Infrastructure Improvements Plan and Development Fee Report

Prepared for:

City of Coolidge, Arizona

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TischlerBise
Fiscal, Economic & Planning Consultants

4701 Sangamore Road, Suite S240
Bethesda, MD
301.320.6900
www.tischlerbise.com

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EXECUTIVE SUMMARY

The City of Coolidge 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. The proposed development fees are displayed in the Development Fee Report in the next section in Figures 2 and 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:

- Library Facilities
- Parks and Recreational Facilities
- Police Facilities
- Fire 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.

This update of the City's development fees will be in compliance with all of the new requirements of SB 1525.

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.

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

The IIP must be developed by qualified professionals using general 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 financing analyses, user fee/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.

DEVELOPMENT FEE REPORT

METHODOLOGY

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.

A summary is provided in Figure 1 showing the methodologies, components, and allocations used to calculate the IIP.

Figure 1: Recommended Calculation Methodologies

Type of Fee	Cost Recovery (past)	Incremental Expansion (present)	Plan-Based (future)
1. Library		Facilities	
2. Parks & Recreation		Park Land Park Improvements Recreational Facilities	Parks and Recreation Master Plan
3. Police		Facilities Vehicles Comm. Equipment	Police Facilities Plan
4. Fire		Facilities Vehicles Comm. Equipment	
5. Streets		Arterials and Collectors	
6. Wastewater	Treatment Plant Debt		System Improvements Wastewater Studies

PROPOSED DEVELOPMENT FEES

Proposed non-utility development fees are displayed in Figure 2.

Figure 2: Proposed Non-Utility Development Fees

Proposed Non-Utility Development Fees						
Land Use	**Library**	**Parks**	**Police**	**Fire**	**Streets**	**Total**
Residential (per Housing Unit)						
Single Unit	$370	$1,049	$918	$938	$2,584	**$5,859**
2+ Units	$216	$612	$535	$547	$1,664	**$3,573**
Nonresidential (per 1,000 sq ft of floor area)						
Commercial	$136	$377	$2,815	$1,604	$4,623	**$9,556**
Office/ Institutional	$226	$627	$1,102	$2,665	$2,001	**$6,621**
Industrial/ Flex	$62	$173	$356	$734	$646	**$1,971**

Proposed utility development fees are shown in Figure 3.

Figure 3: Proposed Utility Development Fees

Proposed Utility Development Fees	
Per Meter	**Wastewater**
0.75	$2,117
1.00	$3,535
1.50	$7,049
2.00	$11,282
3.00	$22,585

CURRENT DEVELOPMENT FEES

Coolidge's current non-utility development fees are displayed in Figure 4.

Figure 4: Current Non-Utility Development Fees

Current Non-Utility Development Fees						
Land Use	**Library**	**Parks**	**Police**	**Fire**	**Streets**	**Total**
Residential (per Housing Unit)						
Single Unit	$584	$3,335	$697	$954	$1,970	**$7,540**
2+ Units	$480	$2,741	$573	$784	$1,027	**$5,605**
Nonresidential (per 1000 sq ft of floor area)						
Commercial	$0	$0	$1,377	$712	$4,457	**$6,546**
Office/ Institutional	$0	$0	$570	$1,080	$1,792	**$3,443**
Industrial/ Flex	$0	$0	$244	$637	$740	**$1,621**

Coolidge's current utility development fees are displayed in Figure 5.

Figure 5: Current Utility Development Fees

Current Utility Development Fees	
Per Meter	**Wastewater**
0.75	$2,551
1.00	$3,649
1.50	$6,200
2.00	$12,046
3.00	$19,259

DIFFERENCE BETWEEN PROPOSED AND CURRENT DEVELOPMENT FEES

The differences between the proposed and current non-utility development fees are displayed in Figure 6. Total single unit fees decrease by 22%, but all nonresidential fees rise.

Figure 6: Difference Between Proposed and Current Non-Utility Development Fees

Increase or Decrease							
Land Use	**Library**	**Parks**	**Police**	**Fire**	**Streets**	**Total**	**% Change**
Residential (per Housing Unit)							
Single Unit	($214)	($2,286)	$221	($16)	$614	($1,681)	-22%
2+ Units	($264)	($2,129)	($38)	($237)	$637	($2,031)	-36%
Nonresidential (per 1000 sq ft of floor area)							
Commercial	$136	$377	$1,438	$892	$166	$3,010	46%
Office/ Institutional	$226	$627	$531	$1,585	$209	$3,178	92%
Industrial/ Flex	$62	$173	$112	$97	($94)	$350	22%

The differences between the proposed and current utility development fees are displayed in Figure 7.

Figure 7: Difference Between Proposed and Current Utility Development Fees

Increase or Decrease		
Per Meter	**Wastewater**	**% Change**
0.75	($434)	-17%
1.00	($114)	-3%
1.50	$849	14%
2.00	($764)	-6%

To obtain the total development fee for a residential unit, utility fees must be added to non-utility fees. Assuming a 0.75 meter for a single residential unit, current and proposed total development fees are shown in Figure 8. Proposed fees for a single residential unit in Coolidge decrease by 21%.

Figure 8: Current and Proposed Total Fees for a Single Unit

Total Fees for Single Unit Residential			
Current	**Proposed**	**$ Change**	**% Change**
$10,091	$7,976	($2,116)	-21%

LIBRARY FACILITIES IIP

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

"Library facilities of up to ten thousand square feet that provide a direct benefit to development, not including equipment, vehicles or appurtenances."

The Library Facilities IIP includes components for facilities and the cost of professional services for preparing the Library Facilities IIP and development fees. The incremental expansion methodology is used to calculate the facilities component.

Service Area

The City has one main library. Given the centralized nature of this facility, the service area for the Library 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 accommodate new development. As shown in Figure 9, TischlerBise recommends daytime population as a reasonable indicator of the potential demand for Library (and Parks and Recreational) Facilities from residential and nonresidential development. According to the U.S. Census Bureau web application OnTheMap, there were 1,610 inflow commuters, which is the number of persons who have jobs in Coolidge but live outside the City. The proportionate share is based on cumulative impact days per year with the number of residents potentially impacting Library Facilities 365 days per year. Inflow commuters potentially impact Library Facilities 250 days per year (5 days per week multiplied by 50 weeks a year).

Figure 9: Daytime Population in 2011

		Cumulative Impact Days per Year			*Cost Allocation for Parks and Libraries*	
Residents (2011)	**Inflow Commuters (2011)**	**Residential***	**Nonresidential****	**Total**	**Residential**	**Nonresidential**
11,856	1,610	4,327,440	402,500	4,729,940	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.

ANALYSIS OF CAPACITY, USAGE, AND COSTS OF EXISTING PUBLIC SERVICES

ARS 9-463.05(E)(1) requires:

> *"A description of the existing necessary public services in the service area and the costs 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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

Library Facilities – Incremental Expansion

Coolidge has one main library which is 7,000 square feet. The existing space is not sufficient to accommodate the current population of Coolidge and is over capacity. According to the Department of Defenses' Unified Facility Criteria[1] (which is an element of Whole Building Design Guide, a program of the National Institute for Building Services), a library of 18,000 square feet is recommended for a population of 4,001 - 12,000 and 26,000 square feet for a population above 12,000. Coolidge is well below these standards.

To determine the existing level service, the total square footage (7,000) is divided between residential (91%) and nonresidential (9%) development using the proportionate share factors determined in Figure 9. Then, each share is divided by the 2013 service units (12,059 persons and 2,469 jobs) to determine the level of service. The residential level of service is 0.53 square feet per person and the nonresidential level of service is 0.26 square feet per job. The estimated construction cost is based on recent facility plans for a joint City Hall/Library facility the City was considering constructing at one point. Based on information developed during this process indicates a cost of $264 per square foot, which includes the cost of construction and land. Multiplying this cost by the level of service standards (0.53 square feet per person and 0.26 square feet per job) results in a cost per service unit of $139.45 per person and $67.37 per job.

[1] http://www.wbdg.org/ccb/DOD/UFC/ufc_4_740_20.pdf

Figure 10: Library Facilities Inventory and LOS

Site	*Square Feet*
Coolidge Library	7,000

Cost per Square Foot	**$264**

Source: City of Coolidge. Cost per square foot of planned library, including land.

	Proportionate Share	2013 Service Units	LOS: Square Feet per Service Unit	Cost per Service Unit
Residential	91%	12,059 persons	0.53 sq ft per person	**$139.45 per person**
Nonresidential	9%	2,469 jobs	0.26 sq ft per job	**$67.37 per job**

RATIO OF SERVICE UNIT TO DEVELOPMENT UNIT

ARS 9-463.05(E)(4) requires:

> *"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."*

Figure 11 displays the ratio of a service unit to various types of land uses for residential and nonresidential development

Figure 11: Library Facilities Ratio of Service Unit to Development Unit

Residential Development	
Land Use	**Persons per Housing Unit**
Single Unit	2.55
2+ Units	1.49

Source: TischlerBise Land Use Assumptions.

Nonresidential Development per KSF	
Land Use	**Employees per KSF**
Commercial	2.00
Office/ Institutional	3.32
Industrial	0.92

Source: Institute of Transportation Engineers, 2012.

PROJECTED DEMAND FOR SERVICES AND COSTS

ARS 9-463.05(E)(5) requires:

> *"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."*

As shown in Figure 12, the Land Use Assumptions projects an additional 2,959 persons and 1,151 jobs over the next ten years.

ARS 9-463.05(E)(6) requires:

> *"The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years."*

These projected service units (2,959 persons and 1,151 jobs) are multiplied by the current levels-of-service for Library Facilities in Figure 12. This new development will demand an additional 1,857 square feet of libraries. This ten-year total of projected library facility demand is multiplied by the cost per square foot ($264) to determine the total cost to accommodate the projected demand, which is approximately $490,100.

Figure 12: Projected Demand for Public Services and Facility Expansions

	Facilities	
Res LOS	0.53	sq ft per person
Nonres LOS	0.26	sq ft per job
Cost	$264	per square foot

		Projected Demand		
		Service Unit: Persons	*Service Unit*: Jobs	Facility Square Feet
Base	2013	12,059	2,469	7,000
1	2014	12,121	2,565	7,057
2	2015	12,293	2,665	7,174
3	2016	12,527	2,769	7,324
4	2017	12,848	2,877	7,521
5	2018	13,181	2,989	7,725
6	2019	13,526	3,106	7,938
7	2020	13,884	3,227	8,157
8	2021	14,253	3,353	8,385
9	2022	14,636	3,484	8,620
10	2023	15,018	3,620	8,857
Ten Yr Total		**2,959**	**1,151**	**1,857**
Cost of Facility Improvements				$490,100

LIBRARY FACILITIES IIP

ARS 9-463.05(E)(3) requires:

> *"A description of all or the parts of the necessary public services or facility expansions 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 this state, as applicable."*

Lastly, the necessary Library Facilities improvements and expansions are listed in Figure 13, Coolidge plans to use funds from development fees to fund a portion of a new main library. Other revenue sources are necessary besides development fees to fund a new library.

Figure 13: Necessary Library Facilities Improvements and Expansions (10 Year Total)

Project	10 Yr Total
New Main Library	**$4,500,000**

Source: Coolidge CIP.

LIBRARY FACILITIES DEVELOPMENT FEES

Revenue Credit

Included in the maximum supportable development fees is a *Revenue Credit* of 1.4% percent. The unadjusted Library Facilities development fees per service unit would generate more revenue over the next ten years, based on the approved Land Use Assumptions, than the identified growth cost of improvements of $499,203. To ensure that no more fee revenue is collected than the City plans to spend, the potential gross cost per service unit is reduced by the revenue credit to calculate the net capital cost per service unit. Based on the gross capital costs per service unit, the projected development fee revenue would equal $506,000. To formula to calculate the *Revenue Credit* is as follows: ($506,000 – $499,203) / $499,203 = 1.4 percent (rounded).

Proposed Library Facilities Development Fees

Infrastructure standards and cost factors for Library Facilities, including facilities and the cost of professional services for the IIP and Development Fee Study are summarized in the portions above the proposed development fees in Figure 14. Updated development fees for Library Facilities are shown in the column with green shading, and the current development fees are highlighted in yellow.

Figure 14: Proposed Library Facilities Development Fees

Cost per Person	
Library Facilities	$139.45
Professional Services	$7.38
Revenue Credit	($2.06)
Net Cost per Service Unit	**$144.78**

1.4%

Residential Development Fees per Housing Unit

Residential (per housing unit)	*Persons per Housing Unit*	***Proposed Fee***	*Current Fee*	*Increase (Decrease)*	% Change
Single Unit	2.55	**$370**	$584	($214)	-37%
2+ Units	1.49	**$216**	$480	($264)	-55%

Cost per Job	
Library Facilities	$67.37
Professional Servies	$1.57
Revenue Credit	($0.97)
Net Cost per Service Unit	**$67.98**

1.4%

Nonresidential Development Fees per 1,000 Square Feet of Floor Area

Development Type	*Employees per KSF*	***Proposed Fee***	*Current Fee*	*Increase (Decrease)*
Commercial	2.00	**$136**	$0	$136
Office/ Institutional	3.32	**$226**	$0	$226
Industrial/ Flex	0.92	**$62**	$0	$62

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona's enabling legislation (ARS 9-463.05(E)(7)).

Library Facilities Development Fee Revenue

The top of Figure 15 summarizes the growth related cost of infrastructure in Coolidge over the next ten years (approximately $499,203 for Library Facilities.) Coolidge should receive approximately $499,000 in Library Facilities development fee revenue over the next ten years, if actual development matches the Land Use Assumptions.

