CITY OF EL PASO, TEXAS
AGENDA ITEM DEPARTMENT HEAD'S SUMMARY FORM

DEPARTMENT:	**Planning & Inspections Department**
AGENDA DATE:	**Regular Agenda: January 22, 2019**
CONTACT PERSON/PHONE:	**Philip F. Etiwe, 915-212-1553** **EtiwePF@elpasotexas.gov** **Adriana Castillo, 915-589-5538** **acastillo@epwater.org**
DISTRICT(S) AFFECTED:	**All Districts**

SUBJECT:
A public hearing to consider the amendment of land use assumptions and a capital improvements plan and the imposition of an impact fee, and to discuss the proposed ordinance amending land use assumptions, the capital improvements plan, and/or the impact fee.

BACKGROUND/DISCUSSION:
On March 24, 2009, the City Council approved a resolution adopting land use assumptions and a capital improvements plan under which impact fees would be imposed to finance water and wastewater improvements and facility expansion costs attributable to projected new development in three service areas (Northeast, Westside, and Eastside). In accordance with Chapter 395 of the Texas Local Government Code, the City must update its land use assumptions and capital improvements plan at least every five years. The initial five year period began on the day City Council adopted the capital improvements plan on March 24th, 2009. The first update was approved by City Council on February 18, 2014.

Texas Local Government Code requires that City Council convene a public hearing to discuss the proposed amendments and any updates to the impact fees. Any member of the public has the right to appear at the hearing and present evidence for or against the update.

PRIOR COUNCIL ACTION:
On May 12, 2009, the City Council passed ordinance 017113 adopting impact fees for water and wastewater facilities; establishing impact fee service areas; providing for assessment and collection of impact fees; providing for accounts for impact fees and use of funds in these accounts; providing for appeals; and providing for other provisions required under state law; including procedural provisions; and amending Title 15 (Public Services) of the El Paso City Code to add a chapter on impact fees.

On February 18, 2014, the City Council passed a resolution adopting the amendments to the land use assumptions and capital improvements plan.

On March 4, 2014, the City Council passed ordinance 018130 amending ordinance 017113, to amend Title 15 (Public Services), Sections 15.20 to 15.22, to adopt updated land use assumptions, capital improvements plan, and service areas. As part of the motion, City Council directed staff to not raise impact fees for twelve months.

On December 17, 2018, the Land Use Assumptions Technical Report 2019 Update (Attachment 1) and the EPW Capital Improvements Plan 2019 Update (Attachment 2) were presented to Council at a work session.

On December 18, 2018, City Council approved a resolution setting the public hearing date as January 22, 2019.

On December 21, 2018, the Water & Wastewater Impact Fees – 2018 Update (Attachment 3) was provided to members of City Council.

AMOUNT AND SOURCE OF FUNDING:
N/A

BOARD/COMMISSION ACTION:
The Public Service Board approved the Water & Wastewater Impact Fee Study – 2018 Update (Attachment C) at their meeting on January 9, 2019.

The Capital Improvements Advisory Committee (CIAC) recommended approval of the Land Use Assumptions Technical Report 2019 Update and the EPW Capital Improvements Plan 2019 Update, and approved comments on the Water & Wastewater Impact Fees – 2018 Update at their meeting on January 9, 2019. A letter from the CIAC reflecting the recommendations and comments is included as Attachment 4.

A recommendation and/or comment from the City Plan Commission is pending their meeting scheduled for January 17, 2019.

ATTACHMENTS:
Attachment 1: Land Use Assumptions Technical Report 2019 Update
Attachment 2: EPW Capital Improvements Plan 2019 Update
Attachment 3: Water and Wastewater Impact Fees – 2018 Update
Attachment 4: Comments & Recommendations from Capital Improvements Advisory Committee (CIAC)
Attachment 5: Comment letters from members of the public

SIGNATURES ON FOLLOWING PAGE

**********************REQUIRED AUTHORIZATION**********************

LEGAL: (if required) **FINANCE:** (if required)

DEPARTMENT HEAD: Philip F. Etiwe
Planning & Inspections Director

Philip Etiwe

APPROVED FOR AGENDA:

CITY MANAGER: _____ **DATE:** _____

ATTACHMENT 1

2019 UPDATE

LAND USE ASSUMPTIONS TECHNICAL REPORT

To ensure reasonable future growth estimates serve as the basis for the City of El Paso's water and wastewater capital improvement plans and resulting impact fee calculations, the review, evaluation and update of underlying land use assumptions is required by Chapter 395 of the Texas Local Government Code at least every five years. This report updates the land use assumptions adopted by the El Paso City Council on February 18, 2014, which serve as the foundation for the current water and wastewater impact fees levied on new development in each of the three identified service areas.

Introduction

Chapter 395 of the Texas Local Government Code permits the use of impact fees to finance capital improvement and facility expansion costs attributable to projected new development within identified service areas located in the corporate boundaries or extraterritorial jurisdiction of a political subdivision. To determine the costs of providing such infrastructure accurately, a planning study known as a Land Use Assumptions (LUA) report is assembled to include a description of changes in land uses, densities, intensities and population within each of these service areas over a 10-year period, as well as at full build-out. The LUA report is referenced in the development of a Capital Improvements Plan (CIP) and the adoption of an impact fee ordinance.

To ensure reasonable future growth estimates serve as the basis for expected capital improvements and facility expansions necessitated by new development and the resulting impact fee calculations, the review, evaluation and update of the underlying LUA and CIP is required at least every five years. Following preparation of this update, the political subdivision's governing body (City Council) is required to hold a public hearing for the purpose of reviewing and determining whether amendments to the LUA, CIP, or the adopted impact fees are necessary.

This report, prepared by the City of El Paso's Planning & Inspections Department, in partnership with El Paso Water, is intended to fulfill the requirements of Chapter 395 of the Local Government Code with respect to the periodic review and update of the LUA report. Specifically, this report reassesses the land use assumptions adopted by the El Paso City Council on February 18, 2014. The assumptions adopted on that date comprise the first update of the original assumptions, adopted on March 24, 2009; this report comprises the second update.

In addition to providing information about projected land use characteristics within the three established service areas (Eastside, Northeast, and Westside Water and Sewer Impact Fee Service Areas), this report estimates the total number of projected service units, or standardized measurement of consumption, necessitated by new development, and also provides a snapshot forecast of demand for water and wastewater system improvements or expansion by the year 2029. While a number of unforeseeable future events may affect these predictions, the estimates in this report are based on the best information that is currently available.

Elements of the Land Use Assumptions Report Update

The body of this report is divided into five sections:

Impact Fee Service Areas: An explanation and description of the water and wastewater impact fee service areas.

Methodology: An explanation of the general methodology used to prepare and update the land use assumptions.

Full Build-Out Projection: Population and service unit holding capacity of land located within the impact fee service areas.

Ten-Year Growth Projection: Population and service unit growth assumptions for the period between 2019 and 2029.

Summary: A brief summation of the land use assumptions report 2019 update.

Impact Fee Service Areas

Per state law, one or more service areas must be identified and used in all impact fee analyses to ensure that planned capital improvements and facility expansions, as well as the resulting fee structure, are commensurate with projected proximate demand. A service area may include all or part of the land located within the corporate boundaries of the political subdivision or its extraterritorial jurisdiction (ETJ). Currently, City of El Paso water and wastewater impact fees are levied on three specific service areas within the City's corporate boundary and the ETJ; these areas are referred to as the Northeast, Westside, and Eastside Water and Sewer Impact Fee Service Areas. See Figure 1 for a map delineating the location of the three service areas.

Each service area includes portions or all of the sub-service areas defined in the City of El Paso's Final Annexation Assessment and Strategy Report, completed in the fall of 2008, as well as other areas identified within the Water and Wastewater Impact Fees – Report Addendum, completed in March 2009. EPW has requested a change to the boundary of the Eastside impact fee service area with this update, by removing sub-service areas 10B (538 acres) and 06 (118 acres), and a small portion (approximately 23 acres) of sub-service area 08 that is adjacent to 06. These areas are included in El Paso County Municipal Utility Districts (MUD) 3 & 4. The update therefore shows alternatives with and without these areas. See Table 1 for an overview of size and existing intensity characteristics within the three impact fee service areas and the seventeen (17) sub-service areas included in this edition of the report.

In total, the three service areas currently encompass 40,094 acres of land; which will be reduced to 39,415 acres if sub-service areas 10B, 06 and a portion of 08 are removed. Nearly two-thirds of the total acreage falls within the corporate boundaries of the City, while the remaining portion lies within the City's ETJ. The Northeast Service Area is the largest of the three, comprising approximately 47 percent (19,096 acres) of the composite acreage, while the Eastside Service Area currently constitutes nearly 30 percent (12,012 acres) and the Westside Service Area approximately 23 percent (8,987 acres). Each of these areas is likely to be developed, at least partially, within the next ten years.

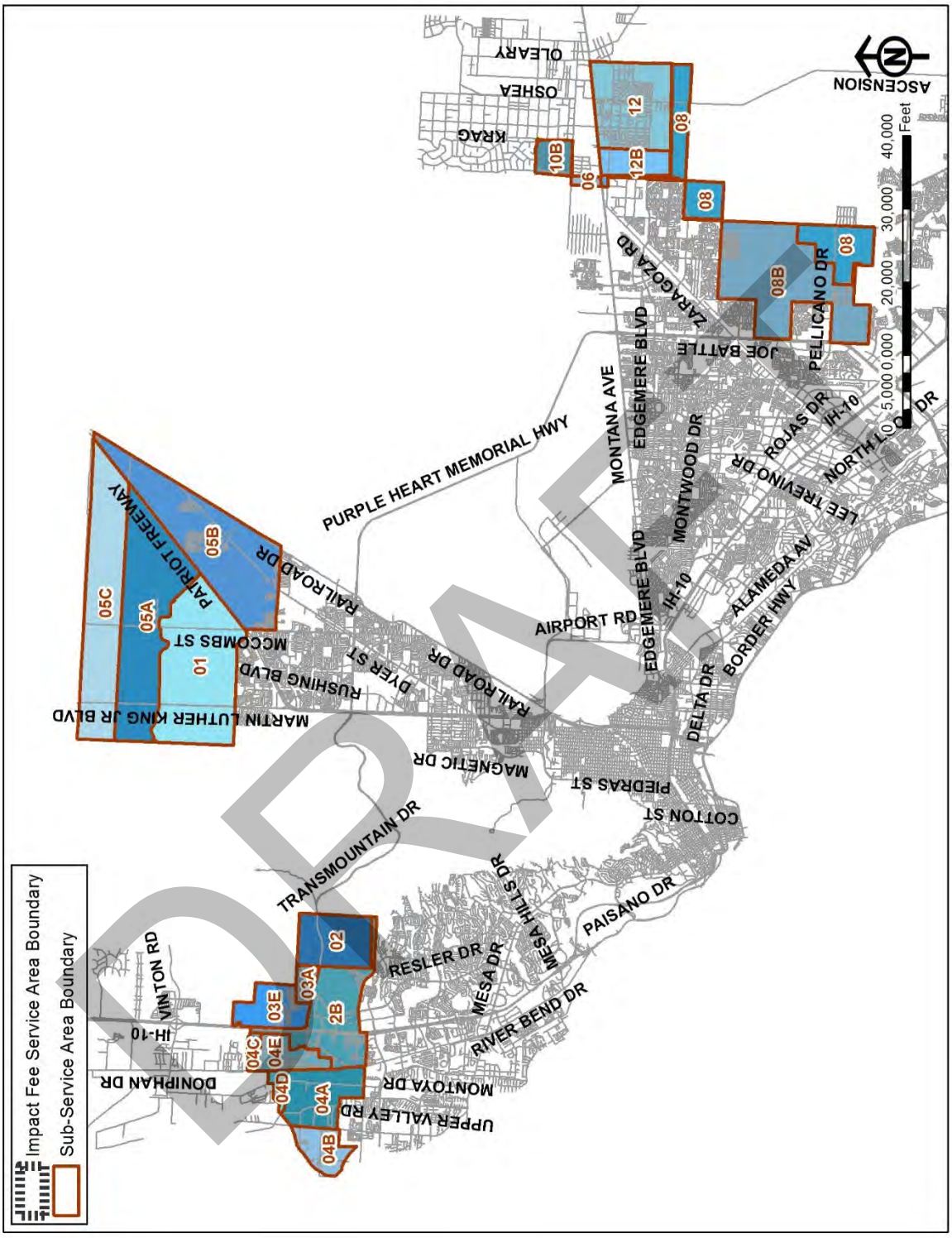

Figure 1. City of El Paso Water and Sewer Impact Fee Service Area (MUD 3 & 4 Properties Included)

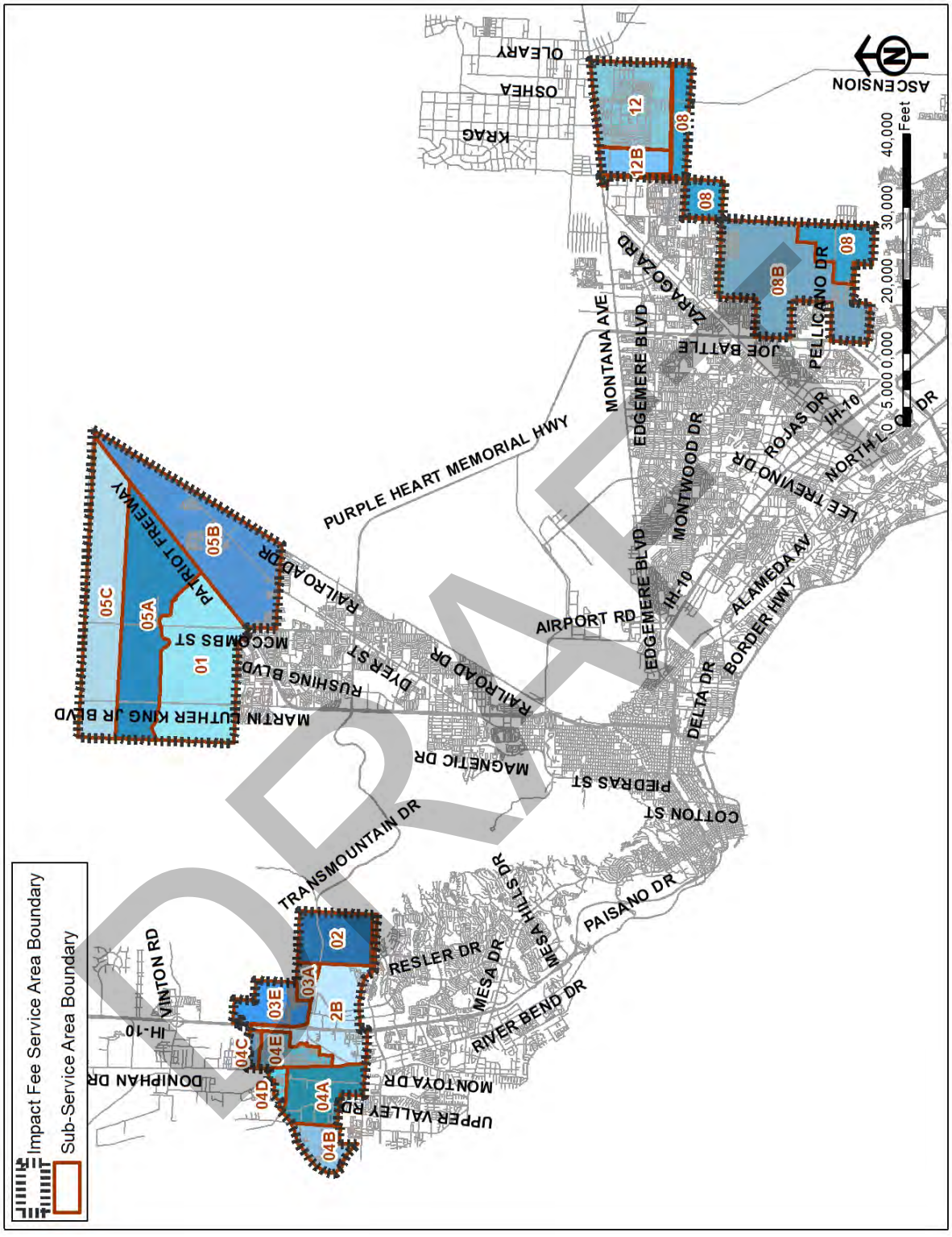

Figure 2. City of El Paso Water and Sewer Impact Fee Service Area (MUD 3 & 4 Properties Excluded)

Table 1 provides a snapshot of existing development intensity within the impact fee service areas and sub-service areas. For the purposes of this report, development intensity is defined as the proportion of acreage within each impact fee service area built upon and zoned to a residential, commercial or industrial district. With respect to current development intensity, approximately 23% of the impact fee composite area is presently developed, representing approximately 9,379 acres.

	Service Area	Total Acreage	Developed Acreage	Acreage Developed (%)
Northeast Impact Fee Service Area				
01	Northeast Master Plan	4,835	483.5	10%
05A	Northwest Fort Bliss A	4,812	721.8	15%
05B	Northwest Fort Bliss B	4,929	1232.25	25%
05C	Northwest Fort Bliss C	4,520	452	10%
	Northeast Subtotal	**19,095**	**2,890**	**15%**
Westside Impact Fee Service Area				
02	Westside Master Plan	1,589	0	0%
03A	Northwest Vinton A	294	5.88	2%
03E	I-10375 MP	1,132	384.88	34%
04A	Northwest Artcraft A	1,639	163.9	10%
04B	Northwest Artcraft B	807	161.4	20%
04C	Northwest Artcraft C	159	50.88	32%
04D	Northwest Artcraft D	218	163.5	75%
04E	Canutillo	801	776.97	97%
2B	Other	2,348	1690.56	72%
	Westside Subtotal	**8,986**	**3,398**	**38%**
Eastside Impact Fee Service Area				
08B	Eastside	4,826	965.2	20%
12	South Montana	2,919	1897.35	65%
12B	South Montana B	785	141.3	18%
06	South Fort Bliss	118	2.36	2%
08	East Battle	2,826	84.78	3%
10B	South Fort Bliss B	538	0	0%
	Eastside Subtotal	**12,013**	**3,091**	**26%**
	Total	**40,094**	**9,379**	**23%**

Table 1a. Impact Fee Service Area 2019 Existing Characteristics (MUD 3 & 4 Properties Included)

	Service Area	Total Acreage	Developed Acreage	Acreage Developed (%)
Northeast Impact Fee Service Area				
01	Northeast Master Plan	4,835	483.5	10%
05A	Northwest Fort Bliss A	4,812	721.8	15%
05B	Northwest Fort Bliss B	4,929	1232.25	25%
05C	Northwest Fort Bliss C	4,520	452	10%
	Northeast Subtotal	**19,095**	**2,890**	**15%**
Westside Impact Fee Service Area				
02	Westside Master Plan	1,589	0	0%
03A	Northwest Vinton A	294	5.88	2%
03E	I-10375 MP	1,132	384.88	34%
04A	Northwest Artcraft A	1,639	163.9	10%
04B	Northwest Artcraft B	807	161.4	20%
04C	Northwest Artcraft C	159	50.88	32%
04D	Northwest Artcraft D	218	163.5	75%
04E	Canutillo	801	776.97	97%
2B	Other	2,348	1690.56	72%
	Westside Subtotal	**8,986**	**3,398**	**38%**
Eastside Impact Fee Service Area				
08B	Eastside	4,826	965.2	20%
12	South Montana	2,919	1897.35	65%
12B	South Montana B	785	141.3	18%
06	South Fort Bliss	N/A	N/A	N/A
08	East Battle	2,826	84.78	3%
10B	South Fort Bliss B	N/A	N/A	N/A
	Eastside Subtotal	**11,356**	**3,089**	**27%**
	Total	**39,437**	**9,376**	**24%**

Table 1b. Impact Fee Service Area 2019 Existing Characteristics (MUD 3 & 4 Properties Excluded)

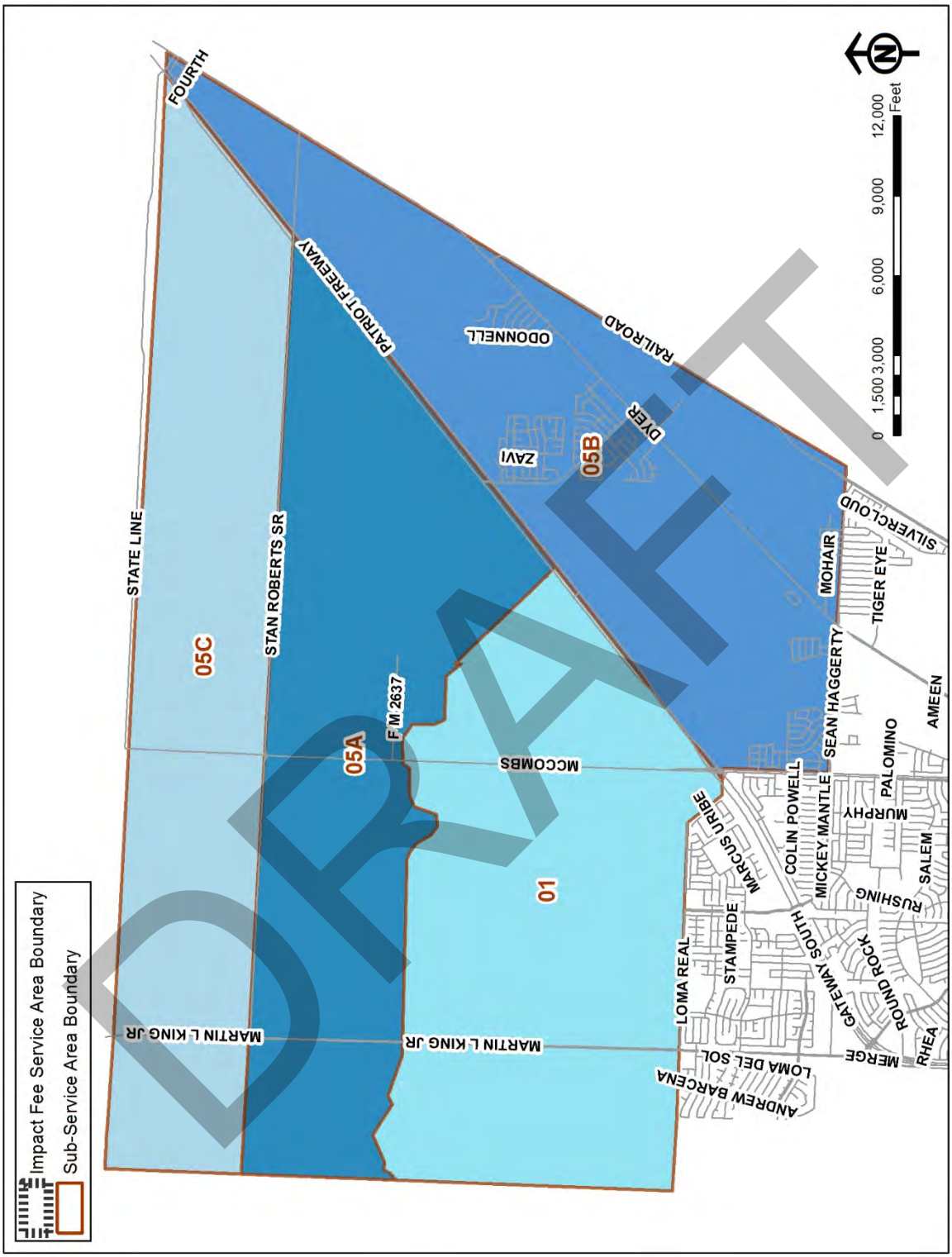

Figure 3. Northeast Water and Sewer Impact Fee Service Area

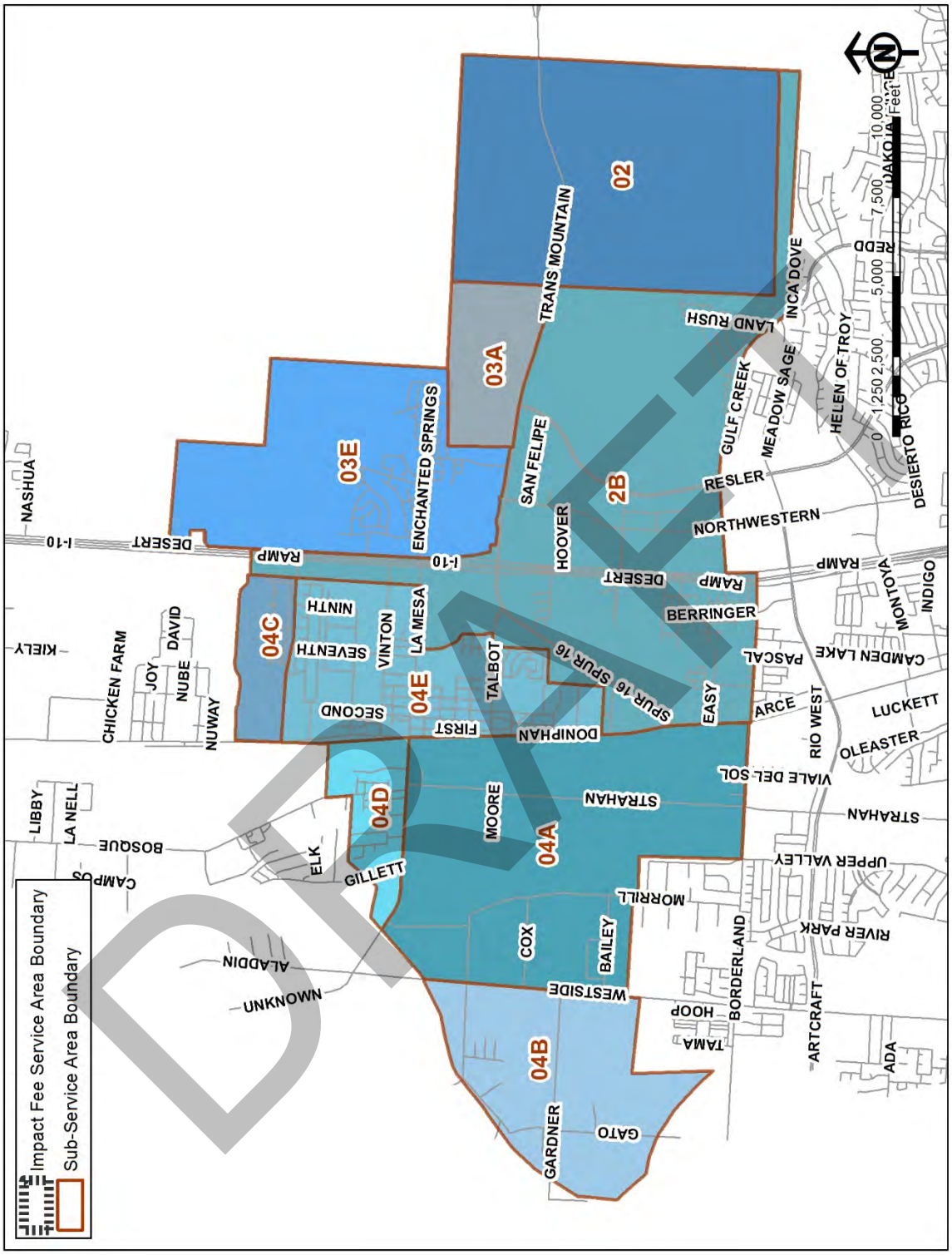

Figure 4. Westside Water and Sewer Impact Fee Service Area

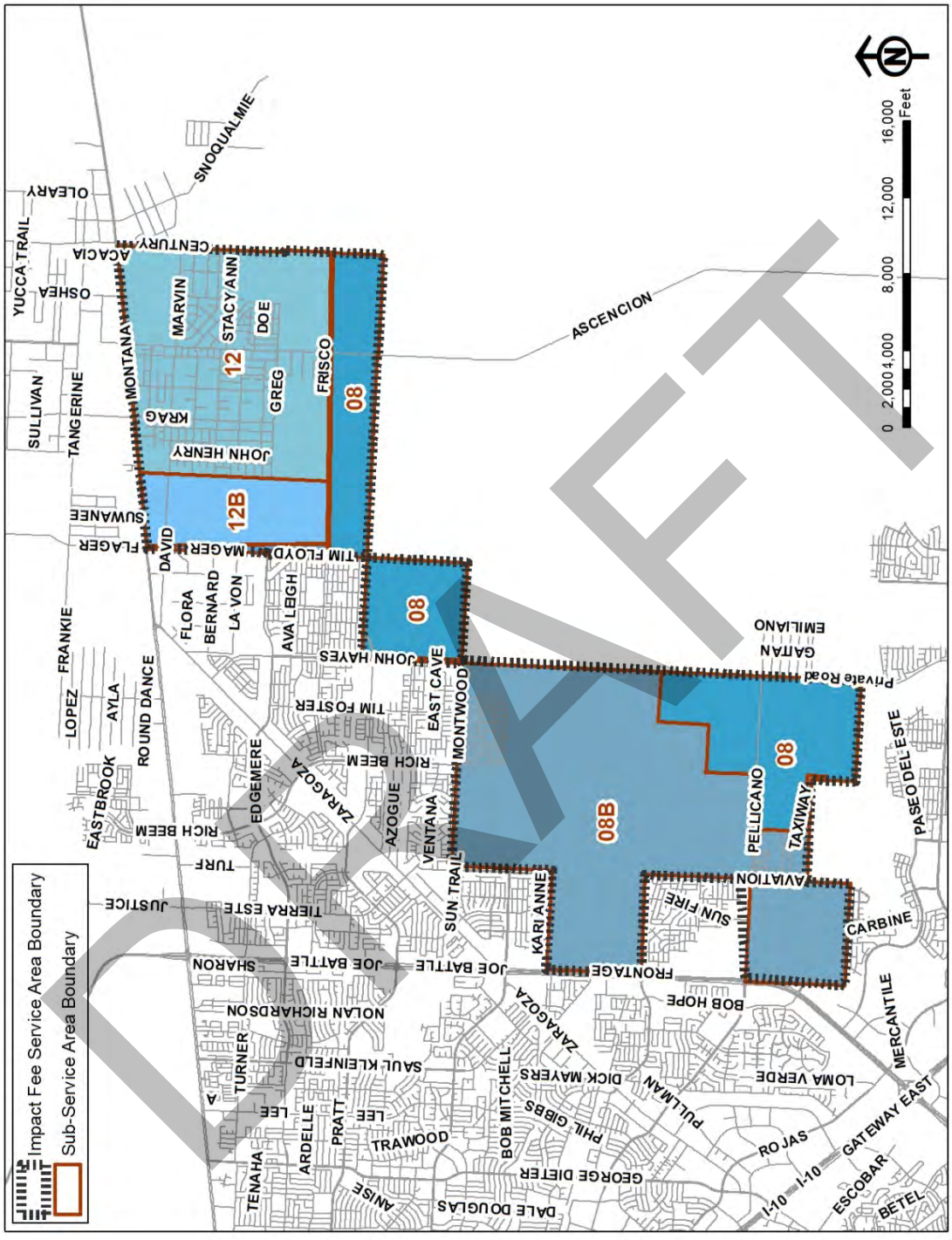

Figure 5. Eastside Water and Sewer Impact Fee Service Area (MUD 3 & 4 Properties excluded)

Methodology

The City of El Paso's existing water and wastewater fee structure is based on a series of growth assumptions which have in turn been used to inform expected capital improvement and facility expansion needs. The updated land use assumptions and associated population and service unit projections contained in this report are formulated based on consideration and incorporation of the following development patterns:

- Current development trends and characteristics;
- Zoning patterns in place and in process;
- Known or anticipated subdivision of land;
- Historic and anticipated growth trends;
- Expected future land use envisioned by *Plan El Paso*;
- Existing master plans and SmartCode regulating plans.

Land Use Assumption Update

Update of the 2014 growth projections began with the development of a database summarizing expected land use acreage at full build-out within each of the nineteen sub-service areas. Assembly of the database included analysis of the City's current zoning map and aerial photography. Zoning cases and subdivision plats in progress provided further information about near future development trends, as did surrounding development densities and types. Additionally, several approved master plans, including land studies, master zoning plans, and SmartCode regulating plans were used in determining the allocation of land use types for affected portions of the Northeast and Westside Service Areas. Table 2 provides details regarding each of these plans.

Consistent with previous analyses, acreage within the impact fee service areas was allocated to either a non-residential or residential land use. Non-residential land use categories include: commercial, industrial, agriculture, floodplain, institutional/utilities, open space, transportation, parkland or undeveloped land. Residential land use categories are defined by residential type (i.e. conventional or smart growth) and associated density. Here, development density refers to the number of service units (either residential or residential equivalents) per acre. The level of density will differ by land use; for example, a high-density residential zone is assumed to accommodate relatively more service units per acre when compared to a low-density residential use. Appendix A provides a series of maps delineating previously adopted land use assumptions, as well as updated land use assumptions within each of the three impact fee areas.

Full Build-Out and Ten-Year Growth Projections Update

This expected land use acreage database was then used to update growth assumptions for two time horizons: a ten-year projection, and a full build-out projection. Development of these scenarios involved the estimation of population and service unit figures, two variables intended to provide information regarding demand for water and wastewater services in the impact fee service areas. A service unit is defined as a standardized measure of consumption attributable to an individual unit of development, while population is defined as the number of residents located within an impact fee service area.

