



Land Use Assumptions, Infrastructure Improvements Plan, and Development Fees

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City of San Luis, Arizona

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EXECUTIVE SUMMARY

The City of San Luis hired TischlerBise to document land use assumptions, prepare an Infrastructure Improvements Plan (IIP), and update development fees pursuant to Arizona Revised Statutes 9-436.05. Municipalities in Arizona may assess development fees to offset infrastructure costs to a municipality for necessary public services. The development fees must be based on an Infrastructure Improvements Plan and Land Use Assumptions. The IIP for each type of infrastructure is in the middle section of this document and the Land Use Assumptions may be found in Appendix C. The proposed development fees are displayed in Figure 3.

Development fees are one-time payments used to construct system improvements needed to accommodate new development. The fee represents future development's proportionate share of infrastructure costs. Development fees may be used for infrastructure improvements or debt service for growth related infrastructure. In contrast to general taxes, development fees may not be used for operations, maintenance, replacement, or correcting existing deficiencies.

This update of the City's Infrastructure Improvements Plan and associated update to its development fees includes the following necessary public services:

- General Government Facilities
- Parks and Recreational Facilities
- Public Safety Facilities (Police and Fire)
- Street Facilities
- Wastewater Facilities

This plan also includes all necessary elements required to be in full compliance with SB 1525.

ARIZONA DEVELOPMENT FEE ENABLING LEGISLATION

Arizona Revised Statutes 9-463.05 (hereafter referred to as "development fee enabling legislation") governs how development fees are calculated for municipalities in Arizona. During the state legislative session of 2011, Senate Bill 1525 (SB 1525) was introduced which significantly amended the development fee enabling legislation. The changes included:

- Amending existing development fee programs by January 1, 2012.
- Abandoning existing development fee programs by August 1, 2014.
- New development fee program structure revolving around a unified Land Use Assumptions document and Infrastructure Improvements Plan.
- New adoption procedures for the Land Use Assumptions, Infrastructure Improvements Plan, and development fees.
- New definitions, including "necessary public services" which defines what categories and types of infrastructure may be funded with development fees.
- Time limitations in development fee collections and expenditures.
- New requirements for credits, "grandfathering" rules, and refunds.

Necessary Public Services

Under the new requirements of the development fee enabling legislation, development fees may be only used for construction, acquisition or expansion of public facilities that are necessary public services. "Necessary public service" means any of the following categories of facilities that have a life expectancy of three or more years and that are owned and operated on behalf of the municipality: water, wastewater, storm water, drainage, flood control, library, streets, fire and police, and neighborhood parks and recreation. Additionally, a necessary public service includes any facility that was financed before June 1, 2011 and that meets the following requirements:

1. Development fees were pledged to repay debt service obligations related to the construction of the facility.
2. After August 1, 2014, any development fees collected are used solely for the payment of principal and interest on the portion of the bonds, notes, or other debt service obligations issued before June 1, 2011 to finance construction of the facility.

As of January 1, 2012, the City will no longer be able to assess development fees for Government Administration.

Infrastructure Improvements Plan

Development fees must be calculated pursuant to an Infrastructure Improvements Plan (hereafter referred to as the "IIP"). For each necessary public service that is the subject of a development fee, by law, the infrastructure improvements plan shall include the following seven elements:

- A description of the existing necessary public services in the service area and the cost to update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental or regulatory standards, which shall be prepared by qualified professionals licensed on this state, as applicable.
- An analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services, which shall be prepared by qualified professionals licensed in this state, as applicable.
- A description of all or the parts of the necessary public services or facility expansion and their costs necessitated by and attributable to development in the service area based on the approved Land Use Assumptions, including a forecast of the costs of infrastructure, improvements, real property, financing, engineering and architectural services, which shall be prepared by qualified professionals licensed in the state, as applicable.
- A table establishing the specific level or quantity of use, consumption, generation or discharge of a service unit for each category of necessary public services or facility expansions and an equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial.
- The total number of projected service units necessitated by and attributable to new development in the service area based on the approved Land Use Assumptions and calculated pursuant to generally accepted engineering and planning criteria.
- The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years.
- A forecast of revenues generated by new service units other than development fees, which shall include estimated state-shared revenue, highway users revenue, federal revenue, ad valorem property taxes, construction contracting or similar excise taxes and the capital recovery portion

of utility fees attributable to development based on the approved Land Use Assumptions and a plan to include these contributions in determining the extent of the burden imposed by the development.

Qualified Professionals

Qualified professionals developed the IIP for San Luis using generally accepted engineering and planning practices. A qualified professional is defined as “a professional engineer, surveyor, financial analyst or planner providing services within the scope of the person’s license, education, or experience.” TischlerBise is a fiscal, economic, and planning consulting firm specializing in the cost of growth services. Our services include development fees, fiscal impact analysis, infrastructure plans, user fee and cost of service studies, capital improvement plans, and fiscal software. TischlerBise has prepared over 800 development fee studies over the past 30 years for local governments across the United States.

Conceptual Development Fee Calculation

In contrast to project-level improvements, development fees fund growth-related infrastructure that will benefit multiple development projects, or the entire service area (usually referred to as system improvements). The first step is to determine an appropriate demand indicator for the particular type of infrastructure. The demand indicator measures the number of service units for each unit of development. For example, an appropriate indicator of the demand for parks is population growth and the increase in population can be estimated from the average number of persons per housing unit. The second step in the development fee formula is to determine infrastructure improvement units per service unit, typically called level of service (LOS) standards. In keeping with the park example, a common LOS standard is improved park acres per thousand people. The third step in the development fee formula is the cost of various infrastructure units. To complete the park example, this part of the formula would establish a cost per acre for land acquisition and/ or park improvements.

Evaluation of Credits

Regardless of the methodology, a consideration of “credits” is integral to the development of a legally defensible development fee. There are two types of “credits” that should be addressed in development fee studies and ordinances. The first is a revenue credit due to possible double payment situations, which could occur when other revenues may contribute to the capital costs of infrastructure covered by the development fee. This type of credit is integrated into the fee calculation, thus reducing the fee amount. The second is a site-specific credit or developer reimbursement for dedication of land or construction of system improvements. This type of credit is addressed in the administration and implementation of the development fee program. For ease of administration, TischlerBise normally recommends developer reimbursements for system improvements.

CURRENT DEVELOPMENT FEES

As shown in Figure 1, the current development fee schedule in San Luis has one fee for residential development and one fee for nonresidential development, called “Retail/ Commercial.” The bottom section of the table below indicates the grand total fee for a single residential unit, assuming the smallest-size water meter.

Figure 1 - Current Development Fees in San Luis

Current Non-Utility Development Fees					
Land Use	City Hall	Parks	Public Safety	Streets	Total
<i>Residential (per Housing Unit)</i>					
Single Unit	\$258	\$705	\$387	\$0	\$1,350
2+ Units	\$258	\$705	\$387	\$0	\$1,350
<i>Nonresidential (per 1000 sq ft of floor area)</i>					
Industrial	\$269	\$88	\$149	\$0	\$506
Commercial	\$269	\$88	\$149	\$0	\$506
Institutional	\$269	\$88	\$149	\$0	\$506
Office & Other Services	\$269	\$88	\$149	\$0	\$506

Current Utility Development Fees			
Per Meter	Water	Wastewater	Total
0.75	\$760	\$715	\$1,475
1.00	\$1,899	\$1,787	\$3,686
1.50	\$3,798	\$3,573	\$7,371
2.00	\$6,077	\$5,717	\$11,794

Single Residential Total	
Non-Utility	\$1,350
Utility	\$1,475
Grand Total	\$2,825

DEVELOPMENT FEE METHODOLOGIES

Development fees for the necessary public services made necessary by new development must be based on the same level of service provided to existing development in the service area. There are three basic methodologies used to calculate development fees. They examine the past, present, and future status of infrastructure. The objective of evaluating these different methodologies is to determine the best measure of the demand created by new development for additional infrastructure capacity.

- **Cost recovery (past)** is used in instances when a community has oversized a facility or asset in anticipation of future development. This methodology is based on the rationale that new development is repaying the community for its share of the remaining unused capacity.
- **Incremental expansion method (present)** documents the current level of service for each type of public facility. The intent is to use revenue collected to expand or provide additional facilities, as needed to accommodate new development, based on the current cost to provide capital improvements.
- **Plan-based method (future)** utilizes a community’s capital improvement plan and/or other adopted plans or engineering studies to guide capital improvements needed to serve new development.

Figure 2 summarizes the methods and cost components for each type of infrastructure included in San Luis’s IIP and development fee update. When cost recovery is combined with other methods, infrastructure and growth-related debt service is not counted in existing levels of service.

Figure 2 - Recommended Calculation Methodologies

Type of Fee	Cost Recovery (past)	Incremental Expansion (present)	Plan-Based (future)
1. General Government	City Hall		
2. Parks		Improved Parks	
3. Public Safety	Police Station	Fire Facilities	Vehicles and Equipment
4. Streets			Lane Miles of Arterials
5. Wastewater	Wastewater Treatment Plant		Collection Improvements

PRELIMINARY DEVELOPMENT FEES

Proposed development fees for San Luis are summarized in Figure 3.

Based on policy decisions made by staff since the adoption of the IIP on February 26, 2014, the City of San Luis will suspend collection of the Water Development Fee.

Figure 3 - Proposed Development Fee Schedules

Proposed Non-Utility Development Fees					
Land Use	City Hall	Parks	Public Safety	Streets	Total
Residential (per Housing Unit)					
Single Unit	\$476	\$735	\$908	\$943	\$3,062
2+ Units	\$428	\$662	\$817	\$801	\$2,708
Nonresidential (per 1000 sq ft of floor area)					
Industrial	\$461	\$320	\$340	\$336	\$1,457
Commercial	\$399	\$277	\$1,375	\$1,231	\$3,282
Institutional	\$196	\$136	\$497	\$492	\$1,321
Office & Other Services	\$663	\$461	\$538	\$533	\$2,195

Proposed Utility Development Fees	
Per Meter	Wastewater
0.75	\$1,634
1.00	\$2,721
1.50	\$5,412
2.00	\$8,654

Figure 4 displays proposed development fee for a residential single compared to the current development fee. The wastewater fee assumes a ¾” meter for a residential unit.

Figure 4 - Current and Proposed Total Fees for a Single Unit

Single Residential Total	Proposed	Current	\$ Increase	% Increase
Non-Utility	\$3,062	\$1,350	\$1,712	127%
Utility (Wastewater)	\$1,634	\$1,475	\$159	11%
Grand Total	\$4,696	\$2,825	\$1,871	66%

CITY HALL DEBT SERVICE

ARS 9-463.05 (T)(7)(h) allows “Any facility that was financed and that meets all of the requirements prescribed in subsection R of this section.” Section R states, “A municipality may continue to assess a development fee adopted before January 1, 2012 for any facility that was financed before June 1, 2011 if: 1. Development fees were pledged to repay debt service obligations related to the construction of the facility, and 2. After August 1, 2014, any development fees collected under this subsection are used solely for the payment of principal and interest on the portion of the bonds, notes or other debt service obligations issued before June 1, 2011 to finance construction of the facility.”

San Luis issued bonds to finance its City Hall in 2005 and the fees will be used solely for the payment of principal and interest, which meet the criteria above. Thus, development fees may be collected to pay for the principal and interest of the bonds on City Hall. These facilities were oversized in anticipation of new development. Because general government is not a necessary public service, as defined by Arizona’s enabling legislation, the IIP requirements are not applicable.

Service Area

Because City Hall serves all residents and jobs within San Luis, TischlerBise recommends a citywide service area.

Proportionate Share

The development fee for General Government is calculated on a per capita basis for residential development. For nonresidential development, the fee methodology allocates the capital cost of infrastructure on a per employee basis.

ARS 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to accommodate new development. In San Luis, General Government development fees are based on both residential and nonresidential development. As shown in Figure G1, functional population was used to allocate general government costs to residential and nonresidential development. Functional population is similar to what the U.S. Census Bureau calls “daytime population” by accounting for people living and working in a jurisdiction. Residents that don’t work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages). Residents that work in San Luis are assigned 14 hours to residential development. Inflow commuters are assigned 10 hours to nonresidential development. Based on 2011 functional population data for San Luis, the cost allocation for residential development is 80% while nonresidential development accounts for 20% of the demand for general government infrastructure.

Figure CH1 – Functional Population

	<u>Service Units in 2011</u>	<u>Demand Hours/Day</u>	<u>Person Hours</u>
Residential			
Population*	27,864		
68% Residents Not Working	18,855	20	377,100
32% Resident Workers**	9,009		
15% Worked in City**	1,387	14	19,418
85% Worked Outside City**	7,622	14	106,708
	Residential Subtotal		503,226
	Residential Share =>		80%
Nonresidential			
Non-working Residents	18,855	4	75,420
Jobs Located in City**	5,411		
Residents Working in City**	1,387	10	13,870
Non-Resident Workers (inflow commuters)	4,024	10	40,240
	Nonresidential Subtotal		129,530
	Nonresidential Share =>		20%
	TOTAL		632,756

* 2011 count, U.S. Census Bureau.
 ** Inflow/Outflow Analysis, OnTheMap web application, U.S. Census Bureau data for all jobs.

COST RECOVERY FOR CITY HALL DEBT

ARS 9-463.05(E)(1) requires a description of the existing necessary public services and the costs to upgrade or replace these services to meet existing needs and usage.

In 2005, San Luis issued \$40 million in bonds to fund various public services, with payments continuing until 2038. Including interest, the payments total \$81,245,717. Figure G2 shows a summary of how the funds were allocated. As shown below, \$10,677,520 in principal and interest remains on City Hall.

Figure CH2 – Cost Allocation of Series 2005 Bonds

<i>Facility</i>	<i>Percent of Total</i>	<i>Total Principal and Interest</i>	<i>Remaining Principal and Interest (FY2014)</i>
City Hall	16.8%	\$13,649,280	\$10,677,520
Police Station	13.8%	\$11,211,909	\$8,736,153
Fire Station	8.4%	\$6,824,640	\$5,312,704
Water System and Filtration	29.6%	\$24,048,732	\$18,766,517
Sewer System	31.4%	\$25,511,155	\$19,961,325
Total	100.0%	\$81,245,717	\$63,454,219

Because City Hall was oversized to accommodate future development, development fees will cover the growth-related share of remaining debt. The growth share is based on projected persons and jobs at the end of the bond term. Remaining principal and interest (\$10,677,520) was allocated to residential and nonresidential development based on functional population. The growth share is based on the increase in population and jobs by 2038 (see formulas at the bottom of Figure G3). Residential and nonresidential growth costs were divided by respective increases in persons or jobs, from 2013-2038, to obtain a cost per person of \$122.86 and the cost per job of \$198.67.

Figure CH3- Growth Share of City Hall Debt

<i>Name of Debt Obligation</i>	<i>Year of Debt Obligation</i>	<i>FY of Final Payment</i>	<i>Remaining Principal and Interest</i>
2005 Series Bonds, City Hall Share	2005	2038	\$ 10,677,520

	Proportionate Share	Proportionate Cost	Growth Share¹	Growth Cost	Increase 2013 - 2038	Cost per Service Unit
Residential	80%	\$8,542,016	57%	\$4,878,713	39,709 persons	\$122.86 per person
Nonresidential	20%	\$2,135,504	46%	\$991,274	4,990 jobs	\$198.67 per job
Total (25 Years)		\$10,677,520		\$5,869,987		
10 Year Total²		\$4,271,341		\$1,800,902		

1. Residential Growth Share (57%) is 1 - (29,817 residents in 2013/ 69,526 residents in 2038).

Nonresidential Growth Share (46%) is 1 - (5,760 jobs in 2013/ 10,749 jobs in 2038).

2. 10-Year Total is payments on City Hall for next 10 years. 10-Year Growth Cost Total is cost per service unit multiplied by projected increase in persons and jobs over the next ten years.

PRELIMINARY DEVELOPMENT FEES FOR CITY HALL DEBT

ARS 9-463.05(E)(4) requires a conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial. The version of costs per service unit into a cost per development unit is also shown in the table below. For residential development, San Luis uses year-round persons per housing unit to derive fees by type of housing. For nonresidential development, the necessary conversion is jobs per 1,000 square feet, as documented in the Land Use Assumptions (see Appendix C).

Cost recovery amounts for City Hall debt are summarized in the upper portion of Figure G4. Updated development fees for General Government are shown in green and current fees are shown in yellow.

