



PREPARED FOR:



PREPARED BY:



# IMPACT FEE FACILITIES PLAN

AUGUST 2022

# IMPACT FEE FACILITIES PLAN

August 2022

Prepared for:



Prepared by:



**TABLE OF CONTENTS**

	<b>Page</b>
<b>EXECUTIVE SUMMARY – IMPACT FEE FACILITIES PLAN.....</b>	<b>ES-1</b>
Why is an IFFP Needed? .....	ES-1
Projected Future Growth.....	ES-1
Level of Service.....	ES-2
Existing Capacity Available to Serve Future Growth .....	ES-3
Collection.....	ES-3
Treatment .....	ES-3
General Assets .....	ES-4
Required System Improvements.....	ES-4
<b>IMPACT FEE FACILITIES PLAN .....</b>	<b>1</b>
Introduction.....	1
Existing Level of Service -11-36a-302(1)(a)(i).....	1
Unit of Demand.....	1
Performance Standard.....	2
Existing Level of Service .....	3
Proposed Level of Service -11-36a-302(1)(a)(ii) .....	4
Excess Capacity to Accommodate Future Growth -11-36a-302(1)(a)(iii) .....	4
Collection.....	5
Treatment .....	6
General Assets .....	6
Summary of Excess Capacity in Existing Facilities .....	6
Demands Placed on Facilities by New Development - 11-36a-302(a)(iv) .....	7
Infrastructure Required to Meet Demands of New Development 11-36a-302(1)(a)(v).....	7
10-Year Improvement Plan .....	7
Project Cost Attributable to Future Growth .....	10
Project Cost Attributable to 10-Year Growth.....	10
Basis of Construction Cost Estimates .....	10
Additional Considerations .....	10
Manner of Financing 11-36a-302(2).....	10
Bonds .....	10
User Rate Revenue .....	11
Impact Fees .....	11
Developer Dedications and Exactions.....	11
Necessity of Improvements to Maintain Level of Service - 11-36a-302(3).....	11
Impact Fee Certification - 11-36a-306(1) .....	12

**TABLE OF CONTENTS  
(continued)**

**LIST OF TABLES**

<b>No.</b>	<b>Name</b>	<b>Page</b>
ES-1	MID Service Area Sewer ERU Projections .....	ES-1
ES-2	MID Service Area Historic Flows .....	ES-2
ES-3	Performance Standards and Level of Service for Various System Requirements .....	ES-3
ES-4	Sewer Project Costs Allocated to Projects, 10-year Planning Window .....	ES-5
1	MID Service Area Historic Flows .....	2
2	Existing Performance Standards and Level of Service for Various System Requirements .....	3
3	Proposed Performance Standards and Level of Service for Various System Requirements .....	4
4	Excess Treatment Plant Capacity .....	6
5	Use of Existing Capacity .....	6
6	MID Service Area Projections .....	7
7	Project Costs Allocated to Projects, 10-year Planning Window .....	9



## EXECUTIVE SUMMARY – IMPACT FEE FACILITIES PLAN

The purpose of an impact fee facilities plan (IFFP) is to identify demands placed upon District facilities by future development and evaluate how these demands will be met by the District. 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 District. This document addresses the future infrastructure needed to serve the District. 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.

### 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 growth projections from the District’s Sewer Master Plan, projected growth in system demand is summarized in Table ES-1.

**Table ES-1  
MID Service Area Sewer ERU Projections**

Year	Projected ERUs	Estimated Dry Weather Sewer Flows (mgd)
2022	12,168	2.61
2032	13,170	2.82
2050	15,604	3.32

Demands are projected 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 ES-2.

**Table ES-2  
MID Service Area Historic Flows**

Item	Value for Existing Conditions
Equivalent Residential Units (ERUs)	12,168
Domestic Wastewater Production (mgd)	2.01
Infiltration, Maximum Month (mgd)	0.60
Average Day, Maximum Month Flow (mgd)	2.61
Peak Hour Flow (mgd)	3.79
Flows per ERU	
Domestic Wastewater Production (gpd/ERU)	164.8
Average Day, Maximum Month Flow (gpd/ERU)	214.1
Peak Hour Flow (gpd/ERU)	311.7
Average Indoor Water Use (gpd/ERU)	173.5

### **LEVEL OF SERVICE**

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”. 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 and the proposed level of service will be the proposed actual performance of the component in the future. Summary values for each of these categories are contained in Table ES-3.

