IMPACT FEE ANALYSIS (IFA)

PURSUANT TO 11-36A, UTAH CODE

SANITARY SEWER FACILITIES

NOVEMBER 2020

CITY OF ST. GEORGE, UTAH

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IMPACT FEE CERTIFICATION

IFA CERTIFICATION

Lewis Young Robertson & Burningham, Inc. certifies that the Impact Fee Analysis prepared for sewer services:

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;
   d. offsets costs with grants or other alternate sources of payment; and,

3. Complies in each and every relevant respect with the Impact Fees Act.

LEWIS YOUNG ROBERTSON & BURNINGHAM, INC.

SECTION 1: EXECUTIVE SUMMARY

The purpose of the Sewer Impact Fee Analysis ("IFA") is to fulfill the requirements established in Utah Code Title 11 Chapter 36a, the "Impact Fees Act", and assist the City of St. George (the "City") in financing and constructing necessary capital improvements for future growth. This document will address the future sewer infrastructure needed to serve the service area through the next ten years, as well as the appropriate impact fees the City may charge to new growth to maintain the existing level of service ("LOS"). The Sewer Master Plan ("Master Plan") and the Sewer Impact Fee Facilities Plan ("IFFP"), both prepared by Bowen Collins and Associates in August 2019, as well as input from the City, provide much of the information utilized in this analysis.

- **Impact Fee Service Area:** The sewer collection and treatment service area include the City of St. George, Ivins City, City of Santa Clara, and Washington City. Certain components of the collection facilities serve only development within the City, whereas others serve the region. Therefore, there will be a regional fee for treatment and collection, and a local fee for collection.
- **Demand Analysis:** The demand units utilized in this analysis are based on typical usage patterns measured in gallons per day ("gpd") and equivalent residential units ("ERUs"). As residential and commercial growth occurs within the service area, additional ERUs will be generated. The sewer capital improvements identified in the IFFP are based on maintaining the current LOS as defined and measured by the City.
- **Level of Service:** LOS parameters are provided in the Master Plan and IFFP and summarized in **SECTION 3**.
- **Excess Capacity:** Based on the LOS of 247 gpd per ERU, the City's treatment facility is at 83.6 percent capacity, leaving 16.4 percent of the facility available for new development. Assuming the same LOS into the future, the excess capacity should serve an additional 11,289 ERUs. The City's collection system currently uses 49.9 percent of the system's overall capacity, with an additional 19.6 percent of available capacity expected to be used in the ten-year time horizon of this analysis, as discussed in the IFFP.
- **Capital Facilities Analysis:** The IFFP identifies over $113 million in improvements to the sewer system through buildout. The IFFP has identified the portions of each project that will serve existing development, new growth within the ten-year time frame of this analysis, and growth beyond the ten-year time horizon through ultimate buildout. Approximately $23.1 million of the total CIP will be considered in the calculation of the impact fees.
- **Debt Financing:** The City has plans to issue debt to fund a portion of the treatment facility expansion. The Impact Fee Act allows for the interest expense related to growth to be included in the calculation of the impact fee.
- **Funding of Future Facilities:** This analysis assumes future growth-related facilities will be funded on a pay-as-you-go basis when possible, utilizing impact fee and utility fee revenues to pay for capital facilities. The impact fees do include an interest component, assuming debt financing will be used to construct facilities when needed to serve development and repaid with impact fee revenues.

PROPOSED SEWER IMPACT FEE

The IFFP must meet the legislative requirements found in the Impact Fee Act if it is to serve as a working document in the calculation of impact fees. The calculation of impact fees relies upon the information contained in this analysis. Impact fees are then calculated based on many variables centered on proportionality share and LOS.

SEWER IMPACT FEE CALCULATION

TABLES 1.1 and **1.2** illustrate the appropriate buy-in fee, the fee associated with projects occurring in the next ten years, and other costs related to the sewer impact fee. The proportionate share analysis determines the proportionate cost assignable to new development based on the proposed capital projects and the estimated ERU demand served by the proposed projects. It should be noted that development located outside of the City of St. George will pay just the regional fee, and development inside the City of St. George will pay both the regional and local impact fee.

TABLE 1.1: CALCULATION OF REGIONAL IMPACT FEE

REGIONAL FEE CALCULATION	ESTIMATED COST	% TO GROWTH	COST TO GROWTH	ERUS SERVED	COST PER ERU	% OF TOTAL FEE
Regional Treatment Buy-In	$20,409,056	16.4%	$3,347,541	25,951	$129	9.4%
Regional Collection Buy-In	$24,723,026	19.6%	$4,845,713	25,951	$187	13.5%
Future Regional Treatment Facilities	$71,170,000	25.2%	$17,960,618	25,951	$692	50.2%
Future Debt Expense	$18,629,825	25.2%	$4,701,464	25,951	$181	13.1%
Future Regional Collection Facilities	$41,043,000	11.9%	$4,878,607	25,951	$188	13.6%

REGIONAL FEE CALCULATION	ESTIMATED COST	% TO GROWTH	COST TO GROWTH	ERUS SERVED	COST PER ERU	% OF TOTAL FEE
Professional Expense[1]	$24,383	100.0%	$24,383	14,190	$2	0.1%
Total: Regional	**$175,999,290**		**$35,758,325**		**$1,379**	**100.0%**

TABLE 1.2: CALCULATION OF LOCAL IMPACT FEE

Local Fee Calculation	Estimated Cost	% to Growth	Cost to Growth	ERUs Served	Cost per ERU	% OF TOTAL FEE
Local Collection Buy-In	$10,346,994	19.6%	$2,028,011	17,078	$119	86.7%
Future Local Collection Facilities	$1,550,000	20.0%	$310,158	17,078	$18	13.3%
Total: Local	**$11,896,994**		**$2,338,169**		**$137**	**100.0%**

The impact fee per meter size is shown below.

