Impact Fee Facilities Plan

Version: Draft

Salt Lake City Department of Public Utilities

September 18, 2025

Executive Summary

This Impact Fee Facility Plan (IFFP) Report is the first of two reports that were prepared in support of the proposed Salt Lake City water, wastewater, and stormwater impact fees. This report presents the current and proposed levels of service being provided by each system and the allocation of the current system assets and planned improvements to each system that provide capacity to serve new growth over the next 6 years (fiscal year [FY] 2026 through FY 2031). The companion Impact Fee Analysis Report presents the calculation of the proposed impact fees for each system.

The City's current impact fees were adopted in 1999. Since then, the State of Utah has adopted the Impact Fee Act.

The requirements for the development of impact fees are outlined in Title 11, Chapter 36a of the Utah Code (the Impact Fees Act). Under these requirements, a local political subdivision or private entity wanting to implement an impact fee must develop both an IFFP and an Impact Fee Analysis. The Utah Code allows for impact fees for water, wastewater, and stormwater systems, as well as other public services.

There are a number of requirements under the Utah Code for the development and implementation of impact fees, which are described in Section 2 of this report. The following are of particular note (Utah Code 11-36a-304):

> *(1) An impact fee analysis shall:*
>
> *(a) identify the anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity;*
>
> *(b) identify the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service for each public facility;*
>
> *(c) subject to Subsection (2), demonstrate how the anticipated impacts described in Subsections (1)(a) and (b) are reasonably related to the anticipated development activity;*
>
> *(d) estimate the proportionate share of:*
>
> *(i) the costs for existing capacity that will be recouped; and*
>
> *(ii) the costs of impacts on system improvements that are reasonably related to the new development activity; and*
>
> *(e) identify how the impact fee was calculated.*

The proposed impact fees are composed of two components: a recoupment fee and an improvement fee. The recoupment fee is designed to recover the capital investment associated with available capacity to serve new users in the existing system. The improvement fee is designed to recover the capital investment in planned improvements that provide capacity to serve new users. The proposed impact fees may consist of a recoupment fee, an improvement fee, or a combination of the recoupment and improvement fees.

Adjustments are made to the capital investment and cost of the planned improvements in the system to reflect the outstanding debt on each system, developer contributions, improvements funded from grants, and assets that will be retired or replaced by planned improvements.

The net capital investment in each system is then broken down into the respective system components. For the water system, the capital investment is separated into production/treatment, storage, and transmission and distribution components. For the wastewater system, the components are wastewater treatment and collection and transmission. The stormwater system is treated as a single component.

Table ES-1 presents the percentage of the existing assets and the percentage of planned improvements over the next 6 years that are allocable to growth over the next 6 years (FY 2026 through FY 2031).

Table ES-1. Percentage of Existing Assets and Planned Improvements Over the Next 6 Years Allocable to Growth Over this 6-year Period (FY 2026 through FY 2031)

Item	Existing Asset %	Planned Improvements %
Water System		
Production/Treatment	2.0%	N/A
Storage	3.4%	N/A
Transmission and Distribution	3.8%	N/A
Planned Improvements[a]	N/A	11.0%
Wastewater		
Treatment	3.0%	N/A
Collection and Transmission	3.7%	N/A
Planned Improvements[a]	N/A	3.8%
Stormwater		
Stormwater[a]	5.4%	2.3%

[a] The percentage of planned improvements allocable to growth over next 6 years varies by project. Percentage shown is of the total planned improvements over the 6-year period allocable to growth in this 6-year period.

N/A = not applicable

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Acronyms and Abbreviations

CIP	Capital improvement plan
ERU	equivalent residential unit
FY	fiscal year
GPD	gallon(s) per day
gpm	gallon(s) per minute
I/I	infiltration and inflow
IFFP	Impact Fee Facilities Plan
mgd	million gallons per day
psi	pound(s) per square inch.
RCN	replacement cost new
RCNLD	replacement cost new less depreciation
SLCDPU	Salt Lake City Department of Public Utilities
WRF	water reclamation facility

1. Introduction

The Salt Lake City Department of Public Utilities (SLCDPU) retained Jacobs Engineering Group Inc. (Jacobs) to update impact fees for the City's water, sewer, and stormwater utility services. This Impact Fee Facilities Plan (IFFP) supports the development of the utility impact fees for the water, wastewater, and stormwater systems. The IFFP will identify current and projected demands on each utility system and will allocate existing assets and projects identified in the utility's Capital Improvement Plan (CIP) to existing and future customers. Only those costs identified as serving new growth in the system will be eligible to be included in the updated impact fee calculation. The impact fee will be established to cover growth over the next 6-year period (fiscal year [FY] 2026 through FY 2031).

The State of Utah has established requirements for the development of impact fees. The requirements can be found in the State of Utah Impact Fees Act. The preparation of the IFFP is a key step in the process and must include the following:

- Identify the existing and proposed level of service for the utility.
- Identify available capacity in the existing facilities to accommodate growth.
- Identify the demands of new development for the next 6 years and beyond.

Additional provisions of the Utah Impact Fee Act are described in Section 2 of this report. This IFFP Report and its companion report, Impact Fee Analysis, address the requirements of the Impact Fee Act for the City's water, wastewater, and stormwater systems.

2. Methodology Overview

The requirements for the development of impact fees are outlined in Title 11, Chapter 36a of the Utah Code (the Impact Fees Act). Under these requirements, a local political subdivision or private entity wanting to implement an impact fee must develop both an IFFP and an Impact Fee Analysis. The Utah Code allows for impact fees for water, wastewater, and stormwater systems, as well as other public services.

Selected pertinent sections of the Utah Code relating to the development of impact fees for the City's water, wastewater, and stormwater systems are summarized in the following sections. It should not be assumed that the following summary of the Utah Code is inclusive of all provisions of the Code that may affect the development, implementation, or administration of the City's water, wastewater, or stormwater impact fees.

2.1 Impact Fee Facility Plan Requirements

The IFFP shall include the following for each system (Utah Code 11-36a-302):

(1)(a) An impact fee facilities plan shall:

(i) identify the existing level of service;

(ii) subject to Subsection (1)(c), establish a proposed level of service;

(iii) identify any excess capacity to accommodate future growth at the proposed level of service;

(iv) identify demands placed upon existing public facilities by new development activity at the proposed level of service; and

(v) identify the means by which the political subdivision or private entity will meet those growth demands.

(b) A proposed level of service may diminish or equal the existing level of service.

(c) A proposed level of service may:

(i) exceed the existing level of service if, independent of the use of impact fees, the political subdivision or private entity provides, implements, and maintains the means to increase the existing level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service; or

(ii) establish a new public facility if, independent of the use of impact fees, the political subdivision or private entity provides, implements, and maintains the means to increase the existing level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service.

(2) In preparing an impact fee facilities plan, each local political subdivision shall generally consider all revenue sources to finance the impacts on system improvements, including:

(a) grants;

(b) bonds;

(c) interfund loans;

(d) impact fees; and

(e) anticipated or accepted dedications of system improvements.

(3) A local political subdivision or private entity may only impose impact fees on development activities when the local political subdivision's or private entity's plan for financing system improvements establishes that impact fees are necessary to maintain a proposed level of service that complies with Subsection (1)(b) or (c).

2.2 Impact Fee Analysis Requirements

The following are requirements for the Impact Fee Analysis (Utah Code 11-36a-304):

(1) An impact fee analysis shall:

(a) identify the anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity;

(b) identify the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service for each public facility;

(c) subject to Subsection (2), demonstrate how the anticipated impacts described in Subsections (1)(a) and (b) are reasonably related to the anticipated development activity;

(d) estimate the proportionate share of:

(i) the costs for existing capacity that will be recouped; and

(ii) the costs of impacts on system improvements that are reasonably related to the new development activity; and

(e) based on the requirements of this chapter, identify how the impact fee was calculated.

(2) In analyzing whether the proportionate share of the costs of public facilities are reasonably related to the new development activity, the local political subdivision or private entity, as the case may be, shall identify, if applicable:

(a) the cost of each existing public facility that has excess capacity to serve the anticipated development resulting from the new development activity;

(b) the cost of system improvements for each public facility;

(c) other than impact fees, the manner of financing for each public facility, such as user charges, special assessments, bonded indebtedness, general taxes, or federal grants;

(d) the relative extent to which development activity will contribute to financing the excess capacity of and system improvements for each existing public facility, by such means as user charges, special assessments, or payment from the proceeds of general taxes;

(e) the relative extent to which development activity will contribute to the cost of existing public facilities and system improvements in the future;

(f) the extent to which the development activity is entitled to a credit against impact fees because the development activity will dedicate system improvements or public facilities that will offset the demand for system improvements, inside or outside the proposed development;

(g) extraordinary costs, if any, in servicing the newly developed properties; and

(h) the time-price differential inherent in fair comparisons of amounts paid at different times.

