



PREPARED FOR:

PREPARED BY:



SEWER IMPACT FEE FACILITIES PLAN

JANUARY 2022

SEWER IMPACT FEE FACILITIES PLAN

January 2022



Prepared for:



Prepared by:



TABLE OF CONTENTS

Page No.

EXECUTIVE SUMMARY	ES-1
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
Required System Improvements.....	ES-3
 IMPACT FEE FACILITIES PLAN	 1-1
Introduction.....	1-1
Service Area	1-1
Impact Fee Facility Plan Components.....	1-1
Existing Level of Service – Utah Code Annotated 11-36a-302(1)(a)(i)	1-1
Unit of Demand.....	1-1
Performance Standard.....	1-2
Existing Level of Service Summary	1-3
Proposed Level of Service - Utah Code Annotated 11-36a-302(1)(a)(ii)	1-4
Proposed Level of Service Summary	1-4
Excess Capacity to Accommodate Future Growth - Utah Code Annotated 11-36a-302(1)(a)(iii)	1-5
Collection	1-5
Treatment.....	1-6
General Assets	1-7
Demands Placed on Facilities by New Development - Utah Code Annotated 11-36a-302(a)(iv).....	1-7
Infrastructure Required to Meet Demands of New Development – Utah Code Annotated 11-36a-302(1)(a)(v)	1-8
10 Year Improvement Plan.....	1-8
Project Cost Attributable to Future Growth	1-10
Project Cost Attributable to 10 Year Growth	1-10
Basis of Construction Cost Estimates	1-10
Additional Considerations	1-11
Manner of Financing – Utah Code Annotated 11-36a-302(2).....	1-11
Federal and State Grants and Donations	1-11
Bonds	1-11
User Rate Revenue	1-11
Impact Fees	1-11
Developer Dedications and Exactions.....	1-11
Necessity of Improvements to Maintain Level Of Service - Utah Code Annotated 11-36a-302(3).....	1-12
School Related Infrastructure - Utah Code Annotated 11-36a-302(2)	1-12
Noticing and Adoption Requirements - Utah Code Annotated 11-36a-502.....	1-12
Impact Fee Certification - Utah Code Annotated 11-36a-306(1)	1-13

TABLE OF CONTENTS
(continued)

LIST OF TABLES

No.	Title	Page No.
ES-1	District Service Area Projections	ES-1
ES-2	Service Area Historic Flows.....	ES-2
ES-3	Level of Service for Various System Requirements.....	ES-2
ES-4	Available Excess Capacity.....	ES-3
ES-5	Project Costs Allocated to Projected Development, 10 Year Planning Horizon	ES-4
1	Service Area Historic Flows and Definition of an ERU.....	1-2
2	Existing Level of Service for Various System Requirements	1-3
3	Proposed Level of Service for Various System Requirements	1-5
4	Collection System Excess Capacity	1-6
5	Excess Wastewater Treatment Facility Capacity.....	1-7
6	General Assets Excess Capacity	1-7
7	District Projections of Growth.....	1-8
8	Project Costs Allocated to Projected Development, 10 Year Planning Horizon	1-9

EXECUTIVE SUMMARY

SEWER 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

Before evaluating system 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 Capital Facilities Plan, projected growth in system demand is summarized in Table ES-1 in terms of Equivalent Residential Units (ERUs).

Table ES-1
District Service Area Projections

Year	District Area ERUs	Domestic Wastewater (mgd)	Max Month Infiltration (mgd)	Total Max Month, Average Day Flow (mgd)	Peak Hour Flows - District Area (MGD)
2020	37,667	6.50	1.59	8.09	15.55
2030	41,973	7.24	1.77	9.01	17.32
2050	47,136	8.13	1.99	10.12	19.45

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
Service Area Historic Flows

Item	Value for Existing Conditions	Value for 10-Year Growth	Total 10-Year Conditions
Equivalent Residential Connections (ERUs)	37,667	4,306	41,973
Domestic Wastewater Production (mgd)	6.50	0.74	7.24
Infiltration, Maximum Month (mgd)	1.59	0.18	1.77
Average Day, Maximum Month Flow (mgd)	8.09	0.92	9.01
Peak Hour Flow (mgd)	15.55	1.78	17.32
Flows per ERU			
Domestic Wastewater Production (gpd/ERU)	173	173	173
Average Day, Maximum Month Flow (gpd/ERU)	215	215	215
Peak Hour Flow (gpd/ERU)	413	413	413
Average Indoor Water Use (gpd/ERU)	192	192	192

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”. Summary values for both existing and proposed levels of service are contained in Table ES-3.