Area-Specific Plans Within Impact Fee Service Areas			
Master/Regulating Plan	**Sub-Service Area(s)**	**Approval Date**	**Description**
Northeast Impact Fee Service Area			
Land Study for Northeast PSB Properties	01	12/19/2006	General development plan for 6,270 acres of PSB-managed property
Master Zoning Plan for the Northeast Property in El Paso, Texas	01	8/12/2008	Plan for development of 4,942 acres of PSB-managed property, previously included in the 2006 Northeast Land Study, under the General Mixed Use (GMU) Zoning District
Major Amendment - Master Zoning Plan for the Retirement Community in Northeast El Paso	01	6/26/2012	Major amendment to the previously approved MZP for the Northeast to develop a retirement community of 427 acres of PSB-managed property zoned to the General Mixed Use (GMU) Zoning District
SmartCode Regulating Plan for the Painted Dunes Traditional Neighborhood Development	05B	12/18/2012	Development plan for 451 acres of PSB-managed property zoned SmartCode Zone (SCZ)
Westside Impact Fee Service Area			
Master Zoning Plan Enchanted Hills Residential Mixed Use Development	03E	7/29/2008	Plan for development of 238 acres of land privately owned and zoned o the Residential Mixed Use (RMU) Zoning District
SmartCode Regulating Plan for the Northwest Transmountain Corridor	02	3/5/2013	Development plan for 1,660 acres of PSB-managed property zoned to SmartCode Zone (SCZ), approximately 658 acres of which were transferred to the Franklin Mountains State Park on March 28, 2013
Eastside Impact Fee Service Area			
Tierra Del Este Phase IV Land Study	08B	10/7/2010	General development plan for 311 acres of privately-owned property
Tierra Del Este Phase V Land Study	08	3/21/2013	General development plan for 611 acres of privately-owned property
Gateway Estates Land Study	08B	2/11/2016	General development plan for 276 acres of privately-owned property
Tierra Del Este Phase VI Land Study	08, 12, 12B	1/4/2018	General development plan for 998 acres of privately-owned property

Table 2. Existing Master/Regulating Plans within the Impact Fee Service Areas. Source: City of El Paso, Planning & Inspections Department

Full Build-Out Projection:

The full build-out scenario is intended to provide information about the maximum realistic holding capacity for land within each of the impact fee service areas. It is therefore not tied to a specific time period, as a number of exogenous factors, such as economic growth and political events, will ultimately influence the pace of development.

Residential Land Use Type	Residential Service Units per Acre
Conventional Residential Zones	
Low Density	2.0
Medium Density	4.5
Medium High Density	6.0
High Density	9.0
SmartCode Zone[1]	
T-3 Sub-Urban Zone	6.0
T-4 General Urban Zone	15.0
T-4O General Urban Zone - Open	20.0
T-5 Urban Center Zone	24.0
Northeast Retirement General Mixed Use Zone[2]	
Context Zone 3	3.6
Context Zone 4	6.4
Context Zone 5	15.0
Northeast General Mixed Use Zone[3]	
Low Residential Density	3.5
Low' Residential Density	5.5
Medium Residential Density	7.2
High Residential Density	12.0
Enchanted Hills Residential Mixed Use Zone[4]	
Single Family	4.0
Duplex	6.0
Triplex	8.0
Quadruplex	10.0
Apartments	14.0

Table 3. Residential Land Use Density Assumptions

[1]Applied to Northwest and Northeast properties zoned SmartCode.
[2]Applied to the Northeast master planned area intended to house a retirement community.
[3]Applied to the remaining Northeast master planned area zoned General Mixed Use.
[4]Applied to the privately owned Enchanted Hills development zoned Residential Mixed Use.

Estimation of the full build-out scenario involves the following assumptions:

- For non-residential land uses, only lands categorized as a commercial or industrial land use type are expected to require water and wastewater services. Based on information provided by the El Paso Water Utility-Public Service Board, it is assumed that such land uses will require 7.25 residential equivalent service units per acre.

- For residential land uses, service units per acre are assigned according to the densities provided in Table 3 below. These densities are estimated based on current zoning restrictions, historic trends, and, where applicable, information provided in each of the approved master plans denoted in Table 2.
- Population per residential service unit is assumed to follow the 2012-2016 El Paso County average at 3.13 persons per housing unit, as per the American Community Survey of the U.S. Census Bureau. Note that one housing unit is the equivalent of one residential service unit.

Using the assumptions outlined in Table 3, the holding capacity within each impact fee service area is projected by first applying the non-residential and residential service unit density per acre to total commercial, industrial and residential land use acreage figures as identified in the land use assumptions database (detailed in Appendices B-E). Land capacity for population is then derived by applying a factor of 3.13 to total residential service units at full build-out in each of the impact fee service areas.

Ten-Year Growth Projection

Following the development of the full build-out scenario, service unit and population growth projections for the time period corresponding to 2019-2029 were developed. In accordance with state law, the ten-year projections are intended to provide reasonable estimates of demand for water and wastewater services within the established impact fee service area boundaries over a practical planning period. These estimates are then used to inform potential modifications to the associated ten-year capital improvements plan and, if necessary, revisions to the existing impact fee structure.

In an effort to provide the most practical demand projections possible, growth rate assumptions vary by sub-service area. Estimating growth rates at the sub-service area level allows for the incorporation of several influencing factors, such as proximity to existing development and infrastructure, anticipated development projects, and expected phasing of master planned areas.

In the ten-year growth projections, the previously adopted projections (for the period 2014-2024) were used as a starting point. Specifically, the 2014-2024 sub-service area projections were compared to existing development and adjusted to factor in the influencing factors outlined above, as well as revisions to land use assumptions summarized in Appendices A-E. Table 4 offers a side-by-side comparison of the existing developed acreage by sub-service area, the previously adopted 2014-2024 projections, and the updated 2019-2029 projections.

The remainder of this report provides service unit and population projections under the full build-out and ten-year scenarios. Each section includes projections by impact fee service area and by impact fee sub-service area. Refer to Appendices B-E for greater detail regarding land use assumptions, associated acreage, and projected service unit and population densities under the full build-out and ten-year scenarios.

Service Area	Share of Developed Acreage (%)			
	2014 Existing	2024 Projected	2019 Existing	2029 Projected
Northeast Impact Fee Service Area				
01 Northeast Master Plan	0.7	15	10	20
05A Northwest Fort Bliss A	5.2	10	15	25
05B Northwest Fort Bliss B	18.6	25	25	50
05C Northwest Fort Bliss C	0	5	15	10
Westside Impact Fee Service Area				
02 Westside Master Plan	0	15	0	25
03A Northwest Vinton A	1.8	10	2	20
03E I-10375 MP	5.5	10	34	60
04A Northwest Artcraft A	5	20	10	20
04B Northwest Artcraft B	8.5	10	20	30
04C Northwest Artcraft C	26.1	50	32	50
04D Northwest Artcraft D	72.6	80	75	90
04E Canutillo	94.8	95	97	97
02B Other	60.3	70	72	80
Eastside Impact Fee Service Area				
08B Eastside	0	10	20	40
12 South Montana	62.3	70	65	80
12B South Montana B	14.4	20	18	90
06 South Fort Bliss	0	20	2	20
08 East Battle	1.1	50	3	60
10B South Fort Bliss B	0	5	0	5

Table 4a. Comparison of Developed Acreage Share by Sub-Service Area (MUD 3 & 4 Properties Included)

Service Area	Share of Developed Acreage (%)			
	2014 Existing	2024 Projected	2019 Existing	2029 Projected
Northeast Impact Fee Service Area				
1 Northeast Master Plan	0.7	15	10	20
05A Northwest Fort Bliss A	5.2	10	15	25
05B Northwest Fort Bliss B	18.6	25	25	50
05C Northwest Fort Bliss C	0	5	15	10
Westside Impact Fee Service Area				
2 Westside Master Plan	0	15	0	25
03A Northwest Vinton A	1.8	10	2	20
03E I-10375 MP	5.5	10	34	60
04A Northwest Artcraft A	5	20	10	20
04B Northwest Artcraft B	8.5	10	20	30
04C Northwest Artcraft C	26.1	50	32	50
04D Northwest Artcraft D	72.6	80	75	90
04E Canutillo	94.8	95	97	97
02B Other	60.3	70	72	80
Eastside Impact Fee Service Area				
08B Eastside	0	10	20	40
12 South Montana	62.3	70	65	80
12B South Montana B	14.4	20	18	90
06 South Fort Bliss	0	20	N/A	N/A
8 East Battle	1.1	50	3	60
10B South Fort Bliss B	0	5	N/A	N/A

Table 4b. Comparison of Developed Acreage Share by Sub-Service Area (MUD 3 & 4 Properties Excluded)

Full Build-Out Projection

Table 5 below summarizes total service unit and population projections by impact fee service area and sub-service area under the full build-out scenario. Given the land use assumptions summarized in this report, the three impact fee service areas are expected to hold 156,790 total service units and 362,669 residents at full capacity.

Service Area		Population at Build-Out	Service Units at Full Build-Out		
			Residential	Non-Residential	Total
	Northeast Impact Fee Service Area				
01	Northeast MP	57,482	18,365	637	19,002
05A	Northwest Fort Bliss A	51,387	16,418	36	16,454
05B	Northwest Fort Bliss B	40,860	13,054	12,004	25,059
05C	Northwest Fort Bliss C	30,927	9,881	2,297	12,178
	Northeast Subtotal	**180,657**	**57,718**	**14,975**	**72,692**
	Westside Impact Fee Service Area				
02	Westside MP	16,686	5,331	0	5,331
03A	Northwest Vinton A	1,105	353	1,036	1,389
03E	I-10375 MP	7,693	2,458	1,824	4,282
04A	Northwest Artcraft A	17,880	5,712	339	6,051
04B	Northwest Artcraft B	9,562	3,055	271	3,326
04C	Northwest Artcraft C	1,254	401	231	631
04D	Northwest Artcraft D	2,384	762	80	842
04E	Canutillo	6,560	2,096	1,152	3,248
02B	Other	9,961	3,183	8,021	11,204
	Westside Subtotal	**73,086**	**23,350**	**12,954**	**36,304**
	Eastside Impact Fee Service Area				
08B	Eastside	52,113	16,650	6,582	23,231
12	South Montana	15,692	5,013	2,682	7,695
12B	South Montana B	8,404	2,685	856	3,540
06	South Fort Bliss	604	193	463	655
08	East Battle	25,157	8,037	2,411	10,448
10B	South Fort Bliss B	6,957	2,223	0	2,223
	Eastside Subtotal	**108,926**	**34,801**	**12,993**	**47,793**
	Total	**362,669**	**115,869**	**40,921**	**156,790**

Table 5a. Full Build-Out Projections (MUD 3 & 4 Properties Included)

Service Area		Population at Build-Out	Service Units at Full Build-Out		
			Residential	Non-Residential	Total
	Northeast Impact Fee Service Area				
01	Northeast MP	57,482	18,365	637	19,002
05A	Northwest Fort Bliss A	51,387	16,418	36	16,454
05B	Northwest Fort Bliss B	40,860	13,054	12,004	25,059
05C	Northwest Fort Bliss C	30,927	9,881	2,297	12,178
	Northeast Subtotal	**180,657**	**57,718**	**14,975**	**72,692**
	Westside Impact Fee Service Area				
02	Westside MP	16,686	5,331	0	5,331
03A	Northwest Vinton A	1,105	353	1,036	1,389
03E	I-10375 MP	7,693	2,458	1,824	4,282
04A	Northwest Artcraft A	17,880	5,712	339	6,051
04B	Northwest Artcraft B	9,562	3,055	271	3,326
04C	Northwest Artcraft C	1,254	401	231	631
04D	Northwest Artcraft D	2,384	762	80	842
04E	Canutillo	6,560	2,096	1,152	3,248
02B	Other	9,961	3,183	8,021	11,204
	Westside Subtotal	**73,086**	**23,350**	**12,954**	**36,304**
	Eastside Impact Fee Service Area				
08B	Eastside	52,113	16,650	6,582	23,231
12	South Montana	15,692	5,013	2,682	7,695
12B	South Montana B	8,404	2,685	856	3,540
06	South Fort Bliss	N/A	N/A	N/A	N/A
08	East Battle	25,157	8,037	2,411	10,448
10B	South Fort Bliss B	N/A	N/A	N/A	N/A
	Eastside Subtotal	**101,366**	**32,385**	**12,530**	**44,915**
	Total	**355,108**	**113,453**	**40,458**	**153,912**

Table 5b. Full Build-Out Projections (MUD 3 & 4 Properties Excluded)

Ten-Year Growth Projection

Table 6 below summarizes expected demand in 2029. Census estimates for 2000 and 2010 are provided as points of reference, along with 2018 estimates based on City of El Paso permitting data. By 2029 development within the composite impact fee service areas is anticipated to reach approximately 42% of total service unit holding capacity.

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Service Area	Census		2018 Population[1]	2029 Proj. Population	Projected Service Units in 2029		
	2000	2010			Residential	Non-Residential	Total
Northeast							
01 Northeast MP	0	0	0	11,496	3,673	127	3,800
05A Northwest Fort Bliss A	0	0	0	12,847	4,104	9	4,114
05B Northwest Fort Bliss B	2,199	4,799	6,082	20,430	6,527	6,002	12,529
05C Northwest Fort Bliss C	10	28	28	3,093	988	230	1,218
Northeast Subtotal	**2,209**	**4,827**	**6,110**	**47,866**	**15,293**	**6,368**	**21,661**
Westside							
02 Westside MP	0	0	0	4,172	1,333	0	1,333
03A Northwest Vinton A	0	0	0	221	71	207	278
03E I-10375 MP	0	0	2,836	4,616	1,475	1,094	2,569
04A Northwest Artcraft A	299	312	1,349	3,576	1,142	68	1,210
04B Northwest Artcraft B	289	251	444	2,868	916	81	998
04C Northwest Artcraft C	0	0	388	627	200	115	316
04D Northwest Artcraft D	836	1,001	1,139	2,146	686	72	758
04E Canutillo	3,633	4,760	5,346	6,363	2,033	1,117	3,150
Other	1,167	2,149	3,540	7,969	2,546	6,417	8,963
Westside Subtotal	**6,224**	**8,473**	**15,043**	**32,558**	**10,402**	**9,172**	**19,574**
Eastside							
08B Eastside	13	682	3,449	20,845	6,660	2,633	9,292
12 South Montana	6,766	7,625	8,611	12,553	4,011	2,145	6,156
12B South Montana B	0	7	1,265	7,563	2,416	770	3,186
06 South Fort Bliss	0	0	0	121	39	93	131
08 East Battle	0	21	34	15,094	4,822	1,447	6,269
10B South Fort Bliss B	0	0	0	348	111	0	111
Eastside Subtotal	**6,779**	**8,335**	**13,359**	**56,525**	**18,059**	**7,087**	**25,146**
Total	**15,212**	**21,635**	**34,511**	**136,949**	**43,754**	**22,628**	**66,382**

[1]*Based on City of El Paso residential building permit data*

Table 6a. Ten-Year Growth Projections (MUD 3 & 4 Properties Included)

Service Area	Census		2018 Population[1]	2029 Proj. Population	Projected Service Units in 2029		
	2000	2010			Residential	Non-Residential	Total
Northeast Impact Fee Service Area							
01 Northeast MP	0	0	0	11,496	3,673	127	3,800
05A Northwest Fort Bliss A	0	0	0	12,847	4,104	9	4,114
05B Northwest Fort Bliss B	2,199	4,799	6,082	20,430	6,527	6,002	12,529
05C Northwest Fort Bliss C	10	28	28	3,093	988	230	1,218
Northeast Subtotal	**2,209**	**4,827**	**6,110**	**47,866**	**15,293**	**6,368**	**21,661**
Westside							
02 Westside MP	0	0	0	4,172	1,333	0	1,333
03A Northwest Vinton A	0	0	0	221	71	207	278
03E I-10375 MP	0	0	2,836	4,616	1,475	1,094	2,569
04A Northwest Artcraft A	299	312	1,349	3,576	1,142	68	1,210
04B Northwest Artcraft B	289	251	444	2,868	916	81	998
04C Northwest Artcraft C	0	0	388	627	200	115	316
04D Northwest Artcraft D	836	1,001	1,139	2,146	686	72	758
04E Canutillo	3,633	4,760	5,346	6,363	2,033	1,117	3,150
Other	1,167	2,149	3,540	7,969	2,546	6,417	8,963
Westside Subtotal	**6,224**	**8,473**	**15,043**	**32,558**	**10,402**	**9,172**	**19,574**
Eastside							
08B Eastside	13	682	3,449	20,845	6,660	2,633	9,292
12 South Montana	6,766	7,625	8,611	12,553	4,011	2,145	6,156
12B South Montana B	0	7	1,265	7,563	2,416	770	3,186
06 South Fort Bliss	0	0	0	N/A	N/A	N/A	N/A
08 East Battle	0	21	34	15,094	4,822	1,447	6,269
10B South Fort Bliss B	0	0	0	N/A	N/A	N/A	N/A
Eastside Subtotal	**6,779**	**8,335**	**13,359**	**56,056**	**17,909**	**6,995**	**24,904**
Total	**15,212**	**21,635**	**34,511**	**136,480**	**43,604**	**22,535**	**66,139**

[1]Based on City of El Paso residential building permit data

Table 6b. Ten-Year Growth Projections (MUD 3 & 4 Properties Excluded)

Summary

Table 7 provides a comparative analysis of the previously approved and updated residential service unit and population estimates under the full build-out scenario. Overall, total projected holding capacity for residential service units and population has remained relatively constant, with the updated projections anticipating an increased residential service unit capacity of less than one percent. The projections also anticipate a nearly two percent increase in overall population capacity.

Impact Fee Service Area	Existing Estimates at Build-Out		Updated Estimates at Build-Out	
	Total Residential Service Units	Population	Total Residential Service Units	Population
Northeast	54,923	168,065	57,718	180,657
Westside	23,659	72,398	23,351	73,086
Eastside	37,753	115,524	34,801	108,926
Total	**116,335**	**355,986**	**115,870**	**362,669**

Table 7a. Full Build-Out Projections Comparison (MUD 3 & 4 Properties Included)

Impact Fee Service Area	Existing Estimates at Build-Out		Updated Estimates at Build-Out	
	Total Residential Service Units	Population	Total Residential Service Units	Population
Northeast	54,923	168,065	57,718	180,657
Westside	23,659	72,398	23,351	73,086
Eastside	37,753	115,524	32,385	101,366
Total	**116,335**	**355,986**	**113,454**	**355,108**

Table 7b. Full Build-Out Projections Comparison (MUD 3 & 4 Properties Excluded)

Table 8 provides a summary of the total service unit and population projections for both scenarios by impact fee service area. Given the updated land use assumptions, 156,790 total service units are projected at full build-out, while development demand will reach approximately 42% of the total holding capacity by 2029.

Impact Fee Service Area	Full Build-Out Scenario		2029 (Ten-Year) Scenario	
	Total Service Units	Population	Total Service Units	Population
Northeast	72,692	180,657	21,661	47,866
Westside	36,304	73,086	19,574	32,558
Eastside	47,793	108,926	25,146	56,525
Total	**156,790**	**362,669**	**66,382**	**136,949**

Table 8a. Updated Projections Summary Table (MUD 3 & 4 Properties Included)

Impact Fee Service Area	Full Build-Out Scenario		2029 (Ten-Year) Scenario	
	Total Service Units	Population	Total Service Units	Population
Northeast	72,692	180,657	21,661	47,866
Westside	36,304	73,086	19,574	32,558
Eastside	44,915	108,926	24,904	56,056
Total	**153,911**	**362,669**	**66,139**	**136,480**

Table 8b. Updated Projections Summary Table (MUD 3 & 4 Properties Excluded)

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ATTACHMENT 1

Appendix A
Land Use Assumptions Maps

Northeast Impact Fee Service Area - 2014 Land Use Assumptions

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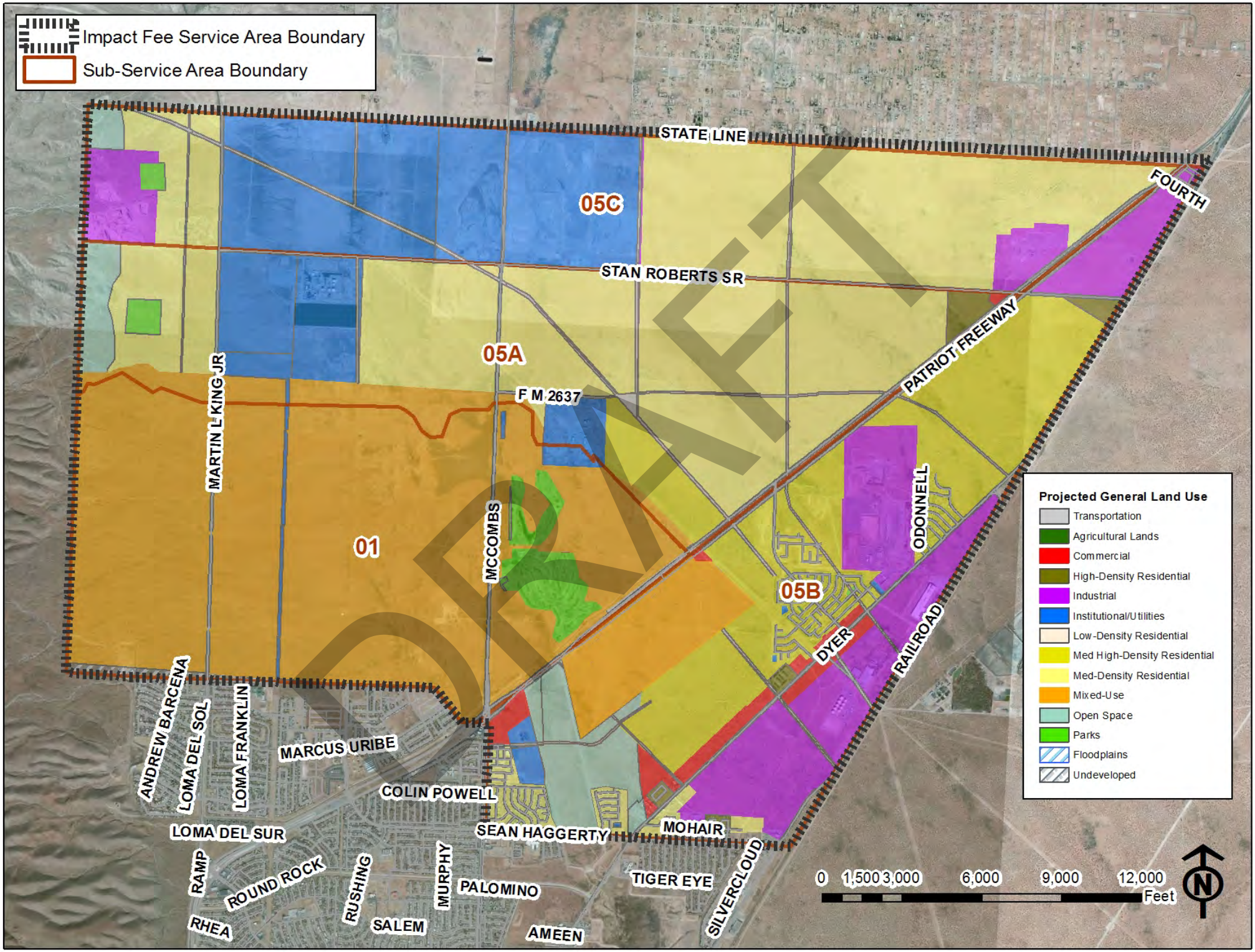

Appendix A

Northeast Impact Fee Service Area - 2019 Land Use Assumptions

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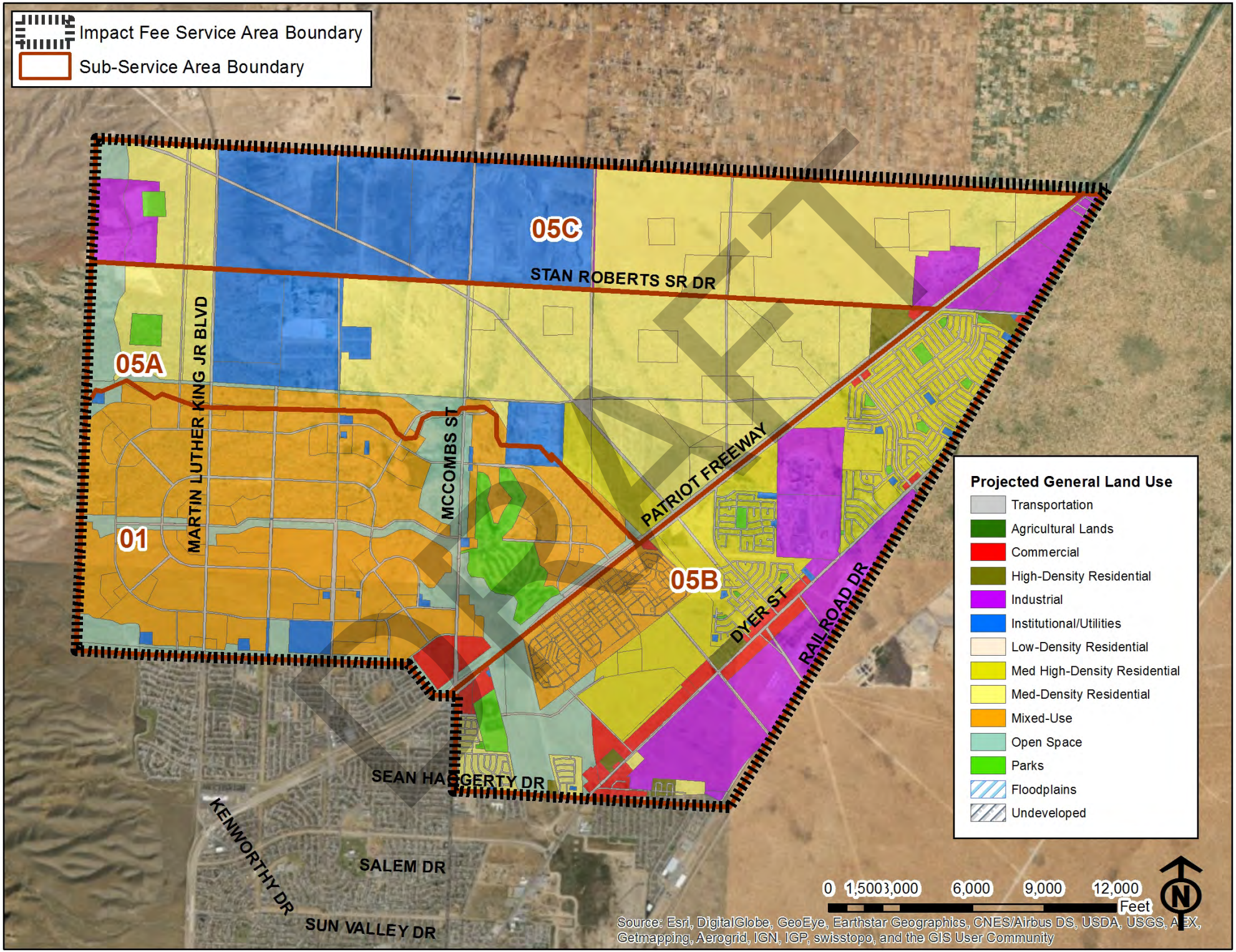

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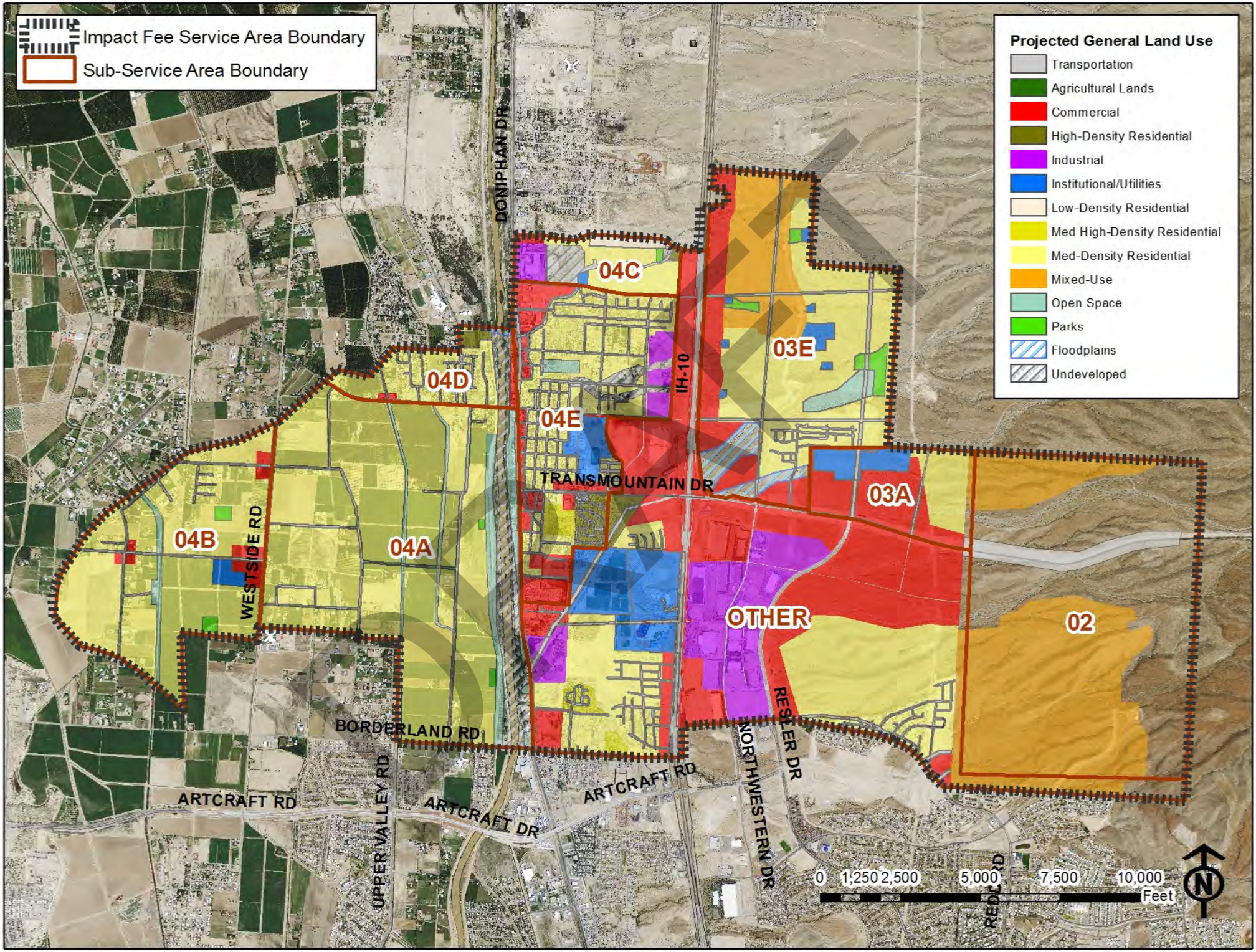

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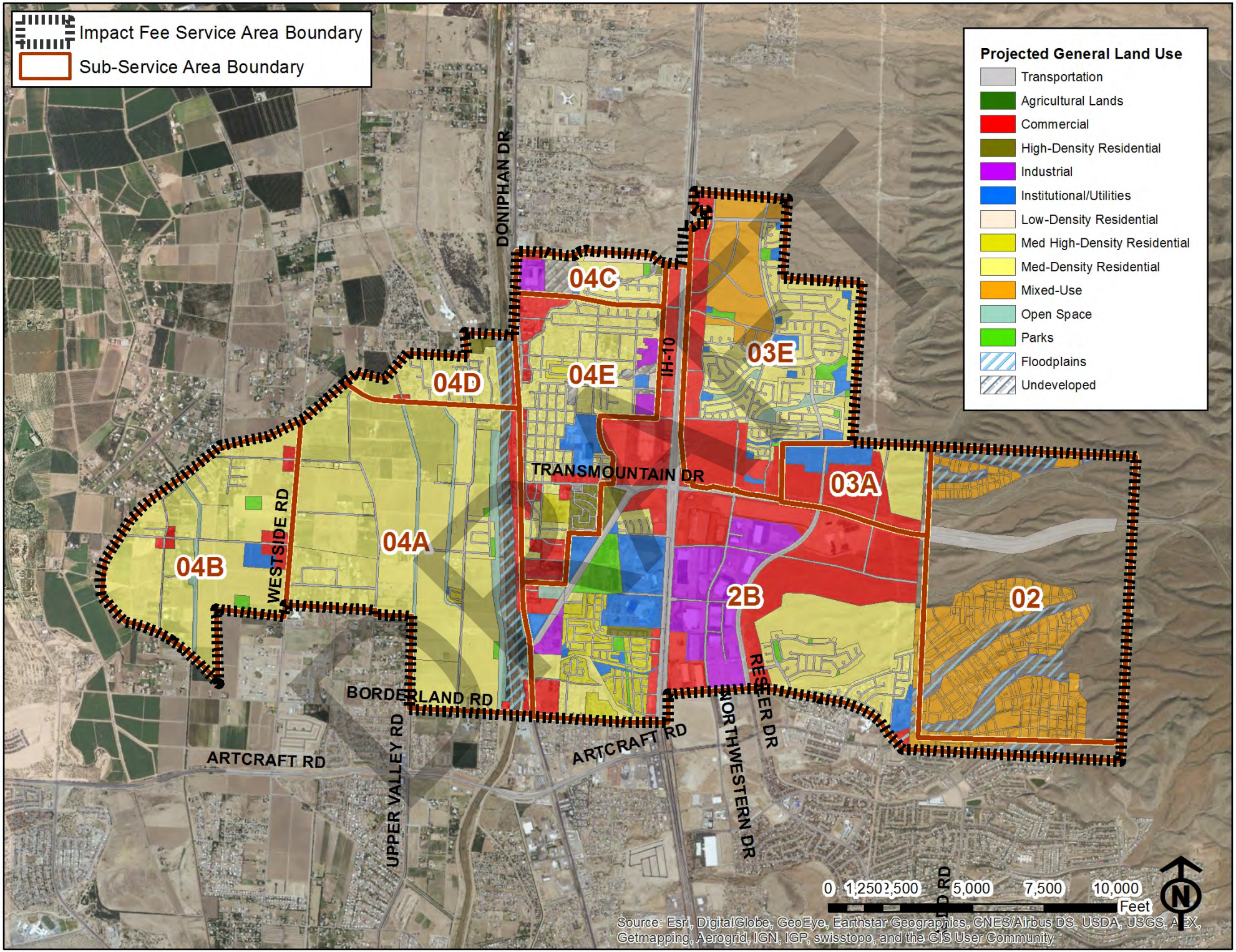