**Table ES-3  
Performance Standards and Level of Service for  
Various System Requirements**

	<b>Existing Performance Standard</b>	<b>Existing Level of Service<sup>1</sup></b>	<b>Proposed Level of Service</b>
Pipeline Capacity			
Maximum Ratio of Flow <sup>2</sup> to Pipeline Capacity			
Pipes with diameter > 12 inches	0.75	- <sup>3</sup>	0.75
Pipes with diameter ≤ 12 inches	0.50	- <sup>3</sup>	0.50
% of System Satisfying Performance Standard	100%	99.78% <sup>3</sup>	100%
Treatment Capacity			
Available Plant Capacity – Average Day, Maximum Month Flow (gpd/ERU)	214.1	272.9	214.1
Buildings			
Maintenance & Storage Buildings (sf/ERU)	0.827	1.060	0.827
Administration Building (sf/ERU)	0.309	0.397	0.309

<sup>1</sup> Existing level of service represents level available, not necessarily level used. For example, the treatment being used per ERU will be 214.1 gpd even though the amount available is 272.9 gpd.

<sup>2</sup> Peak hour, dry weather flow

<sup>3</sup> The value given is the percentage of the collection system that meets the existing performance standard. There are thousands of pipeline components and only a small portion have a level of service lower than the standard, all other components have a higher level of service with the vast majority meeting the desired performance standard.

**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. Defining existing system capacity in terms of a single number is difficult. To improve the accuracy of the analysis, the system was divided into three different components (collection, treatment, administrative and shop buildings). Excess capacity in each component of the system is as follows:

**Collection**

Use of collection capacity was evaluated using the updated computer model of the District’s collection system. The calculated percentage of existing collection capacity currently in use by existing development is 79.8 percent. Growth during the next 10 years is calculated to use an additional 4.9 percent, with the remaining 15.3 percent of existing capacity to be used by growth beyond the 10-year planning window.

**Treatment**

The District currently owns 3.84 MGD of hydraulic capacity at the SVWRF. Using flow projections from Table ES-1, the treatment system appears to have sufficient capacity to meet current development projections in the 10-year window. Costs of the treatment facility have been distributed proportionally according to flow projections. Existing users are using 68.0 percent of available capacity. Ten-year growth will use 5.5 percent and growth through buildout will use 26.6 percent. Growth through the year 2050 will use the remaining capacity MID owns at the SVWRF. To plan for growth through buildout the District will need to purchase additional capacity at the treatment facility.

**General Assets**

As discussed under the existing and proposed level of service sections, District personnel do not believe additional administrative facilities will be needed to satisfy future needs. As a whole, the calculated percentage of existing capacity in general assets being used by existing users is 78.0 percent. Demands associated with growth during the 10 year planning window are calculated to use an additional 6.4 percent of the available excess capacity, with the remaining 15.6 percent of existing excess capacity to be used by demands associated with growth beyond the 10 year planning window.

**REQUIRED SYSTEM IMPROVEMENTS**

Beyond available existing capacity, additional improvements 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  
Sewer Project Costs Allocated to Projects, 10-year Planning Window**