Figure CH4 - Proposed Fee Schedule for City Hall

Cost Per Person	
Facility Cost Recovery	\$122.86
Professional Services	\$0.65
Net Cost Per Service Unit	\$123.52

Residential Development Fees per Housing Unit

Unit Type	Persons per Housing Unit	Proposed Fee	Current Fee	Increase (Decrease)	% Change
Single Unit	3.86	\$476	\$258	\$218	84%
2+ Units	3.47	\$428	\$258	\$170	66%

Cost Per Job	
Facility Cost Recovery	\$198.67
Professional Services	\$1.18
Net Cost Per Service Unit	\$199.84

Nonresidential Development Fees per Thousand Square Feet of Floor Area

Development Type	Employees per Sq Ft ¹	Proposed Fee	Current Fee	Increase (Decrease)	% Change
Industrial	2.31	\$461	\$269	\$192	71%
Commercial	2.00	\$399	\$269	\$130	48%
Institutional	0.98	\$196	\$269	(\$73)	-27%
Office & Other Services	3.32	\$663	\$269	\$394	146%

1. Trip Generation, Institute of Transportation Engineers, 9th Edition (2012).

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona’s enabling legislation. Revenue projections shown below assume implementation of the proposed General Government development fees and that development over the next ten years is consistent with the Land Use Assumptions described in Appendix C. To the extent the rate of development either accelerates or slows down, there will be a corresponding change in the development fee revenue. As shown below, the ten year growth-related General Government costs total approximately \$1,805,500 and approximately \$1,775,000 will be collected from development fees.

Figure CH5 - Projected Development Fee Revenue for City Hall

Ten-Year Growth-Related Costs for General Government

Facility Cost Recovery	\$1,801,000
Professional Services	\$4,500
Total	\$1,805,500

		Single Unit	2+ Units	Industrial	Commercial	Institutional	Office & Other Services	
		\$476	\$428	\$461	\$399	\$196	\$663	
		per housing unit	per housing unit	per 1,000 Sq Ft	per 1,000 Sq Ft	per 1,000 Sq Ft	per 1,000 Sq Ft	
<i>Year</i>		<i>Hsg Units</i>	<i>Hsg Units</i>	<i>KSF</i>	<i>KSF</i>	<i>KSF</i>	<i>KSF</i>	
Base	2013	7,094	534	300	570	2,510	430	
1	2014	7,339	552	300	590	2,580	440	
2	2015	7,592	571	310	600	2,640	450	
3	2016	7,853	591	320	620	2,710	460	
4	2017	8,124	611	330	630	2,780	470	
5	2018	8,403	632	340	650	2,850	490	
6	2019	8,693	654	350	660	2,920	500	
7	2020	8,992	677	350	680	2,990	510	
8	2021	9,302	700	360	700	3,070	520	
9	2022	9,622	724	370	720	3,150	540	
10	2023	9,954	749	380	730	3,230	550	
Ten-Yr Increase		2,860	215	80	160	720	120	
Projected Fees =>		\$1,361,000	\$92,000	\$37,000	\$64,000	\$141,000	\$80,000	
Total Projected Revenues			\$1,775,000					

PARKS AND RECREATIONAL FACILITIES IIP

ARS 9-463.05 (T)(7)(g) defines the facilities and assets which can be included in the Parks and Recreational Facilities IIP:

“Neighborhood parks and recreational facilities on real property up to thirty acres in area, or parks and recreational facilities larger than thirty acres if the facilities provide a direct benefit to the development. Park and recreational facilities do not include vehicles, equipment or that portion of any facility that is used for amusement parks, aquariums, aquatic centers, auditoriums, arenas, arts and cultural facilities, bandstand and orchestra facilities, bathhouses, boathouses, clubhouses, community centers greater than three thousand square feet in floor area, environmental education centers, equestrian facilities, golf course facilities, greenhouses, lakes, museums, theme parks, water reclamation or riparian areas, wetlands, zoo facilities or similar recreational facilities, but may include swimming pools.”

The Parks and Recreational Facilities IIP includes components for park sites and improvements, including the cost of professional services for preparing the IIP and development fees. The incremental expansion methodology is used to calculate the Parks and Recreational Facilities IIP and Development Fees.

Service Area

The City of San Luis plans to provide a uniform level-of-service and equal service for Parks and Recreational Facilities throughout the City.

Excluded Costs

Development fees in San Luis exclude costs of to upgrade, update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental or regulatory standards. Park development fees will only pay for additional park improvements to accommodate new development, based on the same level-of-service provided to existing residents and jobs.

Current Use and Available Capacity

ARS 9-463.05(E)(2) requires an analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services. The levels of service established above for improved park acres are the standards the City wishes to maintain using the incremental expansion method for new development. Thus, there is no available capacity for new development based on the current inventory. New development will be served by park improvement capital projects.

Proportionate Share

The development fee for Parks and Recreational Facilities is calculated on a per capita basis for residential development. For nonresidential development, the fee methodology allocates the capital cost of infrastructure on a per employee basis.

ARS 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to accommodate new development. In San Luis, Parks and Recreational Facilities development fees are based on both residential and nonresidential development.

As shown earlier in Figure G1, functional population was used to allocate General Government costs to residential and nonresidential development. This chart revealed that there were 27,864 residents and 4,024 inflow commuters 2011. To determine the Parks and Recreational Facilities proportionate share, the number of residents is multiplied by the number of days per year, and the number of inflow commuters is multiplied by an average number of workdays per year (5 days per week for 50 weeks a year.) The shares of this total (91% for residential and 9% for nonresidential) are used to allocate the costs of Parks and Recreational Facilities by land use type.

Figure PR1 – Daytime Population

Residents	Inflow Commuters	Cumulative Impact Days per Year			Cost Allocation for Parks	
		Residential*	Nonresidential**	Total	Residential	Nonresidential
27,864	4,024	10,170,360	1,006,000	11,176,360	91%	9%

* Days per Year = **365**

** 5 Days per Week x 50 Weeks per Year = **250**

Source: Inflow/ Outflow Analysis, OnTheMap web application, U.S. Census Bureau. See Figure G1.

EXISTING FACILITIES

ARS 9-463.05(E)(1) requires a description of the existing necessary public services. The City currently has 37 acres of parks serving the current population. The inventory is shown in Figure PR2.

Figure PR2 - Parks Inventory and Standards

Community Park	Total Acres
Moctezuma Park	6.8
Joe Orduno Park	16.7
Friendship Park	6.5
Joe Cabello Park	3.1
Elijio Ramirez Park	3.9
Total Park Acres	37.0

Source: City of San Luis.

Land Cost per Acre ¹	\$75,000
Park Amenity Cost per Acre	\$98,000
Total Cost per Acre	\$173,000

1. Cost per acre is average in Yuma area.

Level of Service (LOS) Standards	Residential		Nonresidential	
	91%		9%	
Proportionate Share				
2013 Service Units	29,817	persons	5,760	jobs
Level of Service	1.1	acres per 1,000 persons	0.6	acres per 1,000 jobs
Infrastructure Cost per Service Unit	\$190.06	per person	\$138.37	per job

An inventory of park amenities is displayed in Figure PR3. This includes a total of 35 items valued at \$3,625,000. Dividing the total value (\$3,625,000) by the number of park acres (37) results in an amenity cost per acre of \$98,000 (rounded).

Figure PR3 - Park Amenity Inventory

<i>Amenity Type</i>	<i>Total Units</i>	<i>Unit Cost</i>	<i>Total</i>
Baseball/ Softball Diamond	3	\$350,000	\$1,050,000
Basketball Court - Outdoor	5	\$85,000	\$425,000
Playground	22	\$60,000	\$1,320,000
Skate Park	1	\$100,000	\$100,000
Soccer Field	2	\$300,000	\$600,000
Tennis Court	1	\$110,000	\$110,000
Volleyball Court - Sand	1	\$20,000	\$20,000
Total	35		\$3,625,000

Source: City of San Luis Parks and Recreation Staff.

Number of Improvements	35
Park Acres	37
Improvements per Acre	0.95

Cost Allocation

Total Value of Park Amenities	\$3,625,000
Amenity Cost per Acre	\$98,000

INFRASTRUCTURE NEEDS ANALYSIS

ARS 9-463.05(E)(5) requires the total number of service units necessitated by and attributable to new development. As shown in Figure PR4, San Luis anticipates 12,081 additional persons and 1,633 additional jobs over the next ten years.

Demand for Facility Expansions and Costs

The incremental expansion methodology is used to calculate the cost of additional park improvements, based on the same level-of-service provided to existing residents. The current residential level of service for parks is 1.1 acres per thousand persons, which is found by multiplying the number of improved park acres (37) by the residential proportionate share (91%), dividing this total by the 2013 population of 29.817 persons, expressed in thousands. The nonresidential level of service is 0.6 acres per 1,000 jobs, which is found by multiplying the number of improved acres (37) by the nonresidential proportionate share (9%), dividing this total by the number of jobs in 2013 (5.76 when expressed in thousands). As shown in Figure PR4, over the next ten years, San Luis needs to acquire and improve 15 additional acres of parks.

Figure PR4 – Need Analysis for Park Sites and Improvements

Park Land and Improvements		
Res LOS	1.1	acres per 1,000 persons
Nonres LOS	0.6	acres per 1,000 jobs
Cost	\$75,000	per acre - land
	\$98,000	per acre - improvements

Projected Demand				
		<i>Service Units:</i> Persons	<i>Service Units:</i> Jobs	Parks (acres)
Base	2013	29,817	5,760	37
1	2014	30,844	5,905	38
2	2015	31,906	6,054	40
3	2016	33,005	6,207	41
4	2017	34,142	6,364	42
5	2018	35,318	6,525	44
6	2019	36,535	6,690	45
7	2020	37,793	6,859	47
8	2021	39,095	7,032	48
9	2022	40,441	7,210	50
10	2023	41,834	7,392	51
Ten Yr Total		12,018	1,633	15

Cost of Park Land and Improvements \$2,510,100

PARKS AND RECREATIONAL FACILITIES IMPROVEMENTS

Figure PR5 displays identified projects that the City plans to fund to accommodate new development. Over the next ten years, San Luis plans to add several playgrounds to existing parks. Additionally, a Joint Sports Complex with the High School District is under consideration. This will include soccer fields, baseball fields, and softball fields. Costs for land and improvements for this complex are shown in PR7. These projects total \$2,664,000.

Figure PR5 - Necessary Parks and Recreational Facilities Improvements and Expansions

Project	10-Yr Cost
Park Land and Improvements	
Playgrounds (4)	\$264,000
Park Land for Joint Sports Complex	\$200,000
Improvements for Joint Sports Complex (restrooms, bleachers, other)	\$200,000
Soccer Fields for Joint Sports Complex (2)	\$600,000
Baseball/ Softball Fields for Joint Sports Complex (4)	\$1,400,000
Total	\$2,664,000

Source: San Luis Parks and Recreation Staff.

PRELIMINARY PARKS AND RECREATION DEVELOPMENT FEES

ARS 9-463.05(E)(4) requires a conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial. For residential development, average number of persons per housing unit provides the necessary conversion. For nonresidential development, service units to development units are expressed as employees per thousand square feet of floor area.

Infrastructure standards and cost factors for Parks and Recreational Facilities are summarized in the upper portion of Figure PR7. Updated development fees for Parks and Recreational Facilities are shown in the column with green shading. The current fees are shown in yellow shading. A revenue credit is not necessary for Parks and Recreational Facilities because the ten-year growth costs matches projected Parks and Recreational Facilities development fee revenue.

Figure PR6 - Preliminary Parks and Recreational Facilities Development Fees

Cost Per Person	
Park Land and Improvements	\$190.06
Professional Services	\$0.74
Net Cost Per Service Unit	\$190.80

Residential Development Fees per Housing Unit

<i>Unit Type</i>	<i>Persons per Housing Unit</i>	<i>Proposed Fee</i>	<i>Current Fee</i>	<i>Increase (Decrease)</i>	<i>% Change</i>
Single Unit	3.86	\$735	\$705	\$30	4%
2+ Units	3.47	\$662	\$705	(\$43)	-6%

Cost Per Job	
Park Land and Improvements	\$138.37
Professional Services	\$0.53
Net Cost Per Service Unit	\$138.90

Nonresidential Development Fees per Thousand Square Feet of Floor Area

<i>Development Type</i>	<i>Employees per Sq Ft¹</i>	<i>Proposed Fee</i>	<i>Current Fee</i>	<i>Increase (Decrease)</i>	<i>% Change</i>
Industrial	2.31	\$320	\$88	\$232	264%
Commercial	2.00	\$277	\$88	\$189	215%
Institutional	0.98	\$136	\$88	\$48	55%
Office & Other Services	3.32	\$461	\$88	\$373	424%

1. Trip Generation, Institute of Transportation Engineers, 9th Edition (2012).

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona’s enabling legislation (ARS 9-463.05(E)(7)). The top of Figure PR8 summarizes the growth related cost of infrastructure in San Luis over the next ten years, which is approximately \$2.5 million for Parks and Recreational Facilities. San Luis should receive approximately \$2.47 million in Parks and Recreational Facilities development fee revenue over the next ten years, if actual development matches the Land Use Assumptions documented in Appendix C.

Figure PR7 - Projected Parks and Recreational Facilities Development Fee Revenue

Ten-Year Growth-Related Costs for Parks and Recreational Facilities

Park Land and Improvements	\$2,510,100
Professional Services	\$4,500
Total	\$2,514,600

		<i>Single Unit</i>	<i>2+ Units</i>	<i>Industrial</i>	<i>Commercial</i>	<i>Institutional</i>	<i>Office & Other Services</i>
		\$735 per housing unit	\$662 per housing unit	\$320 per 1,000 Sq Ft	\$277 per 1,000 Sq Ft	\$136 per 1,000 Sq Ft	\$461 per 1,000 Sq Ft
<i>Year</i>		<i>Hsg Units</i>	<i>Hsg Units</i>	<i>KSF</i>	<i>KSF</i>	<i>KSF</i>	<i>KSF</i>
Base	2013	7,094	534	300	570	2,510	430
1	2014	7,339	552	300	590	2,580	440
2	2015	7,592	571	310	600	2,640	450
3	2016	7,853	591	320	620	2,710	460
4	2017	8,124	611	330	630	2,780	470
5	2018	8,403	632	340	650	2,850	490
6	2019	8,693	654	350	660	2,920	500
7	2020	8,992	677	350	680	2,990	510
8	2021	9,302	700	360	700	3,070	520
9	2022	9,622	724	370	720	3,150	540
10	2023	9,954	749	380	730	3,230	550
Ten-Yr Increase		2,860	215	80	160	720	120
Projected Fees =>		\$2,102,000	\$142,000	\$26,000	\$44,000	\$98,000	\$55,000
Total Projected Revenues			\$2,467,000				

PUBLIC SAFETY FACILITIES IIP

ARS 9-463.05 (T)(7)(f) defines the facilities and assets which can be included in the Public Safety Facilities IIP:

“Fire and police facilities, including all appurtenances, equipment and vehicles. Fire and police facilities do not include a facility or portion of a facility that is used to replace services that were once provided elsewhere in the municipality, vehicles and equipment used to provide administrative services, helicopters or airplanes or a facility that is used for training police and firefighters from more than one station or substation.”

The Public Safety Facilities IIP includes components for fire and police stations, public safety vehicles and officer equipment, and the cost of professional services for preparing the Public Safety IIP and development fees. Cost recovery is used to calculate the fee portion for the police station. The revenues will be used to pay for debt service payments according to ARS 9-463.05(R). Incremental expansion is used to calculate the fire station component. The vehicle and equipment component is calculated using the plan-based methodology of the Public Safety Facilities IIP and Development Fees.

Service Area

The City’s networks of police and fire stations are planned and operate as an integrated network and share communication equipment. As a result, the Public Safety Facilities IIP includes both police and fire and the service area for the Public Safety Facilities IIP is citywide.

Excluded Costs

Development fees in San Luis exclude costs of to upgrade, update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental, or regulatory standards. The cost recovery methodology used to calculate the police facility element of the IIP ensures that only new development will pay for its share of the cost. The fire facility component will only fund additional improvements to accommodate new development, based on the same level-of-service provided to existing residents and jobs. The plan-based method for vehicles and communication equipment allocates the cost of necessary improvements and expansions to new growth.

Proportionate Share

ARS 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to accommodate new development. In San Luis, Public Safety development fees are based on both residential and nonresidential development. As shown in Figure PS1, functional population was used to allocate General Government costs to residential and nonresidential development. Functional population is similar to what the U.S. Census Bureau calls “daytime population” by accounting for people living and working in a jurisdiction. Residents that don’t work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages). Residents that work in San Luis are assigned 14 hours to residential development. Inflow commuters are assigned 10 hours to nonresidential development. Based on 2011 functional population data for San Luis, the cost allocation for residential development is 80% while nonresidential development accounts for 20% of the demand for Public Safety infrastructure.

