

# CAPITAL FACILITIES PLAN

## INCLUDING IMPACT FEE FACILITIES PLAN IMPACT FEE ANALYSIS



**HORROCKS**  
ENGINEERS

OCTOBER 2014

## Impact Fee Facilities Plan Certification Page

I certify that the attached impact fee facilities plan:

1. Includes only the costs of public facilities that are:
  - a. allowed under the Impact Fees Act; and
  - b. actually incurred; or
  - c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
  - d. existing deficiencies documented as such and not meant for inclusion in impact analysis.
2. Does not include:
  - a. costs of operation and maintenance of public facilities;
  - b. costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
  - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. Complies in each and every relevant respect with the Impact Fees Act



Brent R. Ventura, P.E.

## Impact Fee Analysis Certification Page

I certify that the attached impact fee analysis:

1. includes only the costs of public facilities that are:
  - a. allowed under the Impact Fees Act; and
  - b. actually incurred; or
  - c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. does not include:
  - a. costs of operation and maintenance of public facilities;
  - b. costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
  - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;
3. offsets costs with grants or other alternate sources of payment; and
4. complies in each and every relevant respect with the Impact Fees Act.



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Brent R. Ventura, P.E.

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### Demographics

Demographics form the basis of the projections in each chapter of this study. Existing demographics information was obtained from the City and revised to more accurately reflect current socio-economic conditions. Current population estimates are used to determine the Level of Service (LOS) for each facility addressed. Future population projections provide the basis for determining the future needs of the city based upon the current LOS. Presently, Payson City has approximately 18,881 residents and is projected to grow to nearly 48,000 by the year 2034.

### Water

This study identifies the existing water system and its current deficiencies. The water system has been modeled using waterGems to project future needs to maintain Payson's current LOS. Specific projects have been identified that will be required for the City to service future population growth. In total, \$13.00 million (2014 dollars) of capital improvements are identified for future culinary construction and \$7.86 million (2014 dollars) of capital improvements are identified for pressurized irrigation construction.

This study also outlines a few existing deficiencies in the culinary water system that need to be corrected. The pressurized irrigation system did not have any existing deficiencies at the time the study was done.

### Sewer

A sewer model was created in SewerGems to model existing conditions and to project future needs. As a result existing deficiencies were identified in the system along with multiple projects that will need to be completed to service Payson at build-out. In total, \$11.64 million (2014 dollars) of sewer projects have been identified to complete the capital facilities plan.

### Impact Fee Facilities Plan

Impact fees have been calculated based on detailed analysis of each element. The water impact fee is based on a single service area including a culinary system and a secondary system. The sewer impact fee is based upon one service area.

Although Payson is not required to enact impact fees exactly as outlined in this study, it may not impose fees higher than what is recommended. The following are the fees recommended to finance the required future infrastructure

## EXECUTIVE SUMMARY

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<b>Water</b>	<b>Units</b>	<b>Impact Fee</b>
Single Family Residential	Dwelling Unit	\$1,404.00
Commercial	Connection	\$10,292.00
Institutional	Connection	\$1,601.00
<b>Sewer</b>		
Single Family Residential	Dwelling Unit	\$1,824.00
Commercial	Connection	\$1,824 (min.) per ERC
Institutional	Connection	\$6,183.00

Payson City is a growing community located at the south end of Utah County and lying at the base of the Wasatch Mountains. It is bounded on the north by the unincorporated area of Benjamin and Spanish Fork, on the east by Salem and Elk Ridge, on the south by Santaquin and on the west by the unincorporated area of West Mountain. As established in 2010, Payson had approximately 18,294 residents. As growth continues in Utah Valley, Payson is projected to grow to 47,977 by the year 2034 as discussed in the following chapter.

This Capital Facilities Plan (CFP) analyzes Payson's future growth patterns and its projected infrastructure needs as it grows. It contains separate chapters outlining the Impact Fee Facilities Plan (IFFP) and its analysis. Services addressed include culinary water, pressurized irrigation and sanitary sewer. Further, it will provide a master plan for each utility. Each chapter includes a master plan that will lay the foundation for creating a Capital Facilities Plan, which in turn will provide the necessary data to create the Impact Fee Facilities Plan. These plans will provide a prioritized project schedule for construction, cost estimates (in planning year dollars) and recommended impact fee levels based upon the projects required to accommodate new growth in the next six years.

### *Proportionate Share*

This document attempts to assign only a proportionate share of costs for future improvements due to growth from future developments. It is evident that the cost of much of the existing infrastructure in many of the elements cannot be assigned a legitimate dollar value per resident because very little information is available as to how existing infrastructure was financed, what share the City financed, what agency constructed the improvement, and how much the improvements actually cost. Therefore, in accordance with the Utah Impact Fees Act, Title 11, Chapter 36a, every effort has been made to evaluate impact fees considering only those costs that are attributable to future growth. As such, a current Level of Service (LOS) has been defined for each element and master planning performed to maintain the existing standards. Impact fees have been evaluated assigning the costs associated with maintaining these standards to future development as Payson City grows.

### *Impact Fee Adjustments*

Payson City understands that future developments will each have individualized impacts on the City and therefore, in order to impose impact fees fairly, the City may adjust standard impact fees to meet unusual circumstances as allowed by State Code and City ordinances. Adjustments may be made for any of a number of reasons including studies or data submitted by the developer, land dedicated as a condition of development, and/or system improvements constructed by a new development.

The first step in updating a CFP is to evaluate and verify the City's current demographics and future population projections. The following section discusses Payson City's population, growth trends, and projected population at key milestones.

### 2.1 Existing Conditions

#### *Current Population*

In the 2010 Census, Payson City's population was estimated to be approximately 18,294 residents. The 2013 estimate was reached by evaluating building permits issued by the City since the 2010 Census was performed. Detailed calculations and permit information can be found in Appendix "A", Figure A.1. We have also included current estimates and projections from the Governor's Office of Planning and Budget (GOPB) as a matter of reference. Figure A.2 compares this studies projections with the GOPB projections through 2060.

#### *Average Residents per Household*

For purposes of this Capital Facilities Plan (CFP), the current average household density for a single family home in Payson was estimated at 3.6 residents per household, per the 2010 Census. Additionally, it has been documented that multi-family dwellings typically house few residents. Therefore, we have used 2.9 residents per household for multi-family dwelling units.

#### *Current Zoning and Land Use Plans*

Payson City's current land use and zoning plans form the basis of evaluation for future facilities which will be built within City limits. Figures 2-1 and 2-2 on the following pages illustrate the City's currently approved land use and zoning plans. The City's current Land Use Code can be found on the City's website in PDF format.

In order to create a realistic CFP, we have reviewed with City staff, the current annexation boundary, developments that are currently in the review process and developments that are anticipated in the future.

### 2.2 Build-out Population

Total build-out is reached when all vacant land within the City boundaries has been developed to the current zoning and land use plans. We do not anticipate build-out occurring in Payson City for many decades. Payson's build-out population has been estimated at approximately 60,124 as illustrated in Table 2-1.

Figure 2-1: Payson City's Current Land Use Plan

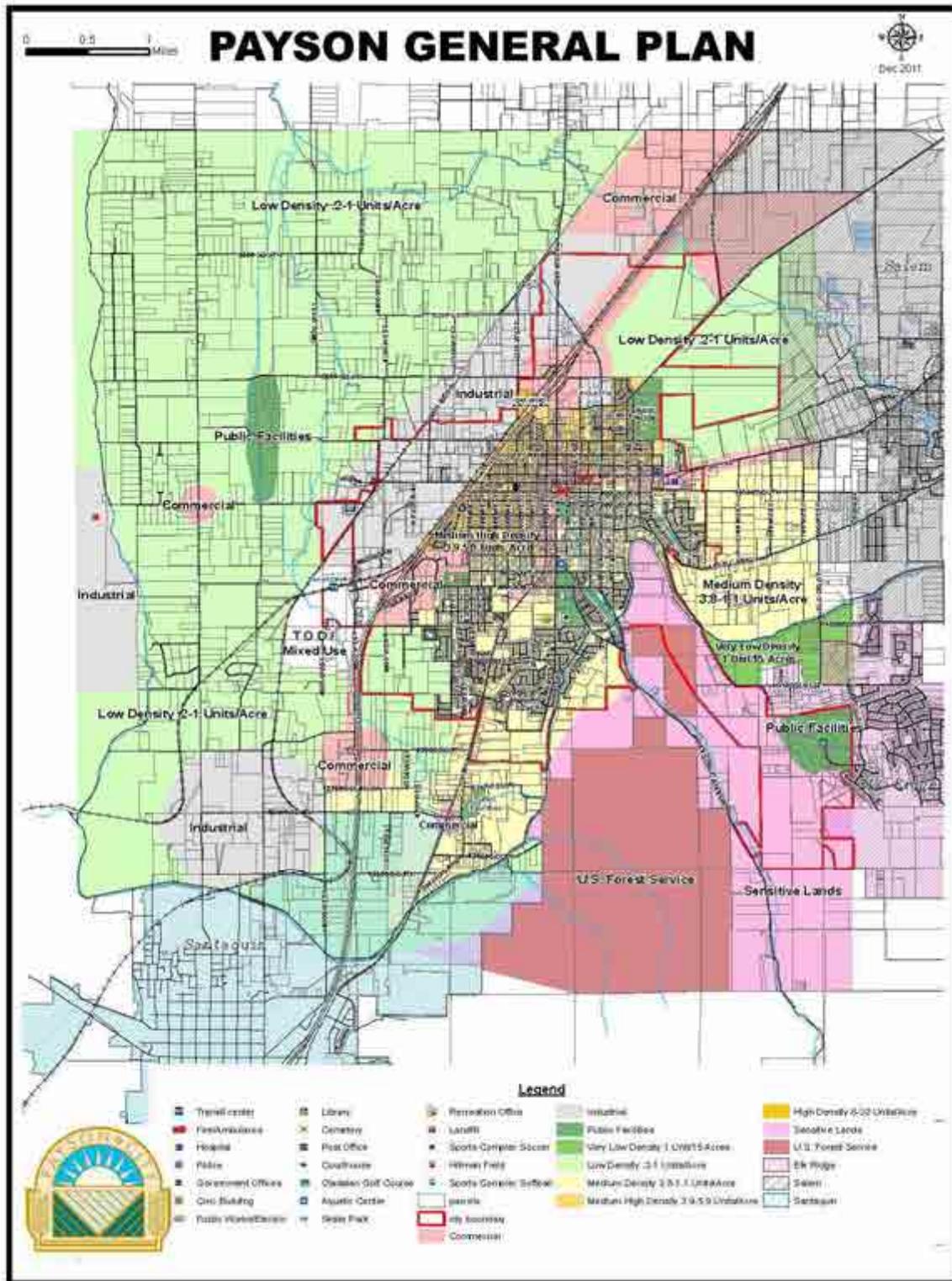


Table 2-1: Payson Build-out Projection

<b><i>Payson Build-Out Population Projections</i></b>						
<b><i>Zone</i></b>	<b><i>Land Use Classification</i></b>	<b><i>Acreage (Acre)</i></b>	<b><i>Density (Units/Acre)</i></b>	<b><i>Total Units</i></b>	<b><i>Residents* per Unit</i></b>	<b><i>Residents</i></b>
<b>A-5-H</b>	Agriculture	234	0.2	47	3.6	168
<b>R-1-A</b>	Residential-Agriculture	484.7	1	485	3.6	1745
<b>R-1-12</b>	Residential	228	3.6	821	3.6	2955
<b>R-1-10</b>	Residential	516.2	4.4	2271	3.6	8177
<b>R-1-9</b>	Residential	893.3	4.8	4288	3.6	15436
<b>R-1-75</b>	Residential	319.6	5.8	1854	3.6	6673
<b>R-2-75</b>	Residential	437.4	5.8	2537	3.6	9133
<b>R-MF</b>	Multi-Family Residential***	17.4	15-20	305	2.9	833
<b>PO-1</b>	Professional Office	39	2	78	0	0
<b>CC-1</b>	Central Commercial	58	0	0	0	0
<b>GC-1</b>	General Commercial	226.7	0	0	0	0
<b>S-1</b>	Special Highway Service	432.6	1	433	0	0
<b>I-1</b>	Light Industrial	604.2	2	1208	0	0
<b>I-2</b>	Heavy Industrial	11.1	1	11	0	0
<b>NC-1</b>	Neighborhood Commercial	1.1	0	0	0	0
<b>MH-1</b>	Mountain and Hillside	477.1	0.1	48	3.6	172
<b>MH-2</b>	Mountain and Hillside	391	1	391	3.6	1408
<b>P-C</b>	Planned Community**	774	4.8	3715	3.6	13375
<b><i>Projected Build-Out Population</i></b>						<b><i>60124</i></b>

\*Varying densities used are based on dwelling unit types as discussed in Section 2.3

\*\*Density for the P-C Zone has been calculated using the Bamberger Ranch approved concept plan (i.e. 3,563 units on 739.49 acres)

\*\*\*R-MF allows for 15-20 units/acre this study uses the average of 17.5 units/acre

## 2.3 Current & Future Growth

### *Current Growth Trends*

Forecasting the City’s future needs relies heavily upon projecting future population trends and economic growth. We have used the following data sources to project the near future’s growth rates for Payson City:

- Recent building permits issued
- 2010 Census information
- Historic population projections and trends
- Utah Governor’s Office of Planning and Budget, Demographics and Economic Analysis (DEA)

There are a few significant developments that are planned and will be beginning construction in the near future. These developments include Springside Meadows, South Meadows, Bamberger Ranch and Payson View Estates. These developments will

contribute significantly to the growth of Payson over the next 15 years. As such, an effort was made to evaluate what type of units would be built in these new developments. It is estimated that at least 60% of the newest developments are in the residential and planned community zones. Payson, will have mostly traditional single family dwellings, but there will be some multi-family units similar to townhomes and condominiums. These units are anticipated to have a lower occupancy rate (2.9) than Payson’s traditional rate (3.6).

*Future Growth Trends*

Due to the recent downturn in the housing development market, minimal population growth has occurred in the past several years. This year has brought a rejuvenated development market and growth is beginning to trend upward again. It is expected that slower growth will continue over the next couple of years as the market returns to relatively rapid growth rates similar to those seen prior to the recession. The major growth from Springside Meadows, South Meadows, Bamberger Ranch and Payson View Estates is expected to be experienced between 2015 and 2033 followed by a tapering off. Figure 2-3 illustrates the estimated population growth projections.

Figure 2-3 Projected Population Growth

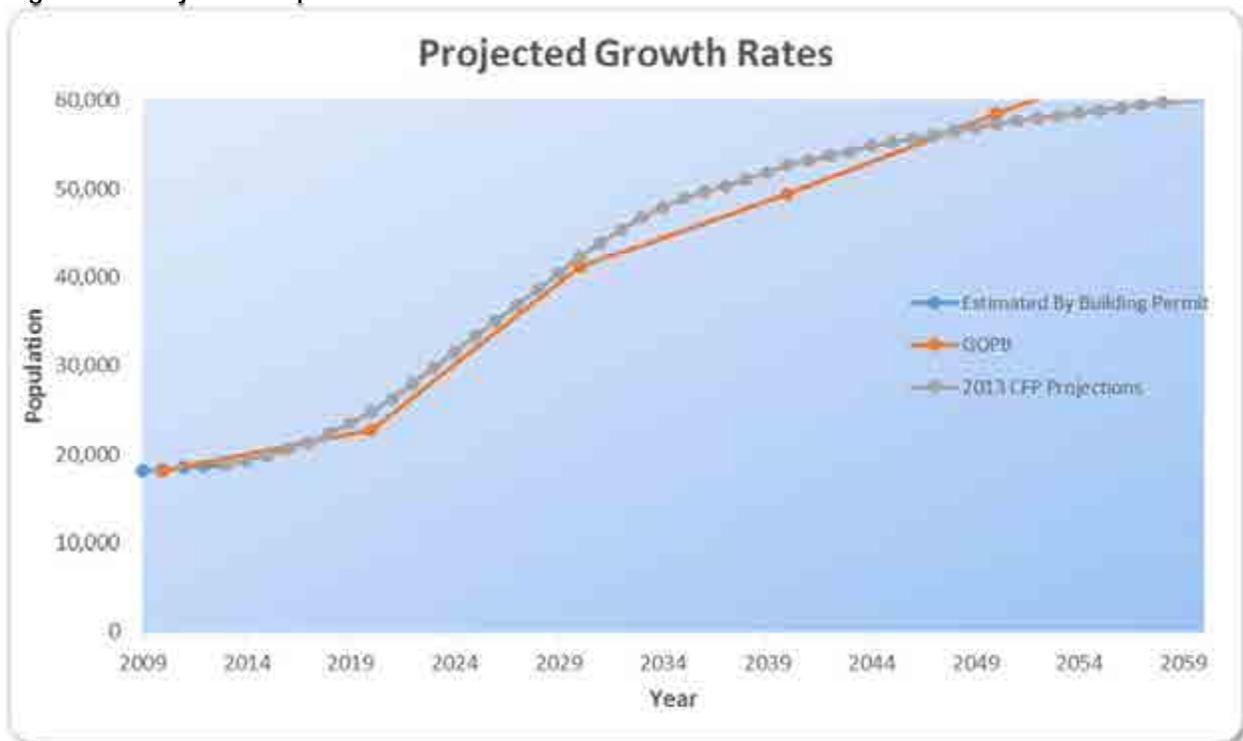


Table 2-2, gives the overall projected growth patterns as projected by various organizations (for comparison purposes) and as projected and accepted for this study for the next 20 years. Actual growth patterns and rates will vary with time and should be updated regularly. Appendix A contains the entire chart projecting population growth through build-out.