Project No.	Year	Address	MID Cost	Percent to Existing	Percent to 10-Year Growth	Percent to Growth through 2050	Cost to Existing	Cost to 10-Year Growth	Cost to Growth 2032 through 2050
C1	2024	7500 S. between State St. & 410 E.	\$2,463,000	82.2%	3.4%	14.5%	\$2,024,110	\$82,867	\$356,022
C3	2027	6830 S. between Railroad & State St.	\$1,982,000	78.6%	5.2%	16.2%	\$1,557,630	\$103,681	\$320,689
C4	2024	State St. between 7640 S. & 7554 S.	\$355,000	8.5%	71.5%	20.0%	\$30,038	\$253,962	\$71,000
M1	2023	Fairmeadows Dr. between 700 E. and 900 E.	\$814,000	88.8%	0.3%	10.8%	\$722,923	\$2,846	\$88,231
M2	2023	Between MH-A001 and MH-A014	\$84,000	78.6%	5.9%	15.5%	\$66,056	\$4,914	\$13,030
M3	2023	Union Woods Dr. between MH-E129 and MH-E130	\$750,000	86.6%	2.4%	11.0%	\$649,606	\$17,717	\$82,677
Treatment	2024-2032	South Valley Water Reclamation Facility	\$4,786,800	68.0%	5.5%	26.6%	\$3,253,528	\$261,778	\$1,271,494
		<b>Total</b>	<b>\$11,234,800</b>				<b>\$8,303,892</b>	<b>\$727,765</b>	<b>\$2,203,142</b>

# IMPACT FEE FACILITIES PLAN

## INTRODUCTION

Midvalley Improvement District (MID) has retained Bowen Collins & Associates (BC&A) to prepare an Impact Fee Facilities Plan (IFFP) for sewer collection services provided by the District. The purpose of an IFFP is to identify demands placed upon District facilities by future development and evaluate how these demands will be met by the District. The IFFP is also intended to outline the improvements which may be funded through impact fees.

Much of the analysis forming the basis of this IFFP has been taken from the District's 2022 Sewer Master Plan, also prepared by BC&A. The reader should refer to the sewer master plan for additional discussion of planning and evaluation methodology beyond what is contained in this report.

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 at the proposed level of service
4. Identify demands placed upon existing public facilities by 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 known to MID

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

## 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 1.

**Table 1**  
**MID Service Area Historic Flows**

Item	Value for Existing Conditions
Equivalent Residential Units (ERUs)	12,168
Domestic Wastewater Production (mgd)	2.01
Infiltration, Maximum Month (mgd)	0.60
Average Day, Maximum Month Flow (mgd)	2.61
Peak Hour Flow (mgd)	3.79
<b>Flows per ERU</b>	
Domestic Wastewater Production (gpd/ERU)	164.8
Average Day, Maximum Month Flow (gpd/ERU)	214.1
Peak Hour Flow (gpd/ERU)	311.7
Average Indoor Water Use (gpd/ERU)	173.5

### 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 District. 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 three different components (pipeline capacity, treatment capacity, and general assets). Each of these components has its own set of performance standards:

**Pipeline Capacity.** MID engineering standards require that all sewer mains with a diameter greater than 12 inches 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. This is approximately equal to a depth over diameter ratio of 0.65. All smaller sewer mains with a diameter of 12 inches or less shall be designed such that the peak flow depth in the pipe is less than or equal to the depth equal to 50 percent of the pipe’s hydraulic capacity. This is equal to a depth over diameter ratio of 0.50. In both cases a Manning’s roughness<sup>1</sup> factor  $n$  of 0.013 is used. Using a design capacity of less than the full flow capacity of this pipeline is necessary and prudent to allow some 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.** A treatment plant consists of a large number of different components. Each component may have different criteria for design depending on the nature of the

<sup>1</sup> Manning’s roughness is an empirical measure of roughness or friction used to calculate hydraulic capacity.

component. For the majority of treatment related components, design is based on treating the average daily flow during the maximum month. This is the same standard used by the State of Utah Department of Environmental Quality (UDEQ) when rating the capacity of a treatment plant.

**General Assets.** In addition to the sewer system needs, MID personnel need to be able to provide administrative and service functions for the District. Based on input from MID personnel, existing facilities will be satisfactory for District needs through the year 2050 (the long-term planning window within the District). Thus, the performance standard for these assets is based on the total square footage of each asset divided by the projected units served in 2050.

**Existing Level of Service**

Existing level of service has been divided into the same three components as identified for the system performance standard (pipeline capacity, treatment capacity, and buildings). Existing level of service values are summarized in Table 2 below. For comparison purposes, Table 2 also includes a summary of the existing performance standards.

