

SAWS Land Use Assumptions Plan

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Planner IV – Infrastructure Planning

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May 23, 2013

CIAC Workshop



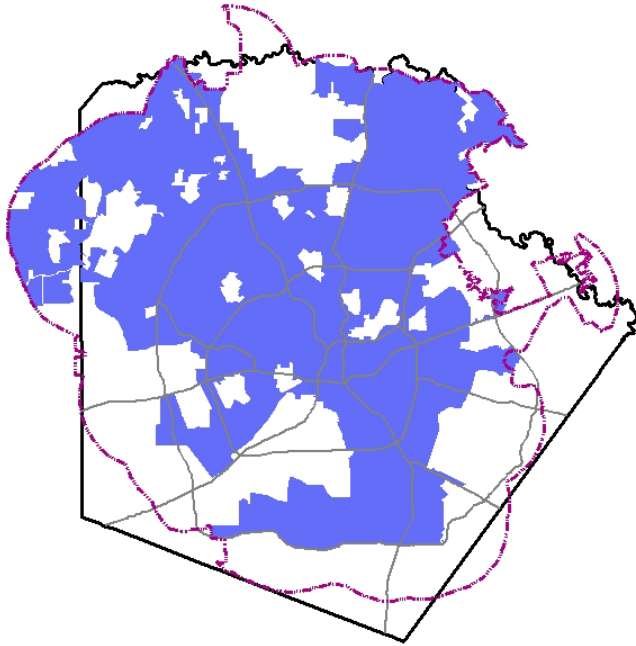
Land Use Assumptions Plan

- Service Area Changes Since 2010
- Land Use Area Change
- 2011 update compared to current population and EDUs

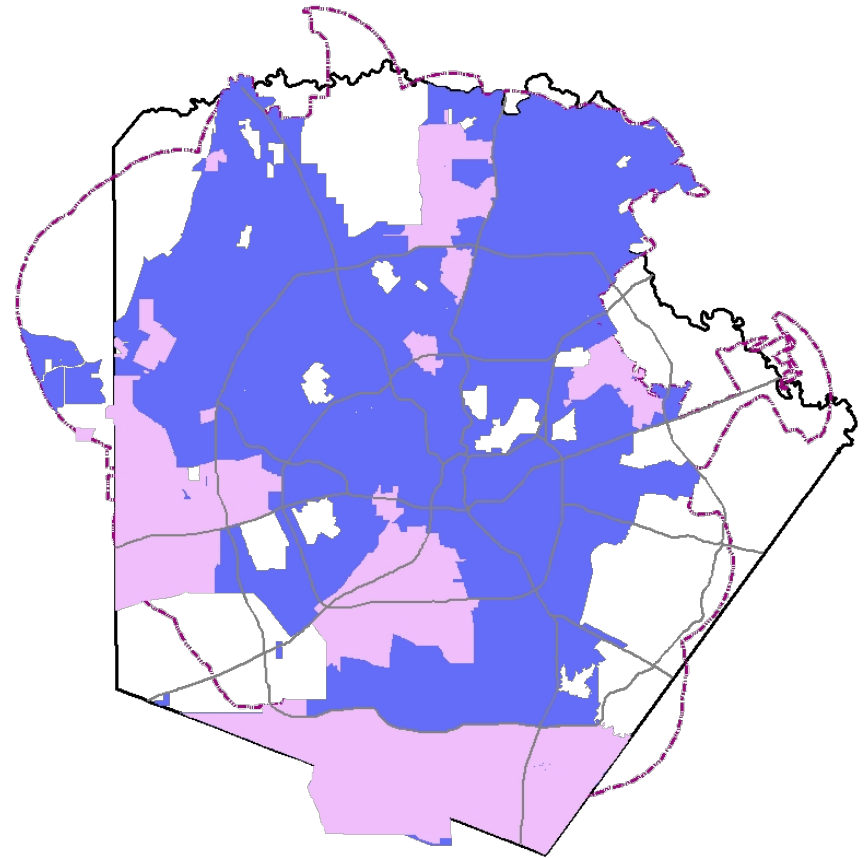
Impact Fee Formula

$$\textit{Maximum Impact Fees} = \frac{\textit{Cost of Growth}}{\textit{EDUs from LUAP}} - \textit{Rate Credit}$$

