNESS OAK	NORTH EAST I S D	P4	NR3	722,476.60	420611.53
996027	20522	STONE OAK	NORTH EAST I S D	P4	NR3	776,180.58	419085.286
662160	21045	CRESCENT OAKS	NORTH EAST I S D	P4	NR3	776,665.81	310861.475
489574	4538	VANCE JACKSON	NORTH EAST I S D	P4	NR3	816,285.26	344424.557
738087	22900	HARDY OAK	NORTH EAST I S D	P4	NR2	824,150.05	316769.043
1209794	4302	HARRY WURZBACH	NORTH EAST I S D	P4	NR3	849,946.22	398419.131
544864	14819	HEIMER	NORTH EAST I S D	P4	NR3	858,282.05	426953.216
491583	8231	BLANCO	NORTH EAST I S D	P4	NR3	858,646.16	344103.304
557754	7800	MIDCROWN	NORTH EAST I S D	P4	NR2	882,782.84	323524.615
502830	438	LANARK	NORTH EAST I S D	P4	NR2	939,070.00	371968.395
1066899	16818	HUEBNER	NORTH EAST I S D	P4	NR3	954,901.12	526506.152
642269	14800	JUDSON	NORTH EAST I S D	P4	NR3	956,135.36	397555.157
694433	22710	ROAN PARK	NORTH EAST I S D	P4	NR2	1,057,478.57	350675.511
670506	17150	JONES MALTSBERGER	NORTH EAST I S D	P4	NR3	1,098,336.68	455667.586
1148183	1400	JACKSON-KELLER	NORTH EAST I S D	P4	NR4	1,195,106.04	832679.174
500007	2923	MACARTHUR	NORTH EAST I S D	P4	NR3	1,466,409.41	818428.36
660861	1500	EVANS	NORTH EAST I S D	P4	NR2	1,487,390.76	452475.075
1040355	23103	HARDY OAK	NORTH EAST I S D	P4	NR2	1,518,583.89	478366.223
1040249	5110	WALZEM	NORTH EAST I S D	P4	NR3	1,529,637.92	872649.163
609234	12049	BLANCO	NORTH EAST I S D	P4	NR4	1,726,312.87	1178474.18
694239	2909	EVANS	NORTH EAST I S D	P4	NR2	1,745,108.74	460592.071
1127039	4707	DAVID EDWARDS	NORTH EAST I S D	P4	NR4	2,162,392.04	1527654.82
994364	5300	KNOLLCREEK	NORTH EAST I S D	P4	NR2	2,609,353.82	900939.592
498837	11926	JONES MALTSBERGER	NORTH EAST I S D	P4	NR4	2,715,746.58	1954628.87
620789	5005	STAHL	NORTH EAST I S D	P4	NR3	3,263,963.36	1835670.18
1207283	19000	RONALD REAGAN	NORTH EAST I S D	P4	NR2	3,741,523.15	1198282.01
1062468	23203	BULVERDE	NORTH EAST I S D	P4	NR2	5,030,266.84	1158398.54
542521	9803	BROADWAY	NORTH EAST INDEPENDENT	P4	NR4	454,901.75	423758.712
1161555	20303	HARDY OAK	NORTH EAST INDEPENDENT SCHOOL DISTRICT	P4	NR3	1,313,472.92	735488.364
608278	8758	TESORO	NORTH EAST ISD	P3	NR4	84,505.96	76434.0343
608276	8750	TESORO	NORTH EAST ISD	P4	NR4	110,077.89	100190.872
996621	3839	CANYON	NORTH EAST ISD	P4	NR3	828,320.72	408122.653
1175732	21314	BULVERDE	NORTH EAST ISD	P4	NR2	3,495,766.62	1257249.38
488251	4060	MEDICAL	NORTHSIDE I S D	M4	NR1	7,956.69	1.52189782
