



Land Use Assumptions Plan 2011- 2020

June 30, 2010

CIAC

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Overview

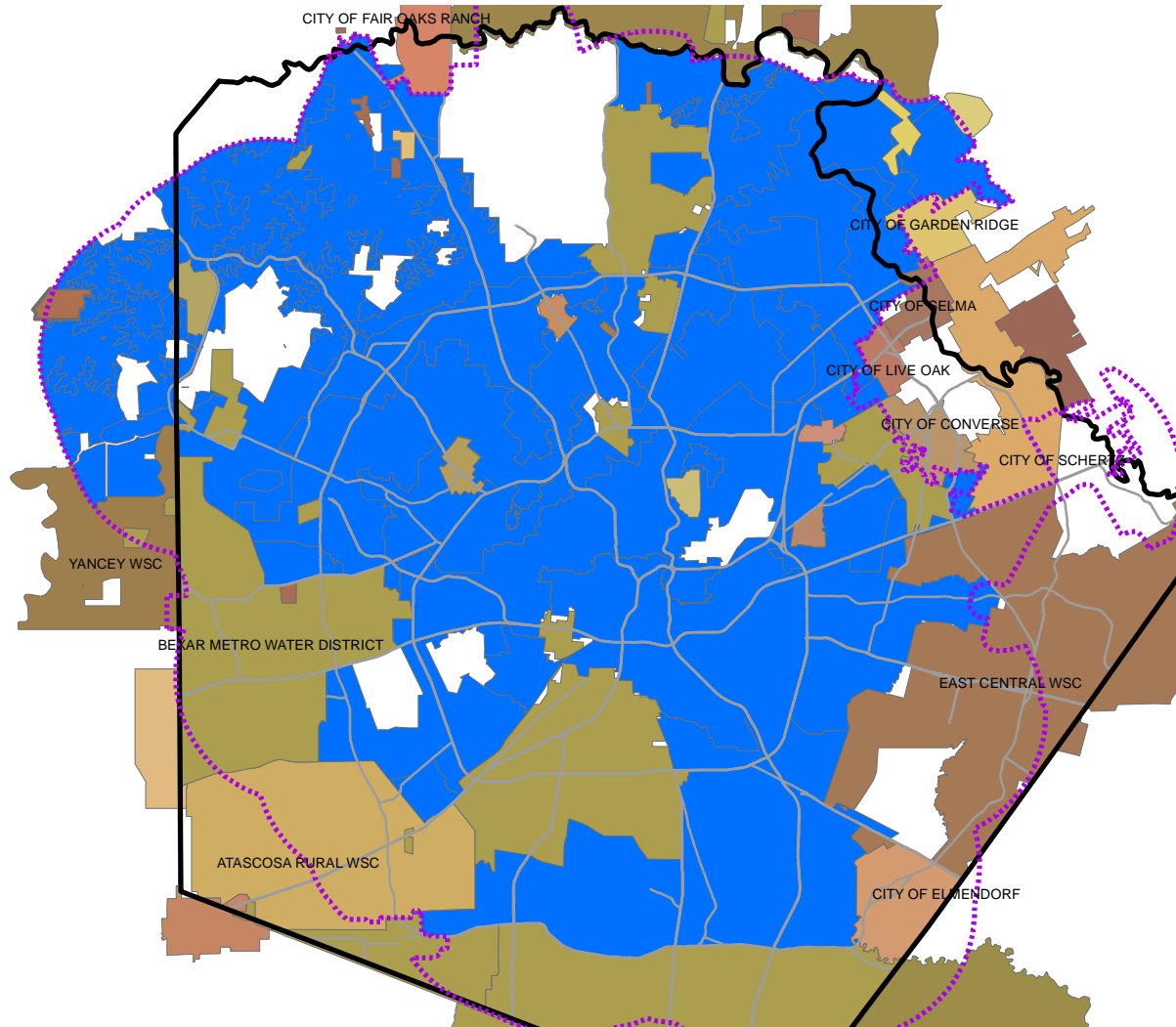
- Background information
- Demographics
- Projections process
- LUAP