A political subdivision or private entity **may not** impose an impact fee to cure deficiencies in a public facility serving existing development, raise the established level of service of a public facility serving existing development, or recoup more than the local political subdivision's or private entity's costs actually incurred for excess capacity in an existing system improvement.

2.3 Salt Lake City Specific Approach Elements

The following describes the methodology that has been used to develop the City's proposed water, wastewater, and stormwater impact fees. The methodology used for each system follows a similar process but reflects the differences between the systems in terms of the service being provided by each utility, the current level of service compared with the planned/proposed level of service, the measures of the capacity of each system, and demands on that capacity.

One of the first steps in developing the proposed impact fees is the identification of the service area for each system or utility. The wastewater and stormwater systems' service areas are entirely within the city boundaries, while the water system serves the entire city and a notable number of customers outside the city.

The existing and proposed levels of service for each system are defined in terms of equivalent residential units (ERUs). The definition of an ERU is the demand of a typical single-family residential unit and varies between the water, wastewater, and stormwater systems. For the water system, the capacity is based on water usage. For the sewer system, this is based on the estimated wastewater flows, including an allowance for infiltration and inflow. For the stormwater system the ERU is based on the impervious area of a typical single-family residential property. The demands of commercial, industrial, and other land uses are measured in terms of their demands relative to that of a single-family residence. The capacity of the systems is similarly measured in terms of the number of ERUs that the system can serve.

Available capacity to serve new users is based on the difference between the physical capacity of the system and that being used by existing customers. For planned improvements, the capacity being provided by the proposed improvements less the portion that may be needed to meet current users' demands is considered available to serve new users. The portion available to serve new users is split between new users expected to connect to the system in the next 6 years and those expected to connect sometime after this 6-year period.

If the existing level of service being provided is less than the proposed level of service, the capacity will be based on the existing level of service, unless the utility is constructing improvements being funded from other sources that will bring the system up to the proposed level of service within the 6-year period covered by the impact fees. If the proposed level of service is less than the existing level of service, the capacity will be based on the proposed level of service.

The proposed impact fees are composed of two components: a recoupment fee and an improvement fee. The recoupment fee is designed to recover the capital investment associated with available capacity to serve new users in the existing system. The improvement fee is designed to recover the capital investment

in planned improvements that provide capacity to serve new users. The proposed impact fees may consist of a recoupment fee, an improvement fee, or a combination of the recoupment and improvement fees.

Adjustments are made to the capital investment and cost of the planned improvements in the system to reflect the outstanding debt on each system, developer contributions, improvements funded from grants, and assets that will be retired or replaced by planned improvements.

The net capital investment in each system is then broken down into the respective system components. For the water system, the capital investment is separated into production/treatment, storage, and transmission and distribution components. For the wastewater system, the components are wastewater treatment, and collection and transmission. The stormwater system is treated as a single component.

The capacity of each component is then determined. The capacity of the water treatment plant is typically expressed in million gallons per day (mgd). The capacity in mgd is then converted to capacity in ERUs based on the water demands per ERU. Similarly, storage capacity in millions of gallons and transmission and distribution capacity in mgd are converted to capacity in ERUs. The capacity of the wastewater treatment plant is similarly measured in mgd, which is converted to capacity in ERUs, while the collection and transmission system is measured by the capacity of the major transmission lines. The overall capacity of the stormwater system is based on the expected impervious area at build-out of the city. This is then converted to the projected number of ERUs that will be served based on the impervious area associated with a typical ERU.

The share of capacity of each system and their planned improvements were allocated to existing users, new users anticipated to connect to the system over the next 6 years, and new users anticipated to connect beyond 6 years. Only the share of capacity anticipated to be used by new users over the upcoming 6-year period starting in FY 2026 were included in the calculation of the proposed impact fees.

The net capital investment to serve new growth over the next 6 years (FY 2026 through FY 2031) in each component of each system is then divided by the portion of the capacity of each component in terms of ERUs expected to be consumed by growth over the next 6 years to derive the net unit cost per ERU for each system component. The summation of the recoupment and improvement net unit costs per ERU for each system component represents the proposed recoupment and improvement impact fees under the assumption of full cost recovery of eligible impact fees. Thus, for the water system, the net capital investment per ERU for water treatment, storage, and transmission and distribution are summed to derive the proposed impact fee per ERU for the water system. Similarly, for the wastewater system, the investment per ERU for wastewater treatment and collection and transmission are summed to derive the impact fee per ERU for the wastewater system. For the stormwater system, the capital investment per quarter acre is calculated. These proposed fees are the maximum amount the City can collect from new connections to its water, wastewater, and stormwater systems. The calculation of these net unit costs per ERU by component and system is presented in the companion Impact Fee Report.

The impact fees are applied to the demands of a new development to determine their proposed impact fee charges. Adjustments to these proposed charges may be made for construction and funding of improvements by property owners that benefit the respective systems or if a policy decision is made to not seek full recovery of all eligible impact fee amounts. The policy decision could include, as one example, phasing into full recovery of eligible impact fee levels over a period of time.

3. Water Facility Plan

3.1 Unit of Demand

For water, the unit of demand is the ERU. The ERU is the basis for evaluating both the existing capacity and future development needs for the water system for the city. One ERU represents the demand placed on the water system by a typical single-family home. As of 2023, one ERU is equivalent to an average of 342 gallons of water per day in Salt Lake City. Table 3-1 provides the projected water demand and ERUs for Salt Lake City.

Table 3-1. Projected Water Demand and ERUs for Salt Lake City

Item	Value for Existing Conditions
2023[a]	
ERUs	180,268
Average-day Demand (mgd)	61.7
Peak-day Demand (mgd)	151.0
2030[b]	
ERUs	189,289
Average-day Demand (mgd)	64.8
Peak-day Demand (mgd)	158.6

Source: Utah Water Use Data Form, 2023

[a] 2023 ERUs from SLCDPU Engineering

[b] 2030 projections assume 0.70% annual increase in number of ERUs in accordance with projected population growth.

3.2 Performance Standard

The Impact Fee Act defined the level of service as the "defined performance standard or unit of demand for each capital component of a public facility within a service area." Performance standard is the minimum level of service for each capital component of a public facility within a service area. These are the prescribed standards that are used in the design and evaluation of the performance for each capital component of a public facility within a service area.

The Impact Fee Analysis for the water system is categorized into three components with their respective performance standards. These are production/treatment, storage, and transmission and distribution.

Production/Treatment Capacity:

The production/treatment capacity for the City's water system must be adequate to meet the demand for water during the daily and annual peak periods. The reliability of the production/treatment supplies must account for the seasonal variation in the availability, quantity (yield), and supply of raw water from various sources for treatment. The City estimates 20% redundancy from various water sources to fulfill its estimated water demand and account for unforeseen situations like climate change, well contamination, and mechanical failures. A 20% reduction in the estimated physical capacity of the production/treatment

facilities is assumed in estimating the usable capacity of the production/treatment facilities. The estimated peak-day of production/treatment capacity for the city from current and future sources is 316 mgd.

Storage:

Generally, the City's water storage systems are assessed by their ability to meet operational, fire flow, and emergency storage, as described in the following:

- **Operational Storage:** This refers to the storage necessary to meet the short fall between the maximum water supply production and maximum water demand during peak periods. Storage is required to offset any deficit between the water production from various sources and the increased water demand during peak conditions. The operational storage for the City is estimated at 30% of the average peak-day demands (295 gallons per equivalent residential connection) based on historical water usage.
- **Fire Flow Storage:** This is the amount of water in storage necessary to thwart fire incidents. The fire flow storage differs among structures—from large commercial buildings to multifamily and residential structures. The required fire flow storage, based on City code and State of Utah Division of Drinking Water requirements, is calculated by the fire flow rate for the specified structure in each neighborhood multiplied by the specified hours as required by the fire authority. For instance, a typical residential property with a fire flow rate of 1,500 to 2,000 gallons per minute (gpm) for 2 hours would need approximately between 180,000 and 240,000 gallons of water in storage. This compares to an estimated 3.2 million gallons of water in storage that would be required to combat a fire in a large building in downtown Salt Lake City with a fire flow of 9,000 gpm for 6 hours.
- **Emergency Storage:** This is the storage necessary to satisfy the demand based on unforeseen situations such as a break in a water pipeline, failure in the water treatment plant, and/or power outage during peak-day conditions.

The City's storage performance standard for all its customers is 328 gallons/ERU for at least 8 hours of peak-day demand. An estimated 416 gallons/ERU will be provided for the City over a 10-hour period for emergency storage.

Transmission and Distribution:

The City's code requirements for the transmission and distribution systems have been consistent with Utah codes and standards. Generally, the City maintains a pressure range between 60 and 120 pounds per square inch (psi) for its pipes and conveyance systems for peak-hour and other static conditions.