Table 2-2: Various Growth Projections for Payson City

<b>Population Estimate and Projected Growth Rate within Payson City Limits</b>					
<b>Fiscal Year</b>	<b>Estimated by Building Permit</b>	<b>Building permit growth Rate</b>	<b>2013 CFP Population Projections</b>	<b>2013 CFP Projected Growth Rate</b>	<b>GOPB Projected Population</b>
2010 Census	18,294				
2010	18,420	0.69%			18,294
2011	18,600	0.98%			
2012	18,762	0.87%			
2013	18,881	0.63%	18,881		
2014			19,353	2.50%	
2015			19,933	3.00%	
2016			20,631	3.50%	
2017			21,456	4.00%	
2018			22,422	4.50%	
2019			23,543	5.00%	
2020			24,838	5.50%	22,832
2021			26,328	6.00%	
2022			28,039	6.50%	
2023			29,722	6.00%	
2024			31,505	6.00%	
2025			33,238	5.50%	
2026			35,066	5.50%	
2027			36,819	5.00%	
2028			38,660	5.00%	
2029			40,400	4.50%	
2030			42,218	4.50%	41,144
2031			43,907	4.00%	
2032			45,443	3.50%	
2033			46,807	3.00%	
2034			47,977	2.50%	

**Planning Window**

A 20 year planning window is typical throughout the industry for purposes of sizing infrastructure unless build-out is expected to occur soon thereafter. Therefore, we will utilize a 20 year planning window for the elements of this study. However, as per Title 11, Chapter 36a, Impact Fees Act of the Utah State Code, the impact fee planning portion of this study will utilize a six year planning window.

Payson gets its water from springs to meet the culinary water needs of its customers, which include the majority of the residents, 41 institutional connections, 261 commercial/industrial customers, and 31 city connections. A few of the residents have private wells for their own water use. As Payson grows and new water services are added, water efficiency and cost effective implementation become increasingly important.

### 3.1 Definitions

ERC	Equivalent Residential Connection
gpm	gallons per minute
gpd	gallons per day
IFC	International Fire Code
PRV	Pressure Reducing Valve

#### *Equivalent Residential Connections (ERC)*

For the purposes of this study, flows generated by water users, such as businesses, schools, churches, and residential units have been converted to common units called ERC's. ERC's compare a water user's use rate to that of a single family dwelling. In this case, it is a comparison of total water use including both culinary and secondary. Available Payson City water usage records are documented in six month increments, so peak month evaluations are not available. As such, for purposes of this study, we will compare average annual use. Furthermore, secondary water is not individually metered at each connection at this time and not every resident is connected to the pressure irrigation system. Therefore, we have applied some reasonable assumptions to the available data to prepare a typical consumption rate for a single residential connection. Water use data can be found in Appendix B in Figure B.2.

#### *Residential Use*

Payson has 5,440 residential connections, but only 4,473 secondary connections, 121 of which are commercial. Although not all secondary connections are residential, the vast majority are and we will, therefore, use this number for calculation purposes to create a reasonable residential usage rate. Only approximately 18% (967 of 5,440) of the residential connections use culinary water for both indoor and outdoor uses. As such, we must adjust the average culinary water use downward in order to more closely represent indoor use. Therefore, using 0.2651 (see figure B.2- Pressure Irrigation Use) as the average outdoor use, residential use is calculated to be:

$$(725,740 \text{ gal/day} - (381.8 \text{ gal/day} \times (967-121)) / 5,440 + 381.8 =$$

$$\underline{\underline{455.8 \text{ gal/day/connection}}}$$

Therefore, ERC's can be calculated for additional land use types by comparing their water use to that of a typical residential unit (i.e. 455.8 gal/day ). As an example, the average daily water use for a commercial connection in Payson City is 3,339 gallons.

Therefore, to equate a typical commercial connection to a residential connection  $3,339/455.8 = 7.33$  ERC's. Detailed information regarding ERC calculations can be found in Appendix "B". The following ERC's were calculated from this analysis.

Single Family Residential:	1.00 ERC
Commercial:	7.33 ERC
Institutional:	1.14 ERC

### 3.2 Level of Service (LOS)

The current level of service that Payson applies to its water systems is governed by the minimum requirements dictated by the State of Utah Division of Drinking Water as well as the International Fire Code. Some of the requirements are as follows.

#### *Culinary water system requirements:*

- Maintain 20 psi in all areas of the system during peak instantaneous usage.
- Maintain 20 psi in all areas of the water system during maximum day usage with imposed fire flows.
- New service areas added after January 1, 2007 are required to meet the following additional requirements:
  - a) 30 psi during peak instantaneous demand;
  - b) 40 psi during peak day demand.
- Maintain 1,000 gpm fire flows for all homes under 3,600 sq. ft.
- Maintain 1,750 gpm fire flows for all homes between 3,600 and 4,800 sq. ft.
- Maintain adequate fire flows for all other buildings according to IFC standards.
- Maintain adequate storage for fire flows according to IFC standards.
- Maintain 400 gallons of storage per indoor ERC serviced.
- Maintain 2,528 gallons of storage per irrigated acre if a drinking water system supplies outdoor use.
- Maintain 800 gpd of source capacity per indoor ERC serviced.
- Maintain 3.97 gpm of source capacity per irrigated acre if a drinking water system supplies outdoor use.
- Maintain 0.45 acre-ft of water right per ERC and 1.87 acre-ft per irrigated acre if a drinking water system supplies outdoor use.

#### *Secondary water systems requirements:*

- Maintain 40 psi in all areas of the system during peak instantaneous usage.
- Maintain an average source capacity of 1.87 acre-feet per irrigated acre.
- Maintain a peak day source capacity of 3.96 gpm per irrigated acre.

In order to ensure that Payson can maintain this same level of service in the future, the master plan has been based upon water models generated using these requirements.

### 3.3 Existing Culinary System

For this study, Horrocks Engineers created a culinary water model that represents Payson City's existing system. The model was calibrated to represent existing conditions by ensuring that model results duplicated field pressure and flow test results. The City's existing culinary water system is illustrated in Figure 3-1. The system complies with state standards, except for the minor locations listed below. Implementation of the recommended improvements outlined below will bring the City into compliance with state standards. These improvements cannot be calculated into the impact fees or paid for by impact fees.

#### *Improvements Required to Eliminate Existing Deficiencies*

- A. County Road 1370 South Connection – The upsized water line connecting the 600,000 gallon tank is currently under construction. This pipe and the new PRV have been included in the model of the existing system. (Completed during preparation of this study)
- B. 400 South Pipe Replacement – Replace approximately 5,680 feet of 4" water line with 10 inch (from 600 East to 2170 West (County Road)) to increase fire flows.
- C. 1140 East Water Line – Install approximately 600 feet of 8" water line (from 100 North to 335 North). Looping the water line in 335 N into the existing system will increase fire flows.
- D. 300 North Water Line – Install approximately 600 feet of 8" water line (extending 300 North from 1000 East to 1140 East). Looping the water line in 300 North into the existing system will increase fire flows.
- E. Close Valve in Pommel Drive - Closing the water line between Riley Drive and 30 East will create a new pressure zone and, thus, increase pressures and fire flow in the Payson View Estates subdivision. (Completed during preparation of study)
- F. Close Valve in 500 East - Closing the water line between 1250 South and Payson Canyon Road will create a new pressure zone and, thus, increase pressures and fire flow in the Payson View Estates subdivision. (This was completed during the preparation of this study)

It should be noted that the UAMPS, Nebo Power Plant has a potential need to draw as much as 1.5 MGD from the culinary system. The need arises when the plant's typical water source, treatment plant effluent, does not meet standards. In the past, the plant drew water quickly from the system creating deficiencies in many other locations. This circumstance should be evaluated in-depth and measures taken to mitigate the effects.

### 3.4 Existing Secondary System

Payson City has an extensive secondary water system. It serves approximately 4,470 businesses and residential properties. Secondary facilities are shown in Figure 3-2. A model was constructed for purposes of this study. The model has been calibrated to match actual field test results. The system currently exhibits no deficiencies. However, future improvements need to be made to meet the future requirements of development.

### 3.5 Future Culinary Facilities

Analysis for this section was performed using the newly created model and the City's approved zoning and land use maps. The resulting infrastructure requirements to service the City during the study period are illustrated in the following master plan. See Figure 3-3. It should be noted that as development occurs it can have an adverse effect on other areas of the system. As such, the model should be updated regularly

Implementing the projects required to resolve existing deficiencies will not complete the improvements required to bring the system up to the proposed master plan. New development will burden the system beyond its current capacity. The projects identified below will add the additional capacity required to service new developments with culinary water. Furthermore, the culinary system facilities improvements, outlined in this chapter are primarily distribution system improvements. Future water sources and water right requirements were not analyzed for this study.

#### *Improvements Needed for Future Growth*

1. 600 East Pipe Replacement - Replace approximately 6,700 feet of 12" water line (from storage tanks to 400 South) with 18", as development occurs, to meet new fire flow needs.
2. 900 East Pipe Replacement - Replace approximately 400 feet of 2" water line (from 280 South to 200 South) with 8", as development occurs, to meet new fire flow needs.
3. 1260 South PRV – Construct a new PRV in 1260 South on the east side of the Highline Canal. This will create a new pressure zone for the Payson View Estates Subdivision and thus meet new fire flow and pressure needs.
4. Sunnyhill Circle Pipe Replacement – Replace approximately 500 feet of 4" water line with 8", as development occurs, to meet new fire flow needs.
5. 900 West Pipe Replacement – Replace approximately 900 feet of 4" water line with 8", as development occurs, to meet new fire flow needs.
6. 400 South Pipe Replacement – Replace approximately 550 feet of 6" water line (from 600 East to 700 East) with 18", as development occurs, to meet new fire flow needs and help with pipe velocities.
7. Payson Canyon Road Pipe Replacement – Replace approximately 1,900 feet of 12" water line (from Nebo Loop Road to 1100 South) with 18", as development occurs, to meet new fire flow needs.
8. 2.5 MG Tank – As Payson continues to grow and expand to the west, the City will need a new tank to service new developments. It is likely that a new water source will be required at this point as well.
9. 4800 West (County Road) Trunkline – Install approximately 7,400 feet of 10" water line (from 11900 South to 4600 West ), as development occurs, to service new connections.

10. 11200 South (County Road) Extension – Install approximately 1,350 feet of 8” water line (from 4250 West to 4800 West), as development occurs, to help with fire flow and service new connections
11. 4280 West (County Road) Trunkline – Install approximately 5,400 feet of 10” water line (from 1130 South to 12000 South), as development occurs, to service annexations and new connections.
12. 11900 South (County Road) Trunkline – Install approximately 3,100 feet of 10” water line (from 4800 West to 5200 West), as development occurs, to service new connections.
13. 4800 West (County Road) Trunkline – Install approximately 7,200 feet of 10” water line (from 11900 South to 11200 South), as development occurs, to service annexations and meet fire flow needs.
14. 11200 South (County Road) Connection Line – Install approximately 16,000 feet of 18” water line (from the new 2.5 MG Tank to 4800 West), as development occurs, to provide more storage, meet fire flow needs and service new connections.
15. 4600 West (County Road) Trunkline – Install approximately 9,500 feet of 12” water line (from 4600 West to 5200 West), as development occurs, to service the Redbridge annexation and new connections.
16. 9600 South (County Road) Trunkline – Install approximately 6,000 feet of 10” water line (from 900 North to 10000 South), as development occurs, to service new connections and meet fire flow needs.
17. 3950 West (County Road) Trunkline – Install approximately 8,600 feet of 8” water line (from 9600 South to 4400 West), as development occurs, to service new connections.
18. 2-5 MG Tank - As Payson continues to grow and expand to the East, the City will need a new tank to service new developments. It is likely that a new water source will be required at this point as well.
19. 2-5 MG Tank Connection - Install approximately 19,900 feet of 12” water line (from New Tank to 100 North), as development occurs, to service the East side of Payson as it continues to grow.

### 3.6 Future Secondary Facilities

Similar to the culinary water model, the secondary water model was created to reflect current conditions. And likewise, this section reflects analysis performed using the City’s approved zoning and land use maps. The resulting infrastructure requirements to service the City during the study period are illustrated in the master plan shown in Figure 3-4. It is illustrated that Payson has sufficient source for the foreseeable future.

#### *Improvements Needed for Future Growth*

1. 400 North (9970 South) Trunkline - Construct approximately 4,800 feet of 24” water line (Lateral 20 to 4800 West then north to 9600 South), as development occurs.
2. 930 West Extension – Construct approximately 10,400 feet of 10” water line (to 12000 South, west past I-15, north to 11900 South and west to 5200 West), as development occurs.

3. 4600 West Trunkline – Construct approximately 12,000 feet of 12” water line (from American Way to Lateral 20), as development occurs.
4. 5600 West Trunkline - Construct approximately 2,600 feet of 8” water line (from end of existing line northward), as development occurs.
5. Spring Lake Trunkline - Construct approximately 6,670 feet of 10” water line (from pump along Spring Lake Drive, south to 12400 South and west to I-15), as development occurs.
6. Connect to Treatment Plant – The connection is in place. It will be put into service as effluent becomes available.
7. 28 Acre-ft Reservoir – Construct a new 28 acre-ft reservoir and 4,000’ of 12” pipe.

### 3.7 Impact Fee Structure

As the population along the Wasatch Front grows and drinking water regulations expand, culinary water will become more expensive. Therefore, in order to supply its residents with sufficient water in the future, Payson City has chosen to implement a secondary water system in conjunction with its culinary water system.

The existing culinary system supplies both indoor and outdoor use for some of Payson’s residents. However, the secondary system provides nearly 80% of the City with its current level of service. Payson intends to maintain its current LOS by implementing improvements to both the culinary and secondary systems as development occurs. Therefore, all future culinary or secondary additions to the water system are attributable to future growth and should be funded by future growth. It is recommended that a water impact fee be established to assist in funding all future water system improvements required to service future development.

### 3.8 Culinary Capital Facilities Plan

The culinary capital facilities plan (CFP) indicates which improvements will be needed in the future and provides a planning level cost estimate for each improvement (see Appendix “B”). It provides important information relative to funding needed for future improvements and can be a valuable tool for City officials in the budgeting and planning process.

Recommended improvements to culinary water facilities have been separated into the following categories: short range (0-6 years) and medium range (7-12 years) and long range (12+ years). Table 3-1 summarizes the recommended improvement projects, their projected funding sources and their anticipated costs.

Cost estimates developed include acquiring sufficient right-of-way and completely installing new pipelines. Costs have also been included for design and construction engineering. Budgetary cost estimates for each improvement are found in Table 3-1 while graphical representations of the projects are shown in Figure 3-5.

**Table 3-1: Culinary Water Capital Facilities Estimates (2014 Dollars)**

<b>Segment</b>	<b>Estimate (Millions)</b>	<b>Funding Source</b>
<b>1-6Year Improvements</b>		
(B) 400 South Pipe Replacement	\$0.50	City
(C) 1140 East Water Line	\$0.05	City
(D) 300 East Water Line	\$0.05	City
(1) Peteetneet Pipe Replacement	\$0.81	Impact Fees
(2) 900 East Pipe Replacement	\$0.03	Impact Fees
(3) 1260 South PRV	\$0.08	Impact Fees
(4) Sunnyhill Circle Pipe Replacement	\$0.04	Impact Fees
(5) 900 West Pipe Replacement	\$0.07	Impact Fees
(6) 400 South Pipe Replacement	\$0.07	Impact Fees
(7) Payson Canyon Road Pipe Replacement	\$0.23	Impact Fees
<b>Subtotal</b>	<b>\$1.93</b>	
<b>7-12 Year Improvements</b>		
(8) 2.5 MG Tank	\$4.83	Impact Fees
(14) 11200 South Connection Line w/ PRV	\$1.60	Impact Fees
(9) 12000 South Trunkline w/ PRV	\$0.73	Impact Fees
(10) 930 West Extension	\$0.11	Impact Fees
<b>Subtotal</b>	<b>\$7.27</b>	
<b>12+ Year Improvements</b>		
(11) 4280 West Trunkline	\$0.48	Impact Fees
(12) 11900 South Trunkline	\$0.30	Impact Fees
(13) 4800 West Trunkline	\$0.62	Impact Fees
(15) 800 South Trunkline	\$1.03	Impact Fees
(16) 9600 South Trunkline	\$0.68	Impact Fees
(17) 3950 West Trunkline	\$0.69	Impact Fees
<b>Subtotal</b>	<b>\$3.80</b>	
<b>Total</b>	<b>\$13.00</b>	

### 3.9 Secondary Water Capital Facilities Plan

The secondary water CFP indicates which improvements will be needed in the future and also provides a planning level cost estimate referenced from Appendix “B”. Recommended improvements to the secondary system have been separated into the following categories: short range (1-6 years) and medium range (7-12 years) and long range (12+ years)

Figure 3-6 illustrated the projects required to complete the secondary water system. Table 3-2 summarizes the recommended improvement projects, their projected funding sources and their anticipated costs.

**Table 3-2: Secondary Water Capital Facilities Estimates (2014 Dollars)**

Segment	Estimate (Millions)	Funding Source
<b>1-6 Year Improvements</b>		
None Expected		
<b>Subtotal</b>	<b>\$0.00</b>	
<b>7-12 Year Improvements</b>		
(1) 400 North Trunkline	\$0.93	Impact Fees
(2) 930 West Extension	\$0.92	Impact Fees
(3) 4600 West Trunkline	\$1.16	Impact Fees
<b>Subtotal</b>	<b>\$3.01</b>	
<b>12+ Year Improvements</b>		
(4) 5600 West Trunkline	\$0.21	Impact Fees
(5) Spring Lake Trunkline	\$0.59	Impact Fees
(6) 28 Acre-ft Reservoir	\$4.05	Impact Fees
<b>Subtotal</b>	<b>\$4.85</b>	
<b>Total</b>	<b>\$7.86</b>	

Payson City provides sewer collection, treatment and disposal facilities to its residents. Collection lines run throughout the entire City and include a large trunkline that extends to both Elk Ridge and Woodland Hills. There is sufficient capacity at the Payson Treatment Plant to accommodate a portion of both cities flows. Sewer collected flows to the Payson City sewer treatment plant.