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Area Water Purveyors

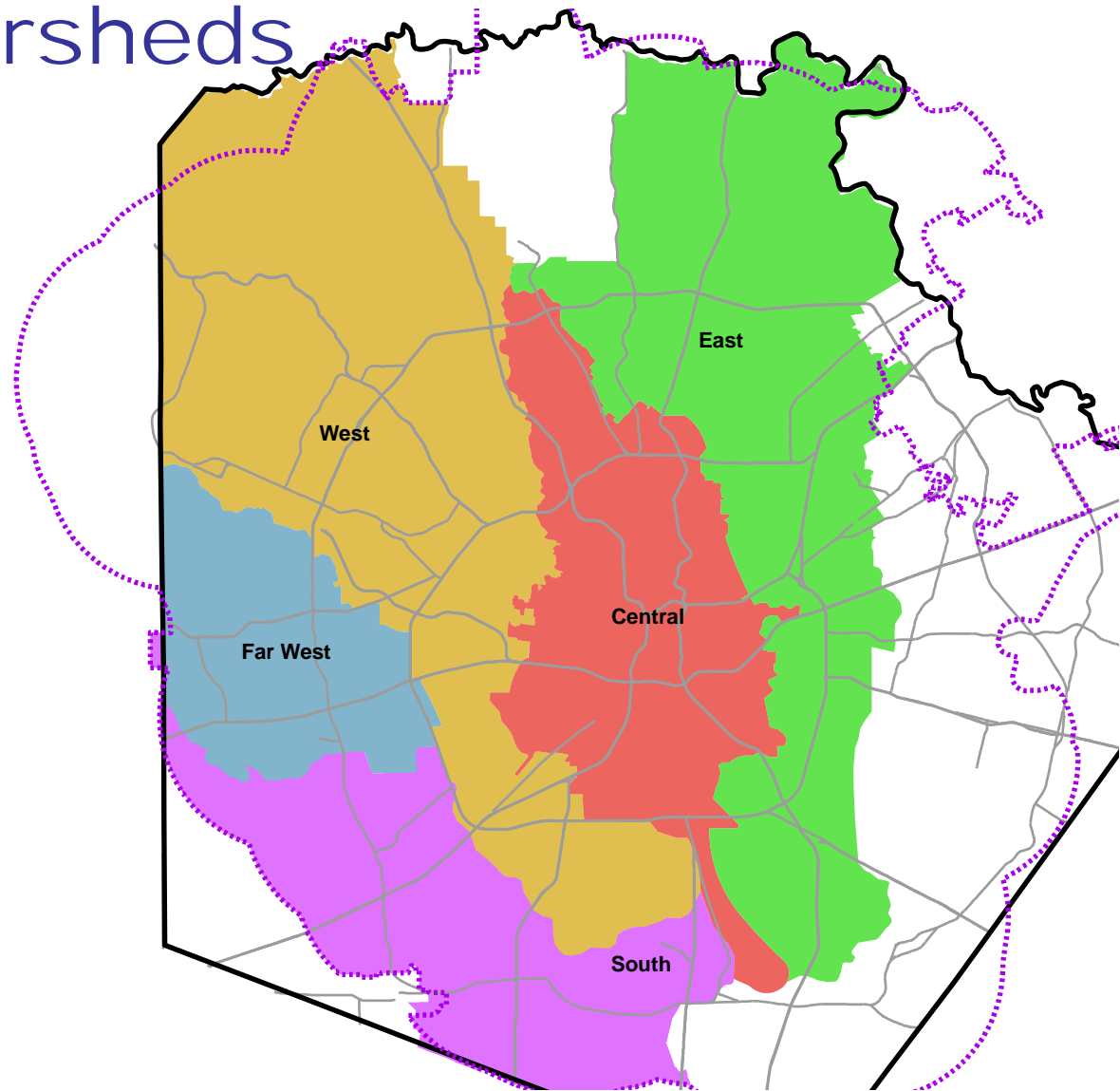


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SAWS Sewersheds



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Acronyms

- LUAP- Land Use Assumptions Plan
- EDU- Equivalent Dwelling Unit
- GPCD- Gallons per Capita per Day
- TAZ- Transportation Analysis Zone
- GIS- Geographic Information System
- WRC- Water Recycling Center
- USA – Utility Service Agreement
- Complete list with handout

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Demographics

- Databases developed & analyzed by SAWS
 - Population & persons per household
 - Connections (size and type)
 - Consumption & flush
 - Land use (existing & future)
 - Septic tanks & private wells
 - Employees & apartment units
- Demographic support to following departments:
 - Water Resources, Finance, Engineering
 - Customer Service, Contracts, Conservation
 - Public Affairs, Legal, Education

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Demographics Project & Plans

- Water & Wastewater Master Plans (inputs to modeling)
- SAWS 50 Year Water Management Plan
- CCN applications, loan applications, surveys
- Gallons per capita per day
- Small area demand analyses for infrastructure analysis
- Budget forecasts & rate change analyses
- Lost revenue analyses
- Resource for AACOG, CoSA, SDC, TWDB, universities
- Land Use Assumptions Plan (LUAP)

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Projections Process

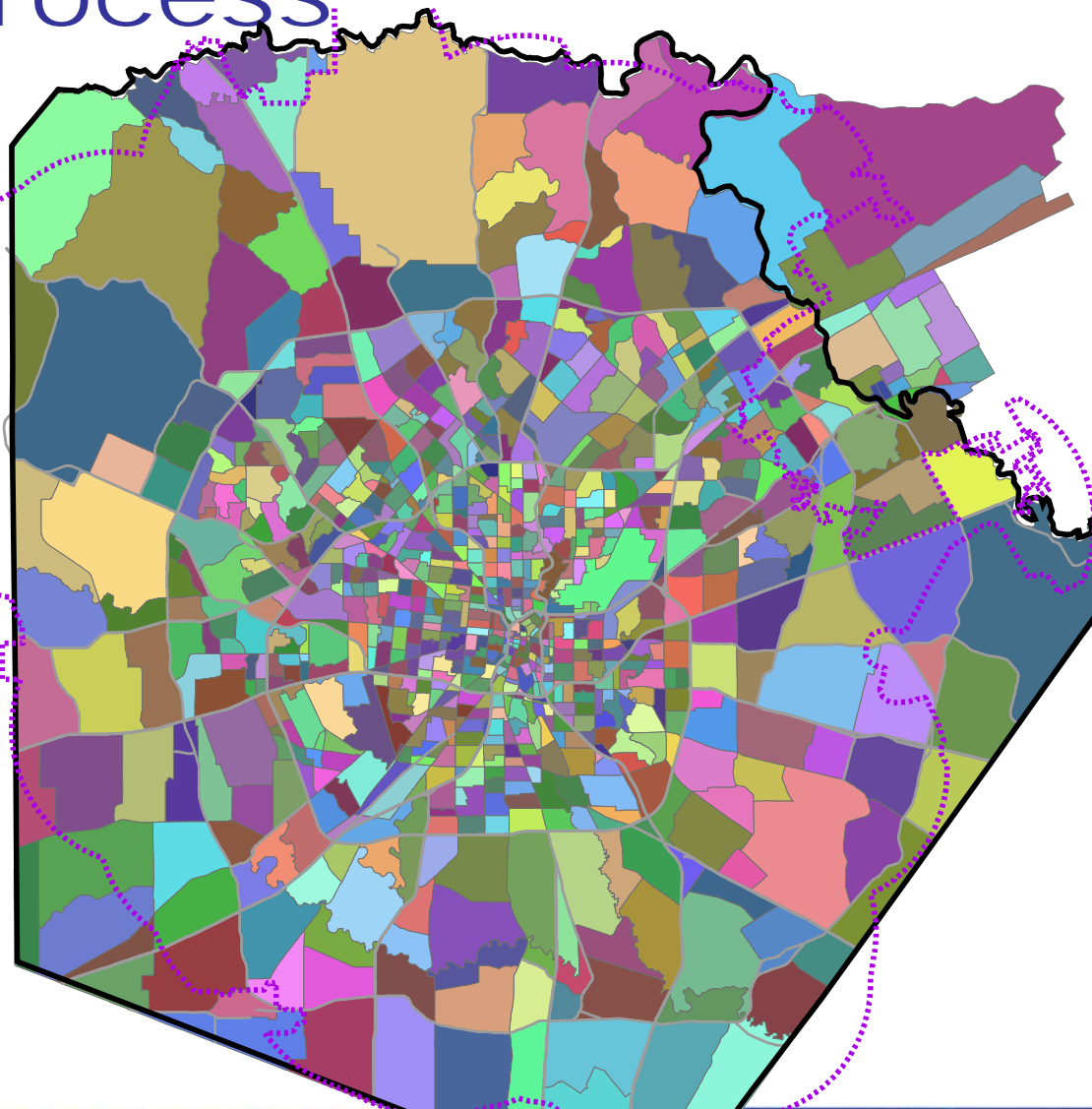
- County Estimates
 - Based on annual updates to 2000 Census
 - Source is State Data Center
- County Projections
 - Based on migration scenario

Projections Process Allocations within County

- Transportation/Land Use model
 - by AACOG
 - 900 analysis zones
 - Review & approval by Metropolitan Planning Organization
- Coordination with local sources
 - USAs, MDPs
 - CoSA, County, MPO, CPS-Energy, TxDOT

