



PREPARED FOR:



PREPARED BY:



PAROWAN CITY

JANUARY 2026

DRAFT

CULINARY WATER IMPACT FEE FACILITIES PLAN

CULINARY WATER IMPACT FEE FACILITIES PLAN

**JANUARY 2026
DRAFT**

PREPARED FOR:



PREPARED BY:



TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY - IFFP	ES-1
Why is an IFFP Needed?.....	ES-1
Projected Future Growth.....	ES-1
Level of Service.....	ES-2
Existing Capacity Available to Serve Future Growth	ES-3
Required System Improvements.....	ES-3
IMPACT FEE FACILITIES PLAN	1
Introduction.....	1
Existing Level of Service -11-36a-302(1)(a)(i).....	1
Unit of Demand.....	1
Performance Standard.....	2
Source Production Capacity	2
Storage Tanks.....	3
Conveyance	3
Existing Level of Service	3
Proposed Level of Service - 11-36a-302(1)(a)(ii).....	4
Excess Capacity to Accommodate Future Growth - 11-36a-302(1)(a)(iii)	5
Source Production Facilities	5
Storage Facilities.....	6
Transmission/Distribution Facilities	6
Demands Placed on Facilities by New Development - 11-36a-302(1)(a)(iv)	6
Infrastructure Required to Meet Demands of New Development - 11-36a-302(1)(a)(v)	7
10-Year Improvement Plan	8
Project Cost Attributable to Future Growth	10
Project Cost Attributable to 10-Year Growth.....	11
Basis of Construction Cost Estimates	11
Additional Considerations	11
Manner of Financing - 11-36a-302(3).....	11
Necessity of Improvement to Maintain Level of Service - 11-36a-302(3).....	12
School Related Infrastructure -11-36a-302(2)	12
Noticing and Adoption Requirements -11-36a-502.....	12
Dedication of Water Rights.....	12
Impact Fee Certification - 11-36a-306(1)	13

**TABLE OF CONTENTS
(continued)****LIST OF TABLES**

No.	Title	Page
ES-1	Parowan City Service Area ERC Projections.....	ES-1
ES-2	Parowan City Service Area Historical Flows	ES-2
ES-3	Existing Performance Standard and Level of Service for Washington City Sewer Collection Pipes.....	ES-3
ES-4	Excess Capacity in Existing Facilities	ES-3
ES-5	Proposed Capital Projects and Cost Allocation	ES-4
1	Parowan City Service Area Historical Demands	2
2	Existing Performance Standard and Level of Service for Culinary Water System Components	4
3	Proposed Performance Standard and Level of Service for Washington City Sewer Collection Pipes.....	5
4	Estimated Utilization of Existing Transmission and Distribution System.....	6
5	Projected Washington City Sewer System Growth ¹	7
6	New Project Costs Allocated to Project Development.....	9

EXECUTIVE SUMMARY - IFFP

The purpose of this Impact Fee Facilities Plan is to identify demands placed upon Parowan City's (city) potable water system 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 impact fees throughout the LDWA service area. The requirements for an IFFP are provided in Utah Code Title 11, Chapter 36a "Impact Fee Act". The IFFP addresses the future water infrastructure needed to serve the system. The existing and future capital projects documented in this IFFP will ensure that level of service standards are maintained for all existing and future users who reside within the service area. Municipalities, service districts, and utility companies must pay strict attention to the required elements of the Impact Fee Facilities Plan which are enumerated in the Impact Fees Act.

PROJECTED FUTURE GROWTH

To evaluate the use of existing capacity and the need for future capacity, it is first necessary to calculate the demand associated with existing development and projected growth. Using available information for existing development and growth projections from the city's 2024 Water Master Plan, projected growth in system demand is summarized in Table ES-1.