TABLE 1.3: REGIONAL IMPACT FEE PER METER SIZE

CONNECTION SIZE	ERU MULTIPLIER*	PROPOSED REGIONAL FEE	EXISTING REGIONAL IMPACT FEE	% CHANGE	$ CHANGE
3/4	1.00	$1,379	$909	52%	$470
1	2.16	$2,978	$1,964	52%	$1,014
1 1/2	7.17	$9,885	$6,518	52%	$3,367
2	11.54	$15,910	$10,491	52%	$5,419
3	26.00	$35,846	$23,636	52%	$12,210
4	46.00	$63,420	$41,818	52%	$21,603
6	104.00	$143,385	$94,544	52%	$48,840

*Provided by the City of St. George and based on actual historic water use for the different meter sizes.

TABLE 1.4: LOCAL IMPACT FEE PER METER SIZE

CONNECTION SIZE	ERU MULTIPLIER*	PROPOSED LOCAL FEE	EXISTING LOCAL IMPACT FEE	% CHANGE	$ CHANGE
3/4	1.00	$137	$161	-15%	($24)
1	2.16	$296	$347	-15%	($51)
1 1/2	7.17	$982	$1,152	-15%	($170)
2	11.54	$1,580	$1,854	-15%	($274)
3	26.00	$3,560	$4,178	-15%	($618)
4	46.00	$6,298	$7,391	-15%	($1,093)
6	104.00	$14,239	$16,711	-15%	($2,472)

*Provided by the City of St. George and based on actual historic water use for the different meter sizes.

NON-STANDARD SEWER IMPACT FEES

The City reserves the right under the Impact Fees Act[2] to assess an adjusted fee that more closely matches the true impact that the land use will have upon the City's sewer system. This adjustment could result in a different impact fee if evidence suggests a particular user will create a different impact than what is standard for its category. The impact fee for non-standard development would be determined based on the water utilization (in gallons per day) divided by the average gallons per day per ERU (247), multiplied by the impact fee per ERU for each service area (local and/or regional), as shown below.

FORMULA FOR NON-STANDARD SEWER IMPACT FEES:

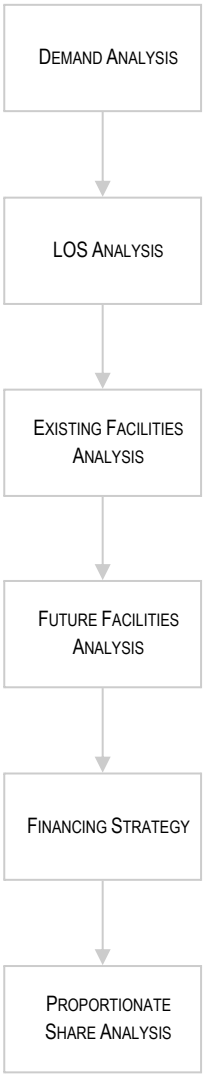
Estimated Usage/247 * Regional Impact Fee per ERU ($1,379) = Regional Impact Fee
Estimated Usage/247 * Local Impact Fee per ERU ($137) = Local Impact Fee

[1] This is the actual cost to update the IFFP and IFA. The City can use this portion of the impact fee to reimburse itself for the expense of updating the IFFP and IFA. The cost is divided over the number of new ERUs in the next six years.
[2] UC 11-36a-402(1)(c)

SECTION 2: GENERAL IMPACT FEE METHODOLOGY

The purpose of this study is to fulfill the requirements of the Impact Fees Act regarding the establishment of an IFA[3]. The IFFP, completed by Bowen Collins & Associates, is designed to identify the demands placed upon the City's existing facilities by future development and evaluate how these demands will be met by the City, as well as the future improvements required to maintain the existing LOS. The purpose of the IFA is to proportionately allocate the cost of the new facilities and any excess capacity to new development, while ensuring that all methods of financing are considered. The following elements are important considerations when completing an IFA.

FIGURE 2.1: IMPACT FEE METHODOLOGY



DEMAND ANALYSIS

The demand analysis serves as the foundation for this analysis. This element focuses on a specific demand unit related to each public service – the existing demand on public facilities and the future demand as a result of new development that will impact system facilities.

LEVEL OF SERVICE ANALYSIS

The demand placed upon existing public facilities by existing development is known as the existing LOS. Through the inventory of existing facilities, combined with the growth assumptions, this analysis identifies the LOS which is provided to a community's existing residents and ensures that future facilities maintain these standards. Any excess capacity identified within existing facilities can be apportioned to new development. Any demand generated from new development that overburdens the existing system beyond the existing capacity justifies the construction of new facilities.

EXISTING FACILITY INVENTORY

In order to quantify the demands placed upon existing public facilities by new development activity, the analysis provides an inventory of existing system facilities. The inventory of existing facilities is important to properly determine the excess capacity of existing facilities and the utilization of excess capacity by new development.

FUTURE CAPITAL FACILITIES ANALYSIS

The demand analysis, existing facility inventory and LOS analysis allow for the development of a list of capital projects necessary to serve new growth and to maintain the existing system. This list includes any excess capacity of existing facilities, as well as future system improvements necessary to maintain the level of service. Any demand generated from new development that overburdens the existing system beyond the existing capacity justifies the construction of new facilities.