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

	Existing Performance Standard	Existing Level of Service <sup>1</sup>
<b>Pipeline Capacity</b>		
Maximum Ratio of Flow <sup>2</sup> to Pipeline Capacity		
Pipes with diameter > 12 inches	0.75	- <sup>3</sup>
Pipes with diameter ≤ 12 inches	0.50	- <sup>3</sup>
% of System Satisfying Performance Standard	100%	99.78% <sup>3</sup>
<b>Treatment Capacity</b>		
Available Plant Capacity – Average Day, Maximum Month Flow (gpd/ERU)	214.1	272.9
<b>Buildings</b>		
Maintenance & Storage Buildings (sf/ERU)	0.827	1.060
Administration Building (sf/ERU)	0.309	0.397

<sup>1</sup> Existing level of service represents level available, not necessarily level used. For example, the treatment being used per ERU will be 214.1 gpd even though the amount available is 272.9 gpd.

<sup>2</sup> Peak hour, dry weather flow

<sup>3</sup> The value given is the percentage of the collection system that meets the existing performance standard. There are thousands of pipeline components and only a small portion have a level of service lower than the standard, all other components have a higher level of service with the vast majority meeting the desired performance standard.

As shown in the table, the percentage of the District’s collection system that meets the existing performance standard is less than 100% and indicates there is some deficiencies in the existing system. However, deficiencies are associated with a very small number of pipelines in the existing system and excess capacity still exists in other parts of the system. Excess capacity and curing of deficiencies will be discussed in subsequent sections of this report. Costs for projects to correct deficiencies that do not meet the required level of service will not be included as part of the impact fee, consistent with the Impact Fees Act.

**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 District 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.

By definition, proposed future level of service will be equal to the performance standard in most cases.

Increases in the level of service for the District will be funded in accordance with the requirements of the Impact Fees Act. Table 3 summarizes the proposed performance standards and level of service.

**Table 3  
Proposed Performance Standards and Level of Service for  
Various System Requirements**

	<b>Proposed Performance Standard</b>	<b>Proposed Level of Service</b>
<b>Pipeline Capacity</b>		
Maximum Ratio of Flow <sup>1</sup> to Pipeline Capacity		
Pipes with diameter > 12 inches	0.75	0.75
Pipes with diameter ≤ 12 inches	0.50	0.50
% of System Satisfying Performance Standard	100%	100%
<b>Treatment Capacity<sup>2</sup></b>		
Available Plant Capacity – Average Day, Maximum Month Flow (gpd/ERU)	214.1	214.1
<b>Buildings</b>		
Maintenance and Construction Shop (sf/ERU)	0.827	0.827
Administration Building (sf/ERU)	0.309	0.309

<sup>1</sup> Peak hour, dry weather flow

<sup>2</sup> Including nutrient removal and backup power requirements

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

Because most of the sewer collection facilities within the District have adequate capacity through the long-term planning window of the District, capacity for most future growth will be met through available excess capacity in existing facilities. There are three components of assets to discuss within the District: collections system facilities, treatment facilities, and general assets (i.e. buildings, shops, equipment). Excess capacity in the collection, treatment, and general facilities are 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:

1. **Calculate Flows** – The peak flow in each facility was calculated in the model for both existing and future flows. The available capacity of each pipeline was also calculated using a criteria based on pipe diameter. For pipes with a diameter greater than 12 inches the capacity at a 0.65 depth to diameter ratio was used and for pipes with a diameter less than or equal to 12 inches the capacity at a 0.50 depth to diameter ratio was used.
2. **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.
3. **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 to be replaced. By assigning a capacity of zero, this eliminated double counting those facilities against new users.
4. **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).
5. **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 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 currently being used by existing users is 79.8 percent. Demands associated with growth during the 10-year planning window is calculated to use an additional 4.9 percent of the available excess capacity, with the remaining 15.3 percent of existing excess capacity to be used by demands associated with growth beyond the 10-year planning window.