Table ES-1
Parowan City Service Area ERC Projections

Year	Projected ERUs	Average Annual Demand (acre-feet)	Peak Day Demand (MG)
2025	2,083	1,041	2.15
2026	2,135	1,067	2.21
2027	2,188	1,094	2.26
2028	2,243	1,122	2.32
2029	2,299	1,150	2.38
2030	2,357	1,178	2.43
2035	2,644	1,322	2.73
2040	2,931	1,466	3.03

Demands are projected in terms of Equivalent Residential Connections (ERCs). An ERC represents the demand that a typical single-family residence places on the system. The basis of an ERC for historical flow rates is summarized in Table ES-2.

Table ES-2
Parowan City Service Area Historical Flows

Item	Value for Existing Conditions (2024)
Service Area Population	3,457
Equivalent Residential Units (ERUs)	2,083
Average Daily Demand (gallons per day)	935,267
Peak Day Demand (gallons per minute)	1,494
Peak Hour Demand (gallons per minute)	2,988
Demands per ERC	
Average Daily Demand per ERC (gallons per day)	449
Peak Day Demand per ERC (gallons per day)	1,033
Peak Hour Demand per ERC (gallons per minute)	1.43

LEVEL OF SERVICE

Level of service is defined in the Impact Fees Act as “the defined performance standard or unit of demand for each capital component of a public facility within a service area”. Performance standards are those standards that are used to design and evaluate the performance of facilities. While the Impact Fees Act includes “defined performance standard” as part of the level of service definition, this report will make a subtle distinction between performance standard and level of service. The performance standard will be considered the desired minimum level of performance for each component, while the existing level of service will be the actual current performance of the component and the proposed level of service will be the proposed actual performance of the component in the future. Summary values for each of these categories are contained in Table ES-3.

Table ES-3
Existing Performance Standard and Level of Service for Washington City
Sewer Collection Pipes

	Existing Performance Standard	Existing Level of Service
Production Capacity		
Production Capacity (gpd/ERC) ¹	1,033	1,161
Storage		
Storage (gallons/ERU) ²	561	874 ³
Conveyance (Transmission, Pumping, and Distribution)		
Peak Day Demand Pressure(psi)	40	29 ⁴
Peak Hour Demand Pressure (psi)	30	23 ⁴
Minimum Available Fire Flow at 20 psi during Peak Day Demand (psi)	1,500 ⁵	<500 ⁴
Maximum Pipe Velocity Peak Hour (feet per second)	8	8.4 ⁴

¹ The value shown corresponds to the source production capacity of the city's facilities. Parowan City is responsible for providing 1 connection worth of water rights to each undeveloped parcel in the current city boundary. If a developer subdivides an existing parcel, that developer is required to dedicate water rights to the city to cover any connection above the 1 entitled connection. For future annexation areas that reside outside of the city boundary, the developer must dedicate water to the city to cover the needs of the development. The impact fee calculated in the IFFP/IFA does not include the water right dedications required by City code.

² Does not include fire flow storage, only equalization and emergency storage.

³ Provided for storage in system as a whole.

⁴ Because there are many 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.

⁵ Required fire flow indicated is for a typical residential unit.

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. Excess capacity available to serve future growth is summarized in Table ES-4.

Table ES-4 Excess Capacity in Existing Facilities

	Source Production Capacity	Storage	Conveyance (Transmission and Pumping)
Existing	85.7%	67.4%	31.0%
10-year Growth	5.8%	19.1%	8.4%
Growth Beyond 10 Years	8.5%	13.5%	60.6%
Total	100%	100%	100%

REQUIRED SYSTEM IMPROVEMENTS

Beyond available existing capacity, additional improvements required to serve new growth are summarized in Table ES-5. To satisfy the requirements of state law, Table ES-5 provides a breakdown of the percentage of the project costs attributed to existing and future users. 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-5
Proposed Capital Projects and Cost Allocation

Project ID	Project Name	Project Year	Estimated 2025 Cost	Percent to Existing	Percent to 10-Year Growth	Percent to Beyond 10-Year	Cost to Existing	Cost to 10-Year Growth	Cost Beyond 10-Year
S-1	6-Mile Spring Water Treatment Plant	2027	\$4,759,000	6.9%	40.8%	52.3%	\$328,371	\$1,941,672	\$2,488,957
T-1	East Tank	2030	\$3,250,000	0.00%	19.1%	80.9%	\$0	\$620,750	\$2,629,250
			\$8,009,000				\$328,371	\$2,562,422	\$5,118,207