FINANCING STRATEGY

This analysis must also include a consideration of all revenue sources, including impact fees, future debt costs, alternative funding sources and the dedication of system improvements, which may be used to finance system improvements.[4] In conjunction with this revenue analysis, there must be a determination that impact fees are necessary to achieve an equitable allocation of the costs of the new facilities between the new and existing users.[5]

PROPORTIONATE SHARE ANALYSIS

The written impact fee analysis is required under the Impact Fees Act and must identify the impacts placed on the facilities by development activity and how these impacts are reasonably related to the new development. The written impact fee analysis must include a proportionate share analysis, clearly detailing each cost component and the methodology used to calculate each impact fee. A local political subdivision or private entity may only impose impact fees on development activities when its plan for financing system improvements establishes that impact fees are necessary to achieve an equitable allocation of the costs borne in the past and to be borne in the future (UCA 11-36a-302).

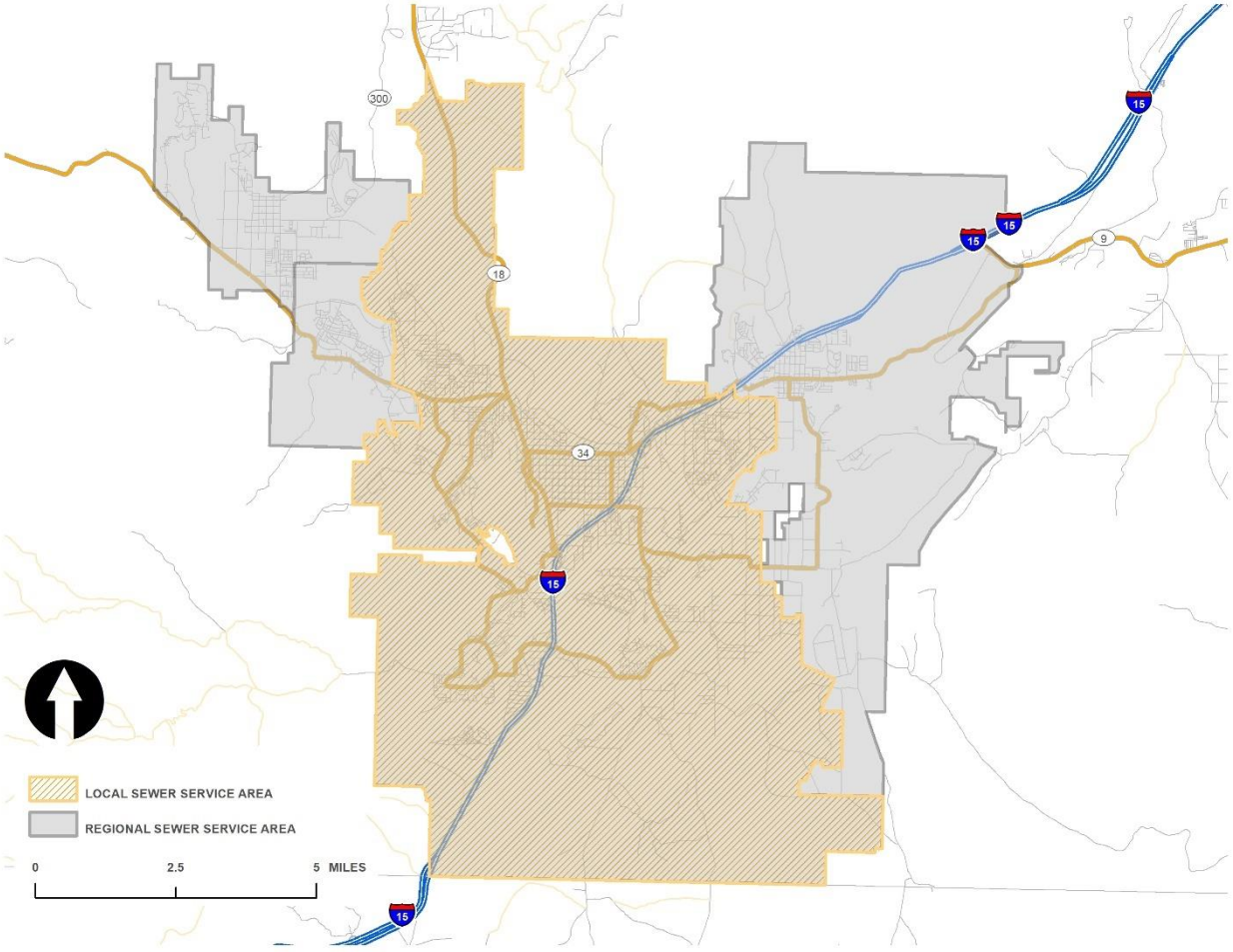
[3] UC 11-36a-301,302,303,304
[4] UC 11-36a-302(2)
[5] UC 11-36a-302(3)

SECTION 3: OVERVIEW OF SERVICE AREA AND DEMAND ANALYSIS

SERVICE AREA

Utah Code requires the impact fee enactment to establish one or more service areas within which impact fees will be imposed.[6] The sewer system is separated into two distinct systems: 1) the local sewer system, and 2) the regional sewer system. The local system service area includes only the City of St. George, whereas the regional system provides services to the regional area, including the City of St. George, Ivins City, the City of Santa Clara, and Washington City. For purposes of the impact fee, properties located within the City of St. George will pay both the local and regional portions of the impact fee, whereas properties located outside of St. George will only pay the regional portion.

FIGURE 3.1: SEWER IMPACT FEE SERVICE AREA



DEMAND UNITS

The demand unit utilized in this analysis is equivalent residential units ("ERUs"). The primary impact on the system will be growth in residential and commercial ERUs through development. As development occurs within the cities, it generates increased demand on the sewer system above the current demand. The system improvements identified in this study are designed to maintain the existing LOS for any new or redeveloped property within the City. If growth assumptions change substantially, the impact fee analysis should be updated to reflect these changes.