#### 4.1 Definitions

ERC	Equivalent Residential Connection
gpd	gallons per day
gpdpc	gallons per day per capita
MGD	Million gallons per day
NSA	North Service Area
SSA	South Service Area
d/D	Depth of flow / Diameter of Pipe
I & I	Infiltration and Inflow

##### *Equivalent Residential Connections (ERC)*

For the purposes of master planning, flows generated by wastewater producers, such as businesses, schools, churches, and residences, are generally converted to common units called ERC's. ERC's compare a wastewater user's use rate to that of a single family dwelling. However, since the sewer is only metered to record inflows to the treatment plant, there is insufficient data to accurately portray wastewater comparisons between different uses.

Therefore, for purposes of this study, sewer needs were calculated and modeled to provide capacity for residential-type usage throughout the city. Indoor water usage records were used for the purpose of determining sewer flow because it is assumed that all of the indoor water used will enter the sewer system. If more accurate data becomes available, the sewer master plan should be updated accordingly.

##### *Residential Use*

At the time of the last full year of data (2013), Payson had 5,440 residential culinary connections and used 117,108,000 gallons of water over the six 'winter' months. Therefore, indoor water use representing wastewater production can be calculated as:

$$(117,108,000 \text{ gal}/(365/2)) / 5,440 = \underline{117.96 \text{ gal/day/connection}}$$

Therefore, ERC's can be calculated for additional land use types by comparing their water use to that of a typical residential unit (i.e. 117.96 gal/day). As an example, the average daily water use for a commercial connection in Payson City is 2,560.8 gallons. Therefore, to equate a typical commercial connection to a residential connection  $2,560.8/117.96 = 21.71$  ERC's. Detailed information regarding ERC calculations can be found in Appendix "C". The following ERC's were calculated from this analysis.

Single Family Residential:	1.00 ERC
Commercial:	21.71 ERC
Institutional:	3.39 ERC

Furthermore, flows measured at the Payson Treatment Plant were used to calibrate the sewer model. Although flow data shows approximate average flows of 60 gpdpc and 3.6 people per connection, Utah’s state standard is 100 gpdpc. However, state rules allow using less than the standard when supported by water use records. Therefore, for purposes of this study, we have chosen to use the data illustrated by water use records and use 61 gpdpc and 3.6 people per connection, resulting in 220 gpd/connection. Using the state standard would cause unnecessary improvements to the system. Using Payson’s Sewer records, we have identified an average sewer collection rate for each defined zone. The following table illustrates these rates.

**Table 4-1: Average usage per Zone**

<i>Zone</i>	<i>Units per Acre</i>	<i>gpd per Acre</i>
<b>Mixed Use</b>	6	1,326
<b>Industrial</b>	1.5	332
<b>Commerical</b>	0.43	95
<b>Low Density Residential</b>	1	221
<b>Medium Density Residential</b>	3.8	840
<b>Medium High Density Residential</b>	5.9	1,304
<b>High Density Residential</b>	20	4,420

## 4.2 Level of Service (LOS)

The Utah Department of Environmental Quality (DEQ) provides guidelines and regulations for new sewer system design. These guidelines are useful in new construction, but measured flows have shown that these guidelines are considerably higher than actual flows and could be unnecessary for the City to implement. Design guidelines from other sewer districts were reviewed to help develop local standards. This report recommends the following criteria as the minimum level of service for the sewer system:

- 8” & 10” sewer lines are not to exceed 50% capacity at peak flow
- 12” and larger sewer lines are not to exceed 75% capacity at peak flow
- New collector lines must be capable of providing a minimum peak daily flow of 400 gallons per day per capita (gpdpc)
- New interceptors and outfall lines must be capable of providing a minimum peak daily flow of 250 gpdpc
- The minimum size of a collection line is 8-inches

In order to ensure that Payson can maintain this same level of service in the future, the master plan has been based upon these requirements.

### 4.3 Existing Sewer System

The Payson sewer system is comprised of one sewer system that all flows to the same treatment plant. As such it will be treated as single service district for purposes of service requirements and fee calculations. The plant currently treats an average daily flow of 1.50 MGD.

#### *Historical Sewer Flows*

The two main factors contribute to the amount of sewer flow in the system, including indoor water use and the I&I in the system. Because Payson has many relatively old sewer lines, it is likely that flows in the system include a significant amount of I&I. Projects geared toward renovating old sewer lines could help decrease the I&I resulting in increased capacity in the treatment plant.

Figure 4-1 illustrates the existing sewer system. It complies with the minimum LOS, except at a few minor locations. Implementation of the recommended improvements outlined below will bring the City into compliance with the minimum LOS. The following items have been identified as existing deficiencies. They are illustrated in Figure 4-3.

#### *Improvements Required to Eliminate Existing Deficiencies*

- A. Saddlebrook Drive Pipe Replacement – Replace 210 feet of the existing 8” line between State St and Cantel Dr. with a pipe sloped in the necessary direction of flow. Collected data indicates that this pipe segment has a reverse slope.
- B. 300 South Pipe Replacement – Replace 1,490 feet of existing sewer line that varies from 6” to 8” from 500 East to 100 East with 8” pipe. The existing pipe segments that are 6” exceed service capacity. It is possible that a 220’ segment in the middle of the line is 8” and could be salvaged to save costs on the project. This project is a good candidate for pipe bursting.
- C. 750 West Pipe Replacement – Replace 820 feet of 8” sewer line with new 12” sewer line, from Utah Avenue to 150 North in 600 West. This pipe segment is currently undersized.
- D. Treatment Plant Connection Pipe Replacement – Replace approximately 1,935 feet of 18” pipe line with 21”, from 900 North to the treatment plant. Because of its flat slope, the line is undersized.

### 4.4 Future Sewer Facilities

The Payson sewer model was created to reflect current conditions. Analysis for this section was performed using the City’s current, approved zoning and land use maps. The resulting pipe sizes are illustrated in the master plan shown in Figures 4-2.

### *Projected Sewer Flows*

The projected population, historical sewer flows, and standard design criteria were used to project the sewer flows, required future pipe sizes and potential lift stations for this master plan.

Sewer lines are required to provide capacities for peak hourly and maximum daily flows. This variation of flows is due to the hydrograph or peak that is created by the wastewater as it enters the pipes and is collected from different areas. The farther the wastewater travels in the system, the smaller the peaks become. The “peak” in the flow or hydrograph is referred to as the peaking factor (PF) and is higher for collector lines (8” and smaller) than for trunklines (larger than 8”) because the peak is reduced as the wastewater flows downstream.

PF’s for Payson are based upon the DEQ recommendations, historical wastewater flows, and standard design requirements. Payson sewer records show that the average wastewater flow in Payson is 60 gallons per day per capita (gpdpc). The SewerGEMS® model uses a hydrograph with a PF of 3.2 around the 9:00 a.m. hour. The state standard for collector lines PF is 4.0. With this study the loads in the sewer model were added to the interceptor lines; therefore, a lower PF of 3.2 is used.

Using the projected ERC’s and the peak daily flow, we have projected sewer flow requirements for the 20 year planning window. In summary, the number of ERC’s is projected to increase by 9,220 by the year 2034.

We have outlined above, projects that must be completed to resolve existing deficiencies. Completing those projects will not complete the improvements required to bring the system up to the proposed master plan. New development will burden the system beyond its current capacity. The projects identified below will add the additional capacity required to service new developments.

### *Improvements Needed for Future Growth*

1. Northeast Outfall Line (East Side) – Replace 2,000 feet of existing 27” pipe with 30”. Alternatively, a separate line could be run parallel to service the Bamberger Ranch area. The cost estimate represents replacing the 27” line with a 30” line
2. Northeast Outfall Line (I-15 Crossing) – Replace 450 feet of 15” pipe with 30” including a bore under I-15. Alternatively, a separate bore and line could be laid for the Bamberger Ranch area. The cost estimate represents replacing the 15” line with a 30” line.
3. Treatment Plant South Connection - Replace 650 feet of 27” pipe with 30”. Alternatively, a separate line could be laid for the Bamberger Ranch area. The cost estimate represents replacing the 27” line with a 30” line.
4. 1150 South Trunkline - Replace 870 feet of 12” pipe with 15” pipe, from 1050 West to Turf Farm Road (1270 West).

5. Turf Farm Rd (1270 W) Trunkline – Replace 1,890 feet of 12” pipe with 18”, from 800 South to 1150 South.
6. 800 South Trunkline – Replace 265 feet of 15” pipe with 18”, from Turf Farm Road to I-15.
7. I-15 East Offramp Trunkline – Replace 700 feet of 18” pipe with 21”, southward from 800 South.
8. American Way Trunkline - Replace 2,000 feet of 18” pipe with 21”, from Innovation Circle northward.
9. Utah Ave Trunkline – Replace 1,880 feet of 21” pipe with 24”, from 4400 West to 4050 West.
10. 400 North Trunkline – Replace 4,150 feet of 21” pipe with 24”, from 1100 West northward and eastward.
11. 400 North Trunkline Extension – Replace 2,250 feet of 18” pipe with 24”, from the 400 North Trunkline in 900 North to 3550 West.
12. Main Street Trunkline – Replace 2,920 feet of 18” pipe with 24”, from the intersection of 900 N/3550 W to the treatment plant.
13. West Annexation Area Trunkline – Construct 9,600 feet of 12” pipe to service the proposed west annexation area.
14. Northwest Regional Lift Station – Construct a new lift station to convey approximately 1,100 gpm.
15. Northeast Regional Lift Station – Construct a new lift station to convey approximately 1,000 gpm.

### 4.5 Sewer Capital Facilities Plan

The CFP indicates which improvements will be needed in the future to maintain Payson City’s current LOS for sewer infrastructure. It provides a planning level cost estimate for each improvement. Cost estimate details can be found in Appendix “C”. It provides important information relative to funding needed for future improvements and can be a valuable tool for City officials in the budgeting and planning process.

Recommended improvements to sewer facilities have been separated into the following categories: short range (0-6 years), medium range (7-12 years), and long range (12+ years). Table 4-1 summarizes the recommended improvement projects, projected priority, and their anticipated costs. Figure 4-3 illustrates the outlined projects graphically.

Cost estimates developed include acquiring sufficient right-of-way and completely installing new pipelines. Costs have also included design and construction engineering.

**Table 4-2: Sewer Capital Facilities Estimates (2014 Dollars)**

<b>Segment</b>	<b>Estimate (Millions)</b>	<b>Funding Source</b>
<b>1-6Year Improvements</b>		
(A) Saddlebrook Drive Pipe Replacement	\$0.06	City
(B) 300 South Pipe Replacement	\$0.40	City
(C) 750 West Pipe Replacement	\$0.23	City
(D) Treatment Plant Connection Pipe Replacement	\$0.57	City
(1) Northeast Outfall Line (East Side)	\$0.62	Impact Fees
(2) Northeast Outfall Line (I-15 Crossing)	\$0.14	Impact Fees
(3) Treatment Plant South Connection	\$0.20	Impact Fees
(4) 1150 South Trunkline	\$0.25	Impact Fees
(5) Turf Farm Rd (1270 W) Trunkline	\$0.55	Impact Fees
(6) 800 South Trunkline	\$0.08	Impact Fees
(7) I-15 East Offramp Trunkline	\$0.21	Impact Fees
<b>Subtotal</b>	<b>\$3.31</b>	
<b>7-12 Year Improvements</b>		
(8) American Way Trunkline	\$0.66	Impact Fees
(9) Utah Ave Trunkline	\$0.56	Impact Fees
(10) 400 North Trunkline	\$1.24	Impact Fees
(11) 400 North Trunkline Extension	\$0.73	Impact Fees
<b>Subtotal</b>	<b>\$3.19</b>	
<b>12+ Year Improvements</b>		
(12) Main Street Trunkline	\$0.91	Impact Fees
(13) West Annexation Area Trunkline	\$2.21	Impact Fees
(14) Northwest Regional Lift Station	\$1.01	Impact Fees
(15) Northeast Regional Lift Station	\$1.01	Impact Fees
<b>Subtotal</b>	<b>\$5.14</b>	
<b>Total</b>	<b>\$11.64</b>	

Impact fees provide communities with a legal means to obtain funds from new developments to finance the construction of infrastructure improvements that are needed to serve new growth. State law requires that impact fees be used only for projects made necessary by new growth and not for existing deficiencies. Throughout this study, existing conditions have been analyzed as well as future needs due to development and growth. This section defines the financial impact that new development will have on Payson City in the next six years and recommends impact fees for each element analyzed in this study. These fees will be needed to maintain the existing level of service throughout the City. It does not include existing deficiencies.

Impact fees charged for new development are based on the ERC's of proposed developments. Calculations for the impact fees are included in this chapter for each section of the capital facilities plan. According to the current state law, impact fees must use a six year planning window to encumber the funds. Therefore, the calculations in this chapter consider only those projects that are planned to be constructed or encumbered within the next six years. Budgetary costs were evaluated in future dollars (proposed project planning year dollars), assuming an inflation rate of 6% per year. They consider and assume current and future projects can be financed by 10 year loans with a 4% interest rate where necessary. Fees can be used for infrastructure or purchase of property for infrastructure.

### 5.1 Water Impact Fees

The water system capital facilities plan indicates scheduled improvements that should be implemented to upgrade Payson's water system (culinary and secondary). Table 3-1 and 3-2 outline the proposed projects and their costs in 2014 dollars. Projects that are projected to be constructed within the next six years and are eligible to be funded by impact fees total \$1,599,000 are detailed below and summarized in Table 5-1. The buildout model was run at 5 percent growth increments, to determine at what point each individual project would be needed.

#### Eligible Projects

*Peteetneet Pipe Replacement* – is project number 1 in the culinary water CFP. As Payson grows in this area, the existing 12" line will eventually no longer deliver sufficient fire flow to meet the necessary LOS. It is possible that an additional line could be installed as opposed to replacing the existing. However, for purposes of this study we have recommended to replace the existing 12" with an 18" line for facilities planning.

*900 East Pipe Replacement* – is project number 2 in the culinary water CFP. This project includes replacing 400 ft of 2" water line with 8". Although a 2" line does not meet current standards for new construction, it does deliver the required fire flows currently and is not considered an existing deficiency. Therefore, as development occurs and fire flows no longer meet the necessary LOS, the line should be replaced.

*1260 South PRV* – is project number 3 in the culinary water CFP. As this area of Payson grows, the Payson View Estates Subdivision will critical pressure and fire flow. In order to maintain the current LOS, a new pressure zone will need to be created.

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In order to maintain the current LOS, a new pressure zone will need to be created. Installing a PRV on the east side of the highline canal will create a new pressure zone for this area.

*Sunnyhill Circle Pipe Replacement* – is project number 4 in the culinary water CFP. This project is to replace 500 feet of existing 4” water line with new 8” water line. Although a 4” line does not meet current standards for new construction, it does deliver the required fire flows currently and is not considered an existing deficiency. Therefore, as development occurs and fire flows no longer meet the necessary LOS, the line should be replaced.

*900 West Pipe Replacement* – is project number 5 in the culinary water CFP. This project is to replace 900 feet of existing 4” water line with new 8” water line. Although a 4” line does not meet current standards for new construction, it does deliver the required fire flows currently and is not considered an existing deficiency. Therefore, as development occurs and fire flows no longer meet the necessary LOS, the line should be replaced.

*400 South Pipe Replacement* – is project number 6 in the culinary water CFP. This project is to replace 550 feet of existing 6” water line with new 18” water line. Although a 6” line does not meet current standards for new construction, it does deliver the required fire flows currently and is not considered an existing deficiency. Therefore, as development occurs and fire flows no longer meet the necessary LOS, the line should be replaced. A smaller pipe could deliver enough fire flow, but an 18” line reduces projected pipe velocities to below 5 ft/s and helps to prolong the life of the pipe.

*Payson Canyon Road Pipe Replacement* – is project number 7 in the culinary water CFP. It includes replacing 1,900 LF of 12” line with an 18” line. As Payson grows in this area, the existing 12” line will eventually no longer deliver sufficient fire flow to meet the current LOS. It is possible that an additional line could be installed as opposed to replacing the existing. However, for purposes of this study we have selected the replacement project for facilities planning.

**Table 5-1: Projected Project Needs**

Segment	Population when project will need to be completed	Estimated Construction year
(1) Peteetneet Pipe Replacement	26,706	2017
(2) 900 East Pipe Replacement	26,706	2017
(3) 1260 South PRV	24,710	2016
(4) Sunnyhill Circle Pipe Replacement	26,706	2017
(5) 900 West Pipe Replacement	26,706	2017
(6) 400 South Pipe Replacement	26,706	2017
(7) Payson Canyon Road Pipe Replacement	24,710	2016

**Table 5-2: Water Impact Fee Facilities Estimates**

<b>Segment</b>	<b>2014 Estimate (Millions)</b>	<b>Projected Constr. Year</b>	<b>Constr. Year Estimate</b>
(1) Peteetneet Pipe Replacement	\$0.81	2016	\$964,000
(2) 900 East Pipe Replacement	\$0.03	2017	\$38,000
(3) 1260 South PRV	\$0.08	2017	\$90,000
(4) Sunnyhill Circle Pipe Replacement	\$0.04	2017	\$48,000
(5) 900 West Pipe Replacement	\$0.07	2017	\$86,000
(6) 400 South Pipe Replacement	\$0.07	2017	\$79,000
(7) Payson Canyon Road Pipe Replacement	\$0.23	2016	\$258,000
<b>Total</b>	<b>\$1.33</b>		<b>\$1,563,000</b>

Figures 5-1 and 5-2 depict the water projects graphically.