582286	101	DUMONT	NORTHSIDE I S D	P4	NR1	16,902.70	0
606126	7039	CULEBRA	NORTHSIDE I S D	C2	NR1	21,625.14	117.389074
484322	5223	BLESSING	NORTHSIDE I S D	P2	NR3	38,053.52	16645.3364
694786	144	HUNT	NORTHSIDE I S D	P4	NR4	127,648.01	94570.4614

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708702	5615	GRISSOM	NORTHSIDE I S D	P4	NR4	190,921.22	171758.61
575208	1706	PINN	NORTHSIDE I S D	P4	NR1	205,119.38	13301.5654
567769	8838	TIMBERWILDE	NORTHSIDE I S D	P4	NR1	209,789.21	1.66346373
749454	23881	IH 10	NORTHSIDE I S D	P4	NR3	213,164.98	123431.36
575221	1256	PINN	NORTHSIDE I S D	P4	NR4	215,083.60	185909.048
639959	4711	SID KATZ	NORTHSIDE I S D	P4	NR4	220,654.51	171785.766
562734	5734	FARINON	NORTHSIDE I S D	P4	NR3	257,841.88	129066.605
607638	1260	PINN	NORTHSIDE I S D	P1	NR3	309,213.86	174784.237
575026	607	RICHLAND HILLS	NORTHSIDE I S D	P4	NR4	309,290.46	250825.167
503786	519	CLEARVIEW	NORTHSIDE I S D	P4	NR3	338,874.60	199046.945
605359	11937	IH 10	NORTHSIDE I S D	P4	NR3	372,420.47	240768.837
541498	11431	VANCE JACKSON	NORTHSIDE I S D	P4	NR3	388,916.68	162264.76
992970	570	PINN	NORTHSIDE I S D	P4	NR3	399,381.68	236347.883
543912	2902	WHITE TAIL	NORTHSIDE I S D	P4	NR3	406,199.81	217017.257
566517	6003	THUNDER	NORTHSIDE I S D	P4	NR3	409,220.35	224217.605
565645	8885	HEATH CIRCLE	NORTHSIDE I S D	P4	NR3	417,921.83	195889.031
581146	7320	REMUDA	NORTHSIDE I S D	P4	NR3	419,736.10	225199.127
653874	6450	PEMBROKE	NORTHSIDE I S D	P4	NR3	424,050.58	212535.523
556439	5710	CARY GRANT	NORTHSIDE I S D	P4	NR3	425,491.73	190638.796
484810	5700	HEMPHILL	NORTHSIDE I S D	P4	NR3	430,683.81	249097.401
731267	11223	CEDAR PARK	NORTHSIDE I S D	P4	NR3	432,309.59	263349.192
576046	1406	MEADOW WAY	NORTHSIDE I S D	P4	NR3	436,470.29	206018.838
564005	2103	OAKHILL	NORTHSIDE I S D	P4	NR3	437,602.38	231833.504
579891	2315	HACKAMORE	NORTHSIDE I S D	P4	NR3	438,047.01	236964.972
702777	6845	RIDGEBROOK	NORTHSIDE I S D	P4	NR3	438,862.69	253017.406
487249	5103	NEWCOME	NORTHSIDE I S D	P4	NR3	439,585.82	244641.348
728372	10255	DOVER RDG	NORTHSIDE I S D	P4	NR3	440,825.23	221783.094
644374	5111	USAA	NORTHSIDE I S D	P4	NR3	441,024.67	275410.149
681451	8631	TEZEL	NORTHSIDE I S D	P4	NR3	441,963.11	226861.107
994813	3110	TIMBER VIEW	NORTHSIDE I S D	P4	NR3	445,189.23	255751.189
598376	10403	DUGAS	NORTHSIDE I S D	P4	NR3	460,928.86	250348.898
600316	6614	SPRING TIME	NORTHSIDE I S D	P4	NR3	462,136.98	192891.834