Projection Process

900 TAZes
in
MPO Study
Area



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Projections Process

Parcel based land use in GIS

Land Use - Classification



- Commercial
- Government
- Group Quarter
- Industrial
- Non Residential
- Residential
- Developable
- Nondevelopable

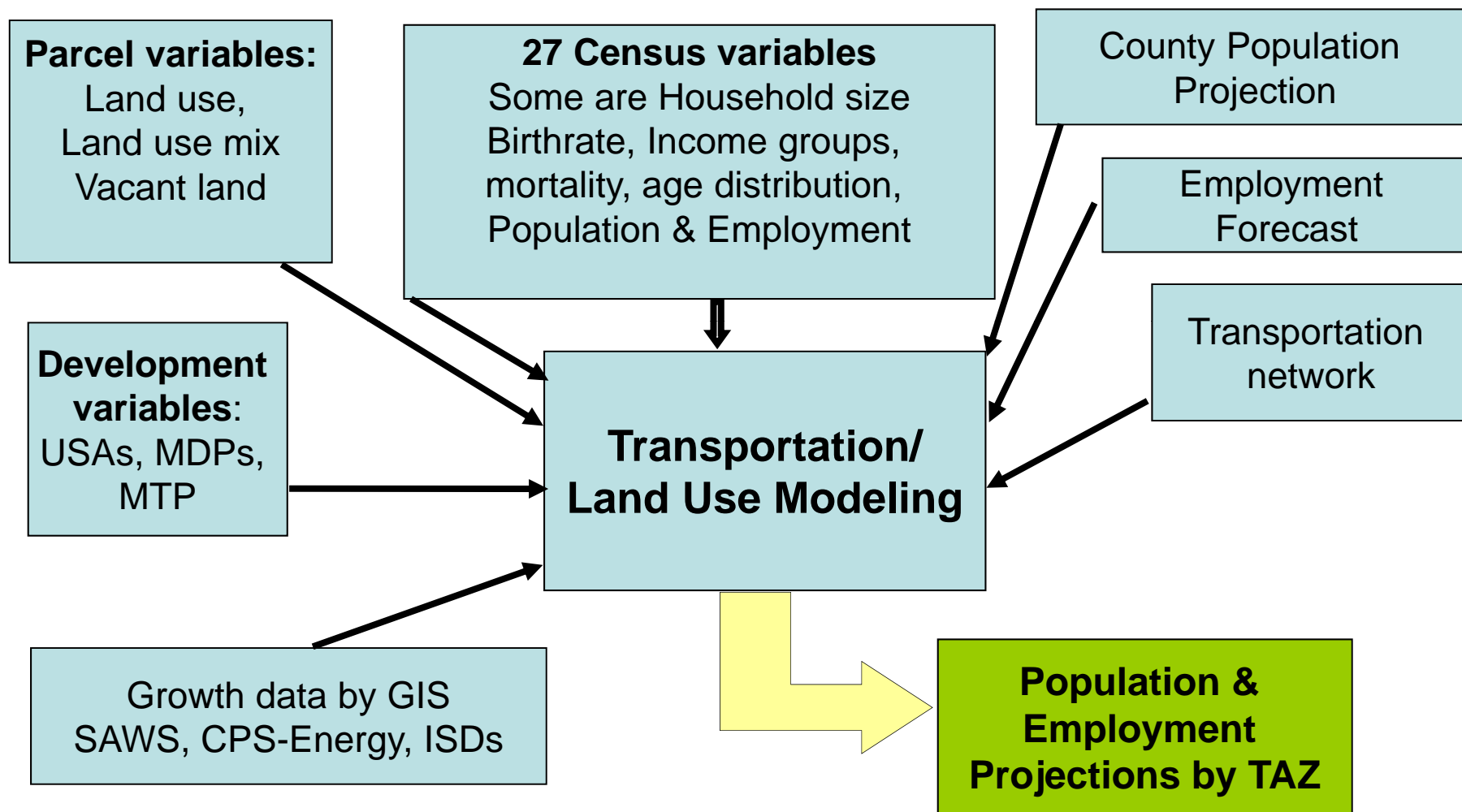


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Projections Process



LUAP Basics

- Demand is indicated by converting population to EDUs.
- LUAP shows the area intended for utility service
- Shows the change in demand for that area for a 10 year period
- EDU represents equivalent average use from a house
- EDU calculation includes meters, sizes & apartment units

LUAP EDU Calculation

EDU estimate

1	2	3	4	5	6	7	8
	Active Meter	Apartment	(2 - 3)	Non-apartments	(4 * 5)	Apartment Units	(6 + 7)
<u>Meter Size</u>	<u>Count</u>	<u>Master Meters</u>	<u>Meters</u>	<u>EDU/Meter Size</u>	<u>EDU</u>		
5/8	305,229	1,430	303,799	1	303,799		
3/4	21,918	161	21,757	1.5	32,636		
1	10,052	512	9,540	2	19,080	90% occupancy	
1 1/2	5,775	368	5,407	5	27,035	134,723	
2	3,938	518	3,420	14	47,880		
3	834	195	639	30	19,170		
4	635	178	457	50	22,850		
6	346	162	184	105	19,320		
8	108	40	68	135	9,180		
10	25	7	18	190	3,420	1/2 units	
					504,370	67,361	571,731

2008 population 1,311,764

Population/ EDU = 2.29

EDU to population factor: 2.29

LUAP EDU Calculation

Wastewater

1	2	3	4	5	6	7	8	9
			(Totals(2 - 3))* 4 %'s			(5 * 6)		(7 + 8)
	Active Meter	Apartment	Non-apartments				Apartment Units	
Meter Size	Count	Master Meters	Percent by Size	Meters	EDU/Meter Size	EDUs	149,692	
5/8			87.98%	344,395	1	344,395	BxMet apt estimate	
3/4			6.30%	24,664	1.5	36,996	11,760	
1			2.76%	10,815	2	21,630		
1 1/2			1.57%	6,130	5	30,648	Sum	
2			0.99%	3,877	14	54,278	161,452	
3			0.19%	724	30	21,732		
4			0.13%	518	50	25,903	90% occupancy	
6			0.05%	209	105	21,902	145,307	
8			0.02%	77	135	10,407		
10			0.01%	20	190	3,877	1/2 units	
Total	395,227	3,798		391,429		571,767	72,653	644,420
<i>*Percent sizes of sewer services assumed to equal percent for water services</i>								
2008 population 1,505,859			Population/ EDU = 2.34					

