

Town of Paradise Valley, Arizona



# Impact Fee Land Use Assumptions and Infrastructure Improvement Plan

*DRAFT Report*

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## Section 1 - Land Use Assumptions

### 1.1. Introduction

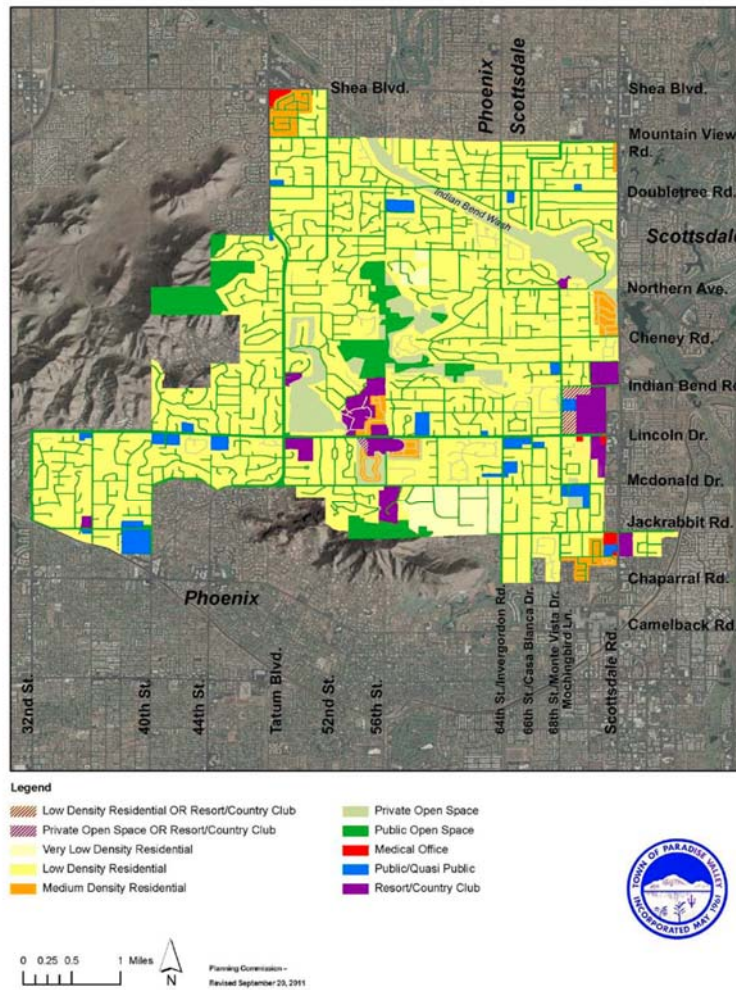
The most recent changes to Arizona's state enabling legislation (specifically Senate Bill 1525) require additional supporting documentation for the implementation of development fees. One such change is the documentation of land use assumptions. The specific legislation (ARS 9-463.05(T)(6)) requires:

*"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."*

The growth projections included in this report are based on the ARCADIS May 2015 Sewer Master Plan (Master Plan), which outlined current sewer flows, future growth projections and the associated flows associated with the new development.

### 1.2. Service Areas

A key requirement under the recent legislation update is the identification of the service area for which the fee will be applied. The Town intends to assess sewer impact fees using one system that serves the entire Town, rather than multiple individual service areas. The fixed assets identified in the IIP section of this report will benefit new growth to all sections of the Town regardless of location. A Town wide service area approach is permissible under Senate Bill 1525. Figure 1 illustrates the Town of Paradise Valley service area.



**Figure 1**  
**Town of Paradise Valley Service Area**

### 1.3. Key Requirements for Future Account and Flow Development

This section identifies the number of current accounts being served by the Town (as of 2016) and the projection of new accounts and flows through 2026. In 2016 there were 2,159 accounts, with total flows of 460,000 gallons per day (gpd). Table 1 summarizes the new accounts and flow projections through 2026.