However, the city has multiple pressure zones with varying levels of service based on the needs and peculiarities of each zone. For instance, zones with topography/terrain slopes greater than 5% require the conveyance systems to maintain pressure levels of 40 and 30 psi during peak-day demand and peak-hour demand, respectively. Also, the culinary system of Salt Lake City requires residual pressure of 20 psi during peak-day demand. The conveyance systems have fire flow demand between 1,500 and 9,000 gpm based on specific fire suppression requirements by the City's Fire Marshal. In brief, the distribution system should be capable of delivering peak-day water demand to different service areas across the city.

3.3 Existing Level of Service

Like the performance standards, the existing level of service is categorized into three components: production/treatment capacity, storage, and transmission and distribution. Table 3-2 compares the performance standard with the existing level of service for the City. As shown in Table 3-2, the existing level of service exceeds the performance standard for each component.

Table 3-2. Performance Standards and Existing Level of Service for Various Components of the Water System

Item	Performance Standard	Existing Level of Service
Production /Treatment		
Production/Treatment Capacity (gpd/ERU)	600	712
Storage		
Storage (gallons/ERU)	855	1,073
Transmission and Distribution		
Peak-day Demand Pressure (psi)	40	60
Fire Flow (gpm)	1,500	1,000 - 4,000

Source: SLCDPU Engineering

gpd = gallon(s) per day

3.4 Proposed Level of Service

Based on the Impact Fee Act, the proposed level of service could be less than, equal to, or exceed the existing level of service. For the proposed level of service to exceed the existing level of service, the level of service must be increased and maintained within 6 years of when the new growth is charged for the proposed level of service. For this analysis, the performance standard and the proposed level of service are shown in Table 3-3. As shown in the table, the proposed level of service is equal to the performance standard for each component.

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

Item	Performance Standard	Proposed Level of Service
Production		
Production Capacity (gpd/ERU)	600	600
Storage		
Storage (gals/ERU)	855	855
Transmission and Distribution		
Peak-day Demand Pressure (psi)	40	40
Fire Flow (gpm)	1,500[a]	1,500[a]

[a] Value shown for typical residential areas. Values for commercial buildings and larger residential buildings may be larger as determined by the fire authority.

3.5 Available Capacity to Accommodate Future Growth

The anticipated demand associated with future growth will be accommodated by available capacity in existing water infrastructure systems and additional capacity from the construction of new facilities. Like the existing level of service, the analysis for available capacity will be done for the three components: production/treatment capacity, storage, and transmission and distribution.

3.5.1.1.1 Production/Treatment Capacity

The City's 2022 Water System Master Plan provides the details and the analysis of various sources of water supply to meet both existing and future demand. These include annual water supply, water losses, and peak production capacity. The City gets water supply from various sources—surface water (for instance; Big Cottonwood, Parleys, City Creek, and so forth), wells to extract groundwater, and from Salt Lake and Sandy Metropolitan Water Districts. Table 3-4 shows that the City has excess water supply from various water sources to accommodate future demand.

Table 3-4. Available Production/Treatment Capacity for Sources Supplying 6-year Growth

Rated Capacity (mgd)	Existing Use (mgd)	6-year Use (mgd)	Beyond 6 Years (mgd)	Percent to Existing	Percent to 6-year Growth	Percent to Beyond 6-year Growth
278.0	130.2	5.6	142.2	46.8%	2.0%	51.2%

Source: 2022 City Water System Master Plan

The Impact Fee Analysis takes into consideration replacement of some facilities connected with existing production sources. Historical costs connected with these replaced facilities were removed to avoid double counting.

3.5.2 Water Storage System Capacity

The existing water storage facilities and infrastructure are owned, operated, and maintained by the City. Based on existing use, the storage facilities have excess capacity to meet anticipated demand from future growth. Table 3-5 provides the details of existing use and available capacity to meet future demand for water storage.

Table 3-5. Available Storage System Capacity for Sources Supplying 6-year Growth

Rated Capacity (MG)	Existing Use (MG)	6-Year Use (MG)	Beyond 6 Years (MG)	Percent to Existing	Percent to 6-year Growth	Percent to Beyond 6-year Growth
193.7	156.3	6.7	30.8	80.7%	3.4%	15.9%

Source: 2022 City Water System Master Plan

MG = million gallons

The analysis accounted for replacement of facilities associated with existing storage systems. The historical project costs for the replaced facilities were removed to avoid double counting.

3.5.3 Water Transmission and Distribution System Capacity

The existing transmission and distribution system is comprised of major conveyance pipelines that supply water from north to south and a broad network of smaller transmission pipelines extending from east to west across the city. The system has redundant capacity to accommodate future growth opportunities

based on existing demand. Table 3-6 summarizes existing use and the available capacity to meet future growth in demand.

Table 3-6. Available Transmission and Distribution System Capacity Supplying 6-year Growth

Rated Capacity (mgd)	Existing Use (mgd)	6-year Use (mgd)	Beyond 6 Years (mgd)	Percent to Existing	Percent to 6-year Growth	Percent to Beyond 6-year Growth
325.8	290.1	12.4	23.3	89.0%	3.8%	7.2%

Source: 2022 City Water System Master Plan

3.6 Demands Placed on Facilities by New Development

The projections for future water demand from 2023 to 2035 are shown in Table 3-7. For this report, the future growth for water demand as well as storage and distribution systems capacities are based on the population growth rate for the service area.

Table 3-7. Projections of Future Water Demand

Year	Annual Demand (mgd)	Peak-day Demand (mgd)	ERUs	Storage Capacity (mgd)	Distribution Capacity (mgd)
2023	22,527.4	151.0	180,268	156.3	290.1
2030	23,654.7	158.6	189,289	164.1	304.6
2035	24,494.3	164.2	196,007	169.9	315.4

Notes:

2023 data for annual demand, peak-day demand, and ERUs from SLCDPU; storage capacity and distribution capacity from City Water System Master Plan

Projections assume 0.70% annual increase in accordance with projected population growth

3.7 Existing Infrastructure

The proposed water impact fee comprises the recoupment fee and the improvement fee. The objective of the recoupment fee is to recover the capital investment with the use of available capacity to serve the demands of new users in the existing system. Conversely, the improvement fee aims to reclaim the capital investment connected with future improvements that provide the capacity to serve new users.

3.7.1 Existing Infrastructure Assets

Table 3-8 shows the summary of the fixed asset record by asset category for water systems from the City's FY 2023 fixed asset reconciliation report. Some of the information in the fixed asset reconciliation report are the name, description, purchase price, year of installation, asset location, depreciation, and book value for each asset. The purchase price for each asset was converted to 2024-dollar value or the replacement cost new (RCN) by adjusting them with relevant inflation factors for the various years the assets were acquired or installed.

Then, the replacement cost was adjusted for accumulated depreciation to estimate the replacement cost new less depreciation (RCNLD) for each asset; 5% of the RCNLD remaining values were assigned to fully depreciated assets on the list that were still in use by the city. Some of the RCNLD was allocated to growth

over the next 6 years, depending on the apportionment ratio for existing, 6-year growth and beyond 6-year growth.

Table 3-8: Replacement Cost New Less Depreciation for Existing Infrastructure Assets

Asset Category	RCNLD	Allocated to Next 6 Years of Growth
Land	$111,223,000	$2,226,000
Lift Stations	$527,000	$11,000
Water Rights	$627,446,000	$12,556,000
Canals	$50,154,000	$1,004,000
Treatment Plant	$66,941,000	$1,340,000
Pumping Plant	$15,154,000	$303,000
Residences	$18,000	$0
Other Buildings	$5,664,000	$113,000
Culverts Flumes and Bridges	$6,035,000	$121,000
Artesian Wells	$2,000	$0
Deep Pump Wells	$5,897,000	$118,000
Water Conduits and Supply Lines	$88,150,000	$3,355,000
Water Storage Reservoirs	$25,748,000	$888,000
Water Distribution Reservoirs	$28,981,000	$1,103,000
Water Distribution Mains & Hydrants	$297,465,000	$11,321,000
Water Service Connections	$77,523,000	$2,950,000
Landscaping	$3,653,000	$73,000
Drinking Fountains	$0	$0
Automobiles and Trucks	$1,454,000	$29,000
Field Maintenance Equipment-Motive	$3,271,000	$65,000
Pumping Plant Equipment	$110,000	$2,000
Treatment Plant Equipment	$1,860,000	$37,000
Telemetering Equipment	$321,000	$6,000
Office Equipment and Furnishing	$476,000	$10,000
Other Non-motive Equipment	$572,000	$11,000
Fixed Assets Capitalized Interest	$14,834,000	$297,000
Total	**$1,433,481,000**	**$37,939,000**

3.7.2 Work in Process

These are assets under construction, and they have not been finalized and commissioned for use to be added to the fixed asset reconciliation report. Table 3-9 presents the work in process for the city's water systems for FY 2023. The water treatment plants and distribution mains and hydrants accounted for approximately 85% of the assets under construction. Nearly $3.9 million of the total project cost was apportioned to growth over the next 6 years.