569412	8503	RAY ELLISON	NORTHSIDE I S D	P4	NR3	462,940.62	196173.384
528543	9915	NORTHAMPTON	NORTHSIDE I S D	P4	NR3	468,785.56	225740.39
720431	8555	BOWENS CROSSING	NORTHSIDE I S D	P4	NR3	471,109.42	238457.32
579059	2385	HORAL	NORTHSIDE I S D	P4	NR3	481,031.41	270068.467
561511	5050	DE ZAVALA	NORTHSIDE I S D	P4	NR3	518,920.53	226744.735
532155	5714	NORTH KNOLL	NORTHSIDE I S D	P4	NR3	523,712.45	244108.534
690873	9627	ADAMS HILL	NORTHSIDE I S D	P4	NR3	528,531.92	214863.758
561718	15707	CHASE HILL	NORTHSIDE I S D	P4	NR3	529,457.75	257625.549
668374	1715	RICHLAND HILLS	NORTHSIDE I S D	P4	NR3	545,698.43	315885.183
567850	9500	TIMBER PATH	NORTHSIDE I S D	P4	NR3	557,027.29	225397.908
555949	13200	SKYHAWK	NORTHSIDE I S D	P4	NR3	567,460.27	351417.855
706793	7524	MAINLAND	NORTHSIDE I S D	P4	NR4	590,408.35	538144.734
1128716	730	CANTERBURY	NORTHSIDE I S D	P4	NR3	603,410.98	254324.232
1193386	7132	OAK	NORTHSIDE I S D	P4	NR1	606,258.79	102070.385
1040766	9019	DUGAS	NORTHSIDE I S D	P4	NR3	616,710.55	293184.915
639953	4646	HAMILTON WOLFE	NORTHSIDE I S D	P4	NR4	630,723.72	452429.499
999486	3803	MIDHORIZON	NORTHSIDE I S D	P4	NR3	633,650.75	288431.56
1094460	6838	BABCOCK	NORTHSIDE I S D	P4	NR3	651,592.48	331661.337
1085935	10726	ROUSSEAU	NORTHSIDE I S D	P1	NR3	655,112.53	315507.454
716903	9740	RABA	NORTHSIDE I S D	P4	NR3	664,605.01	337412.888
540113	5227	EVERS	NORTHSIDE I S D	P4	NR3	679,256.11	310102.607

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BCAD Parcel ID Merge	Street Number	Street Name	Owner	Existing SAWS SW Code	Proposed SAWS SW Code	TotaAreaSF	IMP_SF
1034468	10419	OLD PRUE	NORTHSIDE I S D	P4	NR3	690,975.09	306766.776
555533	11655	BRAEFIELD	NORTHSIDE I S D	P4	NR2	701,904.78	269751.145
537155	3630	CALLAGHAN	NORTHSIDE I S D	P4	NR3	735,945.48	306087.319
728854	9582	BRAUN	NORTHSIDE I S D	P4	NR3	742,569.46	309930.633
720322	9410	TIMBER PATH	NORTHSIDE I S D	P4	NR3	744,551.23	344355.85
570243	1400	CEDARHURST	NORTHSIDE I S D	P4	NR3	746,353.61	313105.719
697428	8151	OLD TEZEL	NORTHSIDE I S D	P4	NR2	748,193.58	286241.353
742689	1000	SEASCAPE	NORTHSIDE I S D	P4	NR3	758,237.97	310269.807
716428	3031	VILLAGE	NORTHSIDE I S D	P4	NR2	800,115.62	260804.52
680952	10700	INGRAM	NORTHSIDE I S D	P4	NR3	823,207.85	359000.008
565859	11843	VANCE JACKSON	NORTHSIDE I S D	P4	NR3	824,219.09	343770.19
246649	8725	SONOMA	NORTHSIDE I S D	P4	NR2	832,612.22	288618.387