Figure PS1 – Functional Population

	<u>Service Units in 2011</u>	<u>Demand Hours/Day</u>	<u>Person Hours</u>
Residential			
Population*	27,864		
68% Residents Not Working	18,855	20	377,100
32% Resident Workers**	9,009		
15% Worked in City**	1,387	14	19,418
85% Worked Outside City**	7,622	14	106,708
	Residential Subtotal		503,226
	Residential Share =>		80%
Nonresidential			
Non-working Residents	18,855	4	75,420
Jobs Located in City**	5,411		
Residents Working in City**	1,387	10	13,870
Non-Resident Workers (inflow commuters)	4,024	10	40,240
	Nonresidential Subtotal		129,530
	Nonresidential Share =>		20%
	TOTAL		632,756

* 2011 count, U.S. Census Bureau.
 ** Inflow/Outflow Analysis, OnTheMap web application, U.S. Census Bureau data for all jobs.

The development fee for Public Safety Facilities is calculated on a per capita basis for residential development. Nonresidential development fees are calculated using trips as the service unit. TischlerBise recommends using nonresidential vehicle trips as the best demand indicator for public safety facilities and equipment. Trip generation rates are used for nonresidential development because vehicle trips are highest for commercial developments, such as shopping centers, and lowest for industrial development. Office and institutional trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for public safety from nonresidential development.

COST RECOVERY OF POLICE STATION

ARS 9-463.05(E)(1) requires a description of the existing necessary public services and the costs to upgrade or replace these services to meet existing needs and usage. The San Luis Police Station is 19,856 square feet. In 2005, San Luis issued \$40 million in bonds to fund various public services, with payments continuing until 2038. Including interest, the payments total \$81,245,717.25. The Police Station represents 13.8% of this total, and \$8,376,153 remains in principal and interest. The Police Department will use its existing building for the next five years, so fees will only be collected for Police Facilities to cover new development’s share of the debt service.

Using the cost recovery methodology, proportionate costs per service unit for the Police Station are \$100.52 per person and \$38.55 per trip. These costs are obtained by multiplying the remaining principal and interest (\$8,736,153) by the proportionate shares (80% for residential and 20% for nonresidential) and growth shares (57% for residential and 47% for nonresidential). Lastly, the residential and nonresidential shares are divided by the population increase (39,709 persons) or trip increase (21,092).

Figure PS2 - Cost Recovery for Police Station Debt Service

	<i>Name of Debt Obligation</i>	<i>Year of Debt Obligation</i>	<i>FY of Final Payment</i>	<i>Remaining Principal and Interest</i>		
	2005 Series Bonds, Police Station Share	2005	2038	\$8,736,153		

	Proportionate Share	Proportionate Cost	Growth Share¹	Growth Cost	Increase 2013 - 2038	Cost per Service Unit
Residential	80%	\$6,988,922	57%	\$3,991,674	39,709 persons	\$100.52 per person
Nonresidential	20%	\$1,747,231	47%	\$813,148	21,092 trips	\$38.55 per trip
Total (25 Years)		\$8,736,153		\$4,804,822		
10 Year Total²		\$3,494,734		\$1,472,574		

1. Residential Growth Share (57%) is 1 - [(29,817 residents in 2013/ 69,526 residents in 2038).
 Nonresidential Growth Share (47%) is 1 - [(24,327 trips in 2013/ 45,322 trips in 2038).

2. 10-Year Total is payments on Police Station for next 10 years. 10-Year Growth Cost Total is cost per service unit multiplied by projected increase in persons and trips over the next ten years.

FIRE FACILITIES

The San Luis Police and Fire Departments are housed in separate facilities. The incremental expansion methodology is used to calculate the portion of the fee for the fire facility. Debt was issued to fund both facilities, but the Fire Department is planning to build an additional fire station within the next ten years, so the incremental expansion methodology is used for the fire facilities component of the fee. The Fire Department has 14,466 square feet of floor area. As shown in Figure PS3, the level of service for residential development is 0.39 square feet per person, and the nonresidential level of service is 0.12 square feet per vehicle trip (average weekday inbound trip to nonresidential development). The cost allocations of \$81.03 per person and \$35.48 per trip are based on the growth share of the new fire station.

Figure PS3 - Fire Facilities Inventory and Standards

Site	Square Feet	Cost
Fire Complex	14,466	\$2,686,847

Source: City of San Luis.

	Proportionate Share	2013 Service Units	LOS: Square Feet per Service Unit	Cost per Service Unit
Residential	80%	29,817 persons	0.39 sq ft per person	\$81.03 per person
Nonresidential	20%	24,229 trips	0.12 sq ft per trip	\$35.48 per trip

Projected Service Units

ARS 9-463.05(E)(5) requires the total number of service units necessitated by and attributable to new development. As shown in Figure PS4 and determined in the Land Use Assumptions, it is estimated there will be 12,081 additional persons and 6,861 trips over the next ten years.

Demand for Facility Expansions and Costs

Projected service units in San Luis over the next ten years (12,081 additional persons and 6,861 trips), multiplied by the current standards for fire facilities (0.39 square feet per person and 0.12 square feet per vehicle trip), indicates new development will demand approximately 5,500 additional square feet of fire facilities. The ten-year projected demand for fire facilities, multiplied by the cost per square foot for the next fire station (\$222), yields a ten-year cost of \$1,217,5400.

Figure PS4 - Projected Demand for Fire Facilities

Fire Facilities		
Res LOS	0.39	square feet per person
Nonres LOS	0.12	square feet per trip
Cost	\$222	average cost per square ft.

		Projected Demand		
		<i>Service Units:</i>	<i>Service Units:</i>	Fire Facilities
Year		Persons	Trips	(Sq Ft)
Base	2013	29,817	24,229	14,466
1	2014	30,844	24,923	14,947
2	2015	31,906	25,459	15,424
3	2016	33,005	26,188	15,937
4	2017	34,142	26,775	16,449
5	2018	35,318	27,558	16,999
6	2019	36,535	28,146	17,541
7	2020	37,793	28,839	18,112
8	2021	39,095	29,618	18,711
9	2022	40,441	30,453	19,333
10	2023	41,834	31,091	19,950
Ten Yr Total		12,018	6,861	5,484
		Growth Cost of Fire Station =>		\$1,217,400

FUTURE NEED FOR VEHICLES AND COMMUNICATION EQUIPMENT

The vehicles and communication equipment component for the Public Safety Facilities IIP and fees will be derived using a plan-based method. Figure PS5 summarizes San Luis’ planned need for vehicles and communication equipment over the next ten years. San Luis expects to purchase 10 vehicles and communication equipment units, which will cost approximately \$800,000. This is based on an average cost of \$80,000 per item for vehicles and communication equipment in San Luis. As shown in Figure PS5, the projected total cost of \$800,000 was allocated to the increase in service units over the next ten years. The cost per service unit is equal to the total cost (\$800,000) multiplied by the proportionate shares (80% for residential and 20% for nonresidential), and divided by the respective increase in service units (12,018 persons for residential and 6,861 trips for nonresidential). The cost allocations are \$53.25 per additional person and \$23.31 per additional job.

Figure PS5 - Vehicles and Communication Equipment Cost Allocation

Cost of 10 Units of Vehicles and Communication Equipment	\$800,000
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Source: City of San Luis Fire and Police Departments.

	Residential per Person	Nonresidential per trip
Proportionate Share	80%	20%
Ten Year Increase in Service Units	12,018	6,861
Cost per Additional Service Unit	\$53.25	\$23.31

PUBLIC SAFETY IMPROVEMENTS

Necessary Public Safety Facilities improvements and expansions to accommodate new growth are listed in Figure PS6.

- **Fire Facilities:** San Luis is planning to build a new fire station within the next ten years. Development fees will cover 61% of the funding.
- **Vehicles and Communication Equipment:** San Luis is planning to purchase 10 new vehicles and communication equipment at an expected cost of \$800,000.

Figure PS6 - Necessary Public Safety Improvements Over Ten Years

Project	Details	10 Yr Cost
Fire Facilities	Sq Ft	Total Cost
Fire Station	9,000	\$2,000,000
Vehicles and Communication Equipment	Number of Units	Total Cost
Vehicles and Communication Equipment	10	\$800,000
Total		\$2,800,000

Source: City of San Luis Fire and Police Departments.

PRELIMINARY PUBLIC SAFETY DEVELOPMENT FEES

ARS 9-463.05(E)(4) requires a conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial. Figure PS7 displays the ratio of a service unit to various types of land uses for residential and nonresidential development. The residential development table displays the persons per housing unit for single unit residential and residential structures with two or more units.

Nonresidential development fees are calculated using trips as the service unit. TischlerBise recommends using nonresidential vehicle trips as the best demand indicator for public safety facilities and equipment. Trip generation rates are used for nonresidential development because vehicle trips are highest for commercial developments, such as shopping centers, and lowest for industrial/warehouse development. Office and institutional trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for public safety from nonresidential development. Other possible nonresidential demand indicators, such as employment or floor area, will not accurately reflect the demand for service. For example, if employees per thousand square feet were used as the demand indicator, public safety impact fees would be too high for office and institutional development because offices typically have more employees per 1,000 square feet than retail uses. If floor area were used as the demand indicator, public safety development fees would be too high for industrial development.

Trip generation rates are from the reference book Trip Generation published by the Institute of Transportation Engineers (ITE 9th Edition 2012). A vehicle trip end represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). To calculate development fees, trip generation rates require an adjustment factor to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50%.

For commercial development, the trip adjustment factor is less than 50% because retail development and some services attract vehicles as they pass by on arterial and collector roads. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For the average shopping center, the ITE data indicates that 34% of the vehicles that enter are passing by on their way to some other primary destination. The remaining 66% of attraction trips have the commercial site as their primary destination. Because attraction trips are half of all trips, the trip adjustment factor is 66% multiplied by 50%, or approximately 33% of the trip ends. These factors are shown to derive inbound vehicle trips for each type of nonresidential land use. Infrastructure standards and cost factors for Public Safety Facilities are summarized in the upper portion of Figure PS7. Updated development fees for Public Safety Facilities are shown in the column with green shading. The current fees are shown in yellow shading. A credit for other revenues is not necessary for Public Safety facilities because the ten-year growth cost of improvements matches expected development fee revenue.

Figure PS7 - Public Safety Facilities Development Fee Schedule

Cost Per Person	
Police Facilities (Cost Recovery)	\$100.52
Fire Facilities	\$81.03
Vehicles and Equipment	\$53.25
Professional Services	\$0.65
Net Cost per Service Unit	\$235.46

Residential Development Fees per Housing Unit

Unit Type	Persons per Housing Unit	Proposed Fee	Current Fee ¹	Increase (Decrease)	% Change
Single Unit	3.86	\$908	\$387	\$521	135%
2+ Units	3.47	\$817	\$387	\$430	111%

Cost per Trip	
Police Facilities (Cost Recovery)	\$38.55
Fire Facilities	\$35.48
Vehicles and Officer Equipment	\$23.31
Professional Services	\$0.28
Net Cost per Service Unit	\$97.62

Nonresidential Development Fees per Thousand Square Feet of Floor Area

Development Type	Inbound Vehicle Trips	Proposed Fee	Current Fee ¹	Increase (Decrease)	% Change
Industrial	3.49	\$340	\$149	\$191	128%
Commercial	14.09	\$1,375	\$149	\$1,226	823%
Institutional	5.09	\$497	\$149	\$348	234%
Office & Other Services	5.52	\$538	\$149	\$389	261%

1. Represents sum of current Police and Fire Fee.

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona’s enabling legislation (ARS 9-463.05(E)(7)). The top of Figure PS8 summarizes the growth related cost of infrastructure in San Luis over the next ten years, which is approximately \$3.49 million for Public Safety Facilities. San Luis should receive approximately \$3.44 million in Public Safety development fee revenue over the next ten years, if actual development matches the Land Use Assumptions documented in Appendix C.

Figure PS8 - Projected Public Safety Facilities Development Fee Revenue

Ten-Year Growth-Related Costs for Public Safety Facilities

Police Facility Cost Recovery	\$1,473,000
Fire Facilities	\$1,217,400
Vehicle and Officer Equipment	\$800,000
Professional Services	\$4,500
Total	\$3,494,900

		<i>Single Unit</i>	<i>2+ Units</i>	<i>Industrial</i>	<i>Commercial</i>	<i>Institutional</i>	<i>Office & Other Services</i>
		\$908	\$817	\$340	\$1,375	\$497	\$538
		per housing unit	per housing unit	per 1,000 Sq Ft	per 1,000 Sq Ft	per 1,000 Sq Ft	per 1,000 Sq Ft
<i>Year</i>		<i>Hsg Units</i>	<i>Hsg Units</i>	<i>KSF</i>	<i>KSF</i>	<i>KSF</i>	<i>KSF</i>
Base	2013	7,094	534	300	570	2,510	430
1	2014	7,339	552	300	590	2,580	440
2	2015	7,592	571	310	600	2,640	450
3	2016	7,853	591	320	620	2,710	460
4	2017	8,124	611	330	630	2,780	470
5	2018	8,403	632	340	650	2,850	490
6	2019	8,693	654	350	660	2,920	500
7	2020	8,992	677	350	680	2,990	510
8	2021	9,302	700	360	700	3,070	520
9	2022	9,622	724	370	720	3,150	540
10	2023	9,954	749	380	730	3,230	550
<i>Ten-Yr Increase</i>		<i>2,860</i>	<i>215</i>	<i>80</i>	<i>160</i>	<i>720</i>	<i>120</i>
Projected Fees =>		\$2,597,000	\$176,000	\$27,000	\$220,000	\$358,000	\$65,000
Total Projected Revenues		\$3,443,000					

STREET FACILITIES IIP

ARS 9-463.05 (T)(7)(f) defines the facilities and assets which can be included in the Street Facilities IIP:

“Street facilities located in the service area, including arterial or collector streets or roads that have been designated on an officially adopted plan of the municipality, traffic signals and rights-of-way and improvements thereon.”

San Luis development fees for Street Facilities are calculated using a plan-based approach for arterial streets. The Street Facilities development fees are derived from trip generation rates, trip rate adjustment factors, average trip length weighting factors, and lane capacity. Each component is described below.

Service Area

Since only arterials streets are included in the Streets IIP and Development Fees and given these characteristics of how the City plans and designs its arterial street network, the service area for the Street Facilities IIP is Citywide.

Proportionate Share

ARS 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to provide necessary public services to the development. Trip generation rates and trip adjustment factors are used to determine the proportionate impact of residential, commercial, office, and industrial land uses on the City’s streets network.

EXISTING LANE MILES

ARS 9-463.05(E)(1) requires a description of the existing necessary public services and the costs to upgrade or replace these services to meet existing needs and usage. The existing public services included in the Streets IIP are lane miles of arterials. San Luis has 9 lane miles of arterials. Development fee exclude the costs of repair, operation and maintenance, or the cost to upgrade or replace existing necessary public services in order to meet stricter standards for existing development, or to provide a higher level of service for new development.

Figure S1 - Road Inventory

Classification	Lane Miles
Principal	6.40
Arterials	9.00
Collectors	38.00
Local Street	110.00
Total	163.40

Current Use and Available Capacity

ARS 9-463.05(E)(2) requires an analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services. According to the City of San Luis Small Area Transportation Study, the daily per-lane capacity of a rural minor arterial is 9,000.

Figure S2 - Daily per-lane Capacity

Functional Classification	Daily Per-lane Capacity
Rural Minor Arterial	9,000

Source: City of San Luis Small Area Transportation Study.

FORECAST OF SERVICE UNITS

San Luis Street Facilities Development Fees will use average weekday vehicle miles of travel as the service units for documenting existing infrastructure standards and allocating the cost of future improvements. TischlerBise created an aggregate travel model to convert development units within San Luis to vehicle trips and vehicle miles of travel. Figure S3 summarizes the input variables for the travel model. Trip generation rates, expressed as average weekday Vehicle Trip Ends (VTE), are from the Institute of Transportation Engineers (ITE). HU is an abbreviation for housing unit. KSF is an abbreviation for square feet of nonresidential floor area, expressed in thousands. Each input variable is described further below.

