2018-2028
Land Use Assumptions and Infrastructure Improvements Plan for Non-Utility Impact Fees

City of Peoria, Arizona

April 2019

with minor corrections on 12/2/2019 to Tables 34 and 37

duncan associates

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Duncan Associates
Clancy Mullen, Project Manager
17409 Rush Pea Circle, Austin, TX 78738
512-423-0480, clancy@duncanassociates.com

EXECUTIVE SUMMARY

Duncan Associates has been retained by the City of Peoria to update the City's non-utility development impact fees (transportation, parks, fire/EMS and police). This report constitutes the "written report of the land use assumptions and infrastructure improvements plan" required by the state enabling act (SB 1525).

Background

On January 1, 2012, the City ceased collecting general government, open space and trail impact fees, and reduced its parks, library and fire impact fees to remove unauthorized components in compliance with the January 1, 2012 requirements of SB 1525. The City updated its non-utility fees to be in full compliance with all provisions of the new enabling act in 2014. This constitutes the second update of the non-utility fees in compliance with the revised statute.

The City currently assesses transportation and park impact fees that vary between subareas of the city. These fees are not charged in the southern part of the city (south of Deer Valley for transportation and south of Bell Road for parks) or north of Carefree Highway (SR 74). Fees for police and fire facilities are assessed city-wide. The current fees that have been effective since August 1, 2014 are summarized in Table 1. Maps of the service areas can be found in Figure 2 (roads) and Figure 3 (parks) in the Service Areas chapter. Figure 5 in the Land Use Assumptions chapter has the map of the six geographic areas that are subject to different fees.

Table 1. Current Non-Utility Impact Fee Schedule

	Single-Family	Multi-Family	Mobile Home	Hotel/ Motel	Nonresidential Fees per 1,000 sq. ft.				
Fee Type/Service Area/ Geograpic Area	(unit)	(unit)	(space)	(room)	Retail/ Comm.	Office	Indus-trial	Ware-house	Public/ Instit.
Roads, NE (N of DV, E of Agua Fria, S of SR 74)	$5,591	$3,460	$2,597	$4,975	$6,763	$5,111	$2,754	$1,801	$3,870
Roads, NW (W of Agua Fria, S of SR 74)	$8,597	$5,319	$3,994	$7,650	$10,398	$7,859	$4,234	$2,769	$5,950
Parks, Zone 1 (Bell-Happy Valley)	$749	$442	$509	$45	$45	$37	$15	$15	$7
Parks, Zone 2 (N of HV, E of Aqua Fria, S of SR 74	$970	$572	$660	$58	$58	$49	$19	$19	$10
Parks, Zone 3 (W of Aqua Fria, S of SR 74)	$1,416	$835	$963	$85	$85	$71	$28	$28	$14
Fire	$417	$248	$283	$219	$458	$142	$48	$42	$81
Police	$503	$299	$342	$264	$553	$171	$58	$50	$98
Total Fee, South of Bell	$920	$547	$625	$483	$1,011	$313	$106	$92	$179
Total Fee, Bell-Deer Valley	$1,669	$989	$1,134	$528	$1,056	$350	$121	$107	$186
Total Fee, Deer Valley-Happy Valley	$7,260	$4,449	$3,731	$5,503	$7,819	$5,461	$2,875	$1,908	$4,056
Total Fee, N of HV, E of Agua Fria, S of SR 74	$7,481	$4,579	$3,882	$5,516	$7,832	$5,473	$2,879	$1,912	$4,059
Total Fee, W of Agua Fria, S of SR 74	$10,933	$6,701	$5,582	$8,218	$11,494	$8,243	$4,368	$2,889	$6,143
Total Fee, N of SR 74	$920	$547	$625	$483	$1,011	$313	$106	$92	$179

Note: "Bell" boundary line is one-half mile north of Bell Road
Source: City of Peoria, Economic Development Services, *Development & Impact Fees, Single-Family, Multi-Family, Commercial*, eff. 8/1/2014.

Summary of Findings

The updated fees calculated in this study are compared to current non-utility fees in Table 2 below. The City could adopt updated fees at less than the full net costs calculated in this study, but the adoption percentage should be uniform for all land uses within a service area.

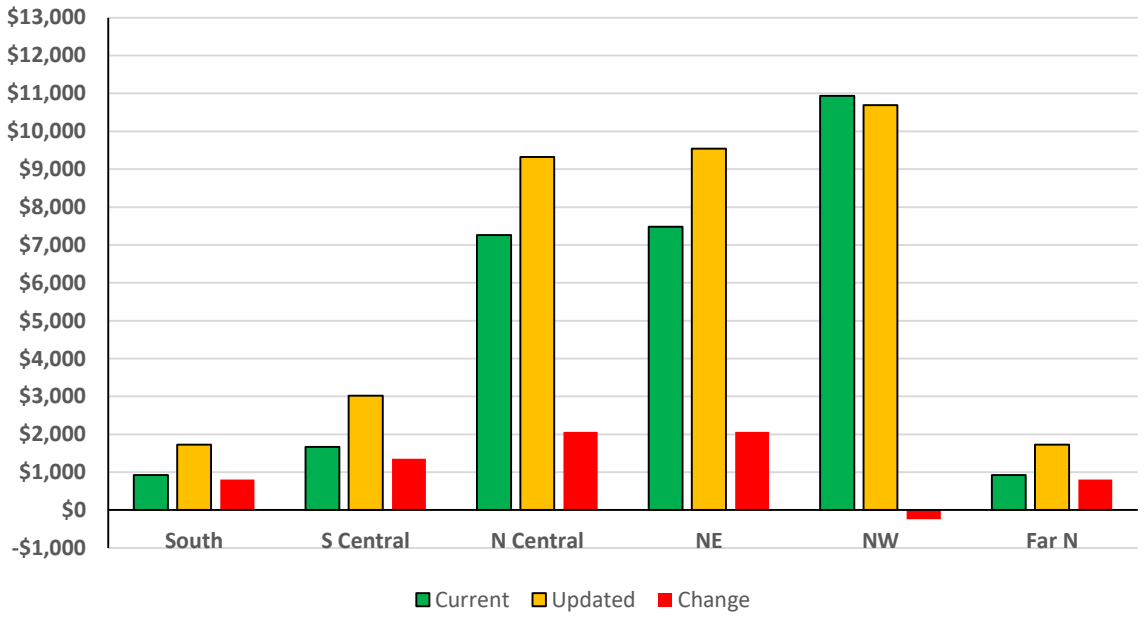
Table 2. Comparison of Current and Updated Non-Utility Fees

Fee Type/Service Area/ Geograpic Area	Single-Family (unit)	Multi-Family (unit)	Mobile Home (space)	Hotel/ Motel (room)	Nonresidential Fees per 1,000 sq. ft.				
					Retail/ Comm.	Office	Indus-trial	Ware-house	Public/ Instit.
Updated Fees									
Roads, Central (N of Deer V, E of Agua Fria)	$6,306	$3,775	$2,957	$4,521	$7,997	$3,416	$3,020	$1,161	$2,950
Roads, North (W of Agua Fria)	$7,559	$4,525	$3,545	$5,420	$9,587	$4,095	$3,621	$1,392	$3,536
Parks, Zone 1 (Bell-Happy Valley)	$1,296	$881	$1,089	$91	$117	$194	$13	$13	$13
Parks, Zone 2 (E of Agua Fria, S of SR 74)	$1,515	$1,030	$1,273	$106	$136	$227	$15	$15	$15
Parks, Zone 3 (W of Aqua Fria, S of SR 74)	$1,412	$960	$1,186	$99	$127	$212	$14	$14	$14
Fire (City-Wide)	$1,047	$715	$881	$582	$1,147	$704	$111	$72	$199
Police (City-Wide)	$677	$462	$569	$376	$741	$455	$72	$47	$129
Total Updated Fee, South of Bell	$1,724	$1,177	$1,450	$958	$1,888	$1,159	$183	$119	$328
Total Updated Fee, Bell-Deer Valley	$3,020	$2,058	$2,539	$1,049	$2,005	$1,353	$196	$132	$341
Total Updated Fee, Deer Valley-Happy Valley	$9,326	$5,833	$5,496	$5,570	$10,002	$4,769	$3,216	$1,293	$3,291
Total Updated Fee, E of Agua Fria, S of SR 74	$9,545	$5,982	$5,680	$5,585	$10,021	$4,802	$3,218	$1,295	$3,293
Total Updated Fee, W of Agua Fria, S of SR 74	$10,695	$6,662	$6,181	$6,477	$11,602	$5,466	$3,818	$1,525	$3,878
Total Updated Fee, N of SR 74	$1,724	$1,177	$1,450	$958	$1,888	$1,159	$183	$119	$328
Percent Change from Current Fees									
Roads, Central (N of Deer V, E of Agua Fria)	13%	9%	14%	-9%	18%	-33%	10%	-36%	-24%
Roads, North (W of Agua Fria)	-12%	-15%	-11%	-29%	-8%	-48%	-14%	-50%	-41%
Parks, Zone 1 (Bell-Happy Valley)	73%	99%	114%	102%	160%	424%	-13%	-13%	86%
Parks, Zone 2 (E of Agua Fria, S of SR 74)	56%	80%	93%	83%	134%	363%	-21%	-21%	50%
Parks, Zone 3 (W of Aqua Fria, S of SR 74)	0%	15%	23%	16%	49%	199%	-50%	-50%	0%
Fire (City-Wide)	151%	188%	211%	166%	150%	396%	131%	71%	146%
Police (City-Wide)	35%	55%	66%	42%	34%	166%	24%	-6%	32%
Change from Current Total Fees									
Total Fee, South of Bell	$804	$630	$825	$475	$877	$846	$77	$27	$149
Total Fee, Bell-Deer Valley	$1,351	$1,069	$1,405	$521	$949	$1,003	$75	$25	$155
Total Fee, Deer Valley-Happy Valley	$2,066	$1,384	$1,765	$67	$2,183	-$692	$341	-$615	-$765
Total Fee, N of HV, E of Agua Fria, S of SR 74	$2,064	$1,403	$1,798	$69	$2,189	-$671	$339	-$617	-$766
Total Fee, W of Agua Fria, S of SR 74	-$238	-$39	$599	-$1,741	$108	-$2,777	-$550	-$1,364	-$2,265
Total Fee, N of SR 74	$804	$630	$825	$475	$877	$846	$77	$27	$149

Note: "Bell" boundary line is actually one-half mile north of Bell Road
Source: Updated fees from Table 26 (transportation), Table 35 (parks), Table 43 (fire/EMS) and Table 51 (police); percent change is from current fees in Table 1.

Total non-utility fees are going up for most land uses in all areas except west of the Agua Fria, where current fees are the highest. For a new single-family detached dwelling unit, the changes in total non-utility fees by area are illustrated in Figure 1. The increases amount to about $800 per unit in the south and far north areas (south of Bell and north of SR 74, about $1,300 in the south-central area (Bell to Deer Valley), and about $2,000 per unit in the north-central and northeast areas (Deer Valley to SR 74). The updated total single-family fee in the northwest area (west of the Agua Fria River) is about $200 lower than the current fee.

Figure 1. Change in Total Non-Utility Fees by Area, Single-Family Unit



Another way to look at fee changes is to compare the potential revenue over the next ten years based on growth projections and current and updated fee amounts. The updated fees would generate about 6% more revenue than current fees, as shown in Table 3.

Table 3. Potential Revenue Under Current and Updated Fees, 2018-2028

	10-Year Revenue with:			Percent
Fee Type and Service Area	Current Fees	Updated Fees	Change	Change
Roads, Central (N of Deer V, E of Agua Fria)	$44,875,653	$48,188,828	$3,313,175	7%
Roads, North (W of Agua Fria)	$83,348,907	$69,778,848	-$13,570,059	-16%
Parks, Zone 1 (Bell-Happy Valley)	$1,984,850	$3,434,400	$1,449,550	73%
Parks, Zone 2 (E of Agua Fria, S of SR 74)	$2,570,500	$4,014,750	$1,444,250	56%
Parks, Zone 3 (W of Aqua Fria, S of SR 74)	$7,217,352	$7,196,964	-$20,388	0%
Fire (City-Wide)	$7,875,669	$20,942,308	$13,066,639	166%
Police (City-Wide)	$9,506,825	$13,533,116	$4,026,291	42%
Total	$157,379,756	$167,089,214	$9,709,458	6%

Source: 10-year revenue estimates based on new service units from Table 18 (roads), Table 30 (parks), and Table 38 (fire/EMS and police); "current" net cost per service unit from Duncan Associates, *2013-2023 Land Use Assumptions and Infrastructure Improvements Plan for Non-Utility Impact Fees, City of Peoria, Arizona*, January 2014; and updated net cost per service unit from Table 25 (roads), Table 33 (parks), Table 41 (fire/EMS), and Table 49 (police).

LEGAL FRAMEWORK

Impact fees are a way for local governments to require new developments to pay a proportionate share of the infrastructure costs they impose on the community. In contrast to traditional "negotiated" developer exactions, impact fees are charges that are assessed on new development using a standard formula based on objective characteristics, such as the number and type of dwelling units constructed. The fees are one-time, up-front charges, with the payment usually made at the time of building permit issuance. Impact fees require each new development project to pay its pro-rata share of the cost of new capital facilities required to serve that development.

Arizona's enabling act for municipalities is codified in Sec. 9-463.05, Arizona Revised Statutes (ARS). In 2011, the legislature passed SB 1525, which was signed by the governor on April 26, 2011. SB 1525 constituted a major overhaul of Arizona's enabling act for municipalities. This chapter summarizes some of the major provisions of the current state act.

Eligible Facilities

Prior to SB 1525, municipalities could assess impact fees for any "necessary public services" (which was not defined) that constituted "costs to the municipality." SB 1525 amended the statute to limit the types of facilities for which impact fees can be assessed. Authorized facilities for which impact fees can be assessed, after January 1, 2012, are limited to the following defined "necessary public services:"

> *"Necessary public service" means any of the following facilities that have a life expectancy of three or more years and that are owned and operated by or on behalf of the municipality:*
>
> *(a) Water facilities, including the supply, transportation, treatment, purification and distribution of water, and any appurtenances for those facilities.*
>
> *(b) Wastewater facilities, including collection, interception, transportation, treatment and disposal of wastewater, and any appurtenances for those facilities.*
>
> *(c) Storm water, drainage and flood control facilities, including any appurtenances for those facilities.*
>
> *(d) Library facilities of up to ten thousand square feet that provide a direct benefit to development, not including equipment, vehicles or appurtenances.*
>
> *(e) 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.*
>
> *(f) 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 firefighters or officers from more than one station or substation.*

> *(g) 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.*
>
> *(h) Any facility that was financed and that meets all of the requirements prescribed in subsection* R *of this section.* (Sec. 9-463.05.T.7, ARS)

No longer authorized are fees for general government facilities, sanitation facilities, library buildings larger than 10,000 square feet and library books or equipment, fire/EMS and police administrative and training facilities and aircraft, parks larger than 30 acres and community centers larger than 3,000 square feet. No changes were made to authorized improvements for road, stormwater drainage, water or wastewater facilities, other than the new requirement that eligible facilities must have a life expectancy of at least three years.

Compliance Deadlines

According to SB 1525, municipalities may continue to collect fees for unauthorized facilities after January 1, 2012 if the fees were pledged to retire debt for such facilities issued prior to June 1, 2011. However, the City of Peoria had not pledged fee revenue in this sense for any of its development impact fees. Consequently, the City ceased collecting general government, open space and trail fees, and reduced its parks, fire and police impact fees to remove unauthorized components on January 1, 2012.

SB 1525 added numerous new requirements related to how impact fees are calculated. Land use assumptions (growth projections) must be prepared for each service area, covering at least a ten-year period. Many new requirements were added for the infrastructure improvements plan (IIP) and the impact fee analysis. However, compliance with these was not required until August 1, 2014:

> *A development fee that was adopted before January 1, 2012 may continue to be assessed only to the extent that it will be used to provide a necessary public service for which development fees can be assessed pursuant to this section and shall be replaced by a development fee imposed under this section on or before August 1, 2014. (9-463.05K, ARS)*

Significant changes were made to the requirements for adopting updated infrastructure improvements plans and fee schedules. These requirements were effective as of January 1, 2012, but only apply to the updated IIP and impact fee schedules that were required to be in place by August 1, 2014.

Provisions were also added relating to refunds. However, these provisions only apply to fees collected after August 1, 2014. Other changes, however, are effective as of January 1, 2012. These include new provisions or amendments related to developer credits, the locking-in of fee schedules for 24 months following development approval, and annual reporting requirements. In addition, the expenditure of

impact fees collected after January 1, 2012 is restricted to facilities authorized by SB 1525 (and repayment of pledged debt for unauthorized facilities, although this is not an option for Peoria).

Service Areas

Service areas are a key requirement for impact fees under SB 1525. A service area is defined as "any specified area within the boundaries of a municipality in which development will be served by necessary public services or facility expansions and within which a substantial nexus exists between the necessary public services or facility expansions and the development being served as prescribed in the infrastructure improvements plan." Land use assumptions (growth projections) and an infrastructure improvements plan (list of capital improvements and impact fee analysis) must be prepared for each service area.

It should be emphasized that multiple service areas are not mandated by SB 1525. A service area may include all of the area within the City limits, or within the City's water and wastewater service area, as long as it can be shown that developments located anywhere within the service area will be served by or benefit from improvements located in the service area. Additional discussion of service areas can be found in the next chapter of this report.

Service Units

In impact fee analysis, demand for facilities must be expressed in terms of a common unit of measurement, called a "service unit." SB 1525 defines a service unit as "a standardized measure of consumption, use, generation or discharge attributable to an individual unit of development calculated pursuant to generally accepted engineering or planning standards for a particular category of necessary public services or facility expansions." The recommended service units are described in the individual facility chapters of this report.

Table 4. Recommended Service Units

Facilty Type	Recommended Service Units
Transportation	Daily Vehicle-Miles of Travel
Parks	Equivalent Dwelling Units (EDUs)
Fire	Functional Population
Police	Functional Population

Methodologies

SB 1525 is sometimes misunderstood to dictate a particular methodology for calculating impact fees. Because cities must forecast anticipated growth over a fixed time period and identify improvements over the same time period, some are led to think that a "plan-based" methodology is required, where the cost per service unit is calculated by dividing planned costs by anticipated new service units. In fact, however, SB 1525 does not dictate this methodology, and most impact fees in the state have not been calculated in this way. The reason is that, to support a plan-based methodology, the list of planned improvements must be developed using a rigorous analysis, such as the modeling used to develop a transportation master plan, in order to establish the required nexus between the anticipated growth and the specific list of improvements required to serve that growth. In many cases, such a master plan is not available.

The principal alternative to the plan-based methodology is "standards-based." The key difference is that the plan-based approach is based on a complex level of service (LOS) standard, such as "every road shall function at LOS D or better," or "the average fire response time shall not exceed three minutes," that requires projecting growth by small areas and using sophisticated modeling or analysis to determine the specific improvements needed to maintain the desired LOS. In contrast, a standards-based approach uses a generalized LOS standard, such as the ratio of park acres to population, that does not require an extensive master planning effort in order to determine the improvements and costs that are attributable to a specific quantity of growth.

There are advantages and disadvantages to the two methodologies. The major advantage of a standards-based methodology is that it is more flexible, because the fees are not dependent on the specific projects included in the list of improvements, only on the average cost to construct a unit of capacity. Changing the list of planned projects typically does not require recalculation of standards-based impact fees, as a single project is likely to have an insignificant impact on the average cost of capacity added by all the improvements. This allows the capital plan to change in response to unforeseen development without triggering the need for an impact fee update.

Level of Service (LOS) Standards

SB 1525 does not define the term "level of service" (LOS), nor does it require the formal adoption of LOS standards. It does require, however, that impact fees be based on the same LOS provided to existing development in the service area. This reflects a basic principle of impact fees, which is that new development should not be charged for a higher LOS than existing development. This does not mean that impact fees cannot be based on a higher standard than is currently actually provided to existing development in a service area. If the fees are based on a higher-than-existing LOS, however, there must be a plan to use non-impact fee funds to remedy the existing deficiency.

The level of service standards used in this update are summarized in Table 5. None of these exceed the current level of service provided to existing development.

Table 5. Recommended Level of Service Standards

Type of Fee	Recommended LOS Standard
Transportation	1.50 Vehicle-Mile of Capacity (VMC) per VMT
Parks	Existing Capital Cost per EDU
Fire	Existing Cost per Functional Population
Police	Existing Cost per Functional Population

Notes: VMT stands for vehicle-miles of travel, EDU is equivalent dwelling unit.

Land Use Assumptions

An impact fee study must include land use assumptions (growth projections) for each service area. SB 1525 defines land use assumptions as "projections of changes in land uses, densities, intensities and population for a specified service area over a period of at least ten years and pursuant to the general plan of the municipality." Since the infrastructure improvements plan (IIP) that must be prepared for each service area must identify improvement needs for a period not to exceed 10 years, a 10-year time-frame would seem to be the most appropriate for both the land use assumptions and the IIP. The land use assumptions for Peoria's impact fee update can be found in the Land Use Assumptions chapter of this report.

Infrastructure Improvements Plan

SB 1525 requires that an infrastructure improvements plan (IIP) be prepared for each facility type and service area. Impact fees may only be collected to pay for improvements identified in the IIP. By implication, impact fees can only be spent on improvements listed in the IIP.

The IIP is often confused with a list of planned capital improvements. While the IIP must include such a list, it must also contain much more analysis. The IIP is basically the impact fee study. To avoid confusion, this study refers to the list of improvements that must be included in the IIP as the "capital plan." This study provided a single, consolidated document that includes land use assumptions, infrastructure improvement plans and impact fee analyses for all the City's non-utility impact fees.

As noted above, the IIP must identify planned projects over a period of not more than 10 years, and it is suggested that the City's IIPs and capital plans cover a 10-year period. Of course, the impact fee analysis could cover a longer period, such as to build-out, which may be required if the fees are based on build-out master plans.