668375	1725	RICHLAND HILLS	NORTHSIDE I S D	P4	NR2	854,697.34	312591.787
682199	8403	TEZEL	NORTHSIDE I S D	P4	NR2	856,759.67	299312.859
633303	6558	HORN	NORTHSIDE I S D	P4	NR2	877,120.01	288202.281
697269	11600	CULEBRA	NORTHSIDE I S D	P4	NR2	916,757.44	207871.9
1058124	6323	HAUSMAN	NORTHSIDE I S D	P4	NR3	943,347.56	482270.788
705264	10111	TERRA OAK	NORTHSIDE I S D	P4	NR2	1,075,156.31	316342.996
654318	14100	VANCE JACKSON	NORTHSIDE I S D	P4	NR2	1,083,048.91	424023.461
993000	201	HUNT	NORTHSIDE I S D	P4	NR3	1,088,536.94	707318.101
725076	8661	SILENT SUNRISE	NORTHSIDE I S D	P4	NR2	1,095,763.45	379642.99
1105373	14900	KYLE SEALE	NORTHSIDE I S D	P4	NR3	1,212,145.56	544127.563
1063260	2120	ELLISON	NORTHSIDE I S D	P4	NR3	1,285,940.70	551999.876
537957	6500	INGRAM	NORTHSIDE I S D	P4	NR3	1,318,039.76	828078.823
576144	7611	MARBACH	NORTHSIDE I S D	P4	NR3	1,587,876.19	854402.274
561519	5150	DE ZAVALA	NORTHSIDE I S D	P4	NR2	2,788,192.74	938995.513
606134	7001	CULEBRA	NORTHSIDE I S D	P4	NR3	3,135,726.85	1580966.87
716904	9411	MILITARY	NORTHSIDE I S D	P4	NR3	3,188,921.52	1314902.46
1063389	13011	KYLE SEALE	NORTHSIDE I S D	P4	NR3	3,196,749.45	1314662
741595	600	ELLISON	NORTHSIDE I S D	P4	NR3	3,275,731.69	1326911.59
100565	211	DREXEL	SAN ANTONIO ISD	P4	NR3	3,496.45	1488.63794
114410	1739	NOLAN	SAN ANTONIO ISD	P1	NR4	8,819.22	7118.06953
1125610	715	PRESA	SAN ANTONIO ISD	P1	NR4	13,815.83	10533.7693
134462	318	RIPFORD	SAN ANTONIO ISD	P1	NR4	15,010.81	12344.8529
104698	217	OLEANDER	SAN ANTONIO ISD	P1	NR4	16,671.23	15293.5045
107992	620	MATAGORDA	SAN ANTONIO ISD	P1	NR2	17,427.76	5475.41296
416078	2134	LEE HALL	SAN ANTONIO ISD	P1	NR4	20,081.38	19774.2583
130999	2318	SAN LUIS	SAN ANTONIO ISD	P2	NR4	40,617.77	28148.1891
460758	4702	HOUSTON	SAN ANTONIO ISD	P4	NR3	51,694.11	30865.8267
110914	1215	AUSTIN	SAN ANTONIO ISD	P3	NR4	53,588.32	48940.1042
109700	518	MAGNOLIA	SAN ANTONIO ISD	P2	NR4	56,004.96	39769.9816
389941	738	SANTA MONICA	SAN ANTONIO ISD	P3	NR4	64,880.99	61148.3155
114585	1931	HOUSTON	SAN ANTONIO ISD	P3	NR4	72,698.32	47328.7152
152412	823	GEVERS	SAN ANTONIO ISD	P4	NR4	102,838.53	78913.4798
112541	500	SANDMEYER	SAN ANTONIO ISD	P4	NR2	103,797.30	29209.0625
101531	522	CAMARON	SAN ANTONIO ISD	P4	NR1	106,748.53	6947.36861
132358	1112	ZARZAMORA	SAN ANTONIO ISD	P4	NR4	108,166.12	85066.4578
104696	1110	AUSTIN	SAN ANTONIO ISD	P4	NR4	111,599.87	108331.446
