Impact Fee Facilities Plan

for Pressure Irrigation

March 2018

Amended December 2023

Prepared by:

BOWEN COLLINS & ASSOCIATES
Celebrating 20 Years

Prepared for:

LEHI CITY

PRESSURE IRRIGATION IMPACT FEE FACILITIES PLAN

March 2018

Amended December 2023

Prepared for:

LEHI CITY

Prepared by:

BOWEN COLLINS & ASSOCIATES
Celebrating 20 Years

EXECUTIVE SUMMARY

INTRODUCTION

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

WHY IS AN IFFP NEEDED?

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

2023 AMENDMENT

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

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

The one other change made as part of this amendment is breaking out consideration of fire protection separately. This will allow the impact fee to be accurately divided and allocated based on the irrigation and fire protection needs to future development.

PROJECTED FUTURE GROWTH

To evaluate future infrastructure needs, it is first necessary to project how demand for pressure irrigation will increase in the future. Estimate of irrigated acreage for different development types was developed based on information provided by the Lehi City Planning and Water Departments. Projected 10-year growth in irrigated acres were developed based on projected 2026 development conditions as summarized in Table ES-1.

Table ES-1
Projected 10-Year Growth

Year	Total Irrigated Acreage[1]	Indoor ERUs[2]
2016	3,177	17,849
2020	3,422	20,119
2026	3,878	23,523
2030	4,229	25,779
2040	5,059	31,419
2050	5,706	37,059
2060	6,251	42,699
Buildout	7,257	51,749

[1] Based on Lehi City zoning data and aerial photography
[2] Based on Lehi City Sewer Master Plan. Does not include ERUs associated with IM Flash production.

Total annual and peak day demands can be estimated by multiplying the projected irrigated acres by the peak day demands per irrigated acre. Projected pressure irrigation demands for Lehi City are summarized in Table ES-2.

Table ES-2
Projected Irrigation Water Production Requirements Through Buildout

Year	Annual Demand without Conservation (ac-ft)	Annual Demand with Conservation (ac-ft)	Peak Day Demand with Conservation (cfs)	Peak Day Production with Conservation & Redundancy (cfs)
2016	15,252	12,812	43.21	49.69
2020	16,432	13,145	44.33	50.99
2026	18,622	13,967	47.11	54.17
2030	20,305	15,229	51.36	59.07
2040	24,290	18,217	61.44	70.66
2050	27,396	20,547	69.30	79.69
2060	30,012	22,509	75.92	87.30
Buildout	34,845	26,134	88.14	101.36

It is worth noting that there is a significant difference between pressure irrigation demands with and without conservation. This has been discussed in detail in the City's Water Capital Facility Plan (also prepared by Bowen Collins & Associates). For the purpose of this IFFP, it has been assumed Lehi City will develop policies to encourage conservation. Historic flows used to generate these projections are summarized in Table ES-3.

Table ES-3
Service Area Historic Flows

Item	Value for Existing Conditions
Irrigated Area (acres)	3,177
Annual Demand w/ Conservation (acre-ft/irrigated acre)	12,812
Peak Day Demand w/ Redundancy (cfs)	49.69
Peak Hour Demand (cfs)	99.38
Flow per Irrigated Acre	
Annual Demand (acre-ft/irrigated acre)	4.03
Peak Day Demand (gpm/irrigated acre)	7.02
Peak Hour Demand (gpm/irrigated acre)	14.04

LEVEL OF SERVICE

Level of service is defined in the Impact Fees Act as "the defined performance standard or unit of demand for each capital component of a public facility within a service area." Performance standards are those standards that are used to design and evaluate the performance of facilities. While the Impact Fees Act includes "defined performance standard" as part of the level of service definition, this report will make a subtle distinction between performance standard and level of service. The performance standard will be considered the desired minimum level of performance for each component, while the existing level of service will be the actual current performance of the component and the proposed level of service will be the proposed actual performance of the component in the future. Summary values for each of these categories are contained in Table ES-4.

Table ES-4
Performance Standards and Level of Service
for Various System Requirements

	Performance Standard	Existing Level of Service[1]	Proposed Level of Service[1]
Production Capacity			
Production Capacity (gpm/irrigated acre)	6.27	5.78	6.27
Pumping Capacity			
Pumping Capacity (gpm/irrigated acre)	5.45	5.78[2]	5.45
Storage			
Storage (gallons/irrigated acre)[3]	7,850	18,612	7,850
Transmission and Distribution			
Peak Day Demand Pressure(psi)	40	36[2]	40
Peak Hour Demand Pressure (psi)	30	29[2]	30
Fire Protection			
Minimum Available Fire Flow at 20 psi during Peak Day Demand (gpm)	1,500	430[2]	1,500

[1] Existing level of service represents level available, not necessarily level used. For example, the storage being used per irrigated acre will be 7,850 gallons even though the amount currently available is 18,612 gallons.
[2] Because there are many pump stations and thousands of transmission and distribution components, the value given is for the worst case only. All other components have a higher level of service with the vast majority meeting the desired performance standard.
[3] Does not include fire storage volumes in calculation.

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 (production, storage, and transmission/pumping). Excess capacity in each component of the system is as follows:

Production

There is no existing excess capacity in pressure irrigation production capacity. Lehi City currently uses some of its excess culinary production capacity to supplement the pressure irrigation system. However, these assets are not intended for long term use within the pressure irrigation system.