Eastside Impact Fee Service Area - 2014 Land Use Assumptions

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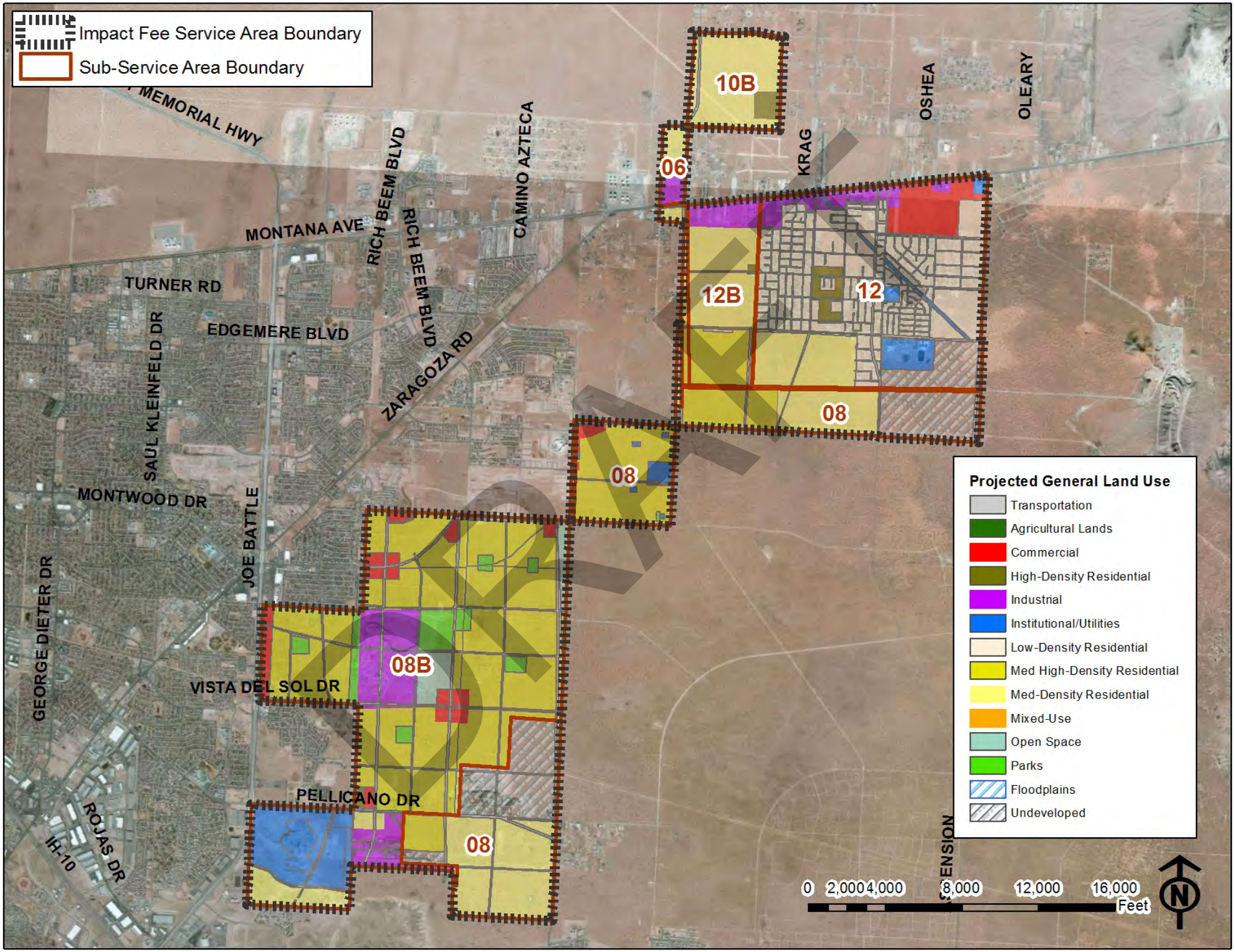

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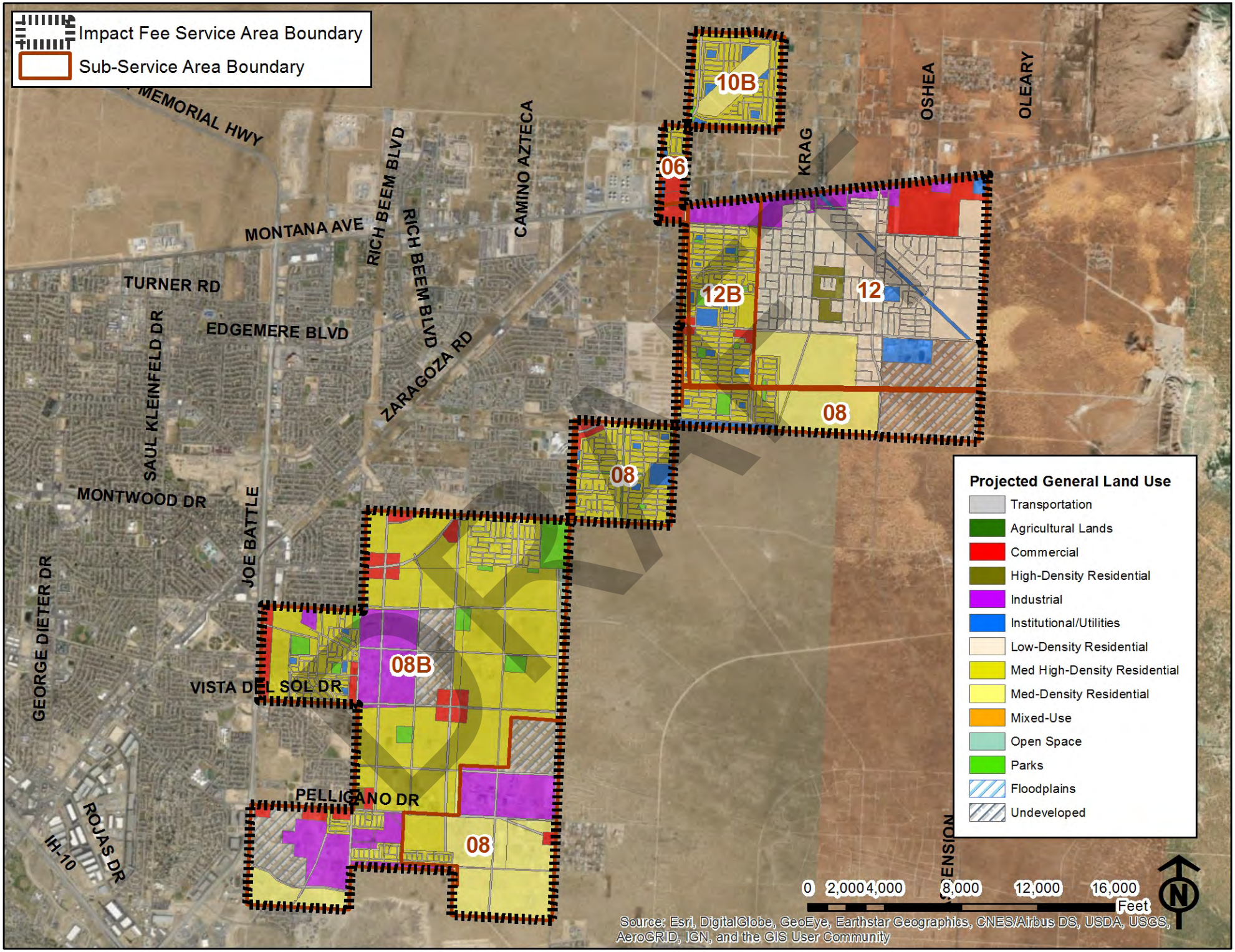

Appendix A

Eastside Impact Fee Service Area - 2019 Land Use Assumptions (MUD 3 & 4 Properties Excluded)

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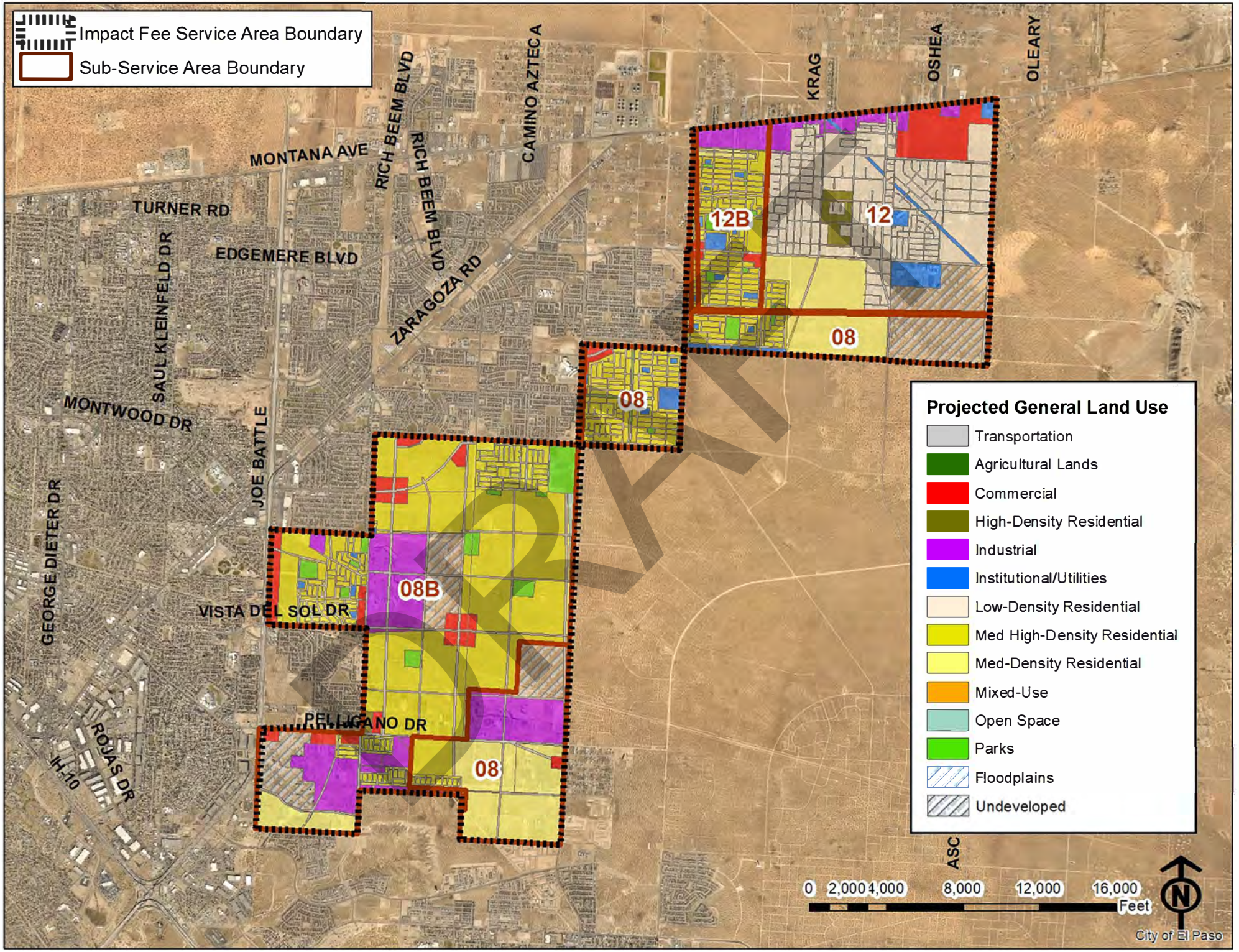

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ATTACHMENT 1

Appendix B
Full Build-Out Projections
(MUD 3 & 4 Properties Included)

ATTACHMENT 1

Full Build-Out Projections - Acreage (MUD 3 & 4 Properties Included)

Service Area	Total Acreage	Non-Residential										Conventional Residential				
		Transportation	Commercia	Industrial	Mixed Use	Parkland	Floodplain	Open	Agriculture	Undeveloped	Institutional/Utilities	Low	Medium	Medium-High	High	Total
Northeast																
01 Northeast MP	4,835	343	88		209	258		754			132					0
05A Northwest Fort Bliss A	4,812	284	5		9	38		248			708		2,992	229	51	3,273
05B Northwest Fort Bliss B	4,929	583	286	1,370	277	98		346			33		160	1,521	74	1,754
05C Northwest Fort Bliss C	4,520	147		317	0	23		51			1,788		2,191		2	2,194
Northeast Subtotal	**19,096**	**1,357**	**379**	**1,687**	**494**	**417**	**0**	**1,399**	**0**	**0**	**2,661**	**0**	**5,344**	**1,750**	**127**	**7,220**
Westside																
02 Westside MP	1,589	91			302		238	591								0
03A Northwest Vinton A	294	23	143			0					50		78			78
03E I-10375 MP	1,132	165	252		99	25		22			61		402			402
04A Northwest Artcraft A	1,639	79	47			6	130	105		3	1		1,264	4		1,268
04B Northwest Artcraft B	807	41	37			12		22			16		679			679
04C Northwest Artcraft C	159	18	5	26		2				9	2	17	77		2	96
04D Northwest Artcraft D	218	25	11				23						147		11	158
04E Canutillo	801	135	131	28				11	1	14	53	5	362	32	30	428
Other	2,348	365	802	304		63		11			173		459	142	30	630
Westside Subtotal	**8,987**	**943**	**1,428**	**358**	**401**	**108**	**391**	**763**	**1**	**26**	**356**	**21**	**3,467**	**178**	**73**	**3,739**
Eastside																
08B Eastside	4,826	531	270	638	0	186		23		344	16		195	2,610	13	2,817
12 South Montana	2,919	355	230	140		2				237	137	1,416	295	38	70	1,819
12B South Montana B	785	149	19	99		20					44		23	431		453
06 South Fort Bliss	118	15	64								7			32		32
08 East Battle	2,826	323	63	269		38				492	82		875	684		1,558
10B South Fort Bliss B	538	101				5					30		125	276		402
Eastside Subtotal	**12,012**	**1,474**	**645**	**1,147**	**0**	**251**	**0**	**23**	**0**	**1,074**	**316**	**1,416**	**1,512**	**4,071**	**82**	**7,081**
Total	**40,095**	**3,774**	**2,452**	**3,192**	**896**	**776**	**391**	**2,185**	**1**	**1,100**	**3,333**	**1,438**	**10,323**	**5,999**	**282**	**18,041**

Full Build-Out Projections - Acreage (MUD 3 & 4 Properties Included) (continued)

Service Area	Total Acreage	SmartCode Residential					Context Zones Residential				RMU Residential						GMU Residential				
		T-3	T-4	T-4O	T-5	Total	C-3	C-4	C-5	Total	Single Family	Duplex	Triplex	Quadraplex	Apartments	Total	Low	Low'	Medium	High	Total
Northeast																					
01 Northeast MP	4,835					0	81	81	15	177						0	521	1,663	403	289	2,875
05A Northwest Fort Bliss A	4,812					0				0						0	123	118	5		246
05B Northwest Fort Bliss B	4,929	54	93	9	27	183				0						0					0
05C Northwest Fort Bliss C	4,520					0				0						0					0
Northeast Subtotal	**19,096**	**54**	**93**	**9**	**27**	**183**	**81**	**81**	**15**	**177**	**0**	**0**	**0**		**0**	**0**	**644**	**1,781**	**408**	**289**	**3,121**
Westside																					
02 Westside MP	1,589	99	170	40	58	367				0						0					0
03A Northwest Vinton A	294					0				0						0					0
03E I-10375 MP	1,132					0				0	70	10	3	3	17	105					0
04A Northwest Artcraft A	1,639					0				0						0					0
04B Northwest Artcraft B	807					0				0						0					0
04C Northwest Artcraft C	159					0				0						0					0
04D Northwest Artcraft D	218					0				0						0					0
04E Canutillo	801					0				0						0					0
Other	2,348					0				0						0					0
Westside Subtotal	**8,987**	**99**	**170**	**40**	**58**	**367**	**0**	**0**	**0**	**0**	**70**	**10**	**3**		**17**	**105**	**0**	**0**	**0**	**0**	**0**
Eastside																					
08B Eastside	4,826					0				0						0					0
12 South Montana	2,919					0				0						0					0
12B South Montana B	785					0				0						0					0
06 South Fort Bliss	118					0				0						0					0
08 East Battle	2,826					0				0						0					0
10B South Fort Bliss B	538					0				0						0					0
Eastside Subtotal	**12,012**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**40,095**	**153**	**263**	**49**	**84**	**550**	**81**	**81**	**15**	**177**	**70**	**10**	**3**		**17**	**105**	**644**	**1,781**	**408**	**289**	**3,121**

ATTACHMENT 1

Full Build-Out Projections - Service Units (MUD 3 & 4 Properties Included)

Service Area	Non-Residential Service Units at Build-Out		Conventional Service Units at Build-Out					SmartCode Service Units at Build-Out					Context Zones Service Units at Build-Out			
	Commercial	Industrial	Low	Medium	Medium-High	High	Total	T-3	T-4	T-4O	T-5	Total	C-3	C-4	C-5	Total
Northeast																
01 Northeast MP	637	-	0	0	0	0	0	0	0	0	0	0	292	519	221	1,033
05A Northwest Fort Bliss A	36	-	0	13,466	1,376	458	15,300	0	0	0	0	0	0	0	0	0
05B Northwest Fort Bliss B	2,072	9,932	0	720	9,124	663	10,507	322	1,399	183	643	2,548				0
05C Northwest Fort Bliss C	-	2,297	0	9,861	0	20	9,881	0	0	0	0	0				0
Northeast Subtotal	**2,745**	**12,229**	**0**	**24,047**	**10,500**	**1,141**	**35,688**	**322**	**1,399**	**183**	**643**	**2,548**	**292**	**519**	**221**	**1,033**
Westside																
02 Westside MP	-	-	0	0	0	0	0	593	2,552	806	1,381	5,331				0
03A Northwest Vinton A	1,036	-	0	353	0	0	353	0	0	0	0	0				0
03E I-10375 MP	1,824	-	0	1,808	0	0	1,808	0	0	0	0	0				0
04A Northwest Artcraft A	339	-	0	5,687	26	0	5,712	0	0	0	0	0				0
04B Northwest Artcraft B	271	-	0	3,055	0	0	3,055	0	0	0	0	0				0
04C Northwest Artcraft C	39	192	34	346	0	21	401	0	0	0	0	0				0
04D Northwest Artcraft D	80	-	0	662	0	99	762	0	0	0	0	0				0
04E Canutillo	952	200	9	1,627	192	267	2,096	0	0	0	0	0				0
Other	5,814	2,207	0	2,063	849	270	3,183	0	0	0	0	0				0
Westside Subtotal	**10,356**	**2,598**	**43**	**15,602**	**1,067**	**657**	**17,369**	**593**	**2,552**	**806**	**1,381**	**5,331**	**0**	**0**	**0**	**0**
Eastside																
08B Eastside	1,955	4,627	0	876	15,659	115	16,650	0	0	0	0	0				0
12 South Montana	1,669	1,013	2,832	1,327	228	626	5,013	0	0	0	0	0				0
12B South Montana B	135	721	0	102	2,583	0	2,685	0	0	0	0	0				0
06 South Fort Bliss	463	-	0	0	193	0	193	0	0	0	0	0				0
08 East Battle	458	1,953	0	3,936	4,102	0	8,037	0	0	0	0	0				0
10B South Fort Bliss B	-	-	0	564	1,659	0	2,223	0	0	0	0	0				0
Eastside Subtotal	**4,679**	**8,314**	**2,832**	**6,804**	**24,424**	**740**	**34,801**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**17,780**	**23,141**	**2,875**	**46,453**	**35,991**	**2,539**	**87,858**	**916**	**3,950**	**989**	**2,024**	**7,879**	**292**	**519**	**221**	**1,033**

Appendix B

ATTACHMENT 1

Full Build-Out Projections - Service Units (MUD 3 & 4 Properties Included) (continued)

Service Area	RMU Service Units at Build-Out						GMU Service Units at Build-Out					Total Residential Service Units at Build-Out	Total Service Units at Build-Out
	Single Family	Duplex	Triplex	Quadraplex	Apartments	Total	Low	Low'	Medium	High	Total		
Northeast													
01 Northeast MP						0	1,823	9,146	2,899	3,465	17,332	18,365	19,002
05A Northwest Fort Bliss A						0	431	650	36	0	1,117	16,418	16,454
05B Northwest Fort Bliss B						0					0	13,054	25,059
05C Northwest Fort Bliss C						0					0	9,881	12,178
Northeast Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**2,255**	**9,795**	**2,935**	**3,465**	**18,450**	**57,718**	**72,692**
Westside													
02 Westside MP						0					0	5,331	5,331
03A Northwest Vinton A						0					0	353	1,389
03E I-10375 MP	279	63	28	35	245	650					0	2,458	4,282
04A Northwest Artcraft A						0					0	5,712	6,051
04B Northwest Artcraft B						0					0	3,055	3,326
04C Northwest Artcraft C						0					0	401	631
04D Northwest Artcraft D						0					0	762	842
04E Canutillo						0					0	2,096	3,248
Other						0					0	3,183	11,204
Westside Subtotal	**279**	**63**	**28**	**35**	**245**	**650**	**0**	**0**	**0**	**0**	**0**	**23,350**	**36,304**
Eastside													
08B Eastside						0					0	16,650	23,231
12 South Montana						0					0	5,013	7,695
12B South Montana B						0					0	2,685	3,540
06 South Fort Bliss						0					0	193	655
08 East Battle						0					0	8,037	10,448
10B South Fort Bliss B						0					0	2,223	2,223
Eastside Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**34,801**	**47,793**
Total	**279**	**63**	**28**	**35**	**245**	**650**	**2,255**	**9,795**	**2,935**	**3,465**	**18,450**	**115,869**	**156,790**

ATTACHMENT 1

Full Build-Out Scenario Projections - Population and Service Unit Summary (MUD 3 & 4 Properties Included)

	Service Area	Population at Build-Out	Service Units at Full Build-Out		
			Residential	Non-Residential	Total
	Northeast Impact Fee Service Area				
1	Northeast MP	57,482	18,365	637	19,002
05A	Northwest Fort Bliss A	51,387	16,418	36	16,454
05B	Northwest Fort Bliss B	40,860	13,054	12,004	25,059
05C	Northwest Fort Bliss C	30,927	9,881	2,297	12,178
	Northeast Subtotal	**180,657**	**57,718**	**14,975**	**72,692**
	Westside Impact Fee Service Area				
02	Westside MP	16,686	5,331	0	5,331
03A	Northwest Vinton A	1,105	353	1,036	1,389
03E	I-10375 MP	7,693	2,458	1,824	4,282
04A	Northwest Artcraft A	17,880	5,712	339	6,051
04B	Northwest Artcraft B	9,562	3,055	271	3,326
04C	Northwest Artcraft C	1,254	401	231	631
04D	Northwest Artcraft D	2,384	762	80	842
04E	Canutillo	6,560	2,096	1,152	3,248
02B	Other	9,961	3,183	8,021	11,204
	Westside Subtotal	**73,086**	**23,350**	**12,954**	**36,304**
	Eastside Impact Fee Service Area				
08B	Eastside	52,113	16,650	6,582	23,231
12	South Montana	15,692	5,013	2,682	7,695
12B	South Montana B	8,404	2,685	856	3,540
06	South Fort Bliss	604	193	463	655
08	East Battle	25,157	8,037	2,411	10,448
10B	South Fort Bliss B	6,957	2,223	0	2,223
	Eastside Subtotal	**108,926**	**34,801**	**12,993**	**47,793**
	Total	**362,669**	**115,869**	**40,921**	**156,790**

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ATTACHMENT 1

Appendix C
Ten-Year Growth Projections
(MUD 3 & 4 Properties Included)

Ten-Year (2029) Growth Projection - Acreage (MUD 3 & 4 Properties Included)

Service Area	2029 Share of Development	Total Acreage	Non-Residential										Conventional Residential				
			Transportation	Commercial	Industrial	Mixed Use	Parkland	Floodplain	Open	Agriculture	Undeveloped	Institutional/Utilities	Low	Medium	Medium-High	High	Total
Northeast																	
01 Northeast MP	20%	1,091	69	18		42	52		151			151					0
05A Northwest Fort Bliss A	25%	1,203	71	1		2	10		62			177		748	57	13	818
05B Northwest Fort Bliss B	50%	2,465	292	143	685	138	49		173			16		80	760	37	877
05C Northwest Fort Bliss C	10%	452	15		32	0	2		5			179		219		0	219
Northeast Subtotal		**5,211**	**446**	**162**	**717**	**182**	**112**	**0**	**391**	**0**	**0**	**523**	**0**	**1,047**	**818**	**50**	**1,915**
Westside																	
02 Westside MP	25%	397	23			76		60	148								0
03A Northwest Vinton A	20%	59	5	29			0					10		16			16
03E I-10375 MP	60%	661	99	151		60	15		13			19		241			241
04A Northwest Artcraft A	20%	328	16	9			1	26	21		1	0		253	1		254
04B Northwest Artcraft B	30%	242	12	11			4		7			5		204			204
04C Northwest Artcraft C	50%	80	9	3	13		1				4	1	8	38		1	48
04D Northwest Artcraft D	90%	196	23	10				21						132		10	142
04E Canutillo	97%	777	131	127	27				11	1	14	51	4	351	31	29	415
2B (Other)	80%	1,879	292	642	244		50		9			139		367	113	24	504
Westside Subtotal		**4,619**	**609**	**982**	**283**	**135**	**71**	**107**	**208**	**1**	**19**	**225**	**13**	**1,602**	**145**	**64**	**1,824**
Eastside																	
08B Eastside	40%	1,930	213	108	255	0	74		9		138	6		78	1,044	5	1,127
12 South Montana	80%	2,335	284	184	112		2				190	109	1,133	236	30	56	1,455
12B South Montana B	90%	706	135	17	89		18					39		20	387		408
06 South Fort Bliss	20%	24	3	13								1			6		6
08 East Battle	60%	1,696	194	38	162		23				295	49		525	410		935
10B South Fort Bliss B	5%	27	5				0					2		6	14		20
Eastside Subtotal		**6,718**	**833**	**359**	**618**	**0**	**117**	**0**	**9**	**0**	**623**	**207**	**1,133**	**865**	**1,892**	**61**	**3,951**
Total		**16,547**	**1,888**	**1,503**	**1,618**	**318**	**300**	**107**	**608**	**1**	**642**	**955**	**1,146**	**3,514**	**2,855**	**174**	**7,689**

Ten-Year (2029) Growth Projection - Acreage (MUD 3 & 4 Properties Included) (continued)

Service Area	2029 Share of Development	Total Acreage	SmartCode Residential					Context Zones Residential				RMU Residential						GMU Residential				
			T-3	T-4	T-4O	T-5	Total	C-3	C-4	C-5	Total	Single Family	Duplex	Triplex	Quadraplex	Apartments	Total	Low	Low'	Medium	High	Total
Northeast																						
01 Northeast MP	20%	1,091					0	16	16	3	35						0	104	333	81	58	575
05A Northwest Fort Bliss A	25%	1,203					0				0						0	31	30	1		62
05B Northwest Fort Bliss B	50%	2,465	27	47	5	13	91				0						0					0
05C Northwest Fort Bliss C	10%	452					0				0						0					0
Northeast Subtotal		**5,211**	**27**	**47**	**5**	**13**	**91**	**16**	**16**	**3**	**35**	**0**	**0**	**0**		**0**	**0**	**135**	**362**	**82**	**58**	**637**
Westside																						
02 Westside MP	25%	397	25	43	10	14	92				0						0					0
03A Northwest Vinton A	20%	59					0				0						0					0
03E I-10375 MP	60%	661					0				0	42	6	2	2	10	63					0
04A Northwest Artcraft A	20%	328					0				0						0					0
04B Northwest Artcraft B	30%	242					0				0						0					0
04C Northwest Artcraft C	50%	80					0				0						0					0
04D Northwest Artcraft D	90%	196					0				0						0					0
04E Canutillo	97%	777					0				0						0					0
2B (Other)	80%	1,879					0				0						0					0
Westside Subtotal		**4,619**	**25**	**43**	**10**	**14**	**92**	**0**	**0**	**0**	**0**	**42**	**6**	**2**		**10**	**63**	**0**	**0**	**0**	**0**	**0**
Eastside																						
08B Eastside	40%	1,930					0				0						0					0
12 South Montana	80%	2,335					0				0						0					0
12B South Montana B	90%	706					0				0						0					0
06 South Fort Bliss	20%	24					0				0						0					0
08 East Battle	60%	1,696					0				0						0					0
10B South Fort Bliss B	5%	27					0				0						0					0
Eastside Subtotal		**6,718**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total		**16,547**	**52**	**89**	**15**	**28**	**183**	**16**	**16**	**3**	**35**	**42**	**6**	**2**		**10**	**63**	**135**	**362**	**82**	**58**	**637**

ATTACHMENT 1

Ten-Year (2024) Growth Projection - Service Units (MUD 3 & 4 Properties Included)

Service Area	2029 Non-Residential Service Units		2029 Conventional Service Units					2029 SmartCode Service Units					2029 Context Zones Service Units			
	Commercial	Industrial	Low	Medium	Medium-High	High	Total	T-3	T-4	T-4O	T-5	Total	C-3	C-4	C-5	Total
Northeast																
01 Northeast MP	127	-	0	0	0	0	0	0	0	0	0	0	58	104	44	207
05A Northwest Fort Bliss A	9	-	0	3,367	344	115	3,825	0	0	0	0	0	0	0	0	0
05B Northwest Fort Bliss B	1,036	4,966	0	360	4,562	331	5,253	161	699	92	322	1,274				0
05C Northwest Fort Bliss C	-	230	0	986	0	2	988	0	0	0	0	0				0
Northeast Subtotal	**1,173**	**5,196**	**0**	**4,713**	**4,906**	**448**	**10,066**	**161**	**699**	**92**	**322**	**1,274**	**58**	**104**	**44**	**207**
Westside																
02 Westside MP	-	-	0	0	0	0	0	148	638	201	345	1,333				0
03A Northwest Vinton A	207	-	0	71	0	0	71	0	0	0	0	0				0
03E I-10375 MP	1,094	-	0	1,085	0	0	1,085	0	0	0	0	0				0
04A Northwest Artcraft A	68	-	0	1,137	5	0	1,142	0	0	0	0	0				0
04B Northwest Artcraft B	81	-	0	916	0	0	916	0	0	0	0	0				0
04C Northwest Artcraft C	19	96	17	173	0	10	200	0	0	0	0	0				0
04D Northwest Artcraft D	72	-	0	596	0	90	686	0	0	0	0	0				0
04E Canutillo	923	194	9	1,579	187	259	2,033	0	0	0	0	0				0
Other	4,652	1,766	0	1,651	679	216	2,546	0	0	0	0	0				0
Westside Subtotal	**7,117**	**2,055**	**26**	**7,208**	**871**	**575**	**8,679**	**148**	**638**	**201**	**345**	**1,333**	**0**	**0**	**0**	**0**
Eastside																
08B Eastside	782	1,851	0	350	6,264	46	6,660	0	0	0	0	0				0
12 South Montana	1,335	810	2,266	1,062	182	501	4,011	0	0	0	0	0				0
12B South Montana B	121	649	0	92	2,325	0	2,416	0	0	0	0	0				0
06 South Fort Bliss	93	-	0	0	39	0	39	0	0	0	0	0				0
08 East Battle	275	1,172	0	2,361	2,461	0	4,822	0	0	0	0	0				0
10B South Fort Bliss B	-	-	0	28	83	0	111	0	0	0	0	0				0
Eastside Subtotal	**2,606**	**4,482**	**2,266**	**3,893**	**11,354**	**546**	**18,059**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**10,895**	**11,733**	**2,291**	**15,814**	**17,131**	**1,569**	**36,805**	**310**	**1,337**	**293**	**667**	**2,607**	**58**	**104**	**44**	**207**

ATTACHMENT 1

Ten-Year (2029) Growth Projection - Service Units (MUD 3 & 4 Properties Included) (continued)

Service Area	2029 RMU Service Units						2029 GMU Service Units					2029 Residential Service Units	2029 Service Units
	Single Family	Duplex	Triplex	Quadraplex	Apartments	Total	Low	Low'	Medium	High	Total		
Northeast													
01 Northeast MP						0	365	1,829	580	693	3,466	3,673	3,800
05A Northwest Fort Bliss A						0	108	162	9	0	279	4,104	4,114
05B Northwest Fort Bliss B						0					0	6,527	12,529
05C Northwest Fort Bliss C						0					0	988	1,218
Northeast Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**472**	**1,992**	**589**	**693**	**3,746**	**15,293**	**21,661**
Westside													
02 Westside MP						0					0	1,333	1,333
03A Northwest Vinton A						0					0	71	278
03E I-10375 MP	168	38	17	21	147	390					0	1,475	2,569
04A Northwest Artcraft A						0					0	1,142	1,210
04B Northwest Artcraft B						0					0	916	998
04C Northwest Artcraft C						0					0	200	316
04D Northwest Artcraft D						0					0	686	758
04E Canutillo						0					0	2,033	3,150
Other						0					0	2,546	8,963
Westside Subtotal	**168**	**38**	**17**	**21**	**147**	**390**	**0**	**0**	**0**	**0**	**0**	**10,402**	**19,574**
Eastside													
08B Eastside						0					0	6,660	9,292
12 South Montana						0					0	4,011	6,156
12B South Montana B						0					0	2,416	3,186
06 South Fort Bliss						0					0	39	131
08 East Battle						0					0	4,822	6,269
10B South Fort Bliss B						0					0	111	111
Eastside Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18,059**	**25,146**
Total	**168**	**38**	**17**	**21**	**147**	**390**	**472**	**1,992**	**589**	**693**	**3,746**	**43,754**	**66,382**

ATTACHMENT 1

Ten-Year (2029) Growth Projection - Population and Service Unit Summary (MUD 3 & 4 Properties ncluded)

