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GRAND WATER & SEWER SERVICE AGENCY (GWSSA)

SANITARY SEWER

IMPACT FEE ANALYSIS

MARCH 21, 2018

Prepared by:

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CERTIFICATION OF IMPACT FEE ANALYSIS BY CONSULTANT

In accordance with Utah Code Annotated, § 11-36a-306, Devan Shields, 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: 3/21/2018

Sunrise Engineering, Inc.

By: _____

1.0 Executive Summary

The Grand Water & Sewer Service Agency (GWSSA) commissioned this Impact Fee analysis to properly allocate the cost of sanitary sewer 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.

GWSSA provides sanitary sewer collection service to the unincorporated area of Spanish Valley, south of the City of Moab in Grand County, Utah. The sanitary sewer system serves several commercial, municipal, and industrial connections, and provides sanitary sewer service to approximately 4,000 people. Since 2008, the number of GWSSA residential water connections has increased on average 1.58 percent per year; commercial connections have increased 1.18 percent per year on average over the same time period. Recent engineering studies have projected an average increase of 2 percent per year for the next 20 years based on planned developments which will spur more rapid growth.

Because new growth places an added burden on infrastructure and creates the need for new infrastructure, Utah law allows public sewer systems 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 which is allocable to future growth may be considered in calculating a reasonable impact fee. Impact fees are assessed per Equivalent Residential Connection or ERC.

GWSSA plans to construct improvements to its sanitary sewer system. If a portion of these system improvements would increase the level of service for existing customers, only the balance is allocable to future growth. For the system improvements planned, no increase in the level of service for existing customers is anticipated, so 100 percent of the planned improvements will be allocable to future growth.

After analyzing the projects, the estimated population growth, and determining an equivalent residential connection, this analysis proposes a $2,039 impact fee per ERC for connections to the system in the GWSSA service area and a $1,755 impact fee per ERC for connections in San Juan Spanish Valley Special Service District service area. GWSSA may choose to assess a lower impact fee, but may not assess an impact fee higher than that justified by this analysis.

Additional impact fees are required by Moab City for all new connections served by GWSSA. New connections in the San Juan Spanish Valley Special Service District may also be required to pay impact fees assessed by SJSVSSD.

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 GWSSA 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 which 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 the system impact fee. A brief analysis of the Banberry factors for the system is attached to this analysis as Appendix B.

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 public facilities required to provide sanitary sewer service within the service area of GWSSA. Those system improvements include construction of new sewer lines. An outline of the proposed improvements with estimated cost is included in section 6.7 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. GWSSA is a public sanitary sewer service provider serving less than 5,000 people and charges impact fees averaging 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 the future projects, this analysis will review and update the current impact fees and determine a total maximum reasonable impact fee for GWSSA's sanitary sewer system.

4.0 Methodology

The impact fee for sanitary sewer facilities is derived primarily from a plan-based method for future planned development. However, this analysis also considers cost recovery for excess capacity of the current system. 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 GWSSA 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 GWSSA, a model analysis of the existing and proposed sewer collection system, 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 sanitary sewer loads of multi-family, industrial, and commercial connections vary widely, excess capacity of system components is expressed in terms of equivalent residential connections (ERCs), sometimes referred to as estimated residential units (ERUs). An ERC is equivalent to what would be collected from a typical single-family residence. ERCs are different for each type of public facility and are more particularly described section 6.2 of 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 model analysis results.

5.0 Demographics and Projections of Future Demand

GWSSA provides sanitary sewer service to the unincorporated area of Spanish Valley, south of the City of Moab in Grand County, Utah. The system collects wastewater from approximately 4,000 people, in addition to several commercial, municipal, and industrial entities.

The most recent culinary water master plan and concurrent wastewater feasibility study project a population growth rate of 2 percent per year for the next 20 years. This impact fee analysis relies upon those growth projections to determine the number of future ERCs to be served by future sanitary sewer system improvements. Table 5.1 shows the population growth projection for the GWSSA service area through 2035.