Table 3-9. Work in Process

Asset Category	RCNLD	Allocated to Next 6 Years of Growth
Land	$226,000	$5,000
Offices, Shops, Etc.	$265,000	$5,000
Treatment Plants	$32,782,000	$656,000
Pumping Plants and Pump Houses	$908,000	$18,000
Culverts, Flumes and Bridges	$2,222,000	$44,000
Deep Pump Wells	$1,594,000	$32,000
Water Storage Reservoirs	$6,995,000	$140,000
Distribution Reservoirs	$11,940,000	$454,000
Distribution Mains & Hydrants Betterments	$59,621,000	$2,269,000
Service Connections	$5,303,000	$202,000
Sewer Collection Lines	$0	$0
Landscaping	$157,000	$6,000
Telemetering Equipment	$23,000	$1,000
Special Consultant Expenses	$321,000	$12,000
Professional and Tech Services	$28,000	$1,0000
Total	**$122,385,000**	**$3,845,000**

3.8 Infrastructure Required to Meet Demands of New Development

3.8.1 Capital Improvement Plan

For the water system, the City's CIP comprises future water-related improvements and projects necessary to meet the level of service requirements for future water demand at build-out. These future projects will be executed as the need arises and across different timelines. For this analysis, infrastructure projects planned for development in the next 6 years are included in the Impact Fee Analysis.

3.8.2 Project Cost Attributable to Future Growth

Table 3-10 provides the summary of the costs associated with the water projects to be implemented within the next 6 years to meet future water demands. The water system master planning initiatives have identified projects that are expected to serve growth over the next 6 years, and they include the

improvements to production/treatment, storage, and transmission and distribution systems. Approximately $55.5 million, or 11.3% of the identified $491.7 million in CIP project costs, are apportioned to improvements to serve growth between FY 2026 and FY 2031.

Table 3-10. Impact Fee Facilities Plan – Costs Allocated to Future Growth

	Existing	Next 6 Years	Beyond 6 Years	Total
Total CIP	$356,403,000	$55,511,000	$79,760,000	$491,674,000
Allocation %	72.5%	11.3%	16.2%	100.0%

Note: Future project costs were escalated to year-of-expenditure dollars. CIP used for the analysis was consistent with the CIP for the rate study.

3.8.3 Basis of Construction Cost Estimates

The basis for the construction cost estimates for projects to be completed within 6 years are estimates from City personnel with experience with projects of a similar nature.

4. Sewer Facility Plan

4.1 Unit of Demand

For the sewer system, the unit of demand is the ERU. The ERU is the basis for evaluating both the existing capacity and future development needs for the sewer system for the city. One ERU represents one single-family home using approximately 5,000 gallons of water per month. Historic sewer flows from FY 2023 were used to estimate the number of ERUs in the existing system. Average-month flows and maximum-month flows were used to estimate the amount of inflow and infiltration (I/I) received at the treatment plant. I/I is generally at its highest during the spring. Future flows were estimated by applying projected population growth rates to the FY 2023 flows and estimated ERUs. Table 4-1 presents the historical and projected wastewater flows for the service area.

Table 4-1. Service Area Historical and Projected Wastewater Flows

Item	Value for Existing Conditions
Estimated ERUs, 2023	178,688
Domestic Wastewater Production (mgd), 2023	29.53
Infiltration, Maximum Month (mgd), 2023	14.11
Average-day, Maximum-month Flow (mgd), 2023	43.64
Historical Flows per ERU, 2023	
Domestic Wastewater Production (gpd/ERU)	165.3
Average-day, Maximum-month Flow (gpd/ERU)	183.7
Average Indoor Water Use (gpd/ERU)	244.2
Estimated Future Flows per ERU, 2030	
Domestic Wastewater Production (gpd/ERU)	165.3
Average-day, Maximum-month Flow (gpd/ERU)	183.7
Average Indoor Water Use (gpd/ERU)	239.9

Source: Sewer Billing Data. FY 2023; Influent Loading Data FY 2003–23

4.2 Performance Standard

The Impact Fee Act defined the level of service as the "defined performance standard or unit of demand for each capital component of a public facility within a service area." Performance standard is the minimum level of service for each capital component of a public facility within a service area. These are the prescribed standards that are used in the design and evaluation of the performance for each capital component of a public facility within a service area. The existing level of service is the current performance of the system component.

From a performance evaluation perspective, excess capacity is identified if the current level of service is greater than the performance standard. On the other hand, there is a deficiency if the current level of service is less than the performance standard.

The Impact Fee Analysis for the sewer system is categorized into two components with their respective performance standards. These are treatment and collection.

4.2.1 Treatment Plant Capacity

The treatment process consists of a large number of different components that may have different design criteria depending on the function of the component. For most treatment processes, the capacity for the City's sewer system must be adequate to meet the demand for sewer flows during the peak month, which is typically during spring runoff, when there is a greater level of I/I in the sewer system. For 2023, the month with the greatest peak flow was April.

Table 4-2 presents the estimated flows and ERU capacity at the treatment plant from 2023 to 2031. Over the 6-year analysis period (2026–2031), approximately 8,200 new ERUs are expected to be added to the system.

Table 4-2. Projected Customer Flows and New ERUs

Year	Design Capacity (mgd)	I/I (mgd)	Remaining Capacity (design less I/I) (mgd)	Est. Customer Sewer Flow (does not include I/I) (mgd)	Est. Available Capacity (mgd)	Capacity ERUs	Existing ERUs	Available ERUs	Change in ERUs from Previous Year
2023	56.0	14.1	41.9	29.5	12.4	253,478	178,688	74,789	
2024	56.0	14.1	41.9	29.7	12.1	253,478	179,981	73,496	1,293
2025	56.0	14.1	41.9	29.9	12.0	253,478	180,903	72,574	922
2026	56.0	14.1	41.9	30.2	11.7	253,478	182,660	70,817	1,757
2027	56.0	14.1	41.9	30.4	11.5	253,478	183,985	69,493	1,324
2028	56.0	14.1	41.9	30.6	11.3	253,478	185,340	68,138	1,355
2029	56.0	14.1	41.9	30.8	11.0	253,478	186,663	66,815	1,323
2030	56.0	14.1	41.9	31.0	10.9	253,478	187,766	65,712	1,103
2031	56.0	14.1	41.9	31.2	10.6	253,478	189,095	64,382	1,330

Source: Water Production and Wholesale Report FY 2024

Est. = estimated

4.2.2 Collection System Capacity

The City's collection system performance standard is based on system peak flows, which accounts for extra capacity for I/I into the sewer system. The peak flow depth in the collection system pipes is less than or equal to 75% of the pipeline's hydraulic capacity.

4.3 Existing Level of Service

Current performance standards and existing levels of service are presented in Table 4-3. The existing levels of service are from the 2019 Sewer Master Plan. Currently, the level of service for the treatment system is exceeding the performance standard. The existing level of service in the collection system is slightly greater than the performance standard, which indicates the pipeline capacity is nearly at capacity. However, as noted, the existing level of service presented represents a small segment of the system. Most pipes in the collection system have capacity to serve future growth.

Table 4-3. Existing Performance Standards and Level of Service for Various System

Item	Existing Performance Standard	Existing Level of Service
Treatment Capacity		
Treatment Capacity, Average Day (gpd/ERU)	175	302
Pipeline Capacity		
Maximum Ratio of Flow[a] to Pipeline Capacity	0.75	0.72[b]

[a] Peak-hour, wet-weather flow (5-year, 12-hour)

[b] Because there are thousands of pipeline components, the value given is for the worst case only. All other components have a greater level of service.

4.4 Proposed Level of Service

Based on the Impact Fee Act, the proposed level of service could be less than, equal to, or exceed the existing level of service. For the proposed level of service to exceed the existing level of service, the level of service for existing demand must be increased and maintained within 6 years of when the new growth is charged for the proposed level of service. The cost of improving this level of service must be funded from sources other than impact fees. For this analysis, the proposed level of service will be the same as the existing level of service, as shown in Table 4-4.

Table 4-4. Proposed Performance Stands and Level of Service

Item	Proposed Performance Standard	Proposed Level of Service
Pipeline Capacity		
Maximum ratio of depth of flow to depth of pipeline capacity	0.75	0.75
Treatment Capacity		
Treatment capacity (gpd/ERU)	175	175

4.5 Available Capacity to Accommodate Future Growth

The anticipated demand for future growth will be accommodated by the available capacity in existing sewer infrastructure systems and additional capacity from the construction of new facilities. Like the existing level of service, the analysis for available capacity will be done for the two components: treatment and collection.

