Impact Fee Facilities Plan

for Sewer

March 2018

Amended December 2023

Prepared by:

BOWEN COLLINS & ASSOCIATES
Celebrating 20 Years

Prepared for:

LEHI CITY

SEWER IMPACT FEE FACILITIES PLAN

March 2018

Amended December 2023

Prepared for:

LEHI CITY

Prepared by:

BOWEN COLLINS & ASSOCIATES
Celebrating 20 Years

TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

LIST OF TABLES

EXECUTIVE SUMMARY

INTRODUCTION

Lehi City retained Bowen Collins & Associates (BC&A) and Zions Bank Public Finance (ZBPF) to prepare an amended impact fee facility plan (IFFP) for the City's sewer collection system. The purpose of an IFFP is to identify demands placed upon City facilities by future development and evaluate how these demands will be met by the City. The IFFP is also intended to outline the improvements which may be funded through impact fees.

WHY IS AN IFFP NEEDED?

The IFFP provides a technical basis for assessing updated impact fees throughout the City. This document will address the future infrastructure needed to serve the City with regard to current land use planning. The existing and future capital projects documented in this IFFP will ensure that level of service standards are maintained for all existing and future residents who reside within the service area. Local governments must pay strict attention to the required elements of the Impact Fee Facilities Plan which are enumerated in the Impact Fees Act.

2023 AMENDMENT

This document represents an amendment to the 2018 Impact Fee Facility Plan. Since the adoption of the impact fee in 2018, the City has completed a number of the projects in the City's IFFP, as well as added some new projects to respond to slight changes in growth patterns. Many of the project costs have been higher than estimated in the capital facility plan and recent inflation is anticipated to escalate the costs of future impact fee projects. This IFFP has been amended to reflect inflation effects from supply chain challenges and higher than average inflation over the last several years.

Updates to project costs for completed projects and estimating new construction cost estimates for remaining projects are the main focus of this amendment. No changes to any foundational assumptions regarding development for the City as a whole were made. Correspondingly, the planning window (2016 – 2026) remains unchanged in this amendment and references to "existing" conditions refer to the beginning of the planning window (2016). Similarly, projects completed since the publication of the last IFFP were not moved to "existing assets". Instead, they are still shown as "future projects", but actual costs have been used instead of construction estimates.

PROJECTED FUTURE GROWTH

To evaluate the use of existing capacity and the need for future capacity, it is first necessary to calculate the demand associated with existing development and projected growth. Using available information for existing development and expected growth, projected growth in developed acreage for the City's 10-year growth projections are summarized in Table ES-1, and the projected growth in wastewater is shown in Table ES-2.

Table ES-1
Projections of Future Growth

Year	Single Family Units	Multifamily Units	Non-Residential Area (ksf)	Total ERUs[1,2]
2016	13,230	3,536	12,486	17,849
2020	14,912	3,986	14,074	20,119
2026	17,436	4,660	16,455	23,523
2030	19,108	5,107	18,033	25,779
2040	23,288	6,224	21,978	31,419
2050	27,469	7,342	25,924	37,059
2060	31,649	8,459	29,869	42,699
Buildout	33,382	8,922	78,318	51,749

[1] Utah Governor's Office of Management and Budget, Lehi City Planning Department
[2] Does not include ERUs associated with IM Flash production

Table ES-2
Projected Peak Month Average Day Domestic Wastewater Flows

Year	Domestic Wastewater (mgd)	Infiltration (mgd)	Domestic Wastewater with Infiltration (mgd)	IM Flash Production (mgd)	Total Lehi City Wastewater (mgd)
2016	4.09	0.61	4.71	2.02	6.73
2020	4.61	0.69	5.31	2.90	8.21
2026	5.39	0.81	6.20	3.20	9.40
2030	5.91	0.89	6.80	3.20	10.00
2040	7.21	1.08	8.29	3.20	11.49
2050	8.50	1.27	9.77	3.20	12.97
2060	9.79	1.47	11.26	3.20	14.46
Build-Out	11.87	1.78	13.65	3.20	16.85

EXISTING CAPACITY AVAILABLE TO SERVE FUTURE GROWTH

Projected future growth will be met through a combination of available excess capacity in existing facilities and construction of additional capacity in new facilities. The calculated percentage of capacity in existing City facilities used by existing development, 10-year growth, and growth beyond the 10-year planning window is summarized in Table ES-3.