2010-2012 Water Service Area Change



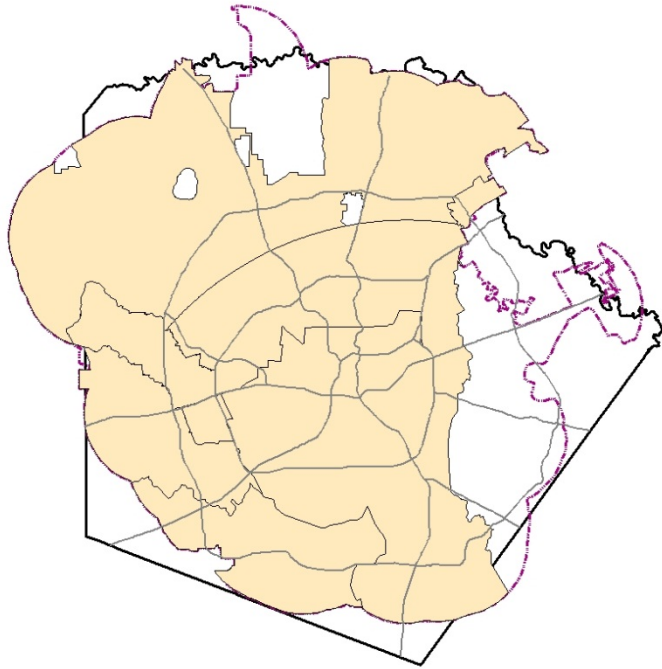
2010



2012

DSP: 174,000 acres added
Northwest: 35,951 acres withdrawn
Northeast: 8,500 acres added
Total: 146,549 acres added