The sewer collection and treatment systems serve all of the City, as well as Washington City, Ivins City and the City of Santa Clara. Sewer flow from Washington, Ivins, and Santa Clara is conveyed through each city's sewer collection system and into the City

[6] UC 11-36a-402(a)

collection system at various locations. Sewer lines within St. George that covey flow from St. George and at least one other municipality are considered "regional facilities", while lines serving only the City are considered "local facilities". Based upon the projected increase in sewer flows, the total number of Local and Regional ERUs will increase by approximately 25,951, with 17,078 ERUs occurring within St. George through 2028 as shown in **TABLE 3.1**. Projections for population and ERUs were taken from projections in each city's Master Plan. The current ERUs have been identified by data provided by each of the cities.

TABLE 3.1: ERU PROJECTIONS

YEAR	CITY POPULATION	REGIONAL SERVICE AREA POPULATION	REGIONAL ERUS	LOCAL ERUS	TOTAL REGIONAL MGD
2018	98,028	142,537	57,537	41,974	14.21
2019	100,822	147,207	59,471	43,170	14.69
2020	103,851	152,195	61,478	44,466	15.19
2021	107,600	157,978	63,891	46,071	15.78
2022	111,484	163,987	66,401	47,734	16.40
2023	115,509	170,234	69,012	49,457	17.05
2024	119,679	176,728	71,727	51,242	17.72
2025	123,999	183,462	74,552	53,092	18.41
2026	128,475	190,462	77,320	55,009	19.10
2027	133,113	197,738	80,371	56,995	19.85
2028	137,919	205,302	83,488	59,052	20.62
		Change: 2018-2028	**25,951**	**17,078**	

The City has provided the ERU conversion multipliers shown in **TABLE 3.2**. These multipliers are representative of the actual historic water use for the different meter sizes.

TABLE 3.2: ILLUSTRATION ERU CONVERSION BASED ON METER SIZE

METER SIZE (IN)	ERU CONVERSION
3/4	1.00
1	2.16
1 1/2	7.17
2	11.54
3	26.00
4	46.00
6	104.00

Source: The City of St. George Water Department

LEVEL OF SERVICE STANDARDS

Impact fees cannot be used to finance an increase in the LOS to current or future users of capital improvements. Therefore, it is important to identify the LOS per ERU and ensure that the new capacities of system projects financed through impact fees will not exceed the established standard.

It is anticipated that the growth projected over the next ten years, and through buildout, will impact the City's existing services. Sewer infrastructure will need to be expanded in order to maintain the existing LOS. Impact fees are a logical mechanism for funding growth-related infrastructure. The IFFP and this analysis are designed to accurately assess the true impact of a particular user upon the City's infrastructure.

TREATMENT

The City of St. George has identified the LOS and existing performance standard on page three of the IFFP. The existing performance standard, or the treatment being used per ERU is 247 gpd, even though the amount available is 295 gpd. The proposed LOS established in the IFFP will be the performance standard, or 247 gpd/ERU.

COLLECTION

The City's Master Plan and IFFP establish that all sewer mains be designed such that the maximum depth of flow in the pipe does not exceed the depth equal to 75 percent of the pipe's hydraulic capacity, or a diameter ratio of 0.70. This standard was used for pipeline capacity evaluation and to determine the buy-in available in the existing collection system for future development.

SECTION 4: EXISTING FACILITIES INVENTORY

The intent of the equity buy-in component is to recover the costs of the unused capacity in existing infrastructure from new development. This section addresses any excess capacity within the sewer system.

EXCESS CAPACITY

TREATMENT

The St. George Water Reclamation Facility ("SGWRF") plant utilizes an oxidation ditch/extended aeration process that uses physical and biological processes to treat the sewage. Sewage is pulled through oxidation ditches and aeration basins, disinfected via UV treatment and cycled through a variety of other steps to remove 98 percent of contaminants in the water. Some of the treated water is pumped back up into the contributing communities, where it's used for sprinkler systems on golf courses, schools, parks and other facilities. Some is put back into the river. The leftover sludge is trucked off to a dump site at the county landfill. The City owns the Treatment Plant and the land on which it is located.

The Treatment Plant's total current capacity is 17 million gallons per day ("mgd"). Based on the LOS of 247 gallons per day ("gpd") per ERU, the City's treatment facility is at 83.6 percent capacity, leaving 16.4 percent of the facility available for new development. At the established LOS (247 gpd/ERU), the excess capacity should serve an additional 11,289 ERUs.

TABLE 4.1: ILLUSTRATION OF EXCESS TREATMENT CAPACITY

	CAPACITY (GALLONS PER DAY)	ERUS SERVED	% OF TOTAL
Existing Demand	14,211,639	**57,537**	83.6%
Buy-In Capacity for Future Growth	2,788,383	**11,289**	16.4%
Total Existing Capacity	17,000,000	**68,826**	

The buy-in component is derived from information provided by the engineer on the existing treatment system and future treatment capital improvements that will replace existing components. This analysis looks at the percentage of future replacement projects in the CIP taken from the IFFP and determines the cost of these improvements. This cost is then deducted from the current replacement value of the existing treatment system. The same reduction is then taken from the current value of the existing system, and the two figures are combined to provide an estimate of the value of the treatment system that can be included as the buy-in component of the treatment impact fee.