Storage

The City owns and operates a large number of storage reservoirs. The calculated percentage of existing capacity currently in use by existing development is 42.2 percent. Growth during the next 10 years is calculated to use an additional 4.4 percent, with the remaining 53.4 percent of existing storage to be used by growth beyond the 10-year planning window.

Transmission/Pumping

Use of transmission and pumping capacity was evaluated using the updated computer model of the City's conveyance system. The calculated percentage of existing capacity currently in use by existing development is 68.9 percent. Growth during the next 10 years is calculated to use an additional 1.7 percent, with the remaining 29.4 percent of existing capacity to be used by growth beyond the 10-year planning window.

Excess capacity for the three components of the secondary system as described above are summarized in Table ES-5.

Table ES-5
Summary of Excess Capacity in Pressure Irrigation System

Component	Percent to Existing	Percent to 10-Year Growth	Percent to Buildout
Production	100.00%	0.00%	0.00%
Storage	41.70%	4.40%	53.90%
Transmission/Pumping	68.90%	1.70%	29.40%

REQUIRED SYSTEM IMPROVEMENTS

Beyond available existing capacity, additional improvements required to serve new growth are summarized in Table ES-6. To satisfy the requirements of state law, Table ES-6 provides a breakdown of the percentage of the project costs attributed to existing and future users. For future use, capacity has been divided between capacity to be used by growth within the 10-year planning window of this IFFP and capacity that will be available for growth beyond the 10-year window.

Table ES-6
Impact Fee Facilities Plan - Costs Required for Future Growth

Project Identifier	Estimated Project Year	Estimated Total Cost (2023 $s)	Percent to Existing	Percent to 10-Year	Percent to Buildout	Cost to Existing	Cost to 10-Year Growth	Cost to Beyond 10-Years
IC-04[a,c]	2020	$454,000	0.0%	87.7%	12.3%	$0	$398,002	$55,998
IC-05[a]	2018	$31,500	50.4%	4.2%	45.3%	$15,892	$1,337	$14,271
IC-10[b]	2022	$0	50.4%	2.4%	47.2%	$0	$0	$0
IC-11	2025	$303,000	50.4%	4.2%	45.3%	$152,862	$12,862	$137,277
IC-12a[a]	2020	$247,200	0.0%	11.2%	88.8%	$0	$27,615	$219,585
IC-12b	2025	$13,262,800	0.0%	11.2%	88.8%	$0	$1,481,609	$11,781,191
IC-13[a]	2018	$2,460,069	50.4%	4.2%	45.3%	$1,241,091	$104,425	$1,114,553
IC-24[a,c]	2020	$10,200	50.4%	2.4%	47.2%	$5,146	$241	$4,813
IC-26[a,b]	2020	$0	0.0%	0.0%	0.0%	$0	$0	$0

Table ES-6 (cont.)
Impact Fee Facilities Plan - Costs Required for Future Growth

Project Identifier	Estimated Project Year	Estimated Total Cost (2023 $s)	Percent to Existing	Percent to 10-Year	Percent to Buildout	Cost to Existing	Cost to 10-Year Growth	Cost to Beyond 10-Years
IC-33[c]	2019	$210,000	50.4%	3.9%	45.7%	$105,944	$8,150	$95,906
IC-34[a,c]	2019	$35,700	50.4%	3.9%	45.7%	$18,010	$1,386	$16,304
IC-35[a]	2019	$8,100	50.4%	3.9%	45.7%	$4,086	$314	$3,699
IC-38[a]	2018	$415,800	41.3%	10.0%	48.7%	$171,845	$41,483	$202,472
IC-39[a]	2022	$421,000	0.0%	40.6%	59.4%	$0	$170,832	$250,168
IC-40[a]	2021	$989,600	0.0%	40.6%	59.4%	$0	$401,557	$588,043
IC-41[a,c]	2022	$244,000	0.0%	14.1%	85.9%	$0	$34,370	$209,630
IST-1[a,c]	2022	$4,500,000	0.0%	1.5%	98.5%	$0	$67,500	$4,432,500
IST-2[a]	2018	$2,235,841	0.0%	7.7%	92.3%	$0	$171,436	$2,064,378
IST-3[a]	2019	$3,000,000	0.0%	7.7%	92.3%	$0	$230,066	$2,769,934
IST-4	2024	$555,000	0.0%	7.7%	92.3%	$0	$42,562	$512,438
IST-5[a]	2022	$2,679,925	0.0%	7.7%	92.3%	$0	$205,519	$2,474,406
IST-6	2025	$370,000	0.0%	7.7%	92.3%	$0	$28,375	$341,625
IST-7[a]	2021	$266,000	0.0%	14.1%	85.9%	$0	$37,469	$228,531
IST-16[a]	2022	$2,600,000	2.9%	5.9%	91.2%	$76,471	$152,941	$2,370,588
IS-1	2024	$173,400	0.0%	78.3%	21.7%	$0	$135,720	$37,680
IS-2[a]	2019	$1,152,500	0.0%	78.3%	21.7%	$0	$902,057	$250,443
IS-3	2025	$173,400	0.0%	78.3%	21.7%	$0	$135,720	$37,680
IS-4	2025	$1,210,500	0.0%	78.3%	21.7%	$0	$947,454	$263,046
IS-6[a]	2023	$1,100,000	2.9%	5.9%	91.2%	$32,353	$64,706	$1,002,941
IB-1[a]	2018	$1,204,000	0.0%	87.7%	12.3%	$0	$1,055,494	$148,506
IB-2[a]	2018	$983,000	41.3%	10.0%	48.7%	$406,262	$98,070	$478,667
IE-1	2024	$154,100	43.8%	9.7%	46.6%	$67,452	$14,906	$71,742
IE-2	2024	$154,100	43.8%	9.7%	46.6%	$67,452	$14,906	$71,742
IE-3	2025	$154,100	43.8%	9.7%	46.6%	$67,452	$14,906	$71,742
SKY-1[d]	2023	$1,167,319	0.0%	28.8%	71.2%	$0	$335,960	$831,359
	TOTAL	$42,926,154				$2,432,317	$7,339,974	$33,153,863

[a] Completed project with cost based on actual cost or reimbursement incurred by City.