Table ES-3
Collection System Excess Capacity

Use Category	Total Flow (mgd)
Existing Use	41.55%
10-Year Use	4.93%
Use By Growth Beyond 10 years	53.52%

REQUIRED SYSTEM IMPROVEMENTS

Beyond available existing capacity, additional improvements scheduled in the next 10 years that are required to serve new growth are summarized in Table ES-4. To satisfy the requirements of state law, Table ES-4 provides a breakdown of the percentage of the project costs attributed to existing and future users. For future use, capacity has been divided between capacity to be used by growth within the 10-year planning window of this IFFP and capacity that will be available for growth beyond the 10-year window.

Table ES-4
Impact Fee Facilities Plan - Costs Required for Future Growth

Project Identifier	Project Name	Total City Cost (2023 Dollars)	Percent to Existing	Percent to 10-Year	Percent to Growth Beyond 10-Year	Cost to Existing	Cost to 10-Year	Cost to Growth Beyond 10-Year
S-2	Dry Creek Way	$120,000	0.00%	16.74%	83.26%	$0	$20,088	$99,912
S-3	I-15 & Ashton Blvd[1]	$474,000	0.00%	16.74%	83.26%	$0	$79,348	$394,652
S-4	Main St 1700 W	$55,000	0.00%	100.00%	0.00%	$0	$55,000	$0
S-5	West of Jordan River, North of 2100N[1]	$60,022	0.00%	68.41%	31.59%	$0	$41,061	$18,961
S-6a	West of Jordan River, South of 2100N[1] – Completed	$159,702	0.00%	15.69%	84.31%	$0	$25,057	$134,645
S-6b	West of Jordan River, South of 2100N – Remainder	$121,500	0.00%	15.69%	84.31%	$0	$19,063	$102,437
S-7	Jordan Willows Bypass with pump	$7,600,000	21.43%	45.46%	33.11%	$1,628,571	$3,454,960	$2,516,469
S-9	3600 W, Rivier Crossing and Pump Station[1]	$936,466	0.00%	15.69%	84.31%	$0	$146,932	$789,534
S-10	100 E 500 S	$19,000	0.00%	16.74%	83.26%	$0	$3,181	$15,819
S-13	500 W 1250 S	$45,000	0.00%	16.74%	83.26%	$0	$7,533	$37,467
S-18	East Frontage & Triumph	$155,000	0.00%	16.74%	83.26%	$0	$25,947	$129,053
S-19	East Frontage Diversion	$95,000	0.00%	16.74%	83.26%	$0	$15,903	$79,097
S-26	Jordan Willows Lift Station[1]	$143,345	0.00%	100.00%	0.00%	$0	$143,345	$0
S-27	2100 N Freeway to 1700 West	$500,000	0.00%	19.49%	80.51%	$0	$97,436	$402,564
S-28	1200 West Freeway to North[1]	$356,094	0.00%	19.49%	80.51%	$0	$69,393	$286,701
		$10,840,129				**$1,628,571**	**$4,204,246**	**$5,007,312**

[1]Completed project, cost of reimbursement

SECTION 1
INTRODUCTION

Lehi City retained Bowen Collins & Associates (BC&A) and Zions Bank Public Finance (ZBPF) to prepare an amended impact fee facility plan (IFFP) for the City's sewer collection system. The purpose of an IFFP is to identify demands placed upon City facilities by future development and evaluate how these demands will be met by the City. The IFFP is also intended to outline the improvements which may be funded through impact fees.

Requirements for the preparation of an IFFP are outlined in Title 11, Chapter 36a of the Utah code (the Impact Fees Act). Under these requirements, an IFFP shall accomplish the following for each facility:

1. Identify the existing level of service
2. Establish a proposed level of service
3. Identify excess capacity to accommodate future growth
4. Identify demands of new development
5. Identify the means by which demands from new development will be met
6. Consider the following additional issues
    a. revenue sources to finance required system improvements
    b. necessity of improvements to maintain the proposed level of service
    c. need for facilities relative to planned locations of schools

The following sections of this report have been organized to address each of these requirements.