Table 5.1

Year	Projected Population
2010	3,750
2015	4,140
2020	4,571
2025	5,047
2030	5,572
2035	6,152

GWSSA Population Growth through the Year 2035

6.0 Sanitary Sewer Impact Fee Analysis

GWSSA has completed sanitary sewer projects with remaining excess capacity that will be considered in this analysis. GWSSA also has planned future projects to account for projected growth. 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 ERCs served by the improvements to determine the maximum reasonable impact fee for those projects. This analysis will also review excess capacity related to prior sanitary sewer projects. The total maximum reasonable impact fee for sanitary sewer is a combination of the amount allocable for future projects and the amount of excess capacity of the current system 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 that will be used in this Impact Fee Analysis will be based on the data provided by GWSSA's record of previous projects and associated project financing, past impact fee analyses, and a model analysis conducted in conjunction with this Impact Fee Analysis. Excess capacity of system components will be expressed in terms of equivalent residential connections (ERCs). The determination of the existing Level of Service (LOS) of the current distribution system will be based on the design capacity the current system.

6.1 Current System

As of this year reporting, GWSSA's current sanitary sewer system serves or is committed to serve a total of 2,758 ERCs. The Agency completed projects from 1996 to 2000 which added capacity. The current collection system is sufficient to support the current population. Therefore, the projects that have been proposed will be 100 percent allocable to future growth.

GWSSA currently charges an impact fee of $1,952.67 per ERC for sanitary sewer.

6.2 Calculation of ERC

One ERC for the sanitary sewer system is defined as the amount of wastewater collected from an average residential connection. Because an ERC relates to the amount of wastewater collected from the average residential connection, use of this term allows commercial, institutional, or other large water users to be equated to a residential connection. ERCs are factored into calculations for impact fees, user rates, and other analyses as required for design purposes.

For this impact fee analysis, equating typical sanitary sewer loads from various types of sewer services to a number of residential connections is based on water use analysis from GWSSA's service area and other locations in the state. Results from these analyses are published in the Moab City Sewer Impact Fee Facilities Plan and Impact Fee Analysis (2017). Exhibit 1 in Appendix A is derived from data provided in that document. Although the table in Exhibit 1 covers most common kinds of developments, it is not intended to cover every instance that may arise. The table in Exhibit 1 will be used as a guideline by the GWSSA manager to determine the number of ERCs a proposed connection will be assigned.

6.3 Projected Demand

The number of sanitary sewer ERCs expected at the end of the planning period can be calculated using the compound interest formula and inserting the projected growth rate, the existing number of sanitary sewer ERCs, and the 20 year planning period for sanitary sewer improvements.

The projected number of ERCs for the 20 year planning period is calculated using the compound interest formula as follows: $F = ERCs \times (1 + rate)^{20\ years}$ where F is the projected number of ERCs and the rate of growth is 2 percent per year.

$$\text{Total ERCs:} \quad F = 2{,}758\ ERCs \times (1 + 0.02)^{20} = 4{,}098\ ERCs$$

At the end of the planning period, GWSSA is expected to have 4,098 ERCs; thus, new growth within the 20-year period is the difference between the 20-year projection and current ERCs, or 1,340 ERCs. Planned projects should therefore be designed to accommodate up to 1,340 new ERCs over the planning period.

6.4 Excess Capacity

Sanitary sewer projects completed from 1996 to 2000 had excess capacity allocable to future growth. These projects included the construction of new lines and upsizing of existing lines, along with construction of the three metering stations that record flows from the GWSSA collection system to the City of Moab system. These projects had excess capacity at the time of construction and continue to have excess capacity allocated to future growth.

At the time of construction, the GWSSA system had adequate capacity for existing sanitary sewer loads. Based on the analysis in the 2011 impact fee update, those improvements were designed to accommodate 2,941 ERCs, an increase of 911 ERCs over the 2011 estimate of 2,030 ERCs. As this exceeds the current number of ERCs the GWSSA system is committed to serving, a portion the cost of the improvements remains impact fee eligible. The cost allocation of these projects to ERCs is calculated in section 6.6 of this analysis.

6.5 New Near-term Projects

GWSSA plans to commission sanitary sewer projects at a total estimated cost of $2,086,300 to be completed within the next six years. Additional projects will be required to meet the projected sanitary sewer loads through the 20-year planning period. Table 6.7.1 outlines the projects to be completed within

the next six years. The total of the projects to be commissioned within the next six years is $2,086,300, which is 100 percent allocable to new growth.