The cost of the projects listed in the capital plan will not necessarily determine the impact fee amounts. As described in the Methodologies subsection above, there are two basic methodologies. Under a plan-based approach, the fee will be determined by the projects listed in the applicable master plan, some but not all of which will be listed in the impact fee capital plan. Under the standards-based approach, the fees will be based on the existing level of service and the average cost per unit of capacity (e.g., for fire/EMS, the average cost to build a square foot of fire station). So the impact fee capital plan is primarily a list of improvements that are eligible to be funded with impact fees. However, if the updated impact fees based on the existing level of service would generate more revenue, based on the land use assumptions, than the cost of the planned eligible expenditures, the fees will be reduced so that planned revenues equal planned expenditures.

Eligible improvements are those that add capacity to accommodate future growth. Replacing an existing fire truck or an existing fire station, or remodeling or repairing an existing building, are examples of improvements that do not add capacity. Some projects may be partially eligible. For example, replacing an existing two-bay fire station with a larger three-bay fire station would be partially eligible for impact fee funding.

Refunds

A common and understandable misinterpretation of SB 1525 is that a municipality may be required to refund fees collected if any improvement listed in the IIP is not completed within the timeframe of the IIP. Section 9-463.05.B.7 provides that collection of impact fees is allowed only to pay for a project that is identified in the IIP, "and the municipality plans to complete construction and have the service available within the time period established in the infrastructure improvements plan, but in no event longer than the time period provided in subsection H, paragraph 3 of this section [i.e., 15 years for water and wastewater, and 10 years for other facilities]." The key terms in this section are "plans to complete" and "have the service available." No community has a crystal ball that allows them to know with certainty how much development is going to occur over a 10-15 year period in the future. While the City may plan to complete an improvement in this time period in order to serve anticipated growth, if the anticipated growth does not materialize and the need for the improvement is not required to serve the growth that does occur, the City should not be compelled to refund fees it collected and spent on other planned improvements.

The refund provisions in the referenced refund subsection (H) reinforce this interpretation. The first two subparagraphs refer to the collection of fees when "service is not provided" (H.1) or when "service is not available" and the municipality has failed to complete construction within the time period identified in the IIP (H.2), a clear echo of the "have the service available" phrase in subsection B.7. In general, impact fees are not collected when services are not available. A clear case would be collecting water and wastewater fees from a development that is not able to connect to the water and wastewater system. However, the City of Peoria does not do this. For other facilities, service is provided immediately upon development, even if a planned facility could provide service from a closer location.

Section 9-463.05.B.7 directly references only the final paragraph of subsection H (H.3), which simply requires that the impact fees be spent within a certain time period (15 years for water and wastewater, and 10 years for other facilities) from the date they were collected. It is reasonable to conclude that this is the only refund provision that will likely be applicable, as long as the City does not collect impact fees and deny access to services. However, there is always the possibility that refunds could be required if a construction project comes in significantly lower than its estimated cost, per Section 9-463.05.I of Arizona statutes.

Offsets

A fundamental principle of impact fees is that new development should not be required to pay twice for the cost of new facilities – once through impact fees and again through other taxes or fees that are used to fund the same facilities. To avoid such potential double-payment, impact fees may be reduced, and such a reduction is referred to as an "offset." Typically, offsets are incorporated into the impact fee calculation, although they can also be addressed through an independent fee study for an individual development project. While this has long been a part of impact fee practice in Arizona, SB 1525 amended the state enabling act to add the following provision (Section 9-463.05.B.12):

> *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 required revenue forecast is provided in Appendix C. In general, however, offsets are only required for funding that is dedicated for capacity-expanding improvements of the type addressed by the impact fee. A municipality is not required to use general fund revenue to pay for growth-related improvements. If, for example, a municipality decides that the existing level of service on which impact fees are based is insufficient and opts to use general revenue to raise the level of service for both existing and new development, no offset would be required.

The clearest situation that requires an offset is when there is outstanding debt on the facilities that are providing existing development with the level of service that new development will be expected to pay for through impact fees. In this case, new development will be paying for the facilities that will serve them, while also paying for a portion of the cost of facilities serving existing development through property or other taxes. Consequently, the impact fees should be reduced to avoid this potential double-payment.

Another clear case requiring offsets is when the impact fees for a particular service area have been adopted based on a level of service that is higher than what is currently provided to existing development in the service area. In such a case, the cost of remedying the existing deficiency will almost always be funded by future revenue sources to which new development in the service area will contribute. To the extent that this is the case, an offset is required.

As noted above, an offset will generally be warranted when new development will be contributing toward a funding source that is dedicated to fund the same growth-related improvements addressed by the impact fee. Offsets are also often provided for anticipated grant funding that may be available to help fund growth-related improvements, although the uncertainty of such funding and the fact that it is not paid for by property owners make this type of offset discretionary.

Finally, the new language inserted in the state enabling act by SB 1525, cited above, now requires municipalities to provide offsets for the excess portion of any construction contracting excise tax. Because the City of Peoria does not charge a construction excise tax higher than for other types of business activities, no such offset is required.

SERVICE AREAS

As noted in the Legal Framework chapter, service areas are a key requirement for impact fees under SB 1525. Land use assumptions (growth projections) and an infrastructure improvements plan (list of capital improvements and impact fee analysis) must be prepared for each service area. Multiple service areas are not mandated by SB 1525, as long as it can be shown that developments located anywhere within the service area will be served by or benefit from improvements anywhere in the service area – which is another way of saying that a "substantial nexus" can be demonstrated.

For the non-utility fees, the City currently has three transportation service areas, four parks service areas, and city-wide service areas for fire/EMS and police. In this update, minor modifications are proposed for the transportation and parks service area boundaries.

Transportation

The City currently charges differential impact fees between two areas: Central (Deer Valley to SR 74, east of the Agua Fria River), and North (east of the Aqua Fria and south of SR 74). No fees are charged in the areas south of Deer Valley or north of SR 74. The North transportation service area is the same as the Zone 3 park service area.

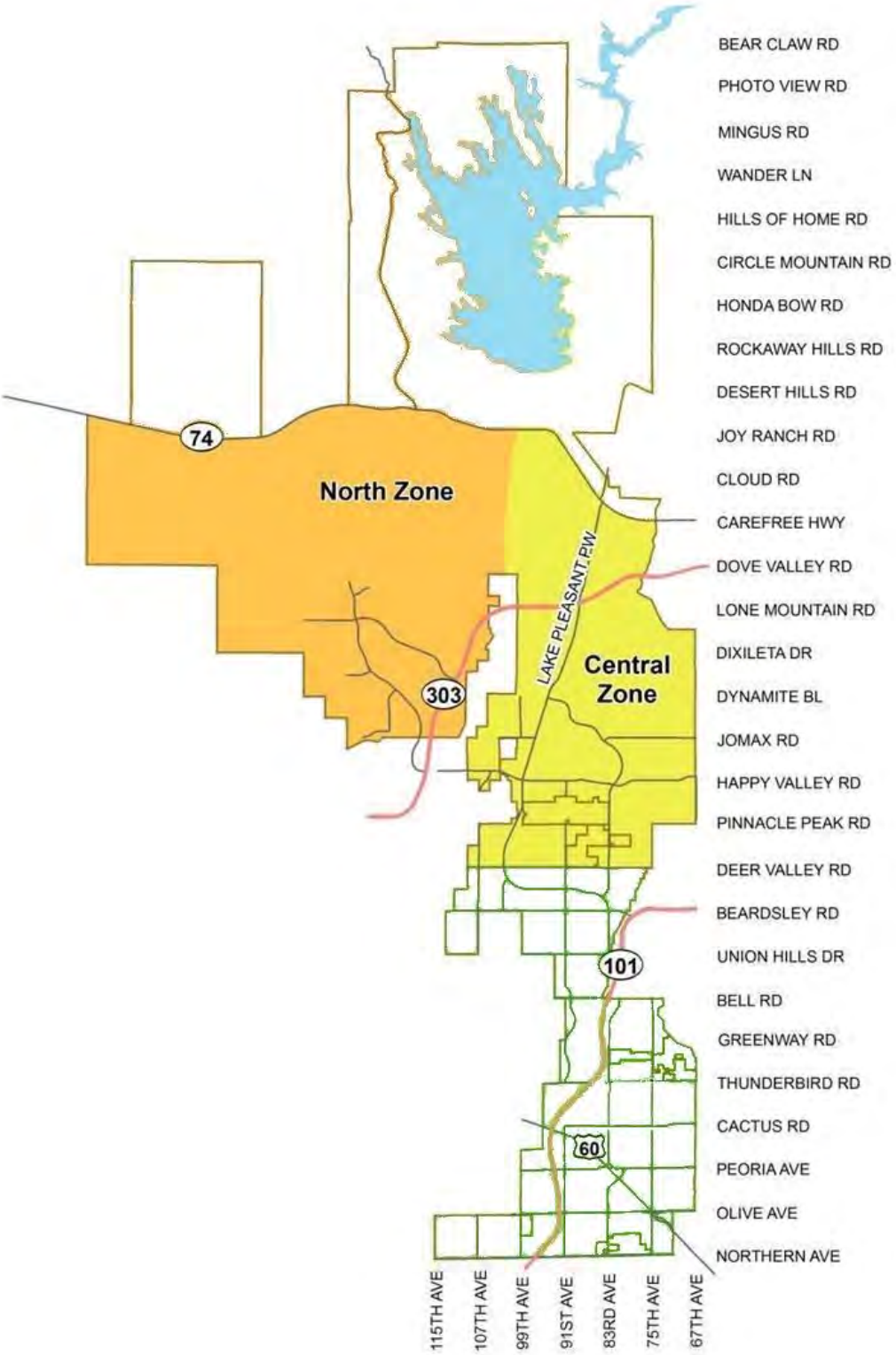
The City's transportation impact fees are restricted to improvements to arterial roadways. Because this roadway classification is designed to move traffic throughout the community, a city-wide service area would probably be reasonable. Having multiple service areas, however, ensures that fees paid by a development are spent in closer proximity to the development.

The City does not anticipate the need for any growth-related transportation improvements in the South service area (any capacity improvements are primarily attributable to pass-through traffic), and consequently no fees are assessed in that area.

The City adjusted the transportation service area boundaries in 2017 to exclude the area north of SR 74 (Carefree Highway) from the central and north service areas. The City has no planned improvements for the area north of SR 74, and little new development is expected to occur in this area in the next ten years.

No additional changes are proposed to the transportation service areas as part of this update. The existing service areas are illustrated in Figure 2 below.

Figure 2. Transportation Service Areas



Parks

SB 1525 authorizes fees for "neighborhood parks," although the term is undefined except for certain restrictions. The most important restriction is that neighborhood parks cannot exceed 30 acres unless a "direct benefit" (another undefined term) can be demonstrated. For the purposes of this analysis, eligible facilities include parks up to 30 acres in size, as well as a 30-acre portion of larger parks that provides functions similar to parks of the authorized size.

The City's 2014 *Community Services Master Plan* contains planning standards for neighborhood parks. A neighborhood park has a preferred size of 10-40 acres, a service area of about a one-mile radius, and a service population of 5,000-10,000 residents.[1]

Park impact fee service areas can reasonably be larger than the service area of a single park. Residents do not always use the park closest to them. A park impact fee system where each existing or potential park has its own service area would be unworkable.

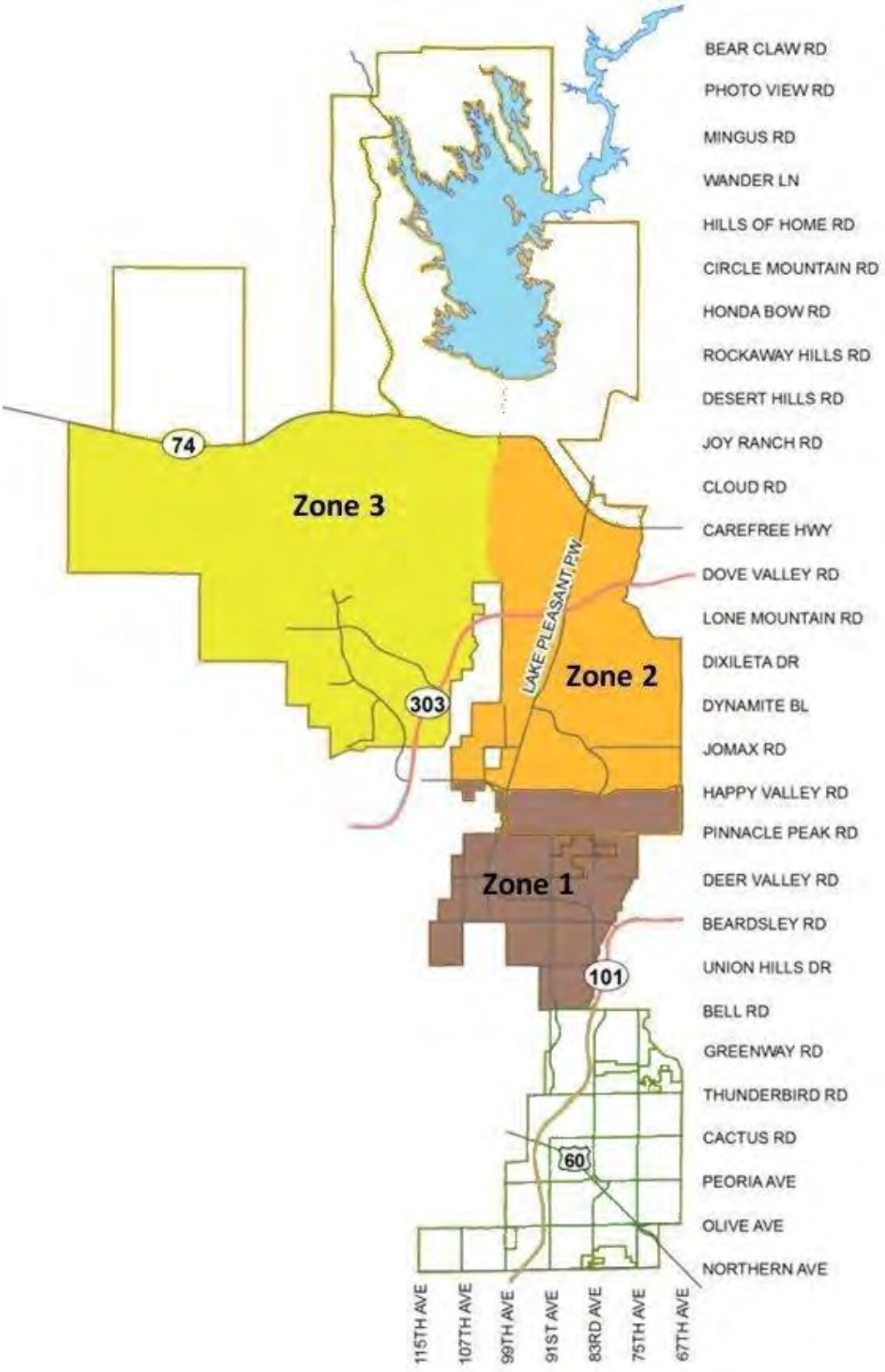
The City currently has three park impact fee service areas: Zone 1 (north of one-half mile north of Bell Road and south of Pinnacle Peak Road), Zone 2 (Pinnacle Peak Road to SR 74, east of the Agua Fria River), and Zone 3 (west of the Agua Fria River, south of SR 74). The boundaries of Zones 2 and 3 were amended in 2017 to exclude the area north of SR 74, because no park improvements are planned, and little growth is anticipated over the next ten years in this area.

Each park impact fee service area is roughly the size of one or two community park coverage areas. Based on these considerations, the City's current park service areas are reasonable. The City does not collect park fees south of Bell Road, because there are no new parks planned for this area.

One change to the park service area boundaries is proposed in this update. The boundary between Zones 1 and 2 is proposed to shift northward about a mile, from Pinnacle Peak Road to Happy Valley Road. The proposed park service areas are illustrated in Figure 3 on the following page.

[1] *City of Peoria, Arizona Community Services Master Plan*, Final Report, Approved August 27, 2014, pp. 264-265.

Figure 3. Proposed Park Service Areas



Fire/EMS and Police

The current and recommended service areas for fire/EMS and police facilities are city-wide. Most police facilities are centralized in the Public Safety Administration Building (although there is a northern substation), and police protection is provided throughout the city from roving patrol cars.

Fire protection and emergency response is provided by response units located in eight stations, supported by central facilities in the Public Safety Administration Building. The City participates in a regional Automatic Aid System with 22 other municipalities that dispatches apparatus to an incident from the closest location. All Fire Department apparatus are equipped with an Automatic Vehicle Locator (AVL) to help locate the closest, most appropriate piece of equipment (engines, ladders, Advanced Life Support (paramedics), Basic Life Support (emergency medical technicians), hazmat, brush trucks, etc.) to respond to the emergency. The Fire Department added emergency medical service (EMS – ambulance transport) starting January 2017 (before that it was provided by contract from a private provider). The City's fire/EMS facilities and equipment thus form an integrated system, and a city-wide service area is appropriate.

Summary

The recommended service areas are as follows:

- **Transportation**
  Central (north of Deer Valley, east of the Agua Fria River, and south of SR 74)
  North (west of the Agua Fria River and south of SR 74)

- **Parks**
  Zone 1 (north of ½ mile north of Bell Road and south of Happy Valley Road)
  Zone 2 (north of Happy Valley Road, east of the Agua Fria River, and south of SR 74)
  Zone 3 (west of the Agua Fria River and south of SR 74)

- **Fire/EMS and Police**
  Citywide

LAND USE ASSUMPTIONS

This chapter presents land use assumptions covering a ten-year period (2018-2028) to serve as the basis for the updated infrastructure improvements plan and impact fee calculations for the City of Peoria's transportation, parks, fire/EMS and police impact fees.

SB 1525 requires that land use assumptions be developed for each service area "pursuant to the general plan." The City of Peoria's General Plan was last updated in January 2010, prior to the 2010 U.S. Census. The projections in the General Plan have been superseded by more recent City forecasts that take into account 2010 Census results as well as actual permit activity in recent years. In addition, the General Plan does not provide projections for subareas of the city. Consequently, this analysis relies primarily on other sources for ten-year projections by service area.

Average Household Size

A key input into impact fee analysis is the average number of people residing in different types of dwelling units. This statistic, known as average household size, is the ratio of household population to households (which is the same as occupied dwelling units).

The most reliable data on average household size comes from the decennial census counts. Unfortunately, these 100%-count data are only available for all housing units, with no distinction by housing type. Overall, the trend in Peoria between the 2000 and 2010 census was one of a slight decline in overall average household size, as can be seen in Table 6.

Table 6. Average Household Size, 2000 and 2010

	2000	2010	% Change
Household Population	106,850	152,838	43.04%
÷ Number of Households	39,184	57,457	46.63%
Average Household Size	2.73	2.66	-2.45%

Source: 2000 and 2010 US Census for Peoria, AZ, SF1 data (100% counts).

The most current data available by housing type come from annual 1% samples collected from 2011-2015 and aggregated into a 5% sample data set. While published data based on the samples combine single-family detached and attached units, the microdata sets provide data for individual sample units. The results of the analysis of the microdata for Peoria are shown in Table 7.

Table 7. Average Household Size by Housing Type

Housing Type	Sample Size	Household Population	Occupied Units	Avg. HH Size
Single-Family Detached	1,666	91,956	32,611	2.82
Multi-Family	471	18,749	9,724	1.93
Mobile Home	96	5,678	2,383	2.38
Total	2,233	116,383	44,718	2.60

Source: US Census American Community Survey, 2011-2015 5% sample microdata.

Geographic Areas

Land use assumptions have been prepared for six subareas of the City of Peoria (see map on the following page). These areas can be aggregated to the three park service areas, the two transportation service areas, and the city-wide service areas for fire/EMS and police impact fees, as shown in Figure 4.

Figure 4. Geographic Areas

Geographic Areas	Park Service Areas	Transportation Service Areas	Public Safety Service Area
South (S of 1/2 mi. no. of Bell Rd)			City-Wide
South Central (Bell-Deer Valley)	Zone 1		
North Central (Deer Valley-Happy Valley)		Central	
Northeast (Happy Valley-SR 74, E of Agua Fria)	Zone 2		
Northwest (Happy Valley-SR 74, W of Agua Fria)	Zone 3	North	
Far North (N of SR 74)			

2010 Housing Units by Type

Determining estimates of 2010 housing units by housing type for each of the six geographic areas requires some analysis, because the 2010 Census does not provide counts of housing units by housing type. However, the Census Bureau conducts annual 1% samples of housing units as part of the American Community Survey (ACS). The distribution of housing units by type in the City of Peoria derived from the ACS sample data at the census tract level is summarized in Table 8.

Table 8. Housing Unit Distribution by Type and Area

	Percentage of Housing			
Geographic Area	Single-Family	Multi-Family	Mobile Home	Total
South (S of Bell Rd)	65.22%	27.18%	7.60%	100.00%
South Central (Bell-Deer Valley)	70.80%	25.09%	4.11%	100.00%
North Central (Deer Valley-Happy Valley)	93.24%	6.03%	0.73%	100.00%
Northeast (Happy Valley-SR 70, E of Agua Fria)	98.56%	1.15%	0.29%	100.00%
Northwest (Happy Valley-SR 70, W of Agua Fria)	90.39%	2.57%	7.04%	100.00%
Far North (N of SR 74)	91.25%	0.65%	8.10%	100.00%

Source: 2007-2011 5% sample data for City of Peoria census tracts, consisting of annual 1% samples from the US Census Bureau, American Community Survey.