122147	1915	MAIN	SAN ANTONIO ISD	P4	NR3	114,386.12	66952.053
151889	304	VILLAREAL	SAN ANTONIO ISD	P4	NR2	114,937.07	28668.5962
103074	311	SAN FERNANDO	SAN ANTONIO ISD	P4	NR4	116,137.69	78644.7099
114413	1823	NOLAN	SAN ANTONIO ISD	P4	NR4	122,580.15	87621.067
130796	1430	CESAR CHAVEZ	SAN ANTONIO ISD	P4	NR4	123,401.52	97645.9448

SCHOOL PROPERTIES - SPECIAL BILLING FROZEN TO FY15

BCAD Parcel ID Merge	Street Number	Street Name	Owner	Existing SAWS SW Code	Proposed SAWS SW Code	TotaAreaSF	IMP_SF
1119998	1811	LAREDO	SAN ANTONIO ISD	P4	NR4	124,966.99	86383.2241
130898	2311	SAN LUIS	SAN ANTONIO ISD	P4	NR4	125,593.50	91620.8653
108683	420	MARSHALL	SAN ANTONIO ISD	P4	NR3	127,465.66	82474.5187
127066	451	ARBOR PLACE	SAN ANTONIO ISD	P2	NR4	133,464.18	96055.0498
385156	722	HAGGIN	SAN ANTONIO ISD	P4	NR4	133,542.24	89351.1597
1213123	114	CEDAR	SAN ANTONIO ISD	M1	NR4	135,860.64	99523.9303
107162	318	MARTIN LUTHER KING	SAN ANTONIO ISD	P4	NR4	136,508.18	103941.367
374664	2015	FLORES	SAN ANTONIO ISD	P4	NR4	139,574.94	96985.4767
379463	201	PARLAND PLACE	SAN ANTONIO ISD	P4	NR3	142,370.84	79248.8106
376449	1616	BLANCO	SAN ANTONIO ISD	P4	NR4	147,782.10	114229.128
381986	302	TIPTON	SAN ANTONIO ISD	P4	NR4	150,777.80	105651.377
124838	1014	WAVERLY	SAN ANTONIO ISD	P4	NR3	152,535.54	77647.8093
416372	1915	OLMOS	SAN ANTONIO ISD	P4	NR4	153,576.53	102850.309
143075	211	MALONE	SAN ANTONIO ISD	P4	NR4	160,661.76	123718.294
149053	2215	LEAL	SAN ANTONIO ISD	P4	NR4	163,579.21	113814.527
1081221	122	WHITTIER	SAN ANTONIO ISD	P4	NR3	165,641.08	101270.565
142754	202	SCHOOL	SAN ANTONIO ISD	P4	NR4	165,961.58	109726.133
132250	1111	NAVIDAD	SAN ANTONIO ISD	P4	NR4	169,498.01	117656.403
387557	1421	CLOWER	SAN ANTONIO ISD	P4	NR3	170,607.32	92556.3086
110324	406	BARRERA	SAN ANTONIO ISD	P4	NR3	171,654.35	108960.424
535968	141	LA VACA	SAN ANTONIO ISD	P4	NR4	173,484.29	130527.374
535968	604	ALAMO	SAN ANTONIO ISD	P1	NR4	173,484.29	130527.374
102561	806	HAVEN FOR HOPE	SAN ANTONIO ISD	P4	NR4	173,998.58	113405.834
114473	515	WILLOW	SAN ANTONIO ISD	P4	NR4	174,013.77	126331.711
107654	996	HACKBERRY	SAN ANTONIO ISD	P4	NR4	175,754.20	124571.336
143939	637	RIGSBY	SAN ANTONIO ISD	P4	NR4	198,324.14	142258.689
731974	435	BRADY	SAN ANTONIO ISD	P4	NR3	198,489.77	112755.677
123901	1411	ASHBY PLACE	SAN ANTONIO ISD	P4	NR3	202,908.29	120213.205
452903	207	LINCOLNSHIRE	SAN ANTONIO ISD	P4	NR3	208,163.20	111284.8