[b] Completed by developer/others with no City reimbursement

[c] Master Plan project not included in 2018 IFFP but accelerated into the 10-year time frame as a function of changing growth patterns and developer projects

[d] New project, not included in 2018 Master Plan or IFFP but required as a function of changing growth patterns

ALLOCATION OF FIRE PROTECTION COSTS

Due to Lehi's unique fire protection situation, costs for fire protection must be considered as a portion of the PI impact fee costs. The portions of facility costs allocated to fire protection based on expected use of capacity are summarized in Table ES-7.

Table ES-7
Allocation of Fire Protection Costs

	Category Replacement Value (2016 Dollars)	Percent to Fire Protection	Percent to Irrigation
Production	$33,465,000	0%	100%
Pumping	$8,151,000	0%	100%
Storage	$19,704,000	1.62%	98.38%
Transmission	$275,141,000	24.17%	75.83%
Cost Weighted Average	**$336,461,000**	**19.76%**	**80.24%**

SECTION 1
INTRODUCTION

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

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

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

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

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

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

UNIT OF DEMAND

It is necessary to define a unit of demand to evaluate the capacity used by both existing and future development. The unit of demand for pressure irrigation is being defined as an acre of irrigated area. Total irrigated acre was based on land use and zoning data provided by Lehi City personnel and historical water use data based on existing irrigated areas. Table 2-1 shows demand estimates that include conservation and redundancy.

Table 2-1
Projected Demand with Conservation for Existing Development per Irrigated Acre

Item	Value for Existing Conditions*
Irrigated Area (acres)	3,177
Annual Demand w/ Conservation (acre-ft/irrigated acre)	12,812
Peak Day Demand w/ Redundancy (cfs)	49.69
Peak Hour Demand (cfs)	99.38
Flow per Irrigated Acre	
Annual Demand (acre-ft/irrigated acre)	4.03
Peak Day Demand (gpm/irrigated acre)	7.02
Peak Hour Demand (gpm/irrigated acre)	14.04

*Assumes City is meeting conservation goals

Lehi City's pressurized irrigation system is unique from most other PI systems as it provides fire protection for the system. Thus, a unit of demand must also be defined for fire protection needs. While fire protection may vary depending on certain parameters of development, the basic need for fire protection is the usually the same for all residential units. Thus, a useful unit of demand for fire protection needs in the system is an equivalent residential unit (ERU).

PERFORMANCE STANDARD

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

may indicate excess capacity. This section discusses the existing performance standards for the City. A subsequent section will consider existing level of service relative to these standards.

To improve the accuracy of the analysis, this impact fee facilities plan has divided the system into five different components (production capacity, pumping capacity, storage, transmission, and fire protection). Each of these components has its own set of performance standards:

Production Capacity

Water production must be adequate to satisfy demands on both an annual and peak day basis. Production of supplies must take into account seasonal limitations in supply availability and reductions in yield because of dry year conditions. For peak day demands, the City requires 15 percent source redundancy to account for mechanical or other failure amongst its water sources. This is approximately equivalent to the City's largest single pressure irrigation source.

Pumping Capacity

Some areas of the City require pumps to deliver water from lower pressure zones to higher pressure zones. For each pressure zone relying on pumped water, the system should be capable of pumping peak day demands with the largest single pump at any on the pump stations serving the zone out of service. Because there are multiple pressure zones, this level of service will vary by individual zone.

Storage

Three major criteria are generally considered when sizing storage facilities for a water distribution system: operational or equalization storage, fire flow storage, and emergency or standby storage.

1. **Operational/Equalization Storage:** Operational/equalization storage is the storage required to satisfy the difference between the maximum rate of supply and the rate of demand during peak conditions. Sources, major transmission pipelines, and pump stations are usually sized to convey peak day demands to optimize the capital costs of infrastructure. During peak hour demands, storage is needed to meet the difference in source/conveyance capacity and the increased peak instantaneous demands. Based on the historic usage, the equalization storage for pressure irrigation demands in the City was calculated to be 50 percent of average peak day demands (3,925 gallons/irrigated acre).
2. **Fire Flow Storage*:*** Fire flow storage is the amount of water needed to combat fires occurring in the distribution system. For Lehi City, the majority of fire hydrants (except for less than a dozen) are supported using the pressure irrigation system. Required fire flow storage is calculated based on requirements of the City's fire marshal. The maximum fire flow requirements varies by development type and ranges from 1,500 gpm in predominantly residential areas to 3,000 gpm in commercial areas. Storage requirements vary between 180,000 gallons and 720,000 gallons depending on the area of coverage.
3. **Emergency Storage:** Emergency or standby storage is the storage needed to meet demands in the event of an unexpected emergency situation such as a line break, treatment plant failure, or other unexpected event. For the City, the critical scenario appears to be providing water during a power outage during the peak day. The level of

service established for existing customers is to provide 12 hours of peak day demand of emergency storage.