Figure 15: Projected Library Facilities Development Fee Revenue

Ten-Year Growth-Related Costs for Library Facilities

Library Facilities	$490,100
Professional Services	$9,103
Total	**$499,203**

		Single Unit $370 per housing unit	*2+ Units* $216 per housing unit	*Commercial* $136 per 1000 Sq Ft	*Office/ Institutional* $226 per 1000 Sq Ft	*Industrial* $62 per 1000 Sq Ft
	Year	*Hsg Units*	*Hsg Units*	*KSF*	*KSF*	*KSF*
Base	2013	4,423	391	417	366	179
1	2014	4,444	395	434	381	186
2	2015	4,508	401	450	396	193
3	2016	4,596	408	468	411	201
4	2017	4,715	419	486	427	209
5	2018	4,839	430	505	444	217
6	2019	4,968	441	525	461	225
7	2020	5,101	453	546	479	234
8	2021	5,239	465	567	498	243
9	2022	5,381	478	589	517	253
10	2023	5,523	491	612	537	263
Ten-Yr Increase		*1,100*	*100*	*195*	*171*	*84*
Projected Fees =>		**$407,000**	**$21,000**	**$27,000**	**$39,000**	**$5,000**

Total Projected Revenues	**$499,000**
Cumulative Net Surplus/ Deficit	**($203)**

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 land, park improvements, recreational facilities, a credit for the Kennilworth Sports Complex, the Parks and Recreation Master Plan, and the cost of professional services for preparing the Parks and Recreational Facilities IIP and development fees.

Service Area

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

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. As shown in Figure 16, TischlerBise recommends daytime population as a reasonable indicator of the potential demand for Parks and Recreational Facilities from residential and nonresidential development. According to the U.S. Census Bureau web application OnTheMap, there were 1,610 inflow commuters in 2011, which is the number of persons who have jobs in Coolidge but live outside the City. The proportionate share is based on cumulative impact days per year with the number of residents potentially impacting Parks and Recreational Facilities 365 days per year. Inflow commuters potentially impact Parks and Recreational Facilities 250 days per year (5 days per week multiplied by 50 weeks a year).

Figure 16: Daytime Population in 2011

		Cumulative Impact Days per Year			*Cost Allocation for Parks and Libraries*	
Residents (2011)	**Inflow Commuters (2011)**	**Residential***	**Nonresidential****	**Total**	**Residential**	**Nonresidential**
11,856	1,610	4,327,440	402,500	4,729,940	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.

ANALYSIS OF CAPACITY, USAGE, AND COSTS OF EXISTING PUBLIC SERVICES

ARS 9-463.05(E)(1) requires:

> *"A description of the existing necessary public services in the service area and the costs 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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

Park Land – Incremental Expansion

The inventory of parks in Coolidge is displayed in Figure 17. Coolidge has 12 parks, which total 48.86 acres. The cost to purchase parkland is $15,000 per acre, as provided by City of Coolidge.

The level of service for residential development is 3.7 acres per 1,000 persons, which is found by multiplying the total number of acres (48.86) by the residential proportionate share (91%), dividing this total by the 2013 population (12,059), and multiplying this number by 1,000. The nonresidential level of service is 1.8 acres per 1,000 jobs, which is found by multiplying the total number of acres (48.86) by the nonresidential proportionate share (9%), dividing this total by the number of jobs in 2013 (2,469), and multiplying this total by 1,000. Multiplying the levels of service by the cost per acre results in a cost per person of $55.31 and a cost per job of $26.72.

Figure 17: Park Land Inventory and LOS

Park	*Total Acres*
Kennilworth Sports Complex	20.16
HoHoKam Park	9.90
San Carlos Park	4.20
Landmark Ranch	3.35
East Park	2.40
North Park	2.35
Adult Center Park	2.10
Walker Park	1.82
Main St. Park	1.00
Rotary Skate Park	0.90
Palo Verde Park	0.50
Nutt Park	0.18
Total	**48.86**

Cost per Acre	**$15,000**

Source: City of Coolidge.

Level of Service (LOS) Standards	Residential		Nonresidential	
Proporationate Share	91%		9%	
2013 Service Units	12,059	persons	2,469	jobs
Level of Service	**3.7**	**acres per 1,000 persons**	**1.8**	**acres per 1,000 jobs**
Infrastructure Cost per Service Unit	**$55.31**	**per person**	**$26.72**	**per job**

Park Improvements – Incremental Expansion

The inventory of park improvements is displayed in Figure 18. Coolidge parks have 62 improvements, which have a replacement cost of $2,764,500. Dividing the total value by the total number of improvements yields an average cost per improvement of $44,589. The current residential level of service is 4.7 improvements per thousand persons, which was obtained by multiplying the 62 improvements by the residential proportionate share (91%) and dividing this amount by the current population (12,059), and multiplying this total by 1,000 persons. The nonresidential level of service is 2.3 units per 1,000 jobs. Multiplying the average cost per improvement ($44,589) by the levels of service and dividing these totals by 1,000 results in a cost per person of $208.62 and $100.78 per job.

Figure 18: Park Improvements Inventory and LOS

Amenity Type	*Total Units*	*Unit Cost*[1]	*Total*
Ramadas (single)	13	$15,000	$195,000
Shuffle board	1	$1,000	$1,000
Horseshoe Pits	5	$1,000	$5,000
Playgrounds	6	$82,500	$495,000
Ball Fields	5	$129,000	$645,000
Concession/RR	3	$50,000	$150,000
Tennis Courts	8	$75,000	$600,000
Basketball Courts	5	$75,000	$375,000
Soccer/ Football	1	$58,500	$58,500
Volleyball Courts	3	$30,000	$90,000
Skate Park	1	$150,000	$150,000
Total	**62**		**$2,764,500**

1. Costs based on estimes from other Arizona cities, including Payson, Sedona, and Eloy.

Level of Service (LOS) Standards	
Number of Improvements	62
Number of Improved Acres	48.86
Improvements per Acre	1.3
Average Cost per Improvement	**$44,589**

Level of Service (LOS) Standards	Residential		Nonresidential	
Proporationate Share	91%		9%	
2013 Service Units	12,059	persons	2,469	jobs
Level of Service	**4.7**	**units per 1,000 persons**	**2.3**	**units per 1,000 jobs**
Infrastructure Cost per Service Unit	**$208.62**	**per person**	**$100.78**	**per job**

Recreational Facilities – Incremental Expansion

The City of Coolidge has two recreational facilities, including a community center and a youth teen center. The facilities total 20,500 square feet and have an average cost per square foot of $89. This results in a level of service of 1.5 square feet per person and 0.7 square feet per job. Multiplying the levels of service by the cost per square foot ($89) results in recreational facility costs per service unit of $137.76 per person and $66.55 per job.

Figure 19: Recreational Facilities Inventory and LOS

Recreational Facility	*Square Feet*	*Cost* [1]
Community Center	10,000	$511,411
Youth Teen Center	10,500	$1,314,143
Total	**20,500**	**$1,825,555**

1. Costs provided by City of Coolidge and Coolidge Asset Report.

Average Cost per Square Foot	**$89**

Level of Service (LOS) Standards	Residential		Nonresidential	
Proporationate Share	91%		9%	
2013 Service Units	12,059	persons	2,469	jobs
Level of Service	**1.5**	**sq ft per person**	**0.7**	**sq ft per job**
Infrastructure Cost per Service Unit	**$137.76**	**per person**	**$66.55**	**per job**

Kennilworth Sports Complex – Credit

In 2008, Coolidge issued debt to fund the Kennilworth Sports Complex, which is a complex located on 20.15 acres of land. The original principal amount of debt was for $1,501,000. There is $543,580 remaining in principal which Coolidge plans to finish paying off in 2016, as shown in Figure 20. To avoid potential double payment for park land and improvements, a credit is necessary because new residential units that will pay the impact fee will also contribute to future principal payments on this remaining debt.

To derive the credit amount, annual principal payments are multiplied by residential and nonresidential proportionate shares, and then divided by either the population or jobs each year to get a per person or per job credit. (For example, in 2014, the amount of principal to be paid of approximately $103,440 is multiplied by the residential proportionate share of 91%, and then divided by the population of 12,121 for a payment per person of $7.77.) To account for the time value of money, annual payments per person and per job are discounted using a net present value formula based on average current interest rate of 4.0 percent. The total net present value of future principal payments per person is $36.72 and the credit per job is $16.71. The amount is subtracted from the gross capital cost per person amount to derive a net cost per person or per job for Parks and Recreational Facilities.

Figure 20: Credit for Debt Payments on Kennilworth Sports Complex

Year	*Remaining Principal*	*Projected Population*	*Projected Jobs*	*Principal Payment*	
		91%	*9%*	*Credit Per Person*	*Credit per Job*
FY 2014	$103,440	12,121	2,565	$7.77	$3.63
FY 2015	$215,550	12,293	2,665	$15.96	$7.28
FY 2016	$224,590	12,527	2,769	$16.31	$7.30
Total	$543,580			$40.04	$18.21
		Discount Rate		*4.00%*	*4.00%*
		Present Value		**$36.72**	**$16.71**

Parks and Recreation Master Plan – Plan Based

The City of Coolidge plans to fund a Parks & Recreation Master Plan for the cost of $125,000. The residential cost per service unit is $38.45 per person, which is found by multiplying the total Plan cost ($125,000) by the residential proportionate share and dividing this total by the increase in persons from 2013-2023 (2,959). The nonresidential cost per service unit is $9.78 per job, which is found by multiplying the total Plan cost ($125,000) by the nonresidential proportionate share (9%) and dividing this total by the projected increase in jobs from 2013 to 2023 (1,151).

Figure 21: Parks and Recreation Master Plan – Plan Based

Study	*Cost*
Parks & Recreation Master Plan	$125,000

	Proportionate Share	Proportionate Cost	Increase in Service Units 2013 - 2023	Cost per Service Unit
Residential	91%	$113,750	2,959 persons	**$38.45 per person**
Nonresidential	9%	$11,250	1,151 jobs	**$9.78 per job**

RATIO OF SERVICE UNIT TO DEVELOPMENT UNIT

ARS 9-463.05(E)(4) requires:

> *"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."*

Figure 22 displays the level of service of each Parks and Recreational Facilities element compared to residential and nonresidential land use.

Figure 22: Parks and Recreational Facilities Ratio of Service Unit to Development Unit

Residential Development	
Land Use	**Persons per Housing Unit**
Single Unit	2.55
2+ Units	1.49

Source: TischlerBise Land Use Assumptions.

Nonresidential Development per KSF	
Land Use	**Employees per KSF**
Commercial	2.00
Office/ Institutional	3.32
Industrial	0.92

Source: Institute of Transportation Engineers, 2012.

PROJECTED DEMAND FOR SERVICES AND COSTS

ARS 9-463.05(E)(5) requires:

> *"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."*

As shown in Figure 23, the Land Use Assumptions projects an additional 2,959 persons and 1,151 jobs over the next ten years.

ARS 9-463.05(E)(6) requires:

> *"The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years."*

These projected service units are multiplied by the current levels-of-service for the IIP components shown in Figure 23. New development will demand an additional 13 acres of park land, 16 improvements and 5,437 square feet of recreational facilities.

The park acres, park improvements, and recreational facility square feet totals demanded by new development multiplied by the respective costs results in a total of $194,400 to spend on park land, $733,200 to spend on improvements and $484,200 to spend on recreational facilities to accommodate projected demand, shown in the bottom of Figure 23.

Figure 23: Projected Demand for Public Services and Facility Expansions

	Park Land		Park Improvements		Recreational Facilities	
Res LOS	3.7	acres per 1,000 persons	4.7	improvements per 1,000 persons	1.5	square feet per person
Nonres LOS	1.8	acres per 1,000 jobs	2.3	improvements per 1,000 jobs	0.7	square feet per person
Cost	$15,000	average cost per acre	$44,589	average cost per improvement	$89	per square ft

		Projected Demand				
		Serivce Unit: Persons	*Service Unit:* Jobs	Land (acres)	Improvements	Recreational Facility Square Feet
Base	2013	12,059	2,469	49	62	20,500
1	2014	12,121	2,565	49	63	20,667
2	2015	12,293	2,665	50	64	21,009
3	2016	12,527	2,769	51	65	21,449
4	2017	12,848	2,877	52	67	22,026
5	2018	13,181	2,989	54	68	22,624
6	2019	13,526	3,106	55	70	23,246
7	2020	13,884	3,227	57	72	23,889
8	2021	14,253	3,353	59	74	24,555
9	2022	14,636	3,484	60	76	25,244
10	2023	15,018	3,620	62	78	25,937
Ten Yr Total		**2,959**	**1,151**	**13**	**16**	**5,437**
Cost of Park Land				$194,400		
Cost of Park Improvements					$733,200	
Cost of Facilities						$484,200

Total Cost of Public Services and Facility Expansions to Accommodate New Development	**$1,411,800**

PARKS AND RECREATIONAL FACILITIES IIP

ARS 9-463.05(E)(3) requires:

> *"A description of all or the parts of the necessary public services or facility expansions 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 this state, as applicable."*

Figure 24 lists park land, improvements, and recreational facilities that Coolidge is planning fund to accommodate new development over the next ten years. These are the projects the City has identified that will serve new growth and development fees will fund all or a portion of the costs. Coolidge plans to purchase $250,000 worth of land for new parks, as well as land for a new soccer complex. Improvements on current parks and future parks include improvements for the soccer complex, restrooms for Walker Park ($25,000), and other amenities, such as horseshoe pits and volleyball courts. Coolidge is also planning a multi-generational center which the recreational facilities component of the Parks and Recreational Facilities development fees can fund a portion of.