**Table 1**  
**Accounts and Flow Projections**

<u>Fiscal Year</u>	<u>Accounts</u>	<u>Flows (gpd)</u>
2016	2,170	460,000
2017	2,248	476,450
2018	2,325	492,000
2019	2,403	509,350
2020	2,561	542,794
2021	2,718	576,238
2022	2,918	609,681
2023	3,100	643,125
2024	3,294	676,569
2025	3,376	693,550
2026	3,467	710,000

The number of accounts are expected to grow by 1,297 accounts between 2016 and 2026, and flows are expected to increase by 250,000 gpd.

#### **1.4. Ritz Carlton Development**

A significant component of the new development anticipated in the 2016 through 2026 timeframe is a Ritz Carlton development. The Ritz Carlton development is anticipated to add 164 total residential units at a rate of 32 units per year beginning in 2019. Additionally, 94 villas and 10 commercial accounts are projected to be added to the Ritz Carlton property. The total flows associated with the development are estimated at 85,500 gpd. Table 2 summarizes the projected Ritz Carlton development.



**Table 2**  
**Ritz Carlton Development Projections**

<u>Fiscal Year</u>	<u>New Units</u>	<u>Flows (gpd)</u>
2016	0	0
2017	32	16,994
2018	32	16,994
2019	32	16,994
2020	64	16,994
2021	64	16,994
2022	44	531
2023	0	0
2024	0	0
2025	0	0
2026	0	0

### 1.5. Development Summary

The majority of current development in the Town is residential (2,159 accounts), accounting for 99% of total system accounts with commercial development (11 accounts), accounting for the remaining 1% of development. Table 3 provides a summary of current and projected development at 2026.



**Table 3  
Current and Projected Accounts**

<b>Development Type</b>	<b>2016</b>	<b>2026</b>
<b>Residential</b>		
Single Family Residential	2,159	3,188
Residential – Hotel Property	<u>0</u>	<u>258</u>
<b>Total Residential</b>	<b>2,148</b>	<b>3,447</b>
<b>Nonresidential</b>		
Public/Institutional	9	9
Medical	1	1
Commercial w/ Dining	<u>1</u>	<u>11</u>
<b>Total Nonresidential</b>	<b>11</b>	<b>21</b>



## Section 2 - Infrastructure Improvement Plan

### 2.1. Introduction

In addition to the recent changes to Arizona’s state enabling legislation for the implementation of development fees on land use assumptions, there were also changes with regards to infrastructure improvement plans. The change requires the conversion of land use assumptions into service units and the corresponding need for related infrastructure. This section of the report is intended to meet that requirement.

### 2.2. Sewer Service Area

As was discussed in Section 1.2, the Town provides sewer service on a Town wide basis. Sewer impact fees are proposed to be assessed on a single service area basis rather than multiple service areas.

### 2.3. Existing Level of Service

The existing level of service for the Town’s sewer system was determined based on the current flows per average residential dwelling unit. The flows per for an average residential customer is 211 gallons per day (gpd). Therefore 211 gpd was used as representing 1 equivalent dwelling unit (EDU).

### 2.4. Service Units

The Town’s current intergovernmental agreement (IGA) with the City of Scottsdale is for 1,026,479 gpd of purchased treatment capacity. In order to determine the service units (in EDUs) that the Town can serve based on their purchased capacity, it was necessary to divide the total purchased capacity by flows per EDU as illustrated in Table 4.

**Table 4**  
**Service Units to be Served**

Total Purchased Capacity (gpd)	1,026,479
Average Day Use per EDU	<u>211</u>
<b>Total EDUs Available</b>	<b>4,870</b>

The current purchased capacity and use per EDU indicates that the Town has the ability to provide service to 4,780 EDUs before available capacity is exhausted and additional capacity would need to be purchased in order to provide service to additional development.





## 2.5. Future Level of Service

The level of service for future development will be the same as for current development, 211 gpd per EDU. If additional capacity is purchased from Scottsdale in the future, the additional capacity needs would be based on the development needs based on 211 gpd per EDU.