SECTION 2
EXISTING LEVEL OF SERVICE (11-36a-302(1)(a)(i))

Level of service is defined in the Impact Fees Act as "the defined performance standard or unit of demand for each capital component of a public facility within a service area". This section discusses the level of service being currently provided to existing users.

UNIT OF DEMAND

The projected flow used to design and evaluate system components will vary depending on the nature of each component. For example, most treatment plant processes are designed based on average day, maximum month flow. Conversely, conveyance pipelines must be designed based on peak hour flow (function of daily flow and diurnal flow variation).

For the purposes of this analysis, it is useful to define these various demands in terms of Equivalent Residential Units (ERUs). An ERU represents the demand that a typical single family residence places on the system. The basis of an ERU for historical flow rates is summarized in Table 2-1.

Table 2-1
Service Area Historic Flows

Item	Value for Total Existing Conditions
Equivalent Residential Units (ERUs)[1]	17,849
Domestic Wastewater Production (mgd)	4.09
Infiltration, Maximum Month (mgd)	0.61
Average Day, Maximum Month Flow (mgd)	4.71
Peak Hour Flow (mgd)	10.85
Flows per ERU	
Domestic Wastewater Production (gpd/ERU)[2]	229.32
Average Day, Maximum Month Flow (gpd/ERU)	263.72
Peak Hour Flow (gpd/ERU)	607.70
Average Indoor Water Use (gpd/ERU)	254.8

[1] Based on 2016 permitted ERUs.
[2] Based on 2016 existing and active ERUs and indoor water meter data.

PERFORMANCE STANDARD

Performance standards are those standards that are used to design and evaluate the performance of facilities. While the Impact Fees Act includes "defined performance standard" as part of the level of service definition, this report will make a subtle distinction between performance standard and level of service. The performance standard will be considered the desired minimum level of performance for each component, while the existing level of service will be the actual current performance of the component. Thus, if the existing level of service is less than the performance standard, it is a deficiency. If it is greater than the performance standard, it may indicate excess capacity. This section discusses the existing performance standards for the City. A subsequent section will consider existing level of service relative to these standards.

To improve the accuracy of the analysis, this impact fee facilities plan has divided the system into two different components (pipeline capacity and treatment capacity). Each of these components has its own set of performance standards:

Pipeline Capacity

The recommended performance standard for City pipelines is that all sewer mains be designed such that the peak flow depth in the pipe is less than or equal to the depth equal to 75 percent of the pipe's hydraulic capacity using a Manning's roughness factor[1] of 0.013. This is approximately equal to a depth over diameter ratio of 0.65. This allows for a small amount of extra capacity to be reserved in the pipeline to account for potential inflow into the system and other unknowns. This design standard was used as the level of service for system evaluation.

Treatment Plant Capacity

Sewer collected in Lehi City is discharged into Timpanogos Special Service District trunk lines that are then treated at the TSSD regional wastewater treatment plant. While Lehi City collects an impact fee on behalf of TSSD, performance standards, required capacity, and impact fee amounts associated with treatment are set by TSSD. Thus, no additional discussion of treatment requirements will be included in this impact fee study. For more information on TSSD impact fees, the reader should refer to the TSSD impact fee facilities plan and impact fee analysis.

EXISTING LEVEL OF SERVICE

Existing level of service values are summarized in Table 2-2 below. For comparison purposes, Table 2-2 also includes a summary of the existing performance standards.

Table 2-2
Existing Performance Standards and Level of Service for Various System Requirements

	Existing Performance Standard	Existing Level of Service
Pipeline Capacity		
Maximum Ratio of Flow[1] to Pipeline Capacity	0.75	0.72[2]

[1] Peak hour, dry weather flow
[2] Because there are thousands of pipeline components, the value given is for the worst case only. All other components have a higher level of service.

As shown in the table, the City's existing level of service is somewhat higher than the performance standard. However, Table 2-2 indicates that there are some areas of the City where existing peak flows are approaching pipe capacity. Excess capacity will be discussed in subsequent sections of this report. Costs to correct deficiencies that do not meet the required level of service or are related to normal operation and maintenance will not be included as part of the impact fee, consistent with the Impact Fees Act.

