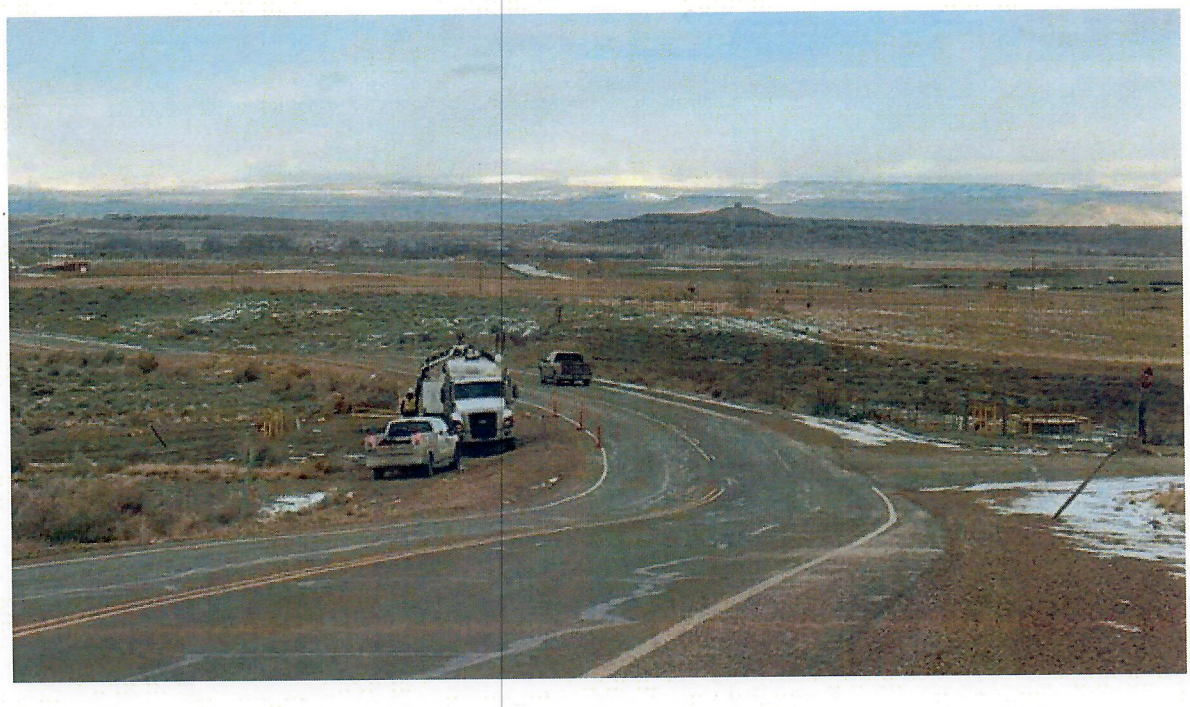

JOHNSON WATER IMPROVEMENT DISTRICT
IMPACT FEE ANALYSIS 2022

SEPTEMBER 6, 2022

Prepared by:

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STATE OF UTAH

Rexford Carpenter, PE 11/10/2022
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CERTIFICATION OF IMPACT FEE ANALYSIS BY CONSULTANT

In accordance with Utah Code Annotated, § 11-36a-306, Rexford Carpenter, P.E., on behalf of Sunrise Engineering, Inc., makes the following certification:

I certify that the attached impact fee analysis:

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. Cost for operation and maintenance of public facilities;
    b. Costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; or
    c. An expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;

3. Offsets costs with grants or other alternate sources of payment; and

4. Complies in each and every relevant respect with the Impact Fees Act.

Dated: 11/10/2022

Sunrise Engineering, Inc.

By: _____

1.0 Executive Summary

The Johnson Water Improvement District (JWID) commissioned this Impact Fee analysis to properly allocate the cost of culinary system improvements to new development. An impact fee is a fee imposed on new development to allocate the cost of expanding public infrastructure to accommodate the new development.

JWID provides culinary water to unincorporated areas of Duchesne County, UT from Bridgeland to Roosevelt, Independence to Upalce, and Myton Bench. JWID serves a population of approximately 2,500. The system also services municipal, commercial, industrial, and institutional connections and stock water connections. JWID also services oilfield connections for a wide range of uses.

Because new growth places an added burden on infrastructure and creates the need for new infrastructure, Utah law allows public water suppliers to charge an impact fee to new development.

Not all costs of system improvements are allocable to future growth. Some system improvements increase the level of service to existing customers. Only that portion of system improvements that is allocable to future growth may be considered in calculating a reasonable impact fee. Impact fees are assessed per Equivalent Residential Connection or ERC.