## 2.6. Fee Calculation Methodology

The Town currently has sufficient capacity to serve new development into the future as they have purchased 1,026,479 gpd of treatment capacity from Scottsdale and per the Master Plan, the current use is 460,000 gpd, indicating the Town is currently at 45% capacity. Given the Town has available capacity and is not intending to and doesn't need to purchase additional capacity in the next 10 years, we determined the buy-in method to be the most appropriate method for calculating the fee.

Under the buy-in method, costs based on the ratio of existing facilities to demand from existing development as follows:

*Current Value of Existing Facilities ÷ Existing Demand*

Under this method new development funds "buy into" facilities at the same standard currently serving existing development. By definition, the buy-in method results in no facility deficiencies attributable to existing development.

This method is often used when a long-range plan for new facilities is not available or new facilities are not required. Only the initial facilities to be funded with fees are identified in the fee study.

## 2.7. Existing Assets and System Value

The existing value of the sewer system is what new development is being asked to buy into. The existing system is comprised of 2 components: treatment capacity rights and sewer lines. These assets are exclusive of any developer contributions as including developer contributed assets would mean developers would be paying for assets twice, once when they were built and deeded to the Town, and a second time through the impact fee itself.

The value of the Town's sewer lines were escalated from the original acquisition cost to current day dollars using the ENR construction cost index (CCI). This values the sewer lines at what it would cost to purchase those lines today. This valuation is known as replacement cost new. However, these sewer lines are not new and have experienced depreciation over time, therefore the replacement cost new value has been discounted by accumulated depreciation (replacement cost new less depreciation) in recognition of the fact that new developers are not buying into a new system. The valuation of the existing system is summarized in Table 5.



**Table 5  
Fixed Asset Valuation**

<u>Asset</u>	<u>Value</u>
Sewer Lines	\$23,165,685
Treatment Capacity	<u>14,349,766</u>
<b>Total Asset Value</b>	<b>\$37,515,451</b>

As indicated in Table 5, the total value of the Town’s sewer fixed assets is \$37,515,451. A full listing of the Town’s fixed assets can be found in the attached appendix.

In the past, the Town issued debt in order to finance the acquisition of some of the fixed assets. Since the principle on the outstanding debt was used to purchase assets which are already included in the system valuation it would be inappropriate to add principle payments into the overall valuation of the system. Financing costs, however, are appropriate to include as a cost of providing the infrastructure needed to serve new development. The remaining financing costs on growth-related debt is \$696,884.

As new development connects to the system, those customers will pay the then current sewer rates, which are often used to pay for non-growth related system debt. As such, a credit is given against impact fees for any outstanding non-growth related debt that new development will pay for through rates. At this time, the Town does not have any outstanding non-growth related sewer debt, therefore a credit for debt service was not incorporated in the overall valuation of the system.

The full valuation of the Town’s sewer system is illustrated in Table 6.

**Table 6  
System Valuation**

<u>Asset</u>	<u>Value</u>
Sewer Lines	\$23,165,685
Treatment Capacity	14,349,766
Growth Related Borrowing Costs	<u>696,884</u>
<b>Total System Value</b>	<b>\$38,212,335</b>

The total system value as illustrated in Table 6 that new development will be asked to buy into is \$38,212,335.



## 2.8. Credits and Offsets

In the event that there are revenues from property taxes, fees assessments, state shared revenues, highway revenues, Federal revenues, ad valorem property taxes, construction contracting or similar taxes or any portion of utility fees that are used to fund the cost of development, per the State Statute, credit must be given against the calculation of the impact fee. The Town does not have any revenues from the previously identified revenues that will be used to offset the cost of capacity, therefore no credit or offsets can be given.

## 2.9. Fee per EDU

With a determination of the total system value as well as the number of equivalent dwelling units that can be served by the existing system capacity, the next step was to calculate the impact fee per equivalent dwelling unit. The calculation of the fee per EDU is shown in Table 7.