Figure 24: Necessary Parks and Recreational Facilities Improvements and Expansions (10- Year Total)

Project	10-Yr Total
Park Land and Improvements	
Land Purchase	$250,000
Soccer Complex (includes land and improvements)	$1,500,000
Walker Park Restrooms	$50,000
Other Improvements, including horsehoe pits and volleyball courts	$75,000
Subtotal: Park Land and Improvements	***$1,875,000***
Facilities	
Multi-generational Center	$7,000,000
Subtotal: Facilities	***$7,000,000***
Total	**$8,875,000**

PARKS AND RECREATIONAL FACILITIES DEVELOPMENT FEES

Revenue Credit

A revenue credit is not necessary for Parks and Recreational Facilities development fees because 10-year growth costs exceed the amount of revenue that is projected to be generated by development fees according to the Land Use Assumptions.

Proposed Parks and Recreational Facilities Development Fees

Infrastructure standards and cost factors for Parks and Recreational Facilities, including park land, park improvements, recreational facilities, a debt credit for Kennilworth Sports Complex, the Parks and Recreation Master Plan, and the professional services cost for the IIP and Development Fee Study are summarized in the portions above the proposed development fees in Figure 25. Updated development

fees for Parks and Recreational Facilities are shown in the column with green shading, and the current development fees are highlighted in yellow.

Figure 25: Proposed Parks and Recreational Facilities Development Fees

Cost per Person	
Park Land	$55.31
Park Improvements	$208.62
Recreational Facilities	$137.76
Parks and Recreation Master Plan	$38.45
Kenniworth Sports Complex Credit	($36.72)
Professional Services	$7.38
Net Cost per Service Unit	**$410.79**

Residential Development Fees per Housing Unit

Development Type	*Persons per Housing Unit*	***Proposed Fee***	*Current Fee*	*Increase (Decrease)*	% Change
Single Unit	2.55	**$1,049**	$3,335	($2,286)	-69%
2+ Units	1.49	**$612**	$2,741	($2,129)	-78%

Cost per Job	
Park Land	$26.72
Park Improvements	$100.78
Recreational Facilities	$66.55
Parks and Recreation Master Plan	$9.78
Kenniworth Sports Complex Credit	($16.71)
Professional Services	$1.57
Net Cost per Service Unit	**$188.69**

Nonresidential Development Fees per 1,000 Square Feet of Floor Area

Development Type	*Employees per KSF*	***Proposed Fee***	*Current Fee*	*Increase (Decrease)*
Commercial	2.00	**$377**	$0	$377
Office/ Institutional	3.32	**$627**	$0	$627
Industrial/ Flex	0.92	**$173**	$0	$173

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona's enabling legislation (ARS 9-463.05(E)(7)).

Parks and Recreational Facilities Development Fee Revenue

The top of Figure 26 summarizes the growth related cost of infrastructure in Coolidge over the next ten years (approximately $1,545,903 for Parks and Recreational Facilities). Coolidge should receive approximately $1,411,000 in Parks and Recreational Facilities development fee revenue over the next ten years, if actual development matches the Land Use Assumptions.

Figure 26: Projected Parks and Recreational Facilities Development Fee Revenue

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

Park Land	$194,400
Park Improvements	$733,200
Recreational Facilities	$484,200
Parks and Recreation Master Plan	$125,000
Professional Services	$9,103
Total	**$1,545,903**

		Single Unit $1,049 per housing unit	*2+ Units* $612 per housing unit	*Commercial* $377 per 1000 Sq Ft	*Office/ Institutional* $627 per 1000 Sq Ft	*Industrial/ Flex* $173 per 1000 Sq Ft
	Year	*Hsg Units*	*Hsg Units*	*KSF*	*KSF*	*KSF*
Base	2013	4,423	391	417	366	179
1	2014	4,444	395	434	381	186
2	2015	4,508	401	450	396	193
3	2016	4,596	408	468	411	201
4	2017	4,715	419	486	427	209
5	2018	4,839	430	505	444	217
6	2019	4,968	441	525	461	225
7	2020	5,101	453	546	479	234
8	2021	5,239	465	567	498	243
9	2022	5,381	478	589	517	253
10	2023	5,523	491	612	537	263
Ten-Yr Increase		*1,100*	*100*	*195*	*171*	*84*
Projected Fees =>		**$1,154,000**	**$61,000**	**$74,000**	**$107,000**	**$15,000**

Total Projected Revenues	**$1,411,000**
Cumulative Net Surplus/ Deficit	**($134,903)**

POLICE FACILITIES IIP

ARS 9-463.05 (T)(7)(f) defines the facilities and assets which can be included in the Police 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 Police Facilities IIP includes components for police facilities, police vehicles, police communication equipment, the Police Facilities Plan, and the cost of professional services for preparing the Police Facilities IIP and Development Fees.

Service Area

The City provides police services and facilities as one integrated network. As a result, the service area is City-wide.

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. The Police Facilities IIP and Development Fees use calls for police services by residential and nonresidential development to allocate the cost between the two types. As shown in Figure 27, 72% of the cost is allocated to residential development and 28% is to nonresidential development.

Figure 27: Proportionate Share

Development Type	Number of Calls	Percent of Total
Residential	11,521	72%
Nonresidential	4,586	28%
Total	**16,107**	**100%**

Source: Coolidge Police Department, 2012.

The development fee for Police 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 police 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 Police Facilities from nonresidential development.

ANALYSIS OF CAPACITY, USAGE, AND COSTS OF EXISTING PUBLIC SERVICES

ARS 9-463.05(E)(1) requires:

> *"A description of the existing necessary public services in the service area and the costs 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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

Police Facilities – Incremental Expansion

The Police Department is situated in a 19,000 square foot building, of which the Police Department occupies 16,000 square feet. The Council Chamber uses the remaining 3,000 square feet. The incremental expansion methodology is used to calculate the facility portion of the fee, with new development maintaining the current infrastructure standards.

The level of service for residential development is 0.95 square feet per person and the nonresidential level of service is 0.55 square feet per vehicle trip (average weekday inbound trip to nonresidential development). The cost per square foot is $200. Multiplying the cost per square foot by the levels of service results in a cost per service units of $189.81 per person and $110.93 per trip.

Figure 28: Police Facilities Inventory and LOS

Site	*Square Feet*[1]
Police Station 204	16,000

1. Represents police portion of facility.

Cost per Square Foot[1]	$200

1. Original cost of police station is $3,795,000 and total square footage is 19,000.

	Proportionate Share	2013 Service Units	LOS: Square Feet per Service Unit	Cost per Service Unit
Residential	72%	12,059 persons	0.95 sq ft per person	**$189.81 per person**
Nonresidential	28%	8,213 trips	0.55 sq ft per trip	**$110.93 per trip**

Police Vehicles – Incremental Expansion

The City currently has 34 police vehicles, as shown in the inventory below. Based on the current inventory, the proportionate share factors, and current development, the existing level of service for police vehicles is 2.0 vehicles per thousand persons and 1.2 vehicles units per thousand vehicle trips to nonresidential development. The average cost of a vehicle unit is $53,200. Using this average cost, the cost per service unit is $107.29 per person and $62.71 per nonresidential vehicle trip, as shown in Figure 29.

Figure 29*:* Police Vehicles Inventory and LOS

Item	*#*	*Vehicle Cost*	*Total*
Patrol Vehicles	22	$58,000	$1,276,000
Investigations Vehicles	4	$46,500	$186,000
Administration Vehicles	3	$46,500	$139,500
Transportation Vehicles	2	$41,700	$83,400
Utility	3	$41,700	$125,100
Total	**34**		**$1,810,000**
Average Vehicle Cost	**$53,200**		

Source: City of Coolidge.

Level of Service (LOS) Standards	Residential		Nonresidential	
Proportionate Share	72%		28%	
2013 Service Units	12,059	persons	8,213	trips
Level of Service	**2.0**	**vehicles per 1,000 persons**	**1.2**	**vehicles per 1,000 trips**
Vehicle Cost per Service Unit	**$107.29**	**per person**	**$62.71**	**per trip**

Police Communication Equipment Units – Incremental Expansion

The incremental expansion methodology is also used to calculate the communication equipment portion of the Police Facilities IIP and Development Fees, as shown in Figure 30. There are a total of 46 communication equipment units which cost $489,675. The average cost per unit is $10,600. This results in a level of service of 2.7 units per thousand persons and 1.6 units per thousand trips. Using the average cost per unit, the cost for communication equipment is $28.92 per person and $16.90 per trip.

Figure 30: Police Communication Equipment Units Inventory and LOS

Item	*#*	*Cost*	*Total*
Motorola Dispatch Console	1	$167,000	$167,000
Repeater Tower	1	$149,875	$149,875
Motorola Quantar Repeater	3	$16,600	$49,800
Base Station Radios	5	$4,800	$24,000
Portable HT Radios	36	$2,750	$99,000
Total	**46**		**$489,675**
Average Unit Cost	**$10,600**		

Source: City of Coolidge.

Level of Service (LOS) Standards	Residential		Nonresidential	
Proporationate Share	72%		28%	
2013 Service Units	12,059	persons	8,213	trips
Level of Service	**2.7**	**units per 1,000 persons**	**1.6**	**units per 1,000 trips**
Infrastructure Cost per Service Unit	**$28.92**	**per person**	**$16.90**	**per trip**

Police Facilities Plan – Plan Based

The City of Coolidge plans to fund a Police Facilities Plan for the cost of $125,000. The residential cost per service unit is $30.22 per person, which is found by multiplying the total plan cost ($125,000) by the residential proportionate share (72%) and dividing this total by the increase in persons from 2013-2023 (2,959). The nonresidential cost per service unit is $9.27 per trip, which is found by multiplying the total plan cost ($125,000) by the nonresidential proportionate share (28%) and dividing this total by the projected increase in jobs from 2013 to 2023 (3,840).

Figure 31: Police Facilities Plan

Study	*Cost*
Police Facility Plan	$125,000

	Proportionate Share	Proportionate Cost	Increase in Service Units 2013 - 2023	Cost per Service Unit	
Residential	72%	$89,410	2,959 persons	**$30.22**	**per person**
Nonresidential	28%	$35,590	3,840 trips	**$9.27**	**per trip**

RATIO OF SERVICE UNIT TO DEVELOPMENT UNIT

ARS 9-463.05(E)(4) requires:

> *"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."*

Figure 32 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 police 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 police 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, police development fees would be too high for office and institutional development because offices typically have more employees per 1,000 square feet than retain uses. If floor area were used as the demand indicator, police 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.

Figure 32: Police Facilities Ratio of Service Unit to Development Unit

Residential Development	
Land Use	**Persons per Housing Unit**
Single Unit	2.55
2+ Units	1.49

Source: TischlerBise Land Use Assumptions.

Nonresidential Development per KSF			
Land Use	**Weekday Trip Ends (a)[1]**	**Trip Adjustment (b)[2]**	**Inbound Vehicle Trips (a X b)**
Commercial	42.70	33%	14.09
Office/ Institutional	11.03	50%	5.52
Industrial/ Flex	3.56	50%	1.78

1. Trip Generation, Institute of Transportation Engineers, 2012.

2. On an average weekday, half of all trip ends are inbound. Commercial and institutional include 34% pass-by adjustment (i.e. 66% are primary trips.)

PROJECTED SERVICE UNITS AND PROJECTED DEMAND FOR SERVICES

ARS 9-463.05(E)(5) requires:

> *"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."*

As shown in Figure 33, the Land Use Assumptions projects an additional 2,959 persons and 3,840 trips over the next ten years.

ARS 9-463.05(E)(6) requires:

> *"The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years."*

The projected new development (2,959 persons and 3,840 trips) will demand an additional 4,938 square feet of police facilities, 10 vehicles and 14 communication equipment units.

The ten-year totals of the projected demand for each existing public service category are multiplied by their respective costs to determine the total cost of each to accommodate the projected demand over the next ten years. For example, the projected demand requires 10 additional vehicles. This is multiplied by the average cost of $53,200 per vehicle to determine the total cost of vehicles to be approximately $558,200. This calculation was repeated for to determine a 10 year cost of approximately $987,600 in facilities and $150,400 in communication equipment.

Figure 33: Projected Demand for Public Services and Facility Expansions

	Facilities		Vehicles		Comm. Equipment Units	
Res LOS	0.95	square feet per person	2.0	vehicles per 1,000 persons	2.7	units per 1,000 persons
Nonres LOS	0.55	square feet per trip	1.2	vehicles per 1,000 trips	1.6	units per 1,000 trips
Cost	$200	average cost per square ft.	$53,200	average cost per vehicle	$10,600	average cost per unit

		Projected Demand				
	Year	Service Unit: Persons	Service Unit: Trips	Facility Square Feet	Vehicles	Communication Equipment Units
Base	2013	12,059	8,213	16,000	34	46
1	2014	12,121	8,548	16,244	35	47
2	2015	12,293	8,868	16,586	35	48
3	2016	12,527	9,219	17,003	36	49
4	2017	12,848	9,575	17,504	37	50
5	2018	13,181	9,951	18,029	38	52
6	2019	13,526	10,341	18,572	39	53
7	2020	13,884	10,752	19,140	41	55
8	2021	14,253	11,169	19,722	42	57
9	2022	14,636	11,601	20,325	43	58
10	2023	15,018	12,053	20,938	44	60
Ten Yr Total		**2,959**	**3,840**	**4,938**	**10**	**14**
Cost of Facilities				$987,600		
Cost of Vehicles					$558,200	
Cost of Communication Equipment Units						$150,400

Total Cost of Public Services and Facility Expansions to Accommodate New Development	**$1,696,200**

POLICE FACILITIES IIP

ARS 9-463.05(E)(3) requires:

> *"A description of all or the parts of the necessary public services or facility expansions 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 this state, as applicable."*

Lastly, the necessary police facilities, vehicles, and communication equipment that Coolidge is planning to fund to accommodate new development over the next ten years are shown in Figure 34. These are the projects the City has identified over the next ten years that will serve new growth, and development fees will fund all or a portion of the costs. Facility purchases include land for a new police substation, a mobile command center, and other police facilities. Coolidge also plans to purchase new police vehicles and several types of communication equipment units.