Table ES-3
Level of Service for Various System Requirements

	Existing Level of Service	Proposed Level of Service
Pipeline Capacity		
Maximum Ratio of Flow ¹ to Pipeline Capacity/Percent of Collection System that Meets the Standard		
Pipes with diameter > 12 inches	0.75/97.96%	0.75/100%
Pipes with diameter ≤ 12 inches	0.5/96.91%	0.5/100%
Treatment Capacity		
Average Day, Maximum Month Flow (gpd/ERU)	215	215
General Assets		
Adequacy of Existing Facilities to Serve Customers	Sufficient	Sufficient

¹ Peak hour, dry weather flow

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, and general assets). Excess capacity in each component of the system is summarized in Table ES-4.

Table ES-4
Available Excess Capacity

Use Category	Collection System Percent Use	Treatment Percent Use	General Assets Percent Use
Existing Use	84.65%	61.52%	79.91%
Use By 10-Year Growth	7.04%	7.03%	9.14%
Use By Growth Beyond 10 years	8.31%	31.44%	10.95%
Total	100.00%	100.00%	100.00%

REQUIRED SYSTEM IMPROVEMENTS

Beyond available existing capacity, additional improvements required to serve new growth are summarized in Table ES-5. To satisfy the requirements of state law, Table ES-5 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 horizon of this IFFP and capacity that will be available for growth beyond the 10-year horizon.

Table ES-5
Project Costs Allocated to Projected Development, 10 Year Planning Horizon

Project ID	Project	Total Project Cost	Percent to Existing	Percent to 10 Year Growth	Percent to Growth 2029 through Buildout	Cost to Existing	Cost to 10 Year Growth	Cost to Growth 2029 through Buildout
	Collection System Projects							
2	Camino Real Drive Upsize	\$590,717	4.60%	64.88%	30.51%	\$27,189	\$383,275	\$180,253
4	I-215 900 East Upsize	\$3,836,808	87.06%	4.73%	8.21%	\$3,340,321	\$181,572	\$314,915
5	6720 South 1100 East Upsize	\$2,881,286	47.70%	17.09%	35.21%	\$1,374,416	\$492,409	\$1,014,461
7	BCC Road Upsize	\$434,280	1.51%	10.59%	87.90%	\$6,569	\$45,980	\$381,731
8	Union Park Ave 7400 South Upsize	\$412,901	27.01%	24.14%	48.85%	\$111,540	\$99,666	\$201,695
9	7800 South 1200 East Upsize	\$2,531,155	27.01%	24.25%	48.73%	\$683,760	\$613,868	\$1,233,527
10	Robidoux Road 2700 East Upsize	\$92,880	10.66%	39.35%	49.99%	\$9,900	\$36,551	\$46,429
11	Little Cottonwood Road Wasatch Blvd Upsize	\$1,291,760	16.20%	29.13%	54.67%	\$209,243	\$376,248	\$706,269
	Subtotal	\$12,071,787				\$5,762,938	\$2,229,570	\$4,079,279
	Treatment Plant Projects							
1	CVWRF Improvements	\$72,337,531	61.52%	7.03%	31.44%	\$44,504,306	\$5,087,624	\$22,745,600
	Subtotal	\$72,337,531				\$44,504,306	\$5,087,624	\$22,745,600
	Total	\$84,409,318				\$50,267,244	\$7,317,194	\$26,824,879

IMPACT FEE FACILITIES PLAN

INTRODUCTION

Cottonwood Improvement District 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 Sewer Capital Facilities Plan prepared by BC&A. The reader should refer to this document for additional discussion of planning and evaluation methodology beyond what is contained in this report.

SERVICE AREA

For the purpose of impact fee calculations, the District system will be treated as a single service area.

IMPACT FEE FACILITY PLAN COMPONENTS

Requirements for the preparation of an IFFP are outlined in Title 11, Chapter 36a of the Utah Code Annotated (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

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

EXISTING LEVEL OF SERVICE – Utah Code Annotated 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

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. An equivalent residential unit was developed based on indoor billing data across the District along with the number of connections defined as “domestic”. Based on this information, the

number of ERUs in the District was estimated and the flow rate basis of an ERU could be calculated for historic flows as summarized in Table 1.