Service Area	Census		2018 Population[1]	2029 Proj. Population	Projected Service Units in 2029		
	2000	2010			Residential	Non-Residential	Total
Northeast							
01 Northeast MP	0	0	0	11,496	3,673	127	3,800
05A Northwest Fort Bliss A	0	0	0	12,847	4,104	9	4,114
05B Northwest Fort Bliss B	2,199	4,799	6,082	20,430	6,527	6,002	12,529
05C Northwest Fort Bliss C	10	28	28	3,093	988	230	1,218
Northeast Subtotal	**2,209**	**4,827**	**6,110**	**47,866**	**15,293**	**6,368**	**21,661**
Westside							
02 Westside MP	0	0	0	4,172	1,333	0	1,333
03A Northwest Vinton A	0	0	0	221	71	207	278
03E I-10375 MP	0	0	2,836	4,616	1,475	1,094	2,569
04A Northwest Artcraft A	299	312	1,349	3,576	1,142	68	1,210
04B Northwest Artcraft B	289	251	444	2,868	916	81	998
04C Northwest Artcraft C	0	0	388	627	200	115	316
04D Northwest Artcraft D	836	1,001	1,139	2,146	686	72	758
04E Canutillo	3,633	4,760	5,346	6,363	2,033	1,117	3,150
Other	1,167	2,149	3,540	7,969	2,546	6,417	8,963
Westside Subtotal	**6,224**	**8,473**	**15,043**	**32,558**	**10,402**	**9,172**	**19,574**
Eastside							
08B Eastside	13	682	3,449	20,845	6,660	2,633	9,292
12 South Montana	6,766	7,625	8,611	12,553	4,011	2,145	6,156
12B South Montana B	0	7	1,265	7,563	2,416	770	3,186
06 South Fort Bliss	0	0	0	121	39	93	131
08 East Battle	0	21	34	15,094	4,822	1,447	6,269
10B South Fort Bliss B	0	0	0	348	111	0	111
Eastside Subtotal	**6,779**	**8,335**	**13,359**	**56,525**	**18,059**	**7,087**	**25,146**
Total	**15,212**	**21,635**	**34,511**	**136,949**	**43,754**	**22,628**	**66,382**

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ATTACHMENT 1

Appendix D
Full Build-Out Projections
(MUD 3 & 4 Properties Excluded)

ATTACHMENT 1

Full Build-Out Projections - Acreage (MUD 3 & 4 Properties Excluded)

Service Area	Total Acreage	Non-Residential										Conventional Residential				
		Transportation	Commercia	Industrial	Mixed Use	Parkland	Floodplain	Open	Agriculture	Undeveloped	Institutional/Utilities	Low	Medium	Medium-High	High	Total
Northeast																
01 Northeast MP	4,835	343	88		209	258		754			132					0
05A Northwest Fort Bliss A	4,812	284	5		9	38		248			708		2,992	229	51	3,273
05B Northwest Fort Bliss B	4,929	583	286	1,370	277	98		346			33		160	1,521	74	1,754
05C Northwest Fort Bliss C	4,520	147		317	0	23		51			1,788		2,191		2	2,194
Northeast Subtotal	**19,096**	**1,357**	**379**	**1,687**	**494**	**417**	**0**	**1,399**	**0**	**0**	**2,661**	**0**	**5,344**	**1,750**	**127**	**7,220**
Westside																
02 Westside MP	1,589	91			302		238	591								0
03A Northwest Vinton A	294	23	143			0					50		78			78
03E I-10375 MP	1,132	165	252		99	25		22			61		402			402
04A Northwest Artcraft A	1,639	79	47			6	130	105		3	1		1,264	4		1,268
04B Northwest Artcraft B	807	41	37			12		22			16		679			679
04C Northwest Artcraft C	159	18	5	26		2				9	2	17	77		2	96
04D Northwest Artcraft D	218	25	11				23						147		11	158
04E Canutillo	801	135	131	28				11	1	14	53	5	362	32	30	428
Other	2,348	365	802	304		63		11			173		459	142	30	630
Westside Subtotal	**8,987**	**943**	**1,428**	**358**	**401**	**108**	**391**	**763**	**1**	**26**	**356**	**21**	**3,467**	**178**	**73**	**3,739**
Eastside																
08B Eastside	4,826	531	270	638	0	186		23		344	16		195	2,610	13	2,817
12 South Montana	2,919	355	230	140		2				237	137	1,416	295	38	70	1,819
12B South Montana B	785	149	19	99		20					44		23	431		453
06 South Fort Bliss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
08 East Battle	2,826	323	63	269		38				492	82		875	684		1,558
10B South Fort Bliss B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Eastside Subtotal	**11,356**	**1,358**	**582**	**1,147**	**0**	**246**	**0**	**23**	**0**	**1,074**	**278**	**1,416**	**1,387**	**3,762**	**82**	**6,647**
Total	**39,439**	**3,658**	**2,389**	**3,192**	**896**	**771**	**391**	**2,185**	**1**	**1,100**	**3,295**	**1,438**	**10,198**	**5,690**	**282**	**17,607**

Full Build-Out Projections - Acreage (MUD 3 & 4 Properties Excluded) (continued)

Service Area	Total Acreage	SmartCode Residential					Context Zones Residential				RMU Residential						GMU Residential				
		T-3	T-4	T-4O	T-5	Total	C-3	C-4	C-5	Total	Single Family	Duplex	Triplex	Quadraplex	Apartments	Total	Low	Low'	Medium	High	Total
Northeast																					
01 Northeast MP	4,835					0	81	81	15	177						0	521	1,663	403	289	2,875
05A Northwest Fort Bliss A	4,812					0				0						0	123	118	5		246
05B Northwest Fort Bliss B	4,929	54	93	9	27	183				0						0					0
05C Northwest Fort Bliss C	4,520					0				0						0					0
Northeast Subtotal	**19,096**	**54**	**93**	**9**	**27**	**183**	**81**	**81**	**15**	**177**	**0**	**0**	**0**		**0**	**0**	**644**	**1,781**	**408**	**289**	**3,121**
Westside																					
02 Westside MP	1,589	99	170	40	58	367				0						0					0
03A Northwest Vinton A	294					0				0						0					0
03E I-10375 MP	1,132					0				0	70	10	3	3	17	105					0
04A Northwest Artcraft A	1,639					0				0						0					0
04B Northwest Artcraft B	807					0				0						0					0
04C Northwest Artcraft C	159					0				0						0					0
04D Northwest Artcraft D	218					0				0						0					0
04E Canutillo	801					0				0						0					0
Other	2,348					0				0						0					0
Westside Subtotal	**8,987**	**99**	**170**	**40**	**58**	**367**	**0**	**0**	**0**	**0**	**70**	**10**	**3**		**17**	**105**	**0**	**0**	**0**	**0**	**0**
Eastside																					
08B Eastside	4,826					0				0						0					0
12 South Montana	2,919					0				0						0					0
12B South Montana B	785					0				0						0					0
06 South Fort Bliss	N/A					N/A				N/A						N/A					N/A
08 East Battle	2,826					0				0						0					0
10B South Fort Bliss B	N/A					N/A				N/A						N/A					N/A
Eastside Subtotal	**11,356**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**39,439**	**153**	**263**	**49**	**84**	**550**	**81**	**81**	**15**	**177**	**70**	**10**	**3**		**17**	**105**	**644**	**1,781**	**408**	**289**	**3,121**

ATTACHMENT 1

Full Build-Out Projections - Service Units (MUD 3 & 4 Properties Excluded)

Service Area	Non-Residential Service Units at Build-Out		Conventional Service Units at Build-Out					SmartCode Service Units at Build-Out					Context Zones Service Units at Build-Out			
	Commercial	Industrial	Low	Medium	Medium-High	High	Total	T-3	T-4	T-4O	T-5	Total	C-3	C-4	C-5	Total
Northeast																
01 Northeast MP	637	-	0	0	0	0	0	0	0	0	0	0	292	519	221	1,033
05A Northwest Fort Bliss A	36	-	0	13,466	1,376	458	15,300	0	0	0	0	0	0	0	0	0
05B Northwest Fort Bliss B	2,072	9,932	0	720	9,124	663	10,507	322	1,399	183	643	2,548				0
05C Northwest Fort Bliss C	-	2,297	0	9,861	0	20	9,881	0	0	0	0	0				0
Northeast Subtotal	**2,745**	**12,229**	**0**	**24,047**	**10,500**	**1,141**	**35,688**	**322**	**1,399**	**183**	**643**	**2,548**	**292**	**519**	**221**	**1,033**
Westside																
02 Westside MP	-	-	0	0	0	0	0	593	2,552	806	1,381	5,331				0
03A Northwest Vinton A	1,036	-	0	353	0	0	353	0	0	0	0	0				0
03E I-10375 MP	1,824	-	0	1,808	0	0	1,808	0	0	0	0	0				0
04A Northwest Artcraft A	339	-	0	5,687	26	0	5,712	0	0	0	0	0				0
04B Northwest Artcraft B	271	-	0	3,055	0	0	3,055	0	0	0	0	0				0
04C Northwest Artcraft C	39	192	34	346	0	21	401	0	0	0	0	0				0
04D Northwest Artcraft D	80	-	0	662	0	99	762	0	0	0	0	0				0
04E Canutillo	952	200	9	1,627	192	267	2,096	0	0	0	0	0				0
Other	5,814	2,207	0	2,063	849	270	3,183	0	0	0	0	0				0
Westside Subtotal	**10,356**	**2,598**	**43**	**15,602**	**1,067**	**657**	**17,369**	**593**	**2,552**	**806**	**1,381**	**5,331**	**0**	**0**	**0**	**0**
Eastside																
08B Eastside	1,955	4,627	0	876	15,659	115	16,650	0	0	0	0	0				0
12 South Montana	1,669	1,013	2,832	1,327	228	626	5,013	0	0	0	0	0				0
12B South Montana B	135	721	0	102	2,583	0	2,685	0	0	0	0	0				0
06 South Fort Bliss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				N/A
08 East Battle	458	1,953	0	3,936	4,102	0	8,037	0	0	0	0	0				0
10B South Fort Bliss B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				N/A
Eastside Subtotal	**4,216**	**8,314**	**2,832**	**6,240**	**22,572**	**740**	**32,385**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**17,317**	**23,141**	**2,875**	**45,889**	**34,139**	**2,539**	**85,442**	**916**	**3,950**	**989**	**2,024**	**7,879**	**292**	**519**	**221**	**1,033**

Appendix D

ATTACHMENT 1

Full Build-Out Projections - Service Units (MUD 3 & 4 Properties Excluded) (continued)

Service Area	RMU Service Units at Build-Out						GMU Service Units at Build-Out					Total Residential Service Units at Build-Out	Total Service Units at Build-Out
	Single Family	Duplex	Triplex	Quadraplex	Apartments	Total	Low	Low'	Medium	High	Total		
Northeast													
01 Northeast MP						0	1,823	9,146	2,899	3,465	17,332	18,365	19,002
05A Northwest Fort Bliss A						0	431	650	36	0	1,117	16,418	16,454
05B Northwest Fort Bliss B						0					0	13,054	25,059
05C Northwest Fort Bliss C						0					0	9,881	12,178
Northeast Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**2,255**	**9,795**	**2,935**	**3,465**	**18,450**	**57,718**	**72,692**
Westside													
02 Westside MP						0					0	5,331	5,331
03A Northwest Vinton A						0					0	353	1,389
03E I-10375 MP	279	63	28	35	245	650					0	2,458	4,282
04A Northwest Artcraft A						0					0	5,712	6,051
04B Northwest Artcraft B						0					0	3,055	3,326
04C Northwest Artcraft C						0					0	401	631
04D Northwest Artcraft D						0					0	762	842
04E Canutillo						0					0	2,096	3,248
Other						0					0	3,183	11,204
Westside Subtotal	**279**	**63**	**28**	**35**	**245**	**650**	**0**	**0**	**0**	**0**	**0**	**23,350**	**36,304**
Eastside													
08B Eastside						0					0	16,650	23,231
12 South Montana						0					0	5,013	7,695
12B South Montana B						0					0	2,685	3,540
06 South Fort Bliss						N/A					N/A	N/A	N/A
08 East Battle						0					0	8,037	10,448
10B South Fort Bliss B						N/A					N/A	N/A	N/A
Eastside Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**32,385**	**44,915**
Total	**279**	**63**	**28**	**35**	**245**	**650**	**2,255**	**9,795**	**2,935**	**3,465**	**18,450**	**113,453**	**153,912**

ATTACHMENT 1

Full Build-Out Scenario Projections - Population and Service Unit Summary (MUD 3 & 4 Properties Excluded)

	Service Area	Population at Build-Out	Service Units at Full Build-Out		
			Residential	Non-Residential	Total
	Northeast Impact Fee Service Area				
01	Northeast MP	57,482	18,365	637	19,002
05A	Northwest Fort Bliss A	51,387	16,418	36	16,454
05B	Northwest Fort Bliss B	40,860	13,054	12,004	25,059
05C	Northwest Fort Bliss C	30,927	9,881	2,297	12,178
	Northeast Subtotal	**180,657**	**57,718**	**14,975**	**72,692**
	Westside Impact Fee Service Area				
02	Westside MP	16,686	5,331	0	5,331
03A	Northwest Vinton A	1,105	353	1,036	1,389
03E	I-10375 MP	7,693	2,458	1,824	4,282
04A	Northwest Artcraft A	17,880	5,712	339	6,051
04B	Northwest Artcraft B	9,562	3,055	271	3,326
04C	Northwest Artcraft C	1,254	401	231	631
04D	Northwest Artcraft D	2,384	762	80	842
04E	Canutillo	6,560	2,096	1,152	3,248
02B	Other	9,961	3,183	8,021	11,204
	Westside Subtotal	**73,086**	**23,350**	**12,954**	**36,304**
	Eastside Impact Fee Service Area				
08B	Eastside	52,113	16,650	6,582	23,231
12	South Montana	15,692	5,013	2,682	7,695
12B	South Montana B	8,404	2,685	856	3,540
06	South Fort Bliss	N/A	N/A	N/A	N/A
08	East Battle	25,157	8,037	2,411	10,448
10B	South Fort Bliss B	N/A	N/A	N/A	N/A
	Eastside Subtotal	**101,366**	**32,385**	**12,530**	**44,915**
	Total	**355,108**	**113,453**	**40,458**	**153,912**

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ATTACHMENT 1

Appendix E
Ten-Year Growth Projections
(MUD 3 & 4 Properties Excluded)

Ten-Year (2029) Growth Projection - Acreage (MUD 3 & 4 Properties Excluded)

ATTACHMENT 1

Service Area	2029 Share of Development	Total Acreage	Non-Residential										Conventional Residential				
			Transportation	Commercial	Industrial	Mixed Use	Parkland	Floodplain	Open	Agriculture	Undeveloped	Institutional/Utilities	Low	Medium	Medium-High	High	Total
Northeast																	
01 Northeast MP	20%	1,091	69	18		42	52		151			151					0
05A Northwest Fort Bliss A	25%	1,203	71	1		2	10		62			177		748	57	13	818
05B Northwest Fort Bliss B	50%	2,465	292	143	685	138	49		173			16		80	760	37	877
05C Northwest Fort Bliss C	10%	452	15		32	0	2		5			179		219		0	219
Northeast Subtotal		**5,211**	**446**	**162**	**717**	**182**	**112**	**0**	**391**	**0**	**0**	**523**	**0**	**1,047**	**818**	**50**	**1,915**
Westside																	
02 Westside MP	25%	397	23			76		60	148								0
03A Northwest Vinton A	20%	59	5	29			0					10		16			16
03E I-10375 MP	60%	661	99	151		60	15		13			19		241			241
04A Northwest Artcraft A	20%	328	16	9			1	26	21		1	0		253	1		254
04B Northwest Artcraft B	30%	242	12	11			4		7			5		204			204
04C Northwest Artcraft C	50%	80	9	3	13		1				4	1	8	38		1	48
04D Northwest Artcraft D	90%	196	23	10				21						132		10	142
04E Canutillo	97%	777	131	127	27				11	1	14	51	4	351	31	29	415
2B (Other)	80%	1,879	292	642	244		50		9			139		367	113	24	504
Westside Subtotal		**4,619**	**609**	**982**	**283**	**135**	**71**	**107**	**208**	**1**	**19**	**225**	**13**	**1,602**	**145**	**64**	**1,824**
Eastside																	
08B Eastside	40%	1,930	213	108	255	0	74		9		138	6		78	1,044	5	1,127
12 South Montana	80%	2,335	284	184	112		2				190	109	1,133	236	30	56	1,455
12B South Montana B	90%	706	135	17	89		18					39		20	387		408
06 South Fort Bliss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
08 East Battle	60%	1,696	194	38	162		23				295	49		525	410		935
10B South Fort Bliss B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Eastside Subtotal		**6,667**	**825**	**347**	**618**	**0**	**117**	**0**	**9**	**0**	**623**	**204**	**1,133**	**859**	**1,872**	**61**	**3,925**
Total		**16,497**	**1,880**	**1,490**	**1,618**	**318**	**300**	**107**	**608**	**1**	**642**	**952**	**1,146**	**3,508**	**2,835**	**174**	**7,663**

ATTACHMENT 1

Ten-Year (2029) Growth Projection - Acreage (MUD 3 & 4 Properties Excluded) (continued)

Service Area	2029 Share of Development	Total Acreage	SmartCode Residential					Context Zones Residential				RMU Residential						GMU Residential				
			T-3	T-4	T-4O	T-5	Total	C-3	C-4	C-5	Total	Single Family	Duplex	Triplex	Quadraplex	Apartments	Total	Low	Low'	Medium	High	Total
Northeast																						
01 Northeast MP	20%	1,091					0	16	16	3	35						0	104	333	81	58	575
05A Northwest Fort Bliss A	25%	1,203					0				0						0	31	30	1		62
05B Northwest Fort Bliss B	50%	2,465	27	47	5	13	91				0						0					0
05C Northwest Fort Bliss C	10%	452					0				0						0					0
Northeast Subtotal		**5,211**	**27**	**47**	**5**	**13**	**91**	**16**	**16**	**3**	**35**	**0**	**0**	**0**		**0**	**0**	**135**	**362**	**82**	**58**	**637**
Westside																						
02 Westside MP	25%	397	25	43	10	14	92				0						0					0
03A Northwest Vinton A	20%	59					0				0						0					0
03E I-10375 MP	60%	661					0				0	42	6	2	2	10	63					0
04A Northwest Artcraft A	20%	328					0				0						0					0
04B Northwest Artcraft B	30%	242					0				0						0					0
04C Northwest Artcraft C	50%	80					0				0						0					0
04D Northwest Artcraft D	90%	196					0				0						0					0
04E Canutillo	97%	777					0				0						0					0
2B (Other)	80%	1,879					0				0						0					0
Westside Subtotal		**4,619**	**25**	**43**	**10**	**14**	**92**	**0**	**0**	**0**	**0**	**42**	**6**	**2**		**10**	**63**	**0**	**0**	**0**	**0**	**0**
Eastside																						
08B Eastside	40%	1,930					0				0						0					0
12 South Montana	80%	2,335					0				0						0					0
12B South Montana B	90%	706					0				0						0					0
06 South Fort Bliss	N/A	N/A					N/A				N/A						N/A					N/A
08 East Battle	60%	1,696					0				0						0					0
10B South Fort Bliss B	N/A	N/A					N/A				N/A						N/A					N/A
Eastside Subtotal		**6,667**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total		**16,497**	**52**	**89**	**15**	**28**	**183**	**16**	**16**	**3**	**35**	**42**	**6**	**2**		**10**	**63**	**135**	**362**	**82**	**58**	**637**

ATTACHMENT 1

Ten-Year (2024) Growth Projection - Service Units (MUD 3 & 4 Properties Excluded)

Service Area	2029 Non-Residential Service Units		2029 Conventional Service Units					2029 SmartCode Service Units					2029 Context Zones Service Units			
	Commercial	Industrial	Low	Medium	Medium-High	High	Total	T-3	T-4	T-4O	T-5	Total	C-3	C-4	C-5	Total
Northeast																
01 Northeast MP	127	-	0	0	0	0	0	0	0	0	0	0	58	104	44	207
05A Northwest Fort Bliss A	9	-	0	3,367	344	115	3,825	0	0	0	0	0	0	0	0	0
05B Northwest Fort Bliss B	1,036	4,966	0	360	4,562	331	5,253	161	699	92	322	1,274				0
05C Northwest Fort Bliss C	-	230	0	986	0	2	988	0	0	0	0	0				0
Northeast Subtotal	**1,173**	**5,196**	**0**	**4,713**	**4,906**	**448**	**10,066**	**161**	**699**	**92**	**322**	**1,274**	**58**	**104**	**44**	**207**
Westside																
02 Westside MP	-	-	0	0	0	0	0	148	638	201	345	1,333				0
03A Northwest Vinton A	207	-	0	71	0	0	71	0	0	0	0	0				0
03E I-10375 MP	1,094	-	0	1,085	0	0	1,085	0	0	0	0	0				0
04A Northwest Artcraft A	68	-	0	1,137	5	0	1,142	0	0	0	0	0				0
04B Northwest Artcraft B	81	-	0	916	0	0	916	0	0	0	0	0				0
04C Northwest Artcraft C	19	96	17	173	0	10	200	0	0	0	0	0				0
04D Northwest Artcraft D	72	-	0	596	0	90	686	0	0	0	0	0				0
04E Canutillo	923	194	9	1,579	187	259	2,033	0	0	0	0	0				0
Other	4,652	1,766	0	1,651	679	216	2,546	0	0	0	0	0				0
Westside Subtotal	**7,117**	**2,055**	**26**	**7,208**	**871**	**575**	**8,679**	**148**	**638**	**201**	**345**	**1,333**	**0**	**0**	**0**	**0**
Eastside																
08B Eastside	782	1,851	0	350	6,264	46	6,660	0	0	0	0	0				0
12 South Montana	1,335	810	2,266	1,062	182	501	4,011	0	0	0	0	0				0
12B South Montana B	121	649	0	92	2,325	0	2,416	0	0	0	0	0				0
06 South Fort Bliss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				N/A
08 East Battle	275	1,172	0	2,361	2,461	0	4,822	0	0	0	0	0				0
10B South Fort Bliss B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				N/A
Eastside Subtotal	**2,513**	**4,482**	**2,266**	**3,865**	**11,232**	**546**	**17,909**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**10,803**	**11,733**	**2,291**	**15,785**	**17,009**	**1,569**	**36,655**	**310**	**1,337**	**293**	**667**	**2,607**	**58**	**104**	**44**	**207**

ATTACHMENT 1

Ten-Year (2024) Growth Projection - Service Units (MUD 3 & 4 Properties Excluded) (continued)

Service Area	2029 RMU Service Units						2029 GMU Service Units					2029 Residential Service Units	2029 Service Units
	Single Family	Duplex	Triplex	Quadraplex	Apartments	Total	Low	Low'	Medium	High	Total		
Northeast													
01 Northeast MP						0	365	1,829	580	693	3,466	3,673	3,800
05A Northwest Fort Bliss A						0	108	162	9	0	279	4,104	4,114
05B Northwest Fort Bliss B						0					0	6,527	12,529
05C Northwest Fort Bliss C						0					0	988	1,218
Northeast Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**472**	**1,992**	**589**	**693**	**3,746**	**15,293**	**21,661**
Westside													
02 Westside MP						0					0	1,333	1,333
03A Northwest Vinton A						0					0	71	278
03E I-10375 MP	168	38	17	21	147	390					0	1,475	2,569
04A Northwest Artcraft A						0					0	1,142	1,210
04B Northwest Artcraft B						0					0	916	998
04C Northwest Artcraft C						0					0	200	316
04D Northwest Artcraft D						0					0	686	758
04E Canutillo						0					0	2,033	3,150
Other						0					0	2,546	8,963
Westside Subtotal	**168**	**38**	**17**	**21**	**147**	**390**	**0**	**0**	**0**	**0**	**0**	**10,402**	**19,574**
Eastside													
08B Eastside						0					0	6,660	9,292
12 South Montana						0					0	4,011	6,156
12B South Montana B						0					0	2,416	3,186
06 South Fort Bliss						N/A					N/A	N/A	N/A
08 East Battle						0					0	4,822	6,269
10B South Fort Bliss B						N/A					N/A	N/A	N/A
Eastside Subtotal	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**17,909**	**24,904**
Total	**168**	**38**	**17**	**21**	**147**	**390**	**472**	**1,992**	**589**	**693**	**3,746**	**43,604**	**66,139**

ATTACHMENT 1

Ten-Year (2029) Growth Projection - Population and Service Unit Summary (MUD 3 & 4 Properties Excluded)

Service Area	Census		2018 Population[1]	2029 Proj. Population	Projected Service Units in 2029		
	2000	2010			Residential	Non-Residential	Total
Northeast							
01 Northeast MP	0	0	0	11,496	3,673	127	3,800
05A Northwest Fort Bliss A	0	0	0	12,847	4,104	9	4,114
05B Northwest Fort Bliss B	2,199	4,799	6,082	20,430	6,527	6,002	12,529
05C Northwest Fort Bliss C	10	28	28	3,093	988	230	1,218
Northeast Subtotal	**2,209**	**4,827**	**6,110**	**47,866**	**15,293**	**6,368**	**21,661**
Westside							
02 Westside MP	0	0	0	4,172	1,333	0	1,333
03A Northwest Vinton A	0	0	0	221	71	207	278
03E I-10375 MP	0	0	2,836	4,616	1,475	1,094	2,569
04A Northwest Artcraft A	299	312	1,349	3,576	1,142	68	1,210
04B Northwest Artcraft B	289	251	444	2,868	916	81	998
04C Northwest Artcraft C	0	0	388	627	200	115	316
04D Northwest Artcraft D	836	1,001	1,139	2,146	686	72	758
04E Canutillo	3,633	4,760	5,346	6,363	2,033	1,117	3,150
Other	1,167	2,149	3,540	7,969	2,546	6,417	8,963
Westside Subtotal	**6,224**	**8,473**	**15,043**	**32,558**	**10,402**	**9,172**	**19,574**
Eastside							
08B Eastside	13	682	3,449	20,845	6,660	2,633	9,292
12 South Montana	6,766	7,625	8,611	12,553	4,011	2,145	6,156
12B South Montana B	0	7	1,265	7,563	2,416	770	3,186
06 South Fort Bliss	0	0	0	N/A	N/A	N/A	N/A
08 East Battle	0	21	34	15,094	4,822	1,447	6,269
10B South Fort Bliss B	0	0	0	N/A	N/A	N/A	N/A
Eastside Subtotal	**6,779**	**8,335**	**13,359**	**56,056**	**18,059**	**7,087**	**24,904**
Total	**15,212**	**21,635**	**34,511**	**136,480**	**43,604**	**22,535**	**66,139**

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

Associated Water

WATER SUPPLY AND TREATMENT SYSTEM

ADVANCED WATER PURIFICATION FACILITY – The efforts by EPWater to continue to diversify the City's water supply portfolio will allow growth demand in the eastside and northeast to be met by the Advanced Water Purification Facility producing 8.0 MGD. This facility will recycle water that was used for irrigation into drinking water.

KBH EXPANSION Phase 1–In order to meet growth demand in the eastside and northeast, the KBH desalination facility will be expanded to provide an additional 5.0 MGD to its service area. The expansion includes a new Reverse Osmosis skid, source wells and concentrate injection wells.

RESERVOIRS

LOMA REAL TANK This project consists of constructing a 5.0 MG ground storage tank to meet demand on the East High Pressure Zone and provide suction for the Loma Real Pump Station that will pump water to the proposed Franklin East 1 B reservoir.

FRANKLIN EAST #1B - A 3.0 MG Reservoir and a 3.0 MG future reservoir to serve the Franklin East 1 Pressure Zone. The Reservoir is needed to meet future growth development of the lower reaches of the areas east of War Highway and to the State line.

TRANSMOUNTAIN NORTHWEST #1A – A 4.0 MG tank north of Transmountain on the Westside, at the same overflow elevation of Artcraft No. 1, to meet anticipated growth and provide suction storage for the proposed Transmountain Northwest 1 pump station.

TRANSMOUNTAIN NORTHWEST #2A – A proposed 3.0 MG tank north of Transmountain on the Westside, at the same overflow elevation of Artcraft No. 2, to meet anticipated growth.

EASTSIDE PLANNED SERVICE AREA (PSA) - New reservoir to serve areas east of Loop 375. Tierra Del Este (Ranchos Real) 3.0 MG elevated tank.

ARTCRAFT NO. 4 RESERVOIR – A 2.0 MG ground storage tank located on the west foothills of the Franklin Mountains to serve future development in the upper service areas east of IH-10 near Transmountain Road.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

NORTHEAST STATION WELL SUPPLY TANK (I.F.) – A new 2.0 MG ground storage supply tank in Northeast El Paso, at the intersection of Sean Haggerty Drive and McCombs Blvd., adjacent to the Northeast Booster Station. This tank is needed to augment the existing storage capacity of the Northeast Well production system, and to accommodate future supply from the Sherman Well Field. This storage tank will also allow for additional pumping capacity to be installed at the Northeast Booster Station for pumping into the East High Pressure Zone and upper Franklin East Pressure Zone pumping, related future growth.

MONTANA EAST – A series of storage facilities have been conceptually planned to provide service on the Eastside north and south of the Montana Ave. corridor, extending about 8 miles east of Loop 375. EPWater's long-range plan projects a multi-year, multiphase approach to extend pipelines, construct elevated storage tanks (3 totaling 6.5 MG –and one pump station (15.0 MGD Phase I plus additional 10.0 MGD Phase 2) to supply these areas. This item includes two storage tanks, Vista Del Este (2.5 MG), and Homestead II (2.0 MG).

DISTRIBUTION PUMPING EQUIPMENT

ARTCRAFT #1 – A 20.0 MGD pumping station located at Northwestern and Paseo Del Norte (Artcraft Rd) in Northwest El Paso, was completed in late 2002 and will supply Artcraft #2 Reservoir. An additional 5.0 MGD will be added under this project to meet future demands.

NORTH 2 PUMP STATION – Initial 11.8 MGD to future 22.3 MGD pump station at the North 2 Tank site to meet future summer peak-day demands in the Franklin East Pressure Zones #1

TRANSMOUNTAIN NORTHWEST #1 PUMP STATION - Proposed pump station north of Transmountain on the Westside, to pump from Transmountain #1 Reservoir to Transmountain #2 Reservoir to meet growth.

ARTCRAFT #3 PUMP STATION – A 3.0 MGD pumping station in Northwest El Paso will supply Artcraft #4 reservoir.

LOMA REAL Pump station with an initial 3.0 MGD capacity which will provide pumping to supply the Franklin East 1 B reservoir.

MONTANA EAST (3.0 MGD – Ranchos Real) - Pump Stations have been conceptually planned to provide service to the Eastside for development along north and south of the Montana Ave. corridor, extending about 8-miles east of Loop 375. EPWater's long-range plan projects a multi-year three- phase approach to extend pipelines, construct elevated storage tanks, and booster stations.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

DISTRIBUTION LINES

CANUTILLO/UV TRANSMISSION MAIN - NORTHWEST PHASE IV – Part of an existing major system of large diameter pipelines that extends and delivers water supply from the Canutillo Well Field and This item consists of Phase IV will consist of a 36-inch line extending from the Phase I – 48-inch line from Graphite & Mace to the Fred Miller Storage site.

TRANSMOUNTAIN NW SUPPLY TO TRANSMOUNTAIN #1 - A proposed transmission main on the Westside, from the Canutillo Main to the Transmountain Reservoir #1 to meet growth.

TRANSMOUNTAIN NW SUPPLY TO TRANSMOUNTAIN #2 - A proposed transmission main on the Westside, from the Transmountain Pumping Station #1 to the Transmountain Reservoir #2 to meet growth.

BORDERLAND 16-inch/24-inch DONIPHAN, STRAHAN, LA UNION – Part of the Northwest System upgrades to meet future growth on the west side. The project consists of the installation of a 36-inch transmission main. Also, there is an extension of a 16-inch or larger line from Galindo/Doniphan Dr., west along Borderland to Strahan Road.

EASTSIDE PLANNED SERVICE AREA (PSA) – Proposed transmission main lines necessary to serve areas east of Loop 375. Extensions of transmission mains associated with the construction of future new elevated tanks. This item provides the backbone for the water distribution to meet demand.

NORTHWEST DISTRIBUTION MAINS – Proposed transmission mains necessary to serve areas generally located north and south of Transmountain Road, east of IH-10, including the portions of the Northwest Regulating Plan within the Coronado Country Club 2 pressure zone.

ARTCRAFT #3 BOOSTER STATION TO ARTCRAFT #4 RESERVOIR - 24-inch pipe to connect the booster station to the reservoir.

MONTANA EAST SUPPLY LINES– Distribution facilities have been conceptually planned to provide service on the Eastside along north and south of the Montana Ave. corridor, extending about 8 miles east of Loop 375. EPWater's long-range plan projects a multi-year three-phase approach to extend pipelines, construct elevated storage tanks and a major pump station. This item considers the design and future construction of a backbone network of water transmission mains (16-inch to 24-inch) to supply these areas.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

MONTANA EAST 36-inch LINE– - A proposed transmission main from the Ranchos Real Reservoir to the Montana East Reservoirs.

DYER / RR WATER LINE – A series of planned water mains to convey water to the far northeast part of the city. The proposed pipeline will tie into the NE Franklin Distribution Line near the intersection of Stan Roberts Dr. and US-54, and then will extend east along Stan Roberts to Dyer and then south along Dyer.

NE FRANKLIN DISTRIBUTION LINE – A network of water distribution mains, generally 16-inch to 24-inch, to be constructed within the Franklin East #1 Pressure Zones service areas (NE Master Planned areas) in response to and in step with emerging developments.

FRANKLIN EAST 1 DISTRIBUTION LINE – Water distribution main parallel to US-54 from the Franklin East 1 A tank to Stan Roberts Dr.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

Associated Wastewater

COLLECTION LINES

NE DYER/RR INTERCEPTOR - Series of gravity sewer lines extending from the New Mexico-Texas boundary near Stan Roberts Dr. and Dyer St. that convey wastewater flows to the Fred Hervey Reclamation Plant. This system will service future development in the Northeast including the existing Futureland Subdivision.

OTHER EAST INTERCEPTORS (Area 8 East) – Sewer trunk collectors related to development east of Zaragoza and Loop 375 for the area commonly known as Montana Vista and adjacent annexed areas requests for service by developers. Includes oversized collectors in which the EPWater participates.