Figure S3 - Travel Demand Model Inputs

	Dev Type	Weekday VTE	Dev Unit	Trip Adj	Trip Length Wt Factor
	Single Unit	9.35	HU	63%	121%
	2+ Units	7.94	HU	63%	121%
	Industrial	6.97	KSF	50%	73%
	Commercial	42.70	KSF	33%	66%
	Institutional	15.43	KSF	33%	73%
	Office & Other Services	11.03	KSF	50%	73%
Avg Trip Length (miles)	1.31				
Capacity Per Lane	9,000				

Customized Trip Generation Rates per Housing Unit

As an alternative to simply using the national average trip generation rate for residential development, the Institute of Transportation Engineers (ITE) publishes regression curve formulas that may be used to derive custom trip rates using local demographic data. Key independent variables needed for the analysis (i.e. vehicles available, housing units, households and persons) are available from American Community Survey 2010 data for San Luis. Customized average weekday trip generation rates by type of home are shown in Figure S4.

Figure S4 - Residential Trip Generation Rates by Type of Housing

	Households (2)				Vehicles per Household by Tenure
	Vehicles Available (1)	Single Unit per Structure	2+ Units per Structure	Total	
Owner-occupied	9,037	4,401	29	4,430	2.04
Renter-occupied	2,044	1,226	442	1,668	1.23
Total	11,081	5,627	471	6,098	1.82
Housing Units (6) =>		5,998	471	6,469	

Units per Structure	Persons (3)	Trip Ends (4)	Vehicles Available	Trip Ends (5)	Average Trip Ends	Trip Ends per Housing Unit
Single Units	19,911	51,567	10,480	60,585	56,076	9.35
2+ Units	1,407	4,818	601	2,661	3,739	7.94
Total	21,318	56,385	11,081	63,246	59,815	9.25

1. Vehicles available by tenure from Table B25046, American Community Survey, 2006-2010.
2. Households by tenure and units in structure from Table B25032, American Community Survey, 2006-2010.
3. Persons by units in structure from Table B25033, American Community Survey, 2006-2010.
4. Vehicle trips ends based on persons using formulas from Trip Generation (ITE 2008). For single unit housing (ITE 210), the fitted curve equation is $EXP(0.91 * LN(persons) + 1.52)$. To approximate the average population of the ITE studies, persons were divided by 36 and the equation result multiplied by 36. For 2+ unit housing (ITE 220), the fitted curve equation is $(3.47 * persons) - 64.48$.
5. Vehicle trip ends based on vehicles available using formulas from Trip Generation (ITE 2008). For single unit housing (ITE 210), the fitted curve equation is $EXP(0.99 * LN(vehicles) + 1.81)$. To approximate the average number of vehicles in the ITE studies, vehicles available were divided by 41 and the equation result multiplied by 41. For 2+ unit housing (ITE 220), the fitted curve equation is $(3.94 * vehicles) + 293.58$.
6. Housing units from Table B25024, American Community Survey, 2006 - 2010.

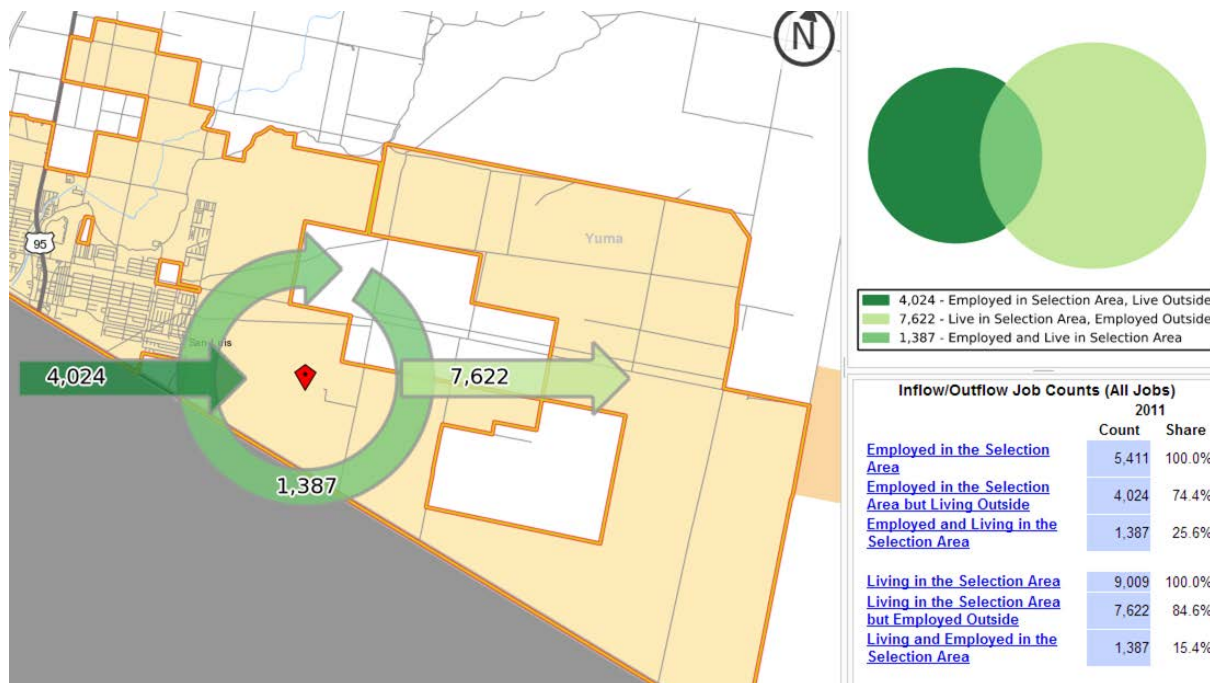
To calculate Street Facilities Development Fees, trip generation rates require an adjustment factor to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50%. As discussed further below, the development fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

Adjustments for Commuting Patterns and Pass-By Trips

Residential development has a larger trip adjustment factor of 63% to account for commuters leaving San Luis for work. According to the 2009 National Household Travel Survey, weekday work trips are typically 31% of production trips (i.e., all out-bound trips, which are 50% of all trip ends). As shown in the figure below, the Census Bureau’s web application OnTheMap indicates that 85% of resident

workers traveled outside the city for work in 2011. In combination, these factors (0.31 X 0.50 X 0.85 = .13) support the additional 13% allocation of trips to residential development.

Figure S5 - OnTheMap Inflow/ Outflow Analysis



For commercial development, the trip adjustment factor is less than 50% because retail development and some services attract vehicles as they pass by on arterial and collector roads. For example, when someone stops at a convenience store on the way home from work, the convenience store is not the primary destination. For the average shopping center, the ITE data indicates that 34% of the vehicles that enter are passing by on their way to some other primary destination. The remaining 66% of attraction trips have the commercial site as their primary destination. Because attraction trips are half of all trips, the trip adjustment factor is 66% multiplied by 50%, or approximately 33% of the trip ends. These factors are shown to derive inbound vehicle trips for each type of nonresidential land use.

Trip Length Weighting Factor by Type of Land Use

The Street Facilities development fee methodology includes a percentage adjustment, or weighting factor, to account for trip length variation by type of land use. As documented in Table 6 of the 2009 National Household Travel Survey, vehicle trips from residential development are approximately 121% of the average trip length. The residential trip length adjustment factor includes data on home-base work trips, social, and recreational purposes. Conversely, shopping trips associated with commercial development are roughly 66% of the average trip length while other nonresidential development typically accounts for trips that are 73% of the average for all trips.

PROJECTED TRAVEL DEMAND

The relationship between development in San Luis and the need for system improvements is shown in Figure S6. At the top of the table are both existing and projected development units in San Luis. The table includes annual calculations, but years 6-9 are hidden from view. Trip generation rates and trip adjustment factors convert projected development into average weekday vehicle trips, as shown in the middle section of this table. A typical vehicle trip, such as a person leaving their home and traveling to work, generally begins on a local street that connects to a collector street, which connects to an arterial road and eventually to a state or interstate highway. The progression of travel up and down the functional classification chain limits the average trip length determination, for the purpose of development fees, to the following question, "What is the average vehicle trip length on development fee system improvements (i.e., facilities funded by development fees)?"

With 9 lane miles of system improvements and a lane capacity standard of 9,000 vehicles per lane, the development fee road network has approximately 81,000 vehicle miles of capacity (i.e., 9,000 vehicles per lane traveling the entire 9 miles). To derive the average utilization (i.e., average trip length expressed in miles) of the system improvements, we divide vehicle miles of travel by the vehicle trips attracted to development in San Luis. Development in San Luis currently attracts 68,688 average weekday vehicle trips. Dividing 81,000 vehicle miles of capacity by 68,688 average weekday vehicle trips yields an un-weighted average trip length of approximately 1.18 miles. However, the calibration of average trip length includes the same adjustment factors used in the development fee calculations (i.e., journey-to-work commuting, commercial pass-by adjustment and average trip length adjustment by type of land use). Using a series of spreadsheet iterations, TischlerBise determined the weighted-average trip length to be approximately 1.31 miles.

ARS 9-463.05(E)(6) requires the projected demand for necessary public services or facility expansions required by service units for the next ten years. At the bottom of Figure S6 are weighted Vehicle Miles of Travel (VMT), which is a measurement unit equal to one vehicle traveling one mile. In the aggregate, VMT is the product of vehicle trips multiplied by the average trip length¹. As shown below, existing infrastructure standards using the average trip length of 1.31 miles in San Luis are 1.11 lane-miles of arterials per 10,000 VMT.

¹ Typical VMT calculations for development-specific traffic studies, along with most transportation models of an entire urban area, are derived from traffic counts on particular road segments multiplied by the length of that road segment. For the purpose of development fees, VMT calculations are based on attraction (inbound) trips to development located in the service area, with the trip lengths calibrated to the road network considered to be system improvements. This refinement eliminates pass-through or external- external trips, and travel on roads that are not system improvements (e.g. interstate highways).

Figure S6 - Projected Travel Demand

	2013	2014	2015	2016	2017	2018	2023	10-Year Increase
	Base	1	2	3	4	5	10	
Single Units	7,094	7,339	7,592	7,853	8,124	8,403	9,954	2,860
2+ Units	534	552	571	591	611	632	749	215
Industrial KSF	300	300	310	320	330	340	380	80
Commercial KSF	570	590	600	620	630	650	730	160
Institutional KSF	2,510	2,580	2,640	2,710	2,780	2,850	3,230	720
Office & Other Services KSF	430	440	450	460	470	490	550	120
<i>Single Unit Trips</i>	41,787	43,228	44,718	46,258	47,852	49,495	58,633	16,845
<i>2+ Unit Trips</i>	2,671	2,763	2,858	2,957	3,059	3,164	3,748	1,077
<i>Industrial Trips</i>	1,046	1,046	1,080	1,115	1,150	1,185	1,324	279
<i>Commercial Trips</i>	8,032	8,314	8,455	8,736	8,877	9,159	10,286	2,255
<i>Institutional Trips</i>	12,781	13,137	13,443	13,799	14,155	14,512	16,447	3,666
<i>Office & Other Services Trips</i>	2,371	2,427	2,482	2,537	2,592	2,702	3,033	662
Total Vehicle Trips	68,688	70,914	73,036	75,402	77,685	80,217	93,471	24,783
Vehicle Miles of Travel (VMT)	81,324	84,076	86,806	89,755	92,661	95,837	112,762	31,438
Lane Miles	9.04	9.34	9.65	9.97	10.30	10.65	12.53	3.49
Annual Lane Miles		0.3	0.3	0.3	0.3	0.4	0.4	
Lane Miles per 10,000 VMT	1.11	1.11	1.11	1.11	1.11	1.11	1.11	

PLANNED STREET IMPROVEMENTS

ARS 9-463.05(E)(3) requires a description the necessary public services and their costs necessitated by and attributable to development including a forecast of the costs.

The plan-based methodology is used to derive development fees for Street Facilities. Figure S7 lists growth-related street improvements, with a total cost of approximately \$3.5 million. Dividing the growth cost of system improvements by the increase in lane miles results in a cost per lane mile of \$875,000.

Figure S7 - San Luis Street Improvements

Project	Lane Miles	Cost to City
Phase 1 of Juan Sanchez Blvd - Construction	4	\$3,500,000

Source: City of San Luis Public Works Dept.

Cost per Lane Mile	\$875,000
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PRELIMINARY STREET FACILITIES DEVELOPMENT FEE

ARS 9-463.05(E)(4) requires a conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial. Figure S8 displays the ratio of a service unit to various types of land uses for residential and nonresidential development, which includes weekday vehicle trip ends and their respective adjustment and weighting factors.

Figure S8 indicates 2013 and 2023 development units in San Luis and the increase in average weekday vehicle miles of travel in the middle of the table. The service unit index compares VMT by type of land use to the travel demand for a single residential unit. The table below also indicates average miles per trip on planned improvements. With 4 additional lane miles and a lane capacity standard of 9,000 vehicles per day, San Luis will provide 36,000 vehicle miles of capacity. The average utilization of the additional lane miles equates to 1.36 miles of travel on the planned improvements by average weekday vehicle trip to new development in San Luis.

Current and proposed fees are shown at the bottom of Figure S8. To derive the Street Facilities development fee by type of development, the proportionate share factor (based on the ten-year increase in VMT, as shown in the right column in the middle section) is multiplied by the total cost of improvements and divided by the increase in development units. For example, the fee per thousand square feet of industrial floor area is $.77\% \times \$3,513,500 / 80 = \336 (truncated). The specific fee per KSF is multiplied by the size of a specific building (expressed in thousands) to yield the total development fee. A revenue credit is not necessary for Street Facilities because the ten-year growth costs exceed the projected Street Facilities development fee revenue.

Figure S8 - Proposed Street Facilities Development Fees

Average Weekday Vehicle Miles of Travel

Development Type (1)	2013 Dev Units (2)	2023 Dev Units (2)	Additional Dev Units 2013-2023
Single Housing Units (94%)	7,094	9,954	2,860
2+ Housing Units (6%)	534	749	215
Industrial KSF	300	380	80
Commercial KSF	570	730	160
Institutional KSF	2,510	3,230	720
Office & Other Services KSF	430	550	120
Housing Unit Total	7,628	10,703	3,075
Nonres KSF Total	3,810	4,890	1,080

(1) A single housing unit include detached, attached (townhouse), and mobile home; KSF = square feet of floor area in thousands.
 (2) Land Use Assumptions (see Appendix C).
 (3) Trip Generation, Institute of Transportation Engineers, 2012. Retail and institutional include 34% pass-by adjustment.
 (4) San Luis Streets IIP (8 lane miles x 9,000 vehicles per lane per day).

Cost Allocation for Streets

Development Type	Avg Wkdy Veh Trip Ends per Dev Unit (3)	Trip Adj Factors	Trip Length Weighting Factor	Vehicle Miles of Travel per Dev Unit	Service Unit Index	Ten-Year VMT Increase	Proportionate Share by Type of Dev
Single Housing Unit	9.35	63%	121%	9.69	1.00	27,721	76.81%
2+ Units per Structure	7.94	63%	121%	8.23	0.85	1,772	4.91%
Industrial	6.97	50%	73%	3.46	0.36	277	0.77%
Commercial	42.70	33%	66%	12.65	1.30	2,024	5.61%
Institutional	15.43	33%	73%	5.06	0.52	3,640	10.09%
Office & Other Services	11.03	50%	73%	5.48	0.56	657	1.82%
TOTAL						36,090	100.0%
Vehicle Miles of Capacity (4) =>						36,000	
average miles per trip on planned improvements =>						1.36	

Streets Development Fee Schedule

Development Type	Proposed Fees	Current Fees
Single Housing Unit	\$943	\$0
2+ Units per Structure	\$801	\$0
Industrial	\$336	\$0
Commercial	\$1,231	\$0
Institutional	\$492	\$0
Office & Other Services	\$533	\$0

Professional Services => **\$13,500**
 Cost of Streets IIP => **\$3,500,000**
Total Ten-Year Growth Cost => \$3,513,500

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona’s enabling legislation (ARS 9-463.05(E)(7)). The top of Figure S9 summarizes the growth related cost of infrastructure in San Luis over the next ten years, which is approximately \$3.5 million for Street Facilities. San Luis should receive approximately \$3.5 million in Street Facilities development fee revenue over the next ten years, if actual development matches the Land Use Assumptions documented in Appendix C.