385577	1930	WAVERLY	SAN ANTONIO ISD	P4	NR4	214,646.79	152553.871
131841	1214	GUADALUPE	SAN ANTONIO ISD	P4	NR4	216,203.91	145931.962
385197	925	GULF	SAN ANTONIO ISD	P4	NR3	217,012.81	129205.013
1126778	1319	MORALES	SAN ANTONIO ISD	P4	NR3	219,735.46	108804.24
385999	3626	CESAR CHAVEZ	SAN ANTONIO ISD	P4	NR3	220,033.95	94676.0477
374010	167	HARRIMAN PLACE	SAN ANTONIO ISD	P4	NR4	226,456.95	171121.562
389981	620	MCILVAINE	SAN ANTONIO ISD	P4	NR3	237,981.05	149392.23
133193	1039	CERALVO	SAN ANTONIO ISD	P4	NR3	239,730.67	120080.062
459540	3635	BELGIUM	SAN ANTONIO ISD	P4	NR4	243,995.58	207432.148
461174	545	WW WHITE	SAN ANTONIO ISD	P4	NR4	246,234.50	167790.725
629570	727	FLORES	SAN ANTONIO ISD	P4	NR2	246,648.46	75443.9508
378921	115	JOSEPHINE	SAN ANTONIO ISD	P4	NR4	250,094.62	211835.171
150310	906	MERIDA	SAN ANTONIO ISD	P4	NR3	254,236.58	122516.246
391724	225	ARIZONA	SAN ANTONIO ISD	P4	NR4	258,325.69	179913.863
510167	4826	SEA BREEZE	SAN ANTONIO ISD	P4	NR3	258,860.96	143188.355
470021	6718	PECAN VALLEY	SAN ANTONIO ISD	P4	NR3	260,781.41	150849.322
117854	814	ARANSAS	SAN ANTONIO ISD	P4	NR3	261,198.70	139756.405
141068	1802	TAMPICO	SAN ANTONIO ISD	P4	NR3	266,963.61	173329.724
1135854	2215	MORALES	SAN ANTONIO ISD	P4	NR3	294,201.21	183361.591
451646	467	FREILING	SAN ANTONIO ISD	P4	NR3	294,678.98	147425.487
511484	2630	SALLY GAY	SAN ANTONIO ISD	P4	NR3	299,068.15	140948.265
120284	1111	AUSTIN	SAN ANTONIO ISD	P4	NR4	301,918.65	279803.061
383571	1026	THOMPSON PLACE	SAN ANTONIO ISD	P4	NR3	303,188.02	138103.805
460165	4551	DIETRICH	SAN ANTONIO ISD	P4	NR3	305,238.02	150759.64

SCHOOL PROPERTIES - SPECIAL BILLING FROZEN TO FY15

BCAD Parcel ID Merge	Street Number	Street Name	Owner	Existing SAWS SW Code	Proposed SAWS SW Code	TotaAreaSF	IMP_SF
416199	2101	EDISON	SAN ANTONIO ISD	P4	NR3	312,831.11	148059.57
386635	530	HOOVER	SAN ANTONIO ISD	P4	NR3	313,907.43	181225.756
120756	2411	SAN PEDRO	SAN ANTONIO ISD	P4	NR3	314,401.29	175331.984
466800	2400	GOLIAD	SAN ANTONIO ISD	P4	NR4	319,204.59	209873.209
451818	734	GLAMIS	SAN ANTONIO ISD	P4	NR3	319,532.07	189751.99
483083	247	BANGOR	SAN ANTONIO ISD	P4	NR2	321,105.12	127038.791
446023	107	RALEIGH PLACE	SAN ANTONIO ISD	P4	NR3	325,009.31	161947.09
491564	1302	BABCOCK	SAN ANTONIO ISD	P4	NR3	325,130.73	165045.475
453466	510	MORNINGVIEW	SAN ANTONIO ISD	P4	NR2	339,803.74	127404.143
383991	2123	HUISACHE	SAN ANTONIO ISD	P4	NR3	353,233.27	152152.567