TABLE 4.2: DETERMINATION OF VALUE OF EXISTING TREATMENT FACILITY RELATED TO NEW GROWTH

Estimated Current Replacement Value of Existing Treatment Facilities	$88,948,956	Based on existing depreciation schedules (adjusted to today's dollars)
Proposed Treatment CIP	$71,170,000	From Sewer IFFP
% of CIP to replacement of Existing System Components	67%	Per Engineering Estimate
Total Amount Related to Replacing Existing System	$47,633,465	Line 1 multiplied by Line 3
CIP Replacement Cost as a Percentage of Est Current Value of System	54%	Line 4 divided by Line 1
Original Cost of Existing System	$43,939,069	Taken from Depreciation Schedule
Eligible Buy-in Cost	**$20,409,056**	**100% Minus Line 5 (54%) multiplied by Line 6**
Existing ERUs	57,537	Regional ERUs (See Table 3.1)
ERUs Served by Remaining Capacity	11,289	The existing treatment facility capacity is 17MGD or 68,826 ERUs. Subtracting 57,537 ERUs leaves 11,289 ERUs
Percent Excess Capacity	16.4%	11,289 Divided by 68,826
Buy-In Cost to Growth	**$3,347,541**	**$20,409,056 multiplied by 16.4%**

COLLECTION

While the LOS analysis completed for the IFFP shows there are some deficiencies in the existing collection system, these deficiencies are associated with a limited portion of the existing system, and overall, excess capacity does exist in the collection system. Therefore, the IFFP concludes there is excess capacity in the collection system to be considered in the impact fee calculation. Calculations completed by BC&A and included in the IFFP show that approximately 49.9% of the collection system

facilities are being used by existing users, leaving 50.1% of the system to be used by future development and a factor in the impact fee calculations. Based on growth projections, it is anticipated that approximately 19.6% of the remaining capacity will be used during the ten-year planning horizon, with the remaining 30.5% available for demands on the system beyond the ten-year planning window.

The buy-in component for collection facilities is based on the percentages shown in the paragraph above and calculated using the original cost of existing assets as presented in the City's financial records, plus any interest associated with outstanding debt to fund the existing facilities.

TABLE 4.3: DETERMINATION OF VALUE OF EXISTING COLLECTION FACILITIES RELATED TO NEW GROWTH

	LOCAL	REGIONAL	
Base Value of Existing Facilities	$10,346,994	$24,723,026	Based on existing depreciation schedules
Percent Excess Capacity	19.6%	19.6%	See description of collection excess capacity
Buy-in Cost to Growth	**$2,028,011**	**$4,845,713**	**Allocation of Existing System for Calculation of Buy-in**

MANNER OF FINANCING EXISTING PUBLIC FACILITIES

The City has funded its existing capital infrastructure through a combination of different revenue sources, including impact fees, user fees, and dedications.

SECTION 5: CAPITAL FACILITY ANALYSIS

The estimated costs attributed to new growth were analyzed based on existing development versus future development patterns, as well as through an analysis of flow data. From this analysis, a portion of future development costs were attributed to new growth and included in this impact fee analysis as shown in **TABLE 5.1.** The costs of capital projects related to curing existing deficiencies cannot be funded through impact fees and were not included in the calculation of impact fees. The table below describes the specific capital improvements necessary to meet the future growth needs anticipated to occur within the City and region in the next ten-year period.

TABLE 5.1: ILLUSTRATION OF CAPITAL IMPROVEMENTS RELATED TO GROWTH

PROJECT	DESCRIPTION	CONSTRUCTION YEAR COST	PERCENT TO 10-YR GROWTH	COST TO 10-YR GROWTH
Local Collection				
L2-Reach 2	Tonaquint Dr Sewer Main Replacement and Realignment	$180,000	3.3%	$5,853
L4	Commerce Drive Sewer Line Diversion	$469,000	10.0%	$47,011
L7	Sun River Lift Station Upgrades	$901,000	28.6%	$257,293
	Local Collection Improvement Subtotal	**$1,550,000**		**$310,158**
Regional Collection				
R1	Entrada Sewer Main Replacement (North Reach)	$343,000	9.2%	$31,653
R7	South Woodsview Circle Sewer Line Replacement	$515,000	29.8%	$153,717
R11-Reach1	Riverside Drive Sewer Main Replacement	$898,000	11.7%	$104,853
R14-Reach 1	Seegmiller Marsh/1450 S Sewer Line Replacement	$1,604,000	15.8%	$253,936
R16 - Reach 3	Fort Pierce Sewer Main Replacement	$1,532,000	12.3%	$189,174
R16 - Reach 4	Fort Pierce Sewer Main Replacement	$3,039,000	11.7%	$355,292
R16 - Reach 5	Fort Pierce Sewer Main Replacement	$1,675,000	11.3%	$189,614
R17	Bloomington Hills Sewer Main Parallel Line	$2,122,000	10.4%	$221,282
R19	Virgin River/Bloomington Sewer Interceptor Replacement	$14,148,000	11.7%	$1,652,108
R21	South Bloomington Interceptor Project	$14,293,000	11.3%	$1,621,393
R22	SGWRF Sewer Interceptor Replacement Project	$874,000	12.1%	$105,585
	Regional Collection Improvement Subtotal	**$41,043,000**		**$4,878,607**
	Total Collection Improvements	**$42,593,000**		**$5,188,765**
Regional Treatment				
T1	SGWRF Expansion Project (Phase 1)	$29,670,000	25.2%	$7,487,587
T2	SGWRF Expansion and Process Conversion	$41,500,000	25.2%	$10,473,031
	Regional Treatment Improvement Subtotal	**$71,170,000**		**$17,960,618**
Combined Total		**$113,763,000**		**$23,149,383**

The IFFP details the projects shown above and considered in the calculation of the impact fees. The engineers used capital project and engineering data, planning analysis and other information to determine the future needs of the service area, as well as the ability of the existing system to serve future development. All future capital project data, including project descriptions and estimated project costs, is included in the Master Plan and IFFP. The accuracy and correctness of this analysis is contingent upon the accuracy of the data and assumptions included therein. Any deviations or changes in the assumptions due to changes in the economy or other relevant information used by the City for this study may cause this plan to be inaccurate and require modifications.