Storage requirements are calculated for the system as a whole and for each individual zone.

Transmission and Distribution

Based on input from City staff, the following criteria were used as the performance standards for major conveyance facilities:

1. The system was evaluated for existing conditions and projected conditions at buildout. Each demand scenario included model runs at both peak day and peak hour demand.
2. Under peak day demand, the system must be capable of maintaining constant levels at all system tanks and reservoirs.
3. The City tries to maintain pressure between 60 psi and 120 psi between peak hour and static demand conditions. Where topography would require a large number of pressure reducing valves (terrain slopes greater than 5 percent) to maintain pressures in that range, the City should be capable of maintaining at least 40 psi during peak day demand and 30 psi during peak hour demand. The State of Utah does not have minimum pressure requirements for daily operation of pressure irrigation systems.

Fire Protection

Because Lehi City's pressurized irrigation system provides fire protection for the City, the system must be adequately sized to account for fire flow which is included in both storage and transmission line sizing. The level of service for fire flow performance is determined by the Lehi City Fire Marshall based on building square footage and material type. Fire flow demands on the pressure irrigation system may range between 1,500 gpm and 3,000 gpm depending on land use types and specific structures. The residual pressure requirement in the pressure irrigation system is 20 psi during peak day demand with fire demands (State of Utah Administrative Rule R309-105-9.2.b.

The performance standard defines the level of service the City has established to satisfy City and/or State performance requirements. For pressure irrigation, this standard has been based on current Lehi City Code and requirements of the State of Utah administrative code.

EXISTING LEVEL OF SERVICE SUMMARY

Existing level of service has been divided into the same five components as identified for the system performance standard (production capacity, pumping capacity, storage, transmission, and fire protection). Existing level of service values are summarized in Table 2-2 below. For comparison purposes, Table 2-2 also includes a summary of the existing performance standards.

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

	Performance Standard	Existing Level of Service[1]
Production Capacity		
Production Capacity (gpm/irrigated acre)	6.27	5.78
Pumping Capacity		
Pumping Capacity (gpm/irrigated acre)	5.45	5.78[2]
Storage		
Storage (gallons/irrigated acre)[3]	7,850	18,612
Transmission and Distribution		
Peak Day Demand Pressure(psi)	40	36[2]
Peak Hour Demand Pressure (psi)	30	29[2]
Fire Protection		
Minimum Available Fire Flow at 20 psi during Peak Day Demand (gpm)	1,500	430[2]

[1] Existing level of service represents level available, not necessarily level used. For example, the storage being used per ERU will be 7,850 gallons even though the amount available is far greater.
[2] Because there are many pump stations and thousands of transmission and distribution components, the value given is for the worst case only. All other components have a higher level of service with the vast majority meeting the desired performance standard.
[3] Does not include fire storage volumes in calculation.

As can be seen in the table, the City's performance standard is higher than the existing level of service in several areas, indicating there are some deficiencies in the existing system. In most cases, this is associated with a limited number of locations in the existing system and excess capacity still may exist in other parts of the system. Excess capacity and curing 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 as required by the Impact Fee Act.

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

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

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

By definition, proposed future level of service will be equal to the performance standard. Table 3-1 summarizes the proposed performance standards and level of service.

Table 3-1
Performance Standards and Proposed Level of Service
for Various System Requirements

	Performance Standard	Proposed Level of Service
Production Capacity		
Production Capacity (gpm/irrigated acre)	6.27	6.27
Pumping Capacity		
Pumping Capacity (gpm/irrigated acre)	5.45	5.45
Storage		
Storage (gallons/irrigated acre)	7,850	7,850
Transmission and Distribution		
Peak Day Demand Pressure(psi)	40	40
Peak Hour Demand Pressure (psi)	30	30
Fire Protection		
Minimum Available Fire Flow at 20 psi during Peak Day Demand (gpm)	1,500	1,500

One change in level of service that the City will be implementing during the 10-year window is the desire to maintain emergency supplies and pressure during large power failures. As a result, the City will be installing emergency backup power at critical pressure irrigation booster or wells to improve reliability during a power outage. Project costs associated with backup power will be assigned to existing or future users proportionate to respective use.

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

Projected future growth will be met through a combination of available excess capacity in existing facilities and construction of additional capacity in new facilities. Defining existing system capacity in terms of a single number is difficult. To improve the accuracy of the analysis, we have broken down excess capacity into some of the same general categories as defined for level of service (production, pumping, storage, and transmission) but have grouped transmission and pumping to facilitate evaluation. Fire protection is reflected in both storage and transmission/pumping. The purpose of this breakdown is to consider the available capacity for each component individually. Excess capacity in each component of the system is as follows:

Production

The City's Capital Facility Plan includes an analysis of available supply to service existing and projected demands. This analysis includes consideration of annual supply and peak production capacity. The City does not have any excess production capacity for the pressure irrigation system. The City currently supplements the pressure irrigation system with water from some of its culinary water sources to meet existing production requirements. These sources will eventually return to the culinary system meaning there is no excess pressure irrigation production capacity to meet future growth.

Storage

The City owns and operates a large number of storage reservoirs. Available storage in the City's water system exceeds existing storage requirements. Table 4-1 summarizes the excess capacity available to serve future growth from the existing storage facilities.