*5 Million Gallon Storage Debt*

In addition, the City has an outstanding balance on 5 million gallons of storage in the new tanks in Payson Canyon. The tanks were constructed to replace 2 MG of existing storage and to provide 3 MG of storage for future development. As such, the tanks are intended to service approximately 7,500 ERC's of new development. Therefore, three fifths of the cost of the project (\$3,776,351.29) should be financed by 7,500 ERC's of excess capacity.

As a result, the 3 MG Storage Tank portion of the impact fee can be calculated as follows:

$$\$6,293,918.82 \times (3/5) / 7,500 \text{ ERC's} = \underline{\$503.51/\text{ERC (Use \$504)}}$$

This fee is calculated as a portion of the impact fee and will be added to the base impact fee calculated in the Table 5-3.

Impact Fee Calculation

As illustrated in Table 5-3, the required financing for the eight eligible projects is \$1,817,524.70. With the current water impact fee balance of \$283,206.79, these projects can be completed for \$900 per ERC and will serve 1,712 ERC's. Therefore, the total water impact fee will be:

$$\$900 + 504 = \underline{\$1,404 \text{ per ERC}}$$

ERC

This study considers one ERC to be a culinary water connection. Every unit that is built in Payson will have a culinary water connection and, therefore, the water impact fee will be charged per culinary water connection as indicated in the fee schedule.

Therefore, the following **water impact fees** are recommended:

**Table 5-4: Recommended Water Impact Fee Schedule**

	<b>Units</b>	<b>Impact Fee</b>
<b>Single Family Residential (1.00)</b>	Dwelling Unit	\$1,404
<b>Commercial (7.33 ERC's)</b>	Connection	\$10,292
<b>Institutional (1.14 ERC's)</b>	Connection	\$1,601

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<b>Table 5-3</b>													
<b>Base Water Impact Fee Analysis</b>													
Proposed Impact		\$900.00										Interest Rate	4.00%
Fiscal Year Ending	New ERC's*	Impact Fee Revenue	Impact Fee Analysis	Peteetneet Pipe Replacement (Financed for 10 years)	900 East Pipe Replacement	1260 South PRV	Sunnyhill Circle Pipe Replacement	900 West Pipe Replacement	400 South Pipe Replacement	Payson Canyon Road Pipe Replacement	Year End Net Income	Cumulative Balance	
			\$30,000.00	\$964,000.00	\$38,000.00	\$90,000.00	\$48,000.00	\$86,000.00	\$79,000.00	\$258,000.00			
												\$283,206.79	
2015	223	\$200,700.00	-\$5,000.00								\$195,700.00	\$478,906.79	
2016	223	\$200,700.00	-\$5,000.00	-\$118,852.47							\$76,847.53	\$555,754.32	
2017	261	\$234,900.00	-\$5,000.00	-\$118,852.47	-\$38,000.00	-\$90,000.00					-\$16,952.47	\$538,801.85	
2018	298	\$268,200.00	-\$5,000.00	-\$118,852.47			-\$48,000.00	-\$86,000.00			\$10,347.53	\$549,149.38	
2019	335	\$301,500.00	-\$5,000.00	-\$118,852.47					-\$79,000.00		\$98,647.53	\$647,796.91	
2020	372	\$334,800.00	-\$5,000.00	-\$118,852.47						-\$258,000.00	-\$47,052.47	\$600,744.44	
2021		\$0.00		-\$118,852.47							-\$118,852.47	\$481,891.97	
2022		\$0.00		-\$118,852.47							-\$118,852.47	\$363,039.50	
2023		\$0.00		-\$118,852.47							-\$118,852.47	\$244,187.03	
2024		\$0.00		-\$118,852.47							-\$118,852.47	\$125,334.56	
2025		\$0.00		-\$118,852.47							-\$118,852.47	\$6,482.09	
2026		\$0.00									\$0.00	\$6,482.09	
2027		\$0.00									\$0.00	\$6,482.09	
Totals	1712	\$1,540,800.00	-\$30,000.00	-\$1,188,524.70	-\$38,000.00	-\$90,000.00	-\$48,000.00	-\$86,000.00	-\$79,000.00	-\$258,000.00			
		<b>Portion of Impact Fee</b>	\$14.86	\$588.53	\$18.82	\$44.57	\$23.77	\$42.59	\$39.12	\$127.76			
		<b>Total Revenue:</b>	\$1,540,800.00								<b>Total Finance Costs:</b>	\$1,817,524.70	
											<b>Total Costs:</b>	\$1,593,000.00	
											<b>Total Interest:</b>	\$224,524.70	

\*Notes: 1) Project costs are in future dollars (assuming 6% inflation)  
 2) ERC's are projected for full Fiscal Years 2014/15 to 2019/20

### 5.2 Sewer Impact Fees

The sewer capital facilities plan identifies \$3.31 million (2014 dollars) of improvements that need to be made to the system in the next 6 years. However, several of the improvements are due to existing deficiencies as identified in Chapter 4. Sewer impact fees can only supplement system improvements due to growth within the City. Therefore, this analysis has identified approximately \$2,050,000 of improvements (2014 dollars) that can be classified as system improvements.

The projects eligible for impact fees and projected to be constructed in the next six years are outlined below and summarized in Table 5-4.

*Northeast Outfall Line (East Side)* – is project number 1 in the sewer capital facilities plan. This project includes upsizing the existing 27” to a 30” outfall line to accommodate future flows from the Bamberger Subdivision.

*Northeast Outfall Line (I-15 Crossing)*– is project number 2 in the sewer capital facilities plan. It includes upsizing the existing 15” crossing under I-15 to accommodate a 30” trunkline.

*Treatment Plant South Connection* – is project number 3 in the sewer capital facilities plan. It includes completing the 30” upsize from I-15 to the treatment plant to accommodate future flows from Bamberger.

*1150 South Trunkline* – is project number 4 in the sewer capital facilities plan. It includes upsizing the 12” line to a 15” line. This project in conjunction with 5,6 and 7 will complete a upsized trunkline to serve future growth in southwest Payson.

*Turf Farm Rd (1270 W) Trunkline* - is project number 5 in the storm drain capital facilities plan. It includes upsizing the 12” line to a 15” line.

*800 South Trunkline* – is project number 6 in the storm drain capital facilities plan. It includes upsizing the 12” line to a 15” line.

*I-15 East Offramp Trunkline* – is project number 7 in the storm drain capital facilities plan. It includes upsizing the 12” line to a 15” line.

**Table 5-5: Sewer Impact Fee Facilities Estimates**

<b>Segment</b>	<b>2014 Estimate (Millions)</b>	<b>Projected Constr. Year</b>	<b>Constr. Year Estimate (Millions)</b>
(1) Northeast Outfall Line (East Side)	\$0.62	2016	\$0.70
(2) Northeast Outfall Line (I-15 Crossing)	\$0.14	2016	\$0.16
(3) Treatment Plant South Connection	\$0.20	2016	\$0.23
(4) 1150 South Trunkline	\$0.25	2018	\$0.31
(5) Turf Farm Rd (1270 W) Trunkline	\$0.55	2018	\$0.69
(6) 800 South Trunkline	\$0.08	2018	\$0.10
(7) I-15 East Offramp Trunkline	\$0.21	2018	\$0.26
<b>Total</b>	<b>\$2.05</b>		<b>\$2.45</b>

*Sewer Debt*

In addition, the City has outstanding debt on three projects that qualify for impact fee funding. They are as follows.

East Side Sewer Outfall Line - The East Side Sewer Outfall Line Project provided a new pipe to service not only existing connections on the east side, but also future growth. It provides connections to Payson, Woodland Hills and Elk Ridge. It was designed to service 1,562 existing ERC's and 4,100 additional ERC's for future development (5,662 total). Therefore, only 72.41% of the cost of the project (\$2,400,341.50) should be financed by 4,100 future ERC's.

As a result, the additional trunkline capacity of the impact fee can be calculated as follows:

$$\$3,315,000 \times (4,100/5,662) / 4,100 \text{ ERC's} = \underline{\$585.46/\text{ERC (Use \$586)}}$$

SUVMWA Land Purchase – As a member of the South Utah Valley Municipal Water Association, Payson purchased a proportionate share of land for a future shared sewer treatment plant. Since Payson's existing plant can expand to 3 MGD, we will assume that the new SUVMWA plant would treat all additional flows at build-out (4 MGD). Therefore, the entire SUVMWA land debt (\$1,101,326.50) is eligible for impact fee funding. Calculations for its portion of the impact fee are as follows.

$$4 \text{ MGD} \times 1 \text{ ERC}/118 \text{ gpd} = 33,898 \text{ ERC's (future)}$$

$$\$1,101,326.50/33,898 \text{ ERC's} = \underline{\$32.49/\text{ERC (use \$33)}}$$

## CHAPTER 5 – IMPACT FEE PLAN & ANALYSIS

2001 Digester Expansion – In 2001, Payson constructed treatment plant upgrades that cost a total of \$7,479,000. Part of the upgrades was a digester expansion that increased plant capacity from 1.5 to 3.0 MGD. The cost of the digester expansion portion of the project was \$3,740,000 and was constructed to serve 12,712 future ERC's (118 gpd/ERC). Therefore, this portion of the impact fee can be calculated to be:

$$\$3,740,000 / 12,712 \text{ ERC's} = \$294.21/\text{ERC} \text{ (use } \$295\text{)}$$

These fees are calculated as a portion of the impact fee and will be added to the base impact fee calculated in the Table 5-6.

### Impact Fee Calculation

As illustrated in Table 5-6, the required financing for the eight eligible projects is \$2,951,300.29. With the current sewer impact fee balance of \$357,030.22, these projects can be completed for \$910 per ERC and will serve 2,867 ERC's. Table 5-6 illustrates how these improvements will be financed and paid for by the projected 2,867 new ERC's in the next 6 years. ERC's were projected using the projected population increases and evaluated proportionately. Figure 5-3 illustrates the IFFP projects graphically.

Therefore, the total sewer impact fee will be:

$$\$910 + \$586 + \$33 + \$295 = \underline{\$1,824 \text{ per ERC}}$$

Although most institutional facilities are relatively similar in their water use and sewer generation, it is clear that there are many different types of commercial developments with a wide range of sewer impacts. It is also apparent that water meter size is not an accurate indicator of impact. Further, historical sewer data does not provide enough detail to accurately differentiate between sewer impacts of different types of businesses. As such, it is recommended that commercial sewer impacts be calculated separately for each new development. Therefore, the development ordinance will need to be updated to require developers to provide reasonable sewer impact data for each proposed development in the form of gallons per day per commercial connection. The City will equate the data directly to ERC's required by the development as calculated in Chapter 4 (i.e. 1 ERC = 117.96 gal/connection/day) and calculate \$1,824 per ERC with a minimum of \$1,824 per connection. In this way, each commercial development will pay an impact fee that is fair and proportionate to its impact to Payson City's sewer system.

Therefore, the following **sewer impact fees** are recommended:

**Table 5-6: Recommended Sewer Impact Fee Schedule**

	<b>Units</b>	<b>Impact Fee</b>
<b>Single Family Residential (1.00)</b>	Dwelling Unit	\$1,824
<b>Commercial (Variable ERC's)</b>	Connection	\$1,824 (min.) per ERC
<b>Institutional (3.39 ERC's)</b>	Connection	\$6,183

CHAPTER 5 – IMPACT FEE PLAN & ANALYSIS

Table 5-6

Base Sewer Impact Fee Analysis

Proposed Impact		\$910.00									Interest Rate	4.00%
Fiscal Year Ending	New ERC's*	Impact Fee Revenue	Impact Fee Analysis	Northeast Outfall Line (East Side) (Financed for 10 years)	Northeast Outfall Line (I-15 Crossing)	Treatment Plant South Connection	1150 South Trunkline (Financed for 10 years)	Turf Farm Road Trunkline (Financed for 10 years)	800 South Trunkline (Financed for 10 years)	I-15 East Offramp Trunkline (Financed for 10 years)	Year End Net Income	Cumulative Balance
			\$30,000.00	\$695,000.00	\$156,000.00	\$226,000.00	\$313,000.00	\$691,000.00	\$97,000.00	\$260,000.00		\$357,030.22
2015	337	\$306,670.00	-\$5,000.00								\$301,670.00	\$658,700.22
2016	394	\$358,540.00	-\$5,000.00	-\$85,687.21	-\$156,000.00	-\$226,000.00					-\$114,147.21	\$544,553.01
2017	450	\$409,500.00	-\$5,000.00	-\$85,687.21							\$318,812.79	\$863,365.81
2018	506	\$460,460.00	-\$5,000.00	-\$85,687.21			-\$38,590.07	-\$85,194.04	-\$11,959.22	-\$32,055.65	\$201,973.82	\$1,065,339.63
2019	562	\$511,420.00	-\$5,000.00	-\$85,687.21			-\$38,590.07	-\$85,687.21	-\$11,959.22	-\$32,055.65	\$252,440.65	\$1,317,780.28
2020	618	\$562,380.00	-\$5,000.00	-\$85,687.21			-\$38,590.07	-\$85,687.21	-\$11,959.22	-\$32,055.65	\$303,400.65	\$1,621,180.94
2021		\$0.00		-\$85,687.21			-\$38,590.07	-\$85,687.21	-\$11,959.22	-\$32,055.65	-\$253,979.35	\$1,367,201.59
2022		\$0.00		-\$85,687.21			-\$38,590.07	-\$85,687.21	-\$11,959.22	-\$32,055.65	-\$253,979.35	\$1,113,222.24
2023		\$0.00		-\$85,687.21			-\$38,590.07	-\$85,687.21	-\$11,959.22	-\$32,055.65	-\$253,979.35	\$859,242.90
2024		\$0.00		-\$85,687.21			-\$38,590.07	-\$85,687.21	-\$11,959.22	-\$32,055.65	-\$253,979.35	\$605,263.55
2025		\$0.00		-\$85,687.21			-\$38,590.07	-\$85,687.21	-\$11,959.22	-\$32,055.65	-\$253,979.35	\$351,284.21
2026		\$0.00					-\$38,590.07	-\$85,687.21	-\$11,959.22	-\$32,055.65	-\$168,292.14	\$182,992.07
2027		\$0.00					-\$38,590.07	-\$85,687.21	-\$11,959.22	-\$32,055.65	-\$168,292.14	\$14,699.93
2028		\$0.00									\$0.00	\$14,699.93
2029		\$0.00									\$0.00	\$14,699.93
<b>Totals</b>	<b>2867</b>	<b>\$2,608,970.00</b>	<b>-\$30,000.00</b>	<b>-\$856,872.06</b>	<b>-\$156,000.00</b>	<b>-\$226,000.00</b>	<b>-\$385,900.66</b>	<b>-\$856,378.90</b>	<b>-\$119,592.22</b>	<b>-\$320,556.46</b>		
		<b>Portion of Impact Fee</b>	<b>\$9.25</b>	<b>\$264.21</b>	<b>\$48.10</b>	<b>\$69.68</b>	<b>\$118.99</b>	<b>\$264.05</b>	<b>\$36.87</b>	<b>\$98.84</b>		
		<b>Total Revenue:</b>	<b>\$2,608,970.00</b>								<b>Total Finance Costs:</b>	<b>\$2,951,300.29</b>
											<b>Total Costs:</b>	<b>\$2,468,000.00</b>
											<b>Total Interest:</b>	<b>\$483,300.29</b>

\*Notes: 1) Project costs are in future dollars (assuming 6% inflation)  
 2) ERC's are projected for full Fiscal Years 2014/15 to 2019/20

Appendix "A"

**Demographics**

Figure A.1

### Projected New Units Per Element Per Year

June 2014

Fiscal Year Ending	Projected Population Increase	Water ERC's		Sewer ERC's	
		Total*	New	Total*	New
2013		7,444		11,245	
2014	2.50%	7,630	186	11,526	281
2015	3.00%	7,853	223	11,863	337
2016	3.50%	8,114	261	12,257	394
2017	4.00%	8,412	298	12,707	450
2018	4.50%	8,747	335	13,213	506
2019	5.00%	9,119	372	13,775	562
2020	5.50%	9,528	409	14,393	618
2021	6.00%	9,975	447	15,068	675
2022	6.50%	10,459	484	15,799	731
2023	6.00%	10,906	447	16,474	675
2024	5.50%	11,315	409	17,092	618
2025	5.00%	11,687	372	17,654	562
2026	4.50%	12,022	335	18,160	506
2027	4.00%	12,320	298	18,610	450
2028	3.50%	12,581	261	19,004	394
2029	3.00%	12,804	223	19,341	337
2030	3.00%	13,027	223	19,678	337
2031	2.50%	13,213	186	19,959	281
2032	2.50%	13,399	186	20,240	281
2033	2.50%	13,585	186	20,521	281
2034	2.00%	13,734	149	20,746	225

Note: 2013 ERC's were calculated using the ERC's per classification provided in Tables B.2 & C.2

Appendix "B"