EDU to population factor: 2.34

LUAP

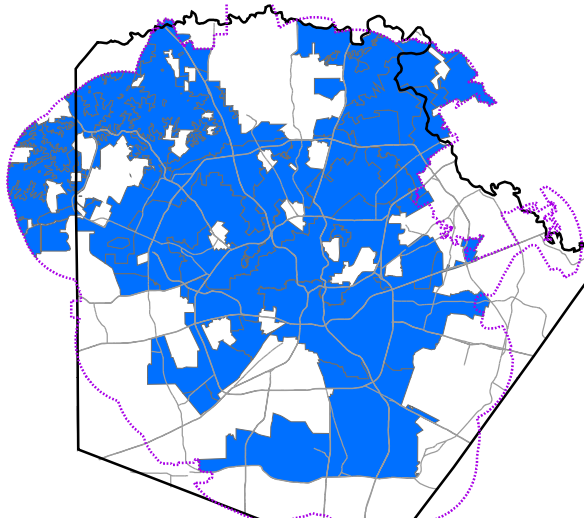
- Five Impact Fees & Different Areas
- Water
 - Supply
 - System Development (production, transmission)
 - Flow (distribution)
- Wastewater
 - Treatment (WRC related)
 - Collection

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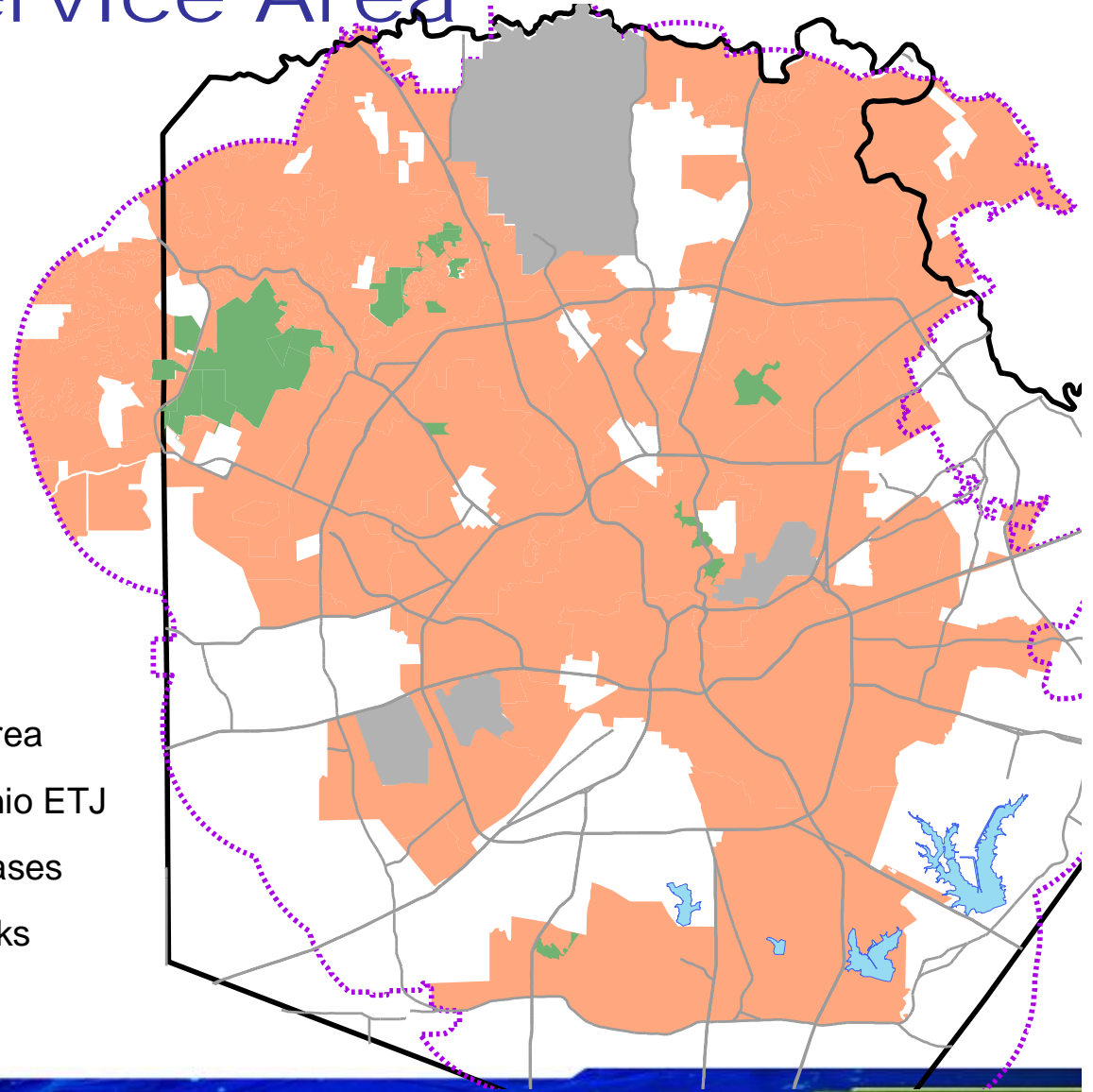


Water Supply Service Area



Existing

-  Service Area
-  San Antonio ETJ
-  Military Bases
-  Major Parks



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Water Supply EDU Change

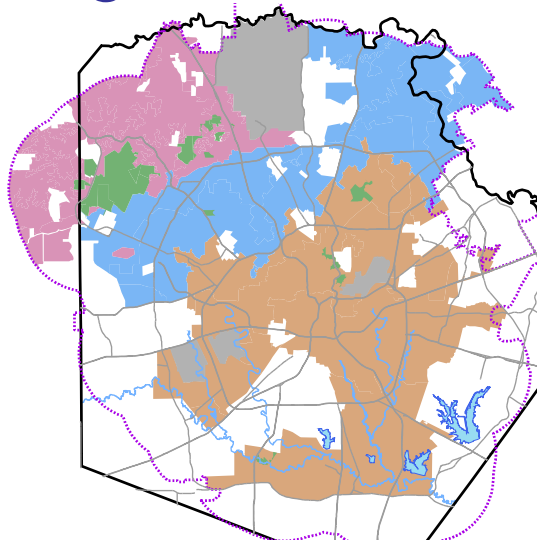
Population	2011	2020	Change
	1,346,965	1,531,302	184,337