JWID plans to construct several improvements to its culinary water system in addition to the plans and anticipated addition of large-scale developments. A portion of these system improvements will increase the level of service for existing customers. The balance is allocable to future growth.

After analyzing each of the projects, the estimated population growth, and determining an equivalent residential connection, this analysis proposes a **$9,958.59** impact fee per ERC. JWID may choose to assess a lower impact fee, but may not assess an impact fee higher than that justified by this analysis.

2.0 Introduction

Impact Fees Overview

An impact fee is a fee imposed on new development to "mitigate the impact of the new development on public infrastructure." Utah Code § 11-36a-102-8(a). Impact fees are subject to the restrictions within the Fifth Amendment of the U.S. Constitution prohibiting the taking of private property for public use without just compensation. To comply with the U.S. Constitution requires only that there be an "essential nexus" between the fee imposed and the protected interest and that the fee imposed be "roughly proportional" to the burden created by the new development. See *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987); and see *Dolan v. City of Tigard*, 512 U.S. 374 (1994).

The levy of impact fees in Utah is governed by the Utah Impact Fees Act codified as Utah Code § 11-36a and requires more specific analysis than that required by the U.S. Constitution. Before imposing an impact

fee, a municipality or public service provider such as JWID must prepare a written analysis of each impact fee. An impact fee analysis is designed to proportionally allocate to new development that portion of the cost of new facilities that may be required or excess capacity of existing facilities. The impact fee analysis must:

(1) identify the anticipated impact on existing facilities by new development,

(2) identify the anticipated impact on system improvements by anticipated development,

(3) demonstrate how those impacts are reasonably related to the anticipated development,

(4) estimate the proportionate share of costs to be recouped by the impact fee, and

(5) identify how the impact fee was calculated. Id. at § 304.

Entities imposing impact fees must also prepare an impact fee facilities plan unless excepted by statute. An impact fee facilities plan is not required if the municipalities general plan under Utah Code 10-9a-401 contains the elements required by the Impact Fees Act. Id. at § 301. Municipalities serving less than 5,000 people and charging total impact fees of less than $250,000 annually are not required to prepare an impact fee facilities plan. However, they must ensure that the impact fees "are based upon a reasonable plan that otherwise complies with the common law and [the other sections of the Impact Fees Act]." Id. at § 301.

The Utah Supreme Court outlined a set of seven factors that may be considered in determining the reasonableness of an impact fee; these factors are now known as the "Banberry factors." Banberry Dev. Corp. v. S. Jordan City, 631 P.2d 899, 904 (Utah 1981). However, the Court has subsequently noted that these factors "were merely 'means to [an] end.' And the ultimate legal test is whether the impact fees relate to the cost of the benefits conferred on those paying the fees." Tooele Assoc. LTD. V. Tooele City Corp., 247 P.3d 371 (Utah 2011)(quoting Home Builders Ass'n of Utah v. City of American Fork, 973 P.2d 425, at ¶ 20 (Utah 1999). Nonetheless, this impact fee study will review each of the Banberry factors for each system impact fee. A brief analysis of the Banberry factors for each system is attached to this analysis as Exhibit "A."

Although the municipality may enact a lower impact fee than that justified by the Impact Fee Analysis, the municipality may not impose a fee higher than that justified in the analysis.

3.0 Purpose of this Impact Fee Analysis

The purpose of this Impact Fee Analysis is to proportionally allocate to new development the cost of several public facilities required to supply culinary water within the service area of JWID. Those system improvements include this analysis, pipeline upgrades and looping, and new Storage Tank. A complete list of proposed improvements with estimated cost is included in section 6.4 of this analysis.

This impact fee analysis calculates the highest proportionate share of the cost of these public facilities which may be reasonably allocated to new development. JWID is a public water supplier serving less than 5,000

people and charges impact fees less than $250,000 annually; thus, it is exempt from the requirement to provide an impact fee facilities plan.

In conjunction with calculating the reasonable impact fee for future projects, this analysis will review and update the current impact fees and determine a total maximum reasonable impact fee for JWID's culinary system.

4.0 Methodology

The impact fee for culinary water facilities is derived primarily from a plan-based method for future planned development. However, this analysis also considers cost recovery for excess capacity of current systems. The portion of the impact fee analysis which focuses on planned development accounts for estimates of how the system projects will be financed. Should the actual financing of the project change from the estimated portion of grant versus debt, this analysis may require updating to ensure the impact fee assessed does not exceed the proportionate share of development's impact on the new facilities.