**Treatment**

The District currently owns 3.84 MGD of hydraulic capacity at the SVWRF. Using the flow projections from the Sewer Master Plan, the treatment system has sufficient capacity to meet current development projections in the 10-year window as summarized in Table 4. Costs of capacity at the treatment facility can be distributed proportionally according to flow projections. Existing users are using 68.0 percent of available capacity. Ten-year growth will use 5.5 percent and growth through buildout will use the remaining 26.6 percent. Growth through the year 2050 will also require additional capacity at the SVWRF beyond the remaining available at the treatment facility. The District will need to purchase this capacity from SVWRF to accommodate projected growth at buildout. Costs associated with this additional capacity will not be included in the impact fee as they are outside the 10-year window of the IFFP.

**Table 4  
Excess Treatment Plant Capacity**

Use Category	Flow (mgd)	Percentage of Treatment Plant Capacity
Existing Use	2.61	68.0%
10-Year Use	0.21	5.5%
Projected Growth Through Buildout	1.02	26.6%
Total Treatment Capacity	3.84	100.0%

**General Assets**

As discussed under the existing and proposed level of service sections, District personnel do not believe additional administration facilities will be needed to satisfy future needs. As a whole, the calculated percentage of existing capacity in general assets being used by existing users is 78.0 percent. Demands associated with growth during the 10-year planning window is calculated to use an additional 6.4 percent of the available excess capacity, with the remaining 15.6 percent of existing excess capacity to be used by demands associated with growth beyond the 10-year planning window.

**Summary of Excess Capacity in Existing Facilities**

Use by existing and future development in all three categories is summarized in Table 5.

**Table 5  
Use of Existing Capacity**

	Use of Existing Capacity by Existing Development	Use of Existing Capacity by 10-year Growth	Use of Existing Capacity by Growth Beyond 10 Years
<b>Conveyance</b>	79.8%	4.9%	15.3%
<b>Treatment</b>	68.0%	5.5%	26.6%
<b>General Assets</b>	78.0%	6.4%	15.6%

**DEMANDS PLACED ON FACILITIES BY NEW DEVELOPMENT - 11-36a-302(a)(iv)**

Growth within the District’s service area, and projections of sewer flows resulting from said growth is discussed in detail in the District’s Sewer Master Plan. Growth in terms of both equivalent residential units and corresponding sewer flows is summarized in Table 6.

**Table 6  
MID Service Area Projections**

Year	Projected ERUs	Estimated Dry Weather Sewer Flows (mgd)
2022	12,168	2.61
2032	13,170	2.82
2050	15,604	3.32

**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. Each 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 District’s Sewer Master Plan.

1. **Existing Demand** – The demand existing development places on the District’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 District 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. Several deficiencies were identified in the sewer master plan.
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 Master 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 Master 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 10-year horizon will be considered in the calculation of impact fees to avoid uncertainty surrounding improvements further into the future. Eight collection system projects were identified in the sewer master plan, but four of those projects are required to correct either existing deficiencies or deficiencies that occur as a result of growth beyond

the 10-year planning window. These will be funded with either the District's existing cash funds or impact fees from future users outside of the 10-year planning window, respectively. Correspondingly, all costs have been assigned to existing or growth beyond the 10-year window will not be included as part of the impact fee calculation.

The remaining four collection system projects will be included in the District's impact fee facility plan. Table 7 summarizes the pertinent information for these capacity related projects. The treatment facility projects identified in the sewer master plan will be included in the impact fee facility plan as well. Table 7 summarizes the pertinent information for these treatment facility projects. Details associated with the costs of all projects are contained in the Sewer Master Plan.