LOOP 375 EAST INTERCEPTOR SYSTEM - These multi-phase, multi-year interceptors will serve the ETJ areas east of Loop 375, including GLO and proposed MUDS. A master plan study for this area was completed in 1997. It includes relieving Saul Kleinfield Interceptors and Playa Drain (Mesa Drain and Valley) Interceptors. All interceptors in this program will ultimately transport flow to the Roberto R. Bustamante Wastewater Treatment Plant via the Eastside Interceptor System already constructed.

TRANSMOUNTAIN NORTHWEST INTERCEPTORS – Proposed sewer interceptors necessary to serve areas north of Transmountain Road and east of IH-10 on the Westside to meet growth. Future projects scheduled for construction may depend on development progress.

NE INTERCEPTOR SYSTEM – Sanitary sewer pipelines designed to collect and convey wastewater flows from the Sandstone Ranch Subdivision and a portion of land in the Northeast area. The sanitary sewer pipeline will extend along the future Sean Haggerty Blvd (north of US-54), and south crossing the US-54 along the existing Sean Haggerty Blvd, to the existing Grouse Street Lift Station or to the future Northeast Lift Station, where the wastewater will ultimately be treated at the Fred Hervey Water Reclamation Plant. This is a multi-year, multi-phase project.

NE FRANKLIN SERVICE AREA –Pipeline designed to collect and convey wastewater flows from the proposed Northeast Service Area. Flows will be collected from near the Texas-New Mexico border, south crossing US-54 to be delivered to the existing Grouse Street Lift Station, where the wastewater will ultimately be treated at the Fred Hervey Water Reclamation Plant. This is a multi-year, multi-phase project.

PASEO DEL NORTE EXTENSION - Proposed sanitary sewer mains lines necessary to serve areas generally located south of Transmountain Rd., east of IH10. This item will collect the flows for portions of the Northwest Regulating Plan.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

LA MESA LINE – Proposed sewer main along La Mesa Ave., east of IH-10 to convey flows from the properties east of IH-10 to the Mowad Interceptor System.

STRAHAN INTERCEPTOR - Proposed sewer main along Strahan Rd. to provide service to developments on the Upper Valley.

PUMPING STATIONS AND FORCE MAINS

TRANSMOUNTAIN NORTH LIFT STATION & FORCE MAIN – This proposed station to be constructed on the east side of IH-10 north of Transmountain Rd. in Northwest El Paso to provide service to future Transmountain North developments to meet growth.

NE DYER/RAILROAD LIFT STATION – Project consists of an initial phase to upgrade the existing 0.5 MGD Futureland Lift Station to 1.3 MGD service capacity. As part of the utility's ultimate facility wastewater plan for in-fill development areas in the vicinity of the Dyer St. to Railroad Drive Corridor between McCombs St. and the State Line, a 5 MGD expandable to a future 11.0 MGD wastewater lift station is proposed which will convey wastewater generated from this area to the Fred Hervey Water Reclamation Plant.

UPPER VALLEY THREE LIFT STATIONS – A series of lift stations (1.5, 2.5, 3.5 MGD) proposed for new developments north of Borderland Rd. along the Strahan Rd. corridor. These stations will ultimately discharge into the Strahan Interceptor that will extend and connect into the Easy Way II Lift Station.

TREATMENT PLANT EXPANSION

BUSTAMANTE WWTP EXPANSION – Multi-approach construction project to expand the loading and flow capacity of the Roberto Bustamante WWTP from 39.0 MGD to 54.0 MGD.

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Attachment D
Water and Wastewater Impact Fee

Proposed Capital Improvement and Cost

Northeast Service Area		Capital Cost
Wastewater		
Wastewater Treatment		
None		$0
	Subtotal	*$0*
Collection Systems		
Lines		
NE Dyer/RR Interceptor		$10,920,000
NE Interceptor System (EPW-NEMP)		$11,400,000
NE Frankin Service Area		$8,800,000
	Subtotal	***$31,120,000***
Pumping & Force Mains		
NE Dyer/RR Lift Station - SMGD		$6,000,000
	Subtotal	***$6,000,000***
Northeast Total Wastewater CIP		**$37,120,000**
Water		
Water Supply & Treatment System		
KBH Phase 1		$9,700,000
Advanced Water Purificaqtion Focility		**$9,680,000**
	Subtotal	***$19,380,000***
Water Distribution System		
Reservoirs		
Loma Real Tank - Ground (5 MG)		$7,500,000
Franklin East 1B (3 MG) - Ground		$3,000,000
NE Station Well Supply Tank (2)		$6,650,000
	Subtotal	***$17,150,000***
Distribution Pumping Equipment		
North Two Pump Station (11.8 MGD)		$4,320,000
Loma Real Pump Station (initial 3MGD)		$1,235,000
	Subtotal	***$5,555,000***
Distribution Lines		
Dyer/RR Waterline		$4,500,000
NE Franklin Distribution Line		$26,700,000
Franklin East 1 Distribution		$2,035,000
	Subtotal	***$33,235,000***
Northeast Total Water CIP		**$75,320,000**

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Attachment D (continued)

Water and Wastewater Impact Fee

Proposed Capital Improvement and Cost

Eastside Service Area		Capital Cost
Wastewater		
Wastewater Treatment		
Bustamante WWTP Expansion 39 to 54 MGD		$64,000,000
	Subtotal	***$64,000,000***
Collection Systems		
Lines		
Other Interceptors (Area 8 East)		$14,000,000
Loop 375 East Interceptor System		$17,150,000
	Subtotal	***$31,150,000***
Pumping & Force Mains		$0
	Subtotal	***$0***
Eastside Total Wastewater CIP		**$95,150,000**
Water		
Water Supply & Treatment System		
KBH Phase 1		$9,700,000
Advanced Water Purificaqtion Facility		$32,670,000
	Subtotal	***$42,370,000***
Water Distribution System		
Reservoirs		
Montana East Reservoirs (2.5 + 2.0) - Vista Del Este/Homestead II		$12,250,000
Eastside PSA Reservoirs (Ranchos Real - 2.0)		$6,000,000
	Subtotal	***$18,250,000***
Distribution Pumping Equipment		
Montana East (3 MGD) - Ranchos Real		$1,200,000
	Subtotal	***$1,200,000***
Distribution Lines		
Eastside Planned Service Area		$18,000,000
Montana East Supply Lines		$14,700,000
Montana East 36" Line		$6,700,000
	Subtotal	***$39,400,000***
Eastside Total Water CIP		**$101,220,000**

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Attachment D (continued)

Water and Wastewater Impact Fee

Proposed Capital Improvement and Cost

Eastside Service Area with land excluded (MUD 3 & 4)		Capital Cost
Wastewater		
Wastewater Treatment		
Bustamante WWTP Expansion 39 to 54 MGD		$64,000,000
	Subtotal	***$64,000,000***
Collection Systems		
Lines		
Other Interceptors (Area 8 East)		$10,400,000
Loop 375 East Interceptor System		$17,150,000
		$0
	Subtotal	***$27,550,000***
Pumping & Force Mains		
		$0
	Subtotal	***$0***
Eastside Total Wastewater CIP		**$91,550,000**
Water		
Water Supply & Treatment System		
KBH Phase 1		$9,700,000
Advanced Water Purificaqtion Facility		$32,670,000
	Subtotal	***$42,370,000***
Water Distribution System		
Reservoirs		
Montana East Reservoirs (2.5 + 2.0) - Vista Del Este/Homestead II		$12,250,000
Eastside PSA Reservoirs (Ranchos Real - 2.0)		$6,000,000
	Subtotal	***$18,250,000***
Distribution Pumping Equipment		
Montana East (3 MGD) - Ranchos Real		$1,200,000
	Subtotal	***$1,200,000***
Distribution Lines		
Eastside Planned Service Area		$18,000,000
Montana East Supply Lines (E&W, N&S)		$14,700,000
Montana East Supply Line - 36"		$6,700,000
	Subtotal	***$39,400,000***
Eastside Total Water CIP		**$101,220,000**

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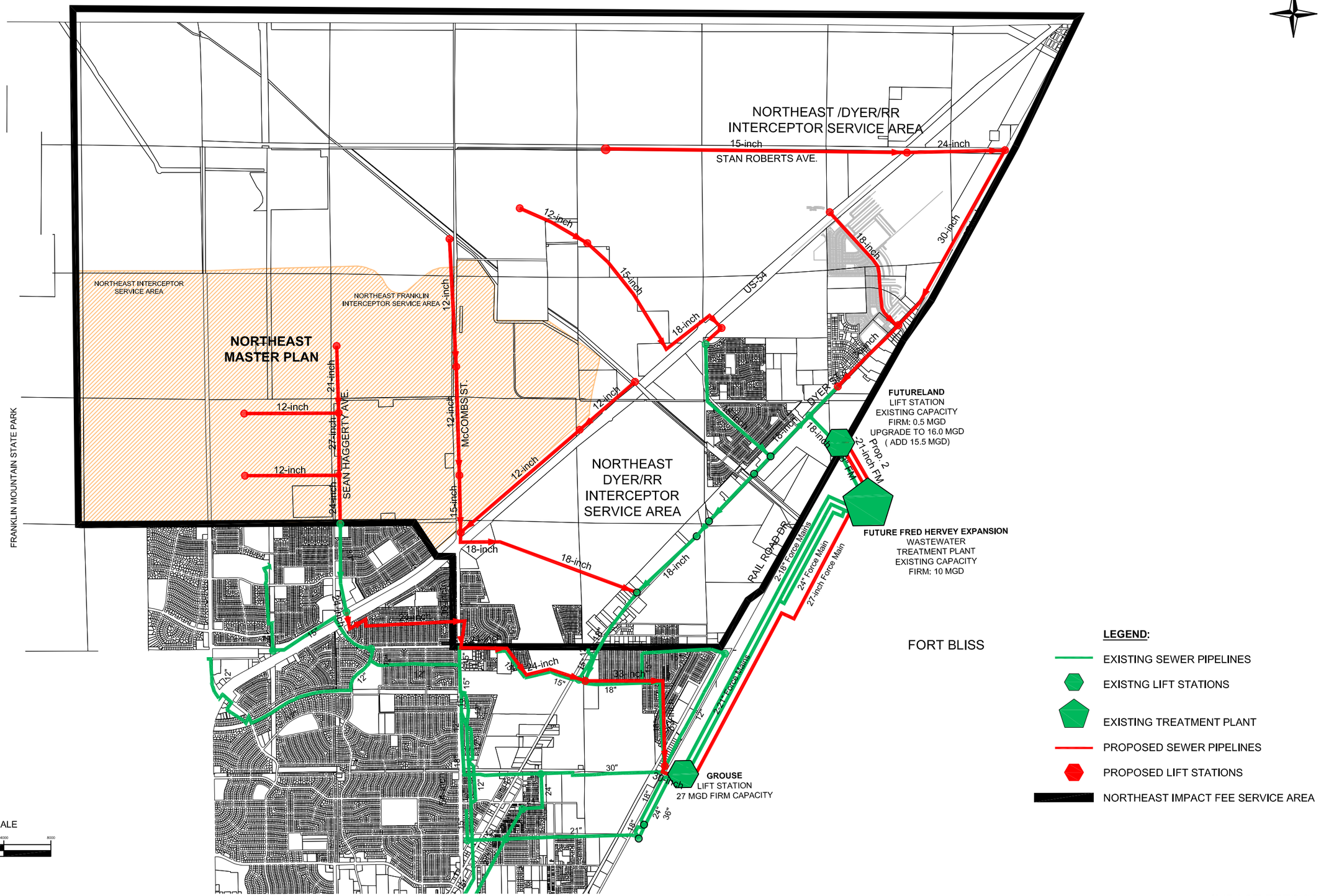
Attachment D (continued)

Water and Wastewater Impact Fee
Proposed Capital Improvement and Cost

Westside Service Area		Capital Cost
Wastewater		
Wastewater Treatment		
		$0
	Subtotal	***$0***
Collection Systems		
Lines		
TransMountain NW Interceptors		$1,680,000
La Mesa Line		$400,000
Paseo Del Norte		$1,635,000
Strahan Interceptor		$1,500,000
	Subtotal	***$5,215,000***
Pumping & Force Mains		
TransMountain North LS & FM (.344 MGD - Development)		$600,000
Upper Valley 3 LS (1.5+2.5+3.5 MGD)		$7,100,000
	Subtotal	***$7,700,000***
Westside Total Wastewater CIP		**$12,915,000**
Water		
Water Supply & Treatment System		
		$0
	Subtotal	***$0***
Water Distribution System		
Reservoirs		
TransMountain NW #1A (4)		$4,500,000
TransMountain NW #2A (3)		$3,500,000
Artcraft #4 Tank (2)		$3,800,000
	Subtotal	***$11,800,000***
Distribution Pumping Equipment		
Artcraft #1-NW-WFMP		$450,000
TransMountain NW #1 Pump Station		$2,000,000
Artcraft #3 Pump Station (3 MGD)		$1,235,000
	Subtotal	***$3,685,000***
Distribution Lines		
Canut/UV Mn-NW PH IV (36")		$5,000,000
TransMtn NW Supply to TransMtn #1		$1,750,000
TransMtn NW Supply to TransMtn #2		$3,500,000
Borderland 16"/24" Doniphan, Strahan, La Union		$10,500,000
Artcraft #3 to #4		$10,500,000
NW Water Distribution Mains		$8,200,000
	Subtotal	***$39,450,000***
Westside Total Water CIP		**$54,935,000**

ATTACHMENT 2
ATTACHMENT C

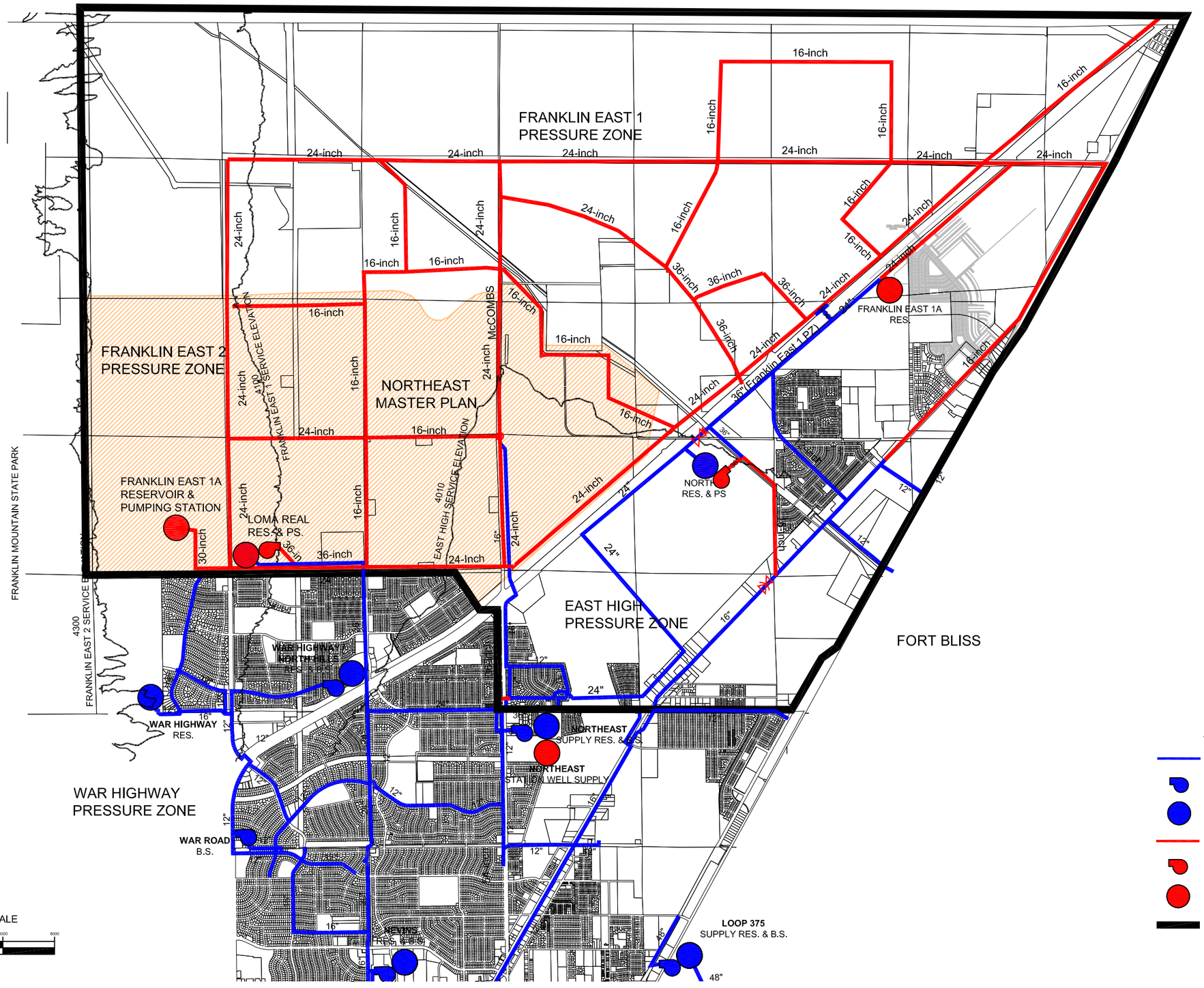
NORTHEAST SEWER IMPACT FEE SERVICE AREA MAP



IMPACT FEES 2018

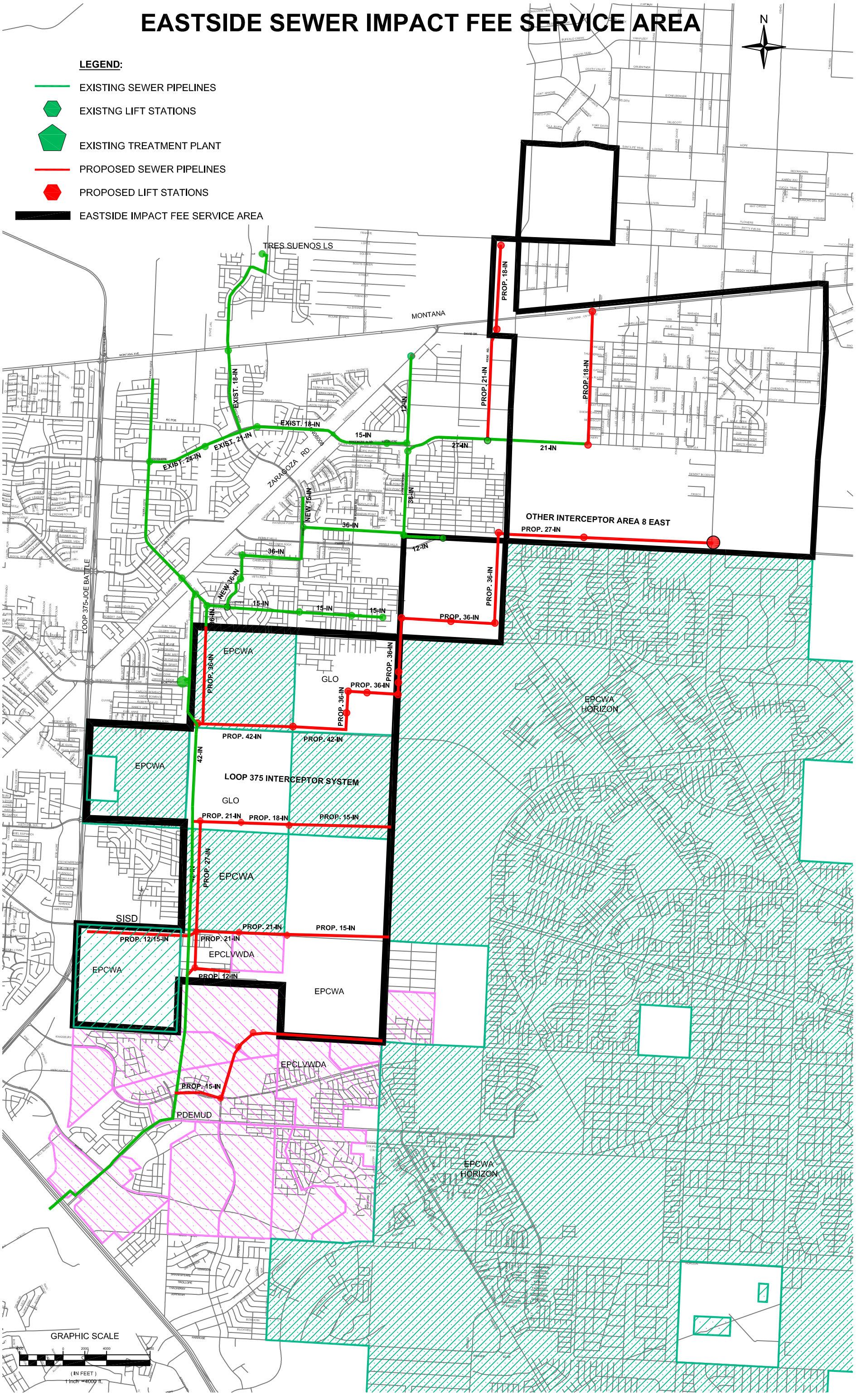
ATTACHMENT 2
ATTACHMENT C

NORTHEAST WATER IMPACT FEE SERVICE AREA MAP



IMPACT FEES 2018

EASTSIDE SEWER IMPACT FEE SERVICE AREA



EASTSIDE SEWER IMPACT FEE SERVICE AREA

LEGEND:

- EXISTING SEWER PIPELINES
- EXISTNG LIFT STATIONS
- EXISTING TREATMENT PLANT
- PROPOSED SEWER PIPELINES
- PROPOSED LIFT STATIONS
- EASTSIDE IMPACT FEE SERVICE AREA

N

TRES SUENOS LS
MONTANA
EXIST. 18-IN
EXIST. 24-IN
EXIST. 21-IN
EXIST. 18-IN
15-IN
12-IN
27-IN
21-IN
PROP. 18-IN
ZARAGOZA RD.
NEW 15-IN
36-IN
NEW 36-IN
15-IN
15-IN
15-IN
36-IN
OTHER INTERCEPTOR AREA 8 EAST
PROP. 27-IN
12-IN
PROP. 36-IN
PROP. 36-IN
PROP. 36-IN
PROP. 36-IN
PROP. 36-IN
PROP. 42-IN
PROP. 42-IN
42-IN
LOOP 375 INTERCEPTOR SYSTEM
PROP. 21-IN
PROP. 18-IN
PROP. 15-IN
PROP. 27-IN
PROP. 21-IN
PROP. 15-IN
PROP. 12/15-IN
PROP. 21-IN
PROP. 12-IN
PROP. 15-IN
LOOP 375-JOE BATTLE
EPCWA
GLO
EPCWA HORIZON
EPCWA
SISD
EPCLVWDA
EPCWA
EPCWA
EPCLVWDA
PDEMUD
EPCWA HORIZON

GRAPHIC SCALE
4000 0 2000 4000 8000
(IN FEET)
1 inch = 4000 ft.

EASTSIDE WATER IMPACT FEE SERVICE AREA

LEGEND:

EXISTING WATER PIPELINES

EXISITNG RESERVOIRS

EXISTING PUMPING STATIONS

PROPOSED RESERVOIRS

PROPOSED WATER PIPELINES

PROPOSED PUMPING STATIONS

EASTSIDE IMPACT FEE SERVICE AREA BOUNDARY

N

MONTANA NORTH 2-MG RES.& BS

EAST MONTANA 0.75-MG ELEVATED RESERVOIR

PROP 2-MG ELEV. RESERVOIR

EDGEMERE 3 MG ELEVATED RES

PEBBLE HILLS 2 MG ELEVATED RES & 10 MGD PS

RANCHOS REAL PROPOSED 2-MG ELEVATED RESERVOIR & 20-MGD BS (FIRM CAPACITY)

VENTANAS 2-MG ELEVATED RESERVOIR

PROPOSED 2.5-MG ELEVATED RESERVOIR

VISTA DEL SOL 2-MG RESERVOIR & PROP. 10-MGD PS

AMERICAS 10-MG RESERVOIR PASEO DEL ESTE 10.5- MGD

PASEO DEL ESTE 3-MG ELEVATED RESERVOIR

EPCWA

GLO

EPCLVWDA

PDEMUD

SISD

EPCWA HORIZON

SERVICE ELEVATION 4025.00 ft

GRAPHIC SCALE

4000 0 2000 4000 8000

(IN FEET)

1 inch = 4000 ft.

EASTSIDE WATER IMPACT FEE SERVICE AREA

LEGEND:

EXISTING WATER PIPELINES

EXISITNG RESERVOIRS

EXISTING PUMPING STATIONS

PROPOSED RESERVOIRS

PROPOSED WATER PIPELINES

PROPOSED PUMPING STATIONS

EASTSIDE IMPACT FEE SERVICE AREA BOUNDARY

N

MONTANA NORTH 2-MG RES.& BS

EDGEMERE 3 MG ELEVATED RES

PEBBLE HILLS 2 MG ELEVATED RES & 10 MGD PS

VISTA DEL SOL 2-MG RESERVOIR & PROP. 10-MGD PS

AMERICAS 10-MG RESERVOIR PASEO DEL ESTE 10.5- MGD

PASEO DEL ESTE 3-MG ELEVATED RESERVOIR

VENTANAS 2-MG ELEVATED RESERVOIR

RANCHOS REAL PROPOSED 2-MG ELEVATED RESERVOIR & 20-MGD BS (FIRM CAPACITY)

EAST MONTANA 0.75-MG ELEVATED RESERVOIR

PROP 2-MG ELEV. RESERVOIR

PROPOSED 2.5-MG ELEVATED RESERVOIR

MONTANA

ZARAGOZA RD.

LOOP 375-JOE BATTLE

SERVICE ELEVATION 4025.00 ft

EPCWA

GLO

EPCLVWDA

SISD

PDEMUD

EPCWA HORIZON

GRAPHIC SCALE

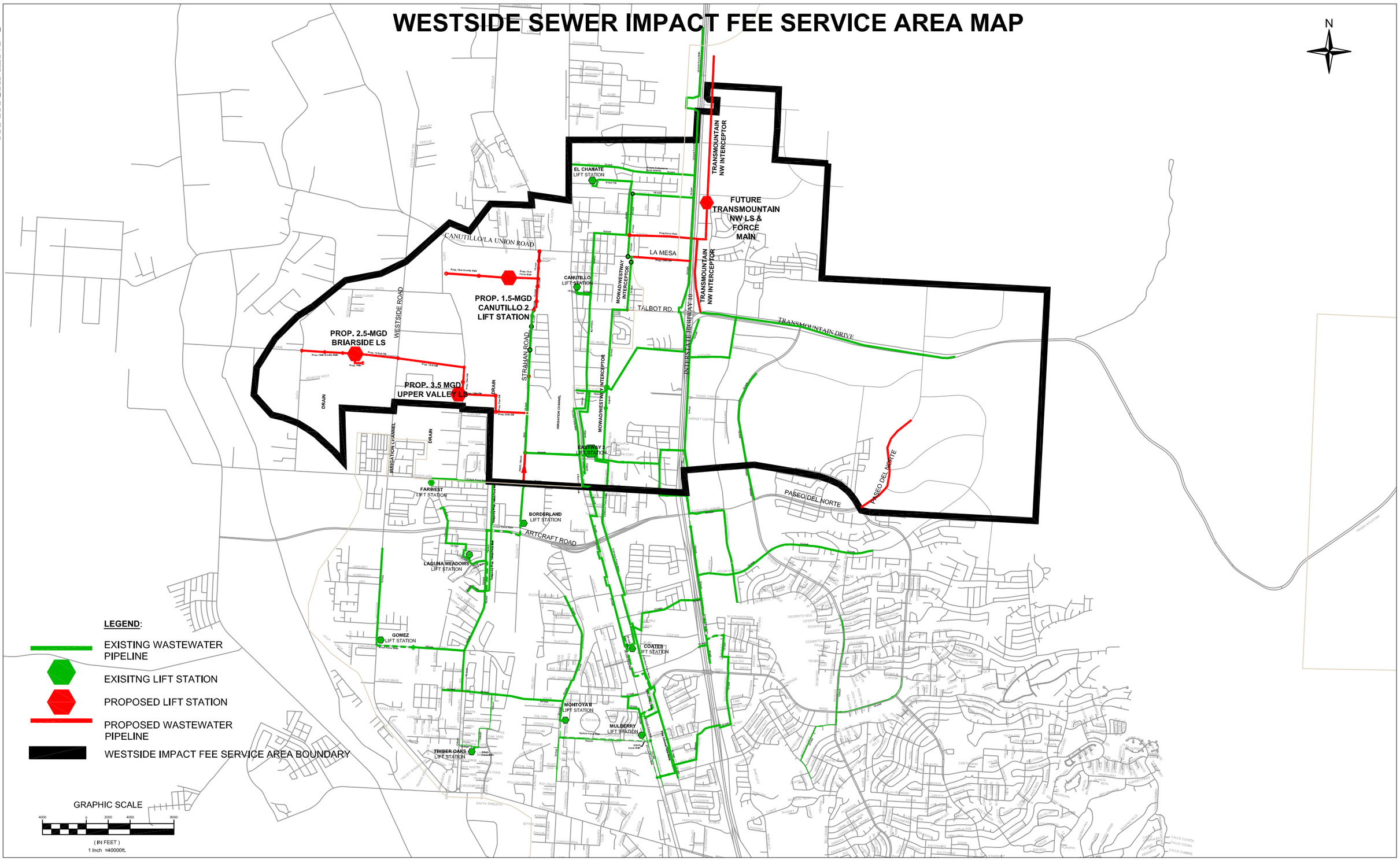
4000 0 2000 4000 8000

(IN FEET)

1inch =4000 ft.

ATTACHMENT 2
ATTACHMENT C

WESTSIDE SEWER IMPACT FEE SERVICE AREA MAP



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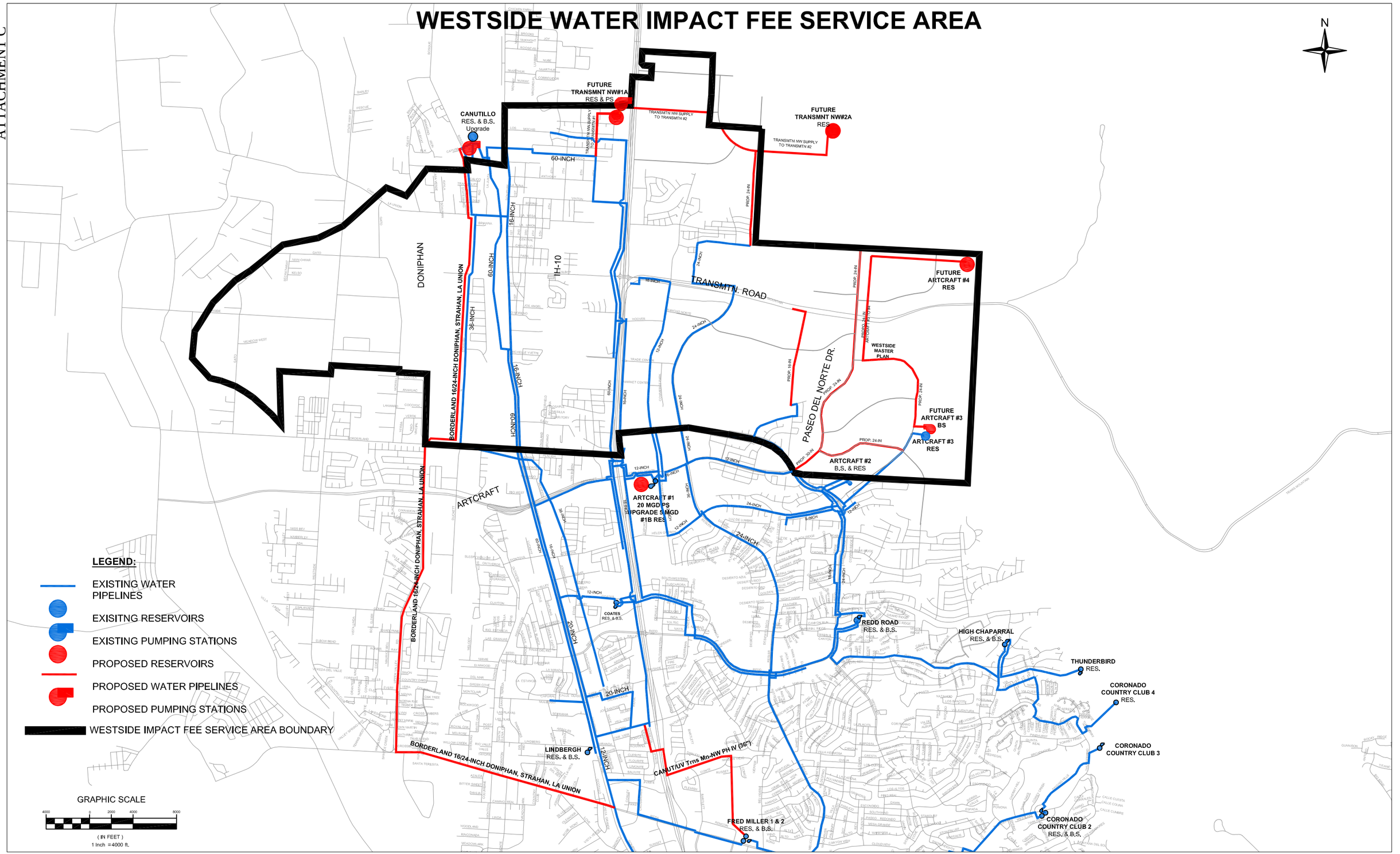
WESTSIDE WATER IMPACT FEE SERVICE AREA



ATTACHMENT 3

RAFTELIS

Water and Wastewater Impact Fees- 2018 Update

Water and Wastewater Impact Fee Study

December 20, 2018

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RAFTELIS

ATTACHMENT 3

RAFTELIS

December 20, 2018

Ms. Marcela Navarrete, CPA
Vice President Strategic, Financial, and Management Services
El Paso Water
1154 Hawkins Blvd
El Paso, Texas 79961-0001

Subject: Water and Wastewater Impact Fee Draft Report

Dear Ms. Navarrete,

Raftelis is pleased to provide this *Water and Wastewater Impact Fee Report (*Report*)* for the consideration by the El Paso Water Utilities-Public Service Board (EPWater) and the City of El Paso (City). Our draft Report documents the steps we took to develop the 2019 water and wastewater impact fees developed in compliance with Texas Statues, Chapter 395. This Report is subject to changed based on review and input from the City Council and City's Capital Improvement Advisory Committee (CIAC).