Figure S9 - Projected Street Facilities Development Fee Revenue

Ten-Year Growth-Related Costs for Street Facilities

Arterial Improvements	\$3,500,000
Professional Services	\$13,500
Total	\$3,513,500

		<i>Single Unit</i>	<i>2+ Units</i>	<i>Industrial</i>	<i>Commercial</i>	<i>Institutional</i>	<i>Office & Other Services</i>
		\$943	\$801	\$336	\$1,231	\$492	\$533
		<i>per housing unit</i>	<i>per housing unit</i>	<i>per 1000 Sq Ft</i>	<i>per 1000 Sq Ft</i>	<i>per 1000 Sq Ft</i>	<i>per 1000 Sq Ft</i>
<i>Year</i>		<i>Hsg Units</i>	<i>Hsg Units</i>	<i>KSF</i>	<i>KSF</i>	<i>KSF</i>	<i>KSF</i>
Base	2013	7,094	534	300	570	2,510	430
1	2014	7,339	552	300	590	2,580	440
2	2015	7,592	571	310	600	2,640	450
3	2016	7,853	591	320	620	2,710	460
4	2017	8,124	611	330	630	2,780	470
5	2018	8,403	632	340	650	2,850	490
6	2019	8,693	654	350	660	2,920	500
7	2020	8,992	677	350	680	2,990	510
8	2021	9,302	700	360	700	3,070	520
9	2022	9,622	724	370	720	3,150	540
10	2023	9,954	749	380	730	3,230	550
<i>Ten-Yr Increase</i>		<i>2,860</i>	<i>215</i>	<i>80</i>	<i>160</i>	<i>720</i>	<i>120</i>
Projected Fees =>		\$2,697,000	\$172,000	\$27,000	\$197,000	\$354,000	\$64,000
Total Projected Revenues		\$3,511,000					

WATER FACILITIES IIP

Based on policy decisions made by staff since the adoption of the IIP on February 26, 2014, the City of San Luis will suspend collection of the Water Development Fee.

ARS 9-463.05 (T)(7)(f) defines the facilities and assets which can be included in the Water Facilities IIP:

“Water facilities, including the supply, transportation, treatment, purification and distribution of water, and any appurtenances for those facilities.”

The Water Facilities IIP includes cost recovery for the water treatment plant, plan-based methodology for system improvements and the cost of preparing the Water Facilities IIP and development fees.

Service Area

The service area for the Water Facilities IIP is Citywide, including both west and east mesas.

Proportionate Share

ARS 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to provide necessary public services to the development.

The Water Facilities IIP and development fees are assessed on both residential and nonresidential development as both types of development create a burden for additional water facilities. Yearly customers by land use are used to determine the proportionate share of this burden. In 2012, approximately 94% of water customers in San Luis were residents, accounting for 66% of the average day demand. Approximately 6% were non-residential customers, accounting for 34% of the average day demand.

Excluded Costs

Development fees in San Luis exclude the cost to upgrade, update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental or regulatory standards. The cost recovery methodology ensures that new development pays for their share of the debt.

WATER CONNECTIONS AND FLOW

Level of service for water is based on gallons per connection per day. The current level-of-service for residential development for water service is 340 gallons per connection per day. For nonresidential connections, water demand averages 2,686 gallons per day. In 2012, each nonresidential water connection averaged 16 jobs. The projected increase in jobs drives the demand for water capacity from nonresidential development.

Figure W1 - Water Level of Service

	Avg Gallons per Day ¹	2012 Connections
Residential	1,874,911	5,507
Nonresidential	972,250	362
TOTAL	2,847,161	5,869

1. Average of water use in FY2010-2011 and FY2011-2012, provided by the City of San Luis. Nonresidential includes Commercial, Government, Schools, and City.

Level of Service (LOS) Standards	<i>Residential</i>
Average Residential Gallons Per Day	1,874,911
2012 Service Units (residential connections)	5,507
Current LOS: Gallons per Connection per Day	340

Level of Service (LOS) Standards	<i>Nonresidential</i>
Average Nonresidential Gallons Per Day	972,250
2012 Service Units (nonresidential connections)	362
Current LOS: Gallons per Connection per Day	2,686

Projected Service Units

ARS 9-463.05(E)(5) requires the total number of service units necessitated by and attributable to new development. Over the next ten years, average day water demand will increase by 1.06 million gallons per day. The total average day demand is 4.00 MGD by 2023.

Figure W2 - Projected Service Units

		Connections				MGD			
	Year	Population	Jobs	Residential Connections	Nonres. Connections	Total Connections	Residential MGD	Nonres. MGD	Total MGD
Base	2013	29,817	5,760	5,696	371	6,067	1.94	1.00	2.94
	1 2014	30,844	5,905	5,893	381	6,274	2.01	1.02	3.03
	2 2015	31,906	6,054	6,096	390	6,486	2.08	1.05	3.12
	3 2016	33,005	6,207	6,306	400	6,706	2.15	1.07	3.22
	4 2017	34,142	6,364	6,523	410	6,933	2.22	1.10	3.32
	5 2018	35,318	6,525	6,747	420	7,167	2.30	1.13	3.43
	6 2019	36,535	6,690	6,980	431	7,411	2.38	1.16	3.53
	7 2020	37,793	6,859	7,220	442	7,662	2.46	1.19	3.65
	8 2021	39,095	7,032	7,469	453	7,922	2.54	1.22	3.76
	9 2022	40,441	7,210	7,726	465	8,191	2.63	1.25	3.88
	10 2023	41,834	7,392	7,992	476	8,468	2.72	1.28	4.00
Ten Yr Increase		12,018	1,633	2,296	105	2,401	0.78	0.28	1.06

COST RECOVERY FOR WATER SYSTEM DEBT

In 2005, San Luis issued \$40 million in bonds to fund various public services, with payments continuing until 2038. Including interest, the payments total \$81,245,717.25. The Water Treatment Plant and Filtration System that increased capacity of the system was funded represents 29.6% of this total, and \$18,766,517 remains in principal and interest.

Using the cost recovery methodology, the cost per gallon is \$2.94. To determine a cost per gallon, a growth share was calculated, which represents new development’s share of total gallon usage for the remainder of the debt schedule. The growth cost is divided by the projected gallon increase from 2013 to 2038 to determine a growth cost per additional gallon.

Figure W3 – Growth Share of Water System Debt

<i>Name of Debt Obligation</i>	<i>Year Debt Issued</i>	<i>FY of Final Payment</i>	<i>Remaining Principal and Interest</i>
2005 Series Bonds, Water Facility Share	2005	2038	\$18,766,517

<i>Growth Share*</i>	<i>Growth Cost</i>	<i>Increase in Projected Demand (Gallons)</i>	<i>Growth Cost per Additional Gallon</i>
54%	\$10,135,732	3,447,780	\$2.94

*Growth Share (54%) is 1 - (2.94 gallons in 2013/ 6.38 gallons in 2038).

WATER FACILITY EXPANSIONS AND COST

ARS 9-463.05(E)(2) requires an analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services. San Luis has two separate water distribution systems. The East Mesa system serves the East Mesa Area and the West Treatment plant serves the rest of the City. The West Treatment plant has a capacity of 4 MGD and operates at capacity during the summer months, which has resulted in City implementation of water conservation measures to help meet current demand. In contrast, the newer East Mesa system is only operating at 12% of its available capacity.

Figure W4 - Water Plant Use and Capacity

Water Plant	Total Capacity (MGD)	Peak Usage (MGD)	Remaining
East Mesa	3.00	0.35	2.65
West	4.00	4.00	0.00
Total	7.00	4.35	2.65

Demand for Facility Expansions and Costs

ARS 9-463.05(E)(1) requires a description of the existing necessary public services and the costs to upgrade or replace these services to meet existing needs and usage. ARS 9-463.05(E)(6) requires the projected demand for necessary public services or facility expansions required by service units for the next ten years. As shown above, when at peak demand, the West Water plant is at capacity. However, capacity remains at the East Mesa plant. Based on the projected increase in water demand, a new storage tank is needed. Additionally, the City also plans to install iron and manganese filters on wells at the East Mesa Plant.

ARS 9-463.05(E)(3) requires a description the necessary public services and their costs necessitated by and attributable to development including a forecast of the costs. The following shows the cost per gallon of the planned storage tank. The planned 1 MGD storage tank will cost \$1,300,000. This results in a cost per gallon of \$1.30.

Figure W5 - Storage Tank

Project	Total Cost
1 MGD Storage Tank	\$1,300,000
Increase in System Capacity	1,000,000
Capital Cost per Gallon of Capacity	\$1.30

The City plans to install iron and manganese filters at the East Mesa plant for a cost of \$1,300,000. This is divided by the cost of the capacity at the East Mesa plant (3,000,000) to determine a cost per gallon of \$0.43.

Figure W6 - Iron and Manganese Filters

Project	Total Cost
Iron and Manganese Filters	\$1,300,000
Increase in System Capacity	3,000,000
Capital Cost per Gallon of Capacity	\$0.43

PRELIMINARY WATER FACILITIES DEVELOPMENT FEE

ARS 9-463.05(E)(4) requires a conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial. Residential water development fees are assessed on a per unit basis, based on average day gallons per customer. Nonresidential development fees are assessed by size and type of water meter needed to serve the development. The nonresidential water development fees are calculated by multiplying the number of gallons per unit by the capacity ratio for the corresponding size and type of water meter multiplied by the cost per gallon, shown in Figure W7.

The proposed development fees for Water Facilities are shown in Figure W7. The development fee is derived from the average daily water flow per residential unit (340), multiplied by the cost per gallon of improvements and debt on the water plant (\$4.67). Also, each new customer pays the cost of professional services for preparing the IIP and development fee (\$12.27). A revenue credit is not necessary for Water Facilities because the ten-year growth costs exceed the projected Water Facilities development fee revenue.

Based on policy decisions made by staff since the adoption of the IIP on February 26, 2014, the City of San Luis will suspend collection of the Water Development Fee.

Figure W7 - Water Development Fee

Standards:

Demand Indicators	
ERU Gallons per Average Day	340
Cost Factors per Gallon of Capacity	
Debt on Water Plant	\$2.94
Storage Tank	\$1.30
Iron and Manganese Filters	\$0.43
Total Cost per Gallon of Capacity	\$4.67
Cost Factors per Customer	
Professional Services	\$12.27

Maximum Supportable Water Facilities Charge						
Residential						
Residential (per dwelling unit)						\$1,603
Nonresidential						
Meter Size (inches)		Capacity Ratio ¹	Per Meter	Current Fees	Increase (Decrease)	% Change
0.75	Displacement	1.00	\$1,603	\$760	\$843	111%
1.00	Displacement	1.67	\$2,669	\$1,899	\$770	41%
1.50	Displacement	3.33	\$5,310	\$3,798	\$1,512	40%
2.00	Compound	5.33	\$8,493	\$6,077	\$2,416	40%
3.00	Compound	10.67	\$16,989	\$11,394	\$5,595	49%

1. AWWA. (2012). M6 Water Meters—Selection, Installation, Testing and Maintenance, Fifth Edition.

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona’s enabling legislation (ARS 9-463.05(E)(7)). The top of Figure W8 summarizes the growth related cost of infrastructure in San Luis over the next ten years (approximately \$4.9 million for Water Facilities). San Luis should receive approximately \$4.2 million in Water Facilities development fee revenue over the next ten years, if actual development matches the Land Use Assumptions documented in Appendix C.

Figure W8 - Projected Water Facilities Development Fee Revenue

Ten-Year Growth-Related Costs for Water Facilities*			
		Water Cost Recovery	\$3,127,000
		Facility Improvements	\$1,761,000
		Professional Services	\$13,500
		Total	\$4,901,500

		Residential	Nonresidential
		\$1,603	\$5,310
		per connection	per 1.5" connection
<i>Year</i>		<i>Connections</i>	<i>Connections</i>
Base	2013	5,696	371
1	2014	5,893	381
2	2015	6,096	390
3	2016	6,306	400
4	2017	6,523	410
5	2018	6,747	420
6	2019	6,980	431
7	2020	7,220	442
8	2021	7,469	453
9	2022	7,726	465
10	2023	7,992	476
Ten-Yr Increase		2,296	105
Projected Fees =>		\$3,680,000	\$560,000
Total Projected Revenues		\$4,240,000	

*Ten year growth costs were approximated by multiplying the costs per gallon by the 10 year increase in water usage.

WASTEWATER FACILITIES IIP

ARS 9-463.05 (T)(7)(f) defines the facilities and assets which can be included in the Wastewater Facilities IIP:

“Wastewater facilities, including collection, interception, transportation, treatment and disposal of wastewater, and any appurtenances for those facilities.”

The Wastewater Facilities IIP includes components for the cost recovery of the wastewater treatment plant, plan-based cost of improvements, and the cost of preparing the Wastewater Facilities IIP and development fees.

Service Area

The service area for the Wastewater Facilities IIP is Citywide.

Proportionate Share

ARS 9-463.05 (B)(3) states that the development fee shall not exceed a proportionate share of the cost of necessary public services needed to provide necessary public services to the development.

The Wastewater Facilities IIP and development fees are assessed on both residential and nonresidential development as both types of development create a burden for additional wastewater facilities. Customers by land use are used to determine the proportionate share of this burden. In 2012, approximately 98% of wastewater customers in San Luis were residents, accounting for 66% of the average day demand. Approximately 2% were nonresidential customers, accounting for 34% of the average day demand.

Excluded Costs

Development fees in San Luis exclude the cost to upgrade, update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental or regulatory standards. The cost recovery methodology ensures that new development pays for their share of the debt.

WASTEWATER CONNECTIONS AND FLOW

Level of service for wastewater is based on gallons per connection per day. The current level-of-service for residential development for wastewater service is 207 gallons per connection per day. For nonresidential connections, wastewater demand averages 1,842 gallons per day. In 2012, each nonresidential wastewater connection averaged 20 jobs. The projected increase in jobs drives the demand for wastewater capacity from nonresidential development.

Figure WW1 - Wastewater Level of Service

	Avg Gallons per Day ¹	2012 Connections
Residential	1,029,600	4,976
Nonresidential	530,400	288
TOTAL	1,560,000	5,264

1. Average Gallons per Day based on approximate usage provided by City of San Luis. Division between residential and nonresidential based on portions of City of San Luis water usage from January - March 2012.

Level of Service (LOS) Standards	<i>Residential</i>
Average Residential Gallons per Day	1,029,600
2012 Service Units (residential connections)	4,976
Current LOS: Gallons per Connection per Day	207

Level of Service (LOS) Standards	<i>Nonresidential</i>
Average Nonresidential Gallons Per Day	530,400
2012 Service Units (nonresidential connections)	288
Current LOS: Gallons per Connection per Day	1842

Projected Service Units

ARS 9-463.05(E)(5) requires the total number of service units necessitated by and attributable to new development. Over the next fifteen years, average day wastewater flow is expected to increase by 0.58 MGD. The total projected wastewater flow is 2.19 MGD by 2023.

Figure WW2 - Projected Wastewater Demand

Year	Population	Jobs	Connections			MGD		
			Residential Connections	Nonres. Connections	Total	Service Unit: Res MGD	Service Unit: Nonres MGD	Total
Base 2013	29,817	5,760	5,147	295	5442	1.07	0.54	1.61
1 2014	30,844	5,905	5,325	303	5,628	1.10	0.56	1.66
2 2015	31,906	6,054	5,508	310	5,818	1.14	0.57	1.71
3 2016	33,005	6,207	5,698	318	6,016	1.18	0.59	1.77
4 2017	34,142	6,364	5,894	326	6,220	1.22	0.60	1.82
5 2018	35,318	6,525	6,097	335	6,432	1.26	0.62	1.88
6 2019	36,535	6,690	6,307	343	6,650	1.31	0.63	1.94
7 2020	37,793	6,859	6,525	352	6,877	1.35	0.65	2.00
8 2021	39,095	7,032	6,749	361	7,110	1.40	0.66	2.06
9 2022	40,441	7,210	6,982	370	7,352	1.45	0.68	2.13
10 2023	41,834	7,392	7,222	379	7,601	1.49	0.70	2.19
10 Yr Increase	12,018	1,633	2,075	84	2,159	0.43	0.15	0.58

COST RECOVERY FOR WASTEWATER PLANT DEBT

In 2005, San Luis issued \$40 million in bonds to fund various public services, with payments continuing until 2038. Including interest, the payments total \$81,245,717.25. The Wastewater Treatment Plant and System represents 31.4% of this total, and \$19,961,325 remains in principal and interest. These funds financed storage and treatment capacity increases.

Using the cost recovery methodology, the cost per gallon is \$5.70. To determine a cost per gallon, a growth share was calculated, which represents new development’s share of total gallon usage for the remainder of the debt schedule. The growth cost is divided by the projected gallon increase from 2013 to 2038 to determine a growth cost per additional gallon.