Table 4-1
Excess Storage Capacity for 10-Year Growth

Facility	Capacity (gallons)	Existing Use (gallons)	10-Year Use (gallons)	Buildout Use (gallons)	Percent to Existing	Percent to 10-Year Growth	Percent to Buildout
Existing Storage	59,120,000 [a]	24,629,003	2,587,248	24,921,248	41.7%	4.4%	53.9%

[a] Does not include fire storage

Transmission/Pumping

To calculate the percentage of existing capacity to be used by future growth in existing facilities, existing and future flows were examined in system model. Because pipelines and pump stations are closely related within the operation of the system, these two components were grouped for the purposes of this analysis. The method used to calculate excess capacity available for use by future flows is as follows:

- **Calculate Flows –** The peak flow in each facility was calculated in the model for both

existing and future flows. The maximum capacity of each facility was also calculated. Defining an absolute maximum capacity in water system facility is difficult because capacity is a function of both pipeline size (with corresponding velocity) and required delivery pressure. In water distribution systems, however, a common design guideline is to limit velocities to less than 7 ft/sec. This has been used as the definition for maximum capacity of pipelines in this analysis.

- **Identify Available Capacity –** Where a facility has capacity in excess of projected flows at buildout, the available capacity in the facility was defined as the difference between existing flows and buildout flows. Where the facility has capacity less than projected flows at buildout, the available capacity in the facility was defined as the difference between existing flows and the facility's maximum capacity.
- **Eliminate Facilities without Excess Capacity –** For the planning window period (in this case, 10 years), the projected growth in flow during the planning window was compared against the facility's available capacity. Where the future flow exceeded the capacity of the facility, the available excess capacity is zero. By definition, this corresponds to those facilities with deficiencies that are identified in the facilities plan. By assigning a capacity of zero, this eliminated double counting those facilities against new users.
- **Calculate Percent of Excess Capacity Used in Remaining Facilities –** Where the future flow was less than the capacity of the facility, the percent of excess capacity being used in each facility was calculated by dividing the growth in flow in the facility (future flow less existing flow) by the total capacity (existing flow plus available capacity).
- **Calculate Excess Capacity for the System as a Whole –** Each pipeline in the system has a different quantity of excess capacity to be used by future growth. To develop an estimate of excess capacity on a system wide basis, the capacities of each of these pipelines and their contribution to the system as a whole must be considered. To do this, each pipeline must first be weighted based on its relative cost. For this purpose, each pipeline has been weighted based on the product of its diameter and length (which increase linearly with cost). For example, a pipe that is 27 inches in diameter and is 4,000 ft. long will cost proportionally more than a pipe that is 10 inches in diameter and 300 ft. long. The excess capacity in the system as a whole can then be calculated as the sum of the weighted capacity used by future growth divided by the sum of total weighted capacity in the system.

Based on the method described above, the amount of excess capacity in existing facilities available to accommodate future growth and the demands placed on the existing facilities by new development activity has been calculated for elements in the transmission/pumping system by BC&A. The calculated percentages are summarized in Table 4-2.

Table 4-2
Percentage Use of Transmission/Pumping System by Existing and Future Users

Facility	Percent Use By Existing	Percent Available to 10-Year Growth	Percent Available to Growth Beyond 10-Years
Existing Pressure Irrigation Conveyance System	68.9%	1.7%	29.4%

Summary of Excess Capacity

Excess capacity for the three components of the secondary system as described above are summarized in Table 4-3.

Table 4-3
Summary of Excess Capacity in Pressure Irrigation System

Component	Percent to Existing	Percent to 10-Year Growth	Percent to Buildout
Production	100.0%	0.0%	0.0%
Storage	41.70%	4.40%	53.90%
Transmission/Pumping	68.9%	1.7%	29.4%

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

To evaluate future infrastructure needs, it is first necessary to project how demand on the pressure irrigation will increase in the future. This is for both irrigation and fire protection. An estimate of irrigated acreage for different development types was developed based on information provided by the Lehi City Planning and Water Departments. An estimate of indoor ERUs was taken from the City's recently completed sewer master plan. Projected 10-year growth in irrigated acres and indoor ERUs were developed based on projected 2026 development conditions as summarized in Table 5-1.

Table 5-1
Projected 10-Year Growth

Year	Total Irrigated Acreage[1]	Indoor ERUs[2]
2016	3,177	17,849
2020	3,422	20,119
2026	3,878	23,523
2030	4,229	25,779
2040	5,059	31,419
2050	5,706	37,059
2060	6,251	42,699
Buildout	7,257	51,749

[1] Based on Lehi City zoning data and aerial photography
[2] Based on Lehi City Sewer Master Plan. Does not include ERUs associated with IM Flash production.

Total annual and peak day demands can be estimated by multiplying the projected irrigated acres by the peak day demands per irrigated acre. Projected pressure irrigation demands for Lehi City are summarized in Table 5-2.

Table 5-2
Projected Irrigation Water Production Requirements Through Buildout

Year	Annual Demand without Conservation (ac-ft)	Annual Demand with Conservation (ac-ft)	Peak Day Demand with Conservation (cfs)	Peak Day Production with Conservation & Redundancy (cfs)
2016	15,252	12,812	43.21	49.69
2020	16,432	13,145	44.33	50.99
2026	18,622	13,967	47.11	54.17
2030	20,305	15,229	51.36	59.07
2040	24,290	18,217	61.44	70.66
2050	27,396	20,547	69.30	79.69
2060	30,012	22,509	75.92	87.30
Buildout	34,845	26,134	88.14	101.36

It is worth noting that there is a significant difference between pressure irrigation demands with and without conservation. For the purpose of this IFFP, it has been assumed Lehi City will develop policies to encourage conservation and ultimately achieve its conservation goal.