2010-2012 Sewer Service Area Change



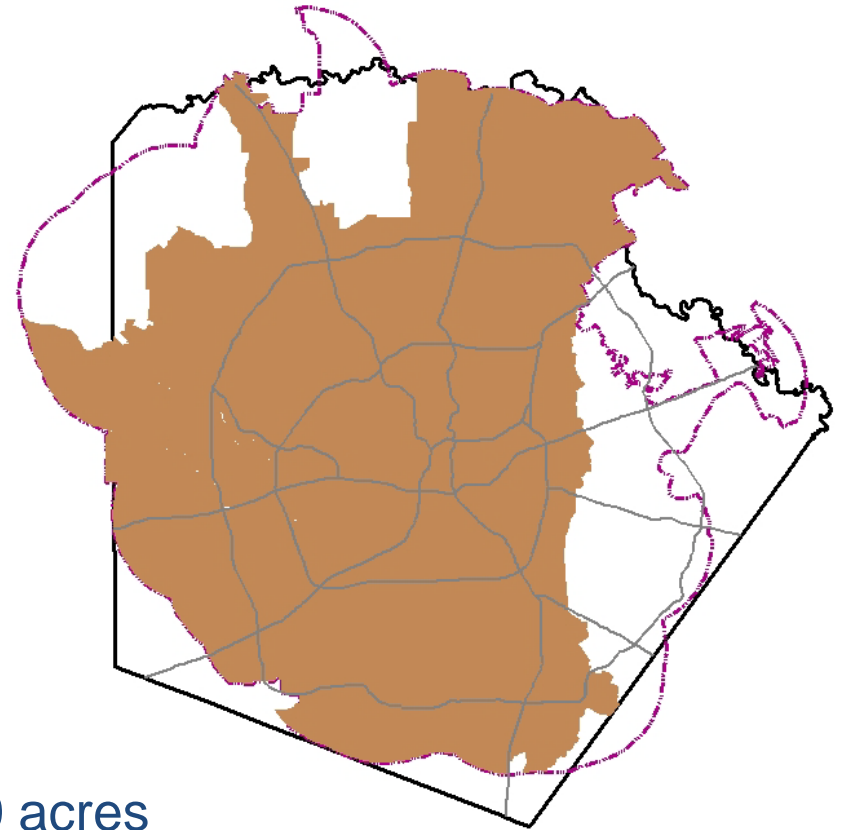
2010

Northwest: $62,000 - 24,000 = 38,000$ acres

Northwest: $50,000 - 9,000 = 41,000$ acres

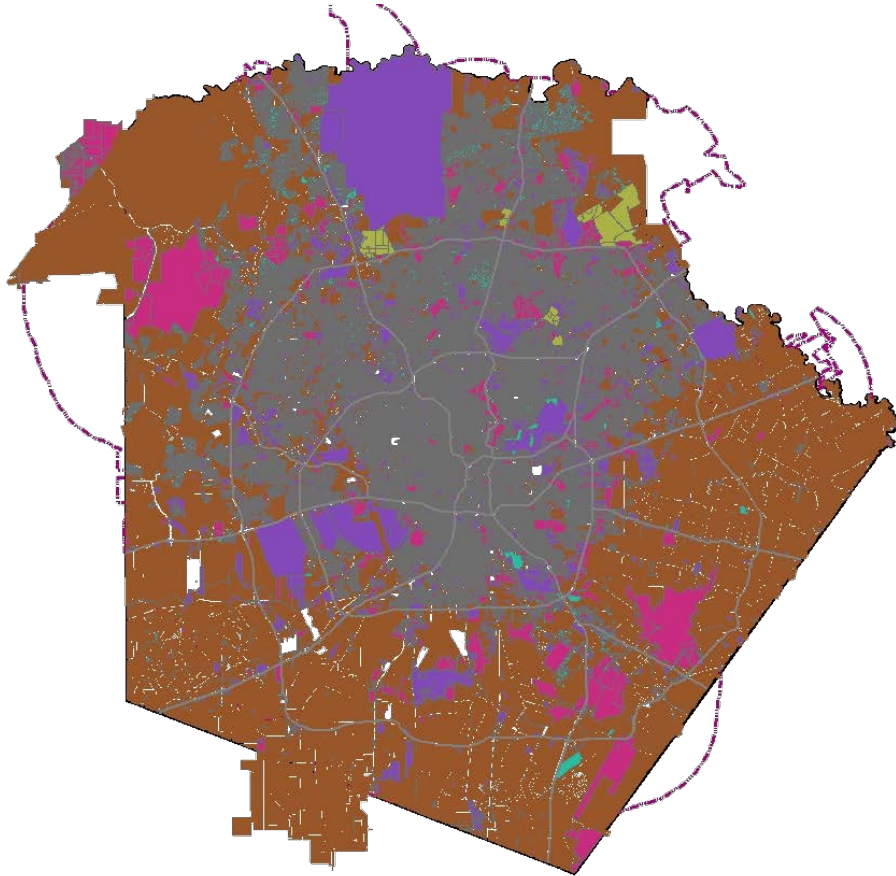
Southeast: $30,000 - 22,000 = 8,000$ acres