Figure 34: Necessary Police Improvements and Expansions (10-Yr Total)

Project	10-Yr Total
Facilities	
Police Substation (Land Only)	$300,000
Mobile Command Center	$150,000
Other Police Facilities	$537,600
Subtotal: Facilities	***$987,600***
Vehicles	
Police Vehicle Program	$558,300
Subtotal: Vehicles	***$558,300***
Communication Equipment	
Mobile Data	$140,000
Automatic Vehicle Locator (AVL) System	$65,000
GPS Tracking System	$15,000
Subtotal: Communication Equipment	***$220,000***
Total	**$1,765,900**

Source: City of Coolidge CIP.

POLICE FACILITIES DEVELOPMENT FEES

Revenue Credit

Included in the maximum supportable development fees is a *Revenue Credit* of .75% percent. The unadjusted Police Facilities development fees per service unit would generate more revenue over the next ten years, based on the approved Land Use Assumptions, than the identified growth cost of improvements of $1,830,303. To ensure that no more fee revenue is collected than the City plans to spend, the potential gross cost per service unit is reduced by the revenue credit to calculate the net capital cost per service unit. Based on the gross capital costs per service unit, the projected development fee revenue would equal $1,844,000. To formula to calculate the *Revenue Credit* is as follows: ($1,844,000 – $1,830,303) / $1,830,303 = .75 percent (rounded).

Proposed Police Facilities Development Fees

The proposed development fees for Police Facilities are shown in Figure 35. Cost factors for Police Facilities, including facilities, vehicles, communication equipment, the Police Facilities Plan, and professional services are summarized in the portions above the proposed development fees. The development fee is calculated by multiplying the service units per development unit (number of persons per housing unit for residential and inbound vehicle trips per 1,000 square feet for nonresidential) by the total cost per service unit (person for residential and trips for nonresidential) of each component of the fee.

Figure 35: Proposed Police Facilities Development Fees

Cost per Person	
Police Facilities	$189.81
Police Vehicles	$107.29
Police Comm. Equipment	$28.92
Police Facilities Plan	$30.22
Professional Services	$5.84
Revenue Credit	($2.72)
Net Cost per Service Unit	**$359.36**

0.75%

Residential Development Fees per Housing Unit

Unit Type	Persons per Housing Unit	**Proposed Fee**	Current Fee	Increase (Decrease)	% Change
Single Unit	2.55	**$918**	$697	$221	32%
2+ Units	1.49	**$535**	$573	($38)	-7%

Cost per Trip	
Police Facilities	$110.93
Police Vehicles	$62.71
Police Comm. Equipment	$16.90
Police Facilities Plan	$9.27
Professional Services	$1.47
Revenue Credit	($1.51)
Net Cost per Service Unit	**$199.77**

0.75%

Nonresidential Development Fees per 1,000 Square Feet of Floor Area

Development Type	Inbound Vehicle Trips	**Proposed Fee**	Current Fee	Increase (Decrease)	% Change
Commercial	14.09	**$2,815**	$1,377	$1,438	104%
Office/ Institutional	5.52	**$1,102**	$570	$531	93%
Industrial/ Flex	1.78	**$356**	$244	$112	46%

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona's enabling legislation (ARS 9-463.05(E)(7)).

Development Fee Revenues for Police Facilities

Revenue projections shown below assume implementation of the proposed Police Facilities development fees and that development over the next ten years is consistent with the Land Use Assumptions. 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 police improvement costs total $1,830,403 and approximately $1,830,000 will be collected from development fees.

Figure 36: Projected Police Facilities Development Fee Revenue

Ten-Year Growth-Related Costs for Police Facilities

Police Facilities	$987,600
Police Vehicles	$558,200
Police Comm. Equipment	$150,400
Police Facilities Plan	$125,000
Professional Services	$9,103
Total	**$1,830,303**

		Single Unit $918 per housing unit	*2+ Units* $535 per housing unit	*Commercial* $2,815 per 1000 Sq Ft	*Office/ Institutional* $1,102 per 1000 Sq Ft	*Industrial/ Flex* $356 per 1000 Sq Ft
	Year	*Hsg Units*	*Hsg Units*	*KSF*	*KSF*	*KSF*
Base	2013	4,423	391	417	366	179
1	2014	4,444	395	434	381	186
2	2015	4,508	401	450	396	193
3	2016	4,596	408	468	411	201
4	2017	4,715	419	486	427	209
5	2018	4,839	430	505	444	217
6	2019	4,968	441	525	461	225
7	2020	5,101	453	546	479	234
8	2021	5,239	465	567	498	243
9	2022	5,381	478	589	517	253
10	2023	5,523	491	612	537	263
Ten-Yr Increase		*1,100*	*100*	*195*	*171*	*84*
Projected Fees =>		**$1,010,000**	**$53,000**	**$549,000**	**$188,000**	**$30,000**

Total Projected Revenues	**$1,830,000**
Cumulative Net Surplus/ Deficit	**($303)**

FIRE FACILITIES IIP

ARS 9-463.05 (T)(7)(f) defines the facilities and assets which can be included in the Fire 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 Fire Facilities IIP and Development Fees includes components for fire facilities, fire vehicles, fire communication equipment, and the cost of professional services for preparing the Fire Facilities IIP and development fees. Incremental expansion is used to calculate all components of the IIP and development fees.

Service Area

The City provides fire services and facilities as one integrated network. As a result, the service area is City-wide.

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. The Fire Facilities IIP and development fees will allocate the cost of public services between residential and nonresidential based on calls to the Fire Department.

Residential calls represent 69% of the calls the Fire Department received in 2012, and nonresidential calls were 31%.

Figure 37: Fire Proportionate Share

Development Type	Number of Calls	Percent of Total
Residential	360	69%
Nonresidential	161	31%
Total	**521**	**100%**

Source: Coolidge Fire Department, 2012.

The development fee for Fire Facilities is calculated on a per capita basis for residential development. Nonresidential development fees are calculated using jobs as the service unit.

ANALYSIS OF CAPACITY, USAGE, AND COSTS OF EXISTING PUBLIC SERVICES

ARS 9-463.05(E)(1) requires:

> *"A description of the existing necessary public services in the service area and the costs 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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

Fire Facilities – Incremental Expansion

The Fire Department has 10,528 square feet of station space. The incremental expansion methodology is used to calculate the facility portion of the fee, with new development maintaining the current infrastructure standards.

As shown in Figure 38, the level of service for residential development is 0.6 square feet per person, and the nonresidential level of service is 1.3 square feet per job. This is determined by multiplying the total square footage by the proportionate share factors (69% for residential and 31% for nonresidential), and then dividing the respective totals by the current service units (12,059 persons for residential and 2,469 jobs for nonresidential). Then, the levels of service are multiplied by the cost per square foot ($210) to determine costs per service unit of $126.68 per person and $276.73 per job.

Figure 38: Fire Facilities Inventory and LOS

Site	*Square Feet*
Station 1	7,047
Station 2	3,481
Total	**10,528**

Cost per Square Foot	$210

Source: City of Coolidge. Cost per quare foot based on a cost estimate for a planned future station.

	Proportionate Share	2013 Service Units	LOS: Square Feet per Service Unit	Cost per Service Unit
Residential	69%	12,059 persons	0.6 sq ft per person	**$126.68 per person**
Nonresidential	31%	2,469 jobs	1.3 sq ft per job	**$276.73 per job**

Fire Vehicles – Incremental Expansion

The City also plans to maintain the current level of service for fire vehicles and will use the incremental expansion methodology to calculate this component of the Fire Facilities IIP and development fees.

Coolidge currently has 9 vehicles in use by the fire department, as shown in Figure 39. Based on the size of the current inventory, the proportionate share factors, and current development base, the current level of service for fire vehicles is 0.5 vehicles per thousand persons and 1.1 vehicles per thousand jobs. (For example, the residential level of service is found by multiplying the total number of vehicles (9) by the residential proportionate share (69%), dividing this total by the number of persons in 2013 (12,059) and multiplying this by 1,000.) The average cost of a fire vehicle is $457,800. Multiplying this average cost by the residential and nonresidential levels of service, the cost per person is $236.09 and the cost per job of a fire vehicle is $515.71.

Figure 39: Fire Vehicles Inventory and LOS

Item	*#*	*Vehicle Cost*	*Total*
Engine	5	$600,000	$3,000,000
Ladder Truck	1	$1,000,000	$1,000,000
Car	3	$40,000	$120,000
Total	**9**		**$4,120,000**
Average Vehicle Cost	**$457,800**		

Source: City of Coolidge.

Level of Service (LOS) Standards	Residential		Nonresidential	
Proportionate Share	69%		31%	
2013 Service Units	12,059	persons	2,469	jobs
Level of Service	**0.5**	**vehicles per 1,000 persons**	**1.1**	**vehicles per 1,000 jobs**
Vehicle Cost per Service Unit	**$236.09**	**per person**	**$515.71**	**per job**

Fire Communication Equipment – Incremental Expansion

The incremental expansion methodology is also used to calculate the communication equipment portion of the Fire Facilities IIP and development fees. The fire department has 48 communication equipment units that have an average cost of $728. There is a level of service of 2.8 units per thousand persons and 6.0 units per thousand jobs. (For example, the nonresidential level of service is found by multiplying the total number of communication equipment units (48) by the nonresidential proportionate share (31%), dividing this total by the number of jobs (2,469) and multiplying this total by 1,000). The cost per person of communication equipment is $2.00 and the cost per job is $4.37, found by multiplying the residential and nonresidential levels of service by the average cost per unit of $728.

Figure 40: Fire Communication Equipment Inventory and LOS

Item	*#*	*Cost*	*Total*
Mobile Radios	14	$667	$9,333
Portable Radios	34	$753	$25,600
Total	**48**		**$34,933**
Average Unit Cost	**$728**		

Source: City of Coolidge.

Level of Service (LOS) Standards	Residential		Nonresidential	
Proporationate Share	69%		31%	
2013 Service Units	12,059	persons	2,469	jobs
Level of Service	**2.8**	**units per 1,000 persons**	**6.0**	**units per 1,000 jobs**
Infrastructure Cost per Service Unit	**$2.00**	**per person**	**$4.37**	**per job**

RATIO OF SERVICE UNIT TO DEVELOPMENT UNIT

ARS 9-463.05(E)(4) requires:

> *"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."*

Figure 41 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 jobs as the service unit. The multiplier for each land use, which is employees per thousand square feet, is shown below.

Figure 41: Fire Facilities Ratio of Service Unit to Development Unit

Residential Development	
Land Use	**Persons per Housing Unit**
Single Unit	2.55
2+ Units	1.49

Source: TischlerBise Land Use Assumptions.

Nonresidential Development per KSF	
Land Use	**Employees per KSF**
Commercial	2.00
Office/ Institutional	3.32
Industrial	0.92

Source: Institute of Transportation Engineers, 2012.

PROJECTED SERVICE UNITS AND PROJECTED DEMAND FOR SERVICES

ARS 9-463.05(E)(5) requires:

> *"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 Land Use Assumptions projects an additional 2,959 persons and 1,151 jobs over the next ten years, as shown in Figure 42.

ARS 9-463.05(E)(6) requires:

> *"The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years."*

As shown in Figure 42, this new development will demand approximately 3,301 square feet of facilities, 3 vehicles, and 15 communication equipment units.

The ten-year totals of the projected demand for each existing public service category are multiplied by their respective costs to determine the total cost of each to accommodate the projected demand over the next ten years. For example, the projected demand requires 3 additional vehicles. This is multiplied by the average cost of $457,800 per vehicle to determine the approximate cost of vehicles to be $1,291,900. This calculation was repeated for to determine a 10-year cost of $693,200 for fire facilities and $11,000 for communication equipment.

Figure 42: Projected Demand for Public Services and Facility Expansions

	Facility Square Feet		Vehicles		Comm. Equipment Units	
Res LOS	0.6	square feet per person	0.5	vehicles per 1,000 persons	2.8	units per 1,000 persons
Nonres LOS	1.3	square feet per job	1.1	vehicles per 1,000 jobs	6.0	units per 1,000 jobs
Cost	$210	per square foot	$457,800	per vehicle	$728	per unit

		Projected Demand				
	Year	Service Units: Persons	Service Units: Jobs	Facility Square Feet	Vehicles	Communication Equipment Units
Base	2013	12,059	2,469	10,528	9	48
1	2014	12,121	2,565	10,692	9	49
2	2015	12,293	2,665	10,928	9	50
3	2016	12,527	2,769	11,206	10	51
4	2017	12,848	2,877	11,542	10	53
5	2018	13,181	2,989	11,890	10	54
6	2019	13,526	3,106	12,253	10	56
7	2020	13,884	3,227	12,627	11	58
8	2021	14,253	3,353	13,016	11	59
9	2022	14,636	3,484	13,420	11	61
10	2023	15,018	3,620	13,829	12	63
Ten Yr Total		**2,959**	**1,151**	**3,301**	**3**	**15**
Cost of Facilities				$693,200		
Cost of Vehicles					$1,291,900	
Cost of Communication Equipment Units						$11,000

Total Cost of Public Services and Facility Expansions to Accommodate New Development	**$1,996,100**

FIRE FACILITIES IIP

ARS 9-463.05(E)(3) requires:

> *"A description of all or the parts of the necessary public services or facility expansions 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 this state, as applicable."*

Lastly, the necessary fire facilities, vehicles, and communication equipment that Coolidge is planning to fund to accommodate new development over the next ten years are shown in Figure 43. These are the projects the City has identified over the next ten years that will serve new growth, and development fees will fund all or a portion of the costs. The Fire Department plans to fund a portion of a sub-station with the fire facility portion of fee revenue, purchase a new mini pumper and a fire engine with the vehicle portion of fee revenue, and purchase approximately 15 communication equipment units with the communication equipment portion of the revenue.