The first proposed project centers on increasing system capacity primarily by further optimizing the flow distribution within the system. By connecting the lines west of the highway, capacity of the system is increased by diverting existing flows from the primary collection sub-basin to a sub-basin with more existing capacity. This will also provide for a more balanced increase in sewer loads between these sub-basins as development continues. The second proposed project extends the service area southward, allowing for new sanitary sewer connections in developments along Highway 191 as far south as San Juan County. A comprehensive list of proposed new projects, allocable costs, ERCs served, and cost per ERC is included in Table 6.7.1

6.6 Allocable Costs

Only costs allocable to future growth may be included in an impact fee. As stated in section 6.4, a portion of the prior completed projects remains impact fee eligible due to remaining capacity. The total impact fee eligible cost of these past improvements is $256,932.40. This cost is allocable to future growth. With the sub-basin changes considered, the remaining capacity of the improvements is 438 ERCs.

As stated in section 6.5 above, 100 percent of the proposed projects will serve future growth. Thus, the cost of the projects, along with anticipated financing costs, is 100 percent allocable to future growth.

The first two segments of sewer main extensions are system improvements that will benefit growth throughout the system. The projected cost of these projects is $980,017. Assuming 10 percent grant and a 20-year loan at 3.0 percent interest, total anticipated cost for the project is $1,185,706. Based on model analysis results, these proposed improvements will provide capacity for 896 additional ERCs.

The third segment of sewer main extensions, which will extend from Lemon Lane south along Highway 191 to the San Juan County line, has a projected cost of $1,106,283. The immediate need for this line is due to the connection of San Juan Spanish Valley Special Service District (SJSVSSD) to the GWSSA system. Although SJVSSSD anticipates that an 8-inch main would suit their needs, GWSSA is requiring installation of a 10-inch main so that additional growth west of Highway 191 may be served off this line. Because much of the proposed line's capacity will be used by SJSVSSD, only that portion of the line's capacity projected to be available for growth within GWSSA's service area is characterized as a system improvement and impact fee eligible.

Of 1,416 ERCs this line is projected to serve, 900 are projected to be within SJSVSSD's service area, leaving 516 ERCs of capacity for growth within GWSSA's service area. Because of this, 36.4% of the projected cost of this line is impact fee eligible, with the rest of the cost attributable to SJSVSSD.

This line will be constructed by SJSVSSD, with GWSSA paying 36.4% of the projected cost, or $403,137, from impact fees. As this cost will be paid up front, no grant or loan financing is anticipated for GWSSA's portion of this project. Because SJSVSSD will be paying for 63.6% of the projected cost of this line directly, the portion of the impact fees attributable to this segment will not be assessed to SJSVSSD connections.

This yields a total of $1,845,775 of the planned and prior projects eligible for impact fee assessment. The impact fee eligibility and cost per ERC per project calculations are shown in Table 6.7.2.

6.7 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 project.

For the past projects the total cost is $1,279,046. The number of future ERCs served by the projects is calculated as the difference in the design capacity of 2,941 ERCs and the current number of ERCs 2,758, or 183 ERCs (2,941 - 2,758 = 183) plus the 255 ERCs to be moved from sub-basin 1 to sub-basin 3, or 438 ERCs (183 + 255 = 438). The percentage allocable to new growth for the projects is calculated as the ratio of remaining capacity for new ERCs to the design capacity stated in the 2011 analysis (183 / 911 = 20.1%). Based on this analysis, the total allocable cost of these past improvements per ERC is $586.60, as shown in Table 6.7.1.

Table 6.7.1

Past Improvements with Excess Capacity	Cost	% Allocable to New Growth	$ Allocable to New Growth	Current Excess Capacity	Cost per ERC
1997 CIB Bond	$154,190	20.1%	$30,973.40	438	$70.72
1996 RD Bond	$830,856	20.1%	$166,900.82	438	$381.05
DWQ Bond	$294,000	20.1%	$59,058.18	438	134.84
TOTAL	$1,279,046				$586.60

For planned projects, the calculation is the same except that more of the project costs are allocable to new growth and are impact fee eligible.

Table 6.7.2 shows the planned projects, the percent allocable to future growth, the number of ERCs served by the project, the cost of the improvements, grant portion for the improvements, principal and interest totals for the improvements, and the impact fee per ERC for each project. The total impact fee for planned projects is $1,608. As stated in Section 6.6, the portion of the impact fee attributable to the extension to San Juan County will not be assessed to SJSVSSD connections.

The table also shows the anticipated breakdown of ERCs to be served by the improvements in the SJSVSSD service area and the GWSSA service area. As the first planned project impacts all areas of the system, the impact fee attributable to this project will be assessed to all new connections. For the second planned project, involving the extension south along Highway 191, only a portion of the projected