We want to especially thank Ms. Adriana Castillo, EPWater Engineering Division Manager, for her assistance throughout this project in developing the capital improvement plan.

It has been a pleasure working with you, and we thank you and your staff for the support provided during this study.

Sincerely,

Richard D. Giardina, CPA
Executive Vice President

5619 DTC Parkway, Suite 850
Greenwood Village, CO 80111

www.raftelis.com

ATTACHMENT 3

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ATTACHMENT 3

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ATTACHMENT 3

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ATTACHMENT 3

Project Overview

Background of the Study

EPWater engaged Raftelis to update the existing Water and Wastewater Impact Fees in compliance with State law-Texas Statutes, Local Government Code, Chapter 395 (State Impact Fee Statues). This report documents the 2019 update of the water and wastewater impact fees and replaces the previous Water and Wastewater Impact Fees-2014 Update. During the last impact fee update process, it was determined that the approved 2009 impact fee amounts would not be updated; would not be changed.

Consistent with the 2014 update of impact fees, this update determined fees for the same three areas as the previous study (Northeast, Eastside, and Westside). Listed below are the designated service areas.

Northeast Area

- 01- Northeast Master Plan
- 05A- Northwest Fort Bliss A
- 05B- Northwest Fort Bliss B
- 05C- Northwest Fort Bliss C

Westside Area

- 02- Westside MP
- 03A- Northwest Vinton A
- 03E- I-10375 MP
- 04A- Northwest Artcraft A
- 04B- Northwest Artcraft B
- 04C- Northwest Artcraft C
- 04D- Northwest Artcraft D
- 04E- Canutillo
- 02B- Other

Eastside Area

- 08B- Eastside
- 12- South Montana
- 12B- South Montana B
- 08- East Battle

The calculated water and wastewater impact fees may only be charged to the aforementioned service areas. Any development outside of the service areas will not be charged an impact fee.

Maps displaying the EPWater service area are attached in Appendix A.

Calculations and results in this report are based on numerical analysis using rounded figures. However, the analysis itself uses figures carried to their ultimate decimal places. Therefore, the sums and products generated may

not exactly equal the sum or product if the reader replicates the calculation with the factors shown in the report (due to rounding).

Impact Fee Methodology

The water and wastewater impact fee calculations are based on the incremental method. Under this method, new customers pay a fee representing their share of expansion related developmental costs of new facilities. The incremental method uses a 10-year capital improvement plan (CIP) that accounts for projects that will add future capacity. The impact fee is determined for the supply and treatment categories for water and treatment and collection categories for wastewater.

Each CIP project is allocated to its respective category: reservoirs to water distribution, force mains to wastewater collection, wastewater lines to wastewater collection, etc. The project's costs and service units are summed by category. The total categories' costs are then divided by the categories' total service units to arrive at a per unit cost. For example, the total costs of the distribution pumping equipment category are divided by the total capacity added by the distribution pumping equipment to arrive at per unit amount. This amount is added to the water distribution portion of the impact fee. A service unit represents the water and wastewater flows in gallons per day (gpd) for a single family residential unit.

Land Use Assumptions and Service Unit Characteristics

Impact fees in Texas must meet the requirements set by the Texas Statutes, Local Government Code, Chapter 395. In compliance with Chapter 395 land use assumptions, see Attachment B, are used to arrive at the residential service units (SUs) and population per residential service as shown in table 1. The average persons per service unit used is 3.13 persons per household based on the County average as shown in the *2019 Land Use Assumptions Technical Report*. The Land Use Assumption Update uses data from master plans prepared by or on behalf of the City of El Paso, and from other sources used in projecting water and wastewater service demands.

Table 1 - Land Use Assumptions

Service Area	Total Residential Service Units (Build-Out)	Average Household Size Persons/SU	Population per Service Area
Northeast			
01	18,365	3.13	57,482
05A	16,418	3.13	51,387
05B	13,054	3.13	40,860
05C	9,881	3.13	30,927
Westside			
02	5,331	3.13	16,686
03A	353	3.13	1,105
03E	2,458	3.13	7,693
04A	5,712	3.13	17,880
04B	3,055	3.13	9,562
04C	401	3.13	1,254
04D	762	3.13	2,384
04E	2,096	3.13	6,560
02B	3,183	3.13	9,961
Eastside			
08B	16,650	3.13	52,113
12	5,013	3.13	15,692
12B	2,685	3.13	8,404
08	8,037	3.13	25,157

Table 1 shows the land use and demographic assumptions used to determine the residential service units and future capacity requirements. These assumptions go into calculating the water and wastewater flow rates that will be used throughout the analysis/model.

Using the Table 1 data and assumptions regarding commercial and industrial use, the water and wastewater flow rates are calculated in Table 2. In this study we use 3.5 persons per Service Unit to define the flow rates, this rate is higher than then the 3.13 persons per Service Unit in Table 1 due to the additional commercial and industrial usage that must be accounted for. These numbers have not changed since the 2014 update.

Table 2 - Equivalent Service Unit Flows

Description	Water	Wastewater
Average Usage Capita (gallons per day-gpd)	115	70
Ratio of Maximum Day Demand to Average Day Demand	1.71[1]	1.39
Maximum Day Demand per Capita (gpd)	197	98
Persons per Service Unit	3.50	3.50
Flows per Equivalent Service Unit (gpd)[2]	688	341

1. **Elevated water storage capacity is calculated based on 50% of Maximum Day Demand.**

2. **Equivalent service unit flows represent flow to a residential, commercial, or industrial user with a water meter size less than 1-inch.**

The flows per service unit are 688 gpd for water and 341 gpd for wastewater. These flow rates are used to calculate the number of facility service units in Attachments E and F.

ATTACHMENT 3

10-Year Population and Service Unit Projections

It is difficult to forecast population growth and developmental growth accurately. The growth directly influences the timeline for when exactly the additional capacity must be realized. This assumption must be made when calculating an impact fee.

Table 3 displays the population and development units for the water and wastewater impact fee areas under consideration.

Table 3 - 2029 Population and Service Units

Service Area	Developable Acres	Population	Residential Service Units	Non-Residential Service Unit Equivalents	Total Service Units
Northeast	2,197	47,866	15,293	6,368	21,661
Westside	1,238	32,558	10,402	9,172	19,574
Eastside	3,579	56,056	17,909	6,995	24,904
Total	7,014	136,480	43,604	22,535	66,139

Proposed Capital Improvement Facilities

In compliance with the State Impact Fee Statues, proposed capital improvements were prepared by Adriana Castillo, P.E., with the EPWater. The capital projects include facilities required by new development in the next ten years. Descriptions of the proposed capital improvement projects are included as Attachment C to this report. The list of CIP projects with estimated costs for each, are included in Attachment D. Attachment E to this report shows the CIP capital, financing costs, capacity, facility service units, unit cost of capacity, and weighted average cost of capacity for each service area used in the impact fee calculation.

Maximum Impact Fee Calculation

The capital projects noted in the CIP plan add capacity for the 10-year period and beyond. To account for this growth Raftelis allocates the costs of the growth-related CIP to the projected development and to the total number

of new service units that may be served by the new capacity additions. The 10-year CIP is adding significant capacity, but this capacity will still not be sufficient to serve the projected ultimate built out capacity of the indicated service areas.

Raftelis used the capacities provided by EPWater to estimate capacity added by each capital project. This assumes that all units will be served by the additional capacity regardless of when the growth occurs.

The LUA Update projects new service units for the next ten years (Table 4) to be served by EPWater planned capacity additions as reported in the 10-year CIP. In compliance with the State Impact Fee Statutes, the maximum impact fee per service unit is calculated by dividing the costs of the portion of the CIP required by and attributable to projected new service units by the total projected new service units served by the CIP.

Attachment F provides a summary of the capital costs, capital service units, financing costs, percentage of CIP needed through 2029, and the maximum impact fee for each service area. The model assumes a 35% debt funding rate for all capital projects at an interest rate of 5% and a 20-year amortization or repayment period. The impact fee calculations include the net present value of the interest and transaction costs of the loans to arrive at a per unit impact fee value. Table 4 summarizes the maximum impact fee by service area.

Table 4 - Maximum Impact Fee by Service Area

Service Area	Projected New Service Units (through 2029)	Maximum Impact Fee per Service Unit
Northeast		
Water	21,661	$3,437
Wastewater	21,661	1,271
Total		$4,708
Westside		
Water	19,574	$1,272
Wastewater	19,574	929
Total		$2,201
Eastside		
Water	24,904	$4,473
Wastewater	24,904	2,286
Total		$6,758

Impact Fee Credit Calculation

The State Impact Fee Statutes require the determination of an "impact fee credit" for the portion of utility service revenues or ad valorem taxes generated by the new service units during the 10-year period. There are two ways to calculate this credit:

- A credit against the impact fee for the portion of ad valorem tax and utility service revenues generated by new service units during the program period that is used for the payment of capital improvements, including the payment of debt, that are included in the capital improvements plan; or

- A credit equal to 50 percent of the total projected cost of implementing the capital improvements plan.

The City of El Paso does not use ad valorem taxes to assist in paying for utility projects, so the ad valorem language does not apply. A credit recognizing the utility service revenues generated by new service units during the capital program period that is used for the payment of capital improvements, including the payment of debt, that are included in the capital improvements plan is warranted and is what has been used since EPWater first adopted impact fees and is what has been used again in this update.

The calculated credit represents the approximation of the utility service revenue projected to be provided by the new service units that may be used to retire debt issued to fund the CIP upon which the impact fee is based. This rate credit to the impact fee prevents new service units from the potential of double counting or paying twice for utility capital improvements and related debt.

The impact fee credit was determined to be 12.8% for water and 17.0% for wastewater. Attachment G provides the detail for the calculation of the debt service credits. Table 5 illustrates the impact fee with the calculated credit. The credit is applied as percentage of the maximum Impact Fee.

Table 5 - Impact Fee Credits per Service Unit Equivalent

	Water			Wastewater			Total
Service Area	**Maximum Impact Fee**	**Impact Fee Credit (12.8%)**	**Net Impact Fee**	**Maximum Impact Fee**	**Impact Fee Credit (17%)**	**Net Impact Fee**	**Net Impact Fee**
Northeast	**$3,437**	**($439)**	**$2,998**	**$1,271**	**($216)**	**$1,055**	**$4,053**
Westside	**$1,272**	**($163)**	**$1,109**	**$929**	**($158)**	**$771**	**$1,880**
Eastside	**$4,473**	**($572)**	**$3,901**	**$2,286**	**($389)**	**$1,897**	**$5,798**

The impact fee credit is calculated at a system-wide level to account for the system-wide collection of revenues. The impact fee credits are then applied uniformly across all meter sizes.

Impact Fee Assessment Schedule

The impact fee assessment schedule follows established guidelines in "scaling up" or assessing the impact fee to recognize the greater demands placed on the system from larger connections. As stated above, the incremental method is used to calculate the impact fee for a ¾ inch meter or for an equivalent residential unit. For meters ¾ inch and larger the American Water Works Association (AWWA) standard ratios are used. These guidelines define the ¾ inch meter as one unit, and all other meters as a multiple of the ¾ inch meter. These ratios are based on the maximum flow capacities for the various meters. Table 6 displays the Northeast service area impact fees calculated according to AWWA standards; the resulting "Meter Capacity Ratio".

Table 6 - Northeast Water and Wastewater Impact Fee Assessment Schedule (Net Fee after Credit)

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-Inch	1.00	$2,998	$1,055	$4,053
1-Inch	1.67	5,007	1,762	6,769
11/2-Inch	3.33	9,983	3,513	13,496
2-Inch	5.33	15,979	5,623	21,602
3-Inch	10.00	29,980	10,550	40,530
4-Inch	16.67	49,977	17,587	67,564
6-Inch	33.33	99,923	35,163	135,086
8-Inch	53.33	159,883	56,263	216,146

Attachment H provides a schedule for all impact fee service areas. Tables 7-9 compare the current and proposed water, wastewater, and total impact fees for each service area. It should be noted that the current fees are those adopted in 2009 by the El Paso City Council (these fees were not updated in the 2014 Update). This in and of itself is a material reason the proposed fees are so much greater than the current fees as shown in Tables 7-9.

Table 7 - Northeast Impact Fee Comparison (Net Fee after Credit)

Meter Size	Water		Wastewater		Total		Change in Total Fee	
	Current	Proposed	Current	Proposed	Current	Proposed	$	%
Less than 1-Inch	$1,178	$2,998	$291	$1,055	$1,469	$4,053	$2,584	176%
1-Inch	$1,967	5,007	$486	1,762	$2,453	6,769	$4,316	176%
$1_{1/2}$-Inch	$3,921	9,983	$969	3,513	$4,890	13,496	$8,606	176%
2-Inch	$6,276	15,979	$1,551	5,623	$7,827	21,602	$13,775	176%
3-Inch	$11,775	29,980	$2,910	10,550	$14,685	40,530	$25,845	176%
4-Inch	$19,629	49,977	$4,851	17,587	$24,480	67,564	$43,084	176%
6-Inch	$39,246	99,923	$9,699	35,163	$48,945	135,086	$86,141	176%
8-Inch	$62,796	159,883	$15,519	56,263	$78,315	216,146	$137,831	176%

Table 8 - Westside Impact Fee Comparison Schedule (Net Fee after Credit)

Meter Size	Water		Wastewater		Total		Change in Total Fee	
	Current	Proposed	Current	Proposed	Current	Proposed	$	%
Less than 1-Inch	$659	$1,109	$927	$771	$1,586	$1,880	$294	19%
1-Inch	$1,101	1,852	$1,548	1,288	$2,649	3,140	$491	19%
$1_{1/2}$-Inch	$2,195	3,693	$3,087	2,567	$5,282	6,260	$978	19%
2-Inch	$3,514	5,911	$4,941	4,109	$8,455	10,020	$1,565	19%
3-Inch	$6,593	11,090	$9,270	7,710	$15,863	18,800	$2,937	19%
4-Inch	$10,990	18,487	$15,453	12,853	$26,443	31,340	$4,897	19%
6-Inch	$21,973	36,963	$30,897	25,697	$52,870	62,660	$9,790	19%
8-Inch	$35,158	59,143	$49,437	41,117	$84,595	100,260	$15,665	19%

Table 9 - East Impact Fee Comparison Schedule (Net Fee after Credit)

Meter Size	Water		Wastewater		Total		Change in Total Fee	
	Current	Proposed	Current	Proposed	Current	Proposed	$	%
Less than 1-Inch	$697	$3,901	$920	$1,897	$1,617	$5,798	$4,181	259%
1-Inch	$1,163	6,515	$1,537	3,168	$2,700	9,683	$6,983	259%
$1_{1/2}$-Inch	$2,321	12,990	$3,065	6,317	$5,386	19,307	$13,921	259%
2-Inch	$3,714	20,792	$4,905	10,111	$8,619	30,903	$22,284	259%
3-Inch	$6,968	39,010	$9,203	18,970	$16,171	57,980	$41,809	259%
4-Inch	$11,615	65,030	$15,341	31,623	$26,956	96,653	$69,697	259%
6-Inch	$23,223	130,020	$30,672	63,227	$53,895	193,247	$139,352	259%
8-Inch	$37,158	208,040	$49,077	101,167	$86,235	309,207	$222,972	259%

Tables 10-12 provide a comparison of the proposed impact fees resulting from this effort, the impact fees that were proposed in the last update (2014) and the impact fees currently in place; the impact fees adopted in 2009. This comparison is acutely relevant due to the dramatic increase in costs since 2014 coupled with the fact that the current fees were adopted by City Council in 2009 and have not been revised since.

Table 10 - Northeast Proposed versus 2014 Proposed versus Current

Meter Size	Total		
	Proposed	2014 Proposed	Current
Less than 1-Inch	$4,053	$3,574	$1,469
1-Inch	$6,769	$5,969	$2,453
$1_{1/2}$-Inch	$13,496	$11,901	$4,890
2-Inch	$21,602	$19,049	$7,827
3-Inch	$40,530	$35,740	$14,685
4-Inch	$67,564	$59,579	$24,480
6-Inch	$135,086	$119,121	$48,945
8-Inch	$216,146	$190,601	$78,315

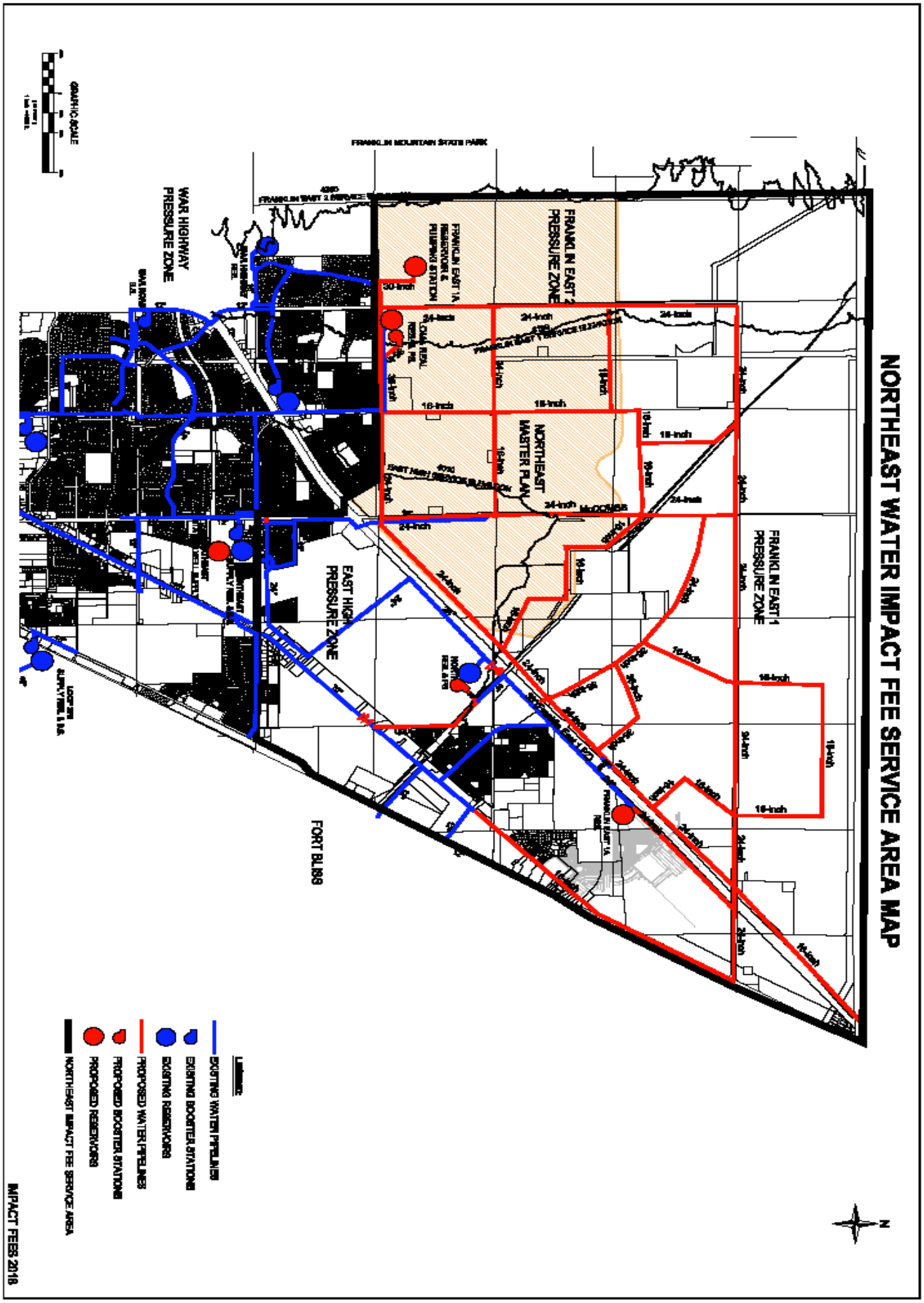
Table 11 - West Proposed versus 2014 Proposed versus Current

Meter Size	Total		
	Proposed	2014 Proposed	Current
Less than 1-Inch	$1,880	$2,286	$1,586
1-Inch	3,140	$3,818	$2,649
$1_{1/2}$-Inch	6,260	$7,612	$5,282
2-Inch	10,020	$12,184	$8,455
3-Inch	18,800	$22,860	$15,863
4-Inch	31,340	$38,108	$26,443
6-Inch	62,660	$76,192	$52,870

8-Inch	100,260	$121,912	$84,595

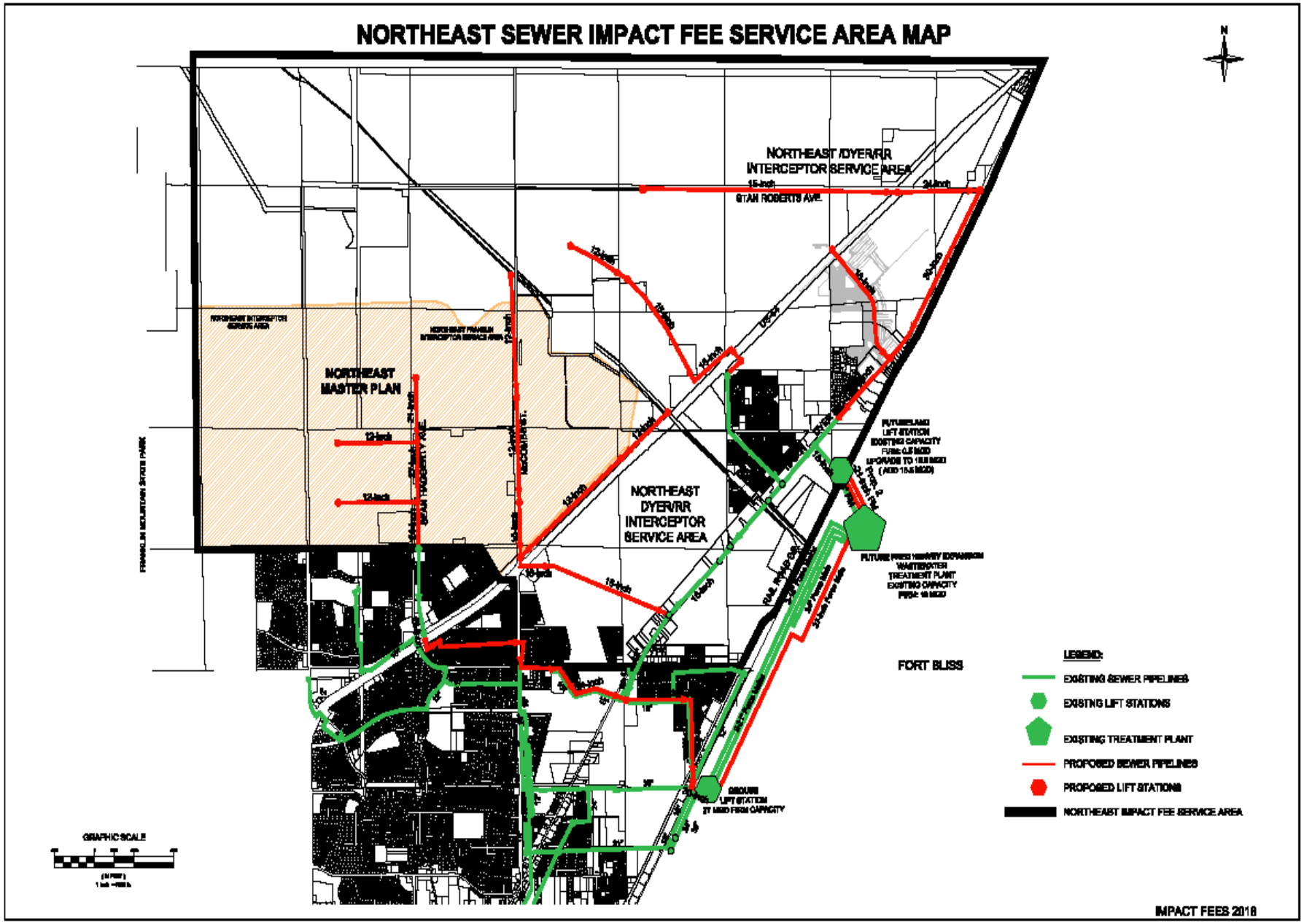
Table 12 - Eastside Proposed versus 2014 Proposed versus Current

Meter Size	Total		
	Proposed	2014 Proposed	Current
Less than 1-Inch	$5,798	$3,835	$1,617
1-Inch	9,683	$6,404	$2,700
$1_{1/2}$-Inch	19,307	$12,771	$5,386
2-Inch	30,903	$20,441	$8,619
3-Inch	57,980	$38,350	$16,171
4-Inch	96,653	$63,929	$26,956
6-Inch	193,247	$127,821	$53,895
8-Inch	309,207	$204,521	$86,235


NORTHEAST WATER IMPACT FEE SERVICE AREA MAP
FRANKLIN MOUNTAIN STATE PARK
FRANKLIN EAST 2 PRESSURE ZONE
FRANKLIN EAST 1 PRESSURE ZONE
NORTHEAST MASTER PLAN
WAR HIGHWAY PRESSURE ZONE
EAST HIGH PRESSURE ZONE
FORT BLISS
FRANKLIN EAST 1A RESERVOIR & PUMPING STATION
FRANKLIN EAST 1A RES
NORTH RES & PS
GRAPHIC SCALE
N
Legend:
EXISTING WATER PIPELINES
EXISTING BOOSTER STATIONS
EXISTING RESERVOIRS
PROPOSED WATER PIPELINES
PROPOSED BOOSTER STATIONS
PROPOSED RESERVOIRS
NORTHEAST IMPACT FEE SERVICE AREA
IMPACT FEES 2018

ATTACHMENT 3

NORTHEAST SEWER IMPACT FEE SERVICE AREA MAP



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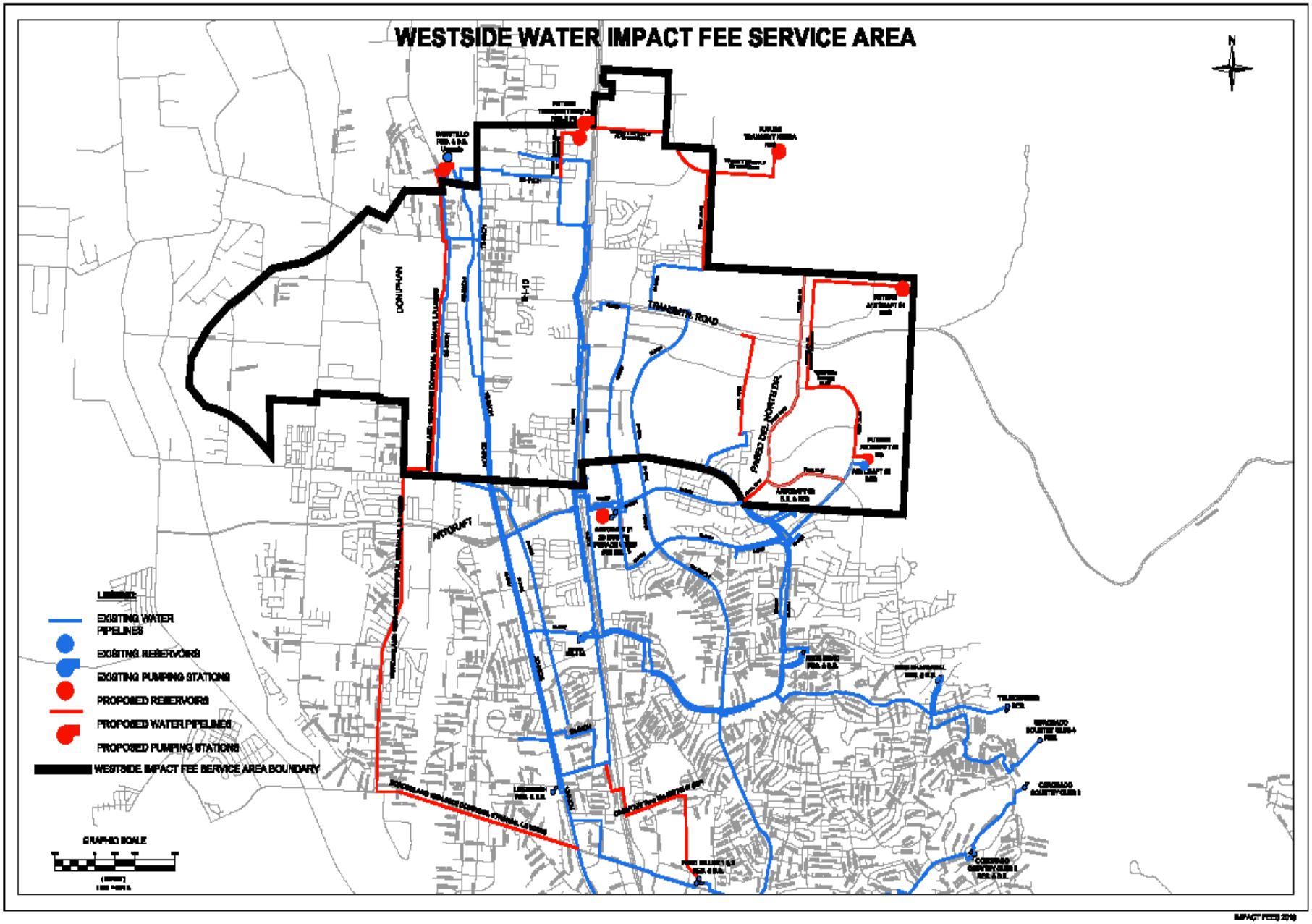

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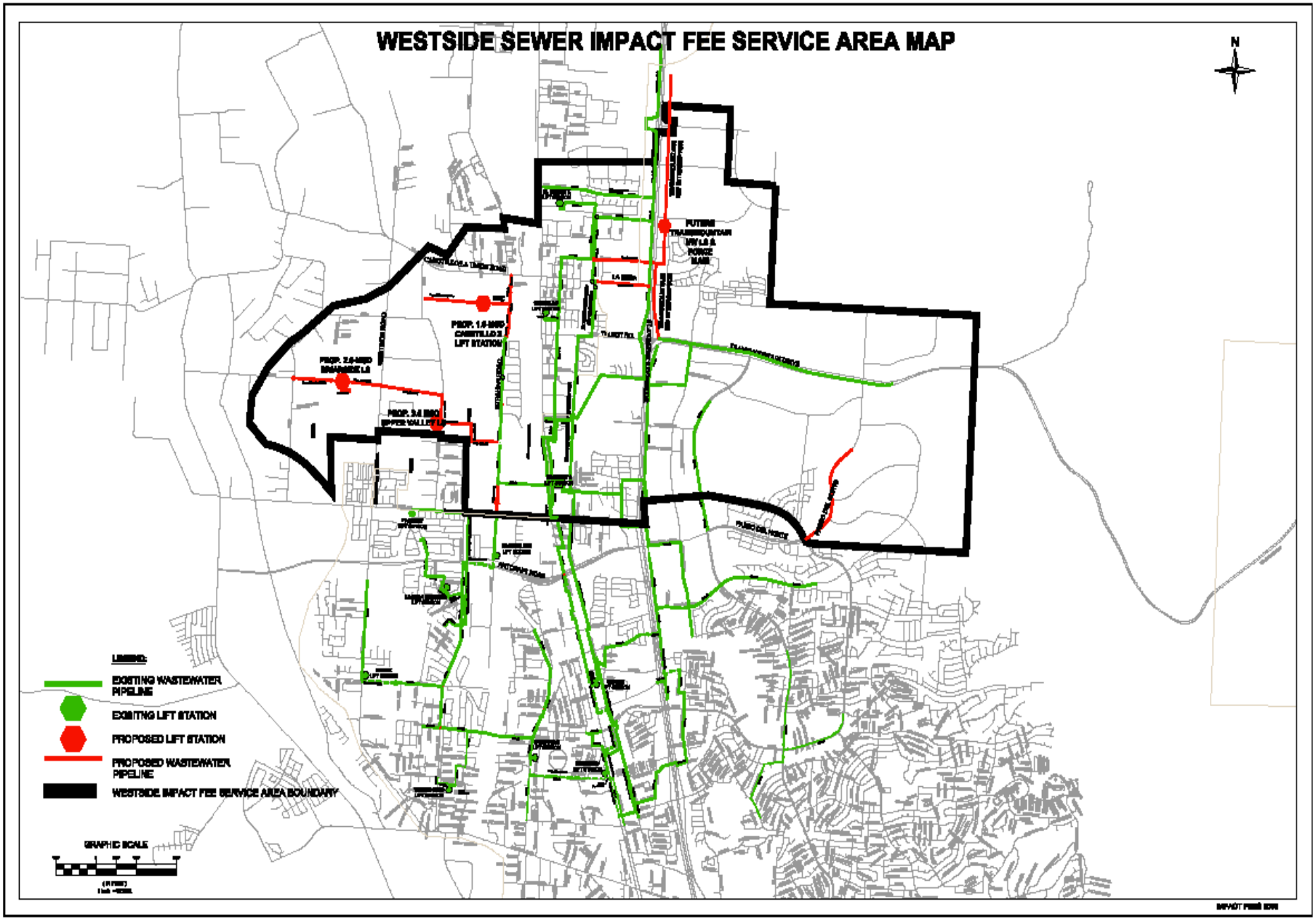