Impact fees may not be used for maintenance or repair of the existing system, or for system improvements that increase the level of service to existing system users, unless the improvement provides additional system capacity that directly supports new development. Impact fees may not be used to recoup more than the actual public facility costs incurred or those projected to be incurred "within six years after the day on which each impact fee is paid." Id. at § 306. Also, impact fees must include an offset for grants or other alternative sources of payment and may not include expenses for operation and maintenance or for overhead unless such overhead expenses are calculated using a methodology consistent with generally accepted cost accounting practices and the standards accepted by the federal Office of Management and Budget for federal grant reimbursement. Id.

Accordingly, this analysis

(1) determines the actual cost incurred or to be incurred within six years of the date of this report,
(2) sets forth existing levels of service,
(3) does not include any general overhead expenditures or costs for operation of the facilities,
(4) offsets for potential grant for proposed projects,
(5) and includes an analysis of the prior completed projects which remain impact fee eligible.

To determine the proportionate share of the cost to new development, this analysis reviews current and past demographic trends and provides a projection for future growth within the JWID service area for the next twenty years. Capacity of the current system and excess capacity of each new system component that will be used in this analysis are based upon data provided by JWID, a recent Culinary Water Master Plan

commissioned by JWID, and estimates calculated by Sunrise Engineering, Inc. Costs of the proposed public facilities are calculated based upon an engineer's opinion of probable cost.

Because water demands of multi-family, industrial, and commercial connections vary widely, excess capacity of system components is expressed in terms of equivalent residential connections (ERC's), sometimes referred to as estimated residential units (ERU's). An ERC is equivalent to what would be used by a typical single-family residence. ERCs were calculated in the most recent master plan. Those calculations were used in this analysis.

The determination of the existing Level of Service (LOS) of the current systems is based upon previous project design capacity as well as minimum standards required by current regulations.

5.0 Demographics and Projections of Future Demand

JWID provides culinary water to the unincorporated areas around Roosevelt and Myton, Utah. The culinary water system supplies water to approximately 2,600 people, in addition to several commercial, municipal, and industrial entities. The culinary water system supplies water for both indoor and outdoor use.

The most recent culinary water master plan a population growth rate of 1 percent per year for the next 20 years. This impact fee analysis relies upon those growth projections to determine the number of future ERC's to be served by the proposed culinary system improvements. The same 20-year period is also used. Table 5.1 shows the 20-year population growth projection for the JWID service area.

Table 5.1

Year	Projected Population
2022	2,602
2027	2,734
2033	2,902
2038	3,050
2042	3,174
2047	3,336

JWID Population Growth through the Year 2047

6.0 Culinary Water Impact Fee Analysis

JWSID has completed several culinary water projects in the past 20 years. The District has also planned future projects with an estimated total cost of just over $22.5 million. This impact fee analysis will first determine what amount, if any, of the cost of the future projects may be allocable to future growth. Future growth for the next 20 years is converted to growth in equivalent residential connections (ERCs). Then the amount allocated

to future growth can be divided by the number of new ERC's over the 20-year period to determine the maximum reasonable impact fee for those projects. This analysis will also review excess capacity related to prior culinary projects. The total maximum reasonable impact fee for culinary water is a combination of the amount allocable for future projects and the amount of excess capacity of current systems allocable to new growth.

It is recommended that this impact fee analysis be reviewed and updated every five years at a minimum. Impact fee calculations may also include the proportionate costs of existing facilities and components that currently have excess capacity.

The existing capacity of the current system and the excess capacity of each component that will be used in this Impact Fee Analysis will be based on the data provided by JWID's record of previous projects and associated project financing. Excess capacity of system components will be expressed in terms of equivalent residential connections (ERC). The determination of the existing Level of Service (LOS) of the current distribution system will be based on the design capacity of both the current system and the planned projects.

6.1 Excess Capacity

Culinary projects completed in 2004, 2013, 2014, and 2021 had excess capacity allocable to future growth. Each project description as well as the additional capacity at the time of construction are below.

The 2004 project included the construction of a 2-million-gallon concrete storage tank. At the time of construction the JWID had adequate storage for the system, however the new tank was constructed at a higher elevation than the existing tanks in the system so the capacity of the tank less the fire storage. The tank has an allocable capacity of 1.4 million gallons for future growth or capacity to serve 1,837 new connections.

The 2013 project included upgrading an existing 2 inch line to an 8 inch. This increased the level of service to the existing connections by providing fireflow to the area as well as providing the capacity for up to 1,391 new ERC's.

The 2014 project is the same as the 2013 project and added capacity up to 1,391 new ERC's.

The 2021 project created a loop with a new 8 inch mainline. This provided new connections but also better flow or pressure to the entire loop area which is approximately 200 ERCs. Thus this project provided a new growth capacity up to 1,420 ERCs.