Figure 43: Necessary Fire Improvements and Expansions (10-Yr Total)

Project	10-Yr Total
Facilities	
Sub-Station - Location TBD	$3,000,000
Subtotal: Facilities	**$3,000,000**
Vehicles	
Mini Pumper	$654,000
55-foot Aerial/Quint Fire Engine	$800,000
Subtotal: Vehicles	**$1,454,000**
Communication Equipment	
Communication Equipment	$11,000
Subtotal: Communication Equipment	**$11,000**
Total	**$4,465,000**

Source: City of Coolidge CIP.

FIRE FACILITIES DEVELOPMENT FEES

Revenue Credit

A revenue credit is not necessary for Fire Facilities development fees because 10-year growth costs exceed the amount of revenue that is projected to be generated by development fees according to the Land Use Assumptions.

Proposed Fire Facilities Development Fees

The proposed development fees for Fire Facilities are shown in Figure 44. Cost factors for Fire Facilities, including fire facilities, fire vehicles, fire communication equipment, and professional services, are summarized in the portions above the proposed development fees. The development fee is calculated by multiplying the service units per development unit (number of persons per housing unit for residential and jobs per 1,000 square feet for nonresidential) by the total cost per service unit (person for residential and jobs for nonresidential) of each component of the fee.

Figure 44: Proposed Fire Facilities Development Fees

Cost per Person	
Fire Facilities	$126.68
Fire Vehicles	$236.09
Fire Comm. Equipment Units	$2.00
Professional Services	$5.61
Net Cost per Service Unit	**$370.38**

Residential Development Fees per Housing Unit

Unit Type	*Persons per Housing Unit*	***Proposed Fee***	*Current Fee*	*Increase (Decrease)*	*% Change*
Single Unit	2.55	**$946**	$954	($8)	-1%
2+ Units	1.49	**$552**	$784	($232)	-30%

Cost per Job	
Fire Facilities	$276.73
Fire Vehicles	$515.71
Fire Comm. Equipment Units	$4.37
Professional Services	$5.40
Net Cost per Service Unit	**$802.22**

Nonresidential Development Fees per 1,000 Square Feet of Floor Area

Development Type	*Employees per KSF*	***Proposed Fee***	*Current Fee*	*Increase (Decrease)*	*% Change*
Commercial	2.00	**$1,604**	$712	$892	125%
Office/ Institutional	3.32	**$2,665**	$1,080	$1,585	147%
Industrial/ Flex	0.92	**$734**	$637	$97	15%

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona's enabling legislation (ARS 9-463.05(E)(7)).

Development Fee Revenues for Fire Facilities

Revenue projections shown below assume implementation of the proposed Fire Facilities development fees and that development over the next ten years is consistent with the Land Use Assumptions. 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 costs of fire improvement costs total $2,005,203 and approximately $1,927,000 will be collected from development fees.

Figure 45: Projected Fire Facilities Development Fee Revenue

Ten-Year Growth-Related Costs for Fire Facilities

Fire Facilities	$693,200
Fire Vehicles	$1,291,900
Fire Communication Equipment	$11,000
Professional Services	$9,103
Total	**$2,005,203**

		Single Unit $946 per housing unit	*2+ Units* $552 per housing unit	*Commercial* $1,604 per 1000 Sq Ft	*Office/ Institutional* $2,665 per 1000 Sq Ft	*Industrial/ Flex* $734 per 1000 Sq Ft
	Year	*Hsg Units*	*Hsg Units*	*KSF*	*KSF*	*KSF*
Base	2013	4,423	391	417	366	179
1	2014	4,444	395	434	381	186
2	2015	4,508	401	450	396	193
3	2016	4,596	408	468	411	201
4	2017	4,715	419	486	427	209
5	2018	4,839	430	505	444	217
6	2019	4,968	441	525	461	225
7	2020	5,101	453	546	479	234
8	2021	5,239	465	567	498	243
9	2022	5,381	478	589	517	253
10	2023	5,523	491	612	537	263
Ten-Yr Increase		*1,100*	*100*	*195*	*171*	*84*
Projected Fees =>		**$1,041,000**	**$55,000**	**$313,000**	**$456,000**	**$62,000**

Total Projected Revenues	**$1,927,000**
Cumulative Net Surplus/ Deficit	**($78,203)**

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."*

The Street Facilities IIP includes components for collector and arterial street improvements and the cost of professional services for preparing the Street Facilities IIP and Development Fees. The incremental expansion methodology is used to calculate the Street Facilities IIP and Fees.

Service Area

Given the characteristics of how the City plans and designs its 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.

ANALYSIS OF CAPACITY, USAGE, AND COSTS OF EXISTING PUBLIC SERVICES

ARS 9-463.05(E)(1) requires:

> *"A description of the existing necessary public services in the service area and the costs 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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

The existing public services included in the Street Facilities IIP are lane miles of rural and urban collectors and minor arterials. These categories of roads total 89.95 lane miles as shown in Figure 46.

Figure 46: Coolidge Road Inventory

Classification	Lane Miles
Rural Major Collector	61.22
Rural Minor Collector	2.03
Urban Collector	9.65
Urban Minor Arterial	17.05
Total	**89.95**

Source: City of Coolidge GIS.

An estimated cost per lane mile in Coolidge of $683,000 is shown in Figure 47, based on the cost of widening Shedd Road from 2 to 4 lanes in the City of Eloy, a nearby community.

Figure 47: Cost per Lane Mile

Cost Per Lane Mile	$638,000.00

Source: City of Eloy project approximate cost per lane mile of widening Shedd Road from 2 to 4 lanes.

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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

The daily lane capacity used in this analysis is 11,600, which is the roadway capacity of a two-lane minor arterial with no left turn lane, found in the 2012 City of Coolidge Comprehensive Transportation Feasibility Study.

LEVEL OF SERVICE AND RATIO OF SERVICE UNIT TO LAND USE

Service Units

Coolidge will use average weekday vehicle trip ends as the service units for documenting existing infrastructure standards and allocating the costs of future improvements. Components used to determine the service units and input variables are discussed, including trip generation rates, adjustments for commuting patterns and pass-by trips, and trip length weighting factors.

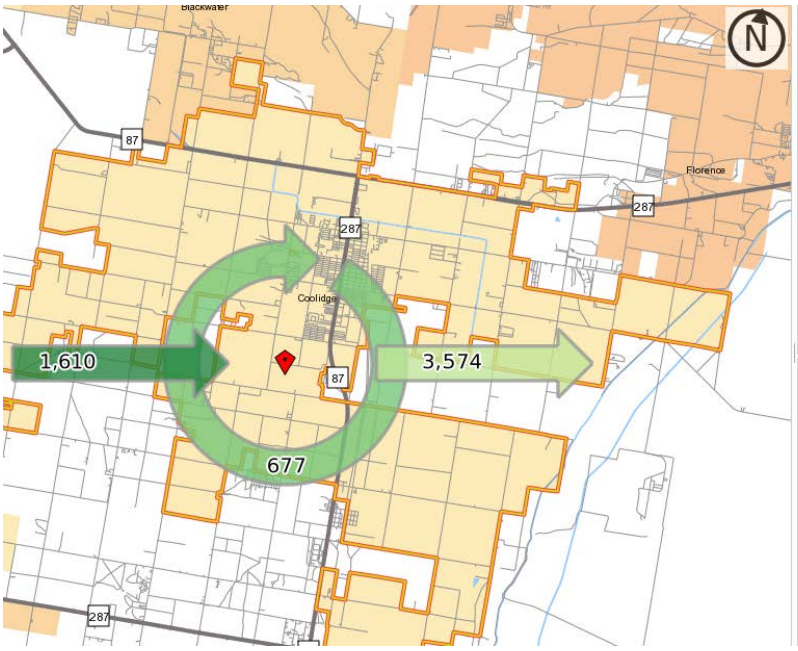
Trip Generation Rates

Trip generation rates are from the reference book Trip Generation published by the Institute of Transportation Engineers (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 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 Coolidge for employment. 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 Figure 48, the Census Bureau's web application OnTheMap indicates that 84% of resident workers traveled outside the city for work in 2011. In combination, these factors (0.31 X 0.50 X 0.84 = .13) support the additional 13% allocation of trips to residential development.

Figure 48: Inflow/ Outflow Analysis



Inflow/Outflow Job Counts (All Jobs)

	2011 Count	Share
Employed in the Selection Area	2,287	100.0%
Employed in the Selection Area but Living Outside	1,610	70.4%
Employed and Living in the Selection Area	677	29.6%
Living in the Selection Area	4,251	100.0%
Living in the Selection Area but Employed Outside	3,574	84.1%
Living and Employed in the Selection Area	677	15.9%

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 Fees 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 SERVICE UNITS, DEMAND, AND COSTS FOR SERVICES

TischlerBise created an aggregate travel model to convert development units within Coolidge to vehicle trips and vehicle miles of travel. This includes the factors discussed above, as well as average trip length, which is determined in Figure 49.

Average Trip Length

An average trip length was determined for Coolidge by weighting the national average trip lengths from the U.S. Department of Transportation's 2009 National Household Travel Survey. First, the proportionate share of total trips in Coolidge was determined. (For instance, single unit trips represent 67% of total trips in Coolidge. These trips were determined using Coolidge's Land Use Assumptions and the factors described above.) Then, each portion was multiplied by the national average trip length for each type of land use to determine a weighted average trip length of 9.00 miles.

Figure 49: Weighted Average Trip Length

Development Type	2013 Coolidge Trips	% of Total Trips	Average Trip Length[1]	Weighted Average Trip Length
Single Unit	19,003	67%	9.75	6.55
2+ Units	1,082	4%	8.62	0.33
Commercial	5,876	21%	6.27	1.30
Office/ Instit	2,018	7%	9.61	0.69
Industrial/ Flex	319	1%	11.98	0.13
Total	**28,298**	**100%**		**9.00**

1. U.S. Dept of Transportation, National Household Travel Survey, 2009.

Figure 50 summarizes the input variables for the aggregate travel model.

Figure 50: Input Variables for Travel Demand Model

Dev Type	Weekday VTE	Dev Unit	Trip Adj	Trip Length Wt Factor	VMT per Dev Unit
Single Unit	6.82	HU	63%	121%	46.8
2+ Units	4.39	HU	63%	121%	30.1
Commercial	42.70	KSF	33%	66%	83.7
Office/ Instit	11.03	KSF	50%	73%	36.2
Industrial/ Flex	3.56	KSF	50%	73%	11.7

Avg Trip Length (miles)	**9.00**
Capacity Per Lane	**11,600**
Cost per Lane Mile	**$638,000**

ARS 9-463.05(E)(5) requires:

> *"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."*

Projected development in Coolidge over the next 10 years, and the corresponding need for additional lane miles is shown in Figure 51. (Years 4 through 9 are hidden from view). Trip generation rates and trip adjustment factors convert project development into average weekday vehicle trips. As shown in Figure 51, new development in Coolidge will demand 8,844 trips.

ARS 9-463.05(E)(6) requires:

> *"The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years."*

The travel demand model inputs above are used to derive level of service in Vehicle Miles of Travel and future needs of lane miles and improved intersections. A Vehicle Mile of Travel (VMT) 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 length[2]. As shown in Figure 51, existing infrastructure standards using the average trip length of 9 miles in Coolidge are 0.9 lane-miles per 10,000 VMT. To maintain the existing infrastructure standards, Coolidge needs an additional 6.7 lane miles of collectors and arterials to accommodate projected development over the next ten years.

ARS 9-463.05(E)(3) requires:

> *"A description of all or the parts of the necessary public services or facility expansions 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 this state, as applicable."*

Multiplying this number of lane miles by the cost per lane mile results in a 10 year cost of approximately $4.3 million.

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[2] 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 51: Projected Travel Demand

	2013	2014	2015	2016	2017	2018	2023	10-Year
	Base	**1**	**2**	**3**	**4**	**5**	**10**	Increase
Single Unit	4,423	4,444	4,508	4,596	4,715	4,839	5,523	1,100
2+ Units	391	395	401	408	419	430	491	100
Commercial KSF	417	434	450	468	486	505	612	195
Office/ Instit KSF	366	381	396	411	427	444	537	171
Industrial/ Flex	179	186	193	201	209	217	263	84
Single Unit Trips	19,003	19,095	19,371	19,746	20,259	20,791	23,731	4,728
2+ Unit Trips	1,082	1,092	1,108	1,129	1,159	1,189	1,357	275
Commercial Trips	5,876	6,115	6,341	6,595	6,848	7,116	8,624	2,748
Office/ Instit Trips	2,018	2,101	2,184	2,267	2,355	2,449	2,962	943
Industrial/ Flex Trips	319	331	344	358	372	386	468	150
Total Vehicle Trips	28,298	28,735	29,347	30,094	30,993	31,931	37,142	8,844
Vehicle Miles of Travel (VMT)	**268,984**	**272,140**	**277,285**	**283,744**	**291,830**	**300,263**	**346,971**	**77,987**
Lane Miles	23.2	23.5	23.9	24.5	25.2	25.9	29.9	6.7
Annual Lane Miles		0.27	0.44	0.56	0.70	0.73	0.85	
Lane Miles per 10,000 VMT	0.9	0.9	0.9	0.9	0.9	0.9	0.9	

Annual Cost (millions)		**$0.17**	**$0.28**	**$0.36**	**$0.44**	**$0.46**	**$0.54**	**$4.3**

STREET FACILITIES IIP

Figure 52 displays the necessary growth-related Street Facilities improvements and expansions that Coolidge plans to fund over the next ten years. These projects will increase the network by 31.08 lane miles. Development fees can fund a portion of these projects.