[1] Manning's roughness is an empirical measure of roughness or friction used to calculate hydraulic capacity.

SECTION 3
PROPOSED LEVEL OF SERVICE (11-36a-302(1)(a)(ii))

The proposed level of service is the performance standard used to evaluate system needs in the future. The Impact Fee Act indicates that the proposed level of service may:

1. diminish or equal the existing level of service; or
2. exceed the existing level of service if, independent of the use of impact fees, the City implements and maintains the means to increase the level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service.

No changes in the level of service are proposed for Lehi City. Future facilities will be constructed to meet the same performance standards identified for the existing level of service.

Table 3-1 summarizes the proposed performance standards and level of service.

Table 3-1
Proposed Performance Standards and Level of Service

	Proposed Performance Standard	Proposed Level of Service
Pipeline Capacity		
Maximum Ratio of Flow[1] to Pipeline Capacity	0.75	0.75

[1] Peak hour, dry weather flow

SECTION 4
EXCESS CAPACITY TO ACCOMMODATE FUTURE GROWTH (11-36a-302(1)(a)(iii))

Projected future growth will be met through a combination of available excess capacity in existing facilities and construction of additional capacity in new facilities.

EXISTING SEWER INFRASTRUCTURE

Because most of the sewer collection facilities within the City have adequate capacity through the long-term planning window of the City, capacity for most future growth will be met through available excess capacity in existing facilities. Excess capacity in the collection facilities is described as follows:

Collection

To calculate the percentage of existing capacity to be used by future growth in existing facilities, existing and future flows were examined in system model for each collection pipeline. The method used to calculate excess capacity available for use by future flows is as follows:

- **Calculate Flows –** The peak flow in each facility was calculated in the model for both existing and future flows. The available capacity at a 0.65 depth to diameter ratio of each pipeline was also calculated.
- **Identify Available Capacity –** Where a facility has capacity in excess of projected flows at buildout, the available capacity in the facility was defined as the difference between existing flows and buildout flows. Where the facility has capacity less than projected flows at buildout, the available capacity in the facility was defined as the difference between existing flows and the facility's maximum capacity.
- **Eliminate Facilities without Excess Capacity –** For the planning window period (in this case, 10 years), the projected growth in flow during the planning window was compared against the facility's available capacity. Where the future flow exceeded the capacity of the facility, the available excess capacity was assumed to be zero. By definition, this corresponds to those facilities with deficiencies that are identified in the facilities plan. By assigning an available capacity of zero, this eliminated double counting those facilities against new users.
- **Calculate Percent of Excess Capacity Used in Remaining Facilities –** Where the future flow was less than the capacity of the facility, the percent of excess capacity being used in each facility was calculated by dividing the growth in flow in the facility (future flow less existing flow) by the total capacity (existing flow plus available capacity).
- **Calculate Excess Capacity for the System as a Whole –** Each pipeline in the system has a different quantity of excess capacity to be used by future growth. To develop an estimate of excess capacity on a system wide basis, the capacities of each of these pipelines and their contribution to the system as a whole must be considered. To do this, each pipeline must first be weighted based on its relative capacity in the system. For this purpose, each pipeline has been weighted based on the product of its diameter and length. For example, a pipe that is 36 inches in diameter and is 4,000 ft. long will have an actual cost proportionally more than a pipe that is 10 inches in diameter and 300 ft. long. The excess capacity in the system as a whole can then be calculated as the sum of the weighted capacity used by future growth divided by the sum of total weighted capacity in the system.

Based on the method described above, the amount of excess capacity in existing facilities available to accommodate future growth and the demands placed on the existing facilities by new development activity has been calculated for each element in the system by BC&A. As a whole, the calculated percentage of existing capacity in system facilities that is used by existing and future growth is summarized in Table 4-1.

Table 4-1
Collection System Excess Capacity

Use Category	Total Flow (mgd)
Existing Use	41.55%
10-Year Use	4.93%
Use By Growth Beyond 10 years	53.52%

It is worth noting that because a lot of the 10-year growth in Lehi City is anticipated to grow on the City's west side, much of the new growth will be constructing new facilities for conveyance. Intel/Micron (IM) Flash also is a significant contributor to the existing collection system. For the purpose of evaluating excess capacity, simulated flows in the sewer collection system assume IM Flash already contributes its long-term peak discharge.