The cost allocation of these projects to ERCs is calculated in section 6.3 of this analysis.

6.2 New Near-term Projects

JWID plans to commission culinary water projects at a total estimated cost of $22,524,230. Not all of these projects, however, will be completed within the next six years. Table 6.4.1. contains a detailed list of projects to be completed and designates which of those projects will be commissioned within the next six years.

The total of the projects to be commissioned within the next six years is $10,009,068. Of those projects, one is 100 percent allocable to future growth. A portion of the remaining projects is allocable to new growth.

First, JWID is completing this Impact Fee Analysis at a budgeted cost of $12,000. This analysis is being undertaken because of the large developments that are being planned in the districts service area and JWID needed to update the impact fee to reflect improvements that would allow this these to go through. This analysis is 100 percent allocable to future growth.

A portion of the remaining projected project cost of $2,989,407 will increase the level of service for existing customers. Some of those projects, including replacing dysfunctional valves, installing new hydrants, and replacing existing PRV stations is only to fix current system deficiencies, in other words, to increase the level of service for existing customers. Other projects will increase service for a portion of the current population but will have excess capacity to serve new growth. A comprehensive list of proposed new projects, allocable costs, ERC's served, and cost per ERC is included in Table 6.5.1

6.3 Allocable Costs

Only costs allocable to future growth may be included in an impact fee. As stated in section 6.4, prior completed projects remain impact fee eligible due to remaining capacity. The total impact fee eligible cost of these past improvements was $2,942,000. This cost was allocable to future growth. The Capacity of the 2004 project is 1,838 ERCs. The total impact fee eligible cost is $1,339,000. The capacity of the 2013 project is 1,391 ERCs. The total impact fee eligible cost is $368,000. The capacity of the 2014 project is 1,391 ERCs. The total impact fee eligible cost is $378,000. the capacity of the 2021 Pleasant Valley Project is 1,420 ERCs. That total impact fee eligible cost is $857,000.

As stated in section 6.5 above, this impact fee analysis is due to expected growth. Thus, the cost of the impact fee analysis is 100 percent allocable to future growth. Portions of the remaining planned projects are entirely for repair, maintaining, or improving the existing level of service for current residents or are outside the 6 year limit. Those projects represent $12,515,162 of the planned for future projects and are not impact fee eligible.

The remaining improvements will provide an increased level of service for a portion of the existing ERCs, as well as providing additional system capacity to support growth over the 20 year planning period. Each Individual eligible project was analyzed individually by the specific capacity increase of the project after the increases in the LOS including fireflow. This was accomplished by analyzing the increase in flow from upgraded pipes and the increased storage capacity from larger tanks. Because this impact fee analysis was paid for out of pocket by the district and it is driven entirely by the large new growth occurring in the system its cost is included in the project. This leaves a total of $5,010,534 of the future 6 year planned projects and $2,942,000 of prior

projects eligible for impact fee assessment. Because a portion of the cost of the projects will be financed by loan, the additional interest for the impact fee eligible projects is also impact fee eligible—which brings the total impact fee eligible cost to $9,649,524. The impact fee eligibility and cost per ERC per project calculations are shown in Table 6.5.2.

6.4 Impact Fee Calculation

The impact fee calculation, before considering any credits, is calculated simply by dividing the total allocable cost by the total number of ERCs served by the particular project.

For the past projects including the tank and wells, the total allocable cost is $2,4942,000. The number of ERCs served by the projects is not the same because the capacity of each project was different. The 2004 storage tank has capacity for 1838 ERCs at a total impact fee eligible cost of $1,339,000—the cost per ERC being $728.71. The 2013 Project has a capacity to serve 1391 ERCs at a total impact fee eligible cost of $368,000—the cost per ERC being $264.48. The 2014 Project has a capacity to serve 1391 ERCs at a total impact fee eligible cost of $378,000—the cost per ERC being $271.67. The Pleasant Valley Project has a capacity to serve 1420 ERCs at a total impact fee eligible cost of $857,000—the cost per ERC being $603.52.

The total impact fee for these past projects with excess capacity is $1,868.38 as shown in Table 6.4.1.

Table 6.4.1

Past Improvements with Excess Capacity	Cost	Total Capacity	Cost per ERC
2004 Improvement Project	$1,339,000	1838	$728.71
20013 Improvement Project	$368,000	1391	$264.48
20014 Improvement Project	$378,000	1391	$271.67
Pleasant Valley Project	$857,000	1420	$603.52
TOTAL	**$2,942,000**		**$1,868.38**

For planned projects, the calculation is the same except for the fact that a percentage of the projects will increase or maintain level of service for existing customers so only a portion of those projects' costs are impact fee eligible.