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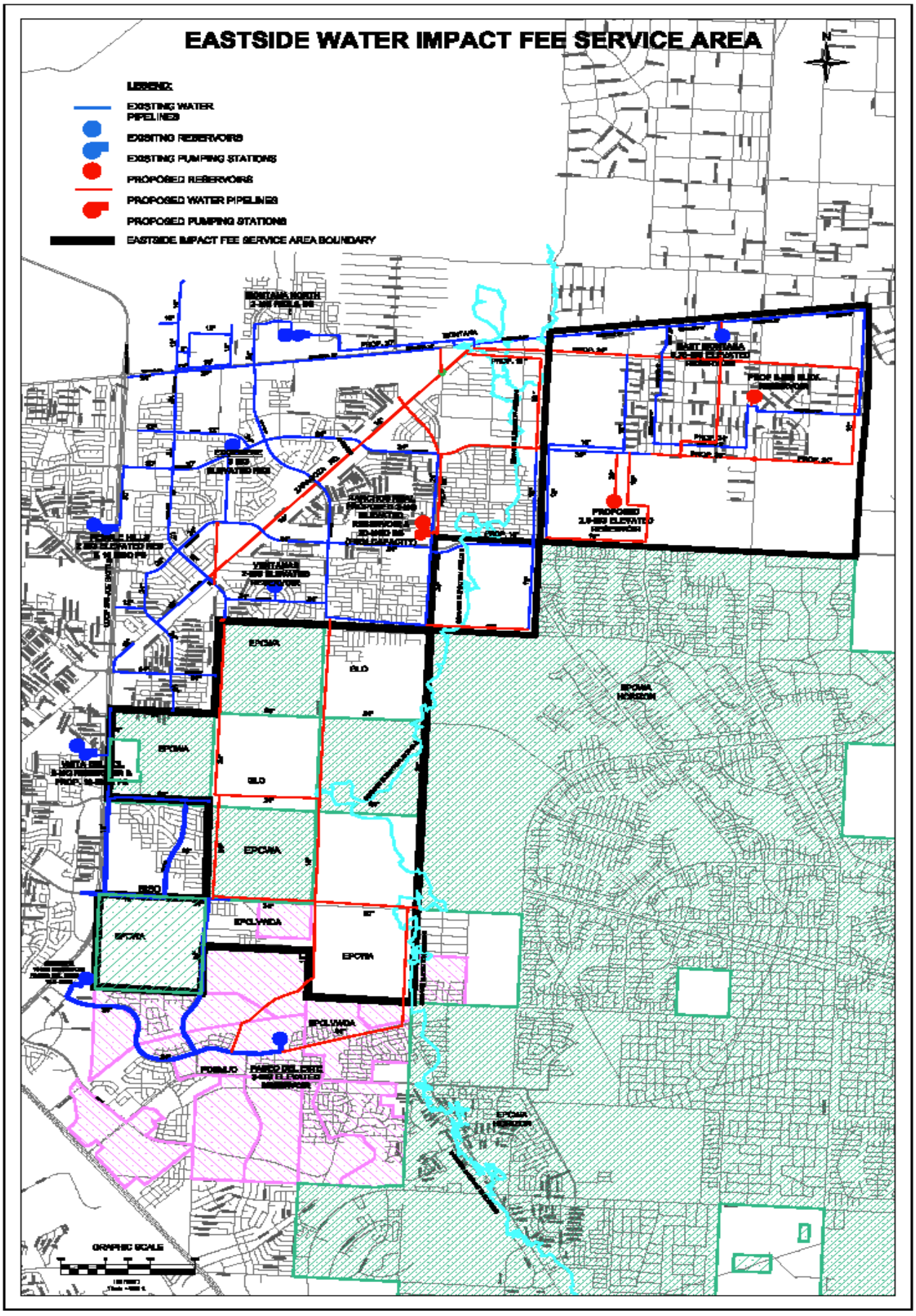

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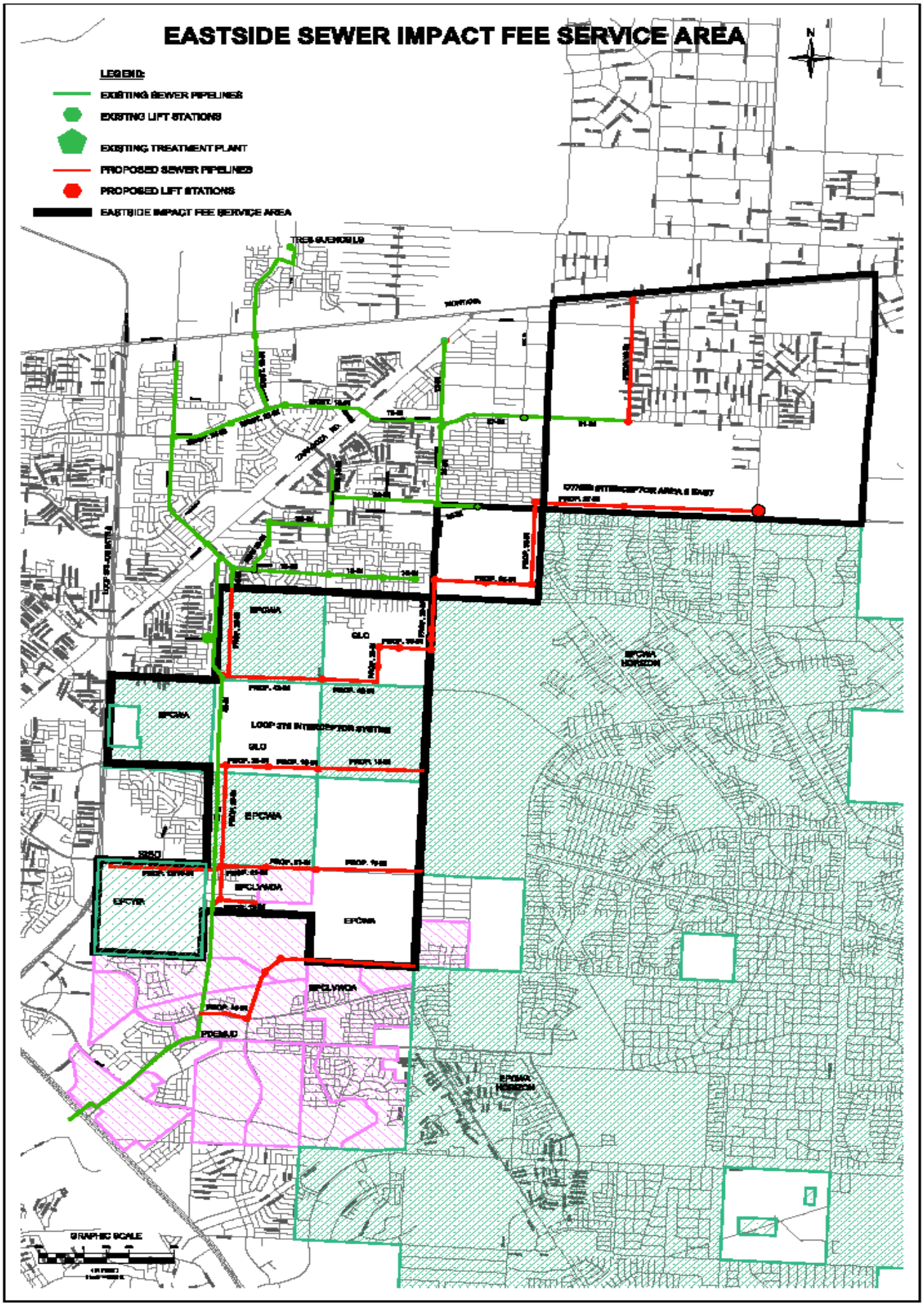


ATTACHMENT 3

Attachment B: Land Use Assumptions

Service Area	Total Acreage	Non-Residential										Conventional Residential				
		Transportation	Commercial	Industrial	Mixed Use	Parkland	Floodplain	Open	Agriculture	Undeveloped	Institutional/Utilities	Low	Medium	Medium-High	High	Total
Northeast																
01 Northeast MP	4,835	343	88	-	209	258	-	754	-	-	132	-	-	-	-	-
05A Northwest Fort Bliss A	4,812	284	5	-	9	38	-	248	-	-	708	-	2,992	229	51	3,273
05B Northwest Fort Bliss B	4,929	583	286	1,370	277	98	-	346	-	-	33	-	160	1,521	74	1,754
05C Northwest Fort Bliss C	4,520	147		317	-	23	-	51	-	-	1,788	-	2,191	-	2	2,194
Northeast Subtotal	**19,096**	**1,357**	**379**	**1,687**	**494**	**417**	**-**	**1,399**	**-**	**-**	**2,661**	**-**	**5,344**	**1,750**	**127**	**7,220**
Westside																
02 Westside MP	1,589	91	-	-	302	-	238	591	-	-	-	-	-	-	-	-
03A Northwest Vinton A	294	23	143	-	-	-	-	-	-	-	50	-	78	-	-	78
03E I-10375 MP	1,132	165	252	-	99	25	-	22	-	-	61	-	402	-	-	402
04A Northwest Artcraft A	1,639	79	47	-	-	6	130	105	-	3	1	-	1,264	4	-	1,268
04B Northwest Artcraft B	807	41	37	-	-	12	-	22	-	-	16	-	679	-	-	679
04C Northwest Artcraft C	159	18	5	26	-	2	-	-	-	9	2	17	77	-	2	96
04D Northwest Artcraft D	218	25	11	-	-	-	23	-	-	-	-	-	147	-	11	158
04E Canutillo	801	135	131	28	-	-	-	11	1	14	53	5	362	32	30	428
Other	2,348	365	802	304	-	63	-	11	-	-	173	-	459	142	30	630
Westside Subtotal	**8,987**	**942**	**1,428**	**358**	**401**	**108**	**391**	**763**	**1**	**26**	**356**	**21**	**3,467**	**178**	**73**	**3,739**
Eastside																
08B Eastside	4,826	531	270	638	-	186	-	23	-	344	16	-	195	2,610	13	2,817
12 South Montana	2,919	355	230	140	-	2	-	-	-	237	137	1,416	295	38	70	1,819
12B South Montana B	785	149	19	99	-	20	-	-	-	-	44	-	23	431	-	453
06 South Fort Bliss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
08 East Battle	2,826	323	63	269	-	38	-	-	-	492	82	-	875	684	-	1,558
10B South Fort Bliss B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Eastside Subtotal	**11,356**	**1,358**	**582**	**1,147**	**-**	**246**	**-**	**23**	**-**	**1,074**	**278**	**1,416**	**1,387**	**3,762**	**82**	**6,647**
Total	**39,439**	**3,658**	**2,389**	**3,192**	**896**	**771**	**391**	**2,185**	**1**	**1,100**	**3,295**	**1,438**	**10,198**	**5,690**	**282**	**17,607**

ATTACHMENT 3

Attachment B: Land Use Cont.

Service Area	Total Acreage	SmartCode Residential					Context Zones Residential				RMU Residential						GMU Residential				
		T-3	T-4	T-4O	T-5	Total	C-3	C-4	C-5	Total	Single Family	Duplex	Triplex	Quadraplex	Apartments	Total	Low	Low	Medium	High	Total
Northeast																					
01 Northeast MP	4,835	-	-	-	-	-	81	81	15	177	-	-	-	-	-	-	521	1,663	403	289	2,875
05A Northwest Fort Bliss A	4,812	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	123	118	5	-	246
05B Northwest Fort Bliss B	4,929	54	93	9	27	183	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05C Northwest Fort Bliss C	4,520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northeast Subtotal	**19,096**	**54**	**93**	**9**	**27**	**183**	**81**	**81**	**15**	**177**							**664**	**1,781**	**408**	**289**	**3,121**
Westside																					
02 Westside MP	1,589	99	170	40	58	367	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03A Northwest Vinton A	294	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03E I-10375 MP	1,132	-	-	-	-	-	-	-	-	-	70	10	3	3	17	105	-	-	-	-	-
04A Northwest Artcraft A	1,639	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04B Northwest Artcraft B	807	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04C Northwest Artcraft C	159	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04D Northwest Artcraft D	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04E Canutillo	801	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	2,348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westside Subtotal	**8,987**	**99**	**170**	**40**	**58**	**367**	**-**	**-**	**-**	**-**	**70**	**10**	**3**	**-**	**17**	**105**	**-**	**-**	**-**	**-**	**-**
Eastside																					
08B Eastside	4,826	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12 South Montana	2,919	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12B South Montana B	785	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 South Fort Bliss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
08 East Battle	2,826	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10B South Fort Bliss B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Eastside Subtotal	**11,356**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total	**39,439**	**153**	**263**	**49**	**84**	**550**	**81**	**81**	**15**	**177**	**70**	**10**	**3**	**-**	**17**	**105**	**644**	**1,781**	**408**	**289**	**3,121**

ATTACHMENT 3

Attachment B: Land Use Cont.

Residential Land Use Type	Residential Service Units per Acre
Conventional Residential Zones	
Low Density	2.0
Medium Density	4.5
Medium High Density	6.0
High Density	9.0
SmarCode Zone[1]	
T-3 Sub-Urban Zone	6.0
T-4 General Urban Zone	15.0
T-4O General Urban Zone - Open	20.0
T-5 Urban Center Zone	24.0
Northeast Retirement General Mixed Use Zone[2]	
Context Zone 3	3.6
Context Zone 4	6.4
Context Zone 5	15.0
Northeast General Mixed Use Zone[3]	
Low Residential Density	3.5
Low' Residential Density	5.5
Medium Residential Density	7.2
High Residential Density	12.0
Enchanted Hills Residential Mixed Use Zone[4]	
Single Family	4.0
Duplex	6.0
Triplex	8.0
Quadruplex	10.0
Apartments	14.0

[1]Applied to Northwest and Northeast properties zoned SmartCode.

[2]Applied to the Northeast master planned area intended to house a retirment community.

[3]Applied to remaining Northeast master planned area zoned General Mixed Use.

[4]Applied to the privately owned Enchanted Hills development zoned Residential Mixed Use.

Attachment C: Capital Improvements Plan

el paso WATER

Date: December 13, 2018

To: Richard D. Giardina
Raftelis Financial Consultants, Inc.

From: Adriana L. Castillo, P.E.
Engineering Division Manager

Copy: Marcela Navarrete, C.P.A.
Vice President

Re: **Water and Wastewater Capital Improvements – 2019 Impact Fee update**

In preparation for the 2019 Impact Fee Update and in accordance with the Texas State Statues, Local Government Code, Chapter 395, attached please find a description of the proposed Capital Improvements for the El Paso Water Utilities.

Attachment C contains a description of the proposed 10-year capital improvements and facility expansions necessitated by and attributed to new development based on the service areas.

Attachment D contains a list of the proposed 10-year capital improvements and facility expansions, and costs necessitated by and attributed to new development based on the service areas.

Maps for water and wastewater facilities for the three (3) service areas

We trust that this information provides the capital improvements and costs required to complete the update Impact Fee Study and meet the letter and intent of the Texas State Statues.

Please feel free to contact me with any questions.

STATE OF TEXAS
ADRIANA L. CASTILLO
106516
LICENSED
PROFESSIONAL ENGINEER

12/13/18

Adriana L. Castillo

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

Associated Water

WATER SUPPLY AND TREATMENT SYSTEM

ADVANCED WATER PURIFICATION FACILITY – The efforts by EPWater to continue to diversify the City's water supply portfolio will allow growth demand in the eastside and northeast to be met by the Advanced Water Purification Facility producing 8.0 MGD. This facility will recycle water that was used for irrigation into drinking water.

KBH EXPANSION Phase 1–In order to meet growth demand in the eastside and northeast, the KBH desalination facility will be expanded to provide an additional 5.0 MGD to its service area. The expansion includes a new Reverse Osmosis skid, source wells and concentrate injection wells.

RESERVOIRS

LOMA REAL TANK This project consists of constructing a 5.0 MG ground storage tank to meet demand on the East High Pressure Zone and provide suction for the Loma Real Pump Station that will pump water to the proposed Franklin East 1 B reservoir.

FRANKLIN EAST #1B - A 3.0 MG Reservoir and a 3.0 MG future reservoir to serve the Franklin East 1 Pressure Zone. The Reservoir is needed to meet future growth development of the lower reaches of the areas east of War Highway and to the State line.

TRANSMOUNTAIN NORTHWEST #1A – A 4.0 MG tank north of Transmountain on the Westside, at the same overflow elevation of Artcraft No. 1, to meet anticipated growth and provide suction storage for the proposed Transmountain Northwest 1 pump station.

TRANSMOUNTAIN NORTHWEST #2A – A proposed 3.0 MG tank north of Transmountain on the Westside, at the same overflow elevation of Artcraft No. 2, to meet anticipated growth.

EASTSIDE PLANNED SERVICE AREA (PSA) - New reservoir to serve areas east of Loop 375. Tierra Del Este (Ranchos Real) 3.0 MG elevated tank.

ARTCRAFT NO. 4 RESERVOIR – A 2.0 MG ground storage tank located on the west foothills of the Franklin Mountains to serve future development in the upper service areas east of IH-10 near Transmountain Road.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

NORTHEAST STATION WELL SUPPLY TANK (I.F.) – A new 2.0 MG ground storage supply tank in Northeast El Paso, at the intersection of Sean Haggerty Drive and McCombs Blvd., adjacent to the Northeast Booster Station. This tank is needed to augment the existing storage capacity of the Northeast Well production system, and to accommodate future supply from the Sherman Well Field. This storage tank will also allow for additional pumping capacity to be installed at the Northeast Booster Station for pumping into the East High Pressure Zone and upper Franklin East Pressure Zone pumping, related future growth.

MONTANA EAST – A series of storage facilities have been conceptually planned to provide service on the Eastside north and south of the Montana Ave. corridor, extending about 8 miles east of Loop 375. EPWater's long-range plan projects a multi-year, multiphase approach to extend pipelines, construct elevated storage tanks (3 totaling 6.5 MG –and one pump station (15.0 MGD Phase I plus additional 10.0 MGD Phase 2) to supply these areas. This item includes two storage tanks, Vista Del Este (2.5 MG), and Homestead II (2.0 MG).

DISTRIBUTION PUMPING EQUIPMENT

ARTCRAFT #1 – A 20.0 MGD pumping station located at Northwestern and Paseo Del Norte (Artcraft Rd) in Northwest El Paso, was completed in late 2002 and will supply Artcraft #2 Reservoir. An additional 5.0 MGD will be added under this project to meet future demands.

NORTH 2 PUMP STATION – Initial 11.8 MGD to future 22.3 MGD pump station at the North 2 Tank site to meet future summer peak-day demands in the Franklin East Pressure Zones #1

TRANSMOUNTAIN NORTHWEST #1 PUMP STATION - Proposed pump station north of Transmountain on the Westside, to pump from Transmountain #1 Reservoir to Transmountain #2 Reservoir to meet growth.

ARTCRAFT #3 PUMP STATION – A 3.0 MGD pumping station in Northwest El Paso will supply Artcraft #4 reservoir.

LOMA REAL Pump station with an initial 3.0 MGD capacity which will provide pumping to supply the Franklin East 1 B reservoir.

MONTANA EAST (3.0 MGD – Ranchos Real) - Pump Stations have been conceptually planned to provide service to the Eastside for development along north and south of the Montana Ave. corridor, extending about 8-miles east of Loop 375. EPWater's long-range plan projects a multi-year three- phase approach to extend pipelines, construct elevated storage tanks, and booster stations.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

DISTRIBUTION LINES

CANUTILLO/UV TRANSMISSION MAIN - NORTHWEST PHASE IV – Part of an existing major system of large diameter pipelines that extends and delivers water supply from the Canutillo Well Field and This item consists of Phase IV will consist of a 36-inch line extending from the Phase I – 48-inch line from Graphite & Mace to the Fred Miller Storage site.

TRANSMOUNTAIN NW SUPPLY TO TRANSMOUNTAIN #1 - A proposed transmission main on the Westside, from the Canutillo Main to the Transmountain Reservoir #1 to meet growth.

TRANSMOUNTAIN NW SUPPLY TO TRANSMOUNTAIN #2 - A proposed transmission main on the Westside, from the Transmountain Pumping Station #1 to the Transmountain Reservoir #2 to meet growth.

BORDERLAND 16-inch/24-inch DONIPHAN, STRAHAN, LA UNION – Part of the Northwest System upgrades to meet future growth on the west side. The project consists of the installation of a 36-inch transmission main. Also, there is an extension of a 16-inch or larger line from Galindo/Doniphan Dr., west along Borderland to Strahan Road.

EASTSIDE PLANNED SERVICE AREA (PSA) – Proposed transmission main lines necessary to serve areas east of Loop 375. Extensions of transmission mains associated with the construction of future new elevated tanks. This item provides the backbone for the water distribution to meet demand.

NORTHWEST DISTRIBUTION MAINS – Proposed transmission mains necessary to serve areas generally located north and south of Transmountain Road, east of IH-10, including the portions of the Northwest Regulating Plan within the Coronado Country Club 2 pressure zone.

ARTCRAFT #3 BOOSTER STATION TO ARTCRAFT #4 RESERVOIR - 24-inch pipe to connect the booster station to the reservoir.

MONTANA EAST SUPPLY LINES– Distribution facilities have been conceptually planned to provide service on the Eastside along north and south of the Montana Ave. corridor, extending about 8 miles east of Loop 375. EPWater's long-range plan projects a multi-year three-phase approach to extend pipelines, construct elevated storage tanks and a major pump station. This item considers the design and future construction of a backbone network of water transmission mains (16-inch to 24-inch) to supply these areas.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

MONTANA EAST 36-inch LINE– - A proposed transmission main from the Ranchos Real Reservoir to the Montana East Reservoirs.

DYER / RR WATER LINE – A series of planned water mains to convey water to the far northeast part of the city. The proposed pipeline will tie into the NE Franklin Distribution Line near the intersection of Stan Roberts Dr. and US-54, and then will extend east along Stan Roberts to Dyer and then south along Dyer.

NE FRANKLIN DISTRIBUTION LINE – A network of water distribution mains, generally 16-inch to 24-inch, to be constructed within the Franklin East #1 Pressure Zones service areas (NE Master Planned areas) in response to and in step with emerging developments.

FRANKLIN EAST 1 DISTRIBUTION LINE – Water distribution main parallel to US-54 from the Franklin East 1 A tank to Stan Roberts Dr.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

Associated Wastewater

COLLECTION LINES

NE DYER/RR INTERCEPTOR - Series of gravity sewer lines extending from the New Mexico-Texas boundary near Stan Roberts Dr. and Dyer St. that convey wastewater flows to the Fred Hervey Reclamation Plant. This system will service future development in the Northeast including the existing Futureland Subdivision.

OTHER EAST INTERCEPTORS (Area 8 East) – Sewer trunk collectors related to development east of Zaragoza and Loop 375 for the area commonly known as Montana Vista and adjacent annexed areas requests for service by developers. Includes oversized collectors in which the EPWater participates.

LOOP 375 EAST INTERCEPTOR SYSTEM - These multi-phase, multi-year interceptors will serve the ETJ areas east of Loop 375, including GLO and proposed MUDS. A master plan study for this area was completed in 1997. It includes relieving Saul Kleinfield Interceptors and Playa Drain (Mesa Drain and Valley) Interceptors. All interceptors in this program will ultimately transport flow to the Roberto R. Bustamante Wastewater Treatment Plant via the Eastside Interceptor System already constructed.

TRANSMOUNTAIN NORTHWEST INTERCEPTORS – Proposed sewer interceptors necessary to serve areas north of Transmountain Road and east of IH-10 on the Westside to meet growth. Future projects scheduled for construction may depend on development progress.

NE INTERCEPTOR SYSTEM – Sanitary sewer pipelines designed to collect and convey wastewater flows from the Sandstone Ranch Subdivision and a portion of land in the Northeast area. The sanitary sewer pipeline will extend along the future Sean Haggerty Blvd (north of US-54), and south crossing the US-54 along the existing Sean Haggerty Blvd, to the existing Grouse Street Lift Station or to the future Northeast Lift Station, where the wastewater will ultimately be treated at the Fred Hervey Water Reclamation Plant. This is a multi-year, multi-phase project.

NE FRANKLIN SERVICE AREA –Pipeline designed to collect and convey wastewater flows from the proposed Northeast Service Area. Flows will be collected from near the Texas-New Mexico border, south crossing US-54 to be delivered to the existing Grouse Street Lift Station, where the wastewater will ultimately be treated at the Fred Hervey Water Reclamation Plant. This is a multi-year, multi-phase project.

PASEO DEL NORTE EXTENSION - Proposed sanitary sewer mains lines necessary to serve areas generally located south of Transmountain Rd., east of IH10. This item will collect the flows for portions of the Northwest Regulating Plan.

ATTACHMENT C
Water and Wastewater Impact Fee Study
Description of Capital Improvement Facilities

LA MESA LINE – Proposed sewer main along La Mesa Ave., east of IH-10 to convey flows from the properties east of IH-10 to the Mowad Interceptor System.

STRAHAN INTERCEPTOR - Proposed sewer main along Strahan Rd. to provide service to developments on the Upper Valley.

PUMPING STATIONS AND FORCE MAINS

TRANSMOUNTAIN NORTH LIFT STATION & FORCE MAIN – This proposed station to be constructed on the east side of IH-10 north of Transmountain Rd. in Northwest El Paso to provide service to future Transmountain North developments to meet growth.

NE DYER/RAILROAD LIFT STATION – Project consists of an initial phase to upgrade the existing 0.5 MGD Futureland Lift Station to 1.3 MGD service capacity. As part of the utility's ultimate facility wastewater plan for in-fill development areas in the vicinity of the Dyer St. to Railroad Drive Corridor between McCombs St. and the State Line, a 5 MGD expandable to a future 11.0 MGD wastewater lift station is proposed which will convey wastewater generated from this area to the Fred Hervey Water Reclamation Plant.

UPPER VALLEY THREE LIFT STATIONS – A series of lift stations (1.5, 2.5, 3.5 MGD) proposed for new developments north of Borderland Rd. along the Strahan Rd. corridor. These stations will ultimately discharge into the Strahan Interceptor that will extend and connect into the Easy Way II Lift Station.

TREATMENT PLANT EXPANSION

BUSTAMANTE WWTP EXPANSION – Multi-approach construction project to expand the loading and flow capacity of the Roberto Bustamante WWTP from 39.0 MGD to 54.0 MGD.

ATTACHMENT 3

Attachment D: Capital Improvement Plan Cost Projection

ATTACHMENT D
Water and Wastewater Impact Fee Study
Proposed Capital Improvements and Costs

Northeast Service Area - Water		**Capital Cost**
Water Supply and Treatment System		
KBH Phase 1		$ 9,700,000
Advanced Water Purification Facility		$ 9,680,000
	Subtotal:	$ 19,380,000
Water Distribution System		
Reservoirs		
Loma Real Tank- Ground (5MG)		$ 7,500,000
Franklin East 1B (3 MG)- Ground		$ 3,000,000
NE Station Well Supply Tank (2)		$ 6,650,000
	Subtotal:	$ 17,150,000
Distribution Pumping Equipment		
North Two Pump Station (11.8 MGD)		$ 4,320,000
Loma Real Pump Station (initial 3 MGD)		$ 1,235,000
	Subtotal:	$ 5,555,000
Distribution Lines		
Dyer/RR Waterline		$ 4,500,000
NE Franklin Distribution Line		$ 26,700,000
Franklin East Distribution		$ 2,035,000
	Subtotal:	$ 33,235,000
Total Water CIP		**$ 75,320,000**

Northeast Service Area - Wastewater	**Capital Cost**
Wastewater Treatment System	
No wastewater treatment CIP proposed	$ -
Collection System	
Lines	
NE Dyer/RR Interceptor	$ 10,920,000
NE Interceptor System (EPWU-NEMP)	$ 11,400,000
NE Franklin Service Area	$ 8,800,000
Subtotal:	$ 31,120,000
Pumping & Force Mains	
NE Dyer/RR Lift Station (5 MGD)	$ 6,000,000
Total Wastewater CIP	**$ 37,120,000**

ATTACHMENT 3

ATTACHMENT D (continued)
Water and Wastewater Impact Fee Study
Proposed Capital Improvements and Costs

Westside Service Area - Water		**Capital Cost**
Water Supply and Treatment System		
No water supply or treatment system CIP proposed		$ -
Water Distribution System		
Reservoirs		
TransMountain NW #1A (4)		$ 4,500,000
TransMountain NW #2A (3)		$ 3,500,000
Artcraft #4 Tank (2)		$ 3,800,000
	Subtotal:	$ 11,800,000
Distribution Pumping Equipment		
Artcraft #1-NW-WFMP		$ 450,000
TransMountain NW #1 Pump Station		$ 2,000,000
Artcraft #3 Pump Station		$ 1,235,000
	Subtotal:	$ 3,685,000
Distribution Lines		
Canut/UV Trns Mn-NW PH IV (36")		$ 5,000,000
TransMtn NW Supply to TransMtn #1		$ 1,750,000
TransMtn NW Supply to TransMtn #2		$ 3,500,000
Borderland 16"/24" Doniphan, Strahan, La Union		$ 10,500,000
Artcraft #3 to #4 Trans Mountain		$ 10,500,000
NW Water Distribution Mains		$ 8,200,000
	Subtotal:	$ 39,450,000
Total Water CIP		**$ 54,935,000**

Westside Service Area - Wastewater		**Capital Cost**
Wastewater Treatment System		
No wastewater treatment CIP proposed		$ -
Collection System		
Lines		
TransMountain NW Interceptors		$ 1,680,000
La Mesa Line Interconnection		$ 400,000
Paseo Del Norte		$ 1,635,000
Strahan Interceptor		$ 1,500,000
	Subtotal:	$ 5,215,000
Pumping & Force Mains		
TransMountain North LS & FM (0.344 MGD for development)		$ 600,000
Upper Valley 3 LS (1.5+2.5+3.5 MGD)		$ 7,100,000
	Subtotal:	$ 7,700,000
Total Wastewater CIP		**$ 12,915,000**

ATTACHMENT 3

ATTACHMENT D (continued)
Water and Wastewater Impact Fee Study
Proposed Capital Improvements and Costs

Eastside Service Area - Water		**Capital Cost**
Water Supply and Treatment System		
KBH Phase 1		$ 9,700,000
Advanced Water Purification Facility		$ 32,670,000
	Subtotal:	$ 42,370,000
Water Distribution System		
Reservoirs		
Montana East Reservoirs (2.5 + 2.0)- Vista Del Este/Homestead II		$ 12,250,000
Eastside PSA Reservoirs (Ranchos Real- 2.0)		$ 6,000,000
	Subtotal:	$ 18,250,000
Distribution Pumping Equipment		
Montana East (3 MGD)- Ranchos Real		$ 1,200,000
Distribution Lines		
Eastside Planned Service Area		$ 18,000,000
Montana East Supply Line Area		$ 14,700,000
Montana East 36" Line		$ 6,700,000
	Subtotal:	$ 39,400,000
Total Water CIP		**101,220,000**

Eastside Service Area - Wastewater		**Capital Cost**
Wastewater Treatment System		
Bustamante WWTP Expansion from 39 to 54 MGD		$ 64,000,000
Collection System		
Lines		
Other Interceptors (Area 8 East)		$ 10,400,000
Loop 375 East Interceptor System		$ 17,150,000
	Subtotal:	$ 27,550,000
Pumping & Force Mains		
No wastewater pumping & force main CIP proposed		-
Total Wastewater CIP		**$ 91,550,000**

ATTACHMENT 3

Attachment E Impact Fee Calculation by Service Area

ATTACHMENT E
Water and Wastewater Impact Fee Study
Northeast Service Area

Water Service Unit Flows (Max Day) **688** gpd

Line No.	Northeast Service Area - Water		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Water Supply and Treatment System						
1	KBH Phase 1		$ 9,700,000	5.00	7,267	$ 1,335	
2	Advanced Water Purification Facility		$ 9,680,000	8.00	11,628	$ 832	
		Subtotal	$ 19,380,000		18,895		$ 1,026
	Debt Issued						
3	KBH Phase 1		$ 3,450,000				
4	Advanced Water Purification Facility		$ 3,445,000				
		Subtotal	$ 6,895,000				
	NPV of Interest						
5	KBH Phase 1		$ 1,462,630	5.00	7,267	201	
6	Advanced Water Purification Facility		$ 1,460,510	8.00	11,628	126	
		Subtotal	$ 2,923,140		18,895		$ 155
	Water Distribution System						
	Reservoirs						
7	Loma Real Tank- Ground (5MG)		$ 7,500,000	5.00	14,535	$ 516	
8	Franklin East 1B (3 MG)- Ground		$ 3,000,000	3.00	8,721	$ 344	
9	NE Station Well Supply Tank (2)		$ 6,650,000	2.00	5,814	$ 1,144	
		Subtotal	$ 17,150,000		29,070		$ 590
	Debt Issued						
10	Loma Real Tank- Ground (5MG)		$ 2,670,000				
11	Franklin East 1B (3 MG)- Ground		$ 1,070,000				
12	NE Station Well Supply Tank (2)		$ 2,365,000				
		Subtotal	$ 6,105,000				
	NPV of Interest						
13	Loma Real Tank- Ground (5MG)		$ 1,131,948	5.00	14,535	$ 78	
14	Franklin East 1B (3 MG)- Ground		$ 453,627	3.00	8,721	$ 52	
15	NE Station Well Supply Tank (2)		$ 1,002,643	2.00	5,814	$ 172	
		Subtotal	$ 2,588,219		29,070		$ 89
	Distribution Pumping Equipment						
16	North Two Pump Station (11.8 MGD)		$ 4,320,000	11.80	17,151	$ 252	
17	Loma Real Pump Station (initial 3 MGD)		$ 1,235,000	3.00	4,360	$ 283	
		Subtotal	$ 5,555,000		21,512		$ 258
	Debt Issued						
18	North Two Pump Station (11.8 MGD)		$ 1,540,000				
19	Loma Real Pump Station (initial 3 MGD)		$ 440,000				
		Subtotal	$ 1,980,000				
	NPV of Interest						
20	North Two Pump Station (11.8 MGD)		$ 652,884	11.80	17,151	$ 38	
21	Loma Real Pump Station (initial 3 MGD)		$ 186,538	3.00	4,360	$ 43	
		Subtotal	$ 839,422		21,512		$ 39
	Distribution Lines						
22	Dyer/RR Waterline		$ 4,500,000			$ 1,113	
23	NE Franklin Distribution Line		$ 26,700,000	20.55	29,869	$ 1,113	
24	Franklin East Distribution		$ 2,035,000			$ 1,113	
		Subtotal	$ 33,235,000		29,869		$ 1,113
	Debt Issued						
25	Dyer/RR Waterline		$ 1,605,000				
26	NE Franklin Distribution Line		$ 9,495,000				
27	Franklin East Distribution		$ 725,000				
		Subtotal	$ 11,825,000				
	NPV of Interest						
28	Dyer/RR Waterline		$ 680,441			$ 168	
29	NE Franklin Distribution Line		$ 4,025,412	20.55	29,869	$ 168	
30	Franklin East Distribution		$ 307,364			$ 168	
		Subtotal	$ 5,013,217		29,869		$ 168
31	**Maximum Water Impact Fee - Northeast Service Area (Capital and Financing)**						**$ 3,437**