**Water**

Figure B.1

Payson City Build-out Water ERC projections					
Land Use Classification	Area (Acre)	Density (Units/Acre)	Total Units	ERC's per Unit*	Total ERC's (rounded)
Agriculture	234.0	0.2	47	1.0	47
Residential-Agriculture	484.7	1.0	485	1.0	485
Residential (R-1-12)	228.0	3.6	821	1.0	821
Residential (R-1-10)	516.2	4.4	2,271	1.0	2,271
Residential (R-1-9)	893.3	4.8	4,288	1.0	4,288
Residential (R-1-75)	319.6	5.8	1,854	1.0	1,854
Residential (R-2-75)	437.4	5.8	2,537	1.0	2,537
Multi-Family Residential	17.4	15-20	305	1.0	305
Professional Office	39.0	2.0	78	7.3	572
Central Commercial	58.0	1.0	58	7.3	425
General Commercial	226.7	1.0	227	7.3	1,662
Special Highway Service	432.6	1.0	433	7.3	3,171
Light Industrial	604.2	2.0	1,208	7.3	8,858
Heavy Industrial	11.1	1.0	11	7.3	81
Neighborhood Commercial	1.1	1.0	1	7.3	8
Mountain and Hillside (MH-1)	477.1	0.1	48	1.0	48
Mountain and Hillside (MH-2)	391.0	1.0	391	1.0	391
Planned Community	774.0	4.5	3,483	1.0	3,483
<b>Totals</b>	<b>6,145.4</b>		<b>18,544</b>		<b>31,305</b>

Figure B.2

Annual Water Consumption (thousand gallons)					
Year	Churchs, Schools	City	Commercial/Industrial	Residential	Pressure Irrigation
2011	3,545	0	158,508	165,807	575,131
2012	6,112	29,750	341,894	221,659	857,646
2013	7,780	7,523	318,100	264,895	623,358
2014	3,045	0	95,298	178,998	
Number of Connections					
2013	41	31	261	5,440	4,473
Existing ERC's	46.8	45.2	1,911.9	5,440	
Indoor and Outdoor Use (gallons per day per connection)					
2013	519.9	664.9	3339.1	133.4	381.8
(gpm)	0.3610	0.4617	2.3188	0.0926	0.2651
(peak)	Not enough data				
Adjusted Residential Use:				455.8	
ERC	1.14	1.46	7.33	1.00	

Figure B.3 (7 pages)

**Culinary Water Capital Facilities Projects  
Cost Estimates**

June 2014

**(B) 400 SOUTH PIPE REPLACEMENT**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$18,744	1	\$18,744.00
Traffic Control (6%)	LS	\$18,744	1	\$18,744.00
10" PVC Installed	LF	\$55	5,680	\$312,400.00
<b>Subtotal:</b>				<b>\$349,888.00</b>
Contingency (25%)				\$87,472.00
<b>Total Construction Cost</b>				<b>\$437,360.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$65,604.00
<b>Total Project Cost</b>				<b>\$502,964.00</b>
2015			<b>Cost</b>	<b>\$533,000.00</b>

**(C) 1140 EAST WATER LINE**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$1,800	1	\$1,800.00
Traffic Control (6%)	LS	\$1,800	1	\$1,800.00
8" PVC Installed	LF	\$50	600	\$30,000.00
<b>Subtotal:</b>				<b>\$33,600.00</b>
Contingency (25%)				\$8,400.00
<b>Total Construction Cost</b>				<b>\$42,000.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$6,300.00
<b>Total Project Cost</b>				<b>\$48,300.00</b>
2015			<b>Cost</b>	<b>\$51,000.00</b>

**(D) 300 EAST WATER LINE**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$1,800	1	\$1,800.00
Traffic Control (6%)	LS	\$1,800	1	\$1,800.00
8" PVC Installed	LF	\$50	600	\$30,000.00
<b>Subtotal:</b>				<b>\$33,600.00</b>
Contingency (25%)				\$8,400.00
<b>Total Construction Cost</b>				<b>\$42,000.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$6,300.00
<b>Total Project Cost</b>				<b>\$48,300.00</b>
2015			<b>Cost</b>	<b>\$51,000.00</b>

**Figure B.3 (7 pages)**

**(1) PETEETNEET PIPE REPLACEMENT**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$30,150	1	\$30,150.00
Traffic Control (6%)	LS	\$30,150	1	\$30,150.00
18" PVC Installed	LF	\$75	6,700	\$502,500.00
<b>Subtotal:</b>				<b>\$562,800.00</b>
Contingency (25%)				\$140,700.00
<b>Total Construction Cost</b>				<b>\$703,500.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$105,525.00
<b>Total Project Cost</b>				<b>\$809,025.00</b>
			<b>2016 Cost</b>	<b>\$909,000.00</b>

**(2) 900 EAST PIPE REPLACEMENT**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$1,200	1	\$1,200.00
Traffic Control (6%)	LS	\$1,200	1	\$1,200.00
8" PVC Installed	LF	\$50	400	\$20,000.00
<b>Subtotal:</b>				<b>\$22,400.00</b>
Contingency (25%)				\$5,600.00
<b>Total Construction Cost</b>				<b>\$28,000.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$4,200.00
<b>Total Project Cost</b>				<b>\$32,200.00</b>
			<b>2017 Cost</b>	<b>\$38,000.00</b>

**(3) 1260 SOUTH PRV**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$3,000	1	\$3,000.00
Traffic Control (6%)	LS	\$3,000	1	\$3,000.00
12" PRV	LS	\$50,000	1	\$50,000.00
<b>Subtotal:</b>				<b>\$56,000.00</b>
Contingency (25%)				\$14,000.00
<b>Total Construction Cost</b>				<b>\$70,000.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$10,500.00
<b>Total Project Cost</b>				<b>\$80,500.00</b>
			<b>2017 Cost</b>	<b>\$96,000.00</b>

Figure B.3 (7 pages)

(4) SUNNYHILL CIRCLE PIPE REPLACEMENT

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$1,500	1	\$1,500.00
Traffic Control (6%)	LS	\$1,500	1	\$1,500.00
8" PVC Installed	LF	\$50	500	\$25,000.00
<b>Subtotal:</b>				<b>\$28,000.00</b>
Contingency (25%)				\$7,000.00
<b>Total Construction Cost</b>				<b>\$35,000.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$5,250.00
<b>Total Project Cost</b>				<b>\$40,250.00</b>
			2018	<b>Cost</b>
				<b>\$51,000.00</b>

(5) 900 WEST PIPE REPLACEMENT

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$2,700	1	\$2,700.00
Traffic Control (6%)	LS	\$2,700	1	\$2,700.00
8" PVC Installed	LF	\$50	900	\$45,000.00
<b>Subtotal:</b>				<b>\$50,400.00</b>
Contingency (25%)				\$12,600.00
<b>Total Construction Cost</b>				<b>\$63,000.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$9,450.00
<b>Total Project Cost</b>				<b>\$72,450.00</b>
			2018	<b>Cost</b>
				<b>\$91,000.00</b>

(6) 400 SOUTH PIPE REPLACEMENT

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$2,475	1	\$2,475.00
Traffic Control (6%)	LS	\$2,475	1	\$2,475.00
18" PVC Installed	LF	\$75	550	\$41,250.00
<b>Subtotal:</b>				<b>\$46,200.00</b>
Contingency (25%)				\$11,550.00
<b>Total Construction Cost</b>				<b>\$57,750.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$8,662.50
<b>Total Project Cost</b>				<b>\$66,412.50</b>
			2019	<b>Cost</b>
				<b>\$89,000.00</b>

Figure B.3 (7 pages)

(7) PAYSON CANYON ROAD PIPE REPLACEMENT

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$8,550	1	\$8,550.00
Traffic Control (6%)	LS	\$8,550	1	\$8,550.00
18" PVC Installed	LF	\$75	1,900	\$142,500.00
<b>Subtotal:</b>				<b>\$159,600.00</b>
Contingency (25%)				\$39,900.00
<b>Total Construction Cost</b>				<b>\$199,500.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$29,925.00
<b>Total Project Cost</b>				<b>\$229,425.00</b>
			2020	<b>Cost</b>
				<b>\$325,000.00</b>

(8) 2.5 MG TANK

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$180,000	1	\$180,000.00
Traffic Control (6%)	LS	\$180,000	1	\$180,000.00
2.5 MG Tank	LS	\$3,000,000	1	\$3,000,000.00
<b>Subtotal:</b>				<b>\$3,360,000.00</b>
Contingency (25%)				\$840,000.00
<b>Total Construction Cost</b>				<b>\$4,200,000.00</b>
Land Acquisition (5 Acres)				\$600,000
Design & Construction Engineering (15%)				\$630,000.00
<b>Total Project Cost</b>				<b>\$4,830,000.00</b>
			2022	<b>Cost</b>
				<b>\$7,698,000.00</b>

(9) 120000 SOUTH TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$24,420	1	\$24,420.00
Traffic Control (6%)	LS	\$24,420	1	\$24,420.00
PRV	LS	\$50,000	1	\$50,000.00
10" PVC Installed	LF	\$55	7,400	\$407,000.00
<b>Subtotal:</b>				<b>\$505,840.00</b>
Contingency (25%)				\$126,460.00
<b>Total Construction Cost</b>				<b>\$632,300.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$94,845.00
<b>Total Project Cost</b>				<b>\$727,145.00</b>
			2025	<b>Cost</b>
				<b>\$1,380,000.00</b>

Figure B.3 (7 pages)

(10) 930 WEST EXTENSION

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$4,050	1	\$4,050.00
Traffic Control (6%)	LS	\$4,050	1	\$4,050.00
8" PVC Installed	LF	\$50	1,350	\$67,500.00
<b>Subtotal:</b>				<b>\$75,600.00</b>
Contingency (25%)				\$18,900.00
<b>Total Construction Cost</b>				<b>\$94,500.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$14,175.00
<b>Total Project Cost</b>				<b>\$108,675.00</b>
			2026	<b>Cost</b> <b>\$219,000.00</b>

(11) 4280 WEST TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$17,820	1	\$17,820.00
Traffic Control (6%)	LS	\$17,820	1	\$17,820.00
10" PVC Installed	LF	\$55	5,400	\$297,000.00
<b>Subtotal:</b>				<b>\$332,640.00</b>
Contingency (25%)				\$83,160.00
<b>Total Construction Cost</b>				<b>\$415,800.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$62,370.00
<b>Total Project Cost</b>				<b>\$478,170.00</b>
			2027	<b>Cost</b> <b>\$1,020,000.00</b>

(12) 11900 SOUTH TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$17,820	1	\$17,820.00
Traffic Control (6%)	LS	\$17,820	1	\$17,820.00
10" PVC Installed	LF	\$55	3,100	\$170,500.00
<b>Subtotal:</b>				<b>\$206,140.00</b>
Contingency (25%)				\$51,535.00
<b>Total Construction Cost</b>				<b>\$257,675.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$38,651.25
<b>Total Project Cost</b>				<b>\$296,326.25</b>
			2028	<b>Cost</b> <b>\$670,000.00</b>

**Figure B.3 (7 pages)**

**( 1 3 ) 4800 WEST TRUNKLINE**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$17,820	1	\$17,820.00
Traffic Control (6%)	LS	\$17,820	1	\$17,820.00
10" PVC Installed	LF	\$55	7,200	\$396,000.00
<b>Subtotal:</b>				<b>\$431,640.00</b>
Contingency (25%)				\$107,910.00
<b>Total Construction Cost</b>				<b>\$539,550.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$80,932.50
<b>Total Project Cost</b>				<b>\$620,482.50</b>
			2029	<b>Cost \$1,487,000.00</b>

**( 1 4 ) 1 1 2 0 0 SOUTH CONNECTION LINE W/ PRV**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$72,000	1	\$72,000.00
Traffic Control (6%)	LS	\$72,000	1	\$72,000.00
PRV	LS	\$50,000	1	\$50,000.00
18" PVC Installed	LF	\$75	16,000	\$1,200,000.00
<b>Subtotal:</b>				<b>\$1,394,000.00</b>
Contingency (25%)				\$348,500.00
<b>Total Construction Cost</b>				<b>\$1,394,000.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$209,100.00
<b>Total Project Cost</b>				<b>\$1,603,100.00</b>
			2022	<b>Cost \$2,555,000.00</b>

**( 1 5 ) 800 SOUTH TRUNKLINE**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$72,000	1	\$72,000.00
Traffic Control (6%)	LS	\$72,000	1	\$72,000.00
12" PVC Installed	LF	\$60	9,500	\$570,000.00
<b>Subtotal:</b>				<b>\$714,000.00</b>
Contingency (25%)				\$178,500.00
<b>Total Construction Cost</b>				<b>\$892,500.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$133,875.00
<b>Total Project Cost</b>				<b>\$1,026,375.00</b>
			2031	<b>Cost \$2,764,000.00</b>

Figure B.3 (7 pages)

(16) 9600 SOUTH TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$72,000	1	\$72,000.00
Traffic Control (6%)	LS	\$72,000	1	\$72,000.00
10" PVC Installed	LF	\$55	6,000	\$330,000.00
<b>Subtotal:</b>				<b>\$474,000.00</b>
Contingency (25%)				\$118,500.00
<b>Total Construction Cost</b>				<b>\$592,500.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$88,875.00
<b>Total Project Cost</b>				<b>\$681,375.00</b>
			2032	<b>Cost</b> <b>\$1,945,000.00</b>

(17) 3950 WEST TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$25,800	1	\$25,800.00
Traffic Control (6%)	LS	\$25,800	1	\$25,800.00
8" PVC Installed	LF	\$50	8,600	\$430,000.00
<b>Subtotal:</b>				<b>\$481,600.00</b>
Contingency (25%)				\$120,400.00
<b>Total Construction Cost</b>				<b>\$602,000.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$90,300.00
<b>Total Project Cost</b>				<b>\$692,300.00</b>
			2033	<b>Cost</b> <b>\$2,095,000.00</b>

Improvements				
<b>Total (Planning Year)</b>				<b>\$12,993,775.25</b>
<b>Total (Construction Year)</b>				<b>\$24,067,000.00</b>

**Secondary Water Capital Facilities Projects  
Cost Estimates**

June 2014

**(1) 400 NORTH (9970 SOUTH) TRUNKLINE**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$34,320	1	\$34,320.00
Traffic Control (6%)	LS	\$34,320	1	\$34,320.00
24" HDPE Installed	LF	\$120	4,800	\$576,000.00
<b>Subtotal:</b>				<b>\$644,640.00</b>
Contingency (25%)				\$161,160.00
<b>Total Construction Cost</b>				<b>\$805,800.00</b>
Land Acquisition				\$0.00
Design & Construction Engineering (15%)				\$120,870.00
<b>Total Project Cost</b>				<b>\$926,670.00</b>
2020			<b>Cost</b>	<b>\$1,477,000.00</b>

**(2) 930 WEST EXTENSION**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$34,320	1	\$34,320.00
Traffic Control (6%)	LS	\$34,320	1	\$34,320.00
10" PVC Installed	LF	\$55	10,400	\$572,000.00
<b>Subtotal:</b>				<b>\$640,640.00</b>
Contingency (25%)				\$160,160.00
<b>Total Construction Cost</b>				<b>\$800,800.00</b>
Land Acquisition				\$0.00
Design & Construction Engineering (15%)				\$120,120.00
<b>Total Project Cost</b>				<b>\$920,920.00</b>
2023			<b>Cost</b>	<b>\$1,748,000.00</b>

Figure B.4 (3 pages)

(3) 4600 WEST TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$43,200	1	\$43,200.00
Traffic Control (6%)	LS	\$43,200	1	\$43,200.00
12" PVC Installed	LF	\$60	12,000	\$720,000.00
<b>Subtotal:</b>				<b>\$806,400.00</b>
Contingency (25%)				\$201,600.00
<b>Total Construction Cost</b>				<b>\$1,008,000.00</b>
Land Acquisition				
Design & Construction Engineering (15%)				\$151,200.00
<b>Total Project Cost</b>				<b>\$1,159,200.00</b>
			2025	<b>Cost</b>
				<b>\$2,472,000.00</b>

(4) 5600 WEST TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$7,800	1	\$7,800.00
Traffic Control (6%)	LS	\$7,800	1	\$7,800.00
8" PVC Installed	LF	\$50	2,600	\$130,000.00
<b>Subtotal:</b>				<b>\$145,600.00</b>
Contingency (25%)				\$36,400.00
<b>Total Construction Cost</b>				<b>\$182,000.00</b>
Land Acquisition				
Design & Construction Engineering (15%)				\$27,300.00
<b>Total Project Cost</b>				<b>\$209,300.00</b>
			2027	<b>Cost</b>
				<b>\$502,000.00</b>

(5) SPRING LAKE TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$22,011	1	\$22,011.00
Traffic Control (6%)	LS	\$22,011	1	\$22,011.00
10" PVC Installed	LF	\$55	6,670	\$366,850.00
<b>Subtotal:</b>				<b>\$410,872.00</b>
Contingency (25%)				\$102,718.00
<b>Total Construction Cost</b>				<b>\$513,590.00</b>
Land Acquisition				
Design & Construction Engineering (15%)				\$77,038.50
<b>Total Project Cost</b>				<b>\$590,628.50</b>
			2029	<b>Cost</b>
				<b>\$1,590,000.00</b>

Appendix "C"

**Sewer**

Figure C.1

Payson City Build-out Sewer ERC projections					
Land Use Classification	Area (Acre)	Density (Units/Acre)	Total Units	ERC's per Unit*	Total ERC's (rounded)
Agriculture	234.0	0.2	47	1.0	47
Residential-Agriculture	484.7	1.0	485	1.0	485
Residential (R-1-12)	228.0	3.6	821	1.0	821
Residential (R-1-10)	516.2	4.4	2,271	1.0	2,271
Residential (R-1-9)	893.3	4.8	4,288	1.0	4,288
Residential (R-1-75)	319.6	5.8	1,854	1.0	1,854
Residential (R-2-75)	437.4	5.8	2,537	1.0	2,537
Multi-Family Residential	17.4	15-20	305	1.0	305
Professional Office	39.0	2.0	78	21.7	1,693
Central Commercial	58.0	1.0	58	21.7	1,259
General Commercial	226.7	1.0	227	21.7	4,919
Special Highway Service	432.6	1.0	433	21.7	9,387
Light Industrial	604.2	2.0	1,208	21.7	26,222
Heavy Industrial	11.1	1.0	11	21.7	241
Neighborhood Commercial	1.1	1.0	1	21.7	24
Mountain and Hillside (MH-1)	477.1	0.1	48	1.0	48
Mountain and Hillside (MH-2)	391.0	1.0	391	1.0	391
Planned Community	774.0	4.5	3,483	1.0	3,483
<b>Totals</b>	<b>6,145.4</b>		<b>18,544</b>		<b>60,273</b>