463528	405	HOLMGREEN	SAN ANTONIO ISD	P4	NR3	359,729.38	221982.54
454193	1950	RIGSBY	SAN ANTONIO ISD	P4	NR3	369,838.83	172564.858
413764	2900	WOODLAWN	SAN ANTONIO ISD	P4	NR3	370,957.22	190707.677
127447	1300	DELGADO	SAN ANTONIO ISD	P4	NR3	379,507.51	208906.108
444732	3407	CAPITOL	SAN ANTONIO ISD	P4	NR3	381,411.15	169685.499
151892	3031	HIAWATHA	SAN ANTONIO ISD	P4	NR1	384,027.23	60197.7646
384463	2900	PINE	SAN ANTONIO ISD	P4	NR3	406,791.82	213190.986
485414	110	QUILL	SAN ANTONIO ISD	P4	NR3	407,371.84	223665.579
130790	1303	CESAR CHAVEZ	SAN ANTONIO ISD	P4	NR3	407,519.48	252494.708
462166	3501	MARTIN LUTHER KING	SAN ANTONIO ISD	P4	NR3	419,693.31	191750.584
414827	1130	SUNSHINE	SAN ANTONIO ISD	P4	NR3	421,833.28	189889.135
113676	415	GABRIEL	SAN ANTONIO ISD	P4	NR3	454,695.80	229408.269
153657	201	PRUITT	SAN ANTONIO ISD	P4	NR3	522,860.89	283890.624
108919	637	MAIN	SAN ANTONIO ISD	P4	NR4	529,988.68	401210.239
500811	314	GALWAY	SAN ANTONIO ISD	P4	NR2	637,551.03	196523.562
383580	919	THOMPSON PLACE	SAN ANTONIO ISD	P4	NR2	638,533.86	210898.214
397610	343	KOEHLER	SAN ANTONIO ISD	P4	NR3	639,175.23	325686.226
391725	3000	TAMPICO	SAN ANTONIO ISD	P4	NR2	641,216.23	229770.88
100567	401	BERKSHIRE	SAN ANTONIO ISD	P4	NR2	647,408.26	255172.774
507436	701	SANTA MONICA	SAN ANTONIO ISD	P4	NR3	802,083.73	426854.613
1062398	9210	PRESA	SAN ANTONIO ISD	P4	NR2	859,995.25	336484.073
557784	1514	CESAR CHAVEZ	SAN ANTONIO ISD	P4	NR3	1,001,304.97	590065.963
557784	1514	CESAR CHAVEZ	SAN ANTONIO ISD	P4	NR3	1,001,304.97	590065.963
139125	400	EAGLELAND	SAN ANTONIO ISD	P4	NR3	1,085,888.87	618658.448
1195482	723	DONALDSON	SAN ANTONIO ISD	P4	NR3	1,261,787.00	515876.052
1196397	4635	HOUSTON	SAN ANTONIO ISD	P4	NR3	1,318,227.05	577911.286
425786	2638	SOUTHCROSS	SOUTH SAN ANTONIO I S D	P1	NR4	8,489.37	7656.24589
425782	2614	SOUTHCROSS	SOUTH SAN ANTONIO I S D	P2	NR4	23,991.11	23518.5459
421734	2415	SOUTHCROSS	SOUTH SAN ANTONIO I S D	P1	NR3	49,075.35	31577.1319
422615	324	FENFIELD	SOUTH SAN ANTONIO I S D	C3	NR3	53,100.89	27141.2038
422056	2707	GERALD	SOUTH SAN ANTONIO I S D	P4	NR3	325,750.63	199950.82
527098	1919	HUTCHINS PLACE	SOUTH SAN ANTONIO I S D	P4	NR3	370,103.27	187183.754
422806	500	PRICE	SOUTH SAN ANTONIO I S D	P2	NR3	383,542.45	193746.261
422618	245	PRICE	SOUTH SAN ANTONIO I S D	P4	NR3	385,663.46	237950.114
476456	7811	KINDRED	SOUTH SAN ANTONIO I S D	P4	NR3	393,242.46	223391.61