SECTION 5
DEMANDS PLACED ON FACILITIES BY NEW DEVELOPMENT (11-36a-302(1)(a)(iv))

Growth and new development in Lehi City is discussed in detail in the City's Sewer Capital Facilities Plan. A summary of the projections for future residential and non-residential growth is contained in the table below. Non-residential growth includes all non-residential uses; such as business, churches, offices, retail, medical facilities, etc. For the purpose of the IFFP, projections in Table 5-1 start with 2016 permitted ERUs and grow based on input from Lehi City planning and with information from the Governor's Office of Management and Budget.

Table 5-1
Projections of Future Growth

Year	Single Family Units	Multifamily Units	Non-Residential Area (ksf)	Total ERUs[1,2]
2016	13,230	3,536	12,486	17,849
2020	14,912	3,986	14,074	20,119
2026	17,436	4,660	16,455	23,523
2030	19,108	5,107	18,033	25,779
2040	23,288	6,224	21,978	31,419
2050	27,469	7,342	25,924	37,059
2060	31,649	8,459	29,869	42,699
Build-Out	33,382	8,922	78,318	51,749

[1] Utah Governor's Office of Management and Budget, Lehi City Planning Department
[2] Does not include ERUs associated with IM Flash production

Total wastewater contributions can be estimated by multiplying the projected ERUs by the peak month average daily wastewater flow per ERU. Projected flows for Lehi City are summarized in Table 5-2. Table 5-2 includes the average daily flow IM Flash sends into the Lehi City wastewater system. Current IM Flash flow is approximately 2.02 mgd. IM Flash and Lehi City have agreements specifying that the allowable average daily flows cannot exceed 3.0 mgd. Estimated peak daily flow from IM Flash is estimated to be 3.2 mgd with a peak hourly flow of up to 3.8 mgd. It has been assumed this maximum flow will be reached in the next 5 to 10 years.[2]

[2] Note for 2023 Amendment – The development previously referred to as IM Flash, is now under the control of Texas Instruments. As of the writing of this report (December 2023), there were ongoing discussions regarding modification to the need for capacity from this development. However, because those conversations are ongoing, no additional capacity has been planned for here and should be addressed separately.

Table 5-2
Projected Peak Month Average Day Domestic Wastewater Flows

Year	Domestic Wastewater (mgd)	Infiltration (mgd)	Domestic Wastewater with Infiltration (mgd)	IM Flash Production (mgd)	Total Lehi City Wastewater (mgd)
2016	4.09	0.61	4.71	2.02	6.73
2020	4.61	0.69	5.31	2.90	8.21
2026	5.39	0.81	6.20	3.20	9.40
2030	5.91	0.89	6.80	3.20	10.00
2040	7.21	1.08	8.29	3.20	11.49
2050	8.50	1.27	9.77	3.20	12.97
2060	9.79	1.47	11.26	3.20	14.46
Build-Out	11.87	1.78	13.65	3.20	16.85

SECTION 6
INFRASTRUCTURE REQUIRED TO MEET DEMANDS OF NEW DEVELOPMENT (11-36a-302(1)(a)(v))

To satisfy the requirements of state law, demand placed upon existing system facilities by future development was projected using the process outlined below. All of the steps were completed as part of this plan's development. More description of the methodology used in the process outlined below can be found in the City's Sewer Capital Facilities Plan.

1. **Existing Demand** – The demand existing development places on the City's system was estimated based on historic water use and flow records.
2. **Existing Capacity** – The capacities of existing system collection facilities were estimated using size data provided by the City and a hydraulic computer model.
3. **Existing Deficiencies** – Existing deficiencies in the system were looked for by comparing defined levels of service against calculated capacities. There were no significant deficiencies identified for existing conditions.
4. **Future Demand** - The demand future development will place on the system was estimated based on development projections (discussed in Chapter 3 of the Sewer Capital Facilities Plan).
5. **Future Deficiencies** - Future deficiencies in the collection system were identified using the defined level of service and results from a hydraulic computer model (discussed in Chapter 5 of the Sewer Capital Facilities Plan).
6. **Recommended Improvements** – Needed system improvements were identified to meet demands associated with future development.