Figure C.2

Annual Indoor Water Consumption (thousand gallons)				
Year	Churchs, Schools	City	Commercial/ Industrial	Residential
2011				
2012	2,872		122,246	109,413
2013	2,991		121,979	117,108
2014	3,045		95,298	
<b>Number of Connections</b>				
2013	41	31	261	5,440
Existing ERC's	138.9	0.0	5,666.3	5,440
<b>Indoor Use (gallons per day per connection)</b>				
2013	399.7	0.0	2560.8	118.0
(gpm)	0.2776	0.0000	1.7784	0.0819
(peak)	<i>Not enough data</i>			
<b>Adjusted Residential Use:</b>				
ERC	3.39	0.00	21.71	1.00

Figure C.3 (7 pages)

**Sewer Capital Facilities Projects  
Cost Estimates**

June 2014

**(A) SADDLEBROOK DRIVE PIPE REPLACEMENT**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$2,117	1	\$2,116.80
Traffic Control (6%)	LS	\$2,117	1	\$2,116.80
8" PVC Installed	LF	\$168	210	\$35,280.00
<b>Subtotal:</b>				<b>\$39,513.60</b>
Contingency (25%)				\$9,878.40
<b>Total Construction Cost</b>				<b>\$49,392.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$7,408.80
<b>Total Project Cost</b>				<b>\$56,800.80</b>
2015			<b>Cost</b>	<b>\$60,000.00</b>

**(B) 300 SOUTH PIPE REPLACEMENT**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$15,019	1	\$15,019.20
Traffic Control (6%)	LS	\$15,019	1	\$15,019.20
8" PVC Installed	LF	\$168	1,490	\$250,320.00
<b>Subtotal:</b>				<b>\$280,358.40</b>
Contingency (25%)				\$70,089.60
<b>Total Construction Cost</b>				<b>\$350,448.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$52,567.20
<b>Total Project Cost</b>				<b>\$403,015.20</b>
2015			<b>Cost</b>	<b>\$427,000.00</b>

**(C) 750 WEST PIPE REPLACEMENT**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$8,561	1	\$8,560.80
Traffic Control (6%)	LS	\$8,561	1	\$8,560.80
12" PVC Installed	LF	\$174	820	\$142,680.00
<b>Subtotal:</b>				<b>\$159,801.60</b>
Contingency (25%)				\$39,950.40
<b>Total Construction Cost</b>				<b>\$199,752.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$29,962.80
<b>Total Project Cost</b>				<b>\$229,714.80</b>
2016			<b>Cost</b>	<b>\$258,000.00</b>

Figure C.3 (7 pages)

(D) TREATMENT PLANT CONNECTION PIPE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$21,246	1	\$21,246.30
Traffic Control (6%)	LS	\$21,246	1	\$21,246.30
21" PVC Installed	LF	\$183	1,935	\$354,105.00
<b>Subtotal:</b>				<b>\$396,597.60</b>
Contingency (25%)				\$99,149.40
<b>Total Construction Cost</b>				<b>\$495,747.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$74,362.05
<b>Total Project Cost</b>				<b>\$570,109.05</b>
<b>2017 Cost</b>				<b>\$679,000.00</b>

(1) NORTHEAST OUTFALL LINE (EAST SIDE)

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$23,040	1	\$23,040.00
Traffic Control (6%)	LS	\$23,040	1	\$23,040.00
30" PVC Installed	LF	\$192	2,000	\$384,000.00
<b>Subtotal:</b>				<b>\$430,080.00</b>
Contingency (25%)				\$107,520.00
<b>Total Construction Cost</b>				<b>\$537,600.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$80,640.00
<b>Total Project Cost</b>				<b>\$618,240.00</b>
<b>2016 Cost</b>				<b>\$695,000.00</b>

(2) NORTHEAST OUTFALL LINE (I-15 CROSSING)

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$5,184	1	\$5,184.00
Traffic Control (6%)	LS	\$5,184	1	\$5,184.00
30" PVC Installed	LS	\$192	450	\$86,400.00
<b>Subtotal:</b>				<b>\$96,768.00</b>
Contingency (25%)				\$24,192.00
<b>Total Construction Cost</b>				<b>\$120,960.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$18,144.00
<b>Total Project Cost</b>				<b>\$139,104.00</b>
<b>2016 Cost</b>				<b>\$156,000.00</b>

Figure C.3 (7 pages)

(3) TREATMENT PLANT SOUTH CONNECTION

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$7,488	1	\$7,488.00
Traffic Control (6%)	LS	\$7,488	1	\$7,488.00
30" PVC Installed	LF	\$192	650	\$124,800.00
<b>Subtotal:</b>				<b>\$139,776.00</b>
Contingency (25%)				\$34,944.00
<b>Total Construction Cost</b>				<b>\$174,720.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$26,208.00
<b>Total Project Cost</b>				<b>\$200,928.00</b>
			2016	<b>Cost \$226,000.00</b>

(4) 1150 SOUTH TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$9,239	1	\$9,239.40
Traffic Control (6%)	LS	\$9,239	1	\$9,239.40
15" PVC Installed	LF	\$177	870	\$153,990.00
<b>Subtotal:</b>				<b>\$172,468.80</b>
Contingency (25%)				\$43,117.20
<b>Total Construction Cost</b>				<b>\$215,586.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$32,337.90
<b>Total Project Cost</b>				<b>\$247,923.90</b>
			2018	<b>Cost \$313,000.00</b>

(5) TURF FARM RD (1270 W) TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$20,412	1	\$20,412.00
Traffic Control (6%)	LS	\$20,412	1	\$20,412.00
18" PVC Installed	LF	\$180	1,890	\$340,200.00
<b>Subtotal:</b>				<b>\$381,024.00</b>
Contingency (25%)				\$95,256.00
<b>Total Construction Cost</b>				<b>\$476,280.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$71,442.00
<b>Total Project Cost</b>				<b>\$547,722.00</b>
			2018	<b>Cost \$691,000.00</b>

Figure C.3 (7 pages)

(6) 800 SOUTH TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$2,862	1	\$2,862.00
Traffic Control (6%)	LS	\$2,862	1	\$2,862.00
18" PVC Installed	LF	\$180	265	\$47,700.00
<b>Subtotal:</b>				<b>\$53,424.00</b>
Contingency (25%)				\$13,356.00
<b>Total Construction Cost</b>				<b>\$66,780.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$10,017.00
<b>Total Project Cost</b>				<b>\$76,797.00</b>
			<b>2018 Cost</b>	<b>\$97,000.00</b>

(7) I-15 EAST OFFRAMP TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$7,686	1	\$7,686.00
Traffic Control (6%)	LS	\$7,686	1	\$7,686.00
21" PVC Pipe	LS	\$183	700	\$128,100.00
<b>Subtotal:</b>				<b>\$143,472.00</b>
Contingency (25%)				\$35,868.00
<b>Total Construction Cost</b>				<b>\$179,340.00</b>
Land Acquisition (5 Acres)				\$600,000
Design & Construction Engineering (15%)				\$26,901.00
<b>Total Project Cost</b>				<b>\$206,241.00</b>
			<b>2018 Cost</b>	<b>\$260,000.00</b>

(8) AMERICAN WAY TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$21,960	1	\$21,960.00
Traffic Control (6%)	LS	\$21,960	1	\$21,960.00
PRV	LS	\$50,000	1	\$50,000.00
21" PVC Installed	LF	\$183	2,000	\$366,000.00
<b>Subtotal:</b>				<b>\$459,920.00</b>
Contingency (25%)				\$114,980.00
<b>Total Construction Cost</b>				<b>\$574,900.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$86,235.00
<b>Total Project Cost</b>				<b>\$661,135.00</b>
			<b>2022 Cost</b>	<b>\$1,054,000.00</b>

Figure C.3 (7 pages)

(9) UTAH AVE TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$20,981	1	\$20,980.80
Traffic Control (6%)	LS	\$20,981	1	\$20,980.80
24" PVC Installed	LF	\$186	1,880	\$349,680.00
<b>Subtotal:</b>				<b>\$391,641.60</b>
Contingency (25%)				\$97,910.40
<b>Total Construction Cost</b>				<b>\$489,552.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$73,432.80
<b>Total Project Cost</b>				<b>\$562,984.80</b>
			2023	<b>Cost</b>
				<b>\$951,000.00</b>

(10) 400 NORTH TRUNKLINE

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$46,314	1	\$46,314.00
Traffic Control (6%)	LS	\$46,314	1	\$46,314.00
24" PVC Installed	LF	\$186	4,150	\$771,900.00
<b>Subtotal:</b>				<b>\$864,528.00</b>
Contingency (25%)				\$216,132.00
<b>Total Construction Cost</b>				<b>\$1,080,660.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$162,099.00
<b>Total Project Cost</b>				<b>\$1,242,759.00</b>
			2024	<b>Cost</b>
				<b>\$2,226,000.00</b>

(11) 400 NORTH TRUNKLINE EXTENSION

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$46,314	1	\$46,314.00
Traffic Control (6%)	LS	\$46,314	1	\$46,314.00
24" PVC Installed	LF	\$186	2,250	\$418,500.00
<b>Subtotal:</b>				<b>\$511,128.00</b>
Contingency (25%)				\$127,782.00
<b>Total Construction Cost</b>				<b>\$638,910.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$95,836.50
<b>Total Project Cost</b>				<b>\$734,746.50</b>
			2026	<b>Cost</b>
				<b>\$1,478,000.00</b>

**Figure C.3 (7 pages)**

**( 1 2 ) MAIN STREET TRUNKLINE**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$46,314	1	\$46,314.00
Traffic Control (6%)	LS	\$46,314	1	\$46,314.00
24" PVC Installed	LF	\$186	2,920	\$543,120.00
<b>Subtotal:</b>				<b>\$635,748.00</b>
Contingency (25%)				\$158,937.00
<b>Total Construction Cost</b>				<b>\$794,685.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$119,202.75
<b>Total Project Cost</b>				<b>\$913,887.75</b>
			<b>2030 Cost</b>	<b>\$2,322,000.00</b>

**( 1 3 ) WEST ANNEXATION AREA TRUNKLINE**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$100,224	1	\$100,224.00
Traffic Control (6%)	LS	\$100,224	1	\$100,224.00
PRV	LS	\$50,000	1	\$50,000.00
12" PVC Installed	LF	\$174	9,600	\$1,670,400.00
<b>Subtotal:</b>				<b>\$1,920,848.00</b>
Contingency (25%)				\$480,212.00
<b>Total Construction Cost</b>				<b>\$1,920,848.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$288,127.20
<b>Total Project Cost</b>				<b>\$2,208,975.20</b>
			<b>2031 Cost</b>	<b>\$5,948,000.00</b>

**( 1 4 ) NORTHWEST REGIONAL LIFT STATION**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$100,224	1	\$100,224.00
Traffic Control (6%)	LS	\$100,224	1	\$100,224.00
1,100 gpm Lift Station	LS	\$500,000	1	\$500,000.00
<b>Subtotal:</b>				<b>\$700,448.00</b>
Contingency (25%)				\$175,112.00
<b>Total Construction Cost</b>				<b>\$875,560.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$131,334.00
<b>Total Project Cost</b>				<b>\$1,006,894.00</b>
			<b>2032 Cost</b>	<b>\$2,874,000.00</b>

**Figure C.3 (7 pages)**

**(1.5) NORTHEAST REGIONAL LIFT STATION**

Description	Unit	Unit Price	Quantity	Total Cost
Mobilization (6%)	LS	\$100,224	1	\$100,224.00
Traffic Control (6%)	LS	\$100,224	1	\$100,224.00
1,000 gpm Lift Station	LS	\$500,000	1	\$500,000.00
<b>Subtotal:</b>				<b>\$700,448.00</b>
Contingency (25%)				\$175,112.00
<b>Total Construction Cost</b>				<b>\$875,560.00</b>
Land Acquisition				\$ -
Design & Construction Engineering (15%)				\$131,334.00
<b>Total Project Cost</b>				<b>\$1,006,894.00</b>
			<b>2033 Cost</b>	<b>\$3,046,000.00</b>

Improvements				
<b>Total (Planning Year)</b>				<b>\$11,634,872.00</b>
<b>Total (Construction Year)</b>				<b>\$23,761,000.00</b>

Appendix "D"

**Applicable State Codes**

**11-36a-101. Title.**

This chapter is known as the "Impact Fees Act."

Enacted by Chapter 47, 2011 General Session

**11-36a-102. Definitions.**

As used in this chapter:

(1) (a) "Affected entity" means each county, municipality, local district under Title 17B, Limited Purpose Local Government Entities - Local Districts, special service district under Title 17D, Chapter 1, Special Service District Act, school district, interlocal cooperation entity established under Chapter 13, Interlocal Cooperation Act, and specified public utility:

(i) whose services or facilities are likely to require expansion or significant modification because of the facilities proposed in the proposed impact fee facilities plan; or

(ii) that has filed with the local political subdivision or private entity a copy of the general or long-range plan of the county, municipality, local district, special service district, school district, interlocal cooperation entity, or specified public utility.

(b) "Affected entity" does not include the local political subdivision or private entity that is required under Section 11-36a-501 to provide notice.

(2) "Charter school" includes:

(a) an operating charter school;

(b) an applicant for a charter school whose application has been approved by a chartering entity as provided in Title 53A, Chapter 1a, Part 5, The Utah Charter Schools Act; and

(c) an entity that is working on behalf of a charter school or approved charter applicant to develop or construct a charter school building.

(3) "Development activity" means any construction or expansion of a building, structure, or use, any change in use of a building or structure, or any changes in the use of land that creates additional demand and need for public facilities.

(4) "Development approval" means:

(a) except as provided in Subsection (4)(b), any written authorization from a local political subdivision that authorizes the commencement of development activity;

(b) development activity, for a public entity that may develop without written authorization from a local political subdivision;

(c) a written authorization from a public water supplier, as defined in Section 73-1-4, or a private water company:

(i) to reserve or provide:

(A) a water right;

(B) a system capacity; or

(C) a distribution facility; or

(ii) to deliver for a development activity:

(A) culinary water; or

(B) irrigation water; or

(d) a written authorization from a sanitary sewer authority, as defined in Section 10-9a-103:

(i) to reserve or provide:

(A) sewer collection capacity; or

(B) treatment capacity; or

(ii) to provide sewer service for a development activity.

(5) "Enactment" means:

(a) a municipal ordinance, for a municipality;

(b) a county ordinance, for a county; and

- (c) a governing board resolution, for a local district, special service district, or private entity.
- (6) "Encumber" means:
  - (a) a pledge to retire a debt; or
  - (b) an allocation to a current purchase order or contract.
- (7) "Hookup fee" means a fee for the installation and inspection of any pipe, line, meter, or appurtenance to connect to a gas, water, sewer, storm water, power, or other utility system of a municipality, county, local district, special service district, or private entity.
- (8) (a) "Impact fee" means a payment of money imposed upon new development activity as a condition of development approval to mitigate the impact of the new development on public infrastructure.
  - (b) "Impact fee" does not mean a tax, a special assessment, a building permit fee, a hookup fee, a fee for project improvements, or other reasonable permit or application fee.
- (9) "Impact fee analysis" means the written analysis of each impact fee required by Section 11-36a-303.
- (10) "Impact fee facilities plan" means the plan required by Section 11-36a-301.
- (11) "Level of service" means the defined performance standard or unit of demand for each capital component of a public facility within a service area.
- (12) (a) "Local political subdivision" means a county, a municipality, a local district under Title 17B, Limited Purpose Local Government Entities - Local Districts, or a special service district under Title 17D, Chapter 1, Special Service District Act.
  - (b) "Local political subdivision" does not mean a school district, whose impact fee activity is governed by Section 53A-20-100.5.
- (13) "Private entity" means an entity in private ownership with at least 100 individual shareholders, customers, or connections; that is located in a first, second, third, or fourth class county and provides water to an applicant for development approval who is required to obtain water from the private entity either as a:
  - (a) specific condition of development approval by a local political subdivision acting pursuant to a prior agreement, whether written or unwritten, with the private entity; or
  - (b) functional condition of development approval because the private entity:
    - (i) has no reasonably equivalent competition in the immediate market; and
    - (ii) is the only realistic source of water for the applicant's development.
- (14) (a) "Project improvements" means site improvements and facilities that are:
  - (i) planned and designed to provide service for development resulting from a development activity;
  - (ii) necessary for the use and convenience of the occupants or users of development resulting from a development activity; and
  - (iii) not identified or reimbursed as a system improvement.
  - (b) "Project improvements" does not mean system improvements.
- (15) "Proportionate share" means the cost of public facility improvements that are roughly proportionate and reasonably related to the service demands and needs of any development activity.
- (16) "Public facilities" means only the following impact fee facilities that have a life expectancy of 10 or more years and are owned or operated by or on behalf of a local political subdivision or private entity:
  - (a) water rights and water supply, treatment, storage, and distribution facilities;
  - (b) wastewater collection and treatment facilities;
  - (c) storm water, drainage, and flood control facilities;
  - (d) municipal power facilities;
  - (e) roadway facilities;
  - (f) parks, recreation facilities, open space, and trails;
  - (g) public safety facilities; or
  - (h) environmental mitigation as provided in Section 11-36a-205.
- (17) (a) "Public safety facility" means:
  - (i) a building constructed or leased to house police, fire, or other public safety entities; or
  - (ii) a fire suppression vehicle costing in excess of \$500,000.
  - (b) "Public safety facility" does not mean a jail, prison, or other place of involuntary incarceration.