Figure WW3 – Growth Share of Wastewater Treatment Plant Debt Service

<i>Name of Debt Obligation</i>	<i>Year Debt Issued</i>	<i>FY of Final Payment</i>	<i>Remaining Principal and Interest</i>
2005 Series Bonds, Wastewater Facility Share	2005	2038	\$19,961,325

<i>Growth Share*</i>	<i>Growth Cost</i>	<i>Increase in Projected Demand (Gallons)</i>	<i>Growth Cost per Additional Gallon</i>
54%	\$10,784,785	1,890,659	\$5.70

*Growth Share (54%) is 1 - (1.61 MGD in 2013/ 3.50 MGD in 2038).

WASTEWATER FACILITY EXPANSIONS AND COST

ARS 9-463.05(E)(2) requires an analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services. San Luis has two wastewater treatment plants. The capacity of the East Mesa Plant is 1,000,000 gallons and the capacity of the West Plant is 1,500,000 gallons. The West plant operates at or near capacity. In contrast, the East Mesa plant has 94% of its capacity remaining.

Figure WW4 - Wastewater Plant Capacity

Facility	Capacity (MGD)	Peak Approximate Usage (MGD)	Remaining (MGD)
East Mesa Wastewater Treatment Plant	1.00	0.06	0.94
West Wastewater Treatment Plant	1.50	1.50	0.00
Total	2.50	1.56	0.94

Source: City of San Luis Public Works.

ARS 9-463.05(E)(1) requires a description of the existing necessary public services and the costs to upgrade or replace these services to meet existing needs and usage. ARS 9-463.05(E)(6) requires the projected demand for necessary public services or facility expansions required by service units for the next ten years. As shown above, when at peak demand, the West Wastewater plant is at capacity. However, 94% of the capacity remains at the East Mesa plant. Based on the projected increase in wastewater demand, a connection between the East Mesa and West water plants is necessary.

ARS 9-463.05(E)(3) requires a description the necessary public services and their costs necessitated by and attributable to development including a forecast of the costs. San Luis plans to construct a wastewater pump station at Juan Sanchez Blvd and 7th Avenue, which will divert around 600,000 gallons a day from the West Treatment Plant to the East Mesa Treatment Plant. This diversion will cause both plants to operate at around 65% capacity, allowing for new growth anywhere in the town as opposed to just in the East Mesa area. The cost of the pump station and force main will be around \$2 million. The cost is divided by the remaining capacity of system, so that the cost is paid off from new development that is able to use the capacity due to the pump station.

Figure WW5 - Wastewater Pump Station Cost per Gallon

Project	Location	Cost
Wastewater Pump Station	Juan Sanchez Blvd	\$2,000,000

Remaining Capacity of System	940,000
Capital Cost per Gallon of Capacity	\$2.13

PRELIMINARY WASTEWATER FACILITIES FEE

Residential wastewater facilities development fees are assessed on a per unit basis, based on average day gallons per customer. Nonresidential development fees are assessed by size and type of meter needed to serve the development. The nonresidential wastewater development fees are calculated by multiplying the number of gallons per unit by the capacity ratio for the corresponding size and type of meter multiplied by the cost per gallon, shown in Figure WW6.

The proposed development fees for Wastewater Facilities are shown in Figure WW6. The development fee is derived from the average daily wastewater flow per residential unit (207 gallons), multiplied by the cost per gallon of improvements and debt on the wastewater plant (\$7.83). Also, each new customer pays the cost of professional services for preparing the IIP and development fee (\$13.64). A revenue credit is not recommended for Wastewater Facilities because the ten-year growth costs exceed the projected Water Facilities Fee revenue.

Figure WW6 - Wastewater Facilities Development Fee Schedule

Standards:

Demand Indicators	
ERU Gallons per Average Day	207
Cost Factors per Gallon of Capacity	
Cost Recovery - Plant and Expansion	\$5.70
Pump Station	\$2.13
Total Cost per Gallon of Capacity	\$7.83
Cost Factors per Customer	
Professional Services	\$13.64

Maximum Supportable Wastewater Facilities Charge						
Residential						
Residential (per dwelling unit)			\$1,634			
Nonresidential						
Meter Size (inches)		Capacity Ratio ¹	Per Meter	Current Fees	Increase (Decrease)	% Change
0.75	Displacement	1.00	\$1,634	\$715	\$919	129%
1.00	Displacement	1.67	\$2,721	\$1,787	\$934	52%
1.50	Displacement	3.33	\$5,412	\$3,573	\$1,839	51%
2.00	Compound	5.33	\$8,654	\$5,717	\$2,937	51%
3.00	Compound	10.67	\$17,311	\$10,719	\$6,592	61%

1. AWWA. (2012). M6 Water Meters–Selection, Installation, Testing and Maintenance, Fifth Edition.

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona’s enabling legislation (ARS 9-463.05(E)(7)). The top of Figure WW7 summarizes the growth related cost of infrastructure in San Luis over the next ten years (approximately \$4,589,500 for Wastewater Facilities.) San Luis should receive approximately \$3,840,000 in Wastewater Facilities development fee revenue over the next ten years, if actual development matches the Land Use Assumptions documented in Appendix C.

Figure WW7 - Projected Wastewater Facilities Development Fee Revenue

		<i>Ten-Year Growth-Related Costs for Wastewater Facilities*</i>	
		Wastewater Cost Recovery	\$3,333,000
		Wastewater Pump Station	\$1,243,000
		Professional Services	\$13,500
		Total	\$4,589,500

		<i>Residential</i>	<i>Nonresidential</i>
		\$1,634	\$5,412
		per connection	per 1.5" connection
<i>Year</i>		<i>Connections</i>	<i>Connections</i>
Base	2013	5,147	295
1	2014	5,325	303
2	2015	5,508	310
3	2016	5,698	318
4	2017	5,894	326
5	2018	6,097	335
6	2019	6,307	343
7	2020	6,525	352
8	2021	6,749	361
9	2022	6,982	370
10	2023	7,222	379
<i>Ten-Yr Increase</i>		<i>2,075</i>	<i>84</i>
Projected Fees =>		\$3,390,000	\$450,000
Total Projected Revenues		\$3,840,000	

*Ten year growth costs were approximated by multiplying the costs per gallon by the 10 year increase in wastewater usage.

APPENDIX A: FORECAST OF REVENUES OTHER THAN FEES

ARS 9-463.05.E.7 requires “A forecast of revenues generated by new service units other than development fees, which shall include estimated state-shared revenue, highway users revenue, federal revenue, ad valorem property taxes, construction contracting or similar excise taxes and the capital recovery portion of utility fees attributable to development based on the approved Land Use Assumptions, and a plan to include these contributions in determining the extent of the burden imposed by the development as required in subsection B, paragraph 12 of this section.”

ARA 9-463.05.B.12 states, “The municipality shall forecast the contribution to be made in the future in cash or by taxes, fees, assessments or other sources of revenue derived from the property owner towards the capital costs of the necessary public service covered by the development fee and shall include these contributions in determining the extent of the burden imposed by the development. Beginning August 1, 2014, for purposes of calculating the required offset to development fees pursuant to this subsection, if a municipality imposes a construction contracting or similar excise tax rate in excess of the percentage amount of the transaction privilege tax rate imposed on the majority of other transaction privilege tax classifications, the entire excess portion of the construction contracting or similar excise tax shall be treated as a contribution to the capital costs of necessary public services provided to development for which development fees are assessed, unless the excess portion was already taken into account for such purpose pursuant to this subsection.”

San Luis does not have a higher than normal construction excise tax rate, so the required offset described above is not applicable. The required forecast of non-development fee revenue that might be used for growth-related capital costs is shown in Figure A1. General Fund revenues are highlighted in light purple. Highway user taxes are highlighted in green and the balance of the Water and Sewer Funds are highlighted in light blue. The forecast of revenues was derived from a linear regression analysis. Historical revenue data for the past five years, obtained from the City of San Luis were correlated to the growth in population and jobs in San Luis. Projected population plus jobs, from the Land Use Assumptions, is the independent variable that drives each revenue forecast.

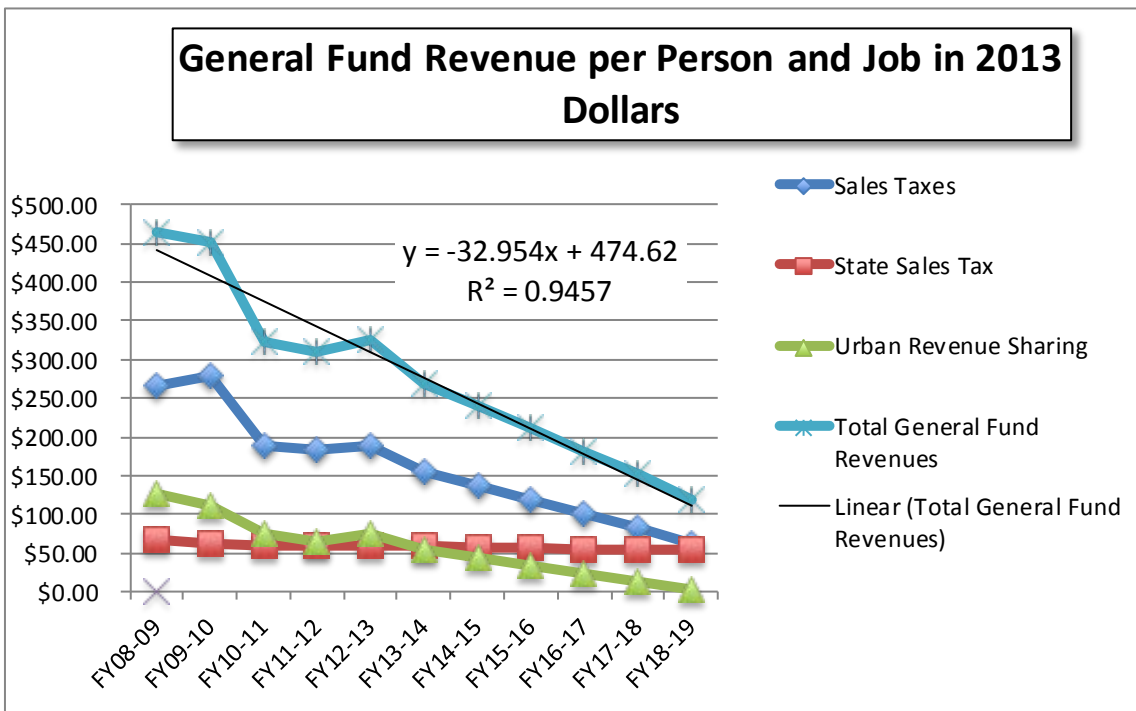
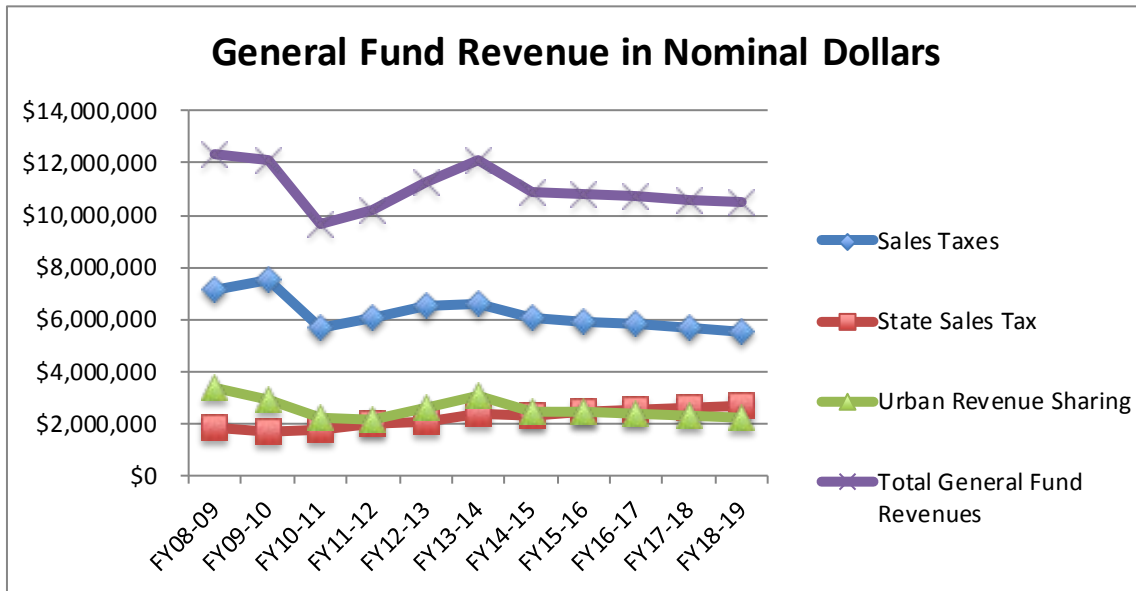
Figure A1 - Five Year Revenue Projections**Forecast of Revenues in Nominal Dollars**

	<i>FY13-14</i>	<i>FY14-15</i>	<i>FY15-16</i>	<i>FY16-17</i>	<i>FY17-18</i>	<i>FY18-19</i>
Sales Taxes	\$6,600,000	\$6,062,917	\$5,936,487	\$5,805,844	\$5,670,848	\$5,531,352
State Sales Tax	\$2,411,550	\$2,342,655	\$2,434,803	\$2,530,020	\$2,628,411	\$2,730,081
Urban Revenue Sharing	\$3,113,670	\$2,495,441	\$2,434,163	\$2,370,843	\$2,305,414	\$2,237,804
Total General Fund Revenues	\$12,125,220	\$10,901,013	\$10,805,452	\$10,706,708	\$10,604,673	\$10,499,237
Highway User Taxes	\$982,000	\$1,392,258	\$1,334,742	\$1,275,309	\$1,213,895	\$1,150,434
Water Revenue	\$6,641,150	\$4,580,483	\$4,744,349	\$4,913,676	\$5,088,645	\$5,269,446
Water Expenses	\$6,243,140	\$4,548,927	\$4,855,413	\$5,172,110	\$5,499,360	\$5,837,519
Water Fund Balance	\$398,010	\$31,555	(\$111,064)	(\$258,434)	(\$410,716)	(\$568,073)
Sewer Revenue	\$5,156,500	\$3,522,355	\$3,622,886	\$3,726,767	\$3,834,109	\$3,945,030
Sewer Expenses	\$5,482,870	\$4,238,776	\$4,502,440	\$4,774,889	\$5,056,417	\$5,347,329
Sewer Fund Balance	(\$18,535)	(\$548,973)	(\$683,798)	(\$823,114)	(\$967,072)	(\$1,115,830)

Sources: FY13-14 are amounts in FY14 San Luis Budget. FY14-15 to FY18-19 are projected by TischlerBise using linear regression analysis based on actual revenues collected by San Luis from FY08-09 to FY12-13 and FY13-14 Budget.

The graph at the top of Figure A2 gives the impression that General Fund revenues are expected to slightly decrease over the next five years. When nominal dollars are converted to constant 2013 dollars, to account for inflation, and then divided by persons plus jobs in San Luis, to “normalize” the amounts for population and job growth, the results show a much greater decline in revenue. As shown in the lower portion of Figure A2, projected revenues in constant 2013dollars are projected to decline relative to population and job growth. In other words, there is no General Fund surplus available for growth-related capital improvements.

Figure A2 - General Fund Revenues



The methodology described above was also applied to Highway User Tax revenue, with the results graphed in A3. These revenues are also expected to decline in nominal dollars.