The steps listed above "identify demands placed upon existing public facilities by new development activity at the proposed level of service; and… the means by which the political subdivision or private entity will meet those growth demands" (Section 11-36a-302(1)(a) of the Utah Code).

10-YEAR IMPROVEMENT PLAN

Only infrastructure to be constructed within a ten-year horizon will be considered in the calculation of impact fees to avoid uncertainty surrounding improvements further into the future. Table 6-1 summarizes the components of projects identified in the water capital facilities plan that will need to be constructed within the next ten years. Included in this table are projects for reimbursement associated with oversizing project level improvements. It is not uncommon for a developer to put in a project level collection line for their development and for Lehi City to pay to have that line upsized for future users. Costs for projects that have been completed and upsized are indicated in the project name in Table 6-1. Only the cost to Lehi City (rather than the entire project costs) are represented in this table.

Table 6-1
Summary of Future Sewer Impact Fee Facilities

Project Identifier	Project Name	Diameter (inch)	Length (ft)	Estimated Project Year	Total City Cost (2023 Dollars)
S-2	Dry Creek Way	10	2,510	2025	$120,000
S-3[a]	I-15 & Ashton Blvd	15, 24	515; 2,375	2020	$474,000
S-4	Main St 1700 W	10	2,416	2024	$55,000
S-5[a]	West of Jordan River, North of 2100N	10, 12, 15	10,643	2022	$60,022
S-6a[a]	West of Jordan River, South of 2100N – Completed	8, 10	7,720	2018	$159,702
S-6b	West of Jordan River, South of 2100N – Remainder	15	3,450	2026	$121,500
S-7	Jordan Willows Bypass with Pump	42	8,920	2025	$7,600,000
S-9[a]	3600 W, River Crossing and Pump Station	10	1,749	2018	$936,466
S-10	100 E 500 S	10	825	2024	$19,000
S-13	500 W 1250 S	10	1,969	2025	$45,000
S-18	East Frontage & Triumph	18	882	2025	$155,000
S-19	East Frontage Diversion	18	409	2025	$95,000
S-26[a]	Jordan Willows Lift Station	N/A	N/A	2020	$143,345
S-27[b]	2100 N Freeway to 1700 W	12	2,200	2023	$500,000
S-28[a,b]	1200 West Freeway to North	10, 12	2,300; 700	2021	$356,094
Total					**$10,840,129**

[a] Project completed, cost of construction or reimbursement.
[b] New project, not included in 2018 IFFP but required as a function of changing growth patterns.

It should be noted that Table 6-1 only includes those projects with components of cost that are eligible to be included in the impact fee calculation. Other projects that may be completed over the next ten years but have not been shown in the table include: projects for maintenance and repair (to be paid for by existing users), and project level improvements (to be paid for by individual developers).

PROJECT COST ATTRIBUTABLE TO FUTURE GROWTH

To satisfy the requirements of state law, Table 6-2 provides a breakdown of the capital facilities projects and the percentage of the project costs attributed to existing and future users. As defined in Section 11-36a-102(15), the impact fee facilities plan should only include the proportionate share of "the cost of public facilities that are roughly proportionate and reasonably related to the service demands and needs of any development activity." Many of the projects identified in the tables are required solely to meet future growth, but some projects also provide a benefit to existing users. Projects that benefit existing users might include those projects addressing existing capacity needs, projects increasing the overall level of service (such as looping), and/or maintenance related projects.

Table 6-2
Project Costs Allocated to Projected Development, 10-year Planning Window