- (18) (a) "Roadway facilities" means a street or road that has been designated on an officially adopted subdivision plat, roadway plan, or general plan of a political subdivision, together with all necessary appurtenances.
- (b) "Roadway facilities" includes associated improvements to a federal or state roadway only when the associated improvements:
- (i) are necessitated by the new development; and
  - (ii) are not funded by the state or federal government.
- (c) "Roadway facilities" does not mean federal or state roadways.
- (19) (a) "Service area" means a geographic area designated by an entity that imposes an impact fee on the basis of sound planning or engineering principles in which a public facility, or a defined set of public facilities, provides service within the area.
- (b) "Service area" may include the entire local political subdivision or an entire area served by a private entity.
- (20) "Specified public agency" means:
- (a) the state;
  - (b) a school district; or
  - (c) a charter school.
- (21) (a) "System improvements" means:
- (i) existing public facilities that are:
    - (A) identified in the impact fee analysis under Section 11-36a-304; and
    - (B) designed to provide services to service areas within the community at large; and
  - (ii) future public facilities identified in the impact fee analysis under Section 11-36a-304 that are intended to provide services to service areas within the community at large.
- (b) "System improvements" does not mean project improvements.

Amended by Chapter 200, 2013 General Session

**11-36a-201. Impact fees.**

- (1) A local political subdivision or private entity shall ensure that any imposed impact fees comply with the requirements of this chapter.
- (2) A local political subdivision and private entity may establish impact fees only for those public facilities defined in Section 11-36a-102.
- (3) Nothing in this chapter may be construed to repeal or otherwise eliminate an impact fee in effect on the effective date of this chapter that is pledged as a source of revenues to pay bonded indebtedness that was incurred before the effective date of this chapter.

Enacted by Chapter 47, 2011 General Session

**11-36a-202. Prohibitions on impact fees.**

- (1) A local political subdivision or private entity may not:
- (a) impose an impact fee to:
    - (i) cure deficiencies in a public facility serving existing development;
    - (ii) raise the established level of service of a public facility serving existing development;
    - (iii) recoup more than the local political subdivision's or private entity's costs actually incurred for excess capacity in an existing system improvement; or
    - (iv) include an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with:
      - (A) generally accepted cost accounting practices; and
      - (B) the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;
  - (b) delay the construction of a school or charter school because of a dispute with the school or charter school over impact fees; or

- (c) impose or charge any other fees as a condition of development approval unless those fees are a reasonable charge for the service provided.
- (2) (a) Notwithstanding any other provision of this chapter, a political subdivision or private entity may not impose an impact fee:
- (i) on residential components of development to pay for a public safety facility that is a fire suppression vehicle;
  - (ii) on a school district or charter school for a park, recreation facility, open space, or trail;
  - (iii) on a school district or charter school unless:
    - (A) the development resulting from the school district's or charter school's development activity directly results in a need for additional system improvements for which the impact fee is imposed; and
    - (B) the impact fee is calculated to cover only the school district's or charter school's proportionate share of the cost of those additional system improvements; or
  - (iv) to the extent that the impact fee includes a component for a law enforcement facility, on development activity for:
    - (A) the Utah National Guard;
    - (B) the Utah Highway Patrol; or
    - (C) a state institution of higher education that has its own police force.
- (b) (i) Notwithstanding any other provision of this chapter, a political subdivision or private entity may not impose an impact fee on development activity that consists of the construction of a school, whether by a school district or a charter school, if:
- (A) the school is intended to replace another school, whether on the same or a different parcel;
  - (B) the new school creates no greater demand or need for public facilities than the school or school facilities, including any portable or modular classrooms that are on the site of the replaced school at the time that the new school is proposed; and
  - (C) the new school and the school being replaced are both within the boundary of the local political subdivision or the jurisdiction of the private entity.
- (ii) If the imposition of an impact fee on a new school is not prohibited under Subsection (2)(b)(i) because the new school creates a greater demand or need for public facilities than the school being replaced, the impact fee shall be based only on the demand or need that the new school creates for public facilities that exceeds the demand or need that the school being replaced creates for those public facilities.
- (c) Notwithstanding any other provision of this chapter, a political subdivision or private entity may impose an impact fee for a road facility on the state only if and to the extent that:
- (i) the state's development causes an impact on the road facility; and
  - (ii) the portion of the road facility related to an impact fee is not funded by the state or by the federal government.
- (3) Notwithstanding any other provision of this chapter, a local political subdivision may impose and collect impact fees on behalf of a school district if authorized by Section 53A-20-100.5.

Enacted by Chapter 47, 2011 General Session

**11-36a-203. Private entity assessment of impact fees -- Charges for water rights, physical infrastructure -- Notice -- Audit.**

- (1) A private entity:
- (a) shall comply with the requirements of this chapter before imposing an impact fee; and
  - (b) except as otherwise specified in this chapter, is subject to the same requirements of this chapter as a local political subdivision.
- (2) A private entity may only impose a charge for water rights or physical infrastructure necessary to provide water or sewer facilities by imposing an impact fee.
- (3) Where notice and hearing requirements are specified, a private entity shall comply with the notice and hearing requirements for local districts.

(4) A private entity that assesses an impact fee under this chapter is subject to the audit requirements of Title 51, Chapter 2a, Accounting Reports from Political Subdivisions, Interlocal Organizations, and Other Local Entities Act.

Enacted by Chapter 47, 2011 General Session

**11-36a-204. Other names for impact fees.**

(1) A fee that meets the definition of impact fee under Section 11-36a-102 is an impact fee subject to this chapter, regardless of what term the local political subdivision or private entity uses to refer to the fee.

(2) A local political subdivision or private entity may not avoid application of this chapter to a fee that meets the definition of an impact fee under Section 11-36a-102 by referring to the fee by another name.

Enacted by Chapter 47, 2011 General Session

**11-36a-205. Environmental mitigation impact fees.**

Notwithstanding the requirements and prohibitions of this chapter, a local political subdivision may impose and assess an impact fee for environmental mitigation when:

(1) the local political subdivision has formally agreed to fund a Habitat Conservation Plan to resolve conflicts with the Endangered Species Act of 1973, 16 U.S.C. Sec. 1531, et seq. or other state or federal environmental law or regulation;

(2) the impact fee bears a reasonable relationship to the environmental mitigation required by the Habitat Conservation Plan; and

(3) the legislative body of the local political subdivision adopts an ordinance or resolution:

(a) declaring that an impact fee is required to finance the Habitat Conservation Plan;

(b) establishing periodic sunset dates for the impact fee; and

(c) requiring the legislative body to:

(i) review the impact fee on those sunset dates;

(ii) determine whether or not the impact fee is still required to finance the Habitat Conservation Plan; and

(iii) affirmatively reauthorize the impact fee if the legislative body finds that the impact fee must remain in effect.

Enacted by Chapter 47, 2011 General Session

**11-36a-301. Impact fee facilities plan.**

(1) Before imposing an impact fee, each local political subdivision or private entity shall, except as provided in Subsection (3), prepare an impact fee facilities plan to determine the public facilities required to serve development resulting from new development activity.

(2) A municipality or county need not prepare a separate impact fee facilities plan if the general plan required by Section 10-9a-401 or 17-27a-401, respectively, contains the elements required by Section 11-36a-302.

(3) A local political subdivision or a private entity with a population, or serving a population, of less than 5,000 as of the last federal census that charges impact fees of less than \$250,000 annually need not comply with the impact fee facilities plan requirements of this part, but shall ensure that:

(a) the impact fees that the local political subdivision or private entity imposes are based upon a reasonable plan that otherwise complies with the common law and this chapter; and

(b) each applicable notice required by this chapter is given.

Amended by Chapter 200, 2013 General Session

**11-36a-302. Impact fee facilities plan requirements -- Limitations -- School district or charter school.**

- (1) (a) An impact fee facilities plan shall:
    - (i) identify the existing level of service;
    - (ii) subject to Subsection (1)(c), establish a proposed level of service;
    - (iii) identify any excess capacity to accommodate future growth at the proposed level of service;
    - (iv) identify demands placed upon existing public facilities by new development activity at the proposed level of service; and
    - (v) identify the means by which the political subdivision or private entity will meet those growth demands.
  - (b) A proposed level of service may diminish or equal the existing level of service.
  - (c) A proposed level of service may:
    - (i) exceed the existing level of service if, independent of the use of impact fees, the political subdivision or private entity provides, implements, and maintains the means to increase the existing level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service; or
    - (ii) establish a new public facility if, independent of the use of impact fees, the political subdivision or private entity provides, implements, and maintains the means to increase the existing level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service.
- (2) In preparing an impact fee facilities plan, each local political subdivision shall generally consider all revenue sources to finance the impacts on system improvements, including:
- (a) grants;
  - (b) bonds;
  - (c) interfund loans;
  - (d) impact fees; and
  - (e) anticipated or accepted dedications of system improvements.
- (3) A local political subdivision or private entity may only impose impact fees on development activities when the local political subdivision's or private entity's plan for financing system improvements establishes that impact fees are necessary to maintain a proposed level of service that complies with Subsection (1)(b) or (c).
- (4) (a) Subject to Subsection (4)(c), the impact fee facilities plan shall include a public facility for which an impact fee may be charged or required for a school district or charter school if the local political subdivision is aware of the planned location of the school district facility or charter school:
- (i) through the planning process; or
  - (ii) after receiving a written request from a school district or charter school that the public facility be included in the impact fee facilities plan.
- (b) If necessary, a local political subdivision or private entity shall amend the impact fee facilities plan to reflect a public facility described in Subsection (4)(a).
- (c) (i) In accordance with Subsections 10-9a-305(3) and 17-27a-305(3), a local political subdivision may not require a school district or charter school to participate in the cost of any roadway or sidewalk.
- (ii) Notwithstanding Subsection (4)(c)(i), if a school district or charter school agrees to build a roadway or sidewalk, the roadway or sidewalk shall be included in the impact fee facilities plan if the local jurisdiction has an impact fee facilities plan for roads and sidewalks.

**11-36a-303. Impact fee analysis.**

- (1) Subject to the notice requirements of Section 11-36a-504, each local political subdivision or private entity intending to impose an impact fee shall prepare a written analysis of each impact fee.
- (2) Each local political subdivision or private entity that prepares an impact fee analysis under Subsection (1) shall also prepare a summary of the impact fee analysis designed to be understood by a lay person.

Enacted by Chapter 47, 2011 General Session

**11-36a-304. Impact fee analysis requirements.**

- (1) An impact fee analysis shall:
  - (a) identify the anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity;
  - (b) identify the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service for each public facility;
  - (c) subject to Subsection (2), demonstrate how the anticipated impacts described in Subsections (1)(a) and (b) are reasonably related to the anticipated development activity;
  - (d) estimate the proportionate share of:
    - (i) the costs for existing capacity that will be recouped; and
    - (ii) the costs of impacts on system improvements that are reasonably related to the new development activity; and
  - (e) based on the requirements of this chapter, identify how the impact fee was calculated.
- (2) In analyzing whether or not the proportionate share of the costs of public facilities are reasonably related to the new development activity, the local political subdivision or private entity, as the case may be, shall identify, if applicable:
  - (a) the cost of each existing public facility that has excess capacity to serve the anticipated development resulting from the new development activity;
  - (b) the cost of system improvements for each public facility;
  - (c) other than impact fees, the manner of financing for each public facility, such as user charges, special assessments, bonded indebtedness, general taxes, or federal grants;
  - (d) the relative extent to which development activity will contribute to financing the excess capacity of and system improvements for each existing public facility, by such means as user charges, special assessments, or payment from the proceeds of general taxes;
  - (e) the relative extent to which development activity will contribute to the cost of existing public facilities and system improvements in the future;
  - (f) the extent to which the development activity is entitled to a credit against impact fees because the development activity will dedicate system improvements or public facilities that will offset the demand for system improvements, inside or outside the proposed development;
  - (g) extraordinary costs, if any, in servicing the newly developed properties; and
  - (h) the time-price differential inherent in fair comparisons of amounts paid at different times.

Enacted by Chapter 47, 2011 General Session

**11-36a-304. Impact fee analysis requirements.**

- (1) An impact fee analysis shall:
  - (a) identify the anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity;

- (b) identify the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service for each public facility;
  - (c) subject to Subsection (2), demonstrate how the anticipated impacts described in Subsections (1)(a) and (b) are reasonably related to the anticipated development activity;
  - (d) estimate the proportionate share of:
    - (i) the costs for existing capacity that will be recouped; and
    - (ii) the costs of impacts on system improvements that are reasonably related to the new development activity; and
  - (e) based on the requirements of this chapter, identify how the impact fee was calculated.
- (2) In analyzing whether or not the proportionate share of the costs of public facilities are reasonably related to the new development activity, the local political subdivision or private entity, as the case may be, shall identify, if applicable:
- (a) the cost of each existing public facility that has excess capacity to serve the anticipated development resulting from the new development activity;
  - (b) the cost of system improvements for each public facility;
  - (c) other than impact fees, the manner of financing for each public facility, such as user charges, special assessments, bonded indebtedness, general taxes, or federal grants;
  - (d) the relative extent to which development activity will contribute to financing the excess capacity of and system improvements for each existing public facility, by such means as user charges, special assessments, or payment from the proceeds of general taxes;
  - (e) the relative extent to which development activity will contribute to the cost of existing public facilities and system improvements in the future;
  - (f) the extent to which the development activity is entitled to a credit against impact fees because the development activity will dedicate system improvements or public facilities that will offset the demand for system improvements, inside or outside the proposed development;
  - (g) extraordinary costs, if any, in servicing the newly developed properties; and
  - (h) the time-price differential inherent in fair comparisons of amounts paid at different times.

Enacted by Chapter 47, 2011 General Session

**11-36a-305. Calculating impact fees.**

- (1) In calculating an impact fee, a local political subdivision or private entity may include:
- (a) the construction contract price;
  - (b) the cost of acquiring land, improvements, materials, and fixtures;
  - (c) the cost for planning, surveying, and engineering fees for services provided for and directly related to the construction of the system improvements; and
  - (d) for a political subdivision, debt service charges, if the political subdivision might use impact fees as a revenue stream to pay the principal and interest on bonds, notes, or other obligations issued to finance the costs of the system improvements.
- (2) In calculating an impact fee, each local political subdivision or private entity shall base amounts calculated under Subsection (1) on realistic estimates, and the assumptions underlying those estimates shall be disclosed in the impact fee analysis.

Enacted by Chapter 47, 2011 General Session

**11-36a-306. Certification of impact fee analysis.**

(1) An impact fee facilities plan shall include a written certification from the person or entity that prepares the impact fee facilities plan that states the following:

"I certify that the attached impact fee facilities plan:

1. includes only the costs of public facilities that are:
  - a. allowed under the Impact Fees Act; and
  - b. actually incurred; or
  - c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. does not include:
  - a. costs of operation and maintenance of public facilities;
  - b. costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; or
  - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. complies in each and every relevant respect with the Impact Fees Act."

(2) An impact fee analysis shall include a written certification from the person or entity that prepares the impact fee analysis which states as follows:

"I certify that the attached impact fee analysis:

1. includes only the costs of public facilities that are:
  - a. allowed under the Impact Fees Act; and
  - b. actually incurred; or
  - c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. does not include:
  - a. costs of operation and maintenance of public facilities;
  - b. costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; or
  - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;
3. offsets costs with grants or other alternate sources of payment; and
4. complies in each and every relevant respect with the Impact Fees Act."

Amended by Chapter 278, 2013 General Session

**11-36a-401. Impact fee enactment.**

(1) (a) A local political subdivision or private entity wishing to impose impact fees shall pass an impact fee enactment in accordance with Section 11-36a-402.

(b) An impact fee imposed by an impact fee enactment may not exceed the highest fee justified by the impact fee analysis.

(2) An impact fee enactment may not take effect until 90 days after the day on which the impact fee enactment is approved.

Enacted by Chapter 47, 2011 General Session

**11-36a-402. Required provisions of impact fee enactment.**

- (1) A local political subdivision or private entity shall ensure, in addition to the requirements described in Subsections (2) and (3), that an impact fee enactment contains:
- (a) a provision establishing one or more service areas within which the local political subdivision or private entity calculates and imposes impact fees for various land use categories;
  - (b) (i) a schedule of impact fees for each type of development activity that specifies the amount of the impact fee to be imposed for each type of system improvement; or
    - (ii) the formula that the local political subdivision or private entity, as the case may be, will use to calculate each impact fee;
  - (c) a provision authorizing the local political subdivision or private entity, as the case may be, to adjust the standard impact fee at the time the fee is charged to:
    - (i) respond to:
      - (A) unusual circumstances in specific cases; or
      - (B) a request for a prompt and individualized impact fee review for the development activity of the state, a school district, or a charter school and an offset or credit for a public facility for which an impact fee has been or will be collected; and
    - (ii) ensure that the impact fees are imposed fairly; and
  - (d) a provision governing calculation of the amount of the impact fee to be imposed on a particular development that permits adjustment of the amount of the impact fee based upon studies and data submitted by the developer.
- (2) A local political subdivision or private entity shall ensure that an impact fee enactment allows a developer, including a school district or a charter school, to receive a credit against or proportionate reimbursement of an impact fee if the developer:
- (a) dedicates land for a system improvement;
  - (b) builds and dedicates some or all of a system improvement; or
  - (c) dedicates a public facility that the local political subdivision or private entity and the developer agree will reduce the need for a system improvement.
- (3) A local political subdivision or private entity shall include a provision in an impact fee enactment that requires a credit against impact fees for any dedication of land for, improvement to, or new construction of, any system improvements provided by the developer if the facilities:
- (a) are system improvements; or
  - (b) (i) are dedicated to the public; and
    - (ii) offset the need for an identified system improvement.