IMPACT FEE FACILITIES PLAN

INTRODUCTION

Parowan City (city) has retained Bowen Collins & Associates (BC&A) to prepare an impact fee facilities plan (IFFP) for culinary water services provided by the city. The purpose of an IFFP is to determine the public facilities required to service new development. The IFFP is also intended to outline the improvements which may be funded through impact fees.

Much of the analysis forming the basis of this IFFP has been taken from the city's Culinary Water Master Plan. The Culinary Water Master Plan was prepared by Bowen Collins & Associates and is dated June 2024. The reader should refer to the Culinary Water Master Plan for additional information regarding planning and evaluation methodology beyond what is contained in this IFFP. Note that the planning window used for this IFFP is end of year 2025 to end of year 2035 (10 years), so some adjustments have been made to the planning window used in the 2024 Culinary Water Master Plan.

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

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

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

EXISTING LEVEL OF SERVICE - 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 currently provided to existing users.

Unit of Demand

The water demand used to design and evaluate water system components will vary depending on the nature of each component. For example, most sources and transmission pipelines are designed to deliver peak day flows, while distribution pipe networks are designed to meet peak instantaneous demand. The system components evaluated in this IFFP are sources, storage tanks, transmission lines, and distribution lines.

For the purpose of this analysis, it is useful to define demands in terms of Equivalent Residential Connections (ERCs). An ERC represents the demand that a typical single-family residence places on the system. The basis of an ERC from historical flow data is summarized in Table 1. Additional detail regarding the calculation of values used in the definition of an ERC are contained in the Culinary Water Master Plan.

Table 1
Parowan City Service Area Historical Demands

Item	Value for Existing Conditions (2024)
Service Area Population	3,457
Equivalent Residential Units (ERUs)	2,083
Average Daily Demand (gallons per day)	935,267
Peak Day Demand (gallons per minute)	1,494
Peak Hour Demand (gallons per minute)	2,988
Demands per ERC	
Average Daily Demand per ERC (gallons per day)	449
Peak Day Demand per ERC (gallons per day)	1,033
Peak Hour Demand per ERC (gallons per minute)	1.43

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 does not meet the performance standard it is a deficiency, whereas if it exceeds 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.

The impact fee facilities plan divides the system into different system components:

- Source Production Capacity
- Storage Tanks
- Conveyance (Transmission, Distribution, and Booster Pumps)

Source Production Capacity

The source capacity standards used in the 2024 Culinary Water Master Plan are as follows.

- Average Day Demand = **449 gallons per day per ERC**
- Peak Day Demand = **1,033 gallons per day per ERC**

These values represent the performance standard that the city has established for its potable water sources.

Storage Tanks

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. The following are the city's performance standards for storage facilities:

- **Equalization Storage**
 - 100% of average day demand = **449 gallons per ERC**
- **Emergency Storage**
 - 6 Hours of Average Day Demand (25% of ADD) = **112 gallons per ERC**
- **Fire Suppression Storage**
 - 1,500 gpm for 2-hour duration = **180,000 gallons**

Conveyance

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 under both peak day and peak hour demand.
2. The system should be capable of maintaining 40 psi during peak day demand and 30 psi during peak hour demand, which is consistent with State standards.
3. Per State requirements, the system must be able to meet fire flow demand and still maintain a 20 psi residual pressure in the distribution system under peak day demand conditions.
4. Pipe velocities should be limited to a maximum allowable value of 8 feet per second under all flow scenarios other than fire flow.