EDU	2011	2020	Change
	587,073	667,416	80,343

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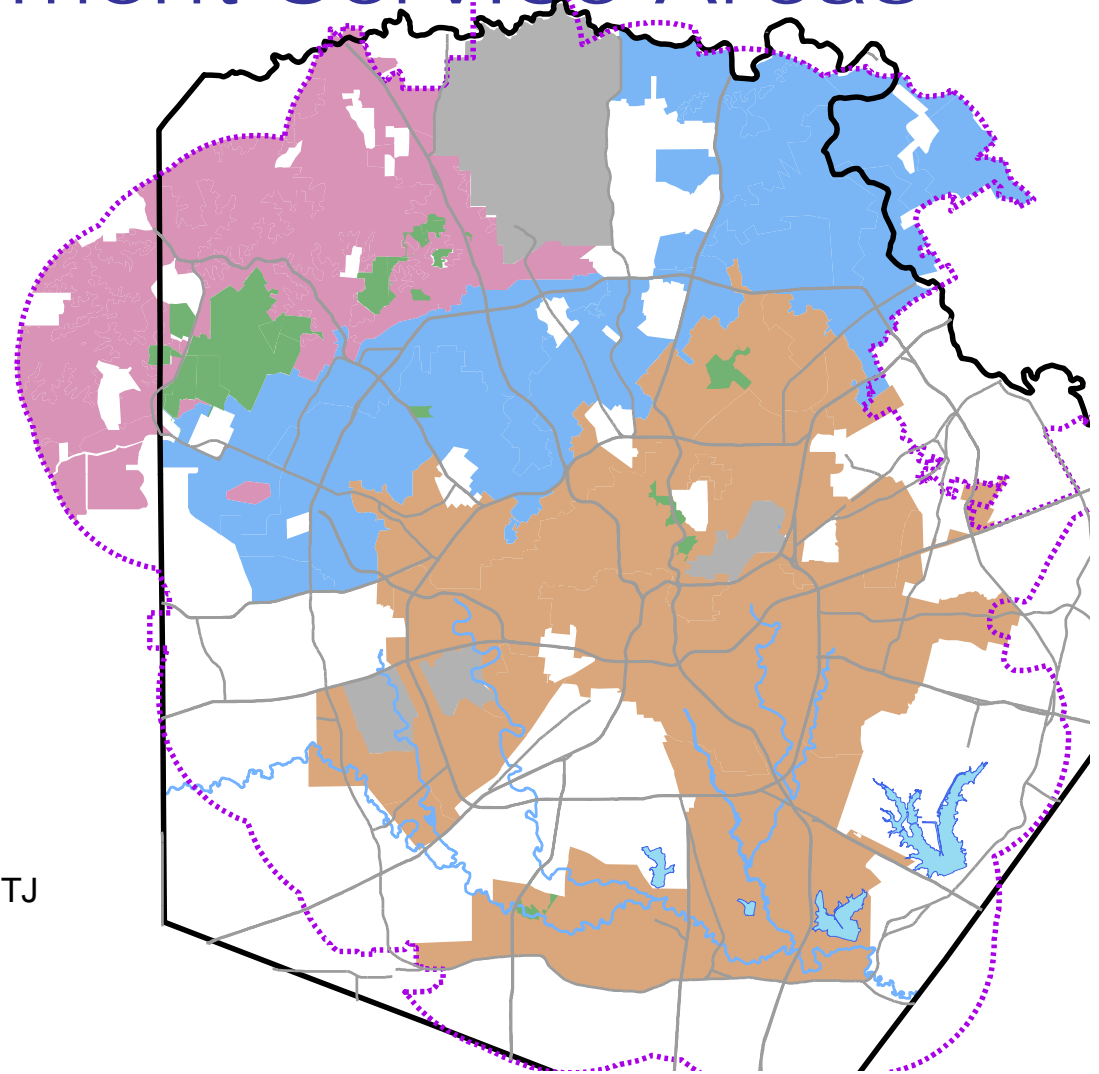
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System Development Service Areas



Existing

- High
- Middle
- Low
- San Antonio ETJ
- Military Bases
- Major Parks



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System Development EDU Change

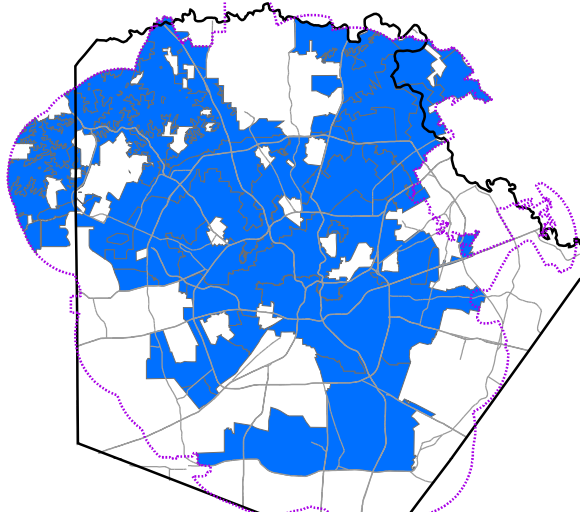
Service Area	2011	2020	Change
High	17,872	36,690	18,819
Middle	218,003	259,504	41,501
Low	351,198	371,222	20,023

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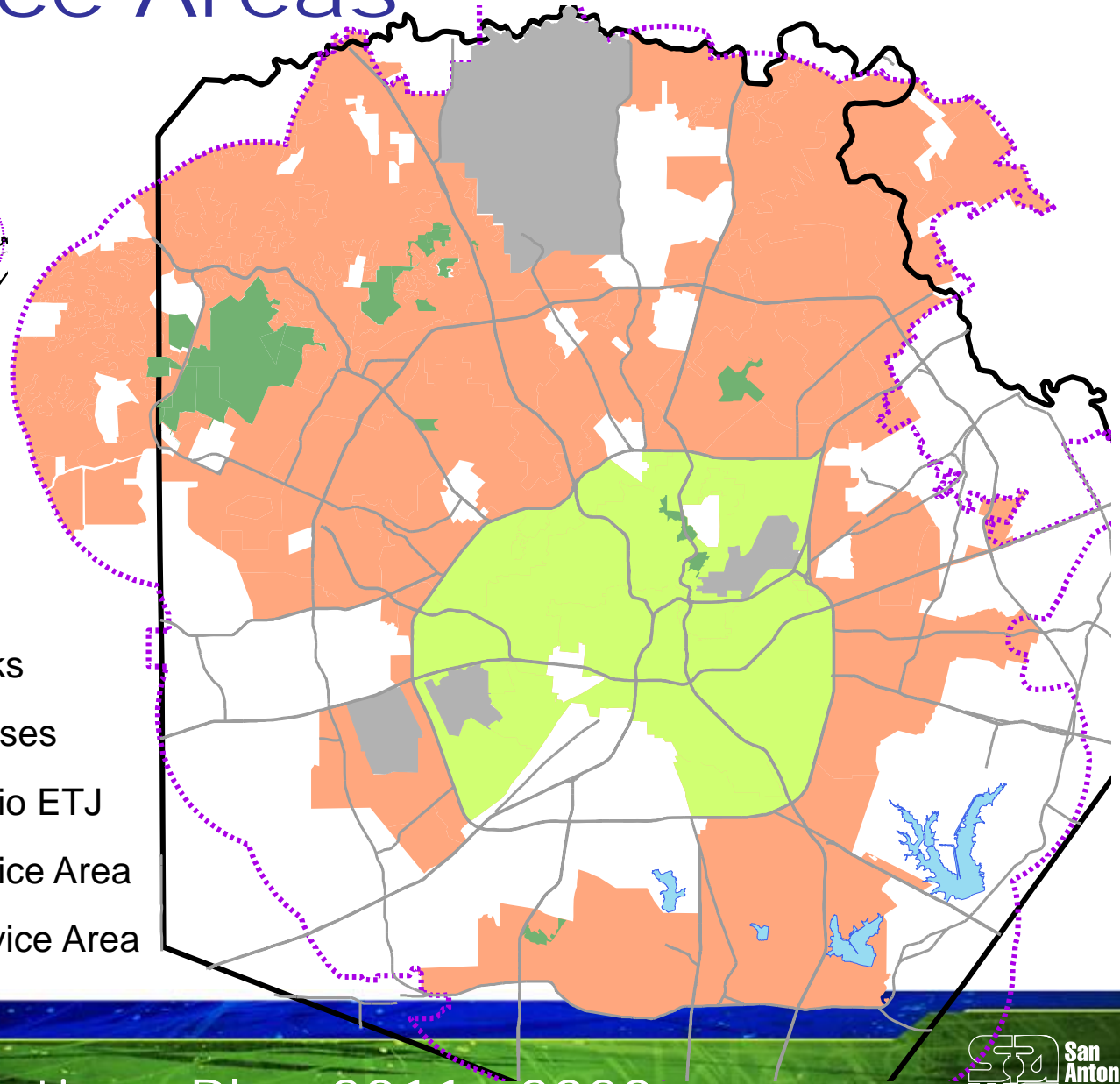