Figure 52: Necessary Street Improvements and Expansions

Award Year	Project Location	Start Point	End Point	Length (Miles)	Lanes Before	Lanes After	Lane Increase	Lane Mile Increase
2023	RANDOLPH RD	HWY 87	RR	0.36	2	3	1	0.36
2017	MARTIN RD	9TH ST	KENWORTHY RD	0.50	2	3	1	0.50
2017	VAH KI INN RD	NORTHERN AVE	SKOUSEN RD	0.50	2	3	1	0.50
2017	COOLIDGE AVE	9TH ST	KENWORTHY RD	0.50	2	3	1	0.50
2017	VAH KI INN RD	MAIN ST	SONORA ST	0.10	2	4	2	0.20
2018	MCCARTNEY RD	SIGNAL PEAK RD	TOLTEC BUTTES RD	1.00	2	3	1	1.00
2019	SIGNAL PEAK RD	HWY 87	VAL VISTA RD	3.59	0	3	3	10.77
2019	SKOUSEN RD	VAH KI INN RD	HWY 87	1.02	2	3	1	1.02
2019	VAH KI INN RD	SONORA ST	WASHINGTON ST	0.25	2	4	2	0.49
2019	TOLTEC BUTTES RD	RANDOLPH RD	MCCARTNEY RD	1.01	0	3	3	3.04
2020	KENWORTHY RD	MARTIN RD	NORTH 1/2 MI	0.50	2	5	3	1.50
2020	MARTIN RD	ARIZONA BLVD	9TH ST	0.51	2	4	2	1.01
2020	MARTIN RD	KENWORTHY RD	SKOUSEN RD	1.00	2	3	1	1.00
2021	RANDOLPH RD	SIGNAL PEAK RD	TOLTEC BUTTES RD	1.00	2	3	1	1.00
2022	MARTIN RD	SKOUSEN RD	MACRAE RD	1.04	2	3	1	1.04
2022	MARTIN RD	9TH ST	KENWORTHY RD	0.50	3	5	2	1.00
2022	SKOUSEN RD	COOLIDGE AVE	MID WAY ST	0.50	3	4	1	0.50
2023	NORTHERN AVE	9TH ST	KENWORTHY RD	0.51	2	3	1	0.51
2023	COOLIDGE AVE	9TH ST	KENWORTHY RD	0.50	3	5	2	1.00
2023	RANDOLPH RD	RR	VAIL RD	0.64	2	3	1	0.64
2023	ATTAWAY RD	VAH KI INN RD	HWY 287	0.99	2	3	1	0.99
2023	SKOUSEN RD	COOLIDGE AVE	MARTIN RD	1.00	2	3	1	1.00
2023	SKOUSEN RD	MID WAY ST	VAH KI INN RD	0.50	2	4	2	1.00
2023	RANDOLPH RD	LOLA LEE RD	SIGNAL PEAK RD	0.50	2	3	1	0.50
Total					**47**	**83**		**31.08**

Source: City of Coolidge. Based upon 35 year PM10 model by MAG.

STREET FACILITIES DEVELOPMENT FEES

Revenue Credit

A revenue credit is not necessary for the Street Facilities development fees because 10-year growth costs exceed the amount of revenue that is projected to be generated by development fees according to the Land Use Assumptions.

Proposed Street Facilities Development Fees

The proposed Street Facilities development fees are shown in Figure 53. Attraction trips by type of development are multiplied by the capacity cost per average length vehicle trip to yield the Street Facilities development fees. Given a cost factor of $638,000 per lane mile, which is shared by 11,600 vehicles on an average weekday, the capital cost is $55.00 per VMT. The Professional Services cost per VMT is $0.23.

The input variables discussed above yield the proposed Development Fees shown in the lower section of Figure 53. For example, the Street Facilities development fees for a Single Unit house is (6.82 x 63% x 121% x 9.00 x ($55.00+$0.23) = $2,584 per unit.

Figure 53: Proposed Street Facilities Development Fees

Infrastructure Standards	
Average Miles per Vehicle Trip	9.00
Syst. Improvements Cost per Ln Mile	$638,000
Lane Capacity (vehicles per day)	11,600
Cost per VMT	$55.00
Cost per VMT of Professional Services	$0.23

Residential Development Fees (per Housing Unit)							
Development Type	*Weekday Vehicle Trip Ends*	*Trip Rate Adjustment Factors*	*Trip Length Weighting Factors*	***Proposed Fee***	*Current Fee*	*Increase / (Decrease)*	*% Change*
Single Unit	6.82	63%	121%	**$2,584**	$1,970	$614	31%
2+ Units	4.39	63%	121%	**$1,664**	$1,027	$637	62%

Nonresidential Development Fees (per 1,000 sq ft)							
Development Type	*Weekday Vehicle Trip Ends*	*Trip Rate Adjustment Factors*	*Trip Length Weighting Factors*	***Proposed Fee***	*Current Fee*	*Increase / (Decrease)*	*% Change*
Commercial	42.70	33%	66%	**$4,623**	$4,457	$166	4%
Office/ Institutional	11.03	50%	73%	**$2,001**	$1,792	$209	12%
Industrial/ Flex	3.56	50%	73%	**$646**	$740	($94)	-13%

FORECAST OF REVENUES

Appendix A contains the forecast of revenues required by Arizona's enabling legislation (ARS 9-463.05(E)(7)).

Development Fee Revenue for Street Facilities

Revenue projections shown in Figure 54 assume implementation of the proposed Street Facilities Development Fees and that development over the next ten years is consistent with the Land Use Assumptions. To the extent the rate of development either accelerates or slows down, there will be a corresponding change in the development fee revenue.

Figure 54: Projected Street Facilities Development Fee Revenue

Ten-Year Growth-Related Costs for Street Facilities

Street Improvements	$4,289,301
Professional Services	$18,205
Total	**$4,307,506**

		Single Unit $2,584 per housing unit	*2+ Units* $1,664 per housing unit	*Commercial* $4,623 per 1000 Sq Ft	*Office/ Institutional* $2,001 per 1000 Sq Ft	*Industrial/ Flex* $646 per 1000 Sq Ft
	Year	*Hsg Units*	*Hsg Units*	*KSF*	*KSF*	*KSF*
Base	2013	4,423	391	417	366	179
1	2014	4,444	395	434	381	186
2	2015	4,508	401	450	396	193
3	2016	4,596	408	468	411	201
4	2017	4,715	419	486	427	209
5	2018	4,839	430	505	444	217
6	2019	4,968	441	525	461	225
7	2020	5,101	453	546	479	234
8	2021	5,239	465	567	498	243
9	2022	5,381	478	589	517	253
10	2023	5,523	491	612	537	263
Ten-Yr Increase		*1,100*	*100*	*195*	*171*	*84*
Projected Revenue =>		**$2,844,000**	**$166,000**	**$901,000**	**$342,000**	**$54,000**

Total Projected Revenues	**$4,307,000**
Cumulative Net Surplus/ Deficit	**($506)**

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 cost recovery of past growth-related wastewater improvements (Expansions 1, 2 and 3), future necessary growth-related improvements (Expansion 4), wastewater studies, and the cost of professional services for preparing the Wastewater Facilities IIP and development fees.

Service Area

The Wastewater Service Area is city-wide.

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 95% of wastewater customers in Coolidge were residents, accounting for 87% of the average daily demand. Approximately 5% were nonresidential customers, accounting for 13% of the average daily demand.

WASTEWATER CONNECTIONS AND FLOW

ARS 9-463.05(E)(5) requires:

> *"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."*

Wastewater Facilities Level of Service Standards

Level of service for Wastewater Facilities is based on average day gallons per connection per day. Figure 55 shows the planned daily usage on an average day for residential and nonresidential development. These standards are used for calculating treatment capacity assurances.

Figure 55: Wastewater Facilities Level of Service Standards for Residential and Nonresidential Development

Residential LOS Factor (gallons/ day/ dwelling unit)	**200**
Nonresidential LOS Factor (gallons/ day/ acre)	**1,500**

Note: The City of Coolidge uses these design criteria for calculating treatment capacity assurances per Arizona Department of Environmental Quality requirements.

Future projections of required wastewater capacity are shown in Figure 56 below, divided between residential and nonresidential development. These projections are derived from the data in Figure 55 and the Land Use Assumptions. Over the next 15 years, it is projected there will be an increase of 1,451 residential connections and 157 nonresidential connections. The projected residential and nonresidential customers are based on 2012 connections provided by City of Coolidge and projected housing units and nonresidential floor area.

Required average day wastewater capacity will increase by .29 million gallons per day for residential development and .08 million gallons per day for nonresidential development. As shown in Figure 56, this will result in a required total of 1.2 million gallons per day in 2028.

Figure 56: Future Projections of Required Wastewater Capacity

	2013	2014	2015	2018	2023	2028	*15 Year Increase*	
	Base	1	2	5	10	15		
Residential Customers[1]	3,519	3,537	3,588	3,851	4,396	4,970	**1,451**	**Res Cust**
Gallons/ Day/ Dwelling Unit	*200*	*200*	*200*	*200*	*200*	*200*		
Gallons/ Day - Res. Development	**703,770**	**707,424**	**717,658**	**770,287**	**879,200**	**994,000**	**290,230**	**Res GPD**

1. Coolidge billing records. Projected to 2028 using 2012 ratio of .73 connections per housing unit.

Nonresidential Customers[1]	201	209	217	244	295	358	**157**	**Nonres Cust**
Nonresidential Acreage[2]	70	73	75	84	102	124		
Gallons/ Day/ Nonresidential Acre	*1,500*	*1,500*	*1,500*	*1,500*	*1,500*	*1,500*		
Gallons/ Day - Nonres. Development	**104,553**	**108,793**	**112,884**	**126,691**	**153,462**	**185,825**	**81,272**	**Nonres GPD**

1. Coolidge billing records. Projected to 2028 using 2012 ratio of 4.78 connections per 1,000 sq ft.

2. Land Use Assumptions nonresidential projections converted to acreage using commercial FAR of .23, office/ institutional FAR of .50, and Industrial FAR of .37, from *Pinal County 2010 Regional Planning Databases & Socioeconomic Projections Technical Documentation.*

Gallons/ Day - Total	**808,323**	**816,218**	**830,542**	**896,978**	**1,032,662**	**1,179,825**	**371,502**	**Total GPD**

Wastewater Consumption

Records were provided by the City of Coolidge and the Arizona Water Company to determine actual consumption. Average wastewater consumption is approximately 630,000 gallons per day. There were 3,513 residential connections and 194 nonresidential connections in 2012, which were projected to 3,519 residential connections and 201 nonresidential connections in 2013 using the Land Use Assumptions. It is unknown what the division between residential and nonresidential usage is. In Figure 57, the split between residential and nonresidential usage (87% and 13%) is based on the split between usage in 2013 established using the level of service standards.

Based on these factors, the 2013 residential wastewater consumption is 156 gallons per residential connection per day. The 2013 nonresidential consumption is 1,219 gallons per day per nonresidential acre (and 407 gallons per nonresidential connection per day based on the 2012 connections provided.) These standards are somewhat lower than the level of service standards. This may account for vacancies in residential and nonresidential development and other factors.

Figure 57: 2013 Wastewater Consumption

	Avg Gallons per Day[1]	% of Total[2]	2013 Connections
Residential	548,100	87%	3,519
Nonresidential	81,900	13%	201
Total	**630,000**		**3,720**

Source: City of Coolidge, Arizona Water Company.

1. 2012 connections provided by City of Coolidge, projected to 2013 using Land Use Assumptions.
2. Division between residential and nonresidential usage based on LOS standards provided by City of Coolidge.

Residential Consumption Standards	*Residential*
Average Residential Gallons per Day	548,100
2013 Service Units (residential connections)	3,519
2013 Consumption: Gallon/ Connection/ Day	**156**

Nonresidential Consumption Standards	*Nonresidential*
Average Nonresidential Gallons Per Day	81,900
2013 Nonresidential Acres	70
2013 Gallons/ Day/ Acre	1,175
2013 Service Units (nonresidential connections)	201
2013 Consumption: Gallons/ Connection/ Day	**407**

Figure 58 compares the projected wastewater capacity needed for 15 years based on level of service standards and projected consumption. (The consumption projections were determined by multiplying the projected customers in Figure 56 by the residential and nonresidential standards in Figure 57.) As shown below, the 2013 estimated consumption is 178,323 gallons less than required capacity calculated with level of service standards. Coolidge must plan for Wastewater Facilities using the level of service standards which are based on the City's permitting calculations.