Existing Level of Service

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

Table 2
Existing Performance Standard and Level of Service for Culinary Water System Components

	Existing Performance Standard	Existing Level of Service
Production Capacity		
Production Capacity (gpd/ERC) ¹	1,033	1,161
Storage		
Storage (gallons/ERU) ²	561	874 ³
Conveyance (Transmission, Pumping, and Distribution)		
Peak Day Demand Pressure (psi)	40	29 ⁴
Peak Hour Demand Pressure (psi)	30	23 ⁴
Minimum Available Fire Flow at 20 psi during Peak Day Demand (psi)	1,500 ⁵	<500 ⁴
Maximum Pipe Velocity Peak Hour (feet per second)	8	8.4 ⁴

¹ The value shown corresponds to the source production capacity of the city's facilities. Parowan City is responsible for providing 1 connection worth of water rights to each undeveloped parcel in the current city boundary. If a developer subdivides an existing parcel, that developer is required to dedicate water rights to the city to cover any connection above the 1 entitled connection. For future annexation areas that reside outside of the city boundary, the developer must dedicate water to the city to cover the needs of the development. The impact fee calculated in the IFFP/IFA does not include the water right dedications required by City code.

² Does not include fire flow storage, only equalization and emergency storage.

³ Provided for storage in system as a whole.

⁴ Because there are many 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.

⁵ Required fire flow indicated is for a typical residential unit.

In some cases, the city's performance standard is higher than the existing level of service and indicates there is some deficiency in the existing system. These deficiencies are associated with limited locations in the existing system and excess capacity still exists in the majority of the system. 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 (i.e. new users will not be required to pay to remediate existing deficiencies in the system).

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 Fees 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, the proposed future level of service will be equal to the performance standard. Table 3 summarizes the proposed performance standards and level of service.

Table 3
**Proposed Performance Standard and Level of Service for Washington City
Sewer Collection Pipes**

	Proposed Performance Standard	Proposed Level of Service
Production Capacity		
Production Capacity (gpd/ERC)	1,033	1,033
Storage		
Storage (gallons/ERU)	561	561
Conveyance (Transmission, Pumping, and Distribution)		
Peak Day Demand Pressure(psi)	40	40
Peak Hour Demand Pressure (psi)	30	30
Minimum Available Fire Flow at 20 psi during Peak Day Demand (psi)	1,500	1,500
Maximum Pipe Velocity Peak Hour (feet per second)	8	8

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 the construction of additional capacity in new facilities. Defining existing system capacity in terms of a single number is difficult considering the unique nature of the various components of the water system. To improve the accuracy of the analysis, the system has been divided into three different components: source production facilities, storage facilities, and transmission/distribution facilities. The excess capacity in each component is described in the following sections.

SOURCE PRODUCTION FACILITIES

As described in the Water Master Plan, the city operates wells and springs to provide water supply for users. The Master Plan evaluated water supply capacity on the basis of both average annual demand and peak day demand. Currently, the limiting factor for the city's water supply is the ability to meet peak day demands. Between the active wells and springs, the city has a total estimated reliable production capacity of 1,744 gpm. The city plans to redevelop 6-Mile Spring, 5-Mile Spring, and Watercress Spring, which is estimated to add 736 gpm of new reliable source capacity. As of the end of 2025, estimated peak day demand for the system as a whole is 1,494 gpm. This means that there is an estimated 250 gpm of excess peak day capacity in the system (85.7%), and that a total of 986 gpm is available for new growth with the inclusion of the redevelopment of the springs.

STORAGE FACILITIES

The city currently holds 2 million gallons of finished water storage in two separate storage tanks. A third new tank¹ is planned to be constructed on the east side of the system within the next 10 years that will add an additional 1 million gallons of storage. The currently allocated volume of storage in the system (which includes equalization, emergency, and fire flow storage) is 1,348,563, or 67.4% of the existing storage volume. Growth over the next 10 years is forecasted to need an additional 311,355 gallons of storage, totaling 1,663,284 gallons of storage by 2035.

TRANSMISSION/DISTRIBUTION FACILITIES

Due to the interconnectivity and bi-directional flow nature of a water distribution system, it can be difficult to determine on a system-wide level what percentage of the existing system is being used by existing development and what percentage remains to be used by future development. For this reason, the percentage of the existing transmission/distribution system currently in use has been estimated to be proportional to the existing population with respect to the projected buildout population.