SYSTEM VS. PROJECT IMPROVEMENTS

System improvements are defined as existing and future public facilities that are intended to provide services to service areas within the community at large.[7] Project improvements are improvements and facilities that are planned and designed to provide service for a specific development (resulting from a development activity) and considered necessary for the use and convenience of the occupants or users of that development.[8] This analysis only includes the costs of system improvements related to new growth within the proportionate share analysis.

[7] UC 11-36a-102(20)
[8] UC 11-36a102(13)

FUNDING OF FUTURE FACILITIES

The IFFP must also include a consideration of all revenue sources, including impact fees and the dedication (donation) of system improvements, which may be used to finance system improvements.[9] In conjunction with this revenue analysis, there must be a determination that impact fees are necessary to achieve an equitable allocation of the costs of the new facilities between the new and existing users.[10]

In considering the funding of future facilities, the City has determined the portion of future projects that will be funded by impact fees as growth-related, system improvements. Impact fees are an appropriate funding and repayment mechanism of the growth-related improvements. Where applicable, impact fees will offset the cost of future facilities. However, impact fees cannot be used to fund non-qualified expenses (i.e. the costs to cure existing deficiencies, to raise the LOS, to recoup more than the actual cost of system improvements, or to fund overhead cannot be included in the calculation of impact fees). Other revenues such as utility rate revenues, property taxes, grants, or loans can be used to fund these types of expenditures, as described below.

UTILITY RATE REVENUES

Utility rate revenues serve as the primary funding mechanism within enterprise funds. Rates are established to ensure appropriate coverage of all operations and maintenance expenses, as well as all non-growth related debt service and capital project needs.

PROPERTY TAX REVENUES

Property tax revenues are not specifically identified in this analysis as a funding source for growth-related capital projects, but inter-fund loans may be made from the general fund which will ultimately include some property tax revenues. Interfund loans will be repaid once sufficient impact fee revenues have been collected. The City follows Utah Code 10-6-132 which requires interest to be accrued on interfund loans.

GRANTS AND DONATIONS

Grants and donations are not currently contemplated in this IFFP. However, the impact fees will be adjusted if grants become available to reflect the grant monies received. A donor will be entitled to a reimbursement for the value of system improvements funded through impact fees if donations are made by new development.

IMPACT FEE REVENUES

Impact fees are a logical mechanism for funding growth-related infrastructure. Impact fees are charged to ensure that new growth pays its proportionate share of the costs for the development of public infrastructure. Impact fee revenues can also be attributed to the future expansion of public infrastructure if the revenues are used to maintain an existing level of service. Increases to an existing level of service cannot be funded with impact fee revenues. Impact fee revenues are generally considered non-operating revenues and help offset future capital costs.

DEBT FINANCING

In the event the City has not accumulated sufficient impact fees to pay for the construction of time sensitive or urgent capital projects needed to accommodate new growth, the City must look to revenue sources other than impact fees for funding. The Impact Fees Act allows for the costs related to the financing of future capital projects to be legally included in the impact fee. This allows the City to finance and quickly construct infrastructure for new development and reimburse itself later from impact fee revenues for the costs of issuing debt.

The City will issue bonds to fund a portion of the expansion to the sewer treatment facility. This analysis assumes the City will borrow $30.090 million for this expansion, and the interest expenses attributable to the growth within the time frame of this analysis will be included in the calculation of the impact fee. Based on the final debt figures, the total interest expense associated with the debt is $18,629,825. Approximately $4.7 million is considered in the impact fee calculations, based on the proportion of the proposed treatment project applicable to growth within the ten-year horizon. The 2020 Sewer Revenue Debt Service figures are shown below.

TABLE 5.2: FINAL 2020 SEWER REVENUE BOND DEBT SERVICE FIGURES

DATE	PRINCIPAL	COUPON	INTEREST	TOTAL P+I	FISCAL TOTAL
05/21/2020	-	-	-	-	-
10/01/2020	-	-	505,375.00	505,375.00	-

[9] UC 11-36a-302(2)
[10] UC 11-36a-302(3)