Total: 87,000 acres withdrawn



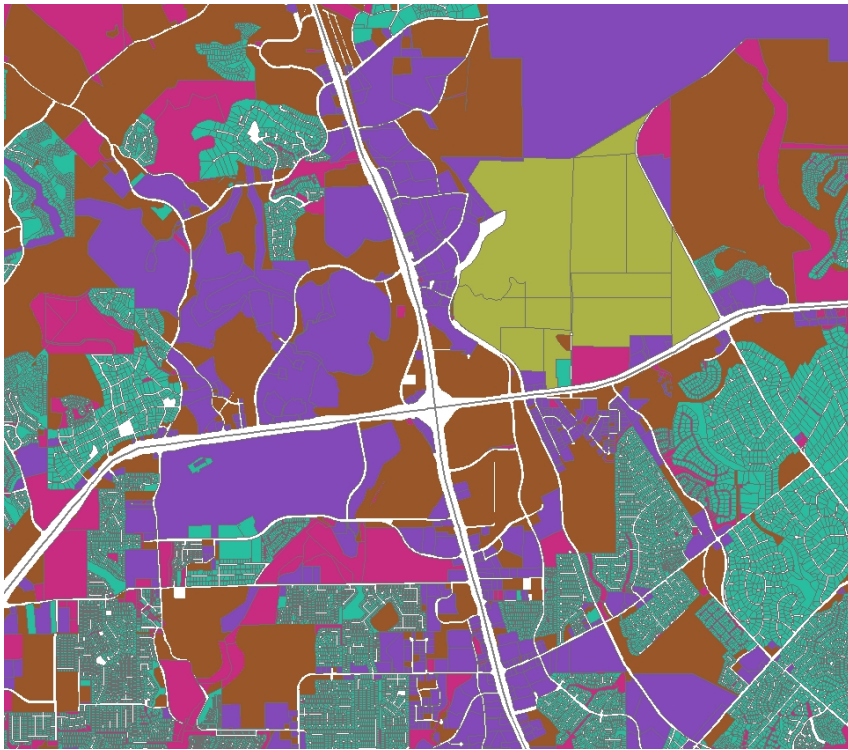
2012

Land Use Classification

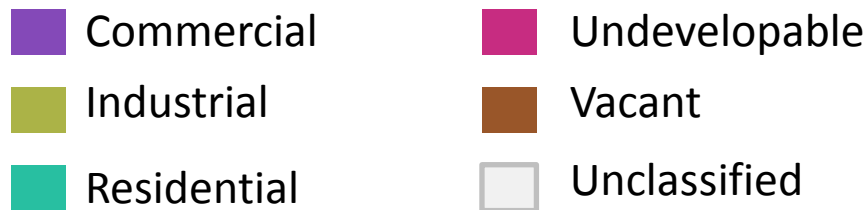


- Bexar County Appraisal District land use geodatabase layer
- 576,490 records
- 644 records = 4,415 acres not classified (TBD)
- Data analyzed by SAWS Master Planning Dept. in GIS (ESRI ArcMap 10) and by SAWS GIS Dept.

Land Use Classification



I-10/1604 area



- Land use data joined to SAWS proposed water and sewer service areas
- Exported resulting data tables to Excel
- Data tables summarized by land use classification and grouped to five categories

Land Use Classification

- Commercial – Airport; COSA Fire Station; COSA Police Station; Church; Commercial Golf Course; Hospital; Military Base; Parking; School; School – Private; Sewage; Sports Complex; Theme Park
- Industrial – Industrial; Quarry
- Residential – Apartments; Base Housing; Condos; Mobile Home; Residential; Townhomes; Villas
- Undevelopable – Cemetery; Drainage Easement; Drainage/Utility Easement; Flood Plain; Flood Plain & ROW Easement; Green Belt/Open Space; Homeowners Association; Lake; Landfill; Park; Public Use Land; ROW; ROW/Easement; Unknown; Vacant – Non Developable; Undevelopable
- Vacant – Agriculture; Outside Bexar Co.; Rural; Vacant; Vacant – Potential Development

Sewershed Acres Corrected

- *90,507 acres added to count*
- *2010 Sewer Land Use might be too low*
- *2010 analysis cannot be reproduced*
- *Revised sewershed acres:*

SEWERSHED	REGION	ACRES	SQ MILES	Shape area (sq ft)
FAR WEST	MEDIO CREEK WRC	56,970	68.5	2,481,630,615
EAST	DOS RIOS WRC	158,800	241.6	6,917,335,600
CENTRAL	DOS RIOS WRC	90,262	139.9	3,931,822,465
WEST	LEON CREEK WRC	190,549	302.4	8,300,310,402
SOUTH	DOS RIOS WRC	132,799	89.6	5,784,734,625
Total		629,381	842	27,415,833,706
				629,381