Based on information provided in Chapter 3 of the Master Plan, Table 4 provides a summary of the estimated utilization of the existing transmission and distribution system by existing users, growth expected over the next 10 years, and growth beyond the next 10 years.

Table 4
Estimated Utilization of Existing Transmission and Distribution System

Years	ERCS	% of Transmission/Distribution System Utilized
2025	2,083	31.0%
2035	2,644	8.4%
Buildout	6,717	60.6%

DEMANDS PLACED ON FACILITIES BY NEW DEVELOPMENT – 11-36A-302(1)(A)(IV)

Growth projections within the city's service area and projections of water demand resulting from said growth are discussed in detail in the Water Master Plan. Projected growth in terms of both equivalent residential connections and corresponding water demand is summarized in 5.

¹ The new third tank (East Tank) was added as a new capital project after the completion of the 2024 Master Plan to meet the needs of new development. The tank will provide additional storage capacity but will also provide improved distribution system performance and fire flow protection for newly developing areas of the system.

Table 5
Projected Washington City Sewer System Growth¹

Year	Projected ERUs	Average Annual Demand (acre-feet)	Peak Day Demand (MG)
2025	2,083	1,041	2.15
2026	2,135	1,067	2.21
2027	2,188	1,094	2.26
2028	2,243	1,122	2.32
2029	2,299	1,150	2.38
2030	2,357	1,178	2.43
2035	2,644	1,322	2.73
2040	2,931	1,466	3.03

¹ See 2024 Culinary Water Master Plan for more information regarding growth projections.

INFRASTRUCTURE REQUIRED TO MEET DEMANDS OF NEW DEVELOPMENT – 11-36A-302(1)(A)(V)

To satisfy the requirements of state law, the effect of demand placed upon existing system facilities by future development was evaluated using the process outlined below. Each of the steps were completed as part of this plan's development. More description of the methodology used in the process outlined below can be found in the 2024 Water Master Plan.

1. **Existing Demand** – The demand existing development places on the city's system was estimated based on historic water use and flow records.
2. **Existing Capacity** – The capacities of existing system facilities were determined based on data provided by the city and through the use of a hydraulic computer model.
3. **Existing Deficiencies** – Existing deficiencies in the system were looked for by comparing defined performance standards against calculated capacities. Some system deficiencies were identified in the 2024 Water Master Plan associated with undersized distribution lines that effect fire flow capacity. Some higher elevation areas of the system also experience pressures below State minimum requirements. The costs of improvements associated with remediating existing deficiencies are not included in the impact fee.
4. **Future Demand** - The demand future development will place on the system was estimated based on development projections as summarized above and as discussed in the 2024 Water Master Plan.
5. **Future Deficiencies** - Future deficiencies in the system were identified using the proposed demand per ERC for new development and results from the computer model as discussed in the Water Master Plan.
6. **Recommended Improvements** – Needed system improvements were identified to meet demands associated with future development.

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

10-Year Improvement Plan

In the city's 2024 Water Master Plan, capital facilities projects needed to provide service to different parts of the city through estimated buildout are identified. Only infrastructure to be constructed within a ten-year horizon will be considered in the calculation of impact fees to avoid uncertainty surrounding improvements further into the future. Table 6 summarizes the impact fee related projects identified in the capital facilities plan that will need to be constructed within the next ten years. As discussed previously, the 1MG East Tank is a capital improvement project that was identified as being needed in the next 10 years after the 2024 Water Master Plan was completed. The cost estimate for the 1 MG East Tank was developed using costs for comparable projects. Note that the project cost estimates presented in the 2024 Water Master Plan were presented in 2024 dollars. The cost estimates shown in Table 6 have been estimated in 2025 dollars. The impact fee will be calculated based on current construction costs, not an estimated inflated construction cost at the projected year of construction.