Table 6.4.2 shows each of the planned projects, the percent allocable to future growth, the number of ERC's served by each project, the cost of each improvement, grant portion for each improvement, principal and interest payments for each improvement, and the impact fee per ERC for that portion of the project. The total impact fee for planned culinary projects is $8,345.11.

The maximum impact fee that JWID may reasonably assess to new ERCs, before considering credits, is the total of the past project eligible cost per ERC plus the total of the future project eligible cost per ERC which equals $10,213.49 per ERC.

Table 6.4.2

RECOMMENDED IMPROVEMENTS - IMPACT FEE ELIGIBLE	Cost	Grant	Principal + Interest	w/in 6 years	% Allocable to New Growth	Eligible Cost	ERC's Served	$/ERC
Culinary Impact Fees analysis	$12,000.00	$-	$12,000.00	Y	100%	$12,000.00	986	$12.17
Central Basin Victory Connection	$605,770.80	$-	$-	N	0.0%	$-	986	$-
East System	$3,952,167.79	$-	$-	N	0.0%	$-	986	$-
Independence Connection	$3,010,027.43	$-	$-	N	0.0%	$-	986	$-
Meter and Scada Improvements	$1,131,858.75	$-	$-	N	0.0%	$-	986	$-
System Pressure Relief and Pressure Reduction	$1,365,776.23	$-	$-	N	0.0%	$-	986	$-
East Myton Improvements	$2,605,840.67	$1,302,920.34	$1,745,258.75	Y	46.3%	$808,840.68	721	$1,121.83
8000 W Improvements	$822,899.04	$411,449.52	$551,135.67	Y	44.4%	$244,949.19	1420	$172.50
Pole Line Improvements	$637,568.49	$-	$-	N	0.0%	$-	986	$-
Lamb Trucking Loop	$1,376,830.71	$-	$-	N	0.0%	$-	986	$-
6250 South Connector	$435,161.96	$-	$-	N	0.0%	$-	986	$-
North Myton Tank	$6,568,328.43	$3,284,164.22	$4,399,130.31	Y	44.0%	$1,935,617.34	275	$7,038.61
TOTAL	**$22,524,230.31**					**$3,001,407.20**		**$8,345.11**

6.5 Credits

Because a portion of monthly usage rates may be used to service debt payments for current infrastructure, a reasonable impact fee may account for the portion paid by new users to past debt service payments. To calculate the per ERC credit requires a calculation of average contribution per ERC to the debt service payments or project cost over the course of the project life or payment term for the system.

In past impact fee analyses, JWID planned to service the portion of debt and bond payments allocable to future growth through the collection of impact fees. The prior analysis provided no credit for any portion of monthly user rates that may go toward such payments. As such, it is assumed that JWID currently services the portion of debt payments allocable to future growth fully from the impact fee collected and no credit should be given for past projects.

However, for planned projects, JWID will pursue loans to fund a portion of the project. SEI estimates that a portion of the project may be grant eligible. The remainder will be financed through a Permanent Community Impact Board (CIB) Loan with new annual debt service payments of $167,688.12 (not including debt reserve) over 30 years. The full details of estimated funding are provided in Appenddix B.

As new ERC's are added to the system, the portion of user fees allocated to debt-service payments will decrease. On average, new ERCs will contribute to debt-service payments for 8.84 years.

To calculate a reasonable credit SEI took the total project cost multiplied by the percentage of the costs that were impact fee eligible. The result being that 44 percent of the total project cost is impact fee eligible and may be offset by a credit for the portion of annual service payments used for annual debt service. Forty- four percent of the $167,688.12 annual debt service payment is $737,821.77. SEI then divided the impact fee eligible portion by the number of ERCs served for each year through 2042. The average portion of user fees being used for debt service on impact fee eligible projects over the life of the loan is $28.83 annually. The credit is then calculated by multiplying the average portion of annual user fees by the average years an ERC will pay user fees. Thus, $28.83 x 8.84 years = a credit of $254.90 per ERC. The calculation for this credit is detailed further in Appendix "C" to this analysis.

6.6 Recommended Culinary Water Impact Fee

The total impact fee allowable for culinary water is the sum of the allocable costs for excess system capacity and new projects less any credits. In this case, the sum of the impact fees for culinary projects equals $10,213.49 less the credit of $254.90 **for a recommended impact fee of $9,958.59.**

Table 6.6.1

Culinary Water Impact Fee Calculation	
Past Improvement Impact Fee	$ 1,868.38
Planned Projects Impact Fee	$ 8,345.11
Annual Service Payments Credit	$ (254.90)
Total 3/4" Culinary Water Impact Fee	**$ 9,958.59**

The above impact fee calculations are standard fees for residential connections. Non residential fees are based on the meter capacity compared to a ¾" residential meter. Table 6.6.2 shows the capacity ratio and recommended impact fee for each non residential fee meter sizes.