Figure 5. Geographic Subareas

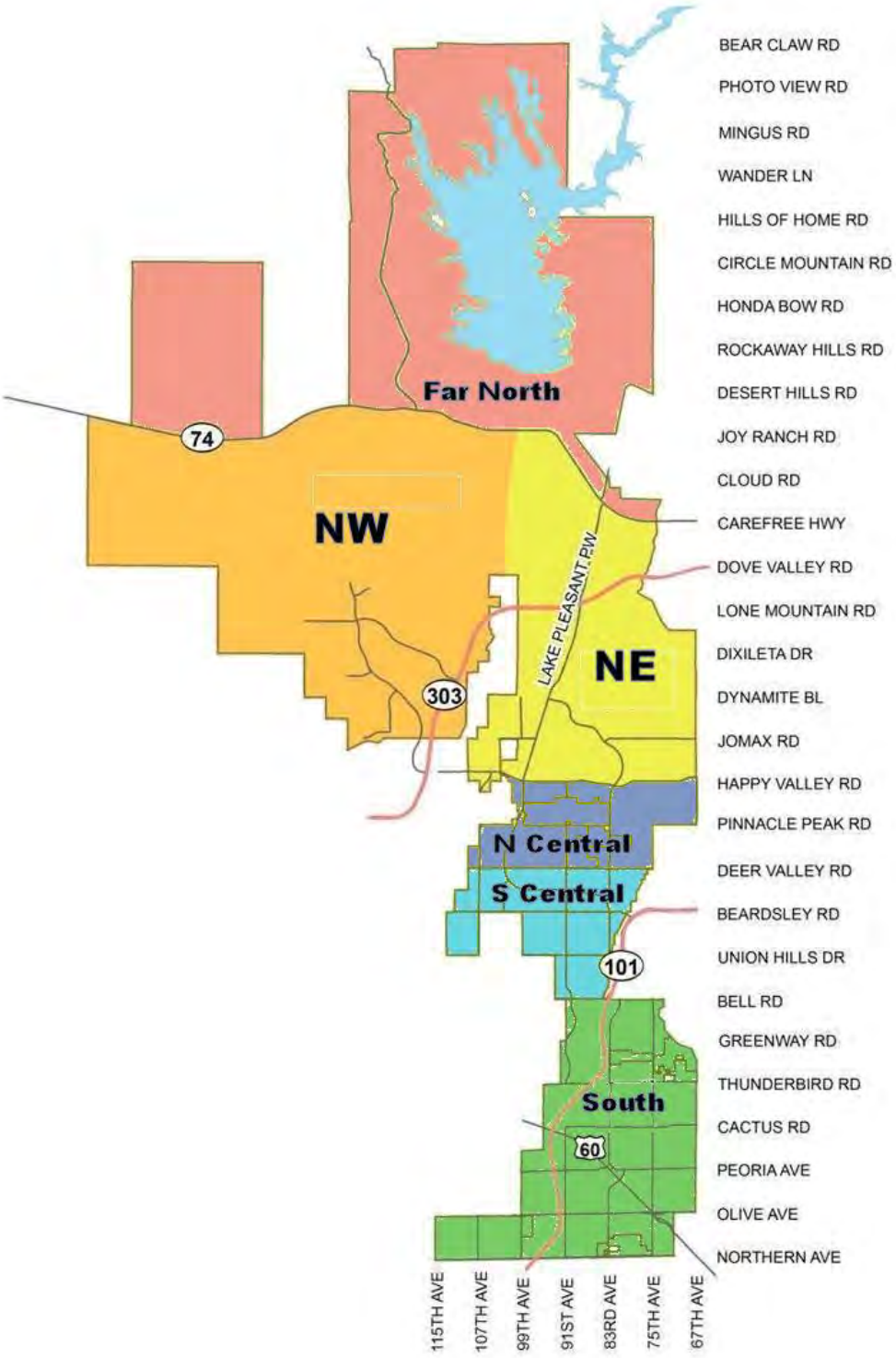


Table 9 below shows total population and total housing units by geographic area from the 2010 U.S. Census, as well as housing units by type based on the percentages shown in the preceding table.

Table 9. Population and Housing Units by Type and Area, 2010

Geographic Area	Total Population	Total Units	Single-Family	Multi-Family	Mobile Home	Persons/ Unit
South (S of Bell Rd)	84,662	34,982	22,815	9,508	2,659	2.42
South Central (Bell-Deer Valley)	28,616	14,327	10,143	3,595	589	2.00
North Central (Deer Valley-Happy Valley)	17,288	6,422	5,988	387	47	2.69
Northeast (Happy Valley-SR 74, E of Agua Fria)	15,673	5,306	5,230	61	15	2.95
Northwest (W of Aqua Fria, S of SR 74)	7,804	3,769	3,407	97	265	2.07
Far North (N of SR 74)	22	12	11	0	1	1.83
City-Wide	154,065	64,818	47,594	13,648	3,576	2.38

Source: Total population and total housing units from 2010 U.S. Census data by census tract for the City of Peoria; housing units by type determined according to the housing distribution for each geographic area from Table 8; persons per unit is total populatoin divided by total units.

2018-2028 Projections

Estimates of current (2018) housing units in the city are based on 2010 census counts plus building permits issued by the City over the last eight years. Building permit data from FY 2010-2017 are summarized by housing type and geographic area in Table 9 below.

Table 10. New Housing Units by Type and Area, 2010-2017

	Actual (Fiscal Year)								2010-2017
	2010	2011	2012	2013	2014	2015	2016	2017	
South	40	64	7	25	88	155	221	189	789
South Central	31	48	42	87	51	35	0	0	294
North Central	0	31	57	64	153	167	230	430	1,132
Northeast	65	87	220	282	368	454	601	484	2,561
Northwest	217	161	256	300	256	342	561	528	2,621
Far West	0	0	0	0	0	0	0	0	0
Total Single-Family	353	391	582	758	916	1,153	1,613	1,631	7,397
South	0	0	0	0	40	224	0	333	597
South Central	0	0	0	0	0	0	0	0	0
North Central	0	0	0	0	0	0	0	0	0
Northeast	0	0	0	0	0	40	0	0	40
Northwest	0	0	0	0	0	0	0	0	0
Far West	0	0	0	0	0	0	0	0	0
Total, Multi-Family	0	0	0	0	40	264	0	333	637
South	40	64	7	25	128	379	221	522	1,386
South Central	31	48	42	87	51	35	0	0	294
North Central	0	31	57	64	153	167	230	430	1,132
Northeast	65	87	220	282	368	494	601	484	2,601
Northwest	217	161	256	300	256	342	561	528	2,621
Far West	0	0	0	0	0	0	0	0	0
Total Units	353	391	582	758	956	1,417	1,613	1,964	8,034

Source: City of Peoria, January 16 and February 26, 2018.

Projections of future building permits are prepared by the City for planning and impact fee revenue forecasting purposes. The projections over the next ten years are summarized by housing type and geographic area in Table 11.

Table 11. New Housing Units by Type and Area, 2018-2028

	Projected (Fiscal Year)										2018-
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2027
South	96	90	75	58	42	10	10	10	0	0	391
South Central	0	72	172	222	200	150	125	100	71	0	1,112
North Central	440	367	310	210	115	66	0	0	0	0	1,508
Northeast	400	305	298	547	595	570	620	595	530	505	4,965
Northwest	474	610	665	640	683	784	825	890	929	975	7,475
Far West	0	0	0	0	0	0	0	0	0	0	0
Total Single-Family	1,410	1,444	1,520	1,677	1,635	1,580	1,580	1,595	1,530	1,480	15,451
South	153	56	180	0	0	0	0	0	0	0	389
South Central	0	0	0	0	0	0	0	0	0	0	0
North Central	0	0	0	0	0	0	0	0	0	0	0
Northeast	112	0	0	0	0	0	0	0	0	0	112
Northwest	0	0	0	200	0	200	200	200	0	200	1,000
Far West	0	0	0	0	0	0	0	0	0	0	0
Total, Multi-Family	265	56	180	200	0	200	200	200	0	200	1,501
South	249	146	255	58	42	10	10	10	0	0	780
South Central	0	72	172	222	200	150	125	100	71	0	1,112
North Central	440	367	310	210	115	66	0	0	0	0	1,508
Northeast	512	305	298	547	595	570	620	595	530	505	5,077
Northwest	474	610	665	840	683	984	1,025	1,090	929	1,175	8,475
Far West	0	0	0	0	0	0	0	0	0	0	0
Total Units	1,675	1,500	1,700	1,877	1,635	1,780	1,780	1,795	1,530	1,680	16,952

Source: City of Peoria, January 16 and February 26, 2018.

Projections of housing, population and employment in the City of Peoria by geographic area from 2018-2028 are shown in Table 12 on the following page. The following procedure was used to prepare the projections.

(1) Housing projections are based on the City's most recent area projections from Table 11 above;

(2) Population projections are derived from housing projections by applying current average persons per unit for the area to the projected housing units;

(3) Employment projections are based on the most recent Maricopa Association of Government (MAG) projections by small areas. Percentage increases in employment over the ten years will be applied to existing square feet to project 2028 nonresidential building square feet.

Table 12. Housing, Population and Employment by Area, 2018-2028

Land Use and Year	South	South Central	North Central	North East	North West	Far North	City Total
Single-Family Units, 2018	23,604	10,437	7,120	7,791	6,028	11	54,991
Multi-Family Units, 2018	10,105	3,595	387	101	97	0	14,285
Mobile Home Units, 2018	2,659	589	47	15	265	1	3,576
Total Dwelling Units, 2018	36,368	14,621	7,554	7,907	6,390	12	72,852
Total Population, 2018	88,011	29,242	20,320	23,326	13,227	22	174,148
Retail Employees, 2018	14,394	3,271	556	1,224	283	33	19,761
Office Employees, 2018	5,211	421	70	219	48	38	6,007
Industrial Employees, 2018	3,505	138	61	77	11	23	3,815
Public Employees, 2018	2,128	623	212	368	130	5	3,466
Single-Family Units, 2028	23,995	11,549	8,628	12,756	13,503	11	70,442
Multi-Family Units, 2028	10,494	3,595	387	213	1,097	0	15,786
Mobile Home Units, 2028	2,659	589	47	15	265	1	3,576
Total Dwelling Units, 2028	37,148	15,733	9,062	12,984	14,865	12	89,804
Total Population, 2028	89,898	31,466	24,377	38,303	30,771	22	214,837
Retail Employees, 2028	15,837	3,509	646	2,121	1,239	241	23,593
Office Employees, 2028	6,317	544	70	214	882	53	8,080
Industrial Employees, 2028	3,605	154	56	71	13	24	3,923
Public Employees, 2028	2,687	770	261	372	310	7	4,407
Percent Increase, 2018-2028							
Retail Employees	10.0%	7.3%	16.2%	73.3%	337.8%	630.3%	19.4%
Office Employees	21.2%	29.2%	0.0%	-2.3%	1737.5%	39.5%	34.5%
Industrial Employees	2.9%	11.6%	-8.2%	-7.8%	18.2%	4.3%	2.8%
Public Employees	26.3%	23.6%	23.1%	1.1%	138.5%	40.0%	27.1%

Source: 2018 dwelling units is 2010 housing units from Table 9 plus new units for FY 2010-FY 2017 from Table 10; 2028 dwelling units is 2018 housing units plus new units for FY 2018-FY 2028 from Table 11; 2018 and 2028 population is total housing units times 2010 ratio of population to housing units by geographic area from Table 9; 2018 employment is straight-line interpolation between 2015 and 2020 projections from Maricopa Association of Governments (MAG), *Socioeconomic Projections of Population, Housing and Employment*, June 2016; 2028 employment is straight-line interpolation between 2020 and 2030 MAG projections; MAG employment excludes areas outside the incorporated area.

The land use assumptions for 2018-2028 are summarized by service area in Table 13. Housing and population projections are derived from Table 12 above. Nonresidential square footage projections for 2028 are based on 2018 square feet from the Maricopa Assessors Office times the percentage increase in employment based on MAG projections as shown in the table above. For example, the South transportation service area (south of Deer Valley Road) is projected to capture only 11% of city-wide housing growth, but 60% of growth in nonresidential square footage.

Table 13. Housing, Population and Nonresidential Square Feet, 2018-2028

	Transportation Zones			Park Zones and Areas					City
Land Use and Year	South	Central	North	South	Zone 1	Zone 2	Zone 3	Far N	Total
Single-Family Units, 2018	34,041	14,911	6,028	23,604	17,557	7,791	6,028	11	54,991
Multi-Family Units, 2018	13,700	488	97	10,105	3,982	101	97	0	14,285
Mobile Home Units, 2018	3,248	62	265	2,659	636	15	265	1	3,576
Total Dwelling Units, 2018	50,989	15,461	6,390	36,368	22,175	7,907	6,390	12	72,852
Total Population, 2018	117,253	43,646	13,227	88,011	49,562	23,326	13,227	22	174,148
Retail Sq. Ft. (000s), 2018	8,413	1,498	178	7,312	1,753	847	178	24	10,114
Office Sq. Ft. (000s), 2018	1,656	49	19	1,431	245	29	19	12	1,736
Industrial Sq. Ft. (000s), 2018	10,974	811	83	9,222	2,271	292	83	51	11,919
Public Sq. Ft. (000s), 2018	8,386	1,636	322	6,496	2,961	565	322	22	10,367
Total Sq. Ft. (000s), 2018	29,429	3,995	602	24,462	7,230	1,733	602	109	34,135
Single-Family Units, 2028	35,544	21,384	13,503	23,995	20,177	12,756	13,503	11	70,442
Multi-Family Units, 2028	14,089	600	1,097	10,494	3,982	213	1,097	0	15,786
Mobile Home Units, 2028	3,248	62	265	2,659	636	15	265	1	3,576
Total Dwelling Units, 2028	52,881	22,046	14,865	37,148	24,795	12,984	14,865	12	89,804
Total Population, 2028	121,364	62,680	30,771	89,898	55,843	38,303	30,771	22	214,837
Retail Sq. Ft. (000s), 2028	9,087	2,329	777	8,045	1,903	1,468	777	177	12,370
Office Sq. Ft. (000s), 2028	2,021	48	357	1,735	306	28	357	17	2,443
Industrial Sq. Ft. (000s), 2028	11,404	747	98	9,485	2,396	269	98	53	12,302
Public Sq. Ft. (000s), 2028	10,644	1,786	768	8,203	3,656	571	768	31	13,229
Total Sq. Ft. (000s), 2028	33,157	4,910	2,001	27,468	8,262	2,337	2,001	278	40,345
New Single-Family Units	1,503	6,473	7,475	391	2,620	4,965	7,475	0	15,451
New Multi-Family Units	389	112	1,000	389	0	112	1,000	0	1,501
New Mobile Home Units	0	0	0	0	0	0	0	0	0
Total New Dwelling Units	1,892	6,585	8,475	780	2,620	5,077	8,475	0	16,952
Total New Population	4,111	19,034	17,544	1,887	6,281	14,977	17,544	0	40,689
New Retail Sq. Ft. (000s)	674	831	600	733	150	621	600	153	2,257
New Office Sq. Ft. (000s)	365	-1	338	304	61	-1	338	5	707
New Industrial Sq. Ft. (000s)	430	-65	15	263	126	-23	15	2	383
New Public Sq. Ft. (000s)	2,258	150	446	1,706	695	6	446	9	2,862
Total New Sq. Ft. (000s)	3,728	915	1,398	3,006	1,032	603	1,398	169	6,209

Source: Housing and population from Table 12; 2018 nonresidential square feet from Maricopa Association of Governments (MAG), February 6, 2018; 2028 nonresidential square feet based on 2018 square feet and employment growth percentage from Table 12; city total is sum of park zones and areas (transportation zones do not include the far north area above SR 74).

Employment Density

Employee densities for nonresidential land uses are summarized in Table 14. These are used in estimating functional population by nonresidential land use in Appendix B.

Table 14. Employee Density by Land Use

Land Use	Sq. Feet (000s)	Employees	Sq. Feet/ Employee	Employees/ 1,000 Sq. Ft.
Retail	10,114	19,761	512	1.95
Office	1,736	6,007	289	3.46
Industrial	11,919	3,815	3,124	0.32
Public	10,367	3,466	2,991	0.33

Source: 2018 square feet from Table 13; 2018 employees from Table 12.

TRANSPORTATION

This chapter addresses the update of the City's current transportation development impact fees in compliance with the requirements of SB 1525.

Major Roadway System

Transportation planners classify roadways according to function. Local streets primarily function to provide access to adjacent development. Collector roads serve a dual function, providing both access and a way for traffic to get to the arterial system. Arterial roadways also provide some access to adjacent properties, but their primary function is to move traffic long distances within a community. Peoria's transportation fees are designed to recover construction costs of additional roadway capacity in the City's arterial street system.

Methodology

The City's transportation impact fee methodology uses the consumption-based approach. This methodology bases the fees on the average cost to construct enough capacity to accommodate an additional daily vehicle-mile of travel (VMT) at the existing level of service.

The City's desired level of service as reflected in the General Plan is Level of Service "C" (LOS C) for individual roadways. This is used in this study to determine the service volume capacity of individual roadway segments. The system-wide level of service is expressed in terms of the service area-wide ratio of roadway capacity to demand. Systemwide roadway capacity is measured in terms of vehicle-miles of capacity (VMC), and system-wide demand in terms of VMT. The current VMC/VMT ratio ranges from a low of 1.99 in the South zone (where the arterial system is generally built-out and no fees are charged) to a high of 6.21 in the North zone (west of the Agua Fria, where the Vistancia project has built many arterial roads in advance of development).[2] This study bases the fees on a 1.50 VMC/VMT ratio, which is lower than the existing level of service in any service area.

The VMC/VMT ratio is multiplied by the average cost of new capacity (VMC) created by planned improvements over the next ten years to determine the cost per VMT. The cost per VMC includes construction costs for roadways, bridges, culverts, traffic signals, soft costs and contingency, but excludes the costs of rights-of-way. Projects like intersection improvements and signalization that are unrelated to specific segment improvements with measurable capacity (in terms of vehicle-miles) are eligible capacity-enhancing improvements that may be included in the IIP, but they are not included in calculating the cost per VMC.

[2] see Table 20

Service Units

A service unit creates the link between supply (roadway capacity) and demand (traffic generated by new development). An appropriate service unit for road impact fees is vehicle-miles of travel (VMT). Vehicle-miles is a combination of the number of vehicles traveling during a given time period and the distance (in miles) that these vehicles travel. The two time periods most often used in traffic analysis are the 24-hour day (average daily trips or ADT) and the single hour of the day with the highest traffic volume (peak hour trips or PHT). Because available traffic counts are in terms of ADT, daily VMT is used as the service unit for the transportation impact fees. The VMT generated by a specific land use is a product of three factors: 1) trip generation, 2) percent primary trips and 3) average trip length.

Trip Generation

Trip generation rates are based on information published in the most recent edition of the Institute of Transportation Engineers' (ITE) *Trip Generation* manual. Trip generation rates represent trip ends, or driveway crossings at the site of a land use. Thus, a single one-way trip from home to work counts as one trip end for the residence and one trip end for the work place, for a total of two trip ends. To avoid over-counting, all trip rates have been divided by two. This assigns travel equally between the origin and destination of the trip and avoids double charging.

Primary Trip Factor

Trip rates must also be adjusted by a "primary trip factor" to exclude pass by and diverted-linked trips. This adjustment is intended to reduce the possibility of over-counting by only including primary trips generated by the development. Pass by trips are those trips that are already on a particular route for a different purpose and simply stop at a development on that route. For example, a stop at a convenience store on the way home from the office is a pass by trip for the convenience store. A pass by trip does not create an additional burden on the street system and therefore should not be counted in the assessment of impact fees. Diverted-linked trips are similar to pass by trips, but a small diversion is made from the primary trip route. The primary trip factor excludes both pass by and diverted-linked trips.

Average Trip Length

In the context of a transportation impact fee based on a consumption-based methodology, it is necessary to determine the average length of a trip on the major roadway system within Peoria. The point of departure in developing local trip lengths is to utilize national data. The U.S. Department of Transportation's *National Household Travel Survey* identifies average trips lengths for specific trip purposes. However, these national trip lengths are unlikely to be representative of travel on the major roadway system in Peoria, which is limited to arterial roads within the city limits. An adjustment factor for local trip lengths can be derived by dividing the vehicle-miles of travel (VMT) that is currently observed on the major roadway system by the VMT that would be expected using national average trip lengths and trip generation rates.

The first step is to estimate the total VMT that would be expected to be generated by existing development in Peoria based on national travel demand characteristics. This can be accomplished by multiplying existing development in each land use category by the appropriate national trip generation rates, primary trip factors and trip lengths, as shown in Table 15. The expected VMT is considerably higher than the actual estimated VMT on the City's major roadway system that was calculated earlier. This is not surprising, since the major roadway system does not include State roads, collectors, local streets or any portion of a trip that occurs outside the City limits. Consequently, it is necessary to develop an adjustment factor to account for this variation. The local adjustment factor is the ratio of actual to projected VMT on the major roadway system. The national average trip length for each land use type should be multiplied by a local adjustment factor of 0.368.

Table 15. Local Trip Length Adjustment Factor

Land Use Type	ITE Code	Unit	2018 Units	Trip Rate	Primary Trips	Daily Trips	Length (miles)	Daily VMT
Single-Family Detached	210	Dwelling	54,991	4.72	100%	259,558	9.75	2,530,691
Multi-Family	220/221	Dwelling	14,285	3.19	100%	45,569	8.62	392,805
Mobile Home	240	Dwelling	3,576	2.50	100%	8,940	8.62	77,063
Retail/Commercial	820	1,000 sq ft	10,114	18.87	44%	83,971	7.03	590,316
Office	710	1,000 sq ft	1,736	4.87	80%	6,763	6.39	43,216
Industrial/Warehouse	140/151	1,000 sq ft	11,919	1.35	100%	16,091	11.28	181,506
Public/Institutional	620	1,000 sq ft	10,367	3.32	100%	34,417	6.48	223,022
Total Expected VMT								4,038,619
Total Actual VMT								1,490,234
÷ Total Expected VMT								4,038,619
Ratio of Actual to Expected VMT								0.368

Source: Existing 2018 units from Table 13; trip rates are one-half daily trip ends during a weekday from Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 10th ed., 2017 (see Table 17 – industrial/warehouse is average of two); primary trip percentage from Table 17; daily trips is product of units, trip rate and primary trip percentage; national average trip lengths from Table 16; expected daily VMT is product of daily trips and average trip length; actual city-wide VMT from Table 20.

Average trip lengths derived from the U.S. Department of Transportation's *National Household Travel Survey* are available for a variety of trip types and purposes. These have been adjusted downward by the local adjustment factor, as shown in Table 16.

Table 16. Average Trip Lengths

Land Use	Trip Type	National Trip Length	Local Adjustment Factor	Local Trip Length
Single-Family Detached	Single-Family	9.75	0.368	3.58
Multi-Family	Multi-Family	8.62	0.368	3.17
Retail/Commercial	Shopping	7.03	0.368	2.58
Office	Medical/Dental	6.39	0.368	2.35
Industrial/Warehouse	To or From Work	11.28	0.368	4.15
Public/Institutional	School/Church	6.48	0.368	2.38

Source: National average trip lengths from U.S. Department of Transportation, *National Household Travel Survey* (single-family and multi-family from 2009 survey, others from 2017); local adjustment factor from Table 15.

Service Unit Summary

The result of combining trip generation rates, primary trip factors and localized average trip lengths is a travel demand schedule that establishes the daily VMT during the average weekday on the major roadway system generated by various land use types per unit of development for Peoria. The recommended travel demand schedule is presented in Table 17 below.

Table 17. Transportation Service Unit Multipliers

Land Use Type	ITE Code	Unit	Trip Rate	Primary Trips	Length (miles)	VMT/ Unit
Single-Family Detached	210	Dwelling	4.72	100%	3.58	16.89
Multi-Family	220/221	Dwelling	3.19	100%	3.17	10.11
Mobile Home Park	240	Space	2.50	100%	3.17	7.92
Hotel/Motel	310/320	Room	2.92	100%	4.15	12.11
Retail/Commercial	820	1,000 sq ft	18.87	44%	2.58	21.42
Office	710	1,000 sq ft	4.87	80%	2.35	9.15
Industrial	140	1,000 sq ft	1.95	100%	4.15	8.09
Warehouse	151	1,000 sq ft	0.75	100%	4.15	3.11
Public/Institutional	620	1,000 sq ft	3.32	100%	2.38	7.90

Source: Trip rates are one-half daily trip ends during a weekday from Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 10th ed., 2017; retail primary trip percentage from ITE, *Trip Generation Handbook*, 2017; average trip lengths from Table 16; daily VMT per unit is product of trip rate, primary trip percentage and average trip length.

Transportation service units are expressed in terms of vehicle-miles of travel (VMT). VMT projections for the 2018-2028 planning period by service area are shown in Table 18 on the following page.

Table 18. New Transportation Service Units, 2018-2028

Land Use Type	Unit	Units 2018	Units 2028	Units New	VMT/ Unit	New VMT
Single-Family Detached	Dwelling	34,041	35,544	1,503	16.89	25,386
Multi-Family	Dwelling	13,700	14,089	389	10.11	3,933
Mobile Home	Dwelling	3,248	3,248	0	7.92	0
Retail/Commercial	1,000 sq ft	8,413	9,087	674	21.42	14,429
Office	1,000 sq ft	1,656	2,021	365	9.15	3,343
Industrial/Warehouse	1,000 sq ft	10,974	11,404	430	5.60	2,410
Public/Institutional	1,000 sq ft	8,386	10,644	2,258	7.90	17,839
South Total (S of Deer Valley Rd)						67,340
Single-Family Detached	Dwelling	14,911	21,384	6,473	16.89	109,329
Multi-Family	Dwelling	488	600	112	10.11	1,132
Mobile Home	Dwelling	62	62	0	7.92	0
Retail/Commercial	1,000 sq ft	1,498	2,329	831	21.42	17,796
Office	1,000 sq ft	49	48	-1	9.15	-8
Industrial/Warehouse	1,000 sq ft	811	747	-65	5.60	-362
Public/Institutional	1,000 sq ft	1,636	1,786	150	7.90	1,181
Central Total (N of DV, E of Agua Fria, S of SR 74)						129,068
Single-Family Detached	Dwelling	6,028	13,503	7,475	16.89	126,253
Multi-Family	Dwelling	97	1,097	1,000	10.11	10,110
Mobile Home	Dwelling	265	265	0	7.92	0
Retail/Commercial	1,000 sq ft	178	777	600	21.42	12,847
Office	1,000 sq ft	19	357	338	9.15	3,090
Industrial/Warehouse	1,000 sq ft	83	98	15	5.60	84
Public/Institutional	1,000 sq ft	322	768	446	7.90	3,522
North Total (W of Aqua Fria, S of SR 74)						155,906
Single-Family Detached	Dwelling	11	11	0	16.89	0
Multi-Family	Dwelling	0	0	0	10.11	0
Mobile Home	Dwelling	1	1	0	7.92	0
Retail/Commercial	1,000 sq ft	24	177	153	21.42	3,276
Office	1,000 sq ft	12	17	5	9.15	44
Industrial/Warehouse	1,000 sq ft	51	53	2	5.60	12
Public/Institutional	1,000 sq ft	22	31	9	7.90	70
Far North Total (N of SR 74)						3,402
City-Wide Total						355,716

Source: 2018 and 2028 units from Table 13; VMT per unit from Table 17 (industrial/warehouse is average of industrial and warehouse); new VMT is prduct of new units and VMT per unit.

Cost per Service Unit

As described in the Methodology section above, the level of service used in the consumption-based methodology is a system-wide capacity/demand (VMC/VMT) ratio of 1.50. The first step in calculating the cost per service unit is to demonstrate that the existing levels of service in each of the City's transportation impact fee service areas meet or exceed this standard.

The service volume capacity of a roadway, or maximum volume at the desired roadway level of service (LOS) depends on the desired LOS. According to the City's *General Plan*, the City desires to maintain LOS C on its roadway system.[3] Maximum volumes at varying levels of service are shown in Table 19. At LOS C, arterial capacities range from 15,040 vehicles per day for a 2-lane arterial to 48,640 vehicles per day for a 6-lane arterial road.

Table 19. Arterial Roadway Capacities by Level of Service

Facility Type/	Level of Service				
Functional Classification	A	B	C	D	E
Arterial (6-lane)	36,480	42,560	48,640	54,720	60,800
Arterial (4-lane)	24,540	28,630	32,720	36,810	40,900
Arterial (2-lane)	11,280	13,160	15,040	16,920	18,800

Source: City of Peoria Development and Engineering Department, December 19, 2018.

An analysis of the existing levels of service was conducted for each of the City's transportation service areas. A detailed inventory of the existing arterial road network was prepared (see Appendix A). For each roadway segment, information was gathered on segment length in miles, number of through lanes, and current volume based on recent traffic counts. The vehicle-miles of capacity (VMC) provided by each segment was determined by multiplying the length of the segment by the daily capacity of the segment at LOS C, based on the number of lanes and the generalized roadway capacities shown in the table above. The VMC of all road segments in each service area was summed to determine the total capacity provided by the City's arterial system in each service area. Similarly, the existing demand on each roadway segment was quantified in terms of vehicle-miles of travel (VMT) by multiplying the length of the segment by the current daily traffic volume.

The results of the existing level of service analysis are shown in Table 20. While some individual road segments are operating at a worse level of service than LOS C, the appropriate level of service measurement for a consumption-based road fee is the overall ratio of capacity to demand for the service area. As shown below, existing levels of service exceed the recommended VMC/VMT ratio of 1.50 in all service areas.

Table 20. Existing Transportation Levels of Service

Service Area	VMC	VMT	VMC/ VMT
South (South of Deer Valley Road)	1,978,261	994,986	1.99
Central (N of Deer Valley, E of Agua Fria)	1,097,741	425,044	2.58
North (West of Agua Fria)	396,184	63,828	6.21
Far North (North of Agua Fria)	102,891	6,376	16.14
City-Wide	3,575,077	1,490,234	2.40
Recommended			1.50

Source: Vehicle-miles of capacity (VMC) and vehicle-miles of travel (VMT) from Table 55 in Appendix A.

The cost per service unit is derived from the capacity-expanding transportation improvements planned to accommodate anticipated growth over the next ten years. Project descriptions and cost estimates are detailed in Table 28 at the end of this chapter. The cost estimates include roadway and median construction, new bridges, box culverts, traffic signals and construction engineering/inspection, but do not include rights-of-way. The City has not identified any planned improvements in the south area (south of Deer Valley Road) or the far north (north of SR 74). Consequently, updated transportation impact fees are not calculated for those areas.

[3] City of Peoria, *General Plan*, updated January 2010, Table 12-1, page 12-1.

The transportation cost per service unit is calculated by dividing the cost of planned improvements over the next ten years by the additional capacity that will be provided by those improvements. The resulting costs per VMC for the two service areas are multiplied by the VMC/VMT ratio and added to the cost of 5-year infrastructure improvement plan updates to determine the cost per VMT, as shown in Table 21.

Table 21. Transportation Cost per Service Unit

	Transportation Service Area	
	Central	North
Total Cost of Planned Improvements, 2018-2028	$74,351,827	$227,377,298
÷ New Vehicle-Miles of Capacity (VMC) Added	296,719	757,792
Construction Cost per VMC	$250.58	$300.05
x VMC/VMT Ratio	1.50	1.50
Construction Cost per Vehicle-Mile of Travel (VMT)	$375.87	$450.08
Study Update Cost per VMT	$0.37	$0.37
Total Cost per VMT	$376.24	$450.45

Source: Total cost of planned improvements and new VMC from Table 28; VMC/VMT ratio from Table 20, study update cost from Table 60.

Net Cost per Service Unit

As noted in the Legal Framework chapter of this report, impact fees should be reduced (or "offset") to account for other types of revenues that will be generated by new development and used to fund capacity-expanding improvements of the same type as those to be funded by the impact fees. Cases in which such an offset is warranted include funding of existing deficiencies, outstanding debt payments on existing facilities, and dedicated revenue sources to fund growth-related improvements.

Because the transportation impact fees calculated in this report are based on a level of service that is lower than the existing VMC/VMT ratio in both service areas, there are no existing deficiencies.

The City does have some outstanding debt related to existing arterial street improvements. There are also outstanding developer credits for some existing streets, which similarly represent future obligations related to existing capacity. Outstanding debt represents existing capacity that has not been paid for by existing development. Similarly, developer credits represent excess capacity paid for by new development in advance of development. Unless it can be demonstrated that the cost of this obligated capacity is not required to provide the level of service on which the fees are based to existing development, the fees should be reduced.

The transportation debt and developer credit analysis is provided in Table 22 below. Developer credits are analyzed by service area, and outstanding debt, which is retired from general fund sources generated by all development in the city, is analyzed city-wide. The capacity represented by developer credits, based on the average costs of capacity by service area, amounts to no more than 8.8% of existing excess capacity for any service area. City-wide debt represents only 9% of available excess capacity. This analysis demonstrates that outstanding debt and developer credits represent the cost of excess capacity that is available for new development, and that capacity is not included in the costs that are being attributed to new development in the impact fee calculations. Consequently, no fee reductions or offsets are warranted for outstanding debt or developer credits.

Table 22. Transportation Debt Analysis

	Developer Credits		City-Wide
	Central	North	Debt
Total Outstanding Debt/Developer Credits	$8,765,440	$11,851,623	$49,150,540
÷ Cost per Vehicle-Miles of Travel (VMT)	$376.24	$450.45	$429.57
Outstanding Debt VMC Equivalent	23,297	26,311	114,418
Existing Vehicle-Mile of Travel (VMT)	425,044	63,828	1,490,234
x VMC/VMT Ratio	1.50	1.50	1.50
VMC Utilized by Existing Development	637,566	95,742	2,235,351
Existing Vehicle-Miles of Capacity (VMC)	1,097,741	396,184	3,575,077
– VMC Utilized by Existing Development	-637,566	-95,742	-2,235,351
Excess VMC Available for New Development	460,175	300,442	1,339,726
Outstanding Debt VMC Equivalent	23,297	26,311	114,418
÷ Excess VMC Available for New Development	460,175	300,442	1,339,726
Indebted Equivalent % of Total Excess VMC	5.1%	8.8%	8.5%

Source: Outstanding developer credits from Table 58; outstanding debt from Table 59; existing VMT from Table 20.

Other than impact fees, the City has no dedicated source of revenue to fund growth-related transportation improvements. No more regional Arterial Life Cycle Funding from the regional half-cent transportation sales tax is programmed for Peoria (future transportation sales tax revenue will be used to retire regional debt).

The City can expect to get some limited Federal/State funding. About $1.3 million in Federal/State funding is programmed for Peoria in the Maricopa Association of Government's current 5-year Transportation Improvement Program. Based on this level of funding, new development can be expected to generate over the next 25 years the present value equivalent of approximately $3 per daily VMT, as shown in Table 23.

Table 23. Federal/State Funding Offset per Service Unit

New River Multi-Use Path, Happy Valley-Pinnacle Pk	$539,622
83rd Ave, Happy Valley Rd-Jomax Rd	$756,758
Total Programmed Federal/State Funding, FY 2018-2022	$1,296,380
÷Number of Years	5
Annual Federal/State Funding	$259,276
÷Existing Vehicle-Miles of Travel (VMT)	1,490,234
Annual Federal/State Funding per VMT	$0.17
x Net Present Value Factor over 25 Years	16.94
Federal/State Funding Offset per VMT	$2.88

Source: Federal/State funding from Maricopa Association of Government, *FY 2018-2022 Transportation Improvement Program* June 2017; existing VMT from Table 20; net present value factor based on discount rate of 3.25%, which was the average yield on 30-year AAA municipal bonds from fmsbonds.com on December 11, 2018.

Another issue is whether the City is able to demonstrate the need for the revenues that will be generated by the fees over the next ten years. As shown in Table 24 below, the City has more planned expenditures than projected revenue over the next ten years.

Table 24. Transportation Impact Fee Revenues and Expenditures, 2018-2028

	Transportation Service Area	
	Central	North
Net Cost per VMT	$373.36	$447.57
x New VMT, 2018-2028	129,068	155,906
Projected Fee Revenue, 2018-2028	$48,188,828	$69,778,848
Current Fund Balance	$4,329,535	$3,658,111
Available Impact Fee Funds, 2018-2028	$52,518,363	$73,436,959
– Planned Expenditures, 2018-2028	-$83,165,022	-$239,286,606
Fee Revenue Surplus (Deficit)	-$30,646,659	-$165,849,647

Source: Net cost per VMT from Table 25; new VMT from Table 18; fund balance from Table 58; planned expenditures from Table 28.

The net cost per service unit after subtracting the offset for anticipated future Federal/State funding is shown in Table 25 for the two transportation service areas.

Table 25. Transportation Net Cost per Service Unit

	Transportation Service Area	
	Central	North
Cost per Vehicle-Mile of Travel (VMT)	$376.24	$450.45
– Federal/State Funding Offset per VMT	-$2.88	-$2.88
Net Cost per VMT	$373.36	$447.57

Source: Cost per VMT from Table 21; Federal/State funding offset from Table 23,

Updated Impact Fees

The updated transportation impact fees that may be adopted by the City based on this study is the product of the number of service units generated by a unit of development and the net cost per service unit calculated above. The resulting net cost schedules for the two service areas are presented in Table 26.

Table 26. Transportation Net Cost Schedule

Land Use Type/ Service Area	Unit	VMT/ Unit	Net Cost/ VMT	Net Cost/ Unit
Central (N of Deer Valley, E of Agua Fria, S of SR 74)				
Single-Family Detached	Dwelling	16.89	$373.36	$6,306
Multi-Family	Dwelling	10.11	$373.36	$3,775
Mobile Home Park	Space	7.92	$373.36	$2,957
Hotel/Motel	Room	12.11	$373.36	$4,521
Retail/Commercial	1,000 sq ft	21.42	$373.36	$7,997
Office	1,000 sq ft	9.15	$373.36	$3,416
Industrial	1,000 sq ft	8.09	$373.36	$3,020
Warehouse	1,000 sq ft	3.11	$373.36	$1,161
Public/Institutional	1,000 sq ft	7.90	$373.36	$2,950
North (W of Aqua Fria, S of SR 74)				
Single-Family Detached	Dwelling	16.89	$447.57	$7,559
Multi-Family	Dwelling	10.11	$447.57	$4,525
Mobile Home Park	Space	7.92	$447.57	$3,545
Hotel/Motel	Room	12.11	$447.57	$5,420
Retail/Commercial	1,000 sq ft	21.42	$447.57	$9,587
Office	1,000 sq ft	9.15	$447.57	$4,095
Industrial	1,000 sq ft	8.09	$447.57	$3,621
Warehouse	1,000 sq ft	3.11	$447.57	$1,392
Public/Institutional	1,000 sq ft	7.90	$447.57	$3,536

Source: VMT per unit from Table 17; net cost per VMT from Table 25.

The updated transportation fees are compared to current fees in Table 27 below. The updated fees are generally more similar for the two service areas – higher than current fees in the Central zone and lower in the North zone.

Table 27. Current and Updated Transportation Impact Fees

Land Use Type/ Service Area	Unit	Current Fee	Updated Fee	Percent Change
Central (N of Deer Valley, E of Agua Fria, S of SR 74)				
Single-Family Detached	Dwelling	$5,591	$6,306	13%
Multi-Family	Dwelling	$3,460	$3,775	9%
Mobile Home Park	Space	$2,597	$2,957	14%
Hotel/Motel	Room	$4,975	$4,521	-9%
Retail/Commercial	1,000 sq ft	$6,763	$7,997	18%
Office	1,000 sq ft	$5,111	$3,416	-33%
Industrial	1,000 sq ft	$2,754	$3,020	10%
Warehouse	1,000 sq ft	$1,801	$1,161	-36%
Public/Institutional	1,000 sq ft	$3,870	$2,950	-24%
North (W of Aqua Fria, S of SR 74)				
Single-Family Detached	Dwelling	$8,597	$7,559	-12%
Multi-Family	Dwelling	$5,319	$4,525	-15%
Mobile Home Park	Space	$3,994	$3,545	-11%
Hotel/Motel	Room	$7,650	$5,420	-29%
Retail/Commercial	1,000 sq ft	$10,398	$9,587	-8%
Office	1,000 sq ft	$7,859	$4,095	-48%
Industrial	1,000 sq ft	$4,234	$3,621	-14%
Warehouse	1,000 sq ft	$2,769	$1,392	-50%
Public/Institutional	1,000 sq ft	$5,950	$3,536	-41%

Source: Current fees from Table 1; updated fees from Table 26.

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Capital Plan

Over the next ten years, the City plans to make a number of capacity-expanding improvements to the arterial street system, as summarized in Table 28 below. In addition, the City has obligations against future impact fees to provide developer credits or reimbursements. Finally, the City will need to pay for a minimum of two transportation impact fee updates over the next ten years. It should be noted that the timing of individual improvements will be dependent on the pace and location of development that actually occurs, and not all of the planned improvements will necessarily be needed in the next ten years. Some of the improvements may be constructed by developers in return for credits against their transportation impact fees. Additional details on the transportation infrastructure improvements plan are available from the Peoria Development and Engineering Department.

Table 28. Transportation Capital Plan, 2018-2028

				No. of Lanes		Capacity		New	Construction
Street Name	From	To	Miles	Exist	10-Yr	Exist	10-Yr	VMC	Cost
Jomax Rd	67th Avenue	Aloravita Blvd	0.58	2	4	15,040	32,720	10,254	$2,563,593
Jomax Rd	Aloravita Blvd	75th Avenue	0.41	2	4	15,040	32,720	7,249	$1,915,641
Jomax Rd	75th Avenue	83rd Dr	1.00	2	4	15,040	32,720	17,680	$6,731,172
83rd Ave	Happy Valley Rd	Jomax	1.22	2	4	15,040	32,720	21,570	$2,473,405
Pinnacle Pk Rd	91st Avenue	95th Avenue	0.50	0	4	0	32,720	16,360	$1,520,360
Pinnacle Pk Rd	95th Avenue	99th Avenue	0.50	0	4	0	32,720	16,360	$1,604,605
107th Av	Williams Rd	Villa Hermosa align	0.38	2	4	15,040	32,720	6,718	$891,628
107th Av	Villa Hermosa align	Pinnacle Peak Rd	0.13	2	4	15,040	32,720	2,298	$518,462
107th Av	Pinnacle Peak Rd	Hatfield Rd	0.73	2	4	15,040	32,720	12,906	$1,196,370
Lone Mountain Py	Lake Pleasant Py	99th Avenue	0.60	0	2	0	15,040	9,024	$5,618,466
Lone Mountain Py	Lake Pleasant Py	99th Avenue	0.60	2	4	15,040	32,720	10,608	$1,480,231
Lone Mountain Py	Lake Pleasant Py	99th Avenue	0.60	4	6	32,720	48,640	9,552	$987,615
Happy Valley Rd	Lake Pleasant Py	107th Avenue	0.78	4	6	32,720	48,640	12,418	$1,333,746
Happy Valley Rd	107th Avenue	Agua Fria Bridge	0.43	4	6	32,720	48,640	6,846	$10,744,245
67th Avenue	Happy Valley Rd	Westwind Drive	0.17	4	6	32,720	48,640	2,706	$1,043,307
67th Avenue	Wesstwind Drive	Hatfield Rd	0.17	4	6	32,720	48,640	2,706	$846,742
67th Avenue	Hatfield Rd	Villa Lindo	0.13	4	6	32,720	48,640	2,070	$527,472
67th Avenue	Villa Lindo	Calle Lejos	0.13	4	6	32,720	48,640	2,070	$627,923
67th Avenue	Calle Lejos	Mariposa Grande	0.13	4	6	32,720	48,640	2,070	$627,923
67th Avenue	Mariposa Grande	Avenida Del Sol	0.13	4	6	32,720	48,640	2,070	$249,124
67th Avenue	Avenida Del Sol	Camino Del Oro	0.13	4	6	32,720	48,640	2,070	$249,124
67th Avenue	Camino Del Oro	Pinnacle Peak	0.15	4	6	32,720	48,640	2,388	$774,468
Pinacle Peak Road	95th Avenue	Lake Pleasant Py	0.15	0	4	0	32,720	4,908	$1,025,676
Lake Pleasant Py	Loop 303	CAP Crossing	0.61	0	4	0	32,720	19,959	$7,334,388
Lake Pleasant Py	Loop 303	CAP Crossing	0.61	4	6	32,720	48,640	9,711	$1,268,352
Lake Pleasant Py	CAP Crossing	Old Carefree Hwy	1.29	0	4	0	32,720	42,209	$12,982,437
Lake Pleasant Py	CAP Crossing	Old Carefree Hwy	1.29	4	6	32,720	48,640	20,537	$2,695,248
Lake Pleasant Py	Old Carefree Hwy	SR74	0.44	0	4	0	32,720	14,397	$3,608,476
Lake Pleasant Py	Old Carefree Hwy	SR74	0.44	4	6	32,720	48,640	7,005	$911,628
Subtotal, Project Improvements			14.43					296,719	$74,351,827
Developer Credits									$8,765,440
Required Transportation IIP Update Studies									$47,755
Central Total (N of DV, E of Agua Fria, S of SR 74)									$83,165,022

continued on next page

Table 28. Transportation Capital Plan, 2018-2028 (continued)

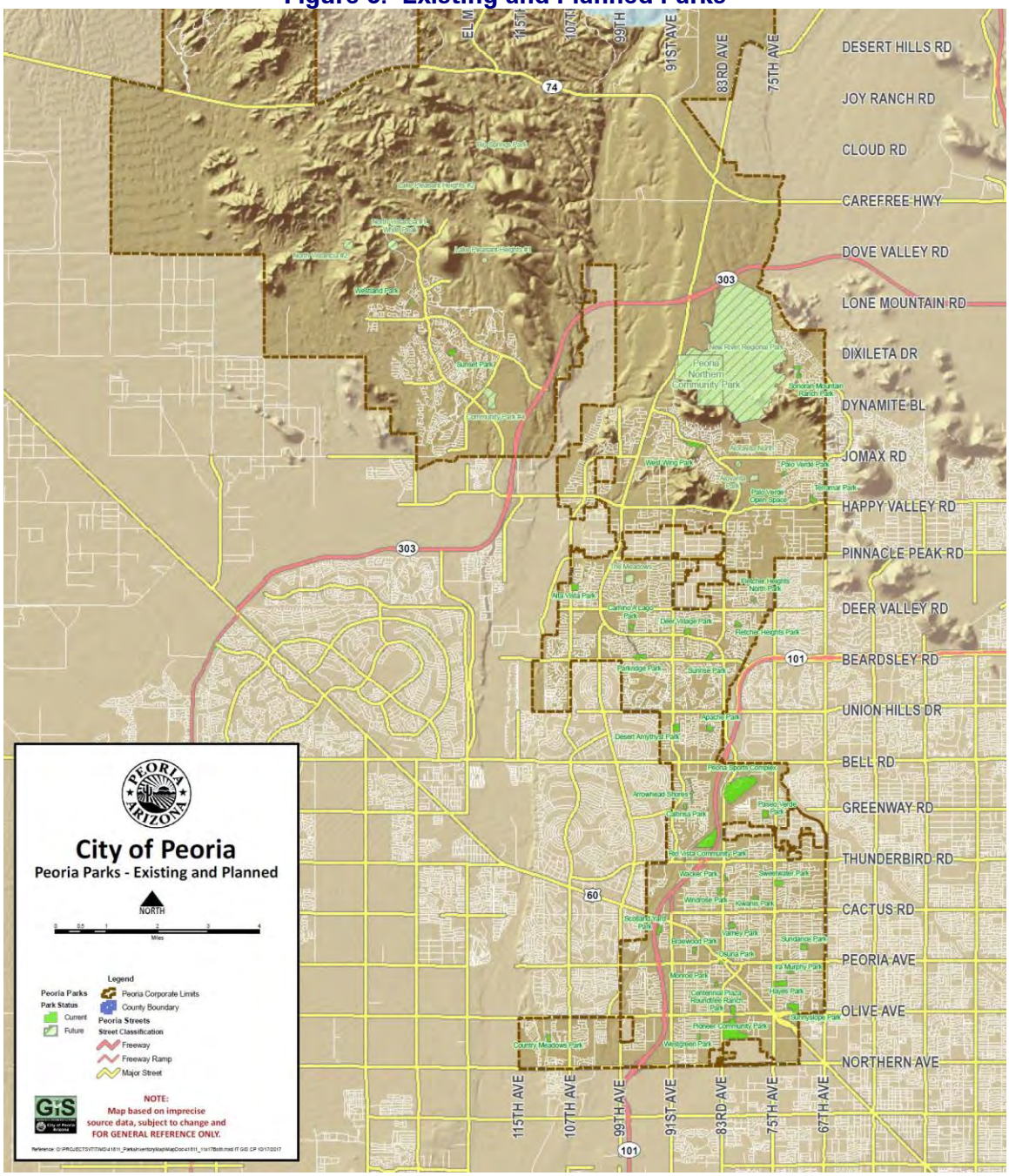
Street Name	From	To	Miles	No. of Lanes Exist	No. of Lanes 10-Yr	Capacity Exist	Capacity 10-Yr	New VMC	Construction Cost
El Mirage Rd	Happy Valley Pky	Prickley Pear Trail	0.25	2	4	15,040	32,720	4,420	$406,337
El Mirage Rd	Prickley Pear Trail	Desert Sun Lane	0.45	2	4	15,040	32,720	7,956	$701,360
El Mirage Rd	Desert Sun Lane	Jomax Rd	0.14	0	4	0	32,720	4,581	$6,438,453
El Mirage Rd	Jomax Rd	Vistancia Blvd	1.02	2	4	15,040	32,720	18,034	$1,525,285
El Mirage Rd	Lone Mtn Pkwy	Westland Rd	1.61	0	2	0	15,040	24,214	$13,694,479
El Mirage Rd	Lone Mtn Pkwy	Westland Rd	1.61	2	4	15,040	32,720	28,465	$2,373,614
El Mirage Rd	Lone Mtn Pkwy	Westland Rd	1.61	4	6	32,720	48,640	25,631	$3,284,510
El Mirage Rd	Westland Rd	CAP Canal	0.44	0	2	0	15,040	6,618	$3,669,086
El Mirage Rd	Westland Rd	CAP Canal	0.44	2	4	15,040	32,720	7,779	$684,086
El Mirage Rd	Westland Rd	CAP Canal	0.44	4	6	32,720	48,640	7,005	$958,601
El Mirage Rd	CAP Canal	Twin Buttes Rd	1.05	0	2	0	15,040	15,792	$16,732,819
El Mirage Rd	CAP Canal	Twin Buttes Rd	1.05	2	4	15,040	32,720	18,564	$1,567,236
El Mirage Rd	Twin Buttes Rd	Galvin Blvd	0.86	0	2	0	15,040	12,934	$8,190,149
El Mirage Rd	Twin Buttes Rd	Galvin Blvd	0.85	2	4	15,040	32,720	15,028	$1,280,438
Lone Mtn Pwy	Blackstone Dr	El Mirage Rd	0.31	2	4	15,040	32,720	5,481	$278,316
Lone Mtn Pwy	El Mirage Rd	L303	1.09	2	4	15,040	32,720	19,271	$2,026,152
Vistancia Blvd	Westland Dr	CAP	0.38	0	2	0	15,040	5,715	$3,244,145
Vistancia Blvd	Westland Dr	CAP	0.38	2	4	15,040	32,720	6,718	$386,181
Vistancia Blvd	CAP	Twin Buttes Rd	0.41	0	2	0	15,040	6,166	$3,434,856
Vistancia Blvd	Twin Buttes Rd	136th Dr	0.83	0	2	0	15,040	12,483	$9,688,744
Twin Buttes	Vistancia Blvd	El Mirage Rd	1.30	0	2	0	15,040	19,552	$4,068,289
Twin Buttes	Vistancia Blvd	El Mirage Rd	1.30	2	4	15,040	32,720	22,984	$3,503,449
Galvin Blvd	El Mirage Rd	SR74	4.15	0	2	0	15,040	62,416	$36,068,753
Galvin Blvd	El Mirage Rd	SR74	4.15	2	4	15,040	32,720	73,372	$5,838,240
Westland Rd	Vistancia Blvd	W property line	0.55	2	4	15,040	32,720	9,724	$841,194
Westland Rd	W property line	El Mirage Rd	0.94	0	2	0	15,040	14,138	$7,552,076
Westland Rd	W property line	El Mirage Rd	0.94	2	4	15,040	32,720	16,619	$1,203,691
Westland Rd	W property line	El Mirage Rd	0.94	4	6	32,720	48,640	14,965	$1,203,691
Westland Rd	El Mirage Rd	E property line	0.59	0	2	0	15,040	8,874	$4,800,044
Westland Rd	El Mirage Rd	E property line	0.59	2	4	15,040	32,720	10,431	$693,981
Westland Rd	E property Line	Loop 303	1.31	0	2	0	15,040	19,702	$10,726,999
Ridgeline/Dixileta	130th Glen	Upcountry/Dysart	0.25	2	4	15,040	32,720	4,420	$414,562
Jomax Rd	El Mirage Rd	126th Dr	0.70	2	4	15,040	32,720	12,376	$845,331
Jomax Rd	126th Dr	Dysart Rd	0.36	0	4	0	32,720	11,779	$4,552,747
135th Ave	Ridgeline Dr	Lone Mntn Pkwy	1.02	0	2	0	15,040	15,341	$9,656,681
135th Ave	Ridgeline Dr	Lone Mntn Pkwy	1.02	2	4	15,040	32,720	18,034	$1,306,236
Dysart Rd	Jomax Rd	Ridgeline Dr	1.53	0	2	0	15,040	23,011	$12,696,821
Dysart Rd	Jomax Rd	Ridgeline Dr	1.53	2	4	15,040	32,720	27,050	$2,046,535
Jomax Rd	Vistancia Blvd	El Mirage Rd	0.78	0	2	0	15,040	11,731	$7,360,828
Jomax Rd	Vistancia Blvd	El Mirage Rd	0.78	2	4	15,040	32,720	13,790	$960,215
Jomax Rd	Loop 303	Vistancia Blvd	0.30	0	4	0	32,720	9,816	$3,292,657
Jomax Rd	Loop 303	Vistancia Blvd	0.30	4	6	32,720	48,640	4,776	$465,063
Saddleback Conect	Twin Buttes Rd	Canyon Ranch Dr	0.86	0	2	0	15,040	12,934	$8,549,888
Saddleback Conect	Twin Buttes Rd	Canyon Ranch Dr	0.86	2	4	15,040	32,720	15,205	$1,086,614
Saddleback Conect	Twin Buttes Rd	Canyon Ranch Dr	0.86	4	6	32,720	48,640	13,691	$1,593,291
Saddleback Conect	Canyon Ranch Dr	Galvin Blvd	0.54	0	2	0	15,040	8,122	$6,373,385
Saddleback Conect	Canyon Ranch Dr	Galvin Blvd	0.54	2	4	15,040	32,720	9,547	$621,322
Saddleback Conect	Canyon Ranch Dr	Galvin Blvd	0.54	4	6	32,720	48,640	8,597	$3,317,818
Happy Valley	Agua Fria Bridge (wes	115th Avenue	0.56	4	6	32,720	48,640	8,915	$3,681,582
Happy Valley	115th Avenue	Loop 303	0.19	4	6	32,720	48,640	3,025	$1,490,468
Subtotal, Project Improvements			45.50					757,792	$227,377,298
Developer Credits									$11,851,623
Required Transportation IIP Update Studies									$57,685
North Total (W of Aqua Fria, S of SR 74)									$239,286,606

Source: Project descriptions and costs from City of Peoria Development and Engineering Department, March 26, 2019 (project costs exclude right-of-way); capacities from Table 19; new VMC is increase in capacity times miles; developer credits from Table 58; update study cost from Table 60 (allocated between service areas based on new VMT from Table 18).

PARKS

The City's park impact fees were last updated in 2014. This chapter updates them in compliance with the requirements of SB 1525.

Figure 6. Existing and Planned Parks



Service Units

A service unit is a standardized measure of demand. The service unit for the park impact fees is the Equivalent Dwelling Unit (EDU). An EDU represents the average number of people residing in an occupied single-family detached dwelling unit. A single-family detached unit is, by definition, one EDU. The number of EDUs per dwelling unit for other housing types is the ratio of the average household size to the average household size of a single-family detached unit.

SB 1525 provides that "… the fees shall be assessed against commercial, residential and industrial development, except that the municipality may distinguish between different categories of residential, commercial and industrial development in assessing the costs to the municipality of providing necessary public services to new development and in determining the amount of the development fee applicable to the category of development." (9-463.05.C.12, A.R.S.) Park impact fees are traditionally only assessed on residential development, because there is a much clearer nexus between the number of residents and the demand for park facilities than is the case for nonresidential development. Any additional demand on park facilities attributable to nonresidential development would come from nonresidents who work in the city using parks during their lunch breaks, before or after work or on company-sponsored events. While this impact is likely to be small, this study calculates park fees for nonresidential uses.

For nonresidential development, the number of employees per unit is adjusted by two factors to estimate equivalent persons per unit. The "occupancy factor" adjusts for the fact that nonresident workers are in Peoria only about one-quarter of the total number of hours in a week, assuming a typical 40-hour work week. The "nonresident factor" takes into account the fact that about half of jobs in Peoria are filled by nonresidents. The resulting park service unit multipliers are presented in Table 29.

Table 29. Park Service Unit Multipliers

Land Use	Unit	Pop./Emp. per Unit	Occupancy Factor	Nonresident Factor	Equivalent Pop./Unit	EDUs/ Unit
Single-Family Detached	Dwelling	2.82	1.00	1.00	2.82	1.00
Multi-Family	Dwelling	1.93	1.00	1.00	1.93	0.68
Mobile Home	Dwelling	2.38	1.00	1.00	2.38	0.84
Hotel/Motel	Room	1.57	0.24	0.52	0.20	0.07
Retail/Commercial	1,000 sq. ft.	1.95	0.24	0.52	0.24	0.09
Office	1,000 sq. ft.	3.46	0.24	0.52	0.43	0.15
Industrial	1,000 sq. ft.	0.32	0.24	0.52	0.04	0.01
Warehouse	1,000 sq. ft.	0.32	0.24	0.52	0.04	0.01
Public/Institutional	1,000 sq. ft.	0.33	0.24	0.52	0.04	0.01

Source: Residential population per unit is average household size from Table 7; hotel/motel population per room is one-half of average vehicle occupancy on vacation trips from U.S. Department of Transportation, National Household Travel Survey, 2009; nonresidential employees per 1,000 sq. ft. from Table 14; occupancy factor for nonresidential is ratio of 40 hour work week to 168 hours in a week; nonresident factor is percent of jobs in Peoria filled by nonresidents derived by subtracting the number of residents who work in Peoria from the 2011-2015 American Community Survey (15,788) from the total number of jobs in Peoria from Table 12, then dividing by the total number of jobs; equivalent persons per unit is product of population/employee per unit, occupancy factor and nonresident factor; EDUs per unit is ratio of equivalent persons per unit to single-family detached.

The number of existing and future service units in each service area can be determined by taking the existing and projected land uses from the Land Use Assumptions and multiplying by the corresponding service unit multipliers, as shown in Table 30. City-wide, about 3% of park service units are attributable to nonresidential development.

Table 30. Park Service Units by Service Area, 2018-2028

	EDUs/	Service Units (EDUs)					
Land Use (Unit)	Unit	South	Zone 1	Zone 2	Zone 3	Far N.	Total
Single-Family Units, 2018	1.00	23,604	17,557	7,791	6,028	11	54,991
Multi-Family Units, 2018	0.68	6,871	2,708	69	66	0	9,714
Mobile Home Units, 2018	0.84	2,234	534	13	223	1	3,005
Retail Sq. Ft. (000s), 2018	0.09	658	158	76	16	2	910
Office Sq. Ft. (000s), 2018	0.15	215	37	4	3	2	261
Ind./Whse Sq. Ft. (000s), 2018	0.01	92	23	3	1	1	120
Public Sq. Ft. (000s), 2018	0.01	65	30	6	3	0	104
Total, 2018		33,739	21,047	7,962	6,340	17	69,105
Single-Family Units, 2028	1.00	23,995	20,177	12,756	13,503	11	70,442
Multi-Family Units, 2028	0.68	7,136	2,708	145	746	0	10,735
Mobile Home Units, 2028	0.84	2,234	534	13	223	1	3,005
Retail Sq. Ft. (000s), 2028	0.09	724	171	132	70	16	1,113
Office Sq. Ft. (000s), 2028	0.15	260	46	4	54	3	367
Ind./Whse Sq. Ft. (000s), 2028	0.01	95	24	3	1	1	124
Public Sq. Ft. (000s), 2028	0.01	82	37	6	8	0	133
Total, 2028		34,526	23,697	13,059	14,605	32	85,919
New Service Units (EDUs), 2018-2028		787	2,650	5,097	8,265	15	16,814

Source: EDUs per unit from Table 29; service units are EDUs per unit times units from Table 13.

Cost per Service Unit

The park impact fees are calculated using the standards-based approach, as described in the Methodology section of the Legal Framework chapter. Also called "incremental expansion," this approach is based on the existing level of service, which is quantified as the replacement cost of existing facilities per service unit.

The inventory of existing parks, acres and improvements in each service area is provided in Table 31. For existing parks that exceed the 30-acre limit imposed by SB 1525, only 30 acres are eligible. Facilities or improvements located on land beyond the 30-acre maximum have been excluded.

The replacement costs of the existing eligible park facilities are determined using current unit replacement costs. These are summarized for each service area in Table 32.

Table 31. Existing Park Inventory

Park Name	Zone	Total Acres	Elig. Acres	Dev. Acres	Restroom	Concess. Bldg	Playground	Basketball	Tennis	Volleyball	Swim. Pool	Splash Pad	Sm. Ramada	Lrg. Ramada	Skate Park	Skate Ramp	Rec/Com Ctr	Off-Leash Area	Baseball	Softball	Multi-Use Fld	Soccer	Parking Place
Arrowhead Shores	S	8.91	8.91	8.91			1						2								2		
Braewood Park	S	7.09	7.09	7.09	1		1	2.0	1				4								1		18
Calbrisa Park	S	3.73	3.73	3.73	1		1	3.0		1			2								1		
Centennial HS Pool	S	n/a	n/a	n/a							1												
Centennial Plaza	S	4.20	4.20	4.20	1																1		
Country Meadows Park	S	7.93	7.93	7.93	1		1	1.5	1				1	1							1		19
Hayes Park	S	15.72	15.72	15.72	1		1						1						2	2	2	2	52
Ira Murphy Park	S	4.45	4.45	4.45	1	1	1	3.0					2						1		1		22
Kiwanis Park	S	4.61	4.61	4.61	1		1	3.0	1				3										
Monroe Park	S	3.92	3.92	3.92	1		1	1.0					2								2		26
Osuna Park	S	3.26	3.26	3.26	1																		19
Paseo Verde Park	S	11.75	11.75	11.75	1		1	1.0					2	1							2		54
Peoria Community Ctr	S	3.99	3.99	3.99													1						130
Peoria HS Pool	S	n/a	n/a	n/a							1												
Peoria Sports Complex	S	125.06	30.00	30.00	3	3	1												6				2,730
Pioneer Park	S	85.00	30.00	30.00	3	1						1						1	6				587
Rio Vista Park	S	54.69	30.00	30.00	3	2	1			3		1			1				3	4	4		703
Roundtree Ranch Park	S	9.50	9.50	9.50			1						1								1		20
Scotland Yard Park	S	8.90	8.90	8.90	1		1	1.0	1				1					1			1		35
Skunk Creek Trailhead	S	3.60	3.60	3.60																			35
Stone Park	S	0.21	0.21	0.21				0.5															
Sundance Park	S	9.55	9.55	9.55	1		1	3.0	1	1			2	1							1		27
Sunnyslope Park	S	22.35	22.35	22.35	1		1	1.5	2	1			1	2				1			2		50
Sweetwater Park	S	10.64	10.64	10.64	1		1	2.0	2	1			5								1		45
Varney Park	S	8.53	8.53	8.53	1	1	1	2.0					3	1					2		2		103
Wacker Park	S	4.54	4.54	4.54			1																
Westgreen Park	S	3.94	3.94	3.94	1		1		2	1			2								1		21
Windrose Park	S	7.39	7.39	7.39	1		1	1.5	2				3	1							1		30
Alta Vista Park	1	11.44	11.44	11.44	1		1	2.0	2				3	1				2			1		37
Apache Park	1	9.21	9.21	9.21	1		1	2.0	2	1			3	1							2		35
Camino a Lago	1	7.48	7.48	7.48	1		2	1.0	1	1			2	1							2		40
Deer Village Park	1	8.67	8.67	8.67	1		2	2.0	2				3	1							1		25
Desert Amethyst	1	11.06	11.06	11.06			1																
Fletcher Hts Park	1	7.45	7.45	7.45	1		1	3.0	2				3	1							1		24
Fletcher Hts Park N	1	4.24	4.24	4.24			1	2.0					2								1		
Parkridge Park	1	20.04	20.04	20.04	1		1	2.0	2	1			3	1				2			2		30
Sunrise Family Center	1	n/a	n/a	n/a			1																
Sunrise HS Pool	1	n/a	n/a	n/a							1												
Sunrise Park	1	9.24	9.24	9.24			1						1										
75th@Deer Valley Trailhd	2	1.00	1.00	1.00										1									14
Palo Verde	2	4.14	4.14	4.14	1		1	1.0					2										16
Sonoran Mtn Ranch	2	7.59	7.59	7.59	1		1	1.5													1		26
Terramar Park	2	9.39	9.39	9.39	1		1						2								1		16
West Wing Park	2	19.29	19.29	19.29	1		1		2				1	2		1					1		32
Sunset Park	3	11.14	11.14	11.14	1		1						2							4	2		47
Westland Park	3	4.22	4.22	4.22	1		1	2.0					2								1		13
South	S	433.46	258.71	258.71	26	8	20	26.0	13	8	2	2	37	7	1	0	1	3	20	6	27	2	4,726
Total, Zone 1	1	88.83	88.83	88.83	6	0	12	14.0	11	3	1	0	20	6	0	0	0	4	0	0	10	0	191
Total, Zone 2	2	41.41	41.41	41.41	4	0	4	2.5	2	0	0	0	5	3	0	1	0	0	0	0	3	0	104
Total, Zone 3	3	15.36	15.36	15.36	2	0	2	2.0	0	0	0	0	4	0	0	0	0	0	0	4	3	0	60
Total		579.06	404.31	404.31	38	8	38	44.5	26	11	3	2	66	16	1	1	1	7	20	10	43	2	5,081

Notes: The following facilities were excluded as being outside the 30-acre maximum area: Peoria Sports Complex: rec center and 7 baseball fields; Rio Vista Park: recreation center and lake; Pioneer Park: lake, 4 multi-use fields, 7 picnic pavilions and 3 restrooms.
Source: City of Peoria Parks Department, November 15, 2017.

Table 32. Existing Park Replacement Costs

Component	Existing Facility Units Zone 1	Zone 2	Zone 3	Cost/Unit
Eligible Land (acres)	88.83	41.41	15.36	$170,000
Site Development (acres)	88.83	41.41	15.36	$59,976
Restroom	6	4	2	$143,750
Concession Building	0	0	0	$632,500
Play Area	12	4	2	$109,250
Basketball Court	14.0	2.5	2.0	$63,250
Tennis Court	11	2	0	$85,100
Volleyball Court	3	0	0	$17,825
Swimming Pool	1	0	0	$4,000,000
Splash Pad	0	0	0	$225,000
Small Picnic Ramada	20	5	4	$23,000
Large Picnic Ramada	6	3	0	$36,800
Skate Park	0	0	0	$1,150,000
Skate Ramp	0	1	0	$100,000
Off-Leash Dog Area	4	0	0	$100,356
Baseball Field	0	0	0	$623,000
Softball Field	0	0	4	$623,000
Multi-Use Field	10	3	4	$467,000
Soccer Field	0	0	0	$467,000
Parking Space	191	104	60	$4,072
	Existing Replacement Cost			
	Zone 1	**Zone 2**	**Zone 3**	**Total**
Eligible Land	$15,101,100	$7,039,700	$2,611,200	$68,732,700
Site Development	$5,327,668	$2,483,606	$921,231	$24,248,896
Restroom	$862,500	$575,000	$287,500	$5,462,500
Concession Building	$0	$0	$0	$5,060,000
Play Area	$1,311,000	$437,000	$218,500	$4,151,500
Basketball Court	$885,500	$158,125	$126,500	$2,814,625
Tennis Court	$936,100	$170,200	$0	$2,212,600
Volleyball Court	$53,475	$0	$0	$196,075
Swimming Pool	$4,000,000	$0	$0	$12,000,000
Splash Pad	$0	$0	$0	$450,000
Small Picnic Ramada	$460,000	$115,000	$92,000	$1,518,000
Large Picnic Ramada	$220,800	$110,400	$0	$588,800
Skate Park	$0	$0	$0	$1,150,000
Skate Ramp	$0	$100,000	$0	$100,000
Off-Leash Dog Area	$401,424	$0	$0	$702,492
Baseball Field	$0	$0	$0	$12,460,000
Softball Field	$0	$0	$2,492,000	$6,230,000
Multi-Use Field	$4,670,000	$1,401,000	$1,868,000	$20,548,000
Soccer Field	$0	$0	$0	$934,000
Parking Space	$777,752	$423,488	$244,320	$20,689,832
Total	$35,007,319	$13,013,519	$8,861,251	$190,250,020

Source: Existing facility units from Table 31; land cost from City of Peoria Development and Engineering Department, March 14, 2018; other unit costs from City of Peoria Parks Department, December 18, 2012; replacement costs is number of facility units times cost per unit.

The existing level of service for each service area is the existing cost per service unit, calculated by dividing the replacement cost of existing eligible park land and improvements by the existing number of service units. First, however, it is necessary to adjust the total replacement cost to account for certain liabilities and assets. Developers of projects have contributed assets that are essentially reserved for use by remaining development in their projects, and this amount should not be counted in determining the level of service paid for by existing development in the service area. Similarly, the City has funded some improvements with debt proceeds to accommodate future development, rather than to serve existing development. Such liabilities are counterbalanced by current park impact fee account balances, which have been generated by existing development. As shown in Table 33, the existing park level of service is highest in Zone 2.

Table 33. Existing Park Cost per Service Unit by Service Area

	Service Areas		
	Zone 1	Zone 2	Zone 3
Total Replacement Cost	$35,007,319	$13,013,519	$8,861,251
– Outstanding Developer Credits	$0	-$223,000	$0
– Outstanding Debt	-$9,877,645	-$3,736,675	-$2,975,449
Account Balance	$2,073,949	$2,985,323	$3,048,646
Net Replacement Cost	$27,203,623	$12,039,167	$8,934,448
÷Existing EDUs	21,047	7,962	6,340
Replacement Cost per Service Unit	$1,293	$1,512	$1,409
Study Cost per Service Unit	$3	$3	$3
Cost per Service Unit	$1,296	$1,515	$1,412

Source: Existing replacement costs from Table 32; outstanding developer credits and fund balances from Table 58; outstanding debt from Table 59 (allocated to zones based on percent of existing city-wide EDUs from Table 30); existing EDUs from Table 30; study cost per EDU from Table 59.

Net Cost per Service Unit

As noted in the Legal Framework chapter of this report, impact fees should be reduced (or "offset") to account for other types of revenues that will be generated by new development and used to fund capacity-expanding improvements of the same type as those to be funded by the impact fees. Cases in which such an offset is warranted include funding of existing deficiencies, outstanding debt payments on existing facilities, and dedicated revenue sources to fund growth-related improvements.

The park impact fees calculated in this report are based on the existing level of service, so there are no existing deficiencies. Outstanding debt and developer credit obligations have already been removed from the cost per service unit. Other than impact fees, the City has no dedicated source of revenue to fund growth-related park improvements. The City has not received any grant funding for park improvements in recent years, and does not anticipate any grants over the next ten years.

While no revenue offsets are warranted, another issue is whether the City is able to demonstrate the need for the revenues that will be generated by the fees over the next ten years. The cost per service unit in Zone 3 is reduced because 10-year planned expenditures are less than projected revenues, as shown in Table 34.

Table 34. Park Impact Fee Revenues and Expenditures, 2018-2028

	Service Area		
	Zone 1	Zone 2	Zone 3
Cost per EDU	$1,296	$1,515	$1,412
x New EDUs, 2018-2028	2,650	5,097	8,265
Potential Revenue, 2018-2028	$3,434,400	$7,721,955	$11,670,180
Current Fund Balance	$2,073,949	$2,985,323	$3,048,646
Available Impact Fee Funds, 2018-2028	$5,508,349	$10,707,278	$14,718,826
– Planned Expenditures, 2018-2028	-$14,418,576	-$25,539,728	-$33,714,417
Fee Revenue Surplus (Deficit)	-$8,910,227	-$14,832,450	-$18,995,591

Source: Cost per EDU from Table 33; new EDUs from Table 30; fund balance from Table 58; planned expenditures from Table 37.

Updated Impact Fees

The park impact fees that may be adopted by the City based on this study are derived by multiplying the number of service units generated by a unit of development and the net cost per service unit for each service area calculated above. The resulting fee schedule is presented in Table 35.

Table 35. Park Net Cost Schedule

		EDUs/	Service Area		
Land Use	Unit	Unit	Zone 1	Zone 2	Zone 3
Net Cost per EDU>>			$1,296	$1,515	$1,412
Single-Family Detached	Dwelling	1.00	$1,296	$1,515	$1,412
Multi-Family	Dwelling	0.68	$881	$1,030	$960
Mobile Home Park	Space	0.84	$1,089	$1,273	$1,186
Motel	Room	0.07	$91	$106	$99
Retail/Commercial	1,000 sq. ft.	0.09	$117	$136	$127
Office	1,000 sq. ft.	0.15	$194	$227	$212
Industrial	1,000 sq. ft.	0.01	$13	$15	$14
Warehouse	1,000 sq. ft.	0.01	$13	$15	$14
Public/Instititional	1,000 sq. ft.	0.01	$13	$15	$14

Source: Net cost per EDU is the cost per EDU from Table 34; EDUs per unit from Table 29; net cost per unit is net cost per EDU times EDUs per unit.

The updated park fees are compared to current fees in Table 36. Excluding industrial/warehouse, the fees are generally increasing by 50% or more in Zones 1 and 2. Zone 3 fees, which are currently the highest, are generally going up much less and are second highest of the updated fees after Zone 2.

Table 36. Change from Current Park Impact Fees

Land Use	Unit	Service Area Zone 1	Zone 2	Zone 3
Updated Fee				
Single-Family Detached	Dwelling	$1,296	$1,515	$1,412
Multi-Family	Dwelling	$881	$1,030	$960
Mobile Home Park	Space	$1,089	$1,273	$1,186
Motel	Room	$91	$106	$99
Retail/Commercial	1,000 sq. ft.	$117	$136	$127
Office	1,000 sq. ft.	$194	$227	$212
Industrial	1,000 sq. ft.	$13	$15	$14
Warehouse	1,000 sq. ft.	$13	$15	$14
Public/Instititional	1,000 sq. ft.	$13	$15	$14
Current Fee				
Single-Family Detached	Dwelling	$749	$970	$1,416
Multi-Family	Dwelling	$442	$572	$835
Mobile Home Park	Space	$509	$660	$963
Motel	Room	$45	$58	$85
Retail/Commercial	1,000 sq. ft.	$45	$58	$85
Office	1,000 sq. ft.	$37	$49	$71
Industrial	1,000 sq. ft.	$15	$19	$28
Warehouse	1,000 sq. ft.	$15	$19	$28
Public/Instititional	1,000 sq. ft.	$7	$10	$14
Percent Change				
Single-Family Detached	Dwelling	73%	56%	0%
Multi-Family	Dwelling	99%	80%	15%
Mobile Home Park	Space	114%	93%	23%
Motel	Room	102%	83%	16%
Retail/Commercial	1,000 sq. ft.	160%	134%	49%
Office	1,000 sq. ft.	424%	363%	199%
Industrial	1,000 sq. ft.	-13%	-21%	-50%
Warehouse	1,000 sq. ft.	-13%	-21%	-50%
Public/Instititional	1,000 sq. ft.	86%	50%	0%

Source: Current fees from Table 1; updated fees from Table 35.

Capital Plan

Over the next ten years, the City plans to develop new parks, improve existing parks, pay for an update of the parks master plan and two updates to the park impact fee study, credit developers for past improvements, and pay the portion of the outstanding city-wide park debt attributable to each of the three zones. The ten-year park capital plan is summarized in Table 37 below. It should be noted that the timing of individual improvements will be dependent on the pace and location of development that actually occurs, and not all of the planned improvements will necessarily be needed in the next ten years. Some of the improvements may be constructed by developers in return for credits against their park impact fees.

Table 37. Park Capital Plan, 2018-2028

	Service Area		
Project/Expenditure	Zone 1	Zone 2	Zone 3
Aloravita South NH Park	$0	$14,080,577	$0
Lake Pleasant Hts NH Park, Ph 1	$0	$0	$9,201,387
The Meadows Park	$4,482,344	$0	$0
Northern Community Park*	$0	$7,386,790	$7,386,789
Vistancia at White Peak NH Park	$0	0	$9,208,065
Vistancia New Community Park	$0	$0	$4,760,000
Community Services Master Plan**	$49,650	$95,497	$154,853
Developer Credits	$0	$223,000	$0
Debt on Existing Excess Capacity	$9,877,645	$3,736,675	$2,975,449
Impact Fee Update Studies	$8,937	$17,189	$27,874
Total	$14,418,576	$25,539,728	$33,714,417

* 30-acre share of cost of planned 85-acre park, located near boundary between zones and split evenly between between Zones 2 & 3.
** allocated by zone based on projected new EDUs, 2018-2028, from Table 30
Source: Project expenditures from City of Peoria, *Capital Improvement Program FY 2018-2027*; outstanding developer credits from Table 58; update study cost from Table 60 allocated by service area based on share of projected new EDUs 2018-2028 from Table 30.

FIRE/EMS

This chapter updates the City's fire/EMS impact fees to ensure that they are fully compliant with the requirements of SB 1525.

Service Units

The proposed service unit for fire/EMS and police fees is "functional population." A functional person is similar to the concept of a full-time equivalent worker – it represents the equivalent of a person being present at the land use for 24 hours a day. The functional population approach is appropriate for fire/EMS and police services, since the demand for such services is strongly related to the number of people present at a land use.

The major alternative to functional population is calls for service. The problem with calls-for-service ratios is that they tend to change over time. In our experience, there are often significant fluctuations in fees for various land uses when the fees are updated. In addition, we compared calls-for-service and functional population ratios from a large number of studies and found that the average ratios are relatively similar.[4]

Functional population represents the average number of equivalent persons present at the site of a land use for an entire 24-hour day. For residential development, functional population is simply average household size times the percent of time people spend at home. For nonresidential development, functional population is based on a formula that includes square foot per employee ratios, trip generation rates, average vehicle occupancy and average number of hours spent by employees and visitors at a land use. These all tend to be stable characteristics that do not change significantly over short periods of time. Functional population multipliers by land use are calculated in Appendix B.

The number of service units in the city-wide fire/EMS service area can be determined by multiplying the amount of existing city-wide development by the service unit multipliers for each land use type and summing. Existing and projected service units (functional population) are calculated in Table 38 for the 2018-2028 planning horizon.

[4] Clancy Mullen, *Fire and Police Demand Multipliers: Calls-for-Service versus Functional Population*, proceedings of the National Impact Fee Roundtable in Arlington, VA, October 5, 2006 (http://growthandinfrastructure.org/proceedings/2006_proceedings/fire%20police%20multipliers.pdf)

Table 38. Fire/EMS Service Units, 2018-2028

Land Use	Unit Type	No. of Units	Func. Pop. per Unit	Functional Population
Single-Family Detached	Dwelling	54,991	1.89	103,933
Multi-Family	Dwelling	14,285	1.29	18,428
Mobile Home	Dwelling	3,576	1.59	5,686
Retail/Commercial	1,000 sq. ft.	10,114	2.07	20,935
Office	1,000 sq. ft.	1,736	1.27	2,205
Industrial/Warehouse	1,000 sq. ft.	11,919	0.17	2,026
Public/Instititional	1,000 sq. ft.	10,367	0.36	3,732
Total Functional Population, 2018				156,945
Single-Family Detached	Dwelling	70,442	1.89	133,135
Multi-Family	Dwelling	15,786	1.29	20,364
Mobile Home	Dwelling	3,576	1.59	5,686
Retail/Commercial	1,000 sq. ft.	12,370	2.07	25,607
Office	1,000 sq. ft.	2,443	1.27	3,102
Industrial/Warehouse	1,000 sq. ft.	12,302	0.17	2,091
Public/Instititional	1,000 sq. ft.	13,229	0.36	4,762
Total Functional Population, 2028				194,747
New Functional Population, 2018-2028				37,802

Source: 2018 and 2028 units for city-wide service area from Table 13; functional population per unit from Table 56 (residential) and Table 57 (nonresidential – industrial/warehouse is average of industrial and warehouse) in Appendix B.

Cost per Service Unit

The cost per service unit to provide fire protection and EMS service to new development is based on the existing level of service provided to existing development. The level of service is quantified as the ratio of the replacement cost of existing fire/EMS capital facilities to existing fire/EMS service units. The location of existing fire stations is illustrated in Figure 7 (the northernmost station is housed in a temporary facility). An inventory of the City's existing fire/EMS facilities is provided in Table 39 below.

Figure 7. Fire Stations

Table 39. Existing Fire/EMS Facilities

Building	Address	Acres	Bldg Sq. Ft.
Public Safety Admin Building*	8351 W. Cinnabar	1.41	15,750
Pinnacle Peak Public Safety Facility**	23100 Lake Pleasant Road	4.10	5,000
Fire Station 1	8065 W. Peoria Ave	4.00	14,149
Fire Station 2	18500 N. 89th Ave	1.50	8,808
Fire Station 3	8330 West Emile Zola	1.40	8,213
Fire Station 4	9800 West. Olive Avenue	1.30	7,113
Fire Station 5	23100 Lake Pleasant Road	3.30	10,000
Fire Station 6	28251 N El Mirage Road	2.00	10,319
Fire Station 7	7758 W. Jomax	2.00	10,759
Fire Station 9***	40202 N. 87th Ave	2.00	n/a
Fire Support Services Bldg.	8557 N. 78th Ave	3.00	10,000
Totals		26.01	100,111

* fire portion only (total 6.5 acres is allocated based on fire share of total 67,900 square feet)
** acres and sq. ft. allocated half to fire, half to police
*** building facilities are temporary
Source: City of Peoria, November 1, 2017, December 13, 2018.

In addition to land and buildings, fire/EMS services require vehicles and equipment. The City's current fire/EMS vehicles and equipment have a total replacement cost, based on current unit costs, of about $22.5 million, as summarized in Table 40 on the following page.

Table 40. Fire/EMS Vehicles and Equipment

Fire Vehicle/Equipment Type	No. of Units	Unit Price	Replacement Cost
Fire Engine	12	$630,000	$7,560,000
Fire Engine Equipment	10	$90,000	$900,000
Ladder Truck	3	$1,200,000	$3,600,000
Ladder Tender	3	$350,000	$1,050,000
Ladder Truck/Tender Equipment	3	$120,000	$360,000
Rescue	6	$230,000	$1,380,000
Rescue Equipment	6	$60,000	$360,000
LA Unit	1	$90,000	$90,000
Water Tanker	1	$350,000	$350,000
HazMat Truck	1	$600,000	$600,000
Brush Truck Type 6	1	$185,000	$185,000
Brush Truck Type 3	1	$375,000	$375,000
Fire Boat	1	$350,000	$350,000
TRT Support Truck	1	$270,000	$270,000
Cargo Truck	2	$200,000	$400,000
Cargo Trailers	5	$8,000	$40,000
Large Van	1	$38,000	$38,000
BC Excursion	3	$90,000	$270,000
Tahoe/Explorer	5	$40,000	$200,000
Cub Cadet/Polaris UTV Vehicles	2	$30,000	$60,000
Automobile	7	$32,000	$224,000
Pick-up Truck 1/2 Ton	12	$36,000	$432,000
Pick-up Truck 3/4 Ton	6	$60,000	$360,000
Pick-up Truck 1 Ton - Mobile Maint.	1	$125,000	$125,000
Heart Monitors	20	$25,000	$500,000
Thermal Camera	20	$5,000	$100,000
Extrication Equipment	6	$30,000	$180,000
Medical Mass Casualty Trailer	1	$45,000	$45,000
Mobile Fire & Life Safety House	1	$75,000	$75,000
Electronic Patient Records (ePRCs)	42	$500	$21,000
SCBAs	136	$7,500	$1,020,000
800 Mhz Radios	140	$7,200	$1,008,000
Total			$22,528,000

Source: City of Peoria Fire Department, November 1, 2018.

The existing level of service is expressed in terms of the current cost per service unit. The replacement cost of existing facilities is determined based on current unit costs. The cost per station square foot is based on the estimated cost of the new Fire Station 8. The cost per acre for land is based on current land costs. In addition, the current impact fee fund balance represents a capital investment by existing development, even though the funds have not yet been spent. However, not all the existing facilities have been paid for. The City owes about $3.8 million in outstanding debt principal on existing fire/EMS facilities, and has about $0.3 million in outstanding developer credits for existing facilities. Dividing the net capital cost by existing service units yields the fire/EMS cost per service unit of $554 per functional population, as shown in Table 41.

Table 41. Fire/EMS Cost per Service Unit

	No. of Units	Unit Price	Replacement Cost
Building (sq. ft.)	100,111	$585	$58,564,935
Land (acres)	26.01	$247,000	$6,424,470
Vehicles/Equipment	n/a	n/a	$22,528,000
Total Replacement Cost			$87,517,405
Current Fund Balance			$3,558,963
– Outstanding Debt for Excess Capacity			-$3,796,995
– Outstanding Developer Credits			-$320,000
Net Replacement Cost			$86,959,373
÷ Existing Functional Population			156,945
Cost per Functional Population			$554

Source: Building sq. feet and acres from Table 39; cost per acre and per square foot from City of Peoria, March 14, 2018; vehicle and equipment replacement cost from Table 40; outstanding debt from Table 59; outstanding developer credits from Table 58; existing functional population from Table 38.

Net Cost per Service Unit

As noted in the Legal Framework chapter of this report, impact fees should be reduced (or "offset") in order to account for other types of revenues that will be generated by new development and used to fund capacity-expanding improvements of the same type as those to be funded by the impact fees. Cases in which such an offset is warranted include funding of existing deficiencies, outstanding debt payments on existing facilities, and dedicated revenue sources to fund growth-related improvements.

The fire/EMS impact fees calculated in this report are based on the existing level of service, so there are no existing deficiencies. Other than impact fees, the City has no dedicated source of revenue to fund growth-related fire/EMS improvements. The City has not received any grant funding for fire/EMS improvements in recent years and does not anticipate any grants over the next ten years.

The City has funded fire/EMS improvements with impact fees, general funds or by issuing general obligation bonds. The debt is retired with sales tax, property tax or other general revenues of the City. The amount of currently-outstanding debt principal on bond issues used to fund fire/EMS improvements amounts to about $3.8 million. Although the City does not typically use impact fees to retire debt, it would be an eligible expense. This is because the debt has been deducted from the current replacement cost and is therefore not counted in the existing level of service on which the fees are based. The outstanding debt represents the cost of capacity that can be considered to be available to serve new development. No additional offsets against the fire/EMS fees are required, and the net cost per service unit is the same as the cost per service unit calculated earlier.

Another issue is whether the City is able to demonstrate the need for the revenues that will be generated by the fees over the next ten years. As shown in Table 42 below, the City has more planned expenditures than projected revenue over the next ten years.

Table 42. Projected Fire/EMS Impact Fee Revenues, 2018-2028

Net Cost per Functional Population	$554
x New Functional Population, 2018-2028	37,802
Potential Revenue, 2018-2028	$20,942,308
Current Fund Balance	$3,558,963
Available Impact Fee Funds, 2018-2028	$24,501,271
– Planned Expenditures, 2018-2028	-$34,172,995
Revenue Surplus (Deficit)	-$9,671,724

Source: Net cost per functional population is cost per functional population from Table 41; new functional population from Table 38; fund balance from Table 58; planned expenditures from Table 45.

Updated Impact Fees

The updated fire/EMS impact fees that may be adopted by the City based on this study is the product of the number of service units generated by a unit of development and the net cost per service unit calculated above. The resulting fee schedule is presented in Table 43.

Table 43. Fire/EMS Net Cost Schedule

Land Use Type	Unit	Func. Pop./ Unit	Net Cost/ Func. Pop.	Net Cost/ Unit
Single-Family Detached	Dwelling	1.89	$554	$1,047
Multi-Family	Dwelling	1.29	$554	$715
Mobile Home Park	Space	1.59	$554	$881
Hotel/Motel	Room	1.05	$554	$582
Retail/Commercial	1,000 sq. ft.	2.07	$554	$1,147
Office	1,000 sq. ft.	1.27	$554	$704
Industrial	1,000 sq. ft.	0.20	$554	$111
Warehouse	1,000 sq. ft.	0.13	$554	$72
Public/Instititional	1,000 sq. ft.	0.36	$554	$199

Source: Functional population per unit from Table 56 and Table 57; net cost per functional population is the same as the cost from Table 41.

The updated fire/EMS fees are compared to current fees for typical land uses in Table 44. The updated fees are higher than current fees for all land use categories.

Table 44. Current and Updated Fire/EMS Impact Fees

Current Land Use Type	Unit	Current Fee	Updated Fee	Percent Change
Single-Family Detached	Dwelling	$417	$1,047	151%
Multi-Family	Dwelling	$248	$715	188%
Mobile Home Park	Space	$283	$881	211%
Motel	Room	$219	$582	166%
Retail/Commercial	1,000 sq. ft.	$458	$1,147	150%
Office	1,000 sq. ft.	$142	$704	396%
Industrial	1,000 sq. ft.	$48	$111	131%
Warehouse	1,000 sq. ft.	$42	$72	71%
Public/Instititional	1,000 sq. ft.	$81	$199	146%

Source: Current fees from Table 1; updated fees from Table 43.

Capital Plan

Over the next ten years, the City plans to build or expand four stations, add new vehicles and equipment, retire debt on existing facilities that represents excess capacity to accommodate growth, meet its developer credit obligations, and pay for at least two updates of the fire/EMS impact fee study. The ten-year fire/EMS capital plan is summarized in Table 45.

Table 45. Fire/EMS Capital Plan, 2018-2028

Project	
Fire Station #8, New Station	$11,000,000
Fire Station #2, Dorm/Bay Expansion	$1,825,000
Fire Station #4, Four Bay Expansion	$1,843,000
Fire Station #9, New 3-Bay Station	$9,920,000
1 New Fire Engine (includes ladders and hose)	$630,000
1 New Fire Engine Equipment	$90,000
1 New Ladder Truck	$1,200,000
1 New Ladder Tender	$350,000
1 New Ladder Truck/Tender Equipment	$120,000
3 New Rescue	$690,000
3 New Rescue Equipment	$180,000
1 New LA Unit	$90,000
1 New Water Tanker	$350,000
1 New Brush Truck Type 6	$185,000
1 New Fire Boat	$350,000
1 New BC Excursion	$90,000
1 New Mechanic Step Van	$85,000
2 New Pick-up Truck 1/2 Ton	$72,000
1 New Pick-up Truck 3/4 Ton	$60,000
4 New Heart Monitors	$140,000
4 New Thermal Cameras	$20,000
2 New Extrication Equipment	$60,000
8 New Electronic Patient Records (ePRCs)	$4,000
Self Contained Breathing Apparatus	$540,000
800 MHz Radios	$144,000
Outstanding Debt for Excess Capacity	$3,796,995
Outstanding Developer Credits	$320,000
Impact Fee Update Studies	$18,000
Total	$34,172,995

Source: City of Peoria Fire-Medical Department, October 22, 2018; debt from Table 59; credits from Table 58; study costs from Table 60.

POLICE

This chapter updates the City's police impact fees to ensure that they are fully compliant with the requirements of SB 1525.

This update continues to use the incremental expansion approach, based on the existing city-wide level of service. The level of service is quantified in terms of the capital investment per service unit.

Service Units

The proposed service unit for fire/EMS and police fees is "functional population." A functional person is similar to the concept of a full-time equivalent worker; it represents the equivalent of a person being present at the land use for 24 hours a day. The functional population approach is appropriate for fire/EMS and police services, since the demand for such services is strongly related to the number of people present at a land use.

The major alternative to functional population is calls for service. The problem with calls-for-service ratios is that they tend to change over time. In our experience, there are often significant fluctuations in fees for various land uses when the fees are updated. In addition, we compared calls-for-service and functional population ratios from a large number of studies and found that the average ratios are reasonably similar.[5]

Functional population represents the average number of equivalent persons present at the site of a land use for an entire 24-hour day. For residential development, functional population is simply average household size times the percent of time people spend at home. For nonresidential development, functional population is based on a formula that includes square foot per employee ratios, trip generation rates, average vehicle occupancy and average number of hours spent by employees and visitors at a land use. These all tend to be stable characteristics that do not change significantly over short periods of time. Functional population multipliers by land use are calculated in Appendix B.

The number of service units in the city-wide police service area can be determined by multiplying the amount of existing development by the service unit multipliers for each land use type and summing. Existing and projected service units (functional population) for police are the same as those for fire/EMS calculated earlier (see Table 38 in Fire/EMS chapter) for the 2018-2028 planning horizon.

[5] Clancy Mullen, *Fire and Police Demand Multipliers: Calls-for-Service versus Functional Population*, proceedings of the National Impact Fee Roundtable in Arlington, VA, October 5, 2006 (http://growthandinfrastructure.org/proceedings/2006_proceedings/fire%20police%20multipliers.pdf)

Cost per Service Unit

The cost per service unit to provide police protection to new development is based on the existing level of service provided to existing development. The level of service is quantified as the ratio of the replacement cost of existing police capital facilities to existing police service units. The inventory of the City's existing police facilities is provided in Table 46.

Table 46. Existing Police Facilities

Facility	Land Acres	Building Sq. Feet
Public Safety Administration Building*	5.09	56,900
Technology Center (Servers)	n/a	2,583
Pinnacle Peak Patrol Services Building	4.70	17,000
Total	9.79	76,483

* police portion only (total 6.5 acres is allocated based on police share of total 72,650 square feet)
Source: City of Peoria, March 14, 2018.

The current construction cost per square foot for police buildings is based on actual cost of the new Pinnacle Peak Patrol Services Building, as shown in Table 47.

Table 47. Police Building Cost per Square Foot

Professional Services	$1,554,695
Other Soft Costs	$134,295
Construction	$7,831,104
IT/CATV Cabling	$444,792
Total Capital Cost	$9,964,886
÷ Square Feet	17,000
Cost per Square Foot	$586

Source: City of Peoria, March 14, 2018

In addition to land and buildings, police services require vehicles and equipment. The City's current police vehicles and equipment have a total replacement cost, based on current unit costs, of $11.1 million, as summarized in Table 48 on the following page.

Table 48. Police Vehicles and Equipment

Type of Vehicle	Units in Service	Unit Cost	Replacement Cost
Crown Victoria-Marked*	9	$43,000	$387,000
Caprice-Marked*	3	$40,500	$121,500
Unmarked Sedan	21	$27,500	$577,500
Marked SUV	69	$50,000	$3,450,000
Unmarked SUV	20	$35,500	$710,000
Marked Pickup	4	$50,000	$200,000
Unmarked Pickup	10	$36,000	$360,000
Unmarked Van	4	$30,000	$120,000
Pickup Truck-Gas	12	$32,000	$384,000
Pickup Truck-Diesel	1	$45,000	$45,000
Van	3	$33,500	$100,500
Transport Van	4	$50,000	$200,000
Undercover Vehicle	24	$29,000	$696,000
Armored Vehicle	1	$250,000	$250,000
Mobile Command Vehicle	1	$544,000	$544,000
Motorcycle	13	$31,000	$403,000
Speed Monitoring Device	4	$15,000	$60,000
TSS Light Trailer	1	$20,000	$20,000
Trailer Enclosed (CNT)	1	$46,000	$46,000
Trailers (flat bed)	2	$2,500	$5,000
Golf Cart	1	$10,000	$10,000
SWAT Support Vehicle	1	$318,000	$318,000
MRT Response Trailer	1	$40,000	$40,000
Ranger All-Terrain Vehicle	3	$12,000	$36,000
Gun	220	$800	$176,000
Taser	230	$1,200	$276,000
Portable Radio	255	$5,000	$1,275,000
Vest	215	$1,000	$215,000
Patrol Dog	3	$12,000	$36,000
Narcotics Dog	1	$12,000	$12,000
Support Dog - Trained	1	$20,000	$20,000
Total			$11,093,500

Source: City of Peoria Police Department, December 13, 2018.

The existing level of service is expressed in terms of the current cost per service unit. The replacement cost of existing facilities is determined based on current unit costs. In addition, the current impact fee fund balance represents a capital investment by existing development, even though the funds have not yet been spent. However, not all the existing facilities have been paid for. The City has some debt on existing police facilities, and has some outstanding developer credits for existing facilities. Dividing the net replacement cost by existing service units yields the police cost per service unit of $358 per functional population, as shown in Table 49.

Table 49. Police Cost per Service Unit

	No. of Units	Unit Price	Replacement Cost
Building (sq. ft.)	76,483	$586	$44,819,038
Land (acres)	9.79	$247,000	$2,418,130
Vehicles and Equipment	n/a	n/a	$11,093,500
Total Replacement Cost			$58,330,668
Current Fund Balance			$4,160,781
– Outstanding Debt for Excess Capacity			-$6,012,044
– Outstanding Developer Credits			-$215,000
Net Replacement Cost			$56,264,405
÷ Existing Functional Population			156,945
Cost per Functional Population			$358

Source: Building sq. feet and acres from Table 46; cost per square foot from Table 47; cost per acre from City of Peoria, March 14, 2018; vehicle/equipment replacement cost from Table 48; fund balance and developer credits from Table 58; outstanding debt from Table 59; existing (2018) functional population from Table 38 in fire/EMS chapter.

Net Cost per Service Unit

As noted in the Legal Framework chapter of this report, impact fees should be reduced (or "offset") in order to account for other types of revenues that will be generated by new development and used to fund capacity-expanding improvements of the same type as those to be funded by the impact fees. Cases in which such an offset is warranted include funding of existing deficiencies, outstanding debt payments on existing facilities, and dedicated revenue sources to fund growth-related improvements.

The police impact fees calculated in this report are based on the existing level of service, so there are no existing deficiencies. Other than impact fees, the City has no dedicated source of revenue to fund growth-related police improvements. The City has not received any grant funding for police improvements in recent years and does not anticipate any grants over the next ten years.

The City has funded police improvements with impact fees, general funds or by issuing general obligation bonds. Currently-outstanding debt principal on bond issues used to fund police improvements amounts to $2.93 million. The debt is retired with sales tax, property tax or other general revenues of the City. Although the City does not typically use impact fees to retire debt, it would be an eligible expense. This is because the debt has been deducted from the current replacement cost and is therefore not counted in the existing level of service on which the fees are based. The outstanding debt represents the cost of capacity that can be considered to be available to serve new development. No additional offsets against the police fees are required, and the net cost per service unit is the same as the cost per service unit calculated earlier.

Another issue is whether the City is able to demonstrate the need for the revenues that will be generated by the fees over the next ten years. As shown in Table 50 below, the City has more planned expenditures than projected revenue over the next ten years.

Table 50. Potential Police Impact Fee Revenue, 2018-2028

Net Cost per Functional Population	$358.00
x New Functional Population, 2018-2028	37,802
Potential Revenue, 2018-2028	$13,533,116
Current Fund Balance	$4,160,781
Available Impact Fee Funds, 2018-2028	$17,693,897
– Planned Expenditures, 2018-2028	-$21,135,604
Revenue Surplus (Deficit)	-$3,441,707

Source: Net cost per functional population is same as cost from Table 49; new functional population from Table 38 in fire/EMS chapter; current fund balance as of June 30, 2017 from Finance and Budget Department, September 28, 2017; planned expenditures from Table 54.

Updated Impact Fees

The maximum police impact fees that may be adopted by the City based on this study is the product of the number of service units generated by a unit of development and the net cost per service unit calculated above. The resulting fee schedule is presented in Table 51.

Table 51. Police Net Cost Schedule

Land Use Type	Unit	Func. Pop./ Unit	Net Cost/ Func. Pop.	Net Cost/ Unit
Single-Family Detached	Dwelling	1.89	$358	$677
Multi-Family	Dwelling	1.29	$358	$462
Mobile Home Park	Space	1.59	$358	$569
Hotel/Motel	Room	1.05	$358	$376
Retail/Commercial	1,000 sq. ft.	2.07	$358	$741
Office	1,000 sq. ft.	1.27	$358	$455
Industrial	1,000 sq. ft.	0.20	$358	$72
Warehouse	1,000 sq. ft.	0.13	$358	$47
Public/Instititional	1,000 sq. ft.	0.36	$358	$129

Source: Functional population per unit from Table 56 and Table 57; net cost per functional population is cost per functional population from Table 49.

The updated police fees are compared to current fees in Table 52 below. The updated fees are higher for all land use categories.

Table 52. Current and Updated Police Impact Fees

Current Land Use Type	Unit	Current Fee	Updated Fee	Percent Change
Single-Family Detached	Dwelling	$503	$677	35%
Multi-Family	Dwelling	$299	$462	55%
Mobile Home Park	Space	$342	$569	66%
Hotel/Motel	Room	$264	$376	42%
Retail/Commercial	1,000 sq. ft.	$553	$741	34%
Office	1,000 sq. ft.	$171	$455	166%
Industrial	1,000 sq. ft.	$58	$72	24%
Warehouse	1,000 sq. ft.	$50	$47	-6%
Public/Instititional	1,000 sq. ft.	$98	$129	32%

Source: Current fees from Table 1; updated fees from Table 51.

Capital Plan

The planned 10-year police vehicle expansion cost is based on projected service unit growth and the need to expand the police vehicle fleet proportionately to demand. Details for the planned cost estimate are provided in Table 53 below. The mix of vehicles required may vary from the estimates shown, and the types of vehicles could change to respond to evolving policing needs and technologies.

Table 53. Police Vehicles Needed, 2018-2028

Vehicle Type	Existing Vehicles	2018-2028 Growth	New Vehicles 2018-2028	Unit Cost	Total Cost
Marked Sedans	12	24.09%	3	$41,800	$125,400
Unmarked Sedans	21	24.09%	5	$27,500	$137,500
Marked SUV's	69	24.09%	17	$50,000	$850,000
Unmarked SUV's	20	24.09%	5	$35,500	$177,500
Pickup Trucks	13	24.09%	3	$38,500	$115,500
Vans	7	24.09%	2	$41,750	$83,500
Undercover Vehicles	24	24.09%	6	$29,000	$174,000
Motorcycles	13	24.09%	3	$31,000	$93,000
Armored Vehicle	1	24.09%	0	$250,000	$0
Mobile Command Vehicle	1	24.09%	0	$544,000	$0
Speed Monitoring Devices	4	24.09%	1	$15,000	$15,000
Trailers	5	24.09%	1	$27,125	$27,125
Golf Cart	1	24.09%	0	$10,000	$0
SWAT Support Vehicle	1	24.09%	0	$318,000	$0
All-Terrain Vehicles	3	24.09%	1	$12,000	$12,000
Total					$1,810,525

Source: Existing vehicles and unit costs from Table 48; functional population growth percentage derived from Table 38.

The police capital plan for 2018-2028 is summarized in Table 54. Over the next ten years, the City plans to expand the Pinnacle Peak Public Safety Facility to provide additional space for the Police Department and add vehicles to keep up with growth. The City has outstanding debt related to available excess capacity. It also has developer credit obligations to fulfill and will need to pay for a minimum of two updates to the police impact fee study.

Table 54. Police Capital Plan, 2018-2028

Project/Expenditure	
Pinnacle Peak Public Safety Facility Expansion	$1,854,700
Northern Police Facility	$11,200,000
Police Vehicle Fleet Expansion	$1,810,525
Outstanding Debt for Excess Capacity	$6,012,044
Outstanding Developer Credits	$240,335
Impact Fee Update Studies	$18,000
Total	$21,135,604

Source: Planned Pinnacle Peak facility expansion City of Peoria, *Capital Improvement Program FY 2018-2027*; planned vehicle fleet expansion from Table 53; outstanding debt from Table 59; developer credits from Table 58; study cost from Table 60.

APPENDIX A: EXISTING ROAD INVENTORY

Table 55. Existing Arterial Street Inventory

Street Name	From	To	Area	Miles	Thru Lns	Daily Volume	VMT	VMC
75th Ave	Northern Ave	Olive Ave	South	0.997	4	11,633	11,598	36,700
75th Ave	Olive Ave	Peoria Ave	South	0.999	4	19,682	19,662	36,773
75th Ave	Peoria Ave	Cactus Rd	South	0.997	4	20,722	20,660	36,700
75th Ave	Cactus Rd	Thunderbird Rd	South	0.999	4	20,344	20,324	36,773
75th Ave	Thunderbird Rd	Greenway Rd	South	0.997	4	25,156	25,081	36,700
75th Ave	Greenway Rd	Bell Rd	South	0.923	4	22,141	20,436	33,976
83rd Ave	Olive Ave	Mountain View Rd	South	0.500	4	7,897	3,949	18,405
83rd Ave	Peoria Ave	Cactus Rd	South	0.867	4	11,355	9,845	31,914
83rd Ave	Cactus Rd	Thunderbird Rd	South	0.999	4	15,986	15,970	36,773
83rd Ave	Thunderbird Rd	Bridge	South	0.851	4	16,726	14,234	31,325
83rd Ave	Bridge	Bell Rd	South	1.153	6	17,732	20,445	63,092
83rd Ave	Union Hills Dr	Beardsley Rd	South	0.994	6	22,506	22,371	54,392
83rd Ave	Lk Pleasant Pwy	Deer Valley Rd	South	0.722	4	10,554	7,620	26,577
91st Ave	Northern Ave	Butler Dr	South	1.002	4	9,087	9,105	36,884
91st Ave	Butler Dr	Olive Ave	South	0.500	2	10,649	5,325	8,460
91st Ave	Olive Ave	Mountain View Rd	South	0.500	2	13,405	6,703	8,460
91st Ave	Mountain View Rd	Peoria Ave	South	0.500	4	11,013	5,507	18,405
91st Ave	Peoria Ave	Cactus Rd	South	1.002	4	17,362	17,397	36,884
91st Ave	Thunderbird Rd	Greenway Rd	South	1.037	4	13,868	14,381	38,172
91st Ave	Greenway Rd	Bell Rd	South	1.034	4	10,590	10,950	38,062
91st Ave	Bell Rd	Union Hills Dr	South	1.035	4	11,089	11,477	38,098
91st Ave	Union Hills Dr	Beardsley Rd	South	1.007	4	9,340	9,405	37,068
91st Ave	Beardsley Rd	Deer Valley Rd	South	1.002	4	7,288	7,303	36,884
99th Ave	Northern Ave	Butler Dr	South	0.497	2	2,358	1,172	8,409
99th Ave	Butler Dr	Olive Ave	South	0.522	2	2,358	1,231	8,832
107th Ave	Union Hills Dr	Wikie Up	South	0.595	2	5,445	3,240	10,067
107th Ave	Wikie Up	Beardsley Rd	South	0.409	4	5,445	2,227	15,055
107th Ave	Beardsley Rd	Deer Valley Rd	South	1.006	4	7,268	7,312	55,048
Beardsley Rd	81st Ave	83rd Ave	South	0.222	4	20,434	4,536	8,172
Beardsley Rd	83rd Ave	91st Ave	South	0.997	4	12,875	12,836	36,700
Beardsley Rd	91st Ave	Lake Pleasant Rd	South	1.432	4	12,039	17,240	52,712
Beardsley Rd	Lake Pleasant Rd	107th Ave	South	0.582	4	9,077	5,283	21,423
Beardsley Rd	107th Ave	111th Ave	South	0.495	4	3,665	1,814	18,221
Bell Rd	Loop 101	91st Ave	South	0.867	6	55,757	48,341	47,442
Bell Rd	91st Ave	City Limit	South	0.378	6	40,691	15,381	20,684
Cactus Rd	67th Ave	75th Ave	South	1.011	4	24,641	24,912	37,215
Cactus Rd	75th Ave	83rd Ave	South	1.012	4	22,695	22,967	37,252
Cactus Rd	83rd Ave	91st Ave	South	1.000	4	19,016	19,016	36,810
Cotton Crossing	83rd Ave	Grand Ave	South	0.293	6	7,175	2,102	16,033
Lake Pleasant Pkwy	Beardsley Rd	83rd Ave	South	0.360	4	28,021	10,088	13,252
Lake Pleasant Pkwy	83rd Ave	91st Ave	South	0.880	4	20,098	17,686	32,393
Lake Pleasant Pkwy	91st Ave	95th Ave	South	0.504	4	16,749	8,441	18,552
Lake Pleasant Pkwy	95th Ave	Lake Pleasant Rd	South	0.902	4	24,600	22,189	33,203
Lake Pleasant Pkwy	Lake Pleasant Rd	Deer Valley Rd	South	0.295	4	21,890	6,458	10,859
Lake Pleasant Rd	Beardsley Rd	Rose Garden Lane	South	0.502	4	9,005	4,521	18,479
Lake Pleasant Rd	Rose Garden Lane	Lake Pleasant Pky	South	0.267	4	11,965	3,195	9,828

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Table 55. Existing Arterial Street Inventory (continued)

Street Name	From	To	Area	Miles	Thru Lns	Daily Volume	VMT	VMC
Northern Ave	71st Ave	75th Ave	South	0.499	4	14,451	7,211	18,368
Northern Ave	75th Ave	83rd Ave	South	1.010	4	19,445	19,639	37,178
Northern Ave	83rd Ave	91st Ave	South	0.993	4	24,439	24,268	36,552
Northern Ave	91st Ave	Loop 101	South	0.659	4	26,735	17,618	24,258
Northern Ave	Loop 101	99th Ave	South	0.322	4	29,696	9,562	11,853
Northern Ave	99th Ave	103rd Ave	South	0.846	4	26,735	22,618	31,141
Northern Ave	103rd Ave	107th Ave	South	0.499	4	23,492	11,723	18,368
Northern Ave	107th Ave	115th Ave	South	0.993	4	20,249	20,107	36,552
Olive Ave	67th Ave	75th Ave	South	1.068	4	26,539	28,344	39,313
Olive Ave	75th Ave	83rd Ave	South	1.001	4	26,030	26,056	36,847
Olive Ave	83rd Ave	91st Ave	South	1.000	4	24,458	24,458	36,810
Olive Ave	91st Ave	Loop 101	South	0.049	4	24,357	1,193	1,804
Olive Ave	Loop 101	New River Bridge	South	0.856	4	28,250	24,182	31,509
Peoria Ave	67th Ave	75th Ave	South	1.006	4	23,245	23,384	37,031
Peoria Ave	75th Ave	83rd Ave	South	1.032	4	20,705	21,368	37,988
Peoria Ave	83rd Ave	91st Ave	South	1.073	4	16,264	17,451	39,497
Peoria Ave	91st Ave	Loop 101	South	0.182	4	20,437	3,720	6,699
Peoria Ave	Loop 101	New River Bridge	South	0.378	4	20,437	7,725	13,914
Peoria Ave	New River Bridge	99th Ave	South	0.254	4	15,624	3,968	9,350
Thunderbird Rd	67th Ave	75th Ave	South	1.007	4	34,508	34,750	37,068
Thunderbird Rd	75th Ave	83rd Ave	South	1.010	4	34,765	35,113	37,178
Thunderbird Rd	83rd Ave	Loop 101	South	0.250	6	32,889	8,222	13,680
Thunderbird Rd	Loop 101	New River Bridge	South	0.273	6	32,889	8,979	14,939
Thunderbird Rd	New River Bridge	94th Dr	South	0.713	4	30,002	21,391	26,246
Subtotal, South				52.618			994,986	1,978,261
67th Ave	Pinnacle Peak Rd	Happy Valley Rd	Central	1.000	4	23,801	23,801	36,810
83rd Ave	Deer Valley Rd	Happy Valley Rd	Central	0.245	4	16,300	3,994	9,018
83rd Ave	Happy Valley Rd	Jomax Rd	Central	1.648	2	7,626	12,568	27,884
91st Ave	Deer Valley Rd	Williams Rd	Central	0.499	2	6,981	3,484	8,443
91st Ave	Williams Rd	Pinnacle Peak Rd	Central	0.500	2	6,981	3,491	8,460
91st Ave	Villa Lindo	Happy Valley Rd	Central	0.362	2	5,270	1,908	6,125
99th Ave	Jomax Rd	White Feather Ln	Central	0.941	2	3,592	3,380	15,922
107th Ave	Deer Valley Rd	Williams Rd	Central	0.503	4	10,901	5,483	27,524
107th Ave	Williams Rd	Villa Chulla	Central	0.248	4	7,094	1,759	9,129
107th Ave	Villa Chulla	North end of St	Central	0.248	2	7,094	1,759	4,196
107th Ave	Hatfield Rd	Happy Valley Rd	Central	0.546	2	11,711	6,394	9,238
Deer Valley Rd	75th Ave	83rd Ave	Central	1.009	4	28,966	29,227	37,141
Deer Valley Rd	83rd Ave	91st Ave	Central	0.990	4	19,763	19,565	36,442
Deer Valley Rd	91st Ave	95th Ave	Central	0.499	4	13,225	6,599	18,368
Deer Valley Rd	95th Ave	Lk Pleasant Pwy	Central	0.929	2	8,556	7,949	15,719
Deer Valley Rd	Lk Pleasant Pwy	107th Ave	Central	0.574	4	10,957	6,289	21,129
Deer Valley Rd	107th Ave	109th Ave	Central	0.254	4	576	146	9,350
Happy Valley Rd	67th Ave	Terramar Blvd	Central	0.890	6	21,748	19,356	48,701
Happy Valley Rd	Terramar Blvd	83rd Ave	Central	1.039	6	23,437	24,351	56,854
Happy Valley Rd	83rd Ave	91st Ave	Central	1.091	6	25,417	27,730	59,700
Happy Valley Rd	91st Ave	Lk Pleasant Pwy	Central	1.021	6	24,241	24,750	55,869
Happy Valley Pkwy	Lk Pleasant Pwy	107th Ave	Central	0.776	4	28,832	22,374	28,565
Happy Valley Pkwy	107th Ave	Bridge	Central	0.430	4	25,253	10,859	15,828

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Table 55. Existing Arterial Street Inventory (continued)

Street Name	From	To	Area	Miles	Thru Lns	Daily Volume	VMT	VMC
Jomax Pkwy	Tierra Del Rio Bl	City Limits	Central	0.482	4	552	266	17,742
Jomax Rd	67th Ave	75th Ave	Central	1.004	2	8,010	8,042	16,988
Jomax Rd	75th Ave	83rd Ave	Central	1.129	2	5,283	5,965	19,103
Jomax Rd	Lk Pleasant Pwy	103rd Ave	Central	1.031	2	2,784	2,870	17,445
Lake Pleasant Pkwy	Deer Valley Rd	Pinnacle Peak Rd	Central	1.050	4	22,602	23,732	38,651
Lake Pleasant Pkwy	Pinnacle Peak Rd	Happy Valley Rd	Central	1.038	4	21,192	21,997	38,209
Lake Pleasant Pkwy	Happy Valley Rd	Jomax Rd	Central	1.018	4	10,584	10,775	37,473
Lake Pleasant Pkwy	Jomax Rd	Westwing Pkwy	Central	0.964	4	5,462	5,265	35,485
Lake Pleasant Pkwy	Westwing Pkwy	Dixileta Dr	Central	1.200	4	5,462	6,554	44,172
Lake Pleasant Pkwy	Dixileta Dr	Loop 303	Central	1.140	4	5,228	5,960	41,963
Lake Pleasant Pkwy	Loop 303	Carefree Hwy	Central	2.380	2	5,228	12,443	40,270
Pinnacle Peak Rd	71st Ave	73rd Ave	Central	0.249	2	987	246	4,213
Pinnacle Peak Rd	79th Ave	81st Ave	Central	0.249	2	855	213	4,213
Pinnacle Peak Rd	81st Ave	83rd Ave	Central	0.248	2	855	212	4,196
Tierra Del Rio Bl	Happy Valley Pkwy	Jomax Pkwy	Central	0.850	4	7,878	6,696	31,289
Union Hills Dr	83rd Ave	91st Ave	Central	0.999	4	25,540	25,514	36,773
Union Hills Dr	91st Ave	Palo Verde Ave	Central	1.003	4	11,835	11,871	36,920
Westwing Pkwy	Jomax Rd	Black Rock Blvd	Central	0.863	4	6,020	5,195	31,767
Westwing Pkwy	Black Rock Blvd	Lake Pleasant Rd	Central	0.936	4	4,286	4,012	34,454
Subtotal, Central				34.075			425,044	1,097,741
El Mirage Rd	Jomax Rd	Vistancia Blvd	North	0.933	2	2,662	2,484	15,786
El Mirage Rd	Vistancia Blvd	Ln Mtn Pkwy	North	1.063	6	2,761	2,935	58,167
Jomax Rd	El Mirage Rd	126th Dr	North	0.371	2	188	70	6,277
Lone Mountain Rd	Loop 303	El Mirage Rd	North	1.093	2	9,228	10,086	18,494
Lone Mountain Rd	El Mirage Rd	Vistancia Blvd	North	1.717	4	4,624	7,939	63,203
Lone Mountain Rd	Vistancia Blvd	138th Ave	North	1.197	4	2,326	2,784	44,062
Vistancia Blvd	Loop 303	Jomax Rd	North	0.970	4	13,587	13,179	35,706
Vistancia Blvd	Jomax Rd	Bridge	North	0.981	4	8,182	8,027	36,111
Vistancia Blvd	Bridge	Trilogy Blvd	North	0.650	4	7,590	4,934	23,927
Vistancia Blvd	Trilogy Blvd	Ridgeline Rd	North	0.388	4	7,590	2,945	14,282
Vistancia Blvd	Ridgeline Rd	Whispering Ridge	North	0.449	4	7,590	3,408	16,528
Vistancia Blvd	Whispering Ridge	Lone Mountain Pwy	North	0.798	4	3,506	2,798	29,374
Vistancia Blvd	Lone Mntn Pwy	Westland Rd	North	0.571	4	3,539	2,021	21,019
Westland Rd	Lone Mntn Pwy	Vistancia Blvd	North	0.783	2	279	218	13,248
Subtotal, North				11.964			63,828	396,184
Castle Hot Spgs Rd	SR 74	North end of St	Far N	5.528	2	1,053	5,821	93,534
New River Rd	State Route 74	City Limit	Far N	0.553	2	1,003	555	9,357
Subtotal, Far North				6.081		2,056	6,376	102,891
South				52.618			994,986	1,978,261
Central				34.075			425,044	1,097,741
North				14.713			63,828	396,184
Far North				6.081			6,376	102,891
City-Wide				107.487			1,490,234	3,575,077

Source: City of Peoria Development and Engineering Department, November 14, 2017; daily volumes based on annual average daily traffic counts; VMT is vehicle-miles of travel, which is product of segment miles and daily volume; VMC is vehicle-miles of capacity, which is product of segment miles and maximum volume at LOS C from Table 19.

APPENDIX B: FUNCTIONAL POPULATION

The two most common methodologies used in calculating public safety service units and impact fees are the "calls-for-service" approach and the "functional population" approach. This update utilizes the "functional population" approach to calculate and assess the fire/EMS and police impact fees. This approach is a generally-accepted methodology for these impact fee types and is based on the observation that demand for public safety facilities tends to be proportional to the presence of people at a particular site.

Functional population is analogous to the concept of "full-time equivalent" employees. It represents the number of "full-time equivalent" people present at the site of a land use, and it is used for the purpose of determining the impact of a particular development on the need for facilities. For residential development, functional population is simply average household size times the percent of time people spend at home. For nonresidential development, functional population is based on a formula that factors in trip generation rates, average vehicle occupancy, employee density and average number of hours spent by employees and visitors at a land use.

Residential Functional Population

For residential land uses, the impact of a dwelling unit on the need for capital facilities is generally proportional to the number of persons residing in the dwelling unit. This can be measured for different housing types in terms of either average household size (average number of persons per occupied dwelling unit) or persons per unit (average number of persons per dwelling unit, including vacant as well as occupied units). In this analysis, average household size is used to develop the functional population multipliers, as it avoids the need to make assumptions about occupancy rates.

Determining residential functional population multipliers is considerably simpler than the nonresidential component. It is estimated that people, on average, spend 16 hours, or 67 percent, of each 24-hour day at their place of residence and the other 33 percent away from home. A similar approach is used for the hotel/motel category. The functional population per unit for these uses is shown in Table 56.

Table 56. Functional Population per Unit for Residential Uses

Housing Type	Unit	Average HH Size	Occupancy Factor	Func. Pop. per Unit
Single-Family Detached	Dwelling	2.82	0.67	1.89
Multi-Family	Dwelling	1.93	0.67	1.29
Mobile Home	Dwelling	2.38	0.67	1.59
Hotel/Motel	Room	1.57	0.67	1.05

Source: Average household size for dwelling unit from Table 7; average household size for hotel/motel is one-half of average vehicle occupancy for vacation trips from 2009 National Household Travel Survey.

Nonresidential Functional Population

The functional population methodology for nonresidential land uses is based on trip generation data utilized in developing the transportation demand schedule prepared for the updated transportation impact fees. Functional population per 1,000 square feet is derived by dividing the total number of hours spent by employees and visitors during a weekday by 24 hours. Employees are estimated to spend 8 hours per day at their place of employment, and visitors are estimated to spend one hour per visit. The formula used to derive the nonresidential functional population estimates is summarized in Figure 8.

Figure 8. Nonresidential Functional Population Formula

FUNCPOP/UNIT = (employee hours/1000 sf + visitor hours/1000 sf) ÷ 24 hours/day

Where:

Employee hours/1000 sf = employees/1000 sf x 8 hours/day

Visitor hours/1000 sf = visitors/1000 sf x 1 hour/visit

Visitors/1000 sf = weekday ADT/1000 sf x avg. vehicle occupancy – employees/1000 sf

Weekday ADT/1000 sf = one-way avg. daily trips (total trip ends ÷ 2)

Using this formula and information on trip generation rates, vehicle occupancy rates from the National Household Travel Survey, employee densities from the land use assumption, and the formula above, nonresidential functional population estimates per 1,000 square feet of gross floor area are calculated in Table 57.

Table 57. Functional Population per Unit for Nonresidential Uses

Land Use	Unit	Trip Rate	Persons/ Trip	Employees/ Unit	Visitors/ Unit	Func. Pop./ Unit
Retail/Commercial	1,000 sq. ft.	18.87	1.91	1.95	34.09	2.07
Office	1,000 sq. ft.	4.87	1.27	3.46	2.72	1.27
Industrial	1,000 sq. ft.	1.95	1.27	0.32	2.16	0.20
Warehouse	1,000 sq. ft.	0.75	1.27	0.32	0.63	0.13
Public/Institutional	1,000 sq. ft.	3.32	1.91	0.33	6.01	0.36

Source: Trip rates from Table 17; persons/trip is average vehicle occupancy from Federal Highway Administration, Nationwide Household Travel Survey, 2017; employees/unit from Table 14; visitors/unit is trips times persons/trip minus employees/unit; functional population/unit calculated based on formula in Figure 8.

APPENDIX C: FINANCIAL DATA

Fund Balances, Annual Revenue and Developer Credits

The City's impact fee fund balances, outstanding developer credits, and annual revenue by fee type and service area are summarized in Table 58.

Table 58. Impact Fee Fund Balances and Outstanding Developer Credits

Fee Type/Service Area	Current Fund Balances	FY 2017 Revenue	Outstanding Credits
Transportation 1-South	$2,184,388	$0	$0
Transportation 2-Central	$4,329,535	$2,051,145	$8,765,440
Transportation 3-North	$3,658,111	$4,243,209	$11,851,623
Neighborhood Park 1-South	$2,073,949	$302,452	$0
Neighborhood Park 2-Northeast	$2,985,323	$335,443	$223,000
Neighborhood Park 3-Northwest	$3,048,646	$690,459	$0
Fire	$5,468,555	$833,319	$320,000
Police	$4,160,781	$1,031,911	$215,000
Total	$27,909,288	$9,487,938	$21,375,063

Source: Fund balances and annual revenue from City of Peoria Finance and Budget Department, *Annual Development Fee Report for Fiscal Year Ended June 30, 2017* (city-wide park fund balance allocated to service areas based on number of existing EDUs from Table 30); outstanding developer credits from City of Peoria, April 3, 2018.

Outstanding Debt

Outstanding debt on existing facilities of the types covered by City's non-utility development impact fees are summarized in Table 59.

Table 59. Outstanding Debt

Fee Category	2015B	2015A	2012B	2012A	2010	2009A	2007B	Total
Transportation	$34,516,263	$5,663,577	$2,404,050	$586,250	$3,202,800	$1,582,500	$1,195,100	$49,150,540
Parks	$8,316,467	$4,717,904	$1,311,300	$10,200,750	$7,347,600	$21,100	$516,800	$32,431,921
Library	$1,209,895	$0	$0	$0	$0	$0	$64,600	$1,274,495
Fire	$1,209,895	$0	$1,384,150	$820,750	$188,400	$0	$193,800	$3,796,995
Police	$0	$3,793,944	$145,700	$0	$2,072,400	$0	$0	$6,012,044
General Govt	$9,110,586	$7,203,190	$145,700	$117,250	$0	$189,900	$0	$16,766,626
Drainage	$11,016,895	$7,131,384	$1,894,100	$0	$6,028,800	$316,500	$1,259,700	$27,647,378
Total	$65,380,000	$28,510,000	$7,285,000	$11,725,000	$18,840,000	$2,110,000	$3,230,000	$137,080,000

Source: Outstanding debt as of November 22, 2017 from City of Peoria Finance and Budget Department, March 5, 2018.

Impact Fee Study Update Costs

According to State law, impact fees may be used to pay for the costs of "professional services required for the preparation or revision of a development fee" (Sec. 9-463.05.A, ARS). The current impact fee study cost provides the basis for estimating future update costs. Since SB 1525 requires impact fees to be updated every five years, a minimum of two additional studies will be required over the next ten years. Dividing the cost of the two required update studies for each facility by the new service units projected over the next ten years results in the following study costs per service unit.

Table 60. Impact Fee Study Update Costs per Service Unit, 2018-2028

Facility Type	Service Unit	2018 Study Cost	No. of Studies 2018-2028	Study Cost 2018-2028	New Service Units 2018-2028	Cost per Service Unit
Roads	VMT	$53,200	2	$106,400	284,974	$0.37
Parks	EDU	$27,000	2	$54,000	16,012	$3.00
Fire	Func. Pop.	$9,000	2	$18,000	37,802	$0.48
Police	Func. Pop.	$9,000	2	$18,000	37,802	$0.48
Total		$98,200		$196,400		

Source: 2018 study cost breakdown by Duncan Associates; new service units from Table 18 (transportation – Central and North service areas), Table 30 (parks – Zones 1-3), Table 38 (fire/EMS and police).

New Development Revenue Forecast

SB 1525 requires that the infrastructure improvements plan include (Section 9-463.05.E.7):

> *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.*

The total revenues from these sources that can be attributed to new development over the next ten years are summarized in Table 61 on the following page. However, most of this revenue will be used for ongoing operations and maintenance purposes.

Only revenue generated by new development that is dedicated to growth-related capital improvements needs to be considered in determining the extent of the burden imposed by new development. As discussed in greater detail in the Legal Framework chapter, offsets against impact fees are warranted in the following cases: (1) new development will be paying taxes or fees used to retire debt on existing facilities serving existing development; (2) new development will be paying taxes or fees used to fund an existing deficiency, or (3) new development will be paying taxes or fees that are dedicated to be used for growth-related improvements. The analysis provided in the individual chapters of this report has identified the need for the following offsets against the fees: (1) outstanding debt for park, fire/EMS and police improvements; and (2) Federal, State and regional funding for major road improvements.

Table 61. Revenue Attributable to New Development, FY 2019-2028

Revenue Type	Fund	FY2019	FY2020	FY2021	FY2022
City Sales Tax	General	$1,537,074	$1,983,401	$2,476,886	$2,950,293
City Sales Tax	Half Cent Sales Tax	$739,145	$932,823	$1,147,526	$1,353,554
City Sales Tax	Transportation Sales Tax	$443,486	$559,693	$688,515	$812,132
City Sales Tax	HURF	$53,861	$105,644	$162,754	$213,193
State Shared Revenues	General	$105,811	$219,527	$341,016	$437,187
State Shared Revenues	HURF	$152,473	$157,047	$161,759	$166,612
Primary Property Tax	General	$78,822	$176,899	$275,482	$379,648
Secondary Property Tax	GO Bonds	$518,568	$1,163,809	$1,812,379	$2,497,683
Total		$3,629,240	$5,298,843	$7,066,317	$8,810,302

Revenue Type	Fund	FY2023	FY2024	FY2025	FY2026
City Sales Tax	General	$3,470,472	$3,945,472	$4,420,472	$4,895,472
City Sales Tax	Half Cent Sales Tax	$1,580,154	$1,780,154	$1,980,154	$2,180,154
City Sales Tax	Transportation Sales Tax	$948,093	$1,073,093	$1,198,093	$1,323,093
City Sales Tax	HURF	$265,870	$320,870	$375,870	$430,870
State Shared Revenues	General	$668,088	$793,088	$918,088	$1,043,088
State Shared Revenues	HURF	$171,612	$176,612	$181,612	$186,612
Primary Property Tax	General	$489,654	$589,654	$689,654	$789,654
Secondary Property Tax	GO Bonds	$3,221,405	$3,879,300	$4,537,194	$5,195,089
Total		$10,815,348	$12,558,243	$14,301,137	$16,044,032

Revenue Type	Fund	FY2027	FY2028	10-Yr Total
City Sales Tax	General	$5,370,472	$5,845,472	$36,895,486
City Sales Tax	Half Cent Sales Tax	$2,380,154	$2,580,154	$16,653,972
City Sales Tax	Transportation Sales Tax	$1,448,093	$1,573,093	$10,067,384
City Sales Tax	HURF	$485,870	$540,870	$2,955,672
State Shared Revenues	General	$1,168,088	$1,293,088	$6,987,069
State Shared Revenues	HURF	$191,612	$196,612	$1,742,563
Primary Property Tax	General	$889,654	$989,654	$5,348,775
Secondary Property Tax	GO Bonds	$5,852,984	$6,510,879	$35,189,290
Total		$17,786,927	$19,529,822	$115,840,211

Source: City of Peoria Finance and Budget Department, November 8, 2017.