Figure 58: Comparison of Wastewater Required Capacity and Consumption Projections

		Gallons per Day - Required Capacity			Gallons per Day - Consumption			Difference in Consumption vs Required Capacity
	Year	Res	Nonres	Total	Res	Nonres	Total	
Base	2013	703,770	104,553	808,323	548,100	81,900	630,000	(178,323)
1	2014	707,424	108,793	816,218	550,946	85,220	636,167	(180,051)
2	2015	717,658	112,884	830,542	558,916	88,455	647,372	(183,170)
3	2016	731,546	117,367	848,913	569,733	91,946	661,678	(187,234)
4	2017	750,551	121,919	872,470	584,534	95,522	680,055	(192,415)
5	2018	770,287	126,691	896,978	599,904	99,268	699,172	(197,806)
6	2019	790,754	131,613	922,367	615,844	103,099	718,943	(203,424)
7	2020	811,952	136,846	948,798	632,353	107,185	739,538	(209,260)
8	2021	833,881	142,150	976,031	649,431	111,357	760,788	(215,243)
9	2022	856,540	147,696	1,004,237	667,079	115,699	782,778	(221,459)
10	2023	879,200	153,462	1,032,662	684,726	120,008	804,734	(227,928)
11	2024	901,800	159,447	1,061,247	702,327	124,889	827,217	(234,030)
12	2025	924,600	165,744	1,090,344	720,084	129,771	849,855	(240,489)
13	2026	947,200	172,110	1,119,310	737,685	134,653	872,338	(246,973)
14	2027	970,600	178,777	1,149,377	755,909	139,941	895,850	(253,526)
15	2028	994,000	185,825	1,179,825	774,133	145,636	919,770	(260,055)

ANALYSIS OF CAPACITY AND USAGE OF EXISTING PUBLIC SERVICES

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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

The City has been in process of expanding the Wastewater treatment plant since 1999 when it was expanded from 0.80 million gallons per day (MGD) capacity to 1.35 MGD. The daily flow into the plant at that time was approximately 0.60 MGD. The expansion involved the construction of a new aeration pond and a new polishing pond (both were approximately equal in size to the total areas of the existing two aeration and two polishing ponds), lining all ponds, installation of new pumps between the two new ponds, and construction of a new effluent pump station. (Expansion 1)

In October 2001, Kennedy/Jenks Consultants was hired to provide professional engineering services for the improvement and expansion of the wastewater treatment and collection system to 3.0 MGD. A phased expansion plan was developed that would initially increase the WWTP capacity to 2.0 MGD by constructing a new influent pump station and new headworks, making modifications to the existing effluent pump station, and constructing an effluent reuse pipe line (to additional farmland to support

the increase in the Reuse Permit from 1.0 MGD to 2.0 MGD) followed with the future construction of a mechanical treatment plant that would increase the WWTP capacity to 3.0 MGD. (Expansion 2)

With the completion of the pump stations and headworks project in 2007, the City's current wastewater treatment plant is capable of treating 2.0 MGD to Class "C" effluent quality. The WWTP is a two stage aerated lagoon treatment process consisting of three first stage facultative aerated lagoons followed by three second stage aerated facultative lagoons. The Class C effluent is allowed to be disposed of on farm lands of fiber, seed, forage and similar crops. 2.0 MGD of Class C effluent requires 660 acres to meet Reclaimed Water Permit Water Balance Requirements. The farmland used for effluent management consists of the 330 acre Plant Farm owned by the City, and the 340 acre Bartlett Farm which, by agreement, will accept effluent for the next five years. The Bartlett Farms acreage was acquired in late 2013 to meet the needs for disposal of the expanded 1.0 MGD of Class C effluent to the current 2MGD treatment capacity of the plant. An effluent line will be extended to this property in phases as treatment capacity exceeds 75% of the available treatment capacity. (Expansion 4)

When treatment capacity use reaches 75% of the 2 MGD (1.5 MGD) the City will be required by ADEQ to move forward with the expansion of the plant that will meet BADCT or specifically a mechanical plant capable of treating effluent to a Class A+ effluent. A Class A+ mechanical plant has been designed and permitted. This expansion of the WWTP will consist of a new 2.0 MGD Biological Treatment Unit constructed in the East first stage lagoon. During construction, treatment will be carried out by the West 1.0 MGD lagoon treatment train and the center 0.5 MGD treatment train. After construction is complete, the West 1.0 MGD train will continue to operate and the Class "C" effluent will be used on the 330 Acre City owned Plant Farm. The Class "A+" effluent from the mechanical plant will be used for open access irrigation, recharge to the groundwater or discharge to irrigation canals, provided appropriate disposal agreements are finalized. The central lagoon train will be converted to effluent storage as a part of this construction. This next expansion will add 1 MGD of treatment capacity to the WWTP providing an overall capacity of 3.0 MGD. Phase 1 of this expansion was completed in 2010 which provided a switch over in electrical service and the construction of a bio-solids building and Administration building. (Expansions 3 and 5).

The phasing of the Wastewater Treatment Plant expansion has occurred as follows:

Figure 59: Wastewater Treatment Plant Expansion Phasing

Expansion	Date	Description	Treatment Capacity	Disposal Capacity	Costs
1	1999	New Aeration Pond, New Effluent Pump Station	1.35 MGD	1.0 MGD	$1,830,000
2	2007	Influent & Effluent Lift Station, Headworks and Reuse Pipeline	2.0 MGD	1.0 MGD	$5,777,855
3	2010	Phase 1 3 MGD Mechanical Plant	3.0 MGD	1.0 MGD	$1,816,182
4	TBD	1 MGD Effluent Disposal line extension	2.0 MGD	2.0 MGD	$598,125
5	TBD	Completion 3 MGD Plant	3.0 MGD	3.0 MGD	$25,000,000

Source: City of Coolidge Public Works.

PROJECTED DEMAND AND COSTS FOR SERVICES

ARS 9-463.05(E)(1) requires:

> *"A description of the existing necessary public services in the service area and the costs 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, which shall be prepared by qualified professionals licensed in this state, as applicable."*

ARS 9-463.05(E)(3) requires:

> *"A description of all or the parts of the necessary public services or facility expansions 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 this state, as applicable."*

ARS 9-463.05(E)(6) requires:

> *"The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years."*

Expansions # 1, 2, and 3 – Cost Recovery

The City recently completed three expansions to wastewater facilities. These expansions include excess capacity which will serve new development and which the City plans to have new development repay via development fees. Thus the cost-recovery methodology is used to calculate this component of the Wastewater Facilities IIP and Development Fees.

The first expansion included a new aeration pond, polishing pond, and effluent pump station. The original cost of this project was $1,830,000 and added 550,000 gallons per day of Class C effluent. As shown in Figure 60, repayment of costs on this expansion results in a net cost for new development of $580,000, which results in a cost per gallon of capacity of $1.05.

Figure 60: Expansion 1 – Cost Recovery

Expansion #1

	Cost
New Aeration Pond, New Effluent Pipe Station	$1,830,000
Original Cost	**$1,830,000**

	Repayment
EDA Grant	($1,110,000)
City Funds from Development Fees	($140,000)
Net Cost for New Development	**$580,000**

Increase in System Capacity	550,000
Cost per Gallon of Capacity	**$1.05**

The second expansion (Figure 61) included an influent lift station, modifications to headworks and an effluent pump station, and an effluent reuse pipeline. It cost a total of $5,777,855 and added 650,000 gallons per day of Class C effluent, yielding a cost per gallon of capacity of $8.89.

Figure 61: Expansion 2 – Cost Recovery

Expansion #2

	Cost
Influent Lift Station	$2,169,445
Modifications to Headworks and Effluent Pump Station	$1,343,651
Effluent Reuse Pipeline	$1,638,715
Design and CM fees	$626,044
Net Cost for New Development	**$5,777,855**

Increase in System Capacity	650,000
Cost per Gallon of Capacity	**$8.89**

The third expansion constructed items for the future wastewater treatment plant (which will be a total of 3 MGD, of which 2 MGD will be Class A effluent and 1 MGD will be Class C effluent.) The total project cost is $2,616,812. The ARRA Grant amount in the original cost is removed to determine the net cost for new development of $1,816,812, which is divided by the capacity of the future plant (3 MGD) to yield a cost per gallon of capacity of $0.61.

Figure 62: Expansion 3 – Cost Recovery

Expansion #3

	Cost
Electrical Conversion/ Sludge Building	$2,397,071
Interest	$219,111
Original Cost	**$2,616,182**
ARRA Grant Amount	($800,000)
Net Cost for New Development	**$1,816,182**
Increase in System Capacity	3,000,000
Cost per Gallon of Capacity	**$0.61**

Expansion 4

Coolidge plans to construct an effluent delivery pipeline with disposal capabilities of 2 MGD and final capacity of 2 MGD of Class A effluent. This is a multi-phase project. The four phases of the project will cost approximately $598,125. The first phase of the project is triggered when average daily usage equals .75 MGD, which is projected to occur over the next ten years. Dividing the total cost of the project ($598,125) by the increase in capacity of the system (1,000,000 gallons per day) yields a cost per gallon of capacity of $0.60.

Figure 63: Expansion #4 – Plan Based

Project	*Cost*	*Increase from (MGD)*	*Increase to (MGD)*
Effluent Pipeline Phase 1	$319,125	1.0	1.2
Effluent Pipeline Phase 2	$93,000	1.2	1.4
Effluent Pipeline Phase 3	$93,000	1.4	1.7
Effluent Pipeline Phase 4	$93,000	1.7	2
Total	**$598,125**		

Increase in System Capacity	1,000,000
Cost per Gallon of Capacity	**$0.60**

Wastewater Studies

Two studies are included in the IIP that will be funded through development fees because they are necessary to plan for future growth. As shown in Figure 64, these include the Sewer Master Plan and the Capacity Assurance Analysis. Both have a growth share of 66%. The growth costs are each divided by 3 million gallons because these items are planning for the future 3 MGD wastewater treatment plant. This results in a cost per gallon of $0.02 for the Sewer Master Plan and $0.01 for the Capacity Assurance Allowance.

Figure 64: Study Costs

Project	Cost	Growth Share[1]	Growth Cost	Capacity Increase	Cost per Gallon
Sewer Master Plan	$100,000	66%	$66,000	3,000,000	**$0.02**
Capacity Assurance Analysis	$25,000	66%	$16,500	3,000,000	**$0.01**

Source: Coolidge Liquid Waste CIP.

1. City of Coolidge Public Works Staff .

Other Future Growth-Related Needs

As described above, when treatment capacity use reaches 75% of the 2 MGD (1.5 MGD) the City will be required by ADEQ to move forward with the expansion of the plant that will meet BADCT or specifically a mechanical plant capable of treating effluent to a Class A+ effluent. The total cost to upsize and upgrade the plant to Class A will be approximately $25 million. This will require an additional lease for Class A disposal area or a land purchase.

Wastewater IIP

Figure 65 displays the infrastructure improvements plan for Wastewater facilities, which display the projects described above, including the four expansions, and two studies.

Figure 65: 10-Year Necessary Wastewater Improvements and Expansions

Project	10-Yr Cost
Expansion 1	$212,415
Expansion 2	$5,777,855
Expansion 3	$1,816,182
Expansion 4	$598,125
Capacity Assurance Study	$25,000
Sewer Master plan	$100,000
Total	**$8,529,577**

Source: City of Coolidge CIP and Public Works Staff.

RATIO OF SERVICE UNIT TO DEVELOPMENT UNIT

ARS 9-463.05(E)(4) requires:

> *"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."*

Residential Wastewater Facilities development fees are assessed on a per unit basis, based on average daily gallons of usage per customer. Nonresidential Wastewater Facilities development fees are assessed by size and type of meter needed to serve the development. However, a new residential unit requiring a 1-inch or greater meter would be assessed a development fee based upon meter size. 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, as shown in Figure 66.

Figure 66: Wastewater Facilities Ratio of Service Unit to Development Unit

Residential Development	
Land Use	**LOS: Average Day Gallons per Connection**
Residential Unit	200

Nonresidential Development		
Meter Size (inches)		**Capacity Ratio[1]**
0.75	Displacement	1.00
1.00	Displacement	1.67
1.50	Displacement	3.33
2.00	Compound	5.33
3.00	Compound	10.67

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

WASTEWATER FACILITIES DEVELOPMENT FEE

Revenue Credit

Included in the maximum supportable development fees is a *Revenue Credit* of 7 percent. The unadjusted Wastewater Facilities development fees per service unit would generate more revenue over the next ten years, based on the approved Land Use Assumptions, than the identified growth cost of improvements of $2,525,102. To ensure that no more fee revenue is collected than the City plans to spend, the potential gross cost per service unit is reduced by the revenue credit to calculate the net capital cost per service unit. Based on the gross capital costs per service unit, the projected development fee revenue would equal $2,710,000. To formula to calculate the *Revenue Credit* is as follows: ($2,710,000 – $2,525,102) / $2,525,102 = 7 percent (rounded).

Proposed Wastewater Facilities Development Fees

The proposed development fees for Wastewater Facilities are shown in Figure 67. The development fee is derived from the level of service standard wastewater flow per residential unit (200 gallons), multiplied by the total cost per gallon ($10.58), which includes the four wastewater expansions, the Sewer Master Plan, the Capacity Assurance Analysis, and the cost of professional services to prepare the Wastewater IIP and Development Fee.

Figure 67: Proposed Wastewater Facilities Development Fees

	Standards:	
Demand Indicators		
ERU Gallons per Average Day	200	
Cost Factors per Gallon of Capacity		
Expansion 1 (Cost Recovery)	$1.05	
Expansion 2 (Cost Recovery)	$8.89	
Expansion 3 (Cost Recovery)	$0.61	
Expansion 4 (Plan Based)	$0.60	
Sewer Master Plan	$0.02	
Capacity Assurance Analysis	$0.01	
Professional Services	$0.21	
Cost per Gallon	**$11.38**	
Revenue Credit	($0.80)	7%
Total Cost per Gallon	**$10.58**	

Maximum Supportable Wastewater Facilities Charge						
Residential						
Residential (per dwelling unit)			**$2,117**			
Nonresidential						
Meter Size (inches)		*Capacity Ratio* [1]	***Per Meter***	***Current Fees***	***Difference***	***% Change***
0.75	Displacement	1.00	**$2,117**	$2,551	($434)	-17%
1.00	Displacement	1.67	**$3,535**	$3,649	($114)	-3%
1.50	Displacement	3.33	**$7,049**	$6,200	$849	14%
2.00	Compound	5.33	**$11,282**	$12,046	($764)	-6%
3.00	Compound	10.67	**$22,585**	$19,259	$3,326	17%

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)).