Table 6.6.2

Culinary Water Impact Fee Base On Meter Size		
Meter Size	**Ratio to 3/4"**	**Impact Fee**
3/4" Culinary Water Impact Fee	1	$ 9,958.59
1" Culinary Water Impact Fee	2.5	$ 24,896.47
1.5" Culinary Water Impact Fee	5	$ 49,792.94
2" Culinary Water Impact Fee	8	$ 79,668.71

7.0 Conclusion & Recommendations

Sunrise Engineering recommends the maximum reasonable impact fees for JWID's culinary system be no more than $9,958.59 assessed per ERC.

Before enacting the actual impact fees, JWID should take into consideration the relationship between impact fees and future growth because an impact fee can influence the growth in a community.

The impact fee that is adopted based on this impact fee analysis should be charged to new connections until any of the following events occur:

1. New system improvements (other than those included in this analysis) are anticipated within six years, therefore becoming eligible for inclusion in the impact fee calculation;
2. The calculated excess capacity of the existing system facilities included in this analysis is expended, at which time they will no longer be eligible for inclusion in the impact fee calculation; or
3. The impact fee analysis is otherwise reviewed and updated. It is recommended that it be updated every five years at a minimum.

JWID has experienced steady growth over the past two decades and continual growth is expected. In addition to residential growth, JWID should also anticipate commercial and industrial growth which may place additional demands on the culinary water system. This impact fee analysis will help the District apportion the costs of system improvements and expansion to the new growth that the improvements will serve. Additionally, as the population served by JWID grows, JWID should be aware that in the future it may be required to complete a facilities plan to accompany future impact fee analyses.

APPENDIX A:

Analysis of Banberry Factors

Banberry Factors Analysis

Utah Code Ann. 11-36a-304(2) requires that the following factors, also known as the Banberry Factors be considered as applicable in order to verify that the proportionate share of the costs of public facilities are reasonably related to the new development activity.

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

The cost of each existing public facility that has excess capacity to serve the anticipated development resulting from new development activity is discussed in Section 6.4 for JWID's culinary system.

b) *The cost of system improvements for each public facility:*

The costs of projected system improvements for the JWID's culinary water system are discussed in the same section as the cost of facilities with excess capacity.

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

Each public facility with excess capacity has been funded in part by loans, part by self-funding, and another portion by grant. This analysis only included debt and self-funding of projects in calculating the impact fees.

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

Currently, only assessed impact fees are used to finance the excess capacity of system improvements. A credit is calculated for future projects based on an estimated funding plan. The credit analysis may be found in section 6.5 of this analysis and the funding plan may be found in Exhibit B. It is again noted that this impact fee analysis should be reviewed and updated regularly to ensure that the fees remain applicable and fair.

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

It is not currently anticipated that development activity will contribute to the cost of existing public facilities and future system improvements outside of the allocable costs of current excess capacity and future projects as discussed within this analysis.

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

New development activity should be allowed a credit against impact fees to the extent that the development activity dedicates system improvements or public facilities that offset the demand for system improvements. However, no such dedications have been proposed and none are currently planned. JWID must address this issue if and when a developer proposes to dedicate new system improvements to offset the demand for the city to provide those improvements.

g) *Extraordinary costs, if any, in servicing the newly developed properties:*

This factor is not currently applicable to this impact fee analysis.

h) *The time-price differential inherent in fair comparisons of amounts paid at different times:*

The time-price differential of amounts paid at different times related to the impact fee is influenced not only by inflation, but also by the amount that is paid towards the system costs through user fees over time. For this purpose, a user fee credit is recommended in Sections 6.5 if any portion of user fees is used to service debt/bond payments. It is not considered feasible to update the impact fee on an annual basis to account for the time price differential of amounts paid at different times. In order to ensure that the time-price differential associated with impact fees paid at different times is limited, JWID should review and update this impact fee analysis at least once every five years.