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

To satisfy the requirements of state law, demand placed upon existing system facilities by future development was projected using the process outlined below. These steps were completed as part of this plan's development.

1. **Existing Demand** – The demand of existing development was determined by measuring the current peak demands on facilities.
2. **Existing Capacity** – The capacities of the existing water system components were evaluated based on the level of service criteria defined by the City and a hydraulic model simulation of the City's water system.
3. **Existing Deficiencies** – Existing deficiencies in the system were looked for by comparing defined levels of service against calculated levels of service. Some deficiencies were identified in the Pressure Irrigation system. Per impact fee requirements, projects or costs associated with eliminating existing deficiencies will not be recovered through impact fees.
4. **Future Demand** - The demand that future development will place on the system was estimated based on development projections as discussed in Section 5.
5. **Future Deficiencies** - Future deficiencies in the system were identified using the defined level of service and results from a hydraulic computer model.
6. **Recommended Improvements** – Needed system improvements were identified to meet demands associated with future development.

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

10-YEAR IMPROVEMENT PLAN

Only infrastructure to be constructed within a 10-year horizon will be considered in the calculation of these impact fees to avoid uncertainty surrounding improvements further into the future. Table 6-1 summarizes the projects that will need to be constructed within the next 10 years as identified above. Included in this table are projects for both new construction of system level improvements and reimbursement associated with oversizing project level improvements. It is not uncommon for a developer to put in a project level collection line for their development and for Lehi City to pay to have that line upsized for future users. Costs for projects that have been completed and upsized are indicated in the project name in Table 6-1. Only the upsize cost to Lehi City (rather than the entire project costs) are represented in this table.

As part of the 2023 amendment, there have been projects that have been accelerated into the 10-year frame due to changing growth patterns. This is the result of uncertainty in the 2018 IFFP regarding where Lehi would develop. The most significant change in growth patterns is the Skye

Development on the northeast side of Timpanogos Highway. While this growth was accounted for at buildout in the Master Plan, the projects needed to support this development weren't included in the 2018 IFFP because growth was not expected to begin until after the planning window. New projects needed to support this development include a new well, a new booster pump station, a 12-inch booster line, and a new reservoir. The costs for the City's reimbursement for these projects are grouped together and identified by SKY-1 in Table 6-1 below. The estimated cost for these improvements totals approximately $8.0 million, with the developer being responsible for $6.8 million. This leaves a little under $1.2 million as the responsibility of the City.

Table 6-1
Summary of Future Pressure Irrigation Impact Fee Facility Improvements

Project Type	Project Identifier	Project Description	Estimated Project Year	Estimated Total Cost (2023 $s)
Conveyance	IC-04[a,c]	Traverse Mountain Pipe	2020	$454,000
Conveyance	IC-05[a]	Bull River Rd	2018	$31,500
Conveyance	IC-10[b]	Center St 2600 N	2022	$0
Conveyance	IC-11	1200 E 3200 N	2025	$303,000
Conveyance	IC-12a[a]	Dry Creek Transmission Line - Completed	2020	$247,200
Conveyance	IC-12	Dry Creek Transmission Line – Remainder	2025	$13,262,800
Conveyance	IC-13[a]	Sand Pit Transmission Line	2018	$2,460,069
Conveyance	IC-24[a,c]	1700 W 600 N	2020	$10,200
Conveyance	IC-26[a,b]	200 E State St	2020	$0
Conveyance	IC-33[c]	Interstate Plaza Drive	2019	$210,000
Conveyance	IC-34[a,c]	Spring Creek Looping	2019	$35,700
Conveyance	IC-35[a]	2300 W 700 S	2019	$8,100
Conveyance	IC-38[a]	Jordan River Reservoir Connection	2018	$415,800
Conveyance	IC-39[a]	West of River & South of 2100	2022	$421,000
Conveyance	IC-40[a]	West of River & North of 2100	2021	$989,600
Conveyance	IC-41[a,c]	Holbrook Upper	2022	$244,000
Storage	IST-1[a,c]	Flight Park (4.5 ac-ft)	2022	$4,500,000
Storage	IST-2[a]	West Side Sediment Basin (5.3 af)	2018	$2,235,841
Storage	IST-3[a]	Dry Creek (70 af)	2019	$3,000,000
Storage	IST-4	Low Hills 1 Expansion (10 af)	2024	$555,000
Storage	IST-5[a]	West Side 1 (15 af)	2022	$2,679,925
Storage	IST-6	Cedar Hollow (10 af)	2025	$370,000

Table 6-1 (cont.)
Summary of Future Pressure Irrigation Impact Fee Facility Improvements