Flow Service Areas



Existing

-  Major Parks
-  Military Bases
-  San Antonio ETJ
-  Inner Service Area
-  Outer Service Area



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Water Flow EDU Change

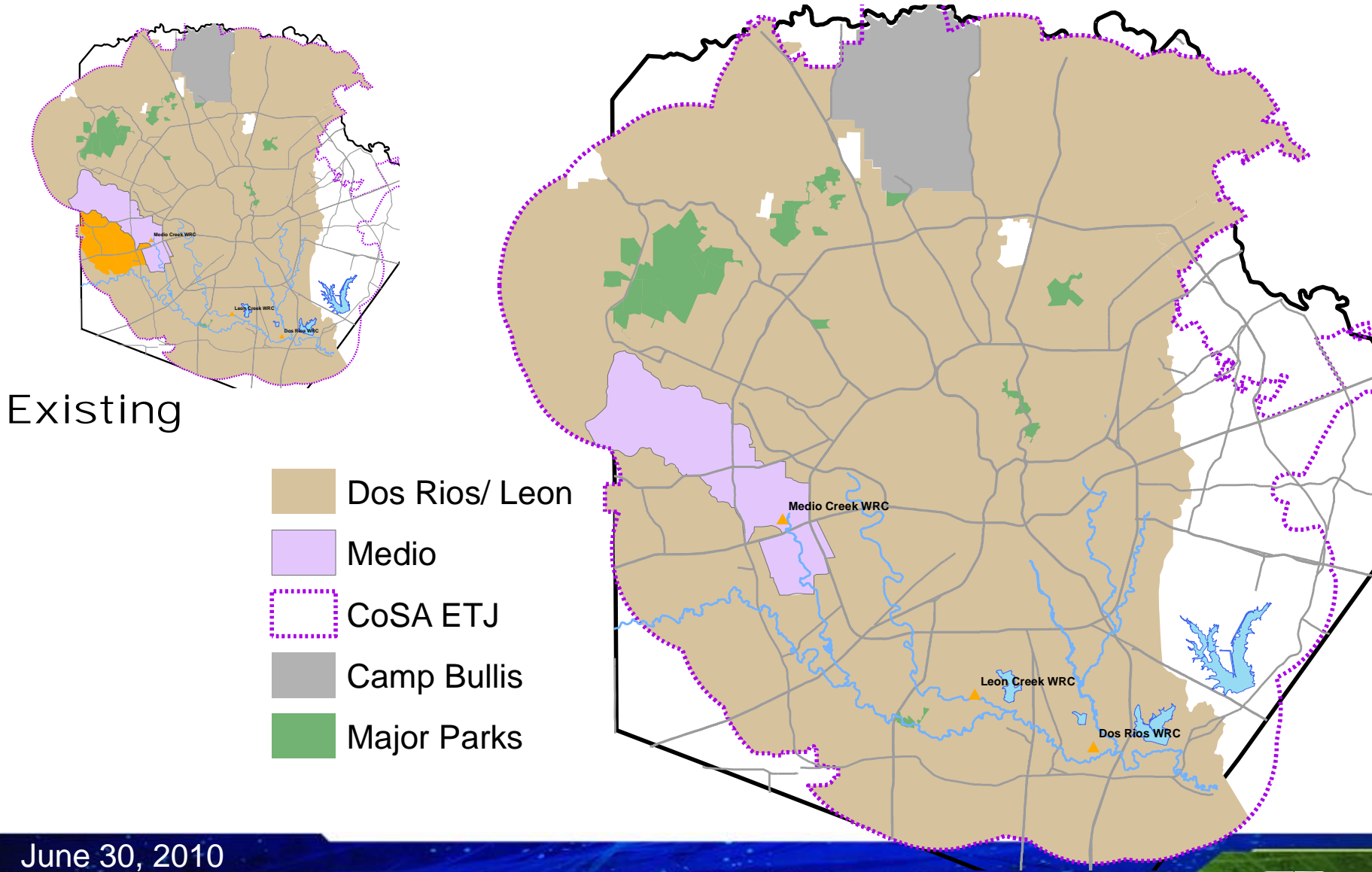
Service Area	2011	2020	Change
Inner	245,344	251,767	6,423
Outer	341,729	415,649	73,920

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Wastewater Treatment Service Areas



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Wastewater Treatment EDU Change

Population	2011	2020	Change
Dos Rios/Leon	1,567,369	1,777,596	210,227
Medio	78,393	118,720	40,328