4.6 Treatment Plant Capacity

The treatment plant has a rated capacity of 56 mgd. The improvements currently underway at the treatment plant will not expand the capacity of the plant. The available capacity to serve new growth is presented in Table 4-5.

Table 4-5. Existing Wastewater Treatment Plant Capacity

Rated Capacity (mgd)	Existing Use (mgd)	6-year Use (mgd)	Beyond 6 Years (mgd)	Percent to Existing	Percent to 6-year Growth	Percent to Beyond 6-year Growth
56.0	41.5	1.7	12.8	71.4%	3.2%	25.4%

4.7 Collection System Capacity

Table 4-6 presents the collection system performance for the three primary collection trunk lines in the sewer system. The current performance for these three trunk lines is considered a proxy for the performance of the system as a whole. As noted previously, the collection system performance standard of 0.75 is based on the depth of the flow to depth of the pipe capacity. The system will only perform as well as the areas of the system that are at their fullest capacity. Based on existing performance, the three trunk lines presented in Table 4-6 are currently at approximately 96% of capacity (72.3/75 = 96.3%).

Table 4-6. Current Collection System Performance

Trunk Line	"Worst" (Most Full) Segment			
	Diameter (inches)	Flow (mgd)	% Full	Pipe ID
Orange Street	44	15.6	75	08081 07797
1200 West	72	52.8	74	03553 03552
Beck Street	45.5	12	61	20343 20386
		80.4	72.3	

Source: Salt Lake City (Michael Guymon)

ID = identification

At the most-full segment of the collection system, the ratio is 0.723, which is approximately 96.3% full with existing flows, leaving only a small amount of available capacity for new growth. For this analysis, all of the remaining capacity (3.7%) was assumed to be used over the next 6 years, as shown in Table 4-7.

Table 4-7. Percentage Use of Collection System by Existing and Future Users

Facility	Percent Use by Existing	Percent Available for 6-year Growth	Percent Available Beyond 6-year Growth
Sewer Collection System	96.3	3.7	0.0

4.8 Demands Placed on Facilities by New Development

Table 4-8 presents the projected future sewer flows from 2023 through 2035. Future growth was estimated using population projections for the service area. Future capital projects are expected to help control I/I in the sewer system. For the purpose of this analysis, the infiltration flows are forecast to remain constant.

Table 4-8. Projections of Future Sewer Flows

Year	Average Flow July–December (mgd)	Infiltration (mgd)	Total Flow (mgd)	Estimated ERUs
2023	29.53	14.11	43.64	178,688
2030	31.03	14.11	45.14	187,766
2035	32.14	14.11	46.25	194,509

4.9 Existing Infrastructure

The proposed sewer impact fee is composed of two components: a recoupment fee and an improvement fee. The recoupment fee is designed to recover the capital investment associated with available capacity to serve new users in the existing system.

4.9.1 Existing Infrastructure Assets

A summary of the utility's fixed asset list by asset category is presented in Table 4-9. The City provided the fixed asset reconciliation report for FY 2023. Information for each asset included asset name, installation year, purchase amount, annual and accumulated depreciation, and book value. The RCNLD was estimated by applying an inflation factor to the purchase value and estimating the RCN in 2024 dollars. The replacement cost was then adjusted for accumulated depreciation. If an asset was included on the list and was fully depreciated, it was assumed the asset still had some value as the asset is currently in use. Fully depreciated assets were assigned a remaining value of 5% of the RCN. The RCNLD was allocated to growth over the next 6 years based on the available capacity in existing assets. For this analysis, approximately 3.0% of the treatment plant capacity is available serve new growth over the next 6 years, while collection system capacity is estimated at 3.7%.

Table 4-9. Replacement Cost New Less Depreciation for Existing Assets

Asset Category	RCNLD	Allocated to Next 6 Years of Growth
Land	$22,591,000	$730,000
Rights of Way	$1,354,000	$44,000
Lift Stations	$43,564,000	$1,595,000
Pre-treatment Structures	$1,650,000	$53,000
Maintenance and Repair Shops	$6,100,000	$197,000
Warehouses	$364,000	$12,000
Treatment Plant	$122,938,000	$3,973,000
Other Buildings	$780,000	$25,000
Sewer Collection Lines	$202,421,000	$7,412,000
Trunk Lines	$619,000	$23,000
Interceptor Lines	$191,000	$7,000

Asset Category	RCNLD	Allocated to Next 6 Years of Growth
Landscaping	$17,574,000	$568,000
Automobiles and Trucks	$1,782,000	$58,000
Field Maintenance Equipment	$353,000	$11,000
Pumping Plant Equipment	$2,000	$0
Pre-treatment Plant Equipment	$0	$0
Treatment Plant Equipment	$2,904,000	$94,000
Telemetering Equipment	$147,000	$5,000
Office Equipment and Furnishing	$65,000	$2,000
Other Equipment	$555,000	$18,000
Capitalized Interest	$19,724,000	$637,000
Total	**$445,678,000**	**$15,464,000**

4.9.2 Work In Process

Work in process are assets that are currently under construction but have not been added to the fixed asset reconciliation report. Table 4-10 presents the work in process for FY 2023. The treatment plant values were adjusted to reflect the estimated cost of the water reclamation project. Approximately $31 million were allocated to growth over the next 6 years. Nearly 90% of the total allocated cost was attributed to the water reclamation project. For this analysis, approximately 3.0% of the treatment plant capacity is available to serve new growth over the next 6 years, while collection system capacity is estimated at 3.7%.

Table 4-10. Work in Process

Asset Category	RCNLD	Allocated to Next 6 Years of Growth
Lift Stations	$2,033,000	$74,000
Maintenance and Repair Shops	$53,000	$2,000
Treatment Plant	$850,000,000	$27,470,000
Water Distribution Mains and Hydrants	$0	$0
Sewer Collection Lines	$76,627,000	$2,806,000
Landscaping	$5,031,000	$163,000
Field Maintenance Equipment-Motive-Replace	$686,000	$22,000
Total	**$934,430,000**	**$30,537,000**

4.10 Infrastructure Required to Meet Demands of New Development

4.10.1 Capital Improvement Plan

The City has a list of future improvements to the sewer system required to meet level of service requirements for projected demands at build-out. These improvements have been laid out in a detailed CIP. These improvements will be implemented over varying time horizons as needs are identified and development occurs. To mitigate uncertainty regarding long-term improvements, and in compliance with the Impact Fee Act, only infrastructure planned for construction within the next 6 years will be included in the calculation of the proposed impact fees.

4.10.2 Project Cost Attributable to Future Growth

Table 4-11 summarizes the project costs anticipated to be required within this 6-year period. Projects expected to serve growth over the next 6 years were largely identified in the sewer system master planning effort and include improvements to lift stations and the collection system. It should be noted that the water reclamation facility (WRF) project is currently under construction and is considered work in process, thus it is not included in the list of future capital improvements. A portion of the WRF project will be included in the recoupment portion of the impact fee. Approximately $278 million (year-of-expenditure dollars) in project costs are identified in the CIP between FY 2026 and FY 2031. Approximately 5.9% of the project costs expected over the next 6 years are allocated to growth over the 6-year analysis period.

Table 4-11. Impact Fee Facilities Plan – Costs Allocated to Future Growth

	Existing	Next 6 Years	Beyond 6 Years	Total
Total CIP	$214,317,000	$16,298,000	$47,484,000	$278,098,000
Allocation %	77.1%	5.9%	17.1%	100.0%

Note: Future project costs were escalated to year-of-expenditure dollars. Additional projects were added to the CIP of approximately $23 million.

4.10.3 Basis of Construction Cost Estimates

The basis for the construction cost estimates for projects to be completed within 6 years are estimates from City personnel.

5. Stormwater Facilities Plan

5.1 Unit of Demand

For the analysis of the stormwater system, every type of development imposes an equivalent demand on the storm drainage system per acre. This is due to the assumption that all developments must manage runoff to match the discharge rate per acre typical of single-family residential areas. This uniform demand allows impact fees to be calculated based on the total acreage developed, irrespective of the development type. In line with the requirements of the City, the calculated impact fee from this analysis will be calculated on a quarter-acre basis.

5.2 Performance Standard

The Impact Fee Act defined the level of service as the "defined performance standard or unit of demand for each capital component of a public facility within a service area." Performance standard is the minimum level of service for each capital component of a public facility within a service area. These are the prescribed standards that are used in the design and evaluation of the performance for each capital component of a public facility within a service area. The existing level of service is the current performance of the system component.

From a performance evaluation perspective, excess capacity is identified if the current level of service is greater than the performance standard. On the other hand, there is a deficiency if the current level of service is less than the performance standard.