Table 1
Service Area Historic Flows and Definition of an ERU

Item	Value for Existing Conditions	Value for 10-Year Growth	Total 10-Year Conditions
Equivalent Residential Connections (ERUs)	37,667	4,306	41,973
Domestic Wastewater Production (mgd)	6.50	0.74	7.24
Infiltration, Maximum Month (mgd)	1.59	0.18	1.77
Average Day, Maximum Month Flow (mgd)	8.09	0.92	9.01
Peak Hour Flow (mgd)	15.55	1.78	17.32
Flows per ERU			
Domestic Wastewater Production (gpd/ERU)	173	173	173
Average Day, Maximum Month Flow (gpd/ERU)	215	215	215
Peak Hour Flow (gpd/ERU)	413	413	413
Average Indoor Water Use (gpd/ERU)	192	192	192

Included in the table is the definition of an existing ERU in terms of both average and peak flows. The projected flow used to design and evaluate system components will vary depending on the nature of each component. For example, most wastewater treatment facility 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).

Also included in the table is a projection of future flows. As shown in the table, the calculated unit of demand for future ERUs is the same as for existing.

Performance Standard

Performance standards are those standards that are used to design and evaluate the performance of facilities. This section discusses the existing performance standards for the District.

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. District engineering standards require that all sewer mains greater than or equal to 12-inches in diameter be designed such that the peak flow in the pipe is less than or equal to 75 percent of the pipe's full capacity and all sewer mains less than 12-inches in diameter to be designed such that the peak flow in the pipe is less than or equal to 50 percent of the pipe's full capacity using a Manning's roughness factor¹ of 0.013. This design standard was used as the level of service for system evaluation.

Wastewater Treatment Facility Capacity. A wastewater treatment facility consists of a large number of different components. Each component may have different criteria for design depending

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

on the nature of the component. For most treatment related components, however, 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 overall capacity of a treatment plant.

General Assets. In addition to the water system needs, Cottonwood Improvement District personnel need to be able to provide administrative, operation, and maintenance functions for the District to satisfy a level of service for customers. The District's current administrative and service facilities is composed of a number of different components, including office space, open storage space, maintenance bays, etc., and does not have a specific performance standard. However, it is expected that the District's existing facilities will be satisfactory to provide space for personnel through the District's buildout planning window. This means there is excess capacity available today available to support the needs of future users. Thus, it is proposed that both existing and future users pay for these facilities in proportion to their overall use in the system at buildout. This will result in the level of service provided by the facility being the same for existing and new users.

Existing Level of Service Summary

Existing level of service has been divided into the same three components as identified for the system performance standard (pipeline capacity, treatment capacity, and general assets). Existing level of service values are summarized in Table 2 below.

Table 2
Existing Level of Service
for Various System Requirements

	Existing Level of Service
Pipeline Capacity	
Maximum Ratio of Flow ¹ to Pipeline Capacity/Percent of Collection System that Currently Meets the Standard	
Pipes with diameter > 12 inches	0.75/97.96%
Pipes with diameter ≤ 12 inches	0.5/96.91%
Treatment Capacity	
Capacity Required for Existing Connections – Average Day, Maximum Month Flow (gpd/ERU)	215
General Assets	
Adequacy of Existing Facilities to Serve Customers	Sufficient

¹Peak hour

As shown in the table, only a small percentage of sewer pipelines in the system fall below the desired performance standard. In most cases, there is excess capacity in District pipes that may be used to accommodate some of future growth. 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 - Utah Code Annotated 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.

In the case of this IFFP, no changes are proposed to the existing level of service for design standards except relative to treatment capability. Thus, future growth will essentially be evaluated based on the same design standards level of service as identified for existing.

The Utah Division of Water Quality has been developing new criteria for the Utah Pollutant Discharge Elimination System (UPDES) Permit related to treatment plant nutrient removal requirements. As a result of the new permit requirements, several improvements will be needed at the District's wastewater treatment facility. As part of these improvements, the District will also be adding some new facilities at the treatment plant that will improve redundancy and the resulting reliability of the plant. These improvements represent an increased level of service that will benefit existing and future users alike. Increases in the level of service for the District will be funded in accordance with the requirements of the Impact Fees Act. As a result, projects associated with these treatment plant improvements will be paid for by all users at proportional rates.

Proposed Level of Service Summary

The resulting proposed level of service for the District is summarized in Table 3.