Project Type	Project Identifier	Project Description	Estimated Project Year	Estimated Total Cost (2023 $s)
Storage	IST-7[a]	Holbrook Upper (2.5 ac-ft)	2021	$266,000
Storage	IST-16[a]	Vialetto 2 (5.5 ac-ft)	2022	$2,600,000
Source	IS-1	Railroad Well	2024	$173,400
Source	IS-2[a]	Allred Well w/ Booster	2019	$1,152,500
Source	IS-3	Increase Capacity of Pilgrims PI Well	2025	$173,400
Source	IS-4	Cedar Hollow Well	2025	$1,210,500
Source	IS-6[a]	Vialetto Booster	2023	$1,100,000
Booster	IB-1[a]	PRC To Oak Hollow	2018	$1,204,000
Booster	IB-2[a]	Jordan River	2018	$983,000
Booster	IE-1	Mini-Creek Booster Backup Power	2024	$154,100
Booster	IE-2	Sand Pit Booster Backup Power	2024	$154,100
Booster	IE-3	Oak Hollow Well Backup Power	2025	$154,100
Storage, Source, Booster,	SKY-1[d]	Skye Development Improvements	2023	$1,167,319
			TOTAL	$42,926,154

[a] Completed project with cost based on actual cost or reimbursement incurred by City.

[b] Completed by developer/others with no City reimbursement

[c] Master Plan project not included in 2018 IFFP but accelerated into the 10-year time frame as a function of changing growth patterns and developer projects

[d] New project, not included in 2018 Master Plan or IFFP but required as a function of changing growth patterns

PROJECT COST ATTRIBUTABLE TO FUTURE GROWTH

To satisfy the requirements of state law, Table 6-2 provides a breakdown of the capital facility projects and the percentage of the project costs attributed to future users. As defined in Section 11-36-304, the impact fee facilities plan should only include "the proportionate share of the costs of public facilities [that] are reasonably related to the new development activity."

Included in the table is a breakdown of capacity associated with growth through the next 10 years and for growth beyond 10 years. Some new water infrastructure proposed in the impact fee facility plan will include capacity for growth beyond the 10-year planning window. To most accurately evaluate the cost of providing service for growth during the next 10 years, added consideration must be given to evaluating how much of each project will be used in the next 10 years. Table 6-2 summarizes to the utilization rate of the new water projects by future growth.

Table 6-2
Impact Fee Facilities Plan - Costs Required for Future Growth

Project Identifier	Estimated Project Year	Estimated Total Cost (2023 $s)	Percent to Existing	Percent to 10-Year	Percent to Buildout	Cost to Existing	Cost to 10-Year Growth	Cost to Beyond 10-Years
IC-04[a,c]	2020	$454,000	0.0%	87.7%	12.3%	$0	$398,002	$55,998
IC-05[a]	2018	$31,500	50.4%	4.2%	45.3%	$15,892	$1,337	$14,271
IC-10[b]	2022	$0	50.4%	2.4%	47.2%	$0	$0	$0
IC-11	2025	$303,000	50.4%	4.2%	45.3%	$152,862	$12,862	$137,277
IC-12a[a]	2020	$247,200	0.0%	11.2%	88.8%	$0	$27,615	$219,585
IC-12b	2025	$13,262,800	0.0%	11.2%	88.8%	$0	$1,481,609	$11,781,191
IC-13[a]	2018	$2,460,069	50.4%	4.2%	45.3%	$1,241,091	$104,425	$1,114,553
IC-24[a,c]	2020	$10,200	50.4%	2.4%	47.2%	$5,146	$241	$4,813
IC-26[a,b]	2020	$0	0.0%	0.0%	0.0%	$0	$0	$0
IC-33[c]	2019	$210,000	50.4%	3.9%	45.7%	$105,944	$8,150	$95,906
IC-34[a,c]	2019	$35,700	50.4%	3.9%	45.7%	$18,010	$1,386	$16,304
IC-35[a]	2019	$8,100	50.4%	3.9%	45.7%	$4,086	$314	$3,699
IC-38[a]	2018	$415,800	41.3%	10.0%	48.7%	$171,845	$41,483	$202,472
IC-39[a]	2022	$421,000	0.0%	40.6%	59.4%	$0	$170,832	$250,168
IC-40[a]	2021	$989,600	0.0%	40.6%	59.4%	$0	$401,557	$588,043
IC-41[a,c]	2022	$244,000	0.0%	14.1%	85.9%	$0	$34,370	$209,630
IST-1[a,c]	2022	$4,500,000	0.0%	1.5%	98.5%	$0	$67,500	$4,432,500
IST-2[a]	2018	$2,235,841	0.0%	7.7%	92.3%	$0	$171,436	$2,064,378
IST-3[a]	2019	$3,000,000	0.0%	7.7%	92.3%	$0	$230,066	$2,769,934
IST-4	2024	$555,000	0.0%	7.7%	92.3%	$0	$42,562	$512,438
IST-5[a]	2022	$2,679,925	0.0%	7.7%	92.3%	$0	$205,519	$2,474,406
IST-6	2025	$370,000	0.0%	7.7%	92.3%	$0	$28,375	$341,625
IST-7[a]	2021	$266,000	0.0%	14.1%	85.9%	$0	$37,469	$228,531
IST-16[a]	2022	$2,600,000	2.9%	5.9%	91.2%	$76,471	$152,941	$2,370,588
IS-1	2024	$173,400	0.0%	78.3%	21.7%	$0	$135,720	$37,680
IS-2[a]	2019	$1,152,500	0.0%	78.3%	21.7%	$0	$902,057	$250,443
IS-3	2025	$173,400	0.0%	78.3%	21.7%	$0	$135,720	$37,680
IS-4	2025	$1,210,500	0.0%	78.3%	21.7%	$0	$947,454	$263,046
IS-6[a]	2023	$1,100,000	2.9%	5.9%	91.2%	$32,353	$64,706	$1,002,941

Table 6-2 (cont.)
Impact Fee Facilities Plan - Costs Required for Future Growth

Project Identifier	Estimated Project Year	Estimated Total Cost (2023 $s)	Percent to Existing	Percent to 10-Year	Percent to Buildout	Cost to Existing	Cost to 10-Year Growth	Cost to Beyond 10-Years
IB-1[a]	2018	$1,204,000	0.0%	87.7%	12.3%	$0	$1,055,494	$148,506
IB-2[a]	2018	$983,000	41.3%	10.0%	48.7%	$406,262	$98,070	$478,667
IE-1	2024	$154,100	43.8%	9.7%	46.6%	$67,452	$14,906	$71,742
IE-2	2024	$154,100	43.8%	9.7%	46.6%	$67,452	$14,906	$71,742
IE-3	2025	$154,100	43.8%	9.7%	46.6%	$67,452	$14,906	$71,742
SKY-1[d]	2023	$1,167,319	0.0%	28.8%	71.2%	$0	$335,960	$831,359
	TOTAL	$42,926,154				$2,432,317	$7,339,974	$33,135,863

[a] Completed project with cost based on actual cost or reimbursement incurred by City.

[b] Completed by developer/others with no City reimbursement

[c] Master Plan project not included in 2018 IFFP but accelerated into the 10-year time frame as a function of changing growth patterns and developer projects

[d] New project, not included in 2018 Master Plan or IFFP but required as a function of changing growth patterns

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

- Looping/Upsize Projects – The City has a number of projects that are primarily intended to serve future development but also improve looping/redundancy in the distribution system. For simplicity, projects that upsize existing pipes or add looping to serve future growth have been considered level of service upgrades. The percentage assigned to existing users is based on the approximate percentage of capacity used by existing customers. This will overestimate the benefit received by existing users but makes sure no costs are assigned to impact fees that are not directly growth related.
- Future Sources – The Lehi Irrigation Company/Dry Creek "project" consists of beginning diversion of Lehi City's share of water in that company. Historically, this source has not been used. Once the Dry Creek Storage Reservoir is complete, this source should reduce reliance on culinary water sources in the pressure irrigation system.
- Emergency Power – Project costs for emergency backup power at critical facilities have been divided based on the percentage of potential use by existing, 10-year, or beyond 10-year growth.

Projects in Table 6-2 with no percentage assigned to existing are 100 percent needed for future growth. It should be noted that Table 6-2 does not include bond costs related to paying for

impact fee eligible improvements. These costs, if any, should be added as part of the impact fee analysis.

BASIS OF CONSTRUCTION COST ESTIMATES

The costs of construction for projects to be completed within ten years have been estimated based on past BC&A and/or Lehi City personnel experience with projects of a similar nature. Pipeline project costs are based on average per foot costs for pipes of a similar nature. Costs include consideration of other components of the water distribution system including water services, meters, and surface restoration as appropriate for each project. As part of the 2023 Amendment, actual construction costs have been used to replace cost estimates for any projects that have been completed.

SECTION 7
ADDITIONAL CONSIDERATIONS

Allocation of Fire Protection Costs

Due to Lehi's unique fire protection situation, costs for fire protection must be considered as a portion of the PI impact fee costs. Since the functions of fire flow and irrigation water delivery are deeply interrelated within any given facility or project, it is best to look at allocation at the facility group level. The portions of facility costs allocated to fire protection based on expected use of capacity are summarized in Table 7-3.

Table 7-1
Allocation of Fire Protection Costs

	Category Replacement Value (2016 Dollars)	Percent to Fire Protection	Percent to Irrigation
Production	$33,465,000	0%	100%
Pumping	$8,151,000	0%	100%
Storage	$19,704,000	1.62%	98.38%
Transmission	$275,141,000	24.17%	75.83%
Cost Weighted Average	**$336,461,000**	**19.76%**	**80.24%**

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

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

Federal and State Grants and Donations

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

Bonds

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

Interfund Loans

Because infrastructure must generally be built ahead of growth, there often arises situations in which projects must be funded ahead of expected impact fee revenues. In some cases, the

solution to this issue will be bonding. In others, funds from existing user rate revenue will be loaned to the impact fee fund to complete initial construction of the project and will be reimbursed later as impact fees are received. Consideration of potential interfund loans will be included in the impact fee analysis and should be considered in subsequent accounting of impact fee expenditures.

Impact Fees

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

Developer Dedications and Exactions

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

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

It should be emphasized that the concept of impact fee credits pertains to system level improvements only. For project level improvement (i.e. projects not identified in the impact fee facilities plan), developers will be responsible for the construction of the improvements without credit against the impact fee.

No developer dedications have currently been identified for infrastructure associated with this plan.

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

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

SCHOOL RELATED INFRASTRUCTURE (11-36a-302(4))

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

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

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

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

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

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

I certify that this impact fee facility plan:

1. Includes only the cost of public facilities that are:
    a. allowed under the Impact Fees Act; and
    b. actually incurred; or
    c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. Does not include:
    a. costs of operation and maintenance of public facilities;
    b. cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
    c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. Complies in each and every relevant respect with the Impact Fees Act.

Andrew T. McKinnon, P.E.
Dated: January 18, 2024

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

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

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

WWW.BOWENCOLLINS.COM

BOWEN COLLINS
& ASSOCIATES
Celebrating 20 Years