For the stormwater system, the minimum performance is less-clearly defined than it is for other systems. It is the City's objective to mitigate the impact of flooding events on its residents and infrastructure to the extent practicable. This, however, requires balancing the cost of storm drainage improvements with acceptable levels of street flooding.

5.3 Existing Level of Service

The existing performance standard for the City's stormwater system is for the storm drain pipelines to have the capacity to handle up to and including a 10-year flood event without pressurization and roadway flooding. For any flooding more severe than a 10-year event, streets are required to accommodate conveyance of up to a 100-year event.

The existing level of service for the City's stormwater infrastructure is exceeding the previously described performance standard. The existing assets, namely the collection mains, detention basins, and lift stations, have adequate capacity to detain runoff from a 10-year storm event without system overflow. For more-severe storms, such as a 100-year storm recurrence interval, conveyance into the stormwater system will surpass capacity, with likely roadway conveyance; however, this is within the outlined performance standard. Most of the existing systems have the capacity to accommodate future growth.

5.4 Proposed Level of Service

Based on the Impact Fee Act, the proposed level of service could be less than, equal to, or exceed the existing level of service. The proposed service level serves as the benchmark for assessing future system requirements. No alterations to the stormwater service level are planned for Salt Lake City. Future facilities

will be developed to adhere to the same performance standards established for the current service level, namely, the detention of runoff from a 10-year storm event without runoff.

5.5 Available Capacity to Accommodate Future Growth

The anticipated demand for future growth will be accommodated by the available capacity in existing stormwater infrastructure systems and additional capacity from the construction of new facilities.

5.6 Stormwater System Capacity

Due to the size of the City's stormwater system and its highly variable use, it is not possible to allocate capacity usage to specific user types. Therefore, it is necessary to assume that at build-out the amount of demand from each user will be proportionate to their use of the stormwater system. For example, at build-out, the percentage of demand stemming from existing users will be the same as the percentage of system capacity required for these users. The percentage capacity for existing and new growth was provided by the City and is presented in Table 5-1.

Table 5-1. Percentage Use of Stormwater System by Existing and Future Users

Facility	Percent Use by Existing	Percent Available for 6-year Growth	Percent Available Beyond 6-year Growth
Stormwater System	78.1%	5.4%	16.5%

5.7 Demands Placed on Facilities by New Development

Table 5-2 presents estimates of the existing developed and undeveloped area over the coming 6-year period and to build-out. These were provided by the City and are based on a geographic information system database of areas receiving, or not receiving, stormwater discounts. The City provided a forecast of how much undeveloped land will remain by 2031 and at build-out in 2065. Over the coming 6-year period, an additional 1,893 acres are expected to be developed, with all remaining zoned area being fully developed by 2065. Note that the difference between the 2025 and 2031 estimates is the basis of the calculated percentages of existing and future stormwater system usage.

Table 5-2. Future Developed Area Projections

Year	Developed (acres)	Undeveloped (acres)	Total Zoned for Potential Development (acres)
2025	27,330	7,690	35,000
2031	29,220	5,790	35,000
2065	35,010	-	35,000

5.8 Existing Infrastructure

The proposed sewer impact fee is composed of two components: a recoupment fee and an improvement fee. The recoupment fee is designed to recover the capital investment associated with available capacity to serve new users in the existing system.

5.8.1 Existing Infrastructure Assets

A summary of the utility's fixed asset list by asset category is presented in Table 5-3. The City provided the fixed asset reconciliation report for FY 2023. Information for each asset included asset name, installation year, purchase amount, annual and accumulated depreciation, and book value. The RCNLD was estimated by applying an inflation factor to the purchase value and estimating the RCN in 2024 dollars. The replacement cost was then adjusted for accumulated depreciation. If an asset was included on the list and was fully depreciated, it was assumed the asset still had some value as the asset is currently in use. Fully depreciated assets were assigned a remaining value of 5% of the RCN. The RCNLD was allocated to growth over the next 6 years.

Table 5-3. Replacement Cost New Less Depreciation for Existing Assets

Asset Category	RCNLD	Allocated to Next 6 Years of Growth
Land	$3,578,000	$193,000
Rights of Way	$111,000	$6,000
Canals	$65,904,000	$3,563,000
Lift Stations	$8,053,000	$435,000
Other Buildings	$412,000	$22,000
Storm Water Collection Lines	$173,460,000	$9,377,000
Landscaping	$6,879,000	$372,000
Automobiles and Trucks	$744,000	$40,000
Field Maint Equip-Motive	$395,000	$21,000
Telemetering Equipment	$35,000	$2,000
Other Equipment	$203,000	$11,000
Capitalized Interest	$3,207,000	$173,000
Total	**$262,982,000**	**$14,216,000**

5.8.2 Work In Process

Work in process are assets that are currently under construction but have not been added to the fixed asset reconciliation report. Table 5-4 presents the work in process for FY 2023. Approximately $1 million were allocated to growth over the next 6 years. More than 85% of the total allocated cost was attributed to numerous drainage collection line projects.

Table 5-4. Work in Process

Asset Category	RCNLD	Allocated to Next 6 Years of Growth
Lift Stations	$2,322,000	$126,000
Distribution Reservoirs	$6,000	$320
Distribution Mains and Hydrants	$80	$4

Asset Category	RCNLD	Allocated to Next 6 Years of Growth
Drainage Collection Lines	$15,351,000	$830,000
Landscaping	$293,000	$16,000
Total	$17,972,000	$972,000

5.9 Infrastructure Required to Meet Demands of New Development

5.9.1 Capital Improvement Plan

The City has a list of future improvements to the stormwater system required to meet level of service requirements for projected demands at build-out. These improvements have been laid out in a detailed CIP. These improvements will be implemented over varying time horizons in phases as development occurs. To mitigate uncertainty regarding long-term improvements, only infrastructure planned for construction within the next 6 years will be included in the calculation of the proposed impact fees.

5.9.2 Project Cost Attributable to Future Growth

Table 5-5 summarizes the anticipated project costs from the CIP. Projects expected to serve growth over the next 6 years are relatively minimal due to the existing system capacity. Improvements listed in the CIP primarily include improvements to lift stations, detention basins, and collection mains. An assumed 3% annual inflation rate is applied to the CIP to estimate approximately $43.3 million of project expenditures between FY 2026 and FY 2031, in year-of-expenditure dollars. However, only approximately 2.3% of those project costs are allocated to growth over the 6-year analysis period.

Table 5-5. Impact Fee Facilities Plan – Costs Allocated to Future Growth

	Existing	Next 6 Years	Beyond 6 Years	Total
Total CIP	$41,565,000	$1,003,000	$699,000	$43,267,000
Allocation %	96.1%	2.3%	1.6%	100.0%

5.9.3 Basis of Construction Cost Estimates

The basis for the construction cost estimates for projects to be completed within 6 years are estimates from City personnel.

6. Impact Fee Facilities Plan Certification

The IFFP was prepared in accordance with the State of Utah Impact Fees Act. The report relied on information and data provided by the City. Per Utah Code 11-36a-306, an IFFP shall include a written certification from the person or entity that prepared the IFFP. In accordance with Utah Code, Jacobs makes the following certification:

I certify that the attached IFFP:

- includes only the costs of public facilities that are:
  - allowed under the impact fees act; and
  - actually incurred; or
  - projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
- does not include:
  - costs of operation and maintenance of public facilities; or
  - costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; and
  - complies in each and every relevant respect with the Impact Fees Act.

_____

David Green, Jacobs

Date: XXXX, 2025

Appendix A
Additional Information

Table A-1. Equivalent Residential Unit Projections, Water

Year	Annual Demand (MGD)	Average Daily Demand (MGD)	Peak-day Demand (MGD)	ERUs	New ERU Per Year
2023	22,527.39	61.72	151.04	180,268	-
2024	22,685.08	62.15	152.10	181,530	1,262
2025	22,843.88	62.59	153.16	182,801	1,271
2026	23,003.78	63.02	154.23	184,080	1,280
2027	23,164.81	63.47	155.31	185,369	1,289
2028	23,326.96	63.91	156.40	186,666	1,298
2029	23,490.25	64.36	157.50	187,973	1,307
2030	23,654.68	64.81	158.60	189,289	1,316
2031	23,820.27	65.26	159.71	190,614	1,325
New ERUs (2026-2031)					7,813