Figure A3 - Highway User Fund Taxes

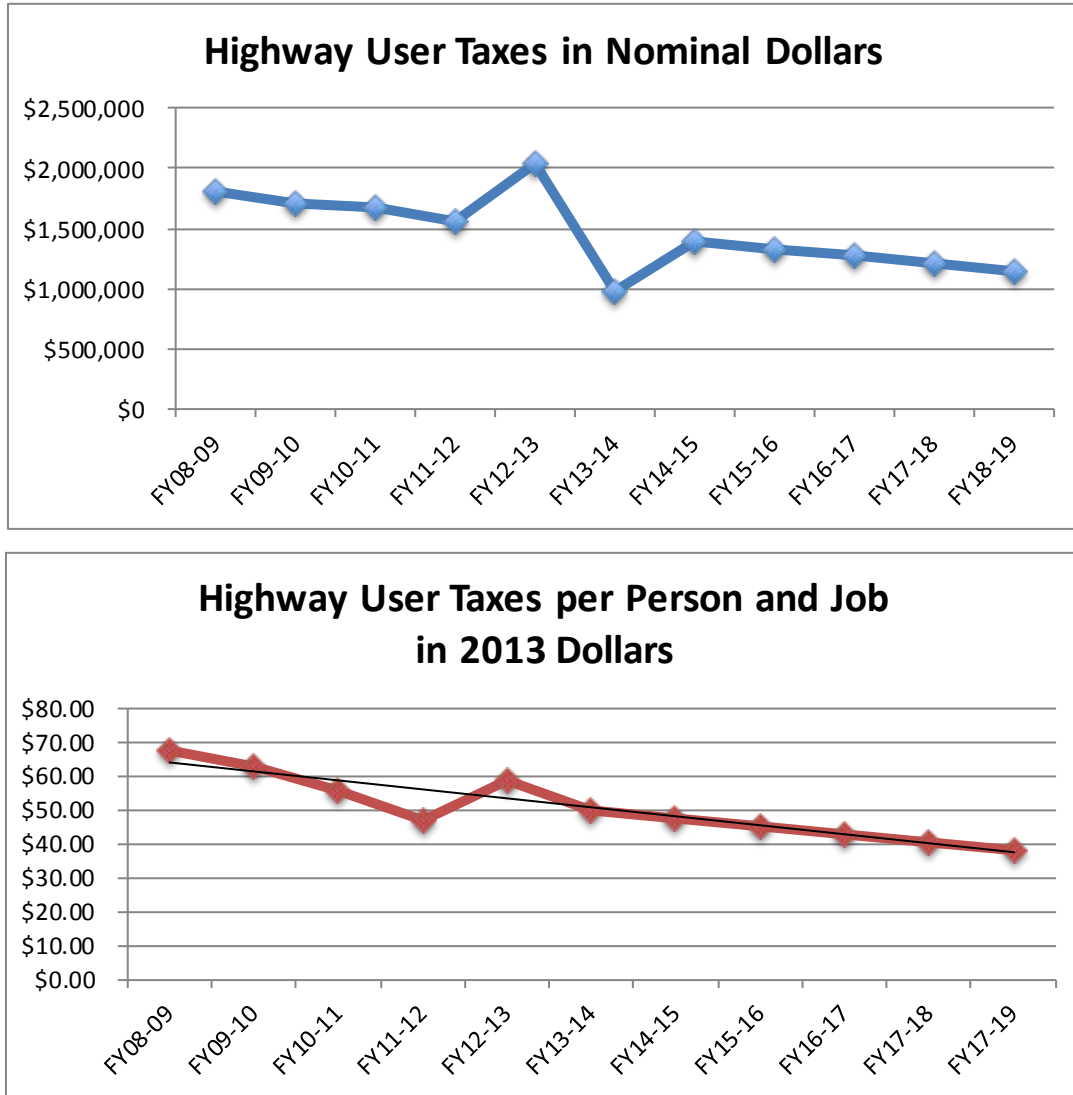
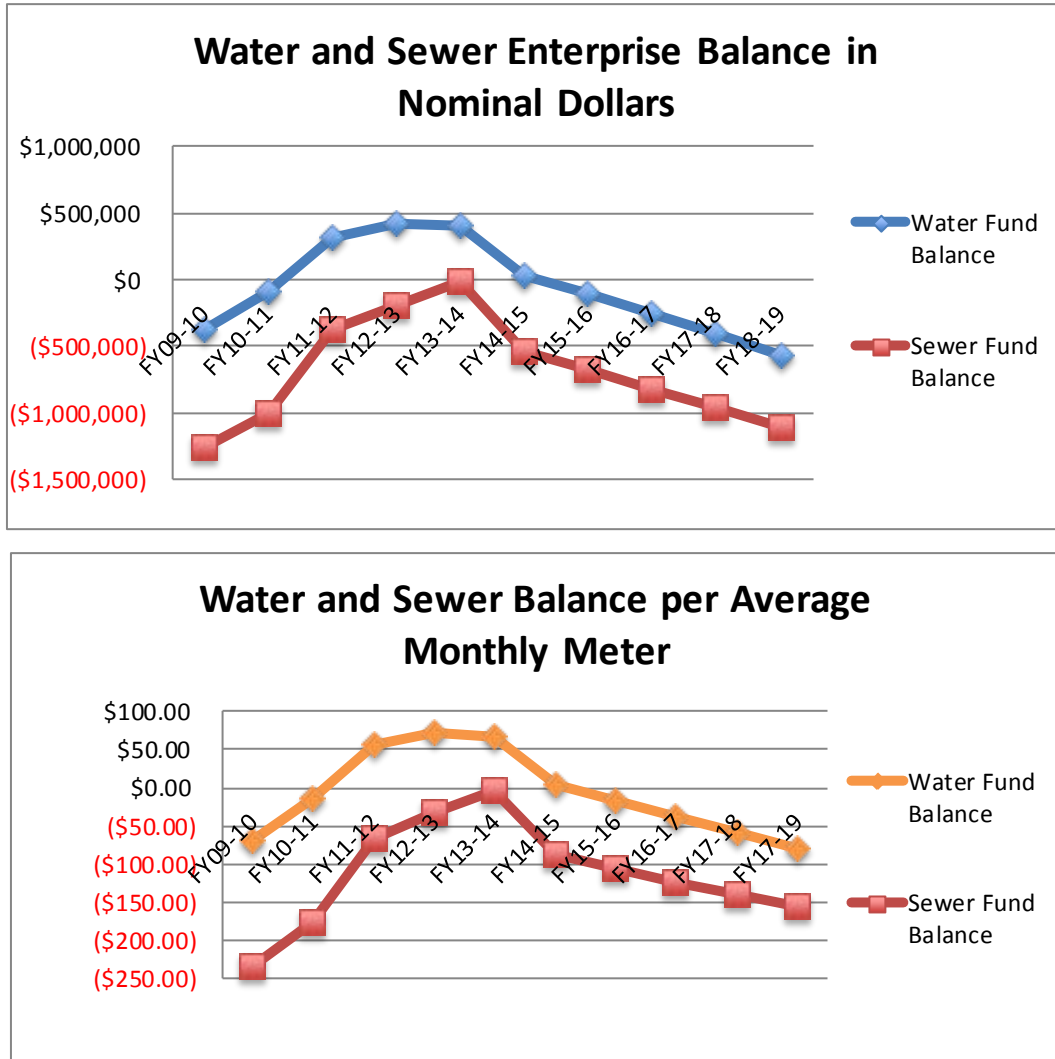


Figure A4 displays the projected balance of the Water and Sewer Fund in nominal dollars, as well as the projected balance per monthly meter in 2013 dollars. These balances are expected to decline over the next five years as well.

Figure A4 - Balance of Water and Sewer Funds



APPENDIX B: COST OF PROFESSIONAL SERVICES

As stated in Arizona’s development fee enabling legislation, “a municipality may assess development fees to offset costs to the municipality associated with providing necessary public services to a development, including the costs of infrastructure, improvements, real property, engineering and architectural services, financing and professional services required for the preparation or revision of a development fee pursuant to this section, including the relevant portion of the infrastructure improvements plan” (see 9-463.05.A). Because development fees must be updated at least every five years, the cost of professional services is allocated to the projected increase in service units, over five years (see Figure B1). Qualified professionals must develop the IIP, using generally accepted engineering and planning practices. A qualified professional is defined as “a professional engineer, surveyor, financial analyst or planner providing services within the scope of the person's license, education or experience”.

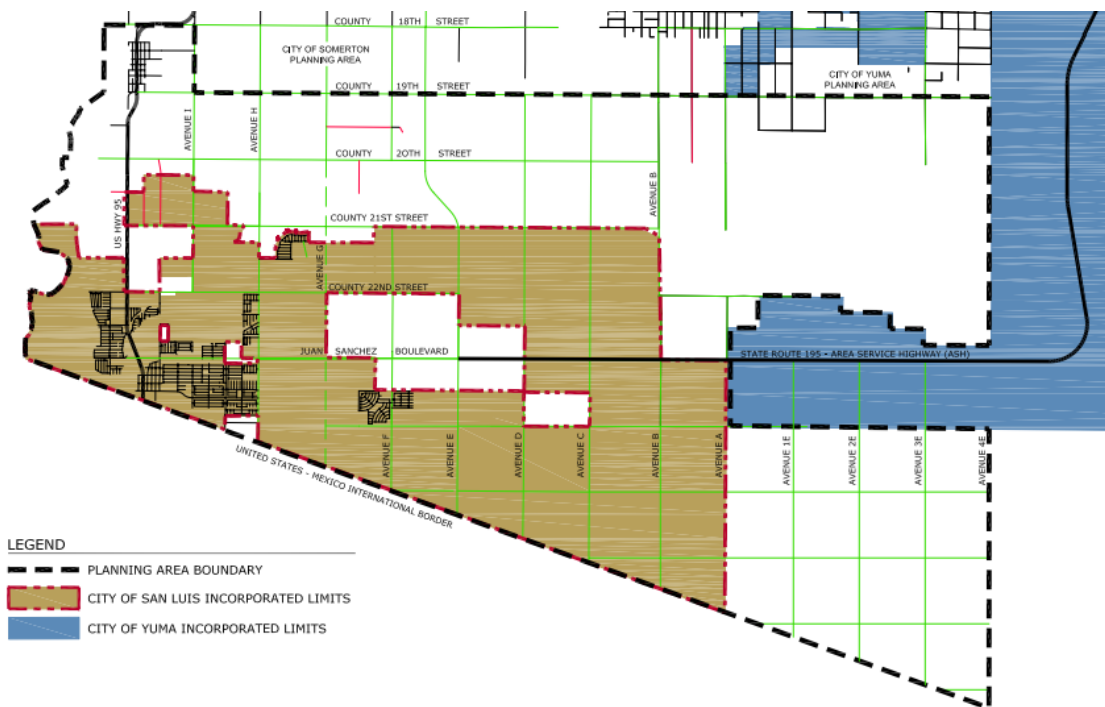
Figure B1 - Cost of Professional Services

Necessary Public Service	Cost	Assessed Against	Proportionate Share	Units	FY2013	FY2018	Change	Cost per Service Unit
General Government	\$4,500	Residential	80%	Population	29,817	35,318	5,501	\$0.65
		Nonresidential	20%	Jobs	5,760	6,525	766	\$1.18
Parks and Recreation	\$4,500	Residential	91%	Population	29,817	35,318	5,501	\$0.74
		Nonresidential	9%	Jobs	5,760	6,525	766	\$0.53
Public Safety	\$4,500	Residential	80%	Population	29,817	35,318	5,501	\$0.65
		Nonresidential	20%	Nonres Trips	24,372	27,611	3,239	\$0.28
Water	\$13,500	All Development	100%	Customers	6,067	7,167	1,100	\$12.27
Sewer	\$13,500	All Development	100%	Customers	5,442	6,432	990	\$13.64
Streets	\$13,500	All Development	100%	VMT	76,481	90,131	13,649	\$0.99
Total	\$54,000							

APPENDIX C: LAND USE ASSUMPTIONS

The estimates and projections of residential and nonresidential development in this *Land Use Assumptions* document are for areas within the boundaries of the City of San Luis. The map below illustrates the larger planning area and the current City limits.

Figure C1 - Map of City of San Luis Service Area



SUMMARY OF GROWTH INDICATORS

Arizona Revised Statutes (ARS) 9-463.05 (T)(6) requires the preparation of a *Land Use Assumptions* document which shows:

“projections of changes in land uses, densities, intensities and population for a specified service area over a period of at least ten years and pursuant to the General Plan of the municipality.”

TischlerBise has prepared this *Land Use Assumptions* document which details current demographic **estimates** and future development **projections** for both residential and nonresidential development that will be used in the infrastructure improvement plan (IIP) and calculation of the development fees. The development projections are used for calculating the level of service (LOS) to be provided to future development by planned capital projects or existing infrastructure that was oversized in anticipation of new development. The development projections are also used in forecasting the amount and cost of infrastructure required by new development that will be documented in the cash flow analysis.

Development fee methodologies are designed to reduce sensitivity to accurate development projections in the determination of the proportionate-share fee amounts. If actual development is slower than

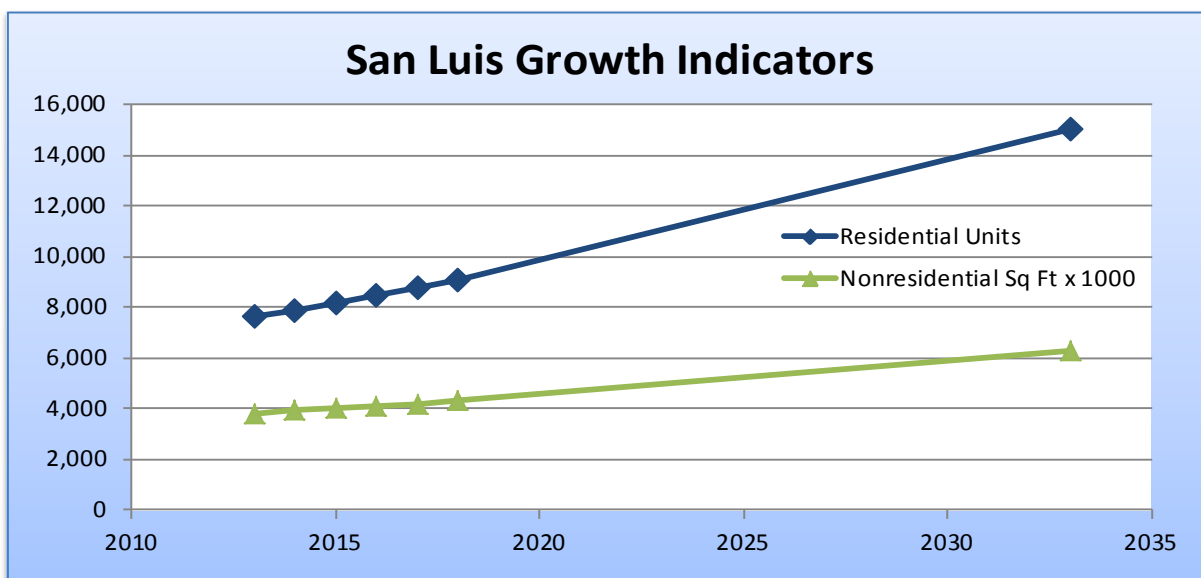
projected, impact fee revenues will also decline, but so will the need for growth-related infrastructure. In contrast, if development is faster than anticipated, the City will receive an increase in development fee revenue, but will also need to accelerate the capital improvements program to keep pace with development.

Development projections and growth rates are summarized in Figure C2. San Luis specific base data for the demographic analysis and development projections include 2010 Census calculations of population and housing units and American Community Survey tables. The projected increase in housing units is based on the Yuma Metropolitan Planning Organization’s 2033 population projection for the City and County from the 2010-2033 Regional Transportation Plan. Projected population was converted to housing units using the 2010 average of 3.91 year-round residents per housing unit. The Arizona Revised Statutes (ARS) 9-463.05 requires that “a municipality shall update the land use assumptions and infrastructure improvements plan at least every five years.” Therefore, the development fee study did not vary the persons per housing unit ratio over time, nor assume any change to the residential vacancy rate in San Luis. For housing units, the impact fee study assumes a compound annual growth rate of 3.4%.

The projected increase nonresidential floor area is based on the Yuma Metropolitan Planning Organization’s 2033 growth rate for jobs in the County. (See 2010-2033 Regional Transportation Plan.) Projected jobs within San Luis were converted to nonresidential floor area using average square-foot-per-employee multipliers obtained from non-residential floor area by type provided by the City. The development fee study assumes a compound annual growth rate of 2.6%.

Figure C2 - Development Projections and Growth Rates

	Year							2013 - 2018 Avg Annual	
	2013	2014	2015	2016	2017	2018	2033	Increase	Compound Growth Rate
Residential Units	7,628	7,891	8,163	8,444	8,735	9,035	15,016	281	3.4%
Nonresidential Sq Ft x 1000	3,810	3,910	4,000	4,110	4,210	4,330	6,280	104	2.6%



RESIDENTIAL DEVELOPMENT

Current estimates and future projections of residential development are detailed in this section, including housing units by type and population.

Current Estimates of Residential Development

The 2010 Census did not obtain detailed information using a “long-form” questionnaire. Instead, the U.S. Census Bureau has switched to a continuous monthly mailing of surveys, known as the American Community Survey (ACS) which is limited by sample-size constraints in areas with relatively few residents. For cities like San Luis, data on detached housing units are now combined with attached single units (commonly known as townhouses). One way to address this limitation is to derive fees by housing unit size, as discussed further below, is to address this ACS data limitation. Because townhouses and mobile homes generally have less floor area than detached units, fees by housing would ensure proportionality and facilitate construction of affordable units.