Enacted by Chapter 47, 2011 General Session

**11-36a-403. Other provisions of impact fee enactment.**

- (1) A local political subdivision or private entity may include a provision in an impact fee enactment that:
- (a) provides an impact fee exemption for:
    - (i) development activity attributable to:
      - (A) low income housing;
      - (B) the state;
      - (C) subject to Subsection (2), a school district; or
      - (D) subject to Subsection (2), a charter school; or
    - (ii) other development activity with a broad public purpose; and
  - (b) except for an exemption under Subsection (1)(a)(i)(A), establishes one or more sources of funds other than impact fees to pay for that development activity.

(2) An impact fee enactment that provides an impact fee exemption for development activity attributable to a school district or charter school shall allow either a school district or a charter school to qualify for the exemption on the same basis.

(3) An impact fee enactment that repeals or suspends the collection of impact fees is exempt from the notice requirements of Section 11-36a-504.

Enacted by Chapter 47, 2011 General Session

**11-36a-501. Notice of intent to prepare an impact fee facilities plan.**

(1) Before preparing or amending an impact fee facilities plan, a local political subdivision or private entity shall provide written notice of its intent to prepare or amend an impact fee facilities plan.

(2) A notice required under Subsection (1) shall:

(a) indicate that the local political subdivision or private entity intends to prepare or amend an impact fee facilities plan;

(b) describe or provide a map of the geographic area where the proposed impact fee facilities will be located; and

(c) subject to Subsection (3), be posted on the Utah Public Notice Website created under Section 63F-1-701.

(3) For a private entity required to post notice on the Utah Public Notice Website under Subsection (2)(c):

(a) the private entity shall give notice to the general purpose local government in which the private entity's private business office is located; and

(b) the general purpose local government described in Subsection (3)(a) shall post the notice on the Utah Public Notice Website.

Enacted by Chapter 47, 2011 General Session

**11-36a-502. Notice to adopt or amend an impact fee facilities plan.**

(1) If a local political subdivision chooses to prepare an independent impact fee facilities plan rather than include an impact fee facilities element in the general plan in accordance with Section 11-36a-301, the local political subdivision shall, before adopting or amending the impact fee facilities plan:

(a) give public notice, in accordance with Subsection (2), of the plan or amendment at least 10 days before the day on which the public hearing described in Subsection (1)(d) is scheduled;

(b) make a copy of the plan or amendment, together with a summary designed to be understood by a lay person, available to the public;

(c) place a copy of the plan or amendment and summary in each public library within the local political subdivision; and

(d) hold a public hearing to hear public comment on the plan or amendment.

(2) With respect to the public notice required under Subsection (1)(a):

(a) each municipality shall comply with the notice and hearing requirements of, and, except as provided in Subsection 11-36a-701(3)(b)(ii), receive the protections of Sections 10-9a-205 and 10-9a-801 and Subsection 10-9a-502(2);

(b) each county shall comply with the notice and hearing requirements of, and, except as provided in Subsection 11-36a-701(3)(b)(ii), receive the protections of Sections 17-27a-205 and 17-27a-801 and Subsection 17-27a-502(2); and

(c) each local district, special service district, and private entity shall comply with the notice and hearing requirements of, and receive the protections of, Section 17B-1-111.

(3) Nothing contained in this section or Section 11-36a-503 may be construed to require involvement by a planning commission in the impact fee facilities planning process.

Enacted by Chapter 47, 2011 General Session

**11-36a-503. Notice of preparation of an impact fee analysis.**

- (1) Before preparing or contracting to prepare an impact fee analysis, each local political subdivision or, subject to Subsection (2), private entity shall post a public notice on the Utah Public Notice Website created under Section 63F-1-701.
- (2) For a private entity required to post notice on the Utah Public Notice Website under Subsection (1):
  - (a) the private entity shall give notice to the general purpose local government in which the private entity's primary business is located; and
  - (b) the general purpose local government described in Subsection (2)(a) shall post the notice on the Utah Public Notice Website.

Enacted by Chapter 47, 2011 General Session

**11-36a-504. Notice of intent to adopt impact fee enactment -- Hearing -- Protections.**

- (1) Before adopting an impact fee enactment:
  - (a) a municipality legislative body shall:
    - (i) comply with the notice requirements of Section 10-9a-205 as if the impact fee enactment were a land use ordinance;
    - (ii) hold a hearing in accordance with Section 10-9a-502 as if the impact fee enactment were a land use ordinance; and
    - (iii) except as provided in Subsection 11-36a-701(3)(b)(ii), receive the protections of Section 10-9a-801 as if the impact fee were a land use ordinance;
  - (b) a county legislative body shall:
    - (i) comply with the notice requirements of Section 17-27a-205 as if the impact fee enactment were a land use ordinance;
    - (ii) hold a hearing in accordance with Section 17-27a-502 as if the impact fee enactment were a land use ordinance; and
    - (iii) except as provided in Subsection 11-36a-701(3)(b)(ii), receive the protections of Section 17-27a-801 as if the impact fee were a land use ordinance;
  - (c) a local district or special service district shall:
    - (i) comply with the notice and hearing requirements of Section 17B-1-111; and
    - (ii) receive the protections of Section 17B-1-111;
  - (d) a local political subdivision shall at least 10 days before the day on which a public hearing is scheduled in accordance with this section:
    - (i) make a copy of the impact fee enactment available to the public; and
    - (ii) post notice of the local political subdivision's intent to enact or modify the impact fee, specifying the type of impact fee being enacted or modified, on the Utah Public Notice Website created under Section 63F-1-701; and
  - (e) a local political subdivision shall submit a copy of the impact fee analysis and a copy of the summary of the impact fee analysis prepared in accordance with Section 11-36a-303 on its website or to each public library within the local political subdivision.
- (2) Subsection (1)(a) or (b) may not be construed to require involvement by a planning commission in the impact fee enactment process.

Enacted by Chapter 47, 2011 General Session

**11-36a-601. Accounting of impact fees.**

A local political subdivision that collects an impact fee shall:

- (1) establish a separate interest bearing ledger account for each type of public facility for which an impact fee is collected;
- (2) deposit a receipt for an impact fee in the appropriate ledger account established under Subsection (1);
- (3) retain the interest earned on each fund or ledger account in the fund or ledger account;

- (4) at the end of each fiscal year, prepare a report on each fund or ledger account showing:
  - (a) the source and amount of all money collected, earned, and received by the fund or ledger account; and
  - (b) each expenditure from the fund or ledger account; and
- (5) produce a report that:
  - (a) identifies impact fee funds by the year in which they were received, the project from which the funds were collected, the impact fee projects for which the funds were budgeted, and the projected schedule for expenditure;
  - (b) is in a format developed by the state auditor;
  - (c) is certified by the local political subdivision's chief financial officer; and
  - (d) is transmitted annually to the state auditor.

Enacted by Chapter 47, 2011 General Session

**11-36a-602. Expenditure of impact fees.**

- (1) A local political subdivision may expend impact fees only for a system improvement:
  - (a) identified in the impact fee facilities plan; and
  - (b) for the specific public facility type for which the fee was collected.
- (2) (a) Except as provided in Subsection (2)(b), a local political subdivision shall expend or encumber the impact fees for a permissible use within six years of their receipt.
  - (b) A local political subdivision may hold the fees for longer than six years if it identifies, in writing:
    - (i) an extraordinary and compelling reason why the fees should be held longer than six years; and
    - (ii) an absolute date by which the fees will be expended.

Enacted by Chapter 47, 2011 General Session

**11-36a-603. Refunds.**

A local political subdivision shall refund any impact fee paid by a developer, plus interest earned, when:

- (1) the developer does not proceed with the development activity and has filed a written request for a refund;
- (2) the fee has not been spent or encumbered; and
- (3) no impact has resulted.

Enacted by Chapter 47, 2011 General Session

**11-36a-701. Impact fee challenge.**

- (1) A person or an entity residing in or owning property within a service area, or an organization, association, or a corporation representing the interests of persons or entities owning property within a service area, has standing to file a declaratory judgment action challenging the validity of an impact fee.
- (2) (a) A person or an entity required to pay an impact fee who believes the impact fee does not meet the requirements of law may file a written request for information with the local political subdivision who established the impact fee.
  - (b) Within two weeks after the receipt of the request for information under Subsection (2)(a), the local political subdivision shall provide the person or entity with the impact fee analysis, the impact fee facilities plan, and any other relevant information relating to the impact fee.
- (3) (a) Subject to the time limitations described in Section 11-36a-702 and procedures set forth in Section 11-36a-703, a person or an entity that has paid an impact fee that was imposed by a local political subdivision may challenge:
  - (i) if the impact fee enactment was adopted on or after July 1, 2000:
    - (A) subject to Subsection (3)(b)(i) and except as provided in Subsection (3)(b)(ii), whether the local political subdivision complied with the notice requirements of this chapter with respect to the imposition of the impact fee; and
    - (B) whether the local political subdivision complied with other procedural requirements of this chapter for imposing the impact fee; and

- (ii) except as limited by Subsection (3)(c), the impact fee.
  - (b) (i) The sole remedy for a challenge under Subsection (3)(a)(i)(A) is the equitable remedy of requiring the local political subdivision to correct the defective notice and repeat the process.
    - (ii) The protections given to a municipality under Section 10-9a-801 and to a county under Section 17-27a-801 do not apply in a challenge under Subsection (3)(a)(i)(A).
  - (c) The sole remedy for a challenge under Subsection (3)(a)(ii) is a refund of the difference between what the person or entity paid as an impact fee and the amount the impact fee should have been if it had been correctly calculated.
- (4) (a) Subject to Subsection (4)(d), if an impact fee that is the subject of an advisory opinion under Section 13-43-205 is listed as a cause of action in litigation, and that cause of action is litigated on the same facts and circumstances and is resolved consistent with the advisory opinion:
- (i) the substantially prevailing party on that cause of action:
    - (A) may collect reasonable attorney fees and court costs pertaining to the development of that cause of action from the date of the delivery of the advisory opinion to the date of the court's resolution; and
    - (B) shall be refunded an impact fee held to be in violation of this chapter, based on the difference between the impact fee paid and what the impact fee should have been if the government entity had correctly calculated the impact fee; and
  - (ii) in accordance with Section 13-43-206, a government entity shall refund an impact fee held to be in violation of this chapter to the person who was in record title of the property on the day on which the impact fee for the property was paid if:
    - (A) the impact fee was paid on or after the day on which the advisory opinion on the impact fee was issued but before the day on which the final court ruling on the impact fee is issued; and
    - (B) the person described in Subsection (3)(a)(ii) requests the impact fee refund from the government entity within 30 days after the day on which the court issued the final ruling on the impact fee.
- (b) A government entity subject to Subsection (3)(a)(ii) shall refund the impact fee based on the difference between the impact fee paid and what the impact fee should have been if the government entity had correctly calculated the impact fee.
- (c) Subsection (4) may not be construed to create a new cause of action under land use law.
- (d) Subsection (3)(a) does not apply unless the resolution described in Subsection (3)(a) is final.

Enacted by Chapter 47, 2011 General Session

**11-36a-702. Time limitations.**

- (1) A person or an entity that initiates a challenge under Subsection 11-36a-701(3)(a) may not initiate that challenge unless it is initiated within:
- (a) for a challenge under Subsection 11-36a-701(3)(a)(i)(A), 30 days after the day on which the person or entity pays the impact fee;
  - (b) for a challenge under Subsection 11-36a-701(3)(a)(i)(B), 180 days after the day on which the person or entity pays the impact fee; or
  - (c) for a challenge under Subsection 11-36a-701(3)(a)(ii), one year after the day on which the person or entity pays the impact fee.
- (2) The deadline to file an action in district court is tolled from the date that a challenge is filed using an administrative appeals procedure described in Section 11-36a-703 until 30 days after the day on which a final decision is rendered in the administrative appeals procedure.

Enacted by Chapter 47, 2011 General Session

**11-36a-703. Procedures for challenging an impact fee.**

- (1) (a) A local political subdivision may establish, by ordinance or resolution, or a private entity may establish by prior written policy, an administrative appeals procedure to consider and decide a challenge to an impact fee.
- (b) If the local political subdivision or private entity establishes an administrative appeals procedure, the local political subdivision shall ensure that the procedure includes a requirement that the local political subdivision make its decision no later than 30 days after the day on which the challenge to the impact fee is filed.
- (2) A challenge under Subsection 11-36a-701(3)(a) is initiated by filing:
- (a) if the local political subdivision or private entity has established an administrative appeals procedure under Subsection (1), the necessary document, under the administrative appeals procedure, for initiating the administrative appeal;
- (b) a request for arbitration as provided in Section 11-36a-705; or
- (c) an action in district court.
- (3) The sole remedy for a successful challenge under Subsection 11-36a-701(1), which determines that an impact fee process was invalid, or an impact fee is in excess of the fee allowed under this act, is a declaration that, until the local political subdivision or private entity enacts a new impact fee study, from the date of the decision forward, the entity may charge an impact fee only as the court has determined would have been appropriate if it had been properly enacted.
- (4) Subsections (2), (3), 11-36a-701(3), and 11-36a-702(1) may not be construed as requiring a person or an entity to exhaust administrative remedies with the local political subdivision before filing an action in district court under Subsections (2), (3), 11-36a-701(3), and 11-36a-702(1).
- (5) The judge may award reasonable attorney fees and costs to the prevailing party in an action brought under this section.
- (6) This chapter may not be construed as restricting or limiting any rights to challenge impact fees that were paid before the effective date of this chapter.

Amended by Chapter 200, 2013 General Session

**11-36a-704. Mediation.**

- (1) In addition to the methods of challenging an impact fee under Section 11-36a-701, a specified public agency may require a local political subdivision or private entity to participate in mediation of any applicable impact fee.
- (2) To require mediation, the specified public agency shall submit a written request for mediation to the local political subdivision or private entity.
- (3) The specified public agency may submit a request for mediation under this section at any time, but no later than 30 days after the day on which an impact fee is paid.
- (4) Upon the submission of a request for mediation under this section, the local political subdivision or private entity shall:
- (a) cooperate with the specified public agency to select a mediator; and
- (b) participate in the mediation process.

Enacted by Chapter 47, 2011 General Session

**11-36a-705. Arbitration.**

- (1) A person or entity intending to challenge an impact fee under Section 11-36a-703 shall file a written request for arbitration with the local political subdivision within the time limitation described in Section 11-36a-702 for the applicable type of challenge.
- (2) If a person or an entity files a written request for arbitration under Subsection (1), an arbitrator or arbitration panel shall be selected as follows:
- (a) the local political subdivision and the person or entity filing the request may agree on a single arbitrator within 10 days after the day on which the request for arbitration is filed; or
- (b) if a single arbitrator is not agreed to in accordance with Subsection (2)(a), an arbitration panel shall be created with the following members:

- (i) each party shall select an arbitrator within 20 days after the date the request is filed; and
  - (ii) the arbitrators selected under Subsection (2)(b)(i) shall select a third arbitrator.
- (3) The arbitration panel shall hold a hearing on the challenge no later than 30 days after the day on which:
  - (a) the single arbitrator is agreed on under Subsection (2)(a); or
  - (b) the two arbitrators are selected under Subsection (2)(b)(i).
- (4) The arbitrator or arbitration panel shall issue a decision in writing no later than 10 days after the day on which the hearing described in Subsection (3) is completed.
- (5) Except as provided in this section, each arbitration shall be governed by Title 78B, Chapter 11, Utah Uniform Arbitration Act.
- (6) The parties may agree to:
  - (a) binding arbitration;
  - (b) formal, nonbinding arbitration; or
  - (c) informal, nonbinding arbitration.
- (7) If the parties agree in writing to binding arbitration:
  - (a) the arbitration shall be binding;
  - (b) the decision of the arbitration panel shall be final;
  - (c) neither party may appeal the decision of the arbitration panel; and
  - (d) notwithstanding Subsection (10), the person or entity challenging the impact fee may not also challenge the impact fee under Subsection 11-36a-701(1) or Subsection 11-36a-703(2)(a) or (2)(c).
- (8) (a) Except as provided in Subsection (8)(b), if the parties agree to formal, nonbinding arbitration, the arbitration shall be governed by the provisions of Title 63G, Chapter 4, Administrative Procedures Act.
  - (b) For purposes of applying Title 63G, Chapter 4, Administrative Procedures Act, to a formal, nonbinding arbitration under this section, notwithstanding Section 63G-4-502, "agency" means a local political subdivision.
- (9) (a) An appeal from a decision in an informal, nonbinding arbitration may be filed with the district court in which the local political subdivision is located.
  - (b) An appeal under Subsection (9)(a) shall be filed within 30 days after the day on which the arbitration panel issues a decision under Subsection (4).
  - (c) The district court shall consider de novo each appeal filed under this Subsection (9).
  - (d) Notwithstanding Subsection (10), a person or entity that files an appeal under this Subsection (9) may not also challenge the impact fee under Subsection 11-36a-701(1) or Subsection 11-36a-703(2)(a) or (2)(c).
- (10) (a) Except as provided in Subsections (7)(d) and (9)(d), this section may not be construed to prohibit a person or entity from challenging an impact fee as provided in Subsection 11-36a-701(1) or Subsection 11-36a-703(2)(a) or (2)(c).
  - (b) The filing of a written request for arbitration within the required time in accordance with Subsection (1) tolls all time limitations under Section 11-36a-702 until the day on which the arbitration panel issues a decision.
- (11) The person or entity filing a request for arbitration and the local political subdivision shall equally share all costs of an arbitration proceeding under this section.

Enacted by Chapter 47, 2011 General Session