2010-2012 Land Use Area Change

Presented May 1, 2013

Land Use Classifi	2010 Land Use				2012 Land Use			
	Water		Sewer		Water		Sewer	
	Acres	%	Acres	%	Acres	%	Acres	%
Commercial	46,887	13%	55,990	10%	118,043	20%	116,605	21%
Industrial	4,777	1%	4,907	1%	5,675	1%	5,675	1%
Residential	129,634	34%	160,187	29%	124,447	21%	122,866	23%
Undevelopable	39,281	10%	69,579	13%	76,875	13%	67,865	12%
Vacant	158,598	42%	253,669	47%	261,106	45%	230,217	42%
	379,177		544,332		586,147		543,228	

$$629,381 - 87,000 = 542,381$$

Land use numbers not in impact fee calculation

LUAP EDU Calculation 2014 - Water

1	2	3	4	5	6	7	8
<u>Meter Size</u>	<u>Active Meter Count</u>	<u>Apartment Master Meters</u>	<u>(2 - 3) Meters</u>	<u>Non-apartments EDU/Meter Size</u>	<u>(4 * 5) EDU</u>	<u>Apartment Units</u>	<u>(6 + 7)</u>
5/8	394,855	1,456	393,399	1	393,399	183,463	
3/4	37,219	182	37,037	1.5	55,556		
1	12,669	583	12,086	2	24,172	93% occupancy	
1 1/2	7,022	344	6,678	5	33,390	170,621	
2	4,554	619	3,935	14	55,090		
3	853	210	643	30	19,290		
4	562	222	340	50	17,000		
6	210	197	13	105	1,365		
8	81	40	41	135	5,535		
10	18	7	11	190	2,090	1/2 units	
Total	458,043	3,860	454,183		606,887	85,310	692,197
2012 population		1,659,593		Population/EDU =		2.40	

Population to EDU ratio: 2.40

2011: Population 1,311,764 (SAWS only)

EDUs: 571,731

Pop/EDU: 2.29

LUAP EDU Calculation 2014 - Sewer

1	2	3	4	5	6	7	8	9
			(2 (total) - 3(total))* 4 percentages			(5 * 6)		(7 + 8)
Meter Size	Active Meter Count	Apartment Master Meters	Non-apartments			EDUs	Apartment Units	
			Percent by Size*	Meters	EDU/Meter Size	EDUs	182,223	
5/8			87.98%	384,606	1	384,606		
3/4			6.30%	34,571	1.5	51,857		
1			2.76%	9,374	2	18,748		
1 1/2			1.57%	5,132	5	25,660		
2			0.99%	3,336	14	46,704		
3			0.19%	758	30	22,740		
4			0.13%	511	50	25,550	93% occupancy	
6			0.05%	196	105	20,580	169,467	
8			0.02%	71	135	9,585		
10			0.01%	29	190	5,510		
Adjustment for SARA and Leon Springs						(20,047)	1/2 units	
Total	395,227	3,798		438,584		591,493	84,734	676,226
2012 population		1,552,024		Population/EDU =		2.30		