Development Fee Revenues for Wastewater Facilities

Revenue projections shown below assume implementation of the proposed Wastewater Facilities development fees and that development over the next ten years is consistent with the Land Use Assumptions. 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 wastewater improvement costs total $2,525,102 and approximately $2,520,000 will be collected from development fees.

Figure 68: Projected Wastewater Facilities Development Fee Revenue

Ten-Year Growth-Related Costs for Wastewater Facilities*

Expansion 1	$236,576
Expansion 2	$1,994,154
Expansion 3	$135,814
Expansion 4	$134,183
Study Costs	$6,169
Professional Services	$18,205
Total	**$2,525,102**

		Single Unit **$2,117 per connection**	***Nonresidential*** **$7,049 per 1.5" connection**
	Year	*Connections*	*Connections*
Base	2013	3,519	201
1	2014	3,537	209
2	2015	3,588	217
3	2016	3,658	226
4	2017	3,753	235
5	2018	3,851	244
6	2019	3,954	253
7	2020	4,060	263
8	2021	4,169	274
9	2022	4,283	284
10	2023	4,396	295
Ten-Yr Increase		*877*	*94*
Projected Fees =>		**$1,860,000**	**$660,000**

Total Projected Revenues	**$2,520,000**
Cumulative Net Surplus/ Deficit	**($5,102)**

*Ten year costs represent costs per gallon multiplied by projected increase in consumption.

APPENDIX A: FORECAST OF REVENUES OTHER THAN FEES

Arizona's enabling legislation (see relevant sections quoted below) requires municipalities to forecast revenues, determine if a contribution will be made in the future towards capital costs, and include these contributions in determining the extent of burden imposed by development. The required forecast of revenues, prepared by the City of Coolidge Finance staff, is shown in Figure A1. **Increases in revenues will offset by an increase in operating, maintenance, and replacement capital costs, so they will not be available to fund capital projects to accommodate new growth.**

> *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."*

Revenue projections are shown in Figure A1. Forecasts were created by City of Coolidge staff, except for Wastewater, which was derived from a linear regression analysis. Historical revenue data for the past six years, obtained from the City of Coolidge, were correlated to the growth in population and jobs in Coolidge.

Figure A1: Revenue Projections

General Fund Revenue	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*
General Sales Taxes	$4,277,191	$4,307,803	$4,254,881	$4,202,430	$4,150,454
Construction Sales Tax	$384,000	$400,000	$500,000	$600,000	$700,000
State Sales Tax	$1,021,770	$1,072,859	$1,126,501	$1,182,826	$1,241,968
Auto in Lieu Tax	$518,440	$523,624	$528,861	$534,149	$539,491
State Revenue Sharing	$1,319,255	$1,451,181	$1,596,299	$1,755,928	$1,931,521
Total General Fund Revenues	**$7,520,656**	**$7,755,466**	**$8,006,542**	**$8,275,334**	**$8,563,434**

HURF Revenue	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*
HURF Revenue	$769,193	$792,254	$816,006	$840,472	$865,671

Wastewater Revenue	*FY13-14*	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*
Wastewater Revenues	$792,300	$799,180	$807,305	$822,279	$841,253

Source: Projections for General Fund revenue and HURF revenue from City of Coolidge. Wastewater revenue was derived from a linear regession analysis using past revenues.

Figure A2 shows General Fund revenue per person and job, based on the projections above and the approved Land Use Assumptions. As shown below, total General Fund revenues per person and job is expected to increase over the next five years. However, historically there has been very little General Fund revenue devoted to capital projects. The projected increase in General Fund revenue will be offset by an increase in operating, maintenance, and replacement capital costs.

Figure A2: General Fund Revenue per Person and Job

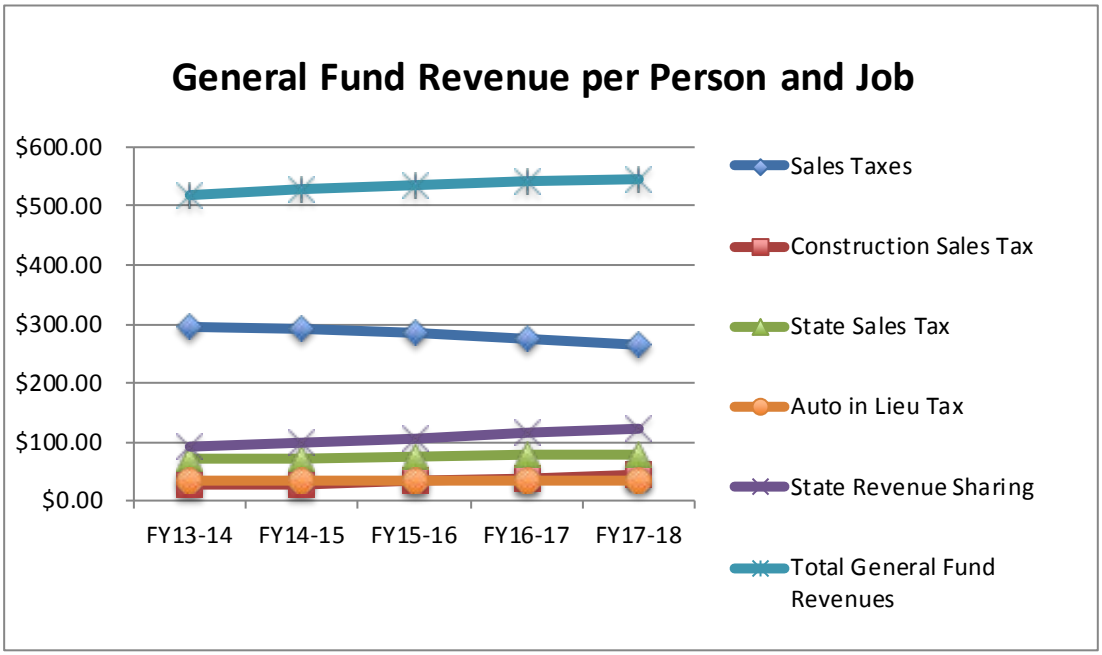


Figure A3 displays HURF Revenue per person and job over the next five years based on the projections above and the approved Land Use Assumptions. As shown below, revenue per person and job is expected to increase over the next five years and level off in the fifth year. HURF revenue is devoted to highway operation and maintenance. The projected increase in HURF revenue will be devoted to this purpose and not to capital projects to accommodate new growth.

Figure A3: HURF Revenue per Person and Job

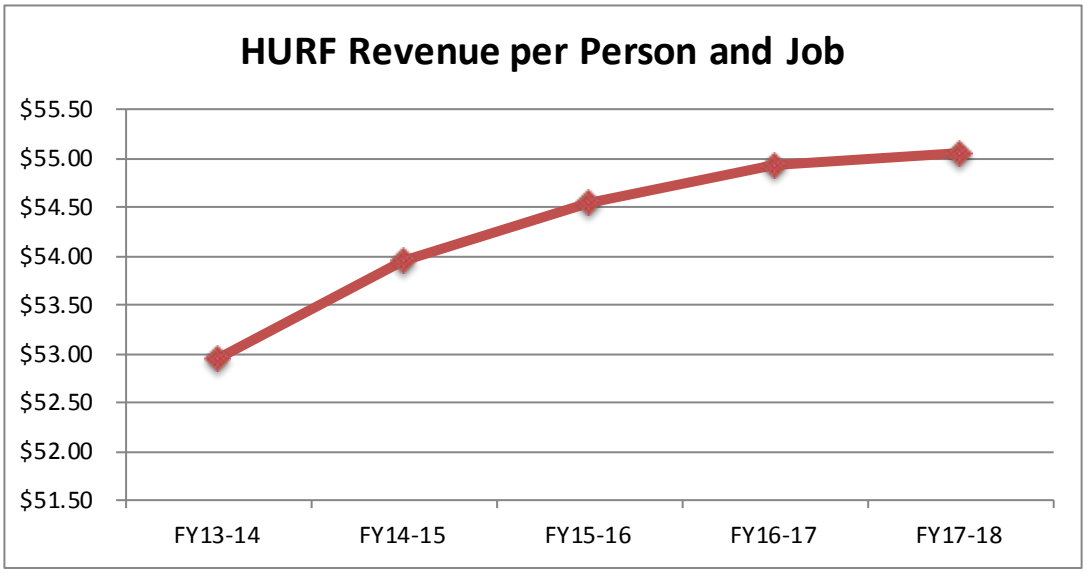
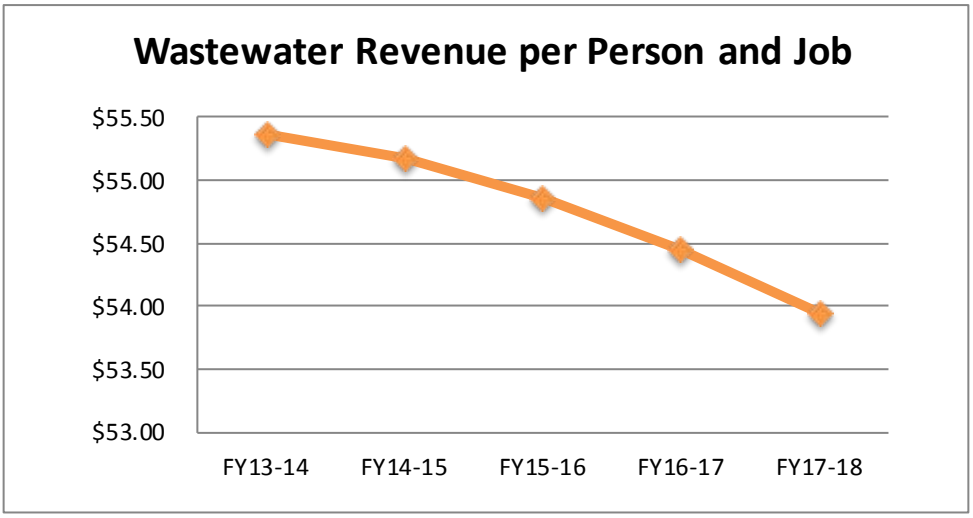


Figure A4 displays Wastewater Revenue per person and job. Excess revenues from wastewater will be used to fund operations and maintenance.

Figure A4: Wastewater Revenue per Person and Job



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."

The sections quoted above are among the most difficult to interpret, resulting in a range of approaches by municipalities. Set forth below is the method TischlerBise utilized to comply with its understanding of the statutory sections.

Section B.12 modifies and restricts the forecast of contributions to "revenue derived from the property owner." However, contractors paying the construction excise tax are not typically the long-term property owners. In Coolidge, the construction contracting tax rate is currently 4% and the general privilege tax rate is 3%. Therefore, the excess portion is 25% of the total construction sales tax revenue (i.e. 1 minus 3 divided by 4).

TischlerBise recommends that a practical method for Coolidge to comply with the requirements in Sections E.7 and B.12 is to devote a portion of the City's construction sales tax revenue to be used exclusively for the capital cost of necessary public services. If Coolidge annually deposits the excess portion into a separate fund, only using the money for the capital cost of necessary public services, and takes into account the reserved amounts when calculating development fees, the City will ensure compliance with Arizona's enabling legislation**. The City gives 25% of all City Sales Tax to the Capital Fund, which is above this amount.** The amount that the City pledges to the Capital Fund is shown in Figure A5.

Figure A5: Sales Tax Contribution to Capital Fund

	FY13-14	*FY14-15*	*FY15-16*	*FY16-17*	*FY17-18*
General Sales Tax	$4,277,191	$4,307,803	$4,254,881	$4,202,430	$4,150,454
Construction Sales Tax	$384,000	$400,000	$500,000	$600,000	$700,000
Total Sales Tax	**$4,661,191**	**$4,707,803**	**$4,754,881**	**$4,802,430**	**$4,850,454**
25% of Total Sales Tax	***$1,165,298***	***$1,176,951***	***$1,188,720***	***$1,200,607***	***$1,212,614***

As specified in the last phrase of Section B.12, TischlerBise maintains that Coolidge does not need to further reduce development fees because "the excess portion was already taken into account for such purpose" as documented by the following attributes of the City's 2014 development fee study.

- The Library Facilities development fee is conservatively based on existing infrastructure standards, even though the existing space is over capacity and has a much lower level of service than what is recommend by the National Institute for Building Services.
- The Parks Facilities development fee does not include parks over 30 acres, swimming pools, or trails.
- The Street Facilities development fee uses the incremental expansion method as opposed to the plan based method. (The incremental expansion method forecasts a need for 6.7 lane miles of improvements, but the City has identified over 31 lanes miles of projects to increase capacity.)
- The Wastewater Facilities development fee includes projects where the total cost has been reduced to accommodate funds from grants and previously raised development fees. Additionally, a growth share has been applied to the Wastewater Master Plan and the Capacity Assurance Plan, which results in future development only being responsible for a portion of the cost.

Thus, the future revenues to be derived from the property owner are already factored into the development fees such that further reduction under Section B.12 is not required.

APPENDIX B: 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
Library	$9,103	Residential	91%	Population	12,059	13,181	1,122	$7.38
		Nonresidential	9%	Jobs	2,469	2,989	520	$1.57
Parks and Recreation	$9,103	Residential	91%	Population	12,059	13,181	1,122	$7.38
		Nonresidential	9%	Jobs	2,469	2,989	520	$1.57
Police	$9,103	Residential	72%	Population	12,059	13,181	1,122	$5.84
		Nonresidential	28%	Nonres Trips	8,213	9,951	1,738	$1.47
Fire	$9,103	Residential	69%	Population	12,059	13,181	1,122	$5.61
		Nonresidential	31%	Jobs	2,469	2,989	520	$5.40
Streets	$18,205	All Development	100%	VMT	268,984	346,971	77,987	$0.23
Wastewater	$18,205	All Development	100%	Million Gallons per Day	0.81	0.90	0.09	$0.21
Total	**$72,820**							