Project Identifier	Project Name	Total City Cost (2023 Dollars)	Percent to Existing	Percent to 10-Year	Percent to Growth Beyond 10-Year	Cost to Existing	Cost to 10-Year	Cost to Growth Beyond 10-Year
S-2	Dry Creek Way	$120,000	0.00%	16.74%	83.26%	$0	$20,088	$99,912
S-3	I-15 & Ashton Blvd[1]	$474,000	0.00%	16.74%	83.26%	$0	$79,348	$394,652
S-4	Main St 1700 W	$55,000	0.00%	100.00%	0.00%	$0	$55,000	$0
S-5	West of Jordan River, North of 2100N[1]	$60,022	0.00%	68.41%	31.59%	$0	$41,061	$18,961
S-6a	West of Jordan River, South of 2100N[1] – Completed	$159,702	0.00%	15.69%	84.31%	$0	$25,057	$134,645
S-6b	West of Jordan River, South of 2100N – Remainder	$121,500	0.00%	15.69%	84.31%	$0	$19,063	$102,437
S-7	Jordan Willows Bypass with pump	$7,600,000	21.43%	45.46%	33.11%	$1,628,571	$3,454,960	$2,516,469
S-9	3600 W, Rivier Crossing and Pump Station[1]	$936,466	0.00%	15.69%	84.31%	$0	$146,932	$789,534
S-10	100 E 500 S	$19,000	0.00%	16.74%	83.26%	$0	$3,181	$15,819
S-13	500 W 1250 S	$45,000	0.00%	16.74%	83.26%	$0	$7,533	$37,467
S-18	East Frontage & Triumph	$155,000	0.00%	16.74%	83.26%	$0	$25,947	$129,053
S-19	East Frontage Diversion	$95,000	0.00%	16.74%	83.26%	$0	$15,903	$79,097
S-26	Jordan Willows Lift Station[1]	$143,345	0.00%	100.00%	0.00%	$0	$143,345	$0
S-27	2100 N Freeway to 1700 West	$500,000	0.00%	19.49%	80.51%	$0	$97,436	$402,564
S-28	1200 West Freeway to North[1]	$356,094	0.00%	19.49%	80.51%	$0	$69,393	$286,701
		$10,840,129				**$1,628,571**	**$4,204,246**	**$5,007,312**

[1] Completed project, cost of reimbursement

For many projects, the division of costs between existing and future users is easy because 100 percent of the project costs can be attributed to one category or the other (e.g. infrastructure needed solely to serve new development can be 100 percent attributed to new growth, while projects related to existing condition or capacity deficiencies can be 100 percent attributed to existing user needs). For projects needed to address both existing deficiencies and new growth or where a higher level of service is being proposed, costs have been divided proportionally between existing and future users based on their needs in the facility. A few additional notes regarding specific projects are as follows:

- S-7 – Jordan Willows Bypass: This bypass will primarily be used to meet the needs of future growth because the Jordan Willows Lift Station is nearing its capacity. Percentages attributable to existing, 10-year, and growth beyond 10-years have been based on the percentage used by each group.
- Jordan Willows Lift Station: The existing Jordan Willows lift station will need a short-term upgrade to accommodate potential growth on the City's west side for the 10-year development window. This was completed in 2019 when new pumps were installed into its existing wet wells, with this cost accounted for in S-26.

All of the other projects included in Table 6-2 are needed to meet the needs of future growth. It should be noted that Table 6-2 does not include bond costs related to paying for impact fee eligible improvements. These costs, if any, should be added as part of the impact fee analysis.

PROJECT COST ATTRIBUTABLE TO 10 YEAR GROWTH

Included in Table 6-2 is a breakdown of capacity associated with growth both through buildout and through the next 10 years. This is necessary because the projects identified in the tables will be built with capacity to accommodate flows beyond the 10-year growth window. The division of cost between 10-year growth and growth beyond 10 years has been done following the same general process as described above.

BASIS OF CONSTRUCTION COST ESTIMATES

The costs of construction for projects to be completed within ten years have been estimated based on past BC&A experience with projects of a similar nature. Pipeline project costs are based on average per foot costs for pipes of a similar nature. Costs include consideration of other components of the sewer system including manholes, laterals, and surface restoration as appropriate for each project.

SECTION 7
ADDITIONAL CONSIDERATIONS

MANNER OF FINANCING (11-36a-302(2))

The City may fund the infrastructure identified in this IFFP through a combination of different revenue sources.

Federal and State Grants and Donations

Impact fees cannot reimburse costs funded or expected to be funded through federal grants and other funds that the District has received for capital improvements without an obligation to repay. Grants and donations are not currently contemplated in this analysis. If grants become available for constructing facilities, impact fees will need to be recalculated and an appropriate credit given. Any existing infrastructure funded through past grants will be removed from the system value during the impact fee analysis.

Bonds

None of the costs contained in this IFFP include the cost of bonding. The cost of bonding required to finance impact fee eligible improvements identified in the IFPP may be added to the calculation of the impact fee. This will be considered in the impact fee analysis.