Population to EDU ratio: 2.30

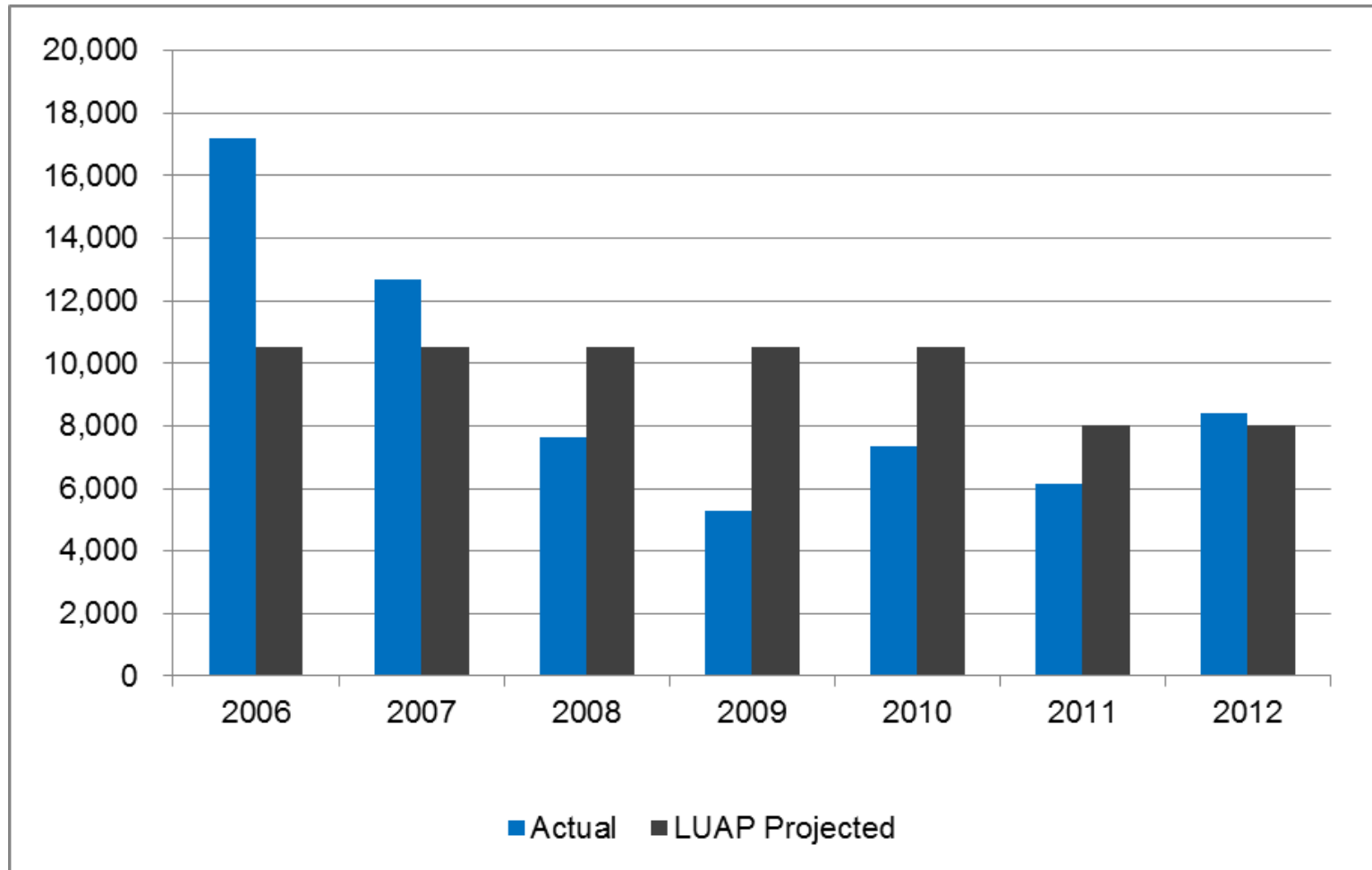
2011: Population 1,505,859

EDUs: 644,420

Pop/EDU: 2.34

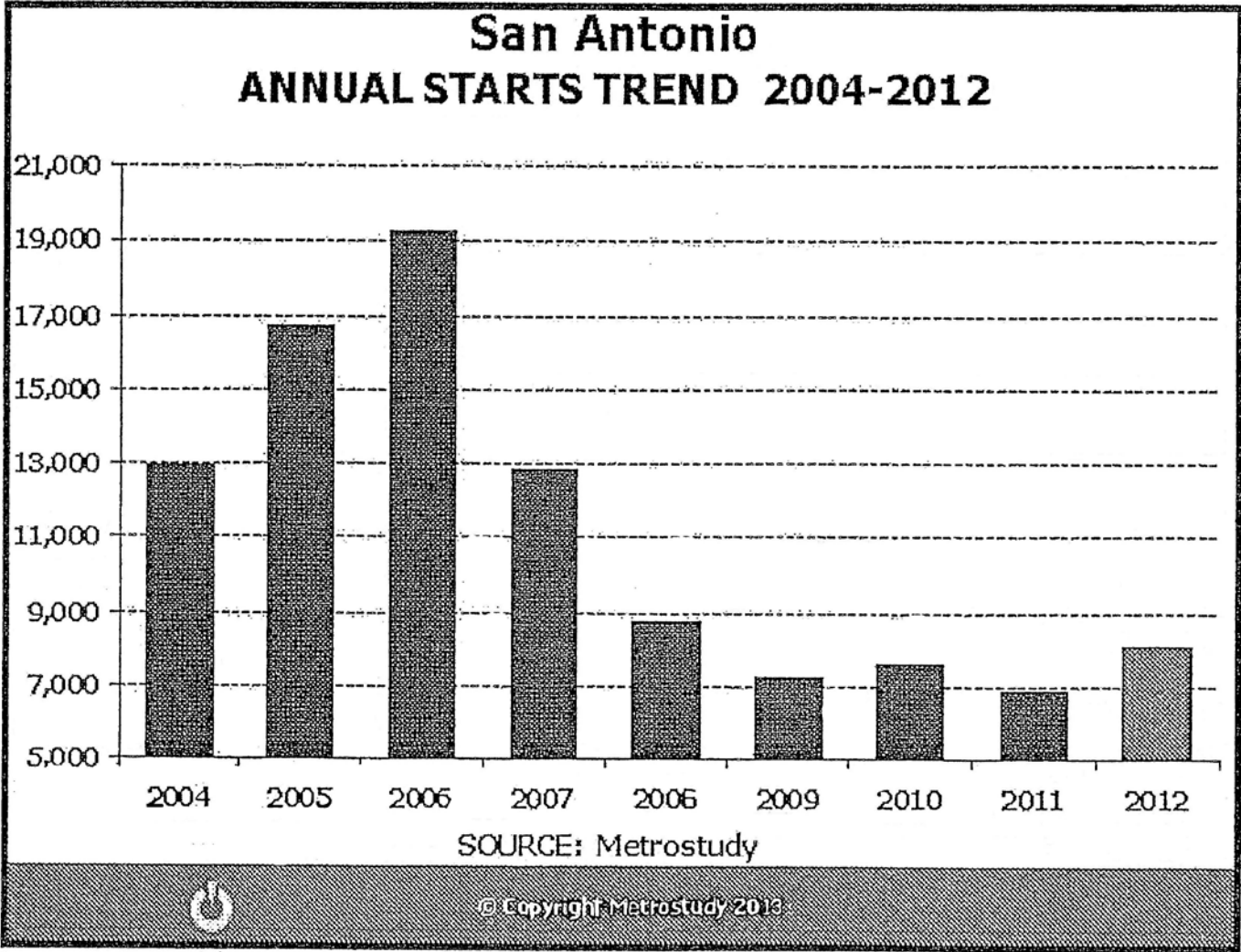


Historical Water EDU Change



LUAP Summary - DRAFT

	2011 – 2020	2014 – 2023
Water		
Pop/EDU ratio	2.29	2.40
Population change	184,337	229,961
EDU change	80,343	95,817
10 year change	13.7%	13.7%
Wastewater		
Pop/EDU ratio	2.34	2.30
Population change	250,555	228,454
EDU change	107,075	99,330
10 year change	15.2%	14.6%