Table 3
Proposed Level of Service for Various System Requirements

	Proposed Level of Service
Pipeline Capacity	
Maximum Ratio of Flow ¹ to Pipeline Capacity/Percent of Collection System that Currently Meets the Standard	
Pipes with diameter > 12 inches	0.75/100%
Pipes with diameter ≤ 12 inches	0.5/100%
Treatment Capacity	
Capacity Required for Future Connections – Average Day, Maximum Month Flow (gpd/ERU)	215
General Assets	
Adequacy of Existing Facilities to Serve Customers	Sufficient

¹ Peak hour

EXCESS CAPACITY TO ACCOMMODATE FUTURE GROWTH - Utah Code Annotated 11-36a-302(1)(a)(iii)

Because most of the sewer collection facilities within the District have adequate or excess capacity through the long-term planning horizon of the District, capacity for most future growth will be met through available excess capacity in existing facilities. There are two components of assets to discuss within the District: collections system facilities and treatment facilities. Excess capacity in the collection and treatment 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 the 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 0.75 peak flow to capacity ratio was used and for pipes with a diameter less than or equal to 12 inches the capacity at a 0.50 peak flow to capacity 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 10-year planning horizon period, the projected growth in flow 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 for replacement in the facilities plan. By assigning a capacity of zero to new users, 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 feet long will cost proportionally more than a pipe that is 10 inches in diameter and 300 feet 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. This is summarized in Table 4.

Table 4
Collection System Excess Capacity

Use Category	District Area Percent Use
Existing Use	84.65%
Use By 10-Year Growth	7.04%
Use By Growth Beyond 10 years	8.31%
Total	100.00%

Treatment

The Central Valley Water Reclamation Facility (CVWRF) has a current capacity of 75 mgd but is in the process of completing a series of projects that will ultimately bring the total capacity to 84 mgd. Because of the difficulty of assigning specific capacities to individual components (both existing and future), this evaluation takes the approach of considering all components to be working together toward the final capacity. Thus, excess capacity in existing treatment facilities will be calculated simply based on the proportional use of the total future capacity of 84 mgd. The same approach will be used for future treatment facilities (see subsequent section) so that total treatment costs are equitably distributed between existing and future users.

With this in mind, the District's current percent ownership in the treatment plant is 15.65 percent. Applied to the future capacity of the plant, this results in a total capacity for the District of 13.15 mgd. Projected peak month, average day flows for existing development are 8.09 mgd, and are projected to be 9.01 mgd in 10 years and 10.12 mgd at buildout. Capacity beyond the buildout projection would be available for additional growth beyond current expectations. Based projected flows in the District service area, the existing treatment plant capacity is summarized in Table 5.

Table 5
Excess Wastewater Treatment Facility Capacity

Use Category	Flow to Treatment Plant (MGD)	District Area Percent Use
Existing Use	8.09	61.52%
Use by 10-Year Growth	0.92	7.03%
Use by Projected Growth Beyond 10 years	1.11	8.43%
Additional Reserve Capacity*	3.03	23.01%
Total	13.15	100.00%

*For impact fee purposes reserve capacity is included with growth beyond 10 years

General Assets

As discussed under the existing and proposed level of service sections, Cottonwood Improvement District's general assets has sufficient capacity through the District's long-term planning window. Thus, excess capacity can be simply calculated based on proportional use per ERU as shown in Table 6.

Table 6
General Assets Excess Capacity

Use Category	District Area ERUs	District Area Percent Use
Existing Use	37,667	79.91%
Use by 10-Year Growth	4,306	9.14%
Use by Growth Beyond 10 years	5,163	10.95%
Total	47,136	100.00%

DEMANDS PLACED ON FACILITIES BY NEW DEVELOPMENT - Utah Code Annotated 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 Capital Facilities Plan. Growth in terms of both Equivalent Residential Units and corresponding sewer flows is summarized in Table 7.

Table 7
District Projections of Growth

Year	District Area ERUs	Domestic Wastewater (mgd)	Max Month Infiltration (mgd)	Total Max Month, Average Day Flow (mgd)	Peak Hour Flows - District Area (MGD)
2020	37,667	6.50	1.59	8.09	15.55
2030	41,973	7.24	1.77	9.01	17.32
2050	47,136	8.13	1.99	10.12	19.45

INFRASTRUCTURE REQUIRED TO MEET DEMANDS OF NEW DEVELOPMENT – Utah Code Annotated 11-36a-302(1)(a)(v)

To satisfy the requirements of state law, demands 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:

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 collection system 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. A few deficiencies were identified in the Capital Facilities Plan.
4. **Future Demand** - The demand future development will place on the system was estimated based on development projections (discussed in the Capital Facilities Plan).
5. **Future Deficiencies** - Future deficiencies in the collection system (portions of the system that are inadequate to accommodate the demand created by future growth) were identified using the defined level of service and results from a hydraulic computer model (discussed in the 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 Annotated).

10 Year Improvement Plan

In the District's Capital Facilities Plan, capital facility projects needed to provide service to customers of the District were identified. Some of the projects identified in the capital facilities plan will not be needed within the next 10 years. 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. Table 8 summarizes the components of projects identified in the capital facilities plan that will need to be constructed within the next ten years.