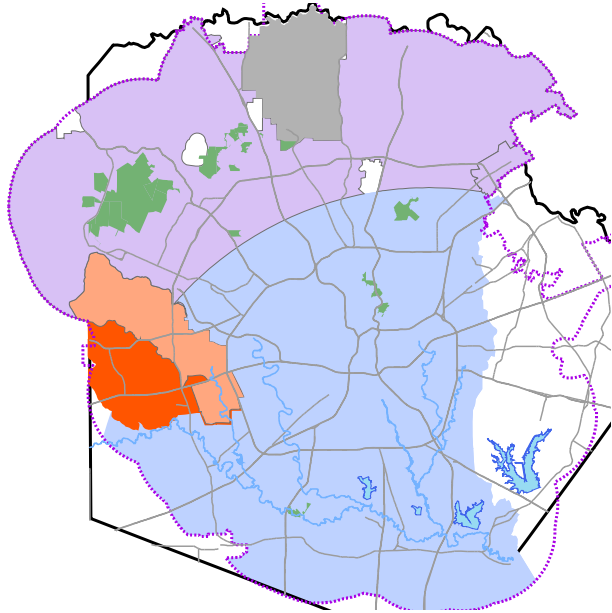
EDU	2011	2020	Change
Dos Rios/Leon	669,816	759,656	89,841
Medio	33,501	50,735	17,234
Total	703,317	810,391	107,075

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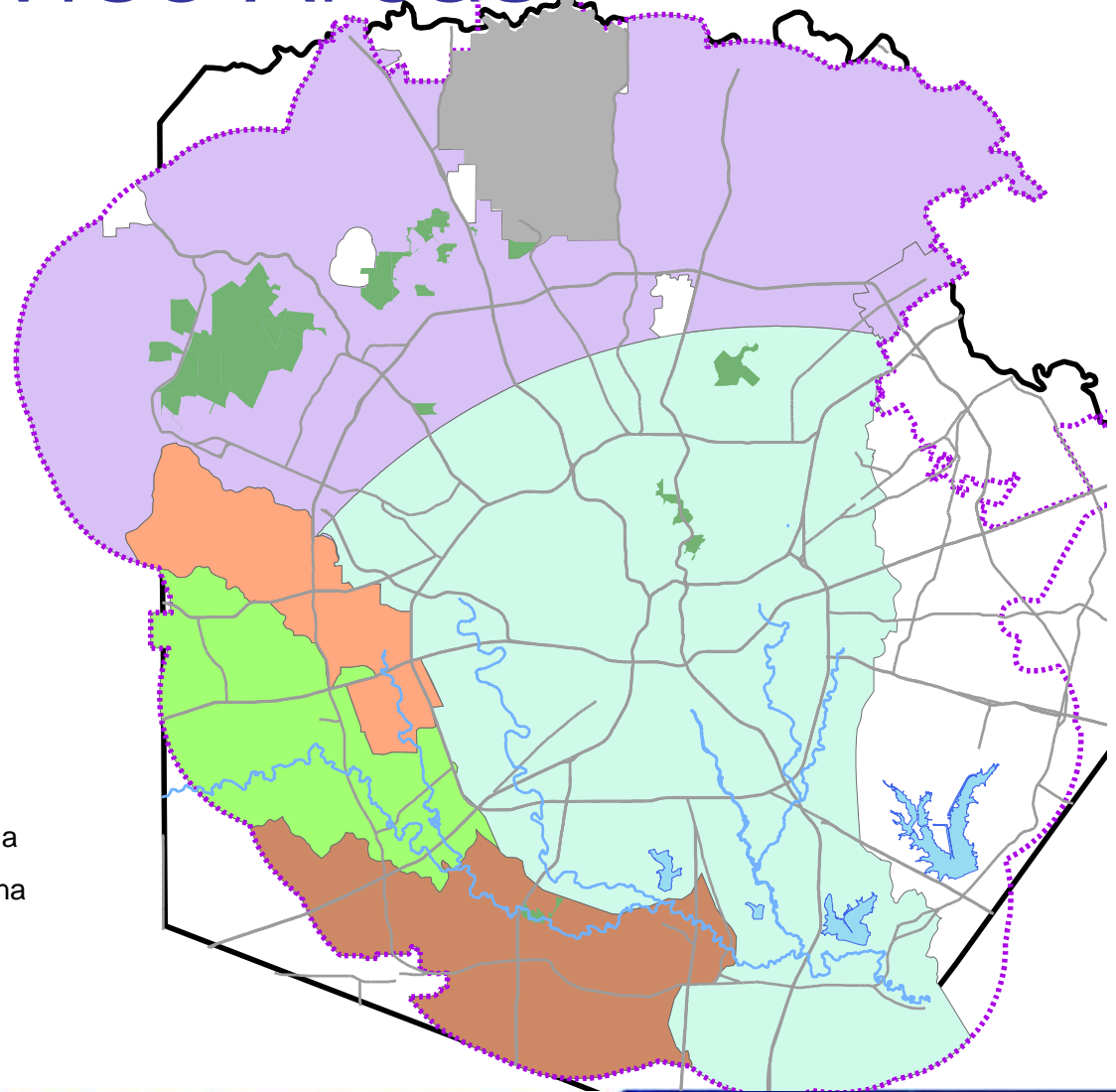


Collection Service Areas



Existing

- Upper
- Lower
- Medio
- Upper Medina
- Lower Medina
- CoSA ETJ
- Camp Bullis
- Major Parks



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Wastewater Collection EDU Change

Service Area	2011	2020	Change
Upper	149,279	200,006	50,726
Lower	505,505	528,678	23,173
Medio	33,501	50,735	17,234
Upper Medina	12,436	26,660	14,224
Lower Medina	2,596	4,317	1,721