APPENDIX B:

TOTAL PROJECT FUNDING ESTIMATE

SUNRISE ENGINEERING, INC.
CONSULTING ENGINEERS AND SURVEYORS
Opinion of Probable Costs

Project: JWID Impact Fee Analysis
Recommended Improvements

By: RDC
Date: Jul-22

JWID - IMMEDIATE IMPROVEMENTS - IMPACT FEE ELIGIBLE

ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
	Culinary Impact Fees analysis				
1	Engineering Services	1	Est	$ 12,000.00	$ 12,000
	Central Basin Victory Connection				
1	MOBILIZATION	10%	LS	$ 40,140.00	$ 40,140
2	8 inch PVC water line	5,300	LF	$ 65.00	$ 344,500
3	8" Gate Valve	8	EA	$ 3,000.00	$ 24,900
4	Airvac	3	EA	$ 6,000.00	$ 18,000
5	Tie in Connections	2	EA	$ 6,500.00	$ 13,000
6	Pre-con video	1	LS	$ 1,000.00	$ 1,000
	Construct Subtotal				**$ 441,540**
	Contingency	15%			**$ 66,231**
	Construction Total				**$ 507,771**
	Incidentals & Professional Services	19%			**$ 98,000**
	Central Basin Victory Connection				**$ 605,771**
	East System				
1	MOBILIZATION	10%	LS	$ 261,881.25	$ 261,881
2	Pre-Construction Video	1	EA	$ 1,500.00	$ 1,500
3	Traffic Control	1	LS	$ 10,000.00	$ 10,000
4	Subsurface Investigation	80	HR	$ 500.00	$ 40,000
5	8" PVC Pipe	35,000	LF	$ 65.00	$ 2,275,000
6	8" Gate Valve	44	EA	$ 2,350.00	$ 102,813
7	Fire Hydrant Installation	35	EA	$ 2,500.00	$ 87,500
8	Service Connections	28	EA	$ 1,500.00	$ 42,000
9	Tie-ins	10	EA	$ 6,000.00	$ 60,000
	Subtotal				**$ 2,880,694**
	Contingency	15%			**$ 432,104**
	Construction Total				**$ 3,312,798**
	Incidentals & Professional Services	19%			**$ 639,370**
	East System				**$ 3,952,168**
	Independence Connection				
1	MOBILIZATION	10%	LS	$ 199,452.50	$ 199,453
2	Pre-Construction Video	1	EA	$ 1,500.00	$ 1,500
3	Traffic Control	1	LS	$ 6,000.00	$ 6,000
4	Subsurface Investigation	50	HR	$ 500.00	$ 25,000
5	8" PVC Pipe	25,200	LF	$ 65.00	$ 1,638,000
6	8" Gate Valve	32	EA	$ 2,350.00	$ 74,025
7	PRV	1	LS	$ 85,000.00	$ 85,000
8	Fire Hydrant Installation	25	EA	$ 2,500.00	$ 63,000
9	Service Connections	28	EA	$ 1,500.00	$ 42,000
10	Tie-ins	10	EA	$ 6,000.00	$ 60,000
	Subtotal				**$ 2,193,978**
	Contingency	15%			**$ 329,097**
	Construction Total				**$ 2,523,074**
	Incidentals & Professional Services	19%			**$ 486,953**

	Independence Connection				**$ 3,010,027**
	Meter and Scada Improvements				
1	MOBILIZATION	10%	LS	$ 75,000.00	$ 75,000
2	Meter and Scada Improvements		EA	$ 1,500.00	$ 750,000
	Subtotal				**$ 825,000**
	Contingency	15%			**$ 123,750**
	Construction Total				**$ 948,750**
	Incidentals & Professional Services	19%			**$ 183,109**
	Meter and Scada Improvements				**$ 1,131,859**
	System Pressure Relief and Pressure Reduction				
1	MOBILIZATION	10%	LS	$ 90,500.00	$ 90,500
2	Pressure Relief Valves	8	EA	$ 60,000.00	$ 480,000
3	Pressure Reducing Valves	5	EA	$ 85,000.00	$ 425,000
	Subtotal				**$ 995,500**
	Contingency	15%			**$ 149,325**
	Construction Total				**$ 1,144,825**
	Incidentals & Professional Services	19%			**$ 220,951**
	System Pressure Relief and Pressure Reduction				**$ 1,365,776**
	East Myton Improvements				
1	MOBILIZATION	10%	LS	$ 172,670.00	$ 172,670
2	Pre-Construction Video	1	LS	$ 1,500.00	$ 1,500
3	Traffic Control	1	LS	$ 6,000.00	$ 6,000
4	Subsurface Investigation	50	HR	$ 500.00	$ 25,000
5	8" PVC Pipe	22,000	LF	$ 65.00	$ 1,430,000
6	8" Gate Valve	52	EA	$ 2,350.00	$ 122,200
7	PRV		LS	$ 85,000.00	$ -
8	Fire Hydrant Installation	22	EA	$ 2,500.00	$ 55,000
9	Service Connections	10	EA	$ 1,500.00	$ 15,000
10	Tie-ins	12	EA	$ 6,000.00	$ 72,000
	Subtotal				**$ 1,899,370**
	Contingency	15%			**$ 284,906**
	Construction Total				**$ 2,184,276**
	Incidentals & Professional Services	19%			**$ 421,565**
	East Myton Improvements				**$ 2,605,841**
	8000 W Improvements				
1	MOBILIZATION	10%	LS	$ 54,527.50	$ 54,528
2	Pre-Construction Video	1	LS	$ 1,500.00	$ 1,500
3	Traffic Control	1	LS	$ 6,000.00	$ 6,000
4	Subsurface Investigation	50	HR	$ 500.00	$ 25,000
5	8" PVC Pipe	500	LF	$ 65.00	$ 32,500
6	8" Gate Valve	11	EA	$ 2,350.00	$ 24,675
7	12" PVC Pipe	3,000	LF	$ 105.00	$ 315,000
8	12" Gate valves	13	EA	$ 3,200.00	$ 41,600
9	PRV		LS	$ 85,000.00	$ -
10	Fire Hydrant Installation	4	EA	$ 2,500.00	$ 10,000
11	Service Connections		EA	$ 1,500.00	$ -
12	Tie-ins	4	EA	$ 6,000.00	$ 24,000
13	Chlorinator Station	1	LS	$ 65,000.00	$ 65,000
	Subtotal				**$ 599,803**
	Contingency	15%			**$ 89,970**
	Construction Total				**$ 689,773**