Table 6
New Project Costs Allocated to Project Development

Project ID	Project Name	Project Year	Estimated 2025 Cost	Percent to Existing	Percent to 10-Year Growth	Percent to Beyond 10-Year	Cost to Existing	Cost to 10-Year Growth	Cost Beyond 10-Year
S-1	6-Mile Spring Water Treatment Plant	2027	\$4,759,000	6.9%	40.8%	52.3%	\$328,371	\$1,941,672	\$2,488,957
T-1	East Tank	2030	\$3,250,000	0.0%	19.1%	80.9%	\$0	\$620,750	\$2,629,250
			\$8,009,000				\$328,371	\$2,562,422	\$5,118,207

Project Cost Attributable to Future Growth

To satisfy the requirements of state law, Table 6 also provides a breakdown of the capital facilities projects and the percentage of the project costs attributed to existing and future users. As defined in Section 11-36a-102(15), the impact fee facilities plan should only include the proportionate share of “the cost of public facilities that are roughly proportionate and reasonably related to the service demands and needs of any development activity.” A few notes regarding specific projects are as follows:

Project S-1. The 6-Mile Spring Water Treatment Plant will be used to treat water from 6-Mile Spring. The spring was used historically by the city as a water source but has not been used for several years due to water quality issues. City staff have reported that the springs may be under the influence of surface water and that the water quality varies throughout the course of the year, sometimes showing changes in color (city staff report that the water at times has a reddish brown tint). To address this issue, a new facility will be constructed to treat the water to drinking water standards and add this source back into the city’s water supply portfolio. The project is expected to add 736 gpm of reliable peak day production capacity to the system by treating water from 6-Mile Spring, 5-Mile Spring, and Vermillion Spring (see Water Master Plan for additional information). The city also intends to run flows from Main Canyon Spring, an existing water supply, through the new treatment facility. The percentage of the project cost attributable to existing users, 10-year growth, and beyond 10-year growth was calculated as follows:

- **Existing Users:** The flow from Main Canyon Spring is planned to be treated at the 6-Mile Spring Treatment Facility. Collectively, the city’s existing water supplies are currently 85.7% utilized. Main Canyon Spring has a reliable yield of 64 gpm, with 55 gpm currently in use and 9 gpm available for new growth. Including Main Canyon Spring, the treatment plant will have a total reliable yield of 800 gpm (736 gpm from other springs and 64 gpm from Main Canyon Spring). Of the total capacity of 800 gpm, 55 gpm will go toward existing users already on the system, and this portion of the project is not impact fee eligible. Therefore, existing users are responsible for covering 6.9% of the project cost ($55/800 = 6.9\%$).
- **10-Year Growth:** The city’s existing sources have an excess production capacity of 250 gpm. The 6-Mile Spring Water Treatment Plant will add 736 gpm, for a total of 986 gpm of total capacity available for new development. 10-year growth is expected to be at 403 gpm of new system demand, which is 40.8% of the supply available ($403/986 = 40.8\%$).
- **Growth Beyond 10 Years:** Based on the percentage of project capacity used by existing and future growth expected over the next 10 years, 52.3% of total source capacity and of the treatment facility will be available for growth beyond the next 10 years.

Project T-1. This project involves the construction of a new 1 MG culinary water storage tank on the east side of the system. The city currently has 2 MG of storage, and 1,348,563 gallons (67.4%) of that storage is currently utilized. Combining the existing excess storage volume with the new 1 MG tank, the city will have 1,651,437 gallons of storage available for new development. Projected growth over the next 10 years is anticipated to utilize 314,721 gallons, or 19.1% of the available storage. 80.9% of the city’s storage facilities will be available to growth beyond the next 10 years.

Table 6 does not include bond costs related to paying for impact fee eligible improvements. These costs are calculated as part of the impact fee analysis.

Project Cost Attributable to 10-Year Growth

Included in Table 6 is a breakdown of capacity associated with growth both at the 10-year growth mark and through estimated buildout. This is necessary because the projects identified in the table will be built with capacity to accommodate growth beyond the 10-year planning window.