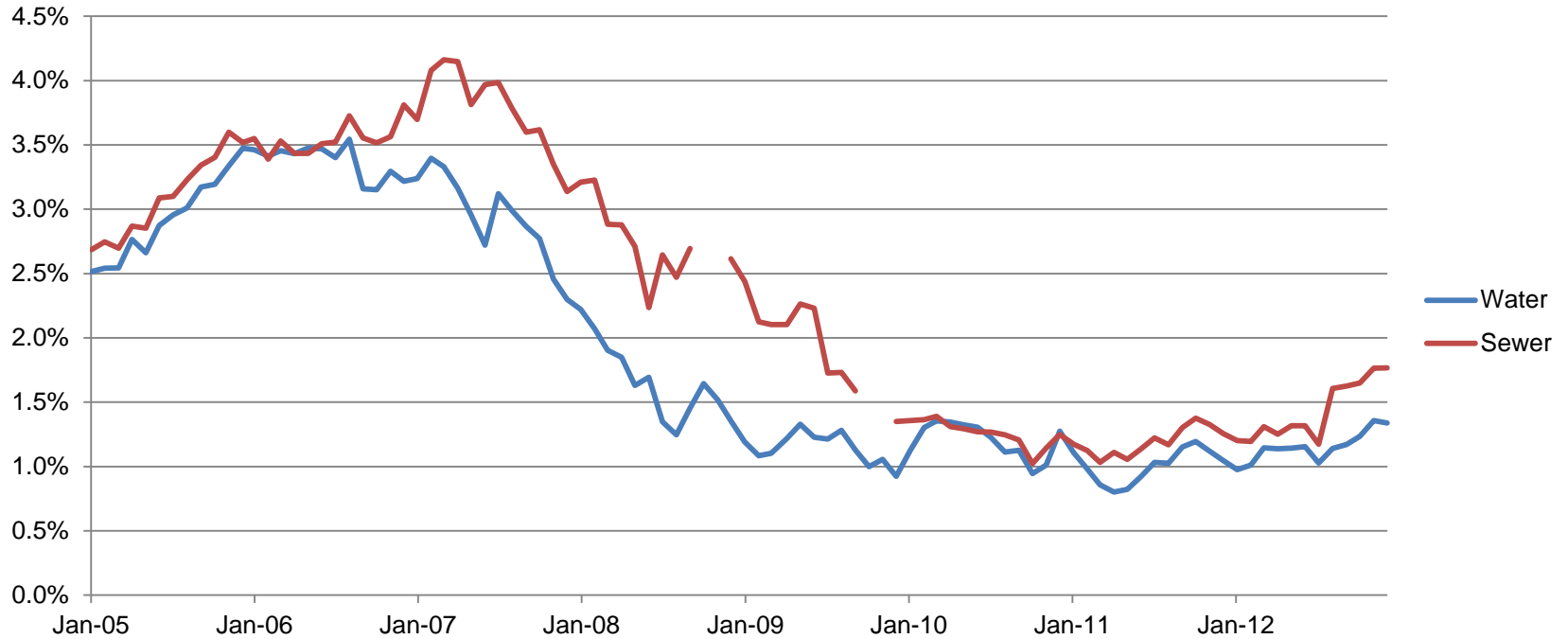


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SAWS Customer Count

SAWS Customer Count Change % Over Previous Year



SAWS Water Customers by Year

Year	Customers	Customer % Change
1991	242,340	
1992	245,895	1.47%
1993	253,902	3.26%
1994	260,560	2.62%
1995	264,128	1.37%
1996	268,905	1.81%
1997	273,276	1.63%
1998	279,209	2.17%
1999	285,887	2.39%
2000	292,424	2.29%
2001	297,632	1.78%
2002	300,854	1.08%
2003	306,363	1.83%
2004	315,000	2.82%
2005	325,944	3.47%
2006	336,434	3.22%
2007	344,168	2.30%
2008	348,834	1.36%
2009	352,059	0.92%
2010	356,546	1.27%
2011	360,281	1.05%
2012	365,214	1.37%

Average change = 1.98%

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