	Incidentals & Professional Services	19%				**$ 133,126**
	8000 W Improvements					**$ 822,899**
	Pole Line Improvements					
1	MOBILIZATION	10%	LS	$ 42,247.00	$	42,247
2	Pre-Construction Video	1	LS	$ 1,500.00	$	1,500
3	Traffic Control	1	LS	$ 6,000.00	$	6,000
4	Subsurface Investigation	50	HR	$ 500.00	$	25,000
5	8" PVC Pipe	5,200	LF	$ 65.00	$	338,000
6	8" Gate Valve	10	EA	$ 2,350.00	$	23,970
7	PRV		LS	$ 85,000.00	$	-
8	Fire Hydrant Installation	5	EA	$ 2,500.00	$	13,000
9	Service Connections	2	EA	$ 1,500.00	$	3,000
10	Tie-ins	2	EA	$ 6,000.00	$	12,000
	Subtotal					**$ 464,717**
	Contingency	15%				**$ 69,708**
	Construction Total					**$ 534,425**
	Incidentals & Professional Services	19%				**$ 103,144**
	Pole Line Improvements					**$ 637,568**
	Lamb Trucking Loop					
1	MOBILIZATION	10%	LS	$ 91,232.50	$	91,233
2	Pre-Construction Video	1	LS	$ 1,500.00	$	1,500
3	Traffic Control	1	LS	$ 6,000.00	$	6,000
4	Subsurface Investigation	50	HR	$ 500.00	$	25,000
5	8" PVC Pipe	12,000	LF	$ 65.00	$	780,000
6	8" Gate Valve	20	EA	$ 2,350.00	$	45,825
7	PRV		LS	$ 85,000.00	$	-
6	Fire Hydrant Installation	12	EA	$ 2,500.00	$	30,000
7	Service Connections	4	EA	$ 1,500.00	$	6,000
8	Tie-ins	3	EA	$ 6,000.00	$	18,000
	Subtotal					**$ 1,003,558**
	Contingency	15%				**$ 150,534**
	Construction Total					**$ 1,154,091**
	Incidentals & Professional Services	19%				**$ 222,740**
	Lamb Trucking Loop					**$ 1,376,831**
	6250 South Connector					
1	MOBILIZATION	10%	LS	$ 28,835.00	$	28,835
2	Pre-Construction Video	1	LS	$ 1,500.00	$	1,500
3	Traffic Control	1	LS	$ 6,000.00	$	6,000
4	Subsurface Investigation	20	HR	$ 500.00	$	10,000
5	8" PVC Pipe	150	LF	$ 65.00	$	9,750
6	8" Gate Valve	6	EA	$ 2,350.00	$	14,100
7	PRV	1	LS	$ 85,000.00	$	85,000
8	Fire Hydrant Installation	0	EA	$ 2,500.00	$	-
9	Service Connections	0	EA	$ 1,500.00	$	-
10	hwy Bore	1	LS	$ 150,000.00	$	150,000
11	Tie-ins	2	EA	$ 6,000.00	$	12,000
	Subtotal					**$ 317,185**
	Contingency	15%				**$ 47,578**
	Construction Total					**$ 364,763**
	Incidentals & Professional Services	19%				**$ 70,399**
	6250 South Connector					**$ 435,162**