Table 8
Project Costs Allocated to Projected Development, 10 Year Planning Horizon

Project ID	Project	Total Project Cost	Percent to Existing	Percent to 10 Year Growth	Percent to Growth 2029 through Buildout	Cost to Existing	Cost to 10 Year Growth	Cost to Growth 2029 through Buildout
	Collection System Projects							
2	Camino Real Drive Upsize	\$590,717	4.60%	64.88%	30.51%	\$27,189	\$383,275	\$180,253
4	I-215 900 East Upsize	\$3,836,808	87.06%	4.73%	8.21%	\$3,340,321	\$181,572	\$314,915
5	6720 South 1100 East Upsize	\$2,881,286	47.70%	17.09%	35.21%	\$1,374,416	\$492,409	\$1,014,461
7	BCC Road Upsize	\$434,280	1.51%	10.59%	87.90%	\$6,569	\$45,980	\$381,731
8	Union Park Ave 7400 South Upsize	\$412,901	27.01%	24.14%	48.85%	\$111,540	\$99,666	\$201,695
9	7800 South 1200 East Upsize	\$2,531,155	27.01%	24.25%	48.73%	\$683,760	\$613,868	\$1,233,527
10	Robidoux Road 2700 East Upsize	\$92,880	10.66%	39.35%	49.99%	\$9,900	\$36,551	\$46,429
11	Little Cottonwood Road Wasatch Blvd Upsize	\$1,291,760	16.20%	29.13%	54.67%	\$209,243	\$376,248	\$706,269
	Subtotal	\$12,071,787				\$5,762,938	\$2,229,570	\$4,079,279
	Treatment Plant Projects							
1	CVWRF Improvements	\$72,337,531	61.52%	7.03%	31.44%	\$44,504,306	\$5,087,624	\$22,745,600
	Subtotal	\$72,337,531				\$44,504,306	\$5,087,624	\$22,745,600
	Total	\$84,409,318				\$50,267,244	\$7,317,194	\$26,824,879

Project Cost Attributable to Future Growth

To satisfy the requirements of state law, Table 8 provides a breakdown of the capital facility projects and the percentage of the project costs attributed to existing and future users. As defined in Utah Code Annotated 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.” Some projects identified in the table are required solely to meet future growth, but some projects also provide a benefit to existing users. Projects that benefit existing users include those projects addressing existing capacity needs and maintenance related projects.

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 use of the facility. A few additional notes regarding specific projects are as follows:

- **Treatment Plant Projects** – As can be seen in the table, the percentages of cost assigned to future growth categories are identical for all the treatment plant projects. The reason for this is that, consistent with the approach used to evaluate excess capacity in existing facilities, this capacity evaluation look at all the treatment projects as contributing to the total performance of the plant. Correspondingly, all improvements will have the same percentage of use by different growth categories based on the proportional use of total capacity by each category. This approach allows equitable allocation of cost, regardless of whether any individual improvement is for increased level of service or additions to capacity.

Project Cost Attributable to 10 Year Growth

Included in Table 8 is a breakdown of capacity use 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 horizon. This has been done following the same general process as described above.

Basis of Construction Cost Estimates

The costs of pipe and planning projects have been based on engineering cost estimates contained in the Capital Facilities Plan. Additional detail regarding the basis of these estimates can be found in that report.

ADDITIONAL CONSIDERATIONS

MANNER OF FINANCING – Utah Code Annotated 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 infrastructure. If a developer constructs facilities or dedicates land within the development for the construction of facilities identified in this IFFP, 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 - Utah Code Annotated 11-36a-302(3)

According to State statute, 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. 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.

SCHOOL RELATED INFRASTRUCTURE - Utah Code Annotated 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 District is aware of the planned location of a school, required public facilities to serve the school have been included in the impact fee facility plan.

NOTICING AND ADOPTION REQUIREMENTS - Utah Code Annotated 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 District during the 10-day noticing period for public review and inspection. Utah Code requires that the District must post a copy of the ordinance in at least three places. These places may include the District offices and the public libraries within the District's jurisdiction. Following the 10-day noticing period, a public hearing will be held, after which the District may adopt, amend and adopt, or reject the proposed IFFP.

IMPACT FEE CERTIFICATION - Utah Code Annotated 11-36a-306(1)

This IFFP has been prepared in accordance with Utah Code Annotated 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;
 - 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; or
 - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. Complies in each and every relevant respect with the Impact Fees Act.



Keith Larson, 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
& A S S O C I A T E S

WWW.BOWENCOLLINS.COM