DATE	PRINCIPAL	COUPON	INTEREST	TOTAL P+I	FISCAL TOTAL
04/01/2021	985,000.00	5.000%	699,750.00	1,684,750.00	2,190,125.00
10/01/2021	-	-	675,125.00	675,125.00	-
04/01/2022	840,000.00	5.000%	675,125.00	1,515,125.00	2,190,250.00
10/01/2022	-	-	654,125.00	654,125.00	-
04/01/2023	880,000.00	5.000%	654,125.00	1,534,125.00	2,188,250.00
10/01/2023	-	-	632,125.00	632,125.00	-
04/01/2024	925,000.00	5.000%	632,125.00	1,557,125.00	2,189,250.00
10/01/2024	-	-	609,000.00	609,000.00	-
04/01/2025	970,000.00	5.000%	609,000.00	1,579,000.00	2,188,000.00
10/01/2025	-	-	584,750.00	584,750.00	-
04/01/2026	1,020,000.00	5.000%	584,750.00	1,604,750.00	2,189,500.00
10/01/2026	-	-	559,250.00	559,250.00	-
04/01/2027	1,070,000.00	5.000%	559,250.00	1,629,250.00	2,188,500.00
10/01/2027	-	-	532,500.00	532,500.00	-
04/01/2028	1,125,000.00	5.000%	532,500.00	1,657,500.00	2,190,000.00
10/01/2028	-	-	504,375.00	504,375.00	-
04/01/2029	1,180,000.00	5.000%	504,375.00	1,684,375.00	2,188,750.00
10/01/2029	-	-	474,875.00	474,875.00	-
04/01/2030	1,240,000.00	5.000%	474,875.00	1,714,875.00	2,189,750.00
10/01/2030	-	-	443,875.00	443,875.00	-
04/01/2031	1,300,000.00	5.000%	443,875.00	1,743,875.00	2,187,750.00
10/01/2031	-	-	411,375.00	411,375.00	-
04/01/2032	1,365,000.00	5.000%	411,375.00	1,776,375.00	2,187,750.00
10/01/2032	-	-	377,250.00	377,250.00	-
04/01/2033	1,435,000.00	5.000%	377,250.00	1,812,250.00	2,189,500.00
10/01/2033	-	-	341,375.00	341,375.00	-
04/01/2034	1,505,000.00	5.000%	341,375.00	1,846,375.00	2,187,750.00
10/01/2034	-	-	303,750.00	303,750.00	-
04/01/2035	1,580,000.00	3.000%	303,750.00	1,883,750.00	2,187,500.00
10/01/2035	-	-	280,050.00	280,050.00	-
04/01/2036	1,630,000.00	3.000%	280,050.00	1,910,050.00	2,190,100.00
10/01/2036	-	-	255,600.00	255,600.00	-
04/01/2037	1,675,000.00	3.000%	255,600.00	1,930,600.00	2,186,200.00
10/01/2037	-	-	230,475.00	230,475.00	-
04/01/2038	1,725,000.00	3.000%	230,475.00	1,955,475.00	2,185,950.00
10/01/2038	-	-	204,600.00	204,600.00	-
04/01/2039	1,780,000.00	3.000%	204,600.00	1,984,600.00	2,189,200.00
10/01/2039	-	-	177,900.00	177,900.00	-
04/01/2040	1,835,000.00	3.000%	177,900.00	2,012,900.00	2,190,800.00
10/01/2040	-	-	150,375.00	150,375.00	-
04/01/2041	1,890,000.00	3.000%	150,375.00	2,040,375.00	2,190,750.00
10/01/2041	-	-	122,025.00	122,025.00	-
04/01/2042	1,945,000.00	3.000%	122,025.00	2,067,025.00	2,189,050.00
10/01/2042	-	-	92,850.00	92,850.00	-
04/01/2043	2,000,000.00	3.000%	92,850.00	2,092,850.00	2,185,700.00
10/01/2043	-	-	62,850.00	62,850.00	-
04/01/2044	2,065,000.00	3.000%	62,850.00	2,127,850.00	2,190,700.00
10/01/2044	-	-	31,875.00	31,875.00	-
04/01/2045	2,125,000.00	3.000%	31,875.00	2,156,875.00	2,188,750.00
Total	**$36,090,000.00**	**-**	**$18,629,825.00**	**$54,719,825.00**	**-**

EQUITY OF IMPACT FEES

Impact fees are intended to recover the costs of capital infrastructure that relate to future growth. The impact fee calculations are structured for impact fees to fund 100 percent of the growth-related facilities identified in the proportionate share analysis as presented in the impact fee analysis. Even so, there may be years that impact fee revenues cannot cover the annual growth-related expenses. In those years, other revenues such as general fund revenues or user rate revenues may be used to make up any annual deficits. Any borrowed funds are to be repaid in their entirety through impact fees.

NECESSITY OF IMPACT FEES

An entity may only impose impact fees on development activity if the entity's plan for financing system improvements establishes that impact fees are necessary to achieve parity between existing and new development. This analysis has identified the improvements to public facilities and the funding mechanisms to complete the suggested improvements. Impact fees are identified as a necessary funding mechanism to help offset the costs of new capital improvements related to new growth. In addition, alternative funding mechanisms are identified to help offset the cost of future capital improvements.

SECTION 6: SEWER IMPACT FEE CALCULATION

The calculation of impact fees relies upon the information contained in this analysis. Impact fees are calculated based on many variables centered on proportionality and LOS. The City currently provides sewer services to the residents and businesses of the City of St. George, Washington City, City of Santa Clara, and Ivins City. As a result of new growth, the sewer system is in need of expansion to perpetuate the LOS that the City has historically maintained. The *Sewer Master Plan* and the *Sewer Impact Fee Facilities Plan*, both dated Augusts 2019, outline the recommended capital projects that will maintain the established LOS.

PROPOSED SEWER IMPACT FEE

The IFFP must properly complete the legislative requirements found in the Impact Fee Act if it is to serve as a working document in the calculation of appropriate impact fees. The calculation of impact fees relies upon the information contained in this analysis. Impact fees are then calculated based on many variables centered on proportionality share and LOS. The following paragraph describes the methodology used for calculating impact fees in this analysis.

PLAN BASED (FEE BASED ON DEFINED CAPITAL IMPROVEMENT PLAN)

Impact fees can be calculated using a specific set of costs specified for future development. The improvements are identified in the IFFP as growth related projects. The total project costs are divided by the total demand units the projects are designed to serve. Under this methodology, it is important to identify the existing LOS and determine any excess capacity in existing facilities that could serve new growth.

SEWER IMPACT FEE CALCULATION

The sewer impact fees proposed in this analysis will be assessed based on the service areas defined in this analysis. **TABLE 6.1 AND 6.2** below illustrates the appropriate buy-in component, the fee associated with projects occurring in the next ten years, future debt expense associated with funding the future projects, and other applicable costs related to both the collection and treatment systems.