571844	7111	APPLE VALLEY	SOUTH SAN ANTONIO I S D	P4	NR3	422,694.10	195158.508
546530	1725	PALO ALTO	SOUTH SAN ANTONIO I S D	P4	NR3	433,150.36	227756.929
546530	1727	PALO ALTO	SOUTH SAN ANTONIO I S D	P4	NR3	433,150.36	227756.929
573155	7138	FIVE PALMS	SOUTH SAN ANTONIO I S D	P4	NR3	440,001.45	198356.12
422055	2492	SOUTHCROSS	SOUTH SAN ANTONIO I S D	P4	NR3	453,619.84	258853.704
574104	6100	ROYALGATE	SOUTH SAN ANTONIO I S D	P4	NR2	576,035.68	222229.916
472738	1520	GILLETTE	SOUTH SAN ANTONIO I S D	P4	NR2	838,154.53	277396.837
565500	8340	IH 35	SOUTH SAN ANTONIO I S D	P4	NR2	1,007,886.27	355528.482

SCHOOL PROPERTIES - SPECIAL BILLING FROZEN TO FY15

BCAD Parcel ID Merge	Street Number	Street Name	Owner	Existing SAWS SW Code	Proposed SAWS SW Code	TotaAreaSF	IMP_SF
572816	5558	RAY ELLISON	SOUTH SAN ANTONIO I S D	P4	NR3	1,765,326.83	743435.774
1162369	7535	BARLITE	SOUTH SAN ANTONIO I S D	P4	NR4	2,076,600.86	1722320.86
1162369	7535	BARLITE	SOUTH SAN ANTONIO I S D	P4	NR4	2,076,600.86	1722320.86
1034651	8638	LARKIA	SOUTH SAN ANTONIO I S D	P4	NR2	2,310,524.34	489454.47
1011027	1300	DEL LAGO	SOUTHSIDE I S D	P4	NR2	782,120.58	241899.56
552110	3014	REFORMA	SOUTHWEST I S D	P4	NR3	286,667.98	161752.508
570140	6803	LOOP 410	SOUTHWEST I S D	P4	NR3	347,974.64	200948.125
600988	5830	OLD PEARSALL	SOUTHWEST I S D	P4	NR3	358,922.33	227781.345
657718	5902	FISHERS BEND	SOUTHWEST I S D	P4	NR3	469,842.41	238100.019
1150547	5102	TRADING POST	SOUTHWEST I S D	P4	NR3	560,908.34	296516.346
552156	9390	LOOP 410	SOUTHWEST I S D	P4	NR2	1,139,728.52	322705.116
552157	9410	LOOP 410	SOUTHWEST I S D	P4	NR2	1,435,208.33	543777.972
552157	9620	LOOP 410	SOUTHWEST I S D	C1	NR2	1,435,208.33	543777.972

ISD STORMWATER FEE SUMMARY TABLE	Alamo Heights	East Central	Edgewood	Harlandale	Judson	Northeast	NorthSide	San Antonio	South San Antonio	Southside ISD	Southwest	Total	
Number of Properties with Impervious	5	7	68	47	9	91	115	159	22	2	7	532	
Impervious associate with all Properties(SqFt)	1,052,608.4	1,625,306.1	5,543,499.9	6,503,643.8	1,396,315.1	31,333,503.6	31,989,405.3	18,832,959.6	6,078,522.6	241,913.7	1,991,581.2	106,589,259.3	
Number of Active SAWS Accounts	4	5	28	10	3	59	72	97	11	0	7	296	**Annual Charge**
FY15 Monthly Charge	$606.28	$757.85	$3,376.10	$1,212.57	$454.71	$8,661.11	$11,314.75	$11,652.67	$1,370.34	$0.00	$927.74	$40,334.12	**$484,009.44**