**Table 7**  
**Project Costs Allocated to Projects, 10-year Planning Window**

Project No.	Year	Address	MID Cost	Percent to Existing	Percent to 10-Year Growth	Percent to Growth through 2050	Cost to Existing	Cost to 10-Year Growth	Cost to Growth 2032 through 2050
C1	2024	7500 S. between State St. & 410 E.	\$2,463,000	82.2%	3.4%	14.5%	\$2,024,110	\$82,867	\$356,022
C3	2027	6830 S. between Railroad & State St.	\$1,982,000	78.6%	5.2%	16.2%	\$1,557,630	\$103,681	\$320,689
C4	2024	State St. between 7640 S. & 7554 S.	\$355,000	8.5%	71.5%	20.0%	\$30,038	\$253,962	\$71,000
M1	2023	Fairmeadows Dr. between 700 E. and 900 E.	\$814,000	88.8%	0.3%	10.8%	\$722,923	\$2,846	\$88,231
M2	2023	Between MH-A001 and MH-A014	\$84,000	78.6%	5.9%	15.5%	\$66,056	\$4,914	\$13,030
M3	2023	Union Woods Dr. between MH-E129 and MH-E130	\$750,000	86.6%	2.4%	11.0%	\$649,606	\$17,717	\$82,677
Treatment	2024-2032	South Valley Water Reclamation Facility	\$4,786,800	68.0%	5.5%	26.6%	\$3,253,528	\$261,778	\$1,271,494
		<b>Total</b>	<b>\$11,234,800</b>				<b>\$8,303,892</b>	<b>\$727,765</b>	<b>\$2,203,142</b>

### **Project Cost Attributable to Future Growth**

To satisfy the requirements of state law, Table 7 includes a breakdown of the capital facility projects into 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.” A few additional notes regarding specific projects are as follows:

- Treatment Plant Projects – There are eighteen projects planned at SVWRF within the next 10 years. In this case, costs have been divided proportionally between existing and future users based on their use of total capacity at the facility. More details regarding these SVWRF improvements can be found in the Sewer Master Plan.

It should be noted that Table 7 does not include bond costs related to paying for any of these improvements. Bond costs will be addressed as part of the impact fee analysis.

### **Project Cost Attributable to 10-Year Growth**

Included in Table 7 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. This has been done following the same general process as described above.

### **Basis of Construction Cost Estimates**

The costs of treatment projects have been based on engineering cost estimates prepared using the latest available information from SVWRF. The costs of collection system projects have been based on engineering cost estimates using construction cost estimates based on recent market conditions.

## **ADDITIONAL CONSIDERATIONS**

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

The District 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 IFFP may be added to the calculation of the impact fee. This will be considered in the impact fee analysis.

---

## **User Rate Revenue**

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 used to complete initial construction of impact fee eligible projects and will be reimbursed later as impact fees are received. Consideration of potential use of user rate revenue to pay for impact fee eligible expenditures 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 public safety infrastructure. If a developer constructs a 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 District. If the value of the improvements dedicated is worth more than the development's impact fee liability, the District 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 the Impact Fee Act, impact fees cannot be used to correct deficiencies in the District's system and must be necessary to maintain the proposed level of service established for all users. Only those facilities or portions of facilities that are required to maintain the proposed level of service for future growth have been included in this IFFP. Additionally, any portion of projects being used to cure existing deficiencies that will be paid for through future user rates will be accounted for through an impact fee credit to be calculated as part of the impact fee analysis. This will result in an equitable fee as future users will not be expected to fund any portion of the facilities that will benefit existing residents.



**IMPACT FEE CERTIFICATION - 11-36a-306(1)**

This IFFP has been prepared in accordance with Utah Code Title 11, Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to the imposition of impact fees in Utah. The accuracy of this IFFP relies in part upon planning, engineering, and other source data, provided by the District and its designees.

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

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; or
  - b. cost 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; and
3. complies in each and every relevant respect with the Impact Fees Act.



Wyatt Andersen, P.E.

**DRAPER, UTAH OFFICE**

154 E 14075 S  
DRAPER, UTAH 84020  
PHONE: 801.495.2224

**BOISE, IDAHO OFFICE**

776 E RIVERSIDE DRIVE  
SUITE 250  
EAGLE, IDAHO 83616  
PHONE: 208.939.9561

**ST. GEORGE, UTAH OFFICE**

20 NORTH MAIN  
SUITE 107  
ST.GEORGE, UTAH 84770  
PHONE: 435.656.3299

**OGDEN, UTAH OFFICE**

2036 LINCOLN AVENUE  
SUITE 104  
OGDEN, UTAH 84401  
PHONE: 801.495.2224



**BOWEN COLLINS**  
& ASSOCIATES

[WWW.BOWENCOLLINS.COM](http://WWW.BOWENCOLLINS.COM)