Note: Estimated annual growth in population applied to project ERUs

ERU = equivalent residential unit
MGD = million gallons per day

Table A-2. Equivalent Residential Unit Projections, Sewer

Year	Flow (Average Jul-Dec) (MGD)	Average Monthly Flow (MGD) at Treatment Plant	Peak Monthly Flow at Treatment Plant (MGD)	Peak Month Infiltration	ERUs	New ERUs
2023	29.53	32.83	43.64	14.11	178,688	-
2024	29.74	33.07	43.85	14.11	179,981	1,293
2025	29.90	33.24	44.01	14.11	180,903	922
2026	30.19	33.56	44.30	14.11	182,660	1,757
2027	30.41	33.80	44.52	14.11	183,985	1,324
2028	30.63	34.05	44.74	14.11	185,340	1,355
2029	30.85	34.30	44.96	14.11	186,663	1,323
2030	31.03	34.50	45.14	14.11	187,766	1,103
2031	31.25	34.74	45.36	14.11	189,095	1,330
New ERUs 2026-2031						8,192

Note: ERU estimated sewer flow is based on average single-family residential winter water use of 5,000 gallons per month. Estimated annual growth in population applied to sewer flows to project ERUs

Table A-3. Existing Assets, Water

Asset Code	Description Asset Category	Year Purchase Amount	RCN	RCNLD	Existing	Growth Next 6 Years	Growth Beyond 6 Years	Growth Next 6 Years
16110	Land	$23,624,728	$111,222,890	$111,222,890	47%	2%	51%	$2,225,670
016120	Lift Stations	$417,015	$526,965	$526,965	47%	2%	51%	$10,545
016130	Water Rights	$32,363,285	$627,445,537	$627,445,537	47%	2%	51%	$12,555,748
016140	Canals	$1,499,207	$50,154,177	$50,154,177	47%	2%	51%	$1,003,630
016230	Treatment Plant	$60,574,193	$168,297,016	$66,941,345	47%	2%	51%	$1,339,556
016235	Pumping Plant	$14,726,742	$27,771,808	$15,154,243	47%	2%	51%	$303,250
016250	Residences	$63,183	$1,245,252	$18,230	47%	2%	51%	$365
016299	Other Buildings	$6,909,185	$18,419,619	$5,664,890	47%	2%	51%	$113,360
016302	Culverts Flumes & Bridges	$5,686,311	$9,203,900	$6,035,273	47%	2%	51%	$120,771
016303	Artesian Wells	$96,222	$4,924,108	$2,292	47%	2%	51%	$46
016304	Deep Pump Wells	$9,807,094	$31,843,090	$5,897,136	47%	2%	51%	$118,007
016305	Water Conduits & Supply Lines	$33,036,615	$262,240,042	$88,149,954	89%	4%	7%	$3,354,898
016306	Water Storage Reservoirs	$21,206,526	$79,913,263	$25,748,468	81%	3%	16%	$887,830
016307	Water Distribution Reservoirs	$28,965,053	$118,478,285	$28,980,804	89%	4%	7%	$1,102,980
016308	Water Distribution Mains & Hydrants	$220,524,342	$543,353,628	$297,464,952	89%	4%	7%	$11,321,214
016309	Water Service Connections	$95,960,803	$147,837,510	$77,522,685	89%	4%	7%	$2,950,435
016320	Landscaping	$3,361,102	$4,815,127	$3,653,098	47%	2%	51%	$73,102
016391	Drinking Fountains	$25,794	$73,952	$0	89%	4%	7%	$0
016510	Automobiles and Trucks	$10,526,116	$14,582,695	$1,453,863	47%	2%	51%	$29,093
016530	Field Maintenance Equipment-Motive	$6,234,754	$7,915,410	$3,271,116	47%	2%	51%	$65,458
016610	Pumping Plant Equipment	$2,796,302	$15,244,917	$110,793	47%	2%	51%	$2,217
016620	Treatment Plant Equipment	$7,594,068	$17,741,877	$1,860,184	47%	2%	51%	$37,224
016630	Telemetering Equipment	$2,275,384	$4,950,674	$321,372	47%	2%	51%	$6,431
016650	Office Equipment & Furnishing	$2,878,623	$4,706,336	$476,106	47%	2%	51%	$9,527
016699	Other Non-Motive Equipment	$4,352,916	$7,669,230	$572,191	47%	2%	51%	$11,450
016700	Capitalized Interest	$14,113,002	$30,333,938	$14,833,563	47%	2%	51%	$296,833
	Total	**$609,618,564**	**$2,310,911,250**	**$1,433,482,130**				**$37,939,640**

Work in Process

Asset Code	Description Asset Category	Purchase Amount	RCN	RCNLD	Existing	Growth Next 6 Years	Growth Beyond 6 Years	Growth Next 6 Years
271010	Land	$226,000	$226,000	$226,000	47%	2%	51%	$4,522
272010	Offices, Shops, Etc	$264,523	$264,523	$264,523	47%	2%	51%	$5,293
272030	Treatment Plants	$32,782,187	$32,782,187	$32,782,187	47%	2%	51%	$656,001
272035	Pumping Plants and Pump Houses	$908,068	$908,068	$908,068	47%	2%	51%	$18,171
273002	Culverts, Flumes and Bridges	$2,221,514	$2,221,514	$2,221,514	47%	2%	51%	$44,454
273004	Deep Pump Wells	$1,594,479	$1,594,479	$1,594,479	47%	2%	51%	$31,907
273006	Water Storage Reservoirs	$6,995,474	$6,995,474	$6,995,474	47%	2%	51%	$139,986
273007	Distribution Reservoirs	$11,940,410	$11,940,410	$11,940,410	89%	4%	7%	$454,440
273008	Distribution Mains & Hydrants Betterments	$59,620,594	$59,620,594	$59,620,594	89%	4%	7%	$2,269,099
273009	Service Connections	$5,303,176	$5,303,176	$5,303,176	89%	4%	7%	$201,834
273014	Sewer Collection Lines	$85	$85	$85	89%	4%	7%	$3
273020	Landscaping	$157,381	$157,381	$157,381	89%	4%	7%	$5,990
276030	Telemetering Equipment	$23,420	$23,420	$23,420	89%	4%	7%	$891
2324	Special Consultant Expenses	$321,351	$321,351	$321,351	89%	4%	7%	$12,230
2329	Professional & Tech Services	$28,440	$28,440	$28,440	89%	4%	7%	$1,082
	Total	**$122,387,102**	**$122,387,102**	**$122,387,102**				**$3,845,905**

Donated Assets

Asset Code	Description Asset Category	Purchase Amount	RCN	RCNLD	Existing	Growth Next 6 Years	Growth Beyond 6 Years	Growth Next 6 Years
016308	Water Distribution Mains & Hydrants	$42,982,736	$70,901,025	$55,034,624	89%	4%	7%	$2,094,562
016309	Water Service Connections	$1,336,782	$4,002,185	$450,246	89%	4%	7%	$17,136
	Total	**$44,319,518**	**$74,903,210**	**$55,484,870**				**$2,111,698**

RCN = replacement cost new

RCNLD = replacement cost new less depreciation

Table A-4. Existing Assets, Sewer

Asset Code	Description Asset Category	Year Purchase Amount	RCN	RCNLD	Allocations Existing	Allocations Growth Next 6 years	Allocations Growth Beyond 6 Years	Growth Next 6 years
016110	Land	$7,248,812	$22,590,671	$22,590,671	71%	3%	25%	$730,086
016120	Rights of Way	$1,227,560	$1,353,839	$1,353,839	71%	3%	25%	$43,753
016205	Lift Stations	$44,209,293	$52,401,684	$43,563,776	96%	4%	0%	$1,595,171
016208	Pre-treatment Structures	$3,187,208	$20,563,466	$1,649,896	71%	3%	25%	$53,321
016210	Maintenance & repair shops	$6,067,809	$9,664,412	$6,099,947	71%	3%	25%	$197,138
016220	Warehouses	$797,758	$2,318,226	$364,314	71%	3%	25%	$11,774
016230	Treatment plant	$111,532,757	$249,687,171	$122,937,662	71%	3%	25%	$3,973,102
016299	Other buildings	$814,171	$2,281,320	$780,348	71%	3%	25%	$25,219
016314	Sewer collection lines	$204,651,865	$308,062,650	$202,420,988	96%	4%	0%	$7,412,032
016316	Trunk lines	$1,003,991	$2,607,181	$619,205	96%	4%	0%	$22,673
016318	Interceptor lines	$411,503	$1,176,540	$191,188	96%	4%	0%	$7,001
016320	Landscaping	$16,779,083	$27,314,254	$17,574,307	71%	3%	25%	$567,967
016510	Automobiles and Trucks	$6,383,972	$8,652,066	$1,782,330	71%	3%	25%	$57,601
016530	Field Maintenance Equipment	$4,645,689	$7,227,347	$353,282	71%	3%	25%	$11,417
016610	Pumping Plant Equipment	$22,079	$30,462	$1,523	71%	3%	25%	$49
016615	Pre-Treatment Plant Equipment	$3,637,079	$11,546,344	$0	71%	3%	25%	$0
016620	Treatment Plant Equipment	$16,754,990	$57,899,059	$2,903,978	71%	3%	25%	$93,851
016630	Telemetering equipment	$754,066	$1,524,310	$147,077	71%	3%	25%	$4,753
016650	Office equipment & furnishing	$690,110	$1,436,706	$64,557	71%	3%	25%	$2,086
016699	Other equipment	$4,468,571	$8,507,767	$555,037	71%	3%	25%	$17,938
0167	Capitalized Interest	$18,339,760	$30,602,997	$19,723,831	71%	3%	25%	$637,435
	Total	$453,628,124	$827,448,473	$445,677,756				$15,464,370

Work in Process

Code	Asset Category	Purchase Amount	RCN	RCNLD				
272005	Lift Stations	$2,032,891	$2,032,891	$2,032,891	96%	4%	0%	$74,438
272010	Maintenance & Repair Shops	$53,445	$53,445	$53,445	71%	3%	25%	$1,727
272030	Treatment Plant	$850,000,000	$850,000,000	$850,000,000	71%	3%	25%	$27,470,321
273008	Water Distribution Mains & Hydrants	$240	$240	$240	96%	4%	0%	$9
273014	Sewer Collection Lines	$76,626,586	$76,626,586	$76,626,586	96%	4%	0%	$2,805,829
273020	Landscaping	$5,030,801	$5,030,801	$5,030,801	71%	3%	25%	$162,586
275030	FIELD MAINT EQUIP-MOTIVE-REPLA	$685,920	$685,920	$685,920	71%	3%	25%	$22,168
	Total	$934,429,883	$934,429,883	$934,429,883				$30,537,078

Donated

Code	Asset Category	Purchase Amount	RCN	RCNLD				
16205	Lift Stations	1,182,153	1,929,289	1,183,095	96%	4%	0%	$43,321
16314	Sewer Collection Lines	33,875,927	57,623,881	34,421,860	96%	4%	0%	$1,260,422
	Total	35,058,080	59,553,170	35,604,955				$1,303,744

Table A-5. Existing Assets, Stormwater

Asset Code	Description Asset Category	Year Purchase Amount	RCN	RCNLD	Allocations			Growth Next 6 years
					Existing	Growth Next 6 years	Growth Beyond 6 Years	
Existing								
016110	Land	$2,905,230	$3,578,260	$3,578,260	78.1%	5.4%	16.5%	$193,433
016120	Rights of Way	$51,261	$111,482	$111,482	78.1%	5.4%	16.5%	$6,026
016140	Canals	$1,079,120	$65,903,914	$65,903,914	78.1%	5.4%	16.5%	$3,562,624
016205	Lift Stations	$9,800,866	$19,775,971	$8,053,077	78.1%	5.4%	16.5%	$435,332
016299	Other Buildings	$372,595	$582,930	$411,951	78.1%	5.4%	16.5%	$22,269
016312	Storm Water Collection Lines	$149,015,505	$371,694,296	$173,459,838	78.1%	5.4%	16.5%	$9,376,865
016320	Landscaping	$6,340,600	$10,196,289	$6,879,202	78.1%	5.4%	16.5%	$371,875
016510	Automobiles & Trucks	$2,717,650	$3,904,074	$744,213	78.1%	5.4%	16.5%	$40,231
016530	Field Maint Equip-Motive	$2,082,097	$3,055,087	$395,174	78.1%	5.4%	16.5%	$21,362
016630	Telemetering Equipment	$113,017	$159,550	$34,814	78.1%	5.4%	16.5%	$1,882
016699	Other Equipment	$507,975	$771,278	$203,159	78.1%	5.4%	16.5%	$10,982
0167	Capitalized Interest	$2,910,919	$3,989,257	$3,207,095	78.1%	5.4%	16.5%	$173,369
	Total	$177,896,835	$483,722,389	$262,982,181				$14,216,250

Work in Process

Code	Asset Category	Purchase Amount	RCN	RCNLD	Existing	Growth Next 6 Years	Growth Beyond 6 Years	Growth Next 6 Years
272005	Lift Stations	$2,292,745	$2,322,157	$2,322,157	78.1%	5.4%	16.5%	$125,531
273007	Distribution Reservoirs	$5,912	$5,988	$5,988	78.1%	5.4%	16.5%	$324
273008	Distribution Mains & Hydrants	$80	$81	$81	78.1%	5.4%	16.5%	$4
2730.12	Drainage Collection Lines	$15,156,535	$15,350,969	$15,350,969	78.1%	5.4%	16.5%	$829,840
2730.2	Landscaping	$289,097	$292,805	$292,805	78.1%	5.4%	16.5%	$15,828
	Total	$17,744,368	$17,971,999	$17,971,999				$971,528

Donated

Code	Asset Category	Purchase Amount	RCN	RCNLD	Existing	Growth Next 6 Years	Growth Beyond 6 Years	Growth Next 6 Years
016140	Canals	$195,003	$340,378	$340,378	100.0%	0.0%	0.0%	$0
016205	Lift Stations	$486,465	$925,892	$451,269	100.0%	0.0%	0.0%	$0
016312	Storm Water Collection Lines	$21,388,091	$34,947,555	$25,688,819	100.0%	0.0%	0.0%	$0
	Total	$22,069,559	$36,213,825	$26,480,466				$0

Table A-6. Water Capital Improvement Plan Allocated to Next 6 Years, FY 2026–2031 (2024$)

CAP Request Number	Project Description	% Use by Existing	% Available to 6-year Growth	% Available to Growth Beyond 6 Years	Cost FY 2026–31
2015-0217	City Creek Treatment Line to Morris Reservoir	93.5%	6.6%	0.0%	$575,000
2015-0230	3rd East Phase II - Marcus to Artesian Basin	90.0%	10.0%	0.0%	$25,250,000
2015-0231	MP 3.8C - Victory Road - Ensign Downs Phase II	29.6%	31.4%	39.0%	$150,000
2022-1169	MP3.1A - East-West Conveyance Line - Terminal Reservoir to 300 E	0.0%	65.0%	35.0%	$61,200,000
2022-1170	MP3.1B - East-West Conveyance Line - 300 E to 3200 W	0.0%	65.0%	35.0%	$10,000,000
2024-1014	Update Water Distribution Master Plan	50.0%	22.3%	27.7%	$250,000
	Total	**$23,432,000**	**$48,946,000**	**$25,048,000**	**$97,426,000**
	Inflated Costs (3% per year)		**$50,414,000**		**$100,348,000**

FY = fiscal year

Table A-7. Wastewater Capital Improvement Plan Allocated to Next 6 Years, FY 2026–2031 (2024$)

CAP Request Number	Project Description	% Use by Existing	% Available to 6-year Growth	% Available to Growth Beyond 6 Years	Cost FY 2026–31
2015-0322	MP28 - North Temple - Airport to Orange Street	60.7%	11.0%	28.3%	$13,200,000
2016-0952	MP30 - 200 East from 300 South to 500 South	24.2%	15.0%	60.8%	$7,020,000
2019-1085	2300 E/Wilmington Ave/Yuma St Upsizing Project	37.3%	5.0%	57.7%	$2,200,000
2015-0483	Land Easement for 500 South MP Project to Orange Street	0.0%	30.0%	70.0%	$225,000
2016-0842	MP12B&C - 500 South Capacity Upgrades (3400 West to Orange Street)	0.0%	30.0%	70.0%	$20,000,000
	700 West Genesee Lift Station	29.0%	29.9%	42.0%	$3,000,000
	4th Trunkline	5.0%	25.0%	70.0%	$20,000,000
	Total	$12,402,000	$14,553,000	$38,691,000	**$65,645,000**
	Inflated Costs (3% per year)		**$16,298,000**		

Table A-8. Stormwater Capital Improvement Plan Allocated to Next 6 Years, FY 2026–2031 (2024$)

CAP Request Number	Project Description	% Use by Existing	% Available to 6-year Growth	% Available to Growth Beyond 6 Years	Cost FY 2026-31
2022-1116	Emigration Creek Detention System Improvements	77.48%	11.25%	11.27%	$2,300,000
2021-1112	Northwest Drain Bypass To Jordan River	88.89%	11.11%	0.00%	$1,350,000
2023-1136	Lee Drain - 5500 West Culvert	80.00%	10.00%	10.00%	$575,000
2023-1137	Lee Drain - 5070 West Culvert	80.00%	10.00%	10.00%	$442,000
2023-1138	Lee Drain - 4800 West Culvert	80.00%	10.00%	10.00%	$716,000
2023-1142	Lee Drain - Gladiola St Culvert	80.00%	10.00%	10.00%	$544,000
2022-1075	Green Loop - 500 West Stormwater Improvements	85.00%	10.00%	5.00%	$2,520,000
	Total	**$6,946,000**	**$888,000**	**$613,000**	**$8,447,000**
	Inflated Costs (3% per year)		**$1,003,000**		