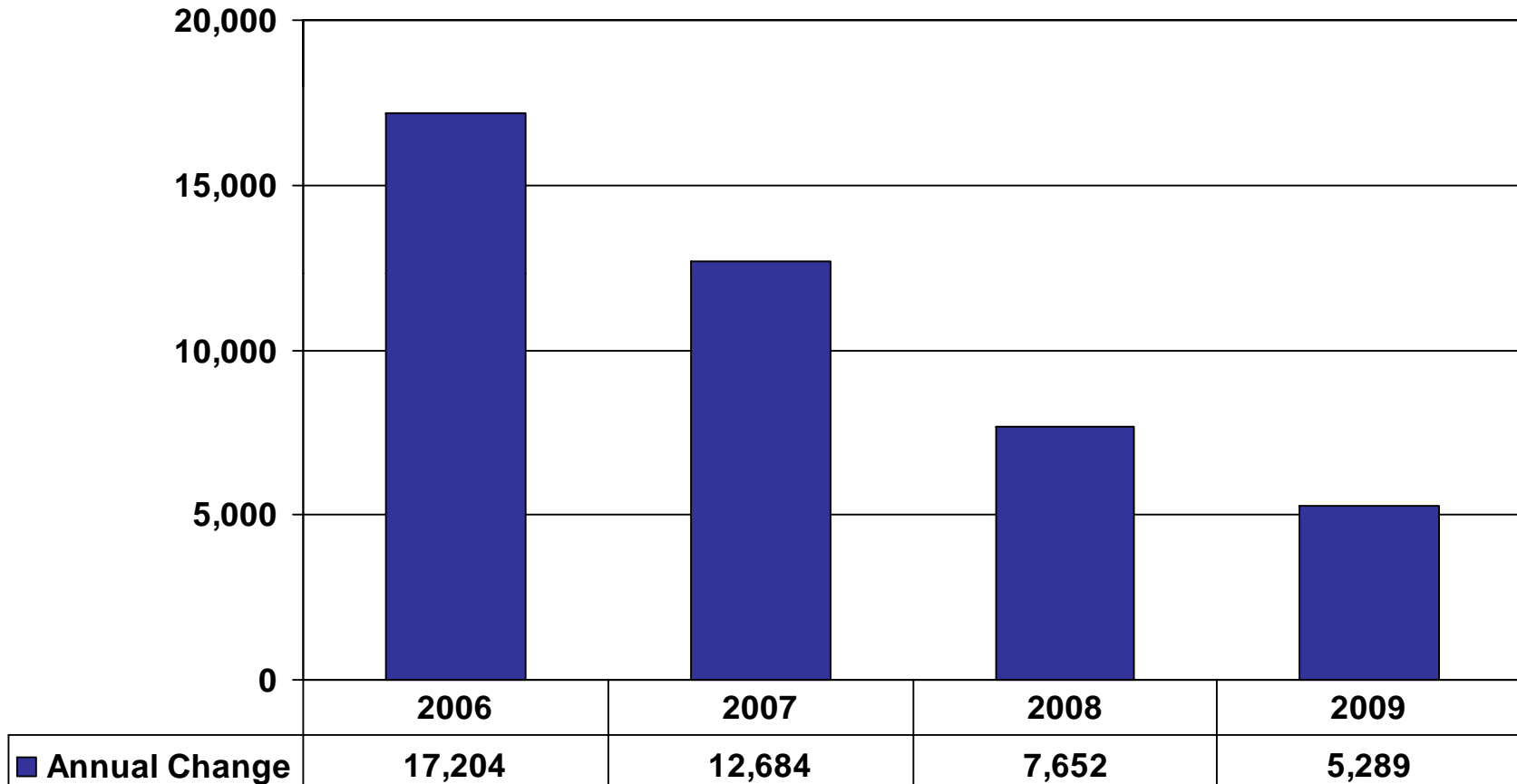
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Historical EDU Change

2006 LUAP Projection 10,000/yr Actual 10,500/yr

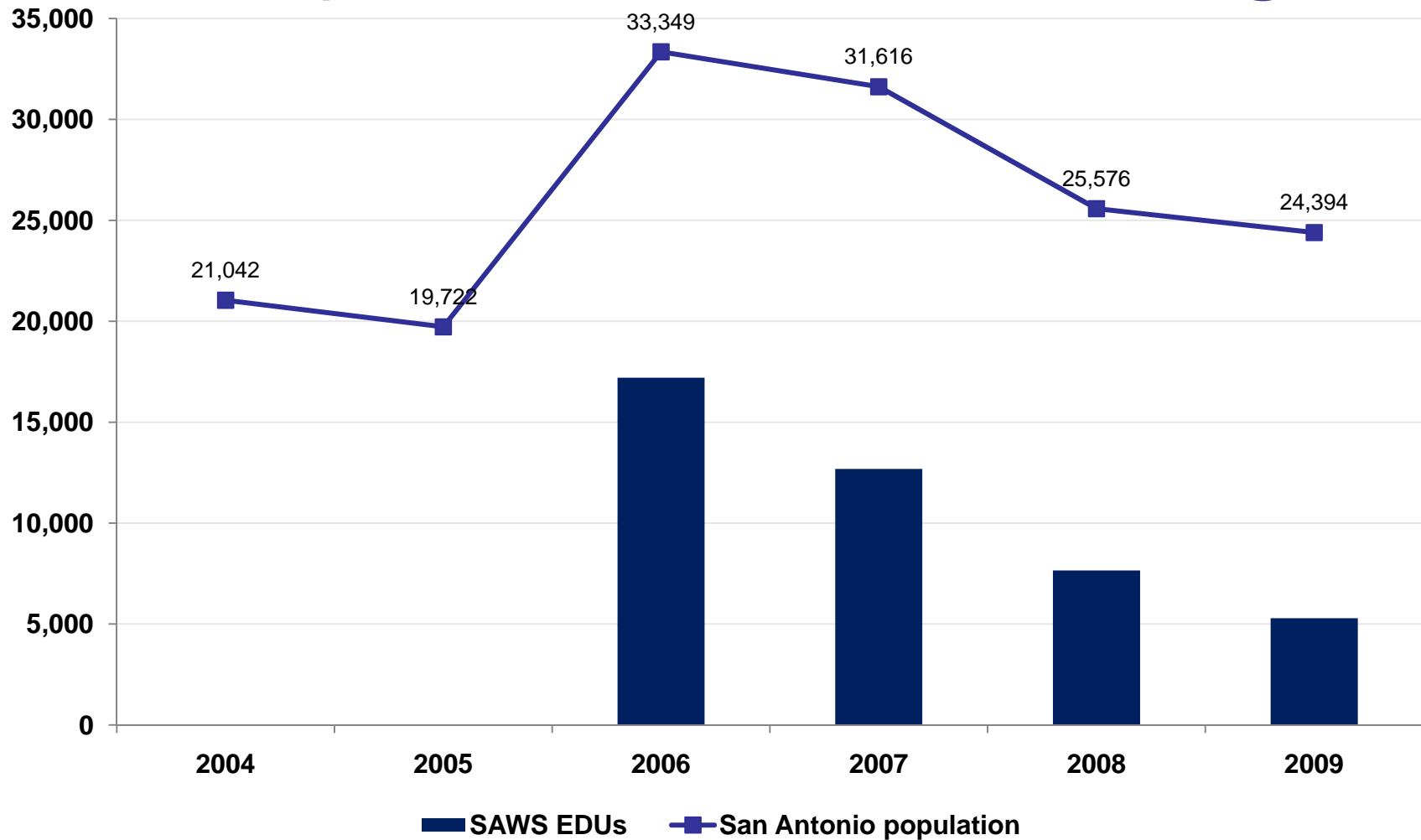


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Past Population & EDU Change



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LUAP

Hearing & Briefing Process

- CIAC concurs with SAWS staff recommendations
- SAWS Board of Trustees recommends LUAP, CIAC and impact fees
- San Antonio City Council approves LUAP, CIAC and impact fees

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