TABLE 6.1: CALCULATION OF REGIONAL IMPACT FEE

REGIONAL FEE CALCULATION	ESTIMATED COST	% TO GROWTH	COST TO GROWTH	ERUS SERVED	COST PER ERU	% OF TOTAL FEE
Regional Treatment Buy-In	$20,409,056	16.4%	$3,347,541	25,951	$129	9.4%
Regional Collection Buy-In	$24,723,026	19.6%	$4,845,713	25,951	$187	13.5%
Future Regional Treatment Facilities	$71,170,000	25.2%	$17,960,618	25,951	$692	50.2%
Future Debt Expense	$18,629,825	25.2%	$4,701,464	25,951	$181	13.1%
Future Regional Collection Facilities	$41,043,000	11.9%	$4,878,607	25,951	$188	13.6%
Professional Expense[11]	$24,383	100.0%	$24,383	14,190	$2	0.1%
Total: Regional	**$175,999,290**		**$35,758,325**		**$1,379**	**100.0%**

TABLE 6.2: CALCULATION OF LOCAL IMPACT FEE

Local Fee Calculation	Estimated Cost	% to Growth	Cost to Growth	ERUS SERVED	Cost per ERU	% OF TOTAL FEE
Local Collection Buy-In	$10,346,994	19.6%	$2,028,011	17,078	$119	86.7%
Future Local Collection Facilities	$1,550,000	20.0%	$310,158	17,078	$18	13.3%
Total: Local	**$11,896,994**		**$2,338,169**		**$137**	**100.0%**

[11] This is the actual cost to update the IFFP and IFA. The City can use this portion of the impact fee to reimburse itself for the expense of updating the IFFP and IFA. The cost is divided over the number of new ERUs in the next six years.

The regional and local impact fee per meter size is shown below in **TABLE 6.3 AND 6.4**.

TABLE 6.3: REGIONAL IMPACT FEE PER METER SIZE

CONNECTION SIZE	ERU MULTIPLIER*	PROPOSED REGIONAL FEE	EXISTING REGIONAL IMPACT FEE	% CHANGE	$ CHANGE
3/4	1.00	$1,379	$909	52%	$470
1	2.16	$2,978	$1,964	52%	$1,014
1 1/2	7.17	$9,885	$6,518	52%	$3,367
2	11.54	$15,910	$10,491	52%	$5,419
3	26.00	$35,846	$23,636	52%	$12,210
4	46.00	$63,420	$41,818	52%	$21,603
6	104.00	$143,385	$94,544	52%	$48,840

*Provided by the City of St. George and based on actual historic water use for the different meter sizes.

TABLE 6.4: LOCAL IMPACT FEE PER METER SIZE

CONNECTION SIZE	ERU MULTIPLIER*	PROPOSED LOCAL FEE	EXISTING LOCAL IMPACT FEE	% CHANGE	$ CHANGE
3/4	1.00	$137	$161	-15%	($24)
1	2.16	$296	$347	-15%	($51)
1 1/2	7.17	$982	$1,152	-15%	($170)
2	11.54	$1,580	$1,854	-15%	($274)
3	26.00	$3,560	$4,178	-15%	($618)
4	46.00	$6,298	$7,391	-15%	($1,093)
6	104.00	$14,239	$16,711	-15%	($2,472)

*Provided by the City of St. George and based on actual historic water use for the different meter sizes.

NON-STANDARD SEWER IMPACT FEES

The City reserves the right under the Impact Fees Act[12] to assess an adjusted fee that more closely matches the true impact that the land use will have upon the City's sewer system. This adjustment could result in a different impact fee if evidence suggests a particular user will create a different impact than what is standard for its category. The impact fee for non-standard development would be determined based on the water utilization (in gallons per day) divided by the average gallons per day per ERU (247), multiplied by the impact fee per ERU for each service area (local and/or regional), as shown below.

FORMULA FOR NON-STANDARD SEWER IMPACT FEES:

Estimated Usage/247 * Regional Impact Fee per ERU ($1,379) = Regional Impact Fee
Estimated Usage/247 * Local Impact Fee per ERU ($137) = Local Impact Fee

CONSIDERATION OF ALL REVENUE SOURCES

The Impact Fees Act requires the proportionate share analysis to demonstrate that impact fees paid by new development are the most equitable method of funding growth-related infrastructure. See **SECTION 5** for further discussion regarding the consideration of revenue sources.

EXPENDITURE OF IMPACT FEES

Legislation requires that impact fees should be spent or encumbered within six years after each impact fee is paid. Impact fees collected in the next five to six years should be spent only on those projects outlined in the IFFP as growth related costs.

PROPOSED CREDITS OWED TO DEVELOPMENT

Credits may be applied to developers who have constructed and donated system facilities to the City that are included in the IFFP in-lieu of impact fees. Credits for system improvements may be available to developers up to, but not exceeding, the amount commensurate with the LOS identified within this IFA. Credits will not be given for the amount by which system improvements exceed the LOS identified within this IFA. This situation does not apply to developer exactions or improvements required to offset density or as a condition of development. Any project that a developer funds must be included in the IFFP if a credit is to be issued.

In the situation that a developer chooses to construct system facilities found in the IFFP in-lieu of impact fees, the decision must be made through negotiation with the developer and the City on a case-by-case basis.

[12] UC 11-36a-402(1)(c)

GROWTH-DRIVEN EXTRAORDINARY COSTS

The City does not anticipate any extraordinary costs necessary to provide services to future development.

SUMMARY OF TIME PRICE DIFFERENTIAL

The Impact Fees Act allows for the inclusion of a time price differential to ensure that the future value of costs incurred at a later date are accurately calculated to include the costs of construction inflation. A two percent annual construction inflation adjustment is applied to projects completed after 2019 (the base year cost estimate).