According to the U.S. Census bureau, a household is a housing unit that is occupied by year-round residents. Impact fees often use per capita standards and persons per housing unit or persons per household to derive proportionate-share fee amounts. When persons per housing unit are used in the fee calculations, infrastructure standards are derived using year-round population. When persons per household are used in the fee calculations, the impact fee methodology assumes all housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. TischlerBise recommends that impact fees for residential development in the City of San Luis be imposed according to the number of year-round residents per housing unit. As shown in the bottom of Figure C3, Census data indicates that San Luis had 6,525 housing units in 2010. Dwellings with a single unit per structure (detached, attached, and mobile homes) averaged 3.86 persons per housing unit. Dwellings in structures with multiple units averaged 3.47 year-round residents per unit.

Figure C3 - Person per Housing Unit by Type of Housing Unit

2008 Summary by Type of Housing from American Community Survey

Units in Structure	Renter & Owner			Housing Units	Persons per Housing Unit
	Persons	House-holds	Persons per Household		
Single Unit*	19,911	5,598	3.56	5,998	3.32
2+ Units	1,407	471	2.99	471	2.99
Subtotal	21,318				
Group Quarters	2,511				
TOTAL	23,829	6,069		6,469	3.30

Source: Tables B25024, B25032, B25033, and B26001.

2006-2010 American Community Survey, U.S. Census Bureau.

2010 Census

Single Unit*	23,332	5,491	4.25	6,050	3.86
2+ Units	1,649	462	3.57	475	3.47
Subtotal	24,981				
Group Quarters	524				
TOTAL	25,505	5,953		6,525	3.91

* Single unit includes detached, attached, and mobile homes.

Source: Totals from Summary File 1, U.S. Census Bureau.

Recent Residential Construction

From 2000-2010, San Luis has increased by an average of 320 housing units per year. The chart at the bottom of Figure C4 indicates the estimated number of housing units added by decade in San Luis. Housing units per decade have steadily increased since the 1960s.

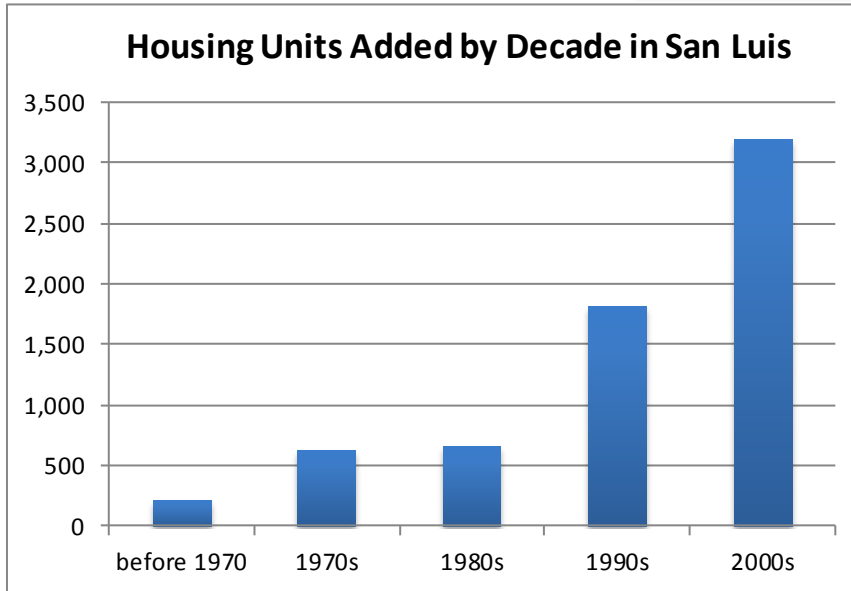
Figure C4 - Housing Units by Decade

Residential Construction Activity

San Luis, Arizona	
Census 2010 Population*	25,505
Census 2010 Housing Units*	6,525
Total Housing Units in 2000*	3,325
<i>New Housing Units</i>	3,200

* U.S. Census Bureau SF1.

From 2000 to 2010, San Luis added an average of 320 housing units per year.



Source for 1990s and earlier is Table B25034, American Community Survey, 2006-2010.

POPULATION FORECAST

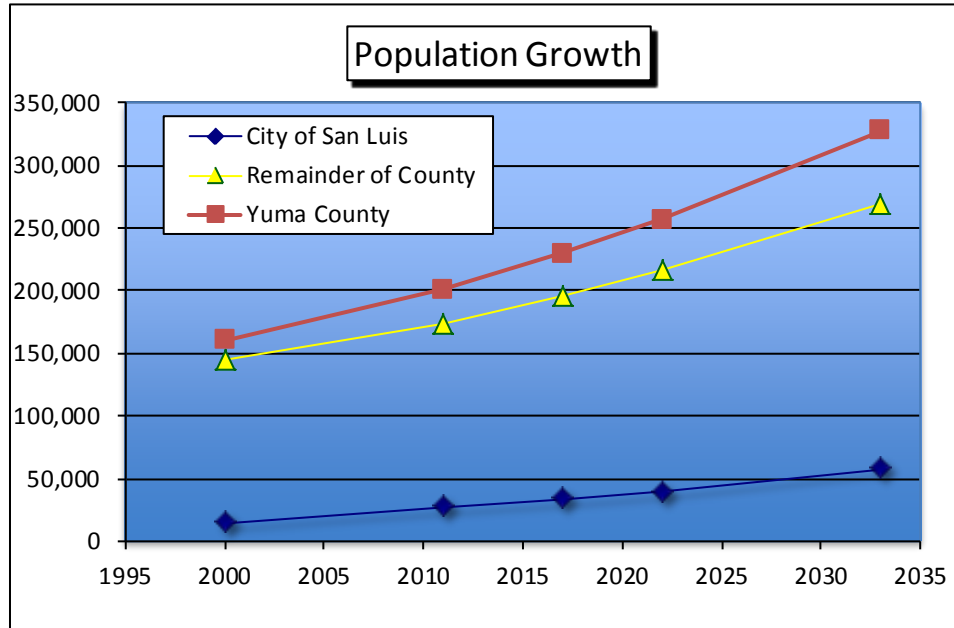
To provide context for population and job growth in San Luis, TischlerBise prepared comparisons to Yuma County projections. Yuma Metropolitan Planning Organization (YMPO) 2033 Transportation Plan expects 327,948 persons in Yuma County by 2033. Figure C5 indicates the City’s share of countywide population over time, which is projected to increase over time. The City population projections for 2033 are also from the YMPO 2033 Transportation Plan. An exponential growth formula was derived to calculate the population for 2017 and 2022 for the County and City.

The City’s 2020 General Plan lists the projected population for 2020 to be 44,080 residents. This is slightly higher than using the growth rate from YMPO. However, the primary objective is to obtain the growth rate to produce population projections up to 2017. Using the YMPO projections will provide a similar growth rate as the City projection and will be based on the same source as the County.

Figure C5 - City of San Luis Population Share

	2000	2011	2017	2022	2033
Yuma County	160,026	200,870	229,602	256,661	327,948
City of San Luis	15,322	27,864	34,142	40,441	58,696
Remainder of County	144,704	173,006	195,460	216,220	269,252
City Share	9.6%	13.9%	14.9%	15.8%	17.9%

Sources: Yuma County 2000-2011 from Census. Yuma County and City 2033 from Table II-12, YMPO 2033 Regional Transportation Plan. City of San Luis 2000-2011 from Census. An exponential growth formula derived 2017 and 2022 population for both the County and City.



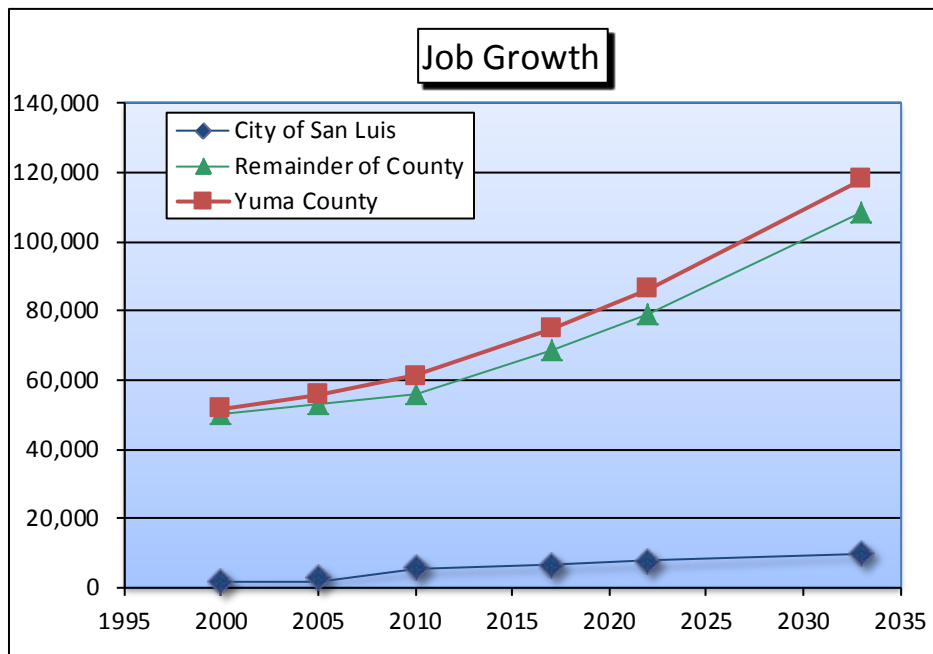
NON-RESIDENTIAL DEVELOPMENT

In addition to data on residential development, the calculation of impact fees requires data on nonresidential development. TischlerBise uses the term “jobs” to refer to employment by place of work. Similar to the population share evaluation discussed above, countywide jobs are shown in Figure C6 along with the City of San Luis share. Yuma County and City of San Luis jobs in 2000 are from the Census Transportation Package (CTPP). County and City data for 2005 and 2010 are from OnTheMap, the U.S. Census Bureau’s web application. OnTheMap estimates journey-to-work jobs used to analyze commuting patterns. Countywide and City jobs in 2033 are from Table II-13 of the Yuma Metropolitan Planning Organization 2033 Regional Transportation Plan. An exponential growth rate was derived to calculate job projections for 2017 and 2022.

Figure C6 - City of San Luis Job Share

	2000	2005	2010	2017	2022	2033
Yuma County	51,565	55,715	61,284	74,856	86,354	118,252
City of San Luis	1,635	2,449	5,344	6,364	7,210	9,488
Remainder of County	49,930	53,266	55,940	68,492	79,144	108,764
City Share	3.2%	4.4%	8.7%	8.5%	8.3%	8.0%

Sources: 2000 Yuma County and City of San Luis are from the Census Transportation Planning Package (CTPP). County and City data for all jobs 2005-2010 are from OnTheMap, U.S. Census Bureau web application. County and City 2033 projections are from Table II-13 2033 Regional Transportation Plan, Yuma MPO. An exponential growth formula derived 2017 and 2022 job projections for both the County and City.



Jobs by Type of Nonresidential Development

Figure C7 indicates the City’s 2010 job estimate and nonresidential floor area, estimated using square feet per employee multipliers obtained from the Institute of Transportation Engineers (ITE 2012) obtained from the City of San Luis. The prototype development for Industrial jobs is “light industrial.” The prototype for Commercial is an average-size shopping center. The prototype for Institutional development is an elementary school. For Office and Other Services, the development prototype is an average-sized office. General land use types are based on two-digit industry sectors, with the percentage distribution of jobs by type of development from U.S. Census Bureau’s OnTheMap web application.

Figure C7 - Jobs and Floor Area Estimate

	2010		Sq Ft per	Floor Area
	Jobs (1)		Job	(2)
Industrial/Warehousing	646	12%	433	280,000
Commercial (3)	1,069	20%	500	535,000
Institutional (4)	2,294	43%	1018	2,335,000
Office & Other Services (5)	1,335	25%	301	402,000
TOTAL	5,344	100%		3,552,000

- (1) OnTheMap web application, U.S. Census Bureau.
- (2) Trip Generation, Institute of Transportation Engineers, 2012.
- (3) Retail, Food and Accomodation Services.
- (4) Education and Public Administration.
- (5) Major sectors are Health Care, Administration & Support (office jobs), and Professional/Scientific/Technical Services.

In Figure C8, gray shading indicates four nonresidential development prototypes used by TischlerBise to estimate floor area in San Luis.

Figure C8 - Employee and Building Area Ratios

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit*	Wkdy Trip Ends Per Employee*	Emp Per Dmd Unit**	Sq Ft Per Emp
Commercial / Shopping Center						
820	Shopping Center (avg size)	1,000 Sq Ft	42.70	na	2.00	500
General Office						
710	General Office (avg size)	1,000 Sq Ft	11.03	3.32	3.32	301
Other Nonresidential						
770	Business Park***	1,000 Sq Ft	12.44	4.04	3.08	325
760	Research & Dev Center	1,000 Sq Ft	8.11	2.77	2.93	342
610	Hospital	1,000 Sq Ft	13.22	4.50	2.94	340
565	Day Care	student	4.38	26.73	0.16	na
550	University/College	student	1.71	8.96	0.19	na
540	Community College	student	1.23	15.55	0.08	na
530	High School	1,000 Sq Ft	12.89	19.74	0.65	1,531
520	Elementary School	1,000 Sq Ft	15.43	15.71	0.98	1,018
254	Assisted Living	bed	2.66	3.93	0.68	na
620	Nursing Home	1,000 Sq Ft	7.60	3.26	2.33	429
320	Motel	room	5.63	12.81	0.44	na
110	Light Industrial	1,000 Sq Ft	6.97	3.02	2.31	433
130	Industrial Park	1,000 Sq Ft	6.83	3.34	2.04	489
140	Manufacturing	1,000 Sq Ft	3.82	2.13	1.79	558
150	Warehousing	1,000 Sq Ft	3.56	3.89	0.92	1,093

* Trip Generation, Institute of Transportation Engineers, 9th Edition (2012).

** Employees per demand unit calculated from trip rates, except for Shopping Center data, which are derived from Development Handbook and Dollars and Cents of Shopping Centers, published by the Urban Land Institute.

*** According to ITE, a Business Park is a group of flex-type buildings served by a common roadway system. The tenant space includes a variety of uses with an average mix of 20-30% office/commercial and 70-80% industrial/warehousing.

DETAILED DEVELOPMENT PROJECTIONS

Demographic data shown in Figure C9 provides key inputs for updating development fees in the City of San Luis. Cumulative data are shown at the top and projected annual increases by type of development are shown at the bottom of the table. As discussed earlier, TischlerBise recommends the use of persons per housing unit to derive impact fees. Therefore, vacancy rates and number of households are not essential to the demographic analysis.

Figure C9 - Annual Demographic Data

	2013	2014	2015	2016	2017	2018	2023	2033	
	Base Yr	1	2	3	4	5	10	20	
Year-Round Population	29,817	30,844	31,906	33,005	34,142	35,318	41,834	58,696	
Jobs	5,760	5,905	6,054	6,207	6,364	6,525	7,392	9,488	
Housing Units	7,628	7,891	8,163	8,444	8,735	9,035	10,703	15,016	
Single Unit	7,094	7,339	7,592	7,853	8,124	8,403	9,954	13,965	
2+ Units	534	552	571	591	611	632	749	1,051	
Jobs to Housing Ratio	0.76	0.75	0.74	0.74	0.73	0.72	0.69	0.63	
Persons per Hsg Unit	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	
<u>Nonres Sq Ft in thousands (KSF)</u>									
Industrial	300	300	310	320	330	340	380	490	
Commercial	570	590	600	620	630	650	730	940	
Institutional	2,510	2,580	2,640	2,710	2,780	2,850	3,230	4,140	
Office & Other Services	430	440	450	460	470	490	550	710	
Total	3,810	3,910	4,000	4,110	4,210	4,330	4,890	6,280	
Avg Sq Ft Per Job	662	662	661	662	662	664	661	662	
Annual Increase	12-13	13-14	14-15	15-16	16-17	17-18	22-23	32-33	2013-33 Avg Annual
Population	993	1,027	1,062	1,099	1,137	1,176	1,393	1,954	1,375
Jobs	142	146	149	153	157	161	182	234	178
Housing Units	254	263	272	281	291	300	357	500	352
Industrial KSF	10	0	10	10	10	10	10	10	9
Commercial	10	20	10	20	10	20	10	20	18
Institutional KSF	60	70	60	70	70	70	80	100	78
Office & Other Services KSF	10	10	10	10	10	20	10	20	13
Total KSF	90	100	90	110	100	120	110	150	118