Basis of Construction Cost Estimates

The costs of construction for projects to be completed within 10 years have been estimated based on experience with projects of a similar nature. Details associated with the costs used for each project are contained in the 2024 Culinary Water Master Plan. As noted previously, project costs have been presented in estimated 2025 dollars.

ADDITIONAL CONSIDERATIONS

Manner of Financing – 11-36a-302(3)

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. The city received a grant from the State of Utah for \$1,075,000. The grant money received will be applied to a number of fire flow improvements in the system as well as existing users' portions of planned projects. Therefore, grant money will not be used to offset impact fee eligible costs associated with growth, so no reduction in the impact fee will be included in the impact fee calculation.

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

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

Impact Fees. It is recommended that impact fees be used to fund growth-related capital projects as they help to maintain the proposed level of service and prevent existing users from subsidizing the capital facility 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 Dedication and Exactions. Developer exactions are not the same as grants. If a developer constructs a system improvement or dedicates land for a system improvement identified in this IFFP, or dedicates a public facility that is recognized to reduce the need for a system improvement, the developer will be entitled to an appropriate credit against that particular developer's impact fee liability or a proportionate reimbursement. This does not apply to the water right dedications that are required in city code. Water rights dedications are required in addition to the impact fee.

If the value of the credit is less than the development's impact fee liability, the developer will owe the balance of the liability to the city. If the recognized value of the improvements/land dedicated is more than the development's impact fee liability, the city may be required to reimburse the difference to the developer.

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

Necessity of Improvement to Maintain Level of Service - 11-36a-302(3)

According to State statute, impact fees cannot be used to correct deficiencies in the city's system and must be necessary to maintain the proposed level of service established for all users. Only those facilities or portions of facilities that are required to maintain the proposed level of service for future growth have been included in this IFFP. Additionally, any portion of projects being used to cure existing deficiencies that will be paid for through future user rates will be accounted for through an impact fee credit to be calculated as part of the impact fee analysis. This will result in an equitable fee as future users will not be expected to fund any portion of the facilities that will benefit existing residents.

School Related Infrastructure - 11-36a-302(2)

As part of the noticing and data collection process for this plan, information was gathered regarding future development within the city, which may include new schools. Required public facilities to serve future schools have been included in the impact fee facilities plan and 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 at least 10 days before the actual hearing. A copy of the proposed IFFP must be made available in each public library (or other public facility location) within the city service area during the 10-day noticing period for public review. It is recommended that the city also post a copy of the IFFP and IFA on their website and make a copy available at City Hall.

Dedication of Water Rights

Parowan City is responsible to allocate and provide 1 connection (ERC) worth of source capacity for each undeveloped parcel in the city boundary. This commitment includes the city's responsibility to hold the water rights to service the connection. If a developer subdivides a parcel and adds more than one water connection, the developer is responsible for dedicating the additional water rights to city to service the additional connections. If a developer annexes property into the city, the developer is responsible for dedicating the water rights needed to service the development. The impact fee calculated in this study includes the facilities needed to service users and does not include the cost of acquire water rights. Developers/new users will be responsible for dedicating the required water rights per city ordinance in addition to paying the water system impact fee.

IMPACT FEE CERTIFICATION – 11-36A-306(1)

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

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

I certify that the attached impact fee facilities plan:

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

Aaron Anderson, P.E.

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

DRAPER, UTAH OFFICE
154 E 14075 S
DRAPER, UTAH 84020
PHONE: 801.495.2224

PROVO, UTAH OFFICE
1712 S EAST BAY BLVD
SUITE 345
PROVO, UTAH 84606
PHONE: 801.495.2224

OGDEN, UTAH OFFICE
2036 LINCOLN AVE NORTH MAIN
SUITE 104
OGDEN, UTAH 84401
PHONE: 801.495.2224

BOISE, IDAHO OFFICE
776 E RIVERSIDE DR
SUITE 205
BOISE, IDAHO 83616
PHONE: 208.939.9561



BOWEN COLLINS
& ASSOCIATES

WWW.BOWENCOLLINS.COM