ATTACHMENT 3

ATTACHMENT E (continued)
Water and Wastewater Impact Fee Study
Northeast Service Area

Wastewater Service Unit Flows (Max Day) **341** gpd

Line No.	Northeast Service Area - Wastewater		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Wastewater Treatment System						
1	No wastewater treatment CIP proposed		-	-	-	-	-
	Collection System						
	Lines						
2	NE Dyer/RR Interceptor		$ 10,920,000	3.92	11,497	$ 950	
3	NE Interceptor System (EPWU-NEMP)		$ 11,400,000	6.54	19,182	$ 594	
4	NE Franklin Service Area		$ 8,800,000	4.80	14,089	$ 625	
		Subtotal	$ 31,120,000		44,768		$ 695
	Debt Issued						
5	NE Dyer/RR Interceptor		$ 3,885,000				
6	NE Interceptor System (EPWU-NEMP)		$ 4,055,000				
7	NE Franklin Service Area		$ 3,130,000				
		Subtotal	$ 11,070,000				
	NPV of Interest						
8	NE Dyer/RR Interceptor		$ 1,647,049	3.92	11,497	$ 143	
9	NE Interceptor System (EPWU-NEMP)		$ 1,719,120	6.54	19,182	$ 90	
10	NE Franklin Service Area		$ 1,326,966	4.80	14,089	$ 94	
		Subtotal	$ 4,693,134		44,768		$ 105
	Pumping & Force Mains						
11	NE Dyer/RR Lift Station (5 MGD)		$ 6,000,000	5.00	14,663	$ 409	$ 409
	Debt Issued						
12	NE Dyer/RR Lift Station (5 MGD)		$ 2,135,000				
	NPV of Interest						
13	NE Dyer/RR Lift Station (5 MGD)		$ 905,135	5.00	14,663	$ 62	$ 62
14	**Maximum Wastewater Impact Fee - Northeast Service Area (Capital and Financing)**						**$ 1,271**
15	**Maximum Northeast Water and Wastewater Impact Fee**						**$ 4,708**

ATTACHMENT 3

ATTACHMENT E (continued)
Water and Wastewater Impact Fee Study
Westside Service Area

Water Service Unit Flows (Max Day) **688** gpd

Line No.	Westside Service Area		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Water Supply and Treatment System						
1	No water supply or treatment system CIP proposed		-	-	-	-	-
	Water Distribution System						
	Reservoirs						
1	TransMountain NW #1A (4)		$ 4,500,000	4.00	11,628	$ 387	
2	TransMountain NW #2A (3)		$ 3,500,000	3.00	8,721	$ 401	
3	Artcraft #4 Tank (2)		$ 3,800,000	2.00	5,814	$ 654	
		Subtotal	$ 11,800,000		26,163		$451
	Debt Issued						
4	TransMountain NW #1A (4)		$ 1,605,000				
5	TransMountain NW #2A (3)		$ 1,245,000				
6	Artcraft #4 Tank (2)		$ 1,355,000				
		Subtotal	$ 4,205,000				
	NPV of Interest						
7	TransMountain NW #1A (4)		$ 680,441	4.00	11,628	$ 59	
8	TransMountain NW #2A (3)		$ 527,819	3.00	8,721	$ 61	
9	Artcraft #4 Tank (2)		$ 574,453	2.00	5,814	$ 99	
		Subtotal	$ 1,782,713		26,163		$68
	Distribution Pumping Equipment						
10	Artcraft #1-NW-WFMP		$ 450,000	5.00	7,267	$ 62	
11	TransMountain NW #1 Pump Station		$ 2,000,000	3.00	4,360	$ 459	
12	Artcraft #3 Pump Station		$ 1,235,000	3.00	4,360	$ 283	
		Subtotal	$ 3,685,000		15,988		$230
	Debt Issued						
13	Artcraft #1-NW-WFMP		$ 165,000				
14	TransMountain NW #1 Pump Station		$ 715,000				
15	Artcraft #3 Pump Station		$ 440,000				
		Subtotal	$ 1,320,000				
	NPV of Interest						
16	Artcraft #1-NW-WFMP		$ 69,952	5.00	7,267	$ 10	
17	TransMountain NW #1 Pump Station		$ 303,125	3.00	4,360	$ 70	
18	Artcraft #3 Pump Station		$ 186,538	3.00	4,360	$ 43	
		Subtotal	$ 559,615		15,988		$35
	Distribution Lines						
19	Canut/UV Trns Mn-NW PH IV (36")		$ 5,000,000	22.00	31,977	$ 156	
20	TransMtn NW Supply to TransMtn #1		$ 1,750,000	22.00	31,977		
21	TransMtn NW Supply to TransMtn #2		$ 3,500,000			$ 164	
22	Borderland 16"/24" Doniphan, Strahan, La Union		$ 10,500,000	10.00	14,535	$ 722	
23	Artcraft #3 to #4 Trans Mountain		$ 10,500,000	6.00	8,721	$ 1,204	
	NW Water Distribution Mains		$ 8,200,000	4.11	5,974	$ 1,373	
		Subtotal	$ 39,450,000		87,209		$423
	Debt Issued						
24	Canut/UV Trns Mn-NW PH IV (36")		$ 1,780,000				
25	TransMtn NW Supply to TransMtn #1		$ 625,000				
26	TransMtn NW Supply to TransMtn #2		$ 1,245,000				
27	Borderland 16"/24" Doniphan, Strahan, La Union		$ 3,735,000				
28	Artcraft #3 to #4 Trans Mountain		$ 3,735,000				
29	NW Water Distribution Mains		$ 2,920,000				
		Subtotal	$ 14,040,000				
	NPV of Interest						
30	Canut/UV Trns Mn-NW PH IV (36")		$ 754,632	22.00	31,977	$ 24	
31	TransMtn NW Supply to TransMtn #1		$ 264,969	22.00	31,977	$ 25	
32	TransMtn NW Supply to TransMtn #2		$ 527,819			$ 25	
33	Borderland 16"/24" Doniphan, Strahan, La Union		$ 1,583,456	10.00	14,535	$ 109	
34	Artcraft #3 to #4 Trans Mountain		$ 1,583,456	6.00	8,721	$ 182	
35	NW Water Distribution Mains		$ 1,237,936	4.11	5,974	$ 207	
		Subtotal	$ 5,952,268		87,209		$64
36	**Maximum Water Impact Fee - Westside Service Area (Capital and Financing)**						**$ 1,272**

ATTACHMENT 3

ATTACHMENT E (continued)
Water and Wastewater Impact Fee Study
Westside Service Area

Wastewater Service Unit Flows (Max Day) **341** gpd

Line No.	Westside Service Area		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Wastewater Treatment System						
1	No wastewater treatment CIP proposed		-	-	-	-	-
	Collection System						
	Lines						
2	TransMountain NW Interceptors		$ 1,680,000	2.38	3,459	$ 486	
3	La Mesa Line Interconnection		$ 400,000	4.50	6,541	$ 61	
4	Paseo Del Norte		$ 1,635,000	2.78	4,041	$ 405	
5	Strahan Interceptor		$ 1,500,000	1.70	2,471	$ 607	
		Subtotal	$ 5,215,000		16,512		$ 316
	Debt Issued						
6	TransMountain NW Interceptors		$ 600,000				
7	La Mesa Line Interconnection		$ 145,000				
8	Paseo Del Norte		$ 585,000				
9	Strahan Interceptor		$ 535,000				
		Subtotal	$ 1,865,000				
	NPV of Interest						
10	TransMountain NW Interceptors		$ 254,370	2.38	3,459	$ 74	
11	La Mesa Line Interconnection		$ 61,473	4.50	6,541	$ 9	
12	Paseo Del Norte		$ 248,011	2.78	4,041	$ 61	
13	Strahan Interceptor		$ 226,814	1.70	2,471	$ 92	
		Subtotal	$ 790,668		16,512		48
	Pumping & Force Mains						
14	TransMountain North LS & FM (0.344 MGD for development)		$ 600,000	0.34	1,009	$ 595	
15	Upper Valley 3 LS (1.5+2.5+3.5 MGD)		$ 7,100,000	5.00	14,663	$ 484	
		Subtotal	$ 7,700,000		15,672		491
	Debt Issued						
16	TransMountain North LS & FM		$ 215,000				
17	Upper Valley 3 LS (1.5+2.5+3.5 MGD)		$ 2,525,000				
		Subtotal	$ 2,740,000				
	NPV of Interest						
18	TransMountain North LS & FM		$ 91,149	0.34	1,009	$ 90	
19	Upper Valley 3 LS (1.5+2.5+3.5 MGD)		$ 1,070,476	5.00	14,663	$ 73	
		Subtotal	$ 1,161,625		15,672		74
20	**Maximum Wastewater Impact Fee - Westside Service Area (Capital and Financing)**						**$ 929**
21	**Maximum Water and Wastewater Impact Fee - Westside Area**						**$ 2,201**

ATTACHMENT 3

ATTACHMENT E (continued)
Water and Wastewater Impact Fee Study
Eastside Service Area

Water Service Unit Flows (Max Day) **688** gpd

Line No.	Eastside Service Area		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Water Supply and Treatment System						
1	KBH Phase 1		$ 9,700,000	5.00	7,267	$ 1,335	
2	Advanced Water Purification Facility		$ 32,670,000	8.00	11,628	$ 2,810	$ 2,242
		Subtotal	$ 42,370,000		18,895		
	Debt Issued						
3	KBH Phase 1		$ 3,450,000				
4	Advanced Water Purification Facility		$ 11,620,000				
		Subtotal	$ 15,070,000				
	NPV of Interest						
5	KBH Phase 1		$ 1,462,630	5.00	7,267	$ 201	
6	Advanced Water Purification Facility		$ 4,926,307	8.00	11,628	$ 424	$ 338
		Subtotal	$ 6,388,937		18,895		
	Water Distribution System						
	Reservoirs						
7	Montana East Reservoirs (2.5 + 2.0)- Vista Del Este/Homestead II		$ 12,250,000	4.50	13,081	$ 936	
8	Eastside PSA Reservoirs (Ranchos Real- 2.0)		$ 6,000,000	2.00	5,814	$ 1,032	
		Subtotal	$ 18,250,000		18,895		$ 966
	Debt Issued						
9	Montana East Reservoirs (2.5 + 2.0)- Vista Del Este/Homestead II		$ 4,360,000				
10	Eastside PSA Reservoirs (Ranchos Real- 2.0)		$ 2,135,000				
		Subtotal	$ 6,495,000				
	NPV of Interest						
11	Montana East Reservoirs (2.5 + 2.0)- Vista Del Este/Homestead II		$ 1,848,425	4.50	13,081	$ 141	
12	Eastside PSA Reservoirs (Ranchos Real- 2.0)		$ 905,135	2.00	5,814	$ 156	
		Subtotal	$ 2,753,560		18,895		$ 146
	Distribution Pumping Equipment						
13	Montana East (3 MGD)- Ranchos Real		$ 1,200,000	3.00	4,360	$ 275	$ 275
	Debt Issued						
14	Montana East (3 MGD)- Ranchos Real		$ 430,000				
	NPV of Interest						
15	Montana East (3 MGD)- Ranchos Real		$ 182,299	3.00	4,360	$ 42	$ 42
	Distribution Lines						
16	Eastside Planned Service Area		$ 18,000,000	20.00	29,070	$ 619	
17	Montana East Supply Line Area		$ 14,700,000	22.30	32,413	$ 454	
18	Montana East 36" Line		$ 6,700,000	25.00	36,337	$ 184	
		Subtotal	$ 39,400,000		61,483		$ 403
	Debt Issued						
19	Eastside Planned Service Area		$ 6,405,000				
20	Montana East Supply Line Area		$ 5,230,000				
21	Montana East 36" Line		$ 2,385,000				
		Subtotal	$ 14,020,000				
	NPV of Interest						
22	Eastside Planned Service Area		$ 2,715,404	20.00	29,070	$ 93	
23	Montana East Supply Line Area		$ 2,217,262	22.30	32,413	$ 68	
24	Montana East 36" Line		$ 1,011,122	25.00	36,337	$ 28	
		Subtotal	$ 5,943,789		61,483		$ 61
25	**Maximum Water Impact Fee - Eastside Service Area (Capital and Financing)**						**$ 4,473**

ATTACHMENT 3

ATTACHMENT E (continued)
Water and Wastewater Impact Fee Study
Eastside Service Area

Wastewater Service Unit Flows (Max Day) **341** gpd

Line No.	Eastside Service Area		Capital Cost	Capacity (MGD)	Total Service Units	Unit Cost of Capacity	Weighted Average
	Wastewater Treatment System						
1	Bustamante WWTP Expansion from 39 to 54 MGD		$ 64,000,000	15.00	43,988	$ 1,455	$ 1,455
	Debt Issued						
2	Bustamante WWTP Expansion from 39 to 54 MGD		$ 22,760,000				
	NPV of Interest						
3	Bustamante WWTP Expansion from 39 to 54 MGD		$ 9,649,118	15.00	43,988	$ 219	$ 219
	Collection System						
	Lines						
1	Other Interceptors (Area 8 East)		10,400,000	7.86	23,055	$ 451	
2	Loop 375 East Interceptor System		17,150,000	9.82	28,800	$ 595	
		Subtotal	27,550,000		51,855		$ 531
	Debt Issued						
3	Other Interceptors (Area 8 East)		3,700,000				
4	Loop 375 East Interceptor System		6,100,000				
		Subtotal	9,800,000				
	NPV of Interest						
5	Other Interceptors (Area 8 East)		1,568,618	7.86	23,055	$ 68	
6	Loop 375 East Interceptor System		2,586,099	9.82	28,800	$ 90	
		Subtotal	4,154,717		51,855		$ 80
	Pumping & Force Mains						
7							
	Debt Issued						
8			-				
9	**NPV of Interest**						
			$ -		0		
10	**Maximum Wastewater Impact Fee - Eastside Service Area (Capital and Financing)**						**$ 2,286**
11	**Maximum Eastside Water and Wastewater Impact Fee**						**$ 6,758**

ATTACHMENT 3

Attachment F Maximum Impact Fee Calculation

ATTACHMENT F
Water and Wastewater Impact Fee Study
Maximum Impact Fee Per Service Unit

Service Area and Category of Capital Improvement	Capital Improvement Costs	Amount Financed	Financing Costs (NPV of Interest)	Facility Service Units	Projected New Service Units through 2029	Portion of Capital Improvements and Financing	Maximum Impact Fee per Unit
Northeast							
Water							
Treatment	$19,380,000	6,895,000	2,923,140	18,895	21,661	25,567,579	1,180
Reservoirs	17,150,000	6,105,000	2,588,219	29,070	21,661	14,707,705	679
Pumping	5,555,000	1,980,000	839,422	21,512	21,661	6,438,824	297
Distribution Lines	33,235,000	11,825,000	5,013,217	29,869	21,661	27,737,436	1,281
Total Water	75,320,000	26,805,000	11,363,999	N/A	21,661	74,451,544	3,437
Wastewater							
Treatment	0	0	0	-	21,661	0	0
Collection Lines	31,120,000	11,070,000	4,693,134	44,768	21,661	17,328,188	800
Pumping[1]	6,000,000	2,135,000	905,135	14,663	21,661	10,200,819	471
Total Wastewater	37,120,000	13,205,000	5,598,269	N/A	21,661	27,529,007	1,271
Total Northeast Area	**$112,440,000**	**$40,010,000**	**$16,962,268**	**N/A**	**21,661**	**$101,980,550**	**$4,708**
Westside							
Water							
Treatment	$0	$0	$0	-	19,574	$0	$0
Reservoirs	11,800,000	4,205,000	1,782,713	26,163	19,574	10,162,067	519
Pumping	3,685,000	1,320,000	559,615	15,988	19,574	5,196,532	265
Distribution Lines	39,450,000	14,040,000	5,952,268	87,209	19,574	10,190,472	521
Total Water	54,935,000	19,565,000	8,294,596	N/A	19,574	25,549,071	1,305
Wastewater							
Treatment	0	0	0	-	19,574	0	0
Collection Lines	5,215,000	1,865,000	790,668	10,000	19,574	11,755,495	601
Pumping	7,700,000	2,740,000	1,161,625	15,672	19,574	8,861,625	565
Total Wastewater	12,915,000	4,605,000	1,952,293	N/A	19,574	20,617,120	1,166
Total Westside Area	**$67,850,000**	**$24,170,000**	**$10,246,889**	**N/A**	**19,574**	**$46,166,191**	**$2,471**
Eastside							
Water							
Treatment	$42,370,000	$15,070,000	$6,388,937	18,895	24,904	64,264,099	2,580
Reservoirs	18,250,000	6,495,000	2,753,560	18,895	24,904	27,682,614	1,112
Pumping	1,200,000	430,000	182,299	4,360	24,904	7,894,747	317
Distribution Lines	39,400,000	14,020,000	5,943,789	97,820	24,904	11,544,106	464
Total Water	101,220,000	36,015,000	15,268,585	N/A	24,904	111,385,567	4,473
Wastewater							
Treatment	64,000,000	22,760,000	9,649,118	43,988	24,904	41,696,517	1,674
Collection Lines	27,550,000	9,800,000	4,154,717	51,855	24,904	15,226,579	611
Pumping	0	0	0	0	24,904	0	0
Total Wastewater	91,550,000	32,560,000	13,803,835	N/A	24,904	56,923,096	2,286
Total Eastside Area	**$192,770,000**	**$68,575,000**	**$29,072,421**	**N/A**	**24,904**	**$168,308,663**	**$6,758**
Systemwide							
Water	$231,475,000	$82,385,000	$34,927,180		66,139	$211,386,182	$3,186
Wastewater	141,585,000	50,370,000	21,354,398		66,139	105,069,223	$1,552
Systemwide Area	**$373,060,000**	**$132,755,000**	**$56,281,578**		**66,139**	**$316,455,404**	**$4,738**

ATTACHMENT 3

Attachment G Impact Fee Credit Calculation

ATTACHMENT G
Water and Wastewater Impact Fee Study
Impact Fee Credit Calculation

Systemwide Water Credit Calculation

Line No.		Total (All Years)	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
1	Principal Payments	$82,385,000	$2,491,536	$2,616,112	$2,746,918	$2,884,264	$3,028,477	$3,179,901	$3,338,896	$3,505,841	$3,681,133	$3,865,189
2	Annual Interest on Future Debt		4,119,250	3,994,673	3,863,868	3,726,522	3,582,309	3,430,885	3,271,890	3,104,945	2,929,653	2,745,596
3	Total Debt Service		$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786
	Present Value											
4	Principal on Future Debt		$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891
2	Interest Payments (present value)	34,927,180	3,923,095	3,623,286	3,337,754	3,065,819	2,806,832	2,560,179	2,325,271	2,101,549	1,888,480	1,685,558
3	Principal and Present Value of Interest	$117,312,180	$6,414,631	$6,239,399	$6,084,672	$5,950,082	$5,835,309	$5,740,080	$5,664,167	$5,607,390	$5,569,613	$5,550,747
4	Beginning Year Service Units		238,709	245,347	251,985	258,623	265,261	271,900	278,538	285,176	291,814	298,452
5	Incremental Service Units		6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638	6,638
6	Total Service Units		245,347	251,985	258,623	265,261	271,900	278,538	285,176	291,814	298,452	305,090
7	Debt Service Credit per Unit	**$407**	$26	$25	$24	$22	$21	$21	$20	$19	$19	$18

Notes:
1. Present value calculations apply a 5 percent discount rate.

ATTACHMENT G
Water and Wastewater Impact Fee Study
Impact Fee Credit Calculation

Systemwide Water Credit Calculation

Line No.		FY 2029-30	FY 2030-31	FY 2031-32	FY 2032-33	FY 2033-34	FY 2034-35	FY 2035-36	FY 2036-37	FY 2037-38	FY 2038-39
1	Principal Payments	$4,058,449	$4,261,371	$4,474,440	$4,698,162	$4,933,070	$5,179,723	$5,438,710	$5,710,645	$5,996,177	$6,295,986
2	Annual Interest on Future Debt	2,552,337	2,349,414	2,136,346	1,912,624	1,677,716	1,431,062	1,172,076	900,140	614,608	314,799
3	Total Debt Service	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786	$6,610,786
	Present Value										
4	Principal on Future Debt	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891	$2,372,891
2	Interest Payments (present value)	1,492,298	1,308,242	1,132,950	966,005	807,010	655,586	511,373	374,027	243,221	118,645
3	Principal and Present Value of Interest	$5,550,747	$5,569,613	$5,607,390	$5,664,167	$5,740,080	$5,835,309	$5,950,082	$6,084,672	$6,239,399	$6,414,631
4	Beginning Year Service Units	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090
5	Incremental Service Units	0	0	0	0	0	0	0	0	0	0
6	Total Service Units	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090	305,090
7	Debt Service Credit per Unit	$18	$18	$18	$19	$19	$19	$20	$20	$20	$21

Notes:
1. Present value calculations apply a 5 percent discount rate.

ATTACHMENT 3

ATTACHMENT G (continued)
Water and Wastewater Impact Fee Study
Impact Fee Credit Calculation

Systemwide Wastewater Credit Calculation

Line No.		Total (All Years)	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
1	Principal Payments	$50,370,000	$1,523,319	$1,599,485	$1,679,459	$1,763,432	$1,851,604	$1,944,184	$2,041,393	$2,143,463	$2,250,636	$2,363,168
5	Interest Payments (present value)	$21,354,398	2,398,571	2,215,269	2,040,695	1,874,434	1,716,091	1,565,288	1,421,665	1,284,882	1,154,613	1,030,546
6	Principal and Present Value of Interest	$71,724,398	$3,921,891	$3,814,754	$3,720,155	$3,637,867	$3,567,695	$3,509,472	$3,463,059	$3,428,345	$3,405,249	$3,393,714
7	Beginning Year Service Units		222,608	229,222	235,836	242,450	249,064	255,678	262,291	268,905	275,519	282,133
8	Incremental Service Units		6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,614	6,614
9	Total Service Units		229,222	235,836	242,450	249,064	255,678	262,291	268,905	275,519	282,133	288,747
10	Debt Service Credit per Unit	**$264**	$17	$16	$15	$15	$14	$13	$13	$12	$12	$12

Notes:
1. Present value calculations apply a 5 percent discount rate.

ATTACHMENT G (continued)
Water and Wastewater Impact Fee Study
Impact Fee Credit Calculation

Systemwide Wastewater Credit Calculation

Line No.		FY 2029-30	FY 2030-31	FY 2031-32	FY 2032-33	FY 2033-34	FY 2034-35	FY 2035-36	FY 2036-37	FY 2037-38	FY 2038-39
1	Principal Payments	$2,481,326	$2,605,393	$2,735,662	$2,872,445	$3,016,068	$3,166,871	$3,325,215	$3,491,475	$3,666,049	$3,849,352
5	Interest Payments (present value)	912,388	799,856	692,683	590,613	493,404	400,824	312,652	228,679	148,705	72,539
6	Principal and Present Value of Interest	$3,393,714	$3,405,249	$3,428,345	$3,463,059	$3,509,472	$3,567,695	$3,637,867	$3,720,155	$3,814,754	$3,921,891
7	Beginning Year Service Units	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747
8	Incremental Service Units	0	0	0	0	0	0	0	0	0	0
9	Total Service Units	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747	288,747
10	Debt Service Credit per Unit	$12	$12	$12	$12	$12	$12	$13	$13	$13	$14

Notes:
1. Present value calculations apply a 5 percent discount rate.

ATTACHMENT 3

Attachment H Impact fee Assessment Schedules

ATTACHMENT H
Water and Wastewater Impact Fee Study
Impact Fee Assessment Schedules (Net Fee after Credit)

Northeast

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	$2,998	$1,055	$4,053
1-inch	1.67	5,007	1,762	6,769
1½-inch	3.33	9,983	3,513	13,496
2-inch	5.33	15,979	5,623	21,602
3-inch	10.00	29,980	10,550	40,530
4-inch	16.67	49,977	17,587	67,564
6-inch	33.33	99,923	35,163	135,086
8-inch	53.33	159,883	56,263	216,146

Westside

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	$1,109	$771	$1,880
1-inch	1.67	1,852	1,288	3,140
1½-inch	3.33	3,693	2,567	6,260
2-inch	5.33	5,911	4,109	10,020
3-inch	10.00	11,090	7,710	18,800
4-inch	16.67	18,487	12,853	31,340
6-inch	33.33	36,963	25,697	62,660
8-inch	53.33	59,143	41,117	100,260

Eastside

Meter Size	Meter Capacity Ratio	Water	Wastewater	Total
Less than 1-inch	1.00	$3,901	$1,897	$5,798
1-inch	1.67	6,515	3,168	9,683
1½-inch	3.33	12,990	6,317	19,307
2-inch	5.33	20,792	10,111	30,903
3-inch	10.00	39,010	18,970	57,980
4-inch	16.67	65,030	31,623	96,653
6-inch	33.33	130,020	63,227	193,247
8-inch	53.33	208,040	101,167	309,207

ATTACHMENT 4

January 11, 2019

Via Electronic Mail:
El Paso City Council

Re: Impact Fees

Dear Members of the El Paso City Council:

I write in my capacity as the Chair of the Capital Improvements Advisory Committee for the City of El Paso ("CIAC") to explain the basis for CIAC's recent motion regarding impact fees.

As you know, CIAC convened a meeting on January 9, 2019, for the purpose of rendering its advice to City Council regarding impact fees. At the conclusion of the meeting, CIAC unanimously passed (6-0) a motion to: (1) accept the Land Use Assumptions, Capital Improvements Plan, and Impact Fee Report presented to CIAC by Richard Giardina on behalf of the El Paso Water Utilities ("EPWU"), (2) recommend to City Council that it cause the impact fees to remain unchanged and at their current amounts, and (3) seek EPWU's agreement to delay the bid to sell approximately 700 acres of its land in El Paso currently scheduled for January 18, 2019.

I.

Certain members of CIAC and a representative of the El Paso Association of Builders ("EPAB") raised a number of concerns with the aforementioned Land Use Assumptions, including the complaint that they received EPWU's voluminous reports days before the Christmas holiday thereby making it unnecessarily difficult to review and understand prior to being called upon to advise City Council.

Under the circumstances, CIAC accepted EPWU's reports in order to balance the interests of EPWU, the City of El Paso, and their respective rate payers and residents. Nonetheless, as discussed above, there are unresolved issues with EPWU's reports and the impact fee process generally that CIAC has determined are worthy of a closer inspection before the passage of another five years.

II.

CIAC recommends to City Council that it keep the impact fee amount at its current level for the following reasons.

It is our understanding that EPWU's reports fail to contemplate, among other things, (i) the effect that market fluctuations and the imposition of impact fees may have on future development, and (ii) the current multi-year trend of new home construction migrating from El Paso to its neighboring areas. Indeed, there has been a dramatic downward trend in permits issued for new home construction, as follows:

Year	Permits Issued	Year	Permits Issued
2004	3,612	2011	2,875
2005	3,041	2012	2,744
2006	2,919	2013	2,261
2007	2,767	2014	1,927
2008	2,335	2015	2,095
2009	2,212	2016	1,817
2010	2,093	2017	1,632

Therefore, it is likely that the assumptions in the report overestimate the amount of future growth and the associated cost of new infrastructure. Moreover, EPWU has made no representation that it needs any additional funds from impact fees to keep pace with new development in the future. On the other hand, CIAC acknowledges the benefit of maintaining an operational impact fee regime at a low level so that EPWU maintains the agility necessary to quickly raise funds when needed to cover the cost of new development.

ATTACHMENT 4

III.

CIAC recommends that EPWU delay its bid of approximately 700 acres of its land until after the impact fee issue is resolved. If City Council adopts the maximum impact fee in Northeast El Paso, such land would then cost significantly more to develop than if the impact fee remains unchanged which will undoubtedly affect the bid amounts. Given the dramatic effect that the impact fee determination will have on the cost of the land, CIAC believes that it would be prudent for EPWU to delay the bid until after City Council sets the impact fee.

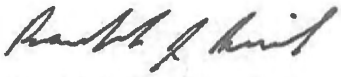
Therefore, CIAC will contact EPWU to request that it delay the bid.

Conclusion

In summary, CIAC respectfully (i) recommends to City Council that it keep the impact fees at their current amounts, (ii) requests that City Council support CIAC's investigation of the prediction period in future land use assumptions by directing appropriate City staff to assist CIAC, and (iii) delay the EPWU bid until after City Council sets the impact fee.

I will be present at the City Council meeting to present CIAC's motion discussed above and to answer any questions you may have. If in the interim, or anytime thereafter you desire any clarification or further discussion, please do not hesitate to contact me.

Very Sincerely,



Randall J. Bowling, Chair

ATTACHMENT 5

EL PASO ASSOCIATION OF BUILDERS

Via Hand Delivery:

Capital Improvements Advisory Committee

Re: Request recommendation on impact feesa

January 9, 2019

Members of CIAC for the City of El Paso (city),

I am writing on behalf of the El Paso Association of Builders to respectfully request that you recommend to City Council no increase in the impact fees to comply with the requirement of written comment from CIAC.

We come to this conclusion after ten years of experience with impact fees and the lessons learned from them. It is our position as the preeminent trade association representing most developers and builders in El Paso that impact fees, as we predicted, have had a negative impact on the industry as well as the City of El Paso. The Assumptions that the current report gives are not in concert with reality as our letter will demonstrate.

While as an advocate for the industry we are also advocates for the City of El Paso. Over the ten years of the implementation of the impact fees the economy of El Paso has been better recently as we joined the rest of the country in increases in jobs and growth. However, while the population of the area has increased and prospered from jobs the new home building permits for the City of El Paso show a downward trend during these years. *In 2008 the City of El Paso recorded approximately 2335 permits for new homes. In 2017 that number has dropped to 1632 permits issued.* Meanwhile it is somewhat difficult to understand why then that during the best few years of the economy in El Paso more people are buying homes outside the jurisdiction of the City of El Paso and its ETJ. Our conclusion is simply *affordability*. Land and therefore lots for sale inside the City jurisdiction begin at a higher price with the imposition of impact fees. Other contributing factors are also there but when we look at the Land Use Assumptions, for ten years no less, the costs associated with the assumption is higher costs for little or no benefit to affordability.

The communities of Socorro, Horizon, Clint, Anthony, Canutillo show remarkable growth during the time frame of impact fees inside El Paso. So, it is clear to us, as professionals, that affordability still dictates where someone can afford to live.

The El Paso Water Utility (EPWU) has not offered any significant raw land for sale to developers in some time. Land inside the city limits brings tax revenue to the City. When homes and businesses are built

outside of the City there aren't any tax revenues for infrastructure being paid. We strongly believe that impact fees as implemented are more political than of economic necessity. Water and wastewater infrastructures can be paid by the sale of available land as was intended in the formation of the EPWU.

The EPAB has a problem with a ten-year assumption plan. We have been led to believe that ten years is mandatory, but Subchapter 395 simply states that the *plan should NOT EXCEED ten years*. We would suggest that a more reliable and realistic assumption plan should be three to five years. Setting up an impact fee that is not going to be realized is an exercise in futility. We worked with CIAC eleven years ago during the initial set up and we strongly encouraged the City and EPWU to understand that ten-year income projections from the plan as presented were unattainable and unrealistic. Ten years later that is exactly what happened. The question then would be is why would you make that mistake again?

While the city has focused on the downtown area for development of business and entertainment the rest of the City of El Paso has stagnated in new home construction. Instead people are buying homes where they are affordable and clearly that is not inside the city.

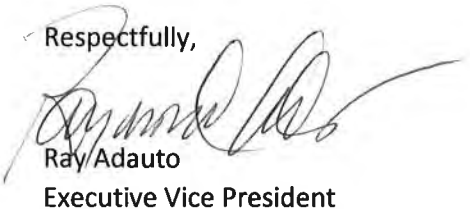
Housing is susceptible to many economic factors. Our industry has a history of cycles and we want to be prepared for those upcoming.

We hope that CIAC would recommend a reduction in impact fees and a two- or three-year revisit to the Land Use Assumptions it could begin to turn the downward spiral of lost housing around. Raising the fee does the City no good and continues migration outside the city limits.

Your duty to recommend a viable realistic capital improvement plan to City Council is needed, both for the industry as well as the citizens.

Thank you for your service to the community. We are available for comments or questions.

Respectfully,



Ray Adauto
Executive Vice President
El Paso Association of Builders

ATTACHMENT 5

EL PASO ASSOCIATION OF BUILDERS

Randall Bowling
Capital Improvements Advisory Committee Chairman
Re: information on permits City of El Paso

January 9, 2019

Mr. Bowling,

I thought it would be prudent to send you a list of permits taken out in the City of El Paso over the last eleven years. This period shows a decline in new housing permits within the developments inside the areas affected by the Impact Fee you will discuss at your next meeting. The figures come directly from information gathered from the City of El Paso.

Permits by year City of El Paso

2008	**2335**
2009	**2212**
2010	**2093**
2011	**2875**
2012	**2744**
2013	**2261**
2014	**1927**
2015	**2095**
2016	**1817**
2017	**1632**
2018	**1659**

Significant in my opinion is that during the last four or five years of economic growth in the area, the spiral downward is clearly impacted by the fees. The City of El Paso is thousands of dollars more expensive to build a home in than communities like Horizon, Clint, and Socorro that do not have these fees. In the unincorporated County of El Paso the fees are substantially less.

ATTACHMENT 5

Continued from pg 1

I want to make sure that with the complicated graphs and charts and projections being presented by the El Paso Water Utility and City engineers that your committee is informed enough to ensure the actions taken are properly vetted and understood.

I will be at the meeting on Thursday and will sign up to speak about the presentation, its timing and the need for this important committee/board to fully understand the consequences involved.

Respectfully,

Ray Adauto
Executive Vice President
El Paso Association of Builders