**Table 7  
Fee Calculation**

<u>Description</u>	<u>Value</u>
Sewer Lines	\$23,165,685
Treatment Capacity	14,349,766
Growth Related Borrowing Costs	<u>696,884</u>
Total System Value	\$38,212,335
Capacity (EDUs)	<u>4,870</u>
<b>Fee per EDU</b>	<b>\$7,847</b>

Based on the current value of the Town’s sewer system investments, the sewer impact fee per EDU is calculated at \$7,847 an increase of \$1,306 from the current fee of \$6,541. The calculation is also shown in the attached appendix.

## 2.10. Fees by Meter Size

The fee identified in section 2.9 was the calculated fee per EDU. Generally, water and sewer impact fees are assessed based on meter size and the associated flow capacity (gallons per minute) by meter size. The fee per EDU represents the fee for a development with a 1-inch or smaller meter. The fees for larger meters are illustrated in Table 8 below.



**Table 8**  
**Impact Fee by Meter Size**

<b>Meter Size</b>	<b>Flow</b> (gpm)	<b>Capacity Ratio</b> <sup>(1)</sup>	<b>Proposed Fee</b>
1-inch and Smaller	50	1.00	\$7,847
1.5-inch	100	2.00	15,694
2-inch	160	3.20	25,110
3-inch	350	7.00	54,929
4-inch	600	12.00	94,164
6-inch	1,000	20.00	156,940
8-inch	1,600	32.00	251,104

# Appendix A1

Paradise Valley  
 Sewer Impact Fee Model  
 Fixed Assets by Valuation Method

Fixed Asset	Valuation Date	Original Cost	Accumulated Depreciation	CCI Inflation Factor	Replacement Cost New Less Depreciation (RCNLD)
<b>Equipment</b>					
Flow Monitoring Stations		\$174,242	\$174,242	#N/A	\$0
Flow Monitoring Stations		282,375	282,375	#N/A	0
Flow Monitoring Stations		191,880	191,880	#N/A	0
<b>Sewer Infrastructure</b>					
1970 Sewer Line	1970	103,101	90,729	7.27	658,733
1971 Sewer Line	1971	157,264	135,247	6.35	863,325
1972 Sewer Line	1972	184,150	154,686	5.73	899,873
1973 Sewer Line	1973	199,967	163,973	5.30	895,355
1974 Sewer Line	1974	58,158	46,526	4.97	242,501
1974 Sewer Line	1974	639,498	511,598	4.97	2,666,513
1975 Sewer Line	1975	52,960	41,309	4.54	199,042
1976 Sewer Line	1976	82,167	62,447	4.18	281,099
1977 Sewer Line	1977	173,336	128,269	3.90	547,230
1978 Sewer Line	1978	67,344	48,488	3.62	195,047
1979 Sewer Line	1979	338,699	237,089	3.34	895,155
1980 Sewer Line	1980	186,145	126,579	3.10	450,707
1980 Sewer Line	1980	43,268	29,422	3.10	104,762
1981 Sewer Line	1981	94,889	62,627	2.84	206,843
1982 Sewer Line	1982	58,052	37,153	2.62	115,205
1983 Sewer Line	1983	36,932	22,898	2.47	68,287
1984 Sewer Line	1984	306,695	184,017	2.42	558,590
1984 Sewer Line	1984	20,825	12,495	2.42	37,929
1985 Sewer Line	1985	129,055	74,852	2.39	233,982
1985 Sewer Line	1985	90,237	52,337	2.39	163,603
1986 Sewer Line	1986	236,832	183,026	2.34	370,526
1986 Sewer Line	1986	72,433	40,563	2.34	128,737
1987 Sewer Line	1987	95,572	51,609	2.28	166,145
1987 Sewer Line	1987	576,346	311,227	2.28	1,001,940
1988 Sewer Line	1988	97,422	50,659	2.22	165,760
1988 Sewer Line	1988	25,800	13,416	2.22	43,897
1989 Sewer Line	1989	89,861	44,930	2.18	150,540
1989 Sewer Line	1989	63,207	31,603	2.18	105,889
1990 Sewer Line	1990	534,193	256,413	2.12	876,861
1990 Sewer Line	1990	199,442	95,732	2.12	327,377
1991 Sewer Line	1991	75,890	34,909	2.08	122,659
1991 Sewer Line	1991	40,688	18,717	2.08	65,763
1992 Sewer Line	1992	407,518	179,308	2.01	641,351
1993 Sewer Line	1993	368,682	154,846	1.93	555,541
1993 Sewer Line	1993	580,861	243,962	1.93	875,260
1994 Sewer Line	1994	339,598	135,839	1.86	494,552
1994 Sewer Line	1994	293,508	117,403	1.86	427,431
1995 Sewer Line	1995	224,234	85,209	1.83	326,240
1995 Sewer Line	1995	302,180	114,829	1.83	439,645
1996 Sewer Line	1996	157,308	56,631	1.79	224,362
1997 Sewer Line	1997	333,077	113,246	1.72	460,778
1997 Sewer Line	1997	169,976	57,792	1.72	235,145
1998 Sewer Line	1998	66,903	21,409	1.70	92,041
1998 Sewer Line	1998	411,905	131,810	1.70	566,674
1999 Sewer Line	1999	13,482	4,045	1.66	18,293
1999 Sewer Line	1999	28,834	8,650	1.66	39,123
2000 Sewer Line	2000	32,461	9,089	1.61	43,293
2000 Sewer Line	2000	22,780	6,378	1.61	30,382
2000 Sewer Line	2000	122,550	34,314	1.61	163,444
2001 Sewer Line	2001	225,250	58,565	1.58	297,985
2003 Sewer Line	2003	107,800	23,716	1.50	137,924
2004 Sewer Line	2004	36,210	7,242	1.41	43,848
2005 Sewer Line	2005	153,000	27,540	1.35	178,737
2006 Sewer Line	2006	422,750	67,640	1.30	479,889
2007 Sewer Line	2007	781,250	109,375	1.26	875,036
2008 Sewer Line	2008	586,690	70,410	1.21	638,334
2009 Sewer Line	2009	681,569	68,159	1.17	730,222
2010 Sewer Line	2010	31,500	2,520	1.14	33,418
2011 Sewer Line	2011	92,500	27	1.11	102,354
2013 Sewer Line	2013	198,000	3,690	1.05	204,509
<b>Wastewater Capacity</b>					
Wastewater Capacity Rights		1,364,585	0	#N/A	1,364,585
Wastewater Capacity Rights		8,936,115	0	#N/A	8,936,115
Wastewater Capacity Rights		4,049,066	0	#N/A	4,049,066
		<u>\$27,321,067</u>	<u>\$5,917,685</u>		<u>\$37,515,451</u>