Interfund Loans

Because infrastructure must generally be built ahead of growth, there often arises situations in which projects must be funded ahead of expected impact fee revenues. In some cases, the solution to this issue will be bonding. In others, funds from existing user rate revenue will be loaned to the impact fee fund to complete initial construction of the project and will be reimbursed later as impact fees are received. Consideration of potential interfund loans will be included in the impact fee analysis and should also be considered in subsequent accounting of impact fee expenditures.

Impact Fees

It is recommended that impact fees be used to fund growth-related capital projects as they help to maintain the proposed level of service and prevent existing users from subsidizing the capital needs for new growth. Based on this IFFP, an impact fee analysis will be able to calculate a fair and legal fee that new growth should pay to fund the portion of the existing and new facilities that will benefit new development.

Developer Dedications and Exactions

Developer exactions are not the same as grants. Developer exactions may be considered in the inventory of current and future sewer infrastructure. If a developer constructs facility or dedicates land within the development, the value of the dedication is credited against that particular developer's impact fee liability.

If the value of the dedication/exaction is less than the development's impact fee liability, the developer will owe the balance of the liability to the City. If the value of the improvements dedicated is worth more than the development's impact fee liability, the City must reimburse the difference to the developer from impact fee revenues collected from other developments.

It should be emphasized that the concept of impact fee credits pertains to system level improvements only. For project level improvement (i.e. projects not identified in the impact fee facility plan),

developers will be responsible for the construction of the improvements without credit against the impact fee.

NECESSITY OF IMPROVEMENTS TO MAINTAIN LEVEL OF SERVICE (11-36a-302(3))

According to State statute, impact fees cannot be used to correct deficiencies in the system and must be necessary to maintain the proposed level of service established for all users. Only those projects or portions of projects that are required to maintain the proposed level of service for future growth have been included in this IFFP. This will result in an equitable fee as future users will not be expected to fund any portion of the projects that will benefit existing residents.

SCHOOL RELATED INFRASTRUCTURE (11-36a-302(2))

As part of the noticing and data collection process for this plan, information was gathered regarding future school district and charter school development. Where the City is aware of the planned location of a school, required public facilities to serve the school have been included in the impact fee analysis.

NOTICING AND ADOPTION REQUIREMENTS (11-36a-502)

The Impact Fees Act requires that entities must publish a notice of intent to prepare or modify any IFFP. If an entity prepares an independent IFFP rather than include a capital facilities element in the general plan, the actual IFFP must be adopted by enactment. Before the IFFP can be adopted, a reasonable notice of the public hearing must be published in a local newspaper at least 10 days before the actual hearing. A copy of the proposed IFFP must be made available in each public library within the City during the 10 day noticing period for public review and inspection. Utah Code requires that the City must post a copy of the ordinance in at least three places. These places may include the City offices and the public libraries within the City's jurisdiction. Following the 10-day noticing period, a public hearing will be held, after which the City may adopt, amend and adopt, or reject the proposed IFFP.

SECTION 8
IMPACT FEE CERTIFICATION (11-36a-306(1))

This report has been prepared in accordance with Utah Code Title 11 Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to Utah municipal capital facilities plans and impact fee analyses. The accuracy of this report relies upon the planning, engineering, and other source data, which was provided by the City and their designees.

In accordance with Utah Code Annotated, 11-36a-306(1), Bowen Collins & Associates, makes the following certification:

I certify that this impact fee facility plan:

1. Includes only the cost 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. cost of 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.

Andrew McKinnon, P.E.

Dated: March 13, 2024

Draper, Utah Office:
154 East 14000 South
Draper, Utah 84020
Phone: (801) 495-2224
Fax: (801) 495-2225

Eagle, Idaho Office:
776 East Riverside Drive
Suite 250
Eagle, Idaho 83616
Phone: (208) 939-9561
Fax: (208) 939-9571

St. George, Utah Office:
20 North Main
Suite 107
St. George, Utah 84770
Phone: (435) 656-3299
Fax: (435) 656-2190

WWW.BOWENCOLLINS.COM

BOWEN COLLINS
& ASSOCIATES
Celebrating 20 Years