Paradise Valley  
 Sewer Impact Fee Model  
 Summary of System Assets by Valuation Method

Item	Buy In Replacement Cost New Less Depreciation (RCNLD)
<b>ASSETS</b>	
Current Assets	
Cash and Cash Equivalents	\$0
	-----
Total Current Assets	\$0
Fixed Assets	\$37,515,451
	-----
<b>TOTAL ASSETS</b>	<b>37,515,451</b>
Add: Borrowing Costs (Growth)	696,884
Less: Principle (Non-Growth)	0
	-----
<b>Net System Value</b>	<b>\$38,212,335</b>

Paradise Valley  
 Sewer Impact Fee Model  
 Impact Fee Calculation - Buy-In

Description	Replacement Cost New Less Depreciation (RCNLD)
Buy-In - Assets	
Cash and Cash Equivalents	\$0
Fixed Assets	
Equipment	0
Sewer Infrastructure	23,165,685
Wastewater Capacity	14,349,766
	-----
Total Fixed Assets	37,515,451
Add: Borrowing Costs (Growth)	696,884
	-----
Total Assets	38,212,335
Number of EDU's	4,870
	-----
Proposed Impact Fee per EDU	\$7,847
Current Impact Fee per EDU	\$6,541
	-----
Change	\$1,306

Total Purchased Capacity from Scottsdale	1,026,479
Average Use per Day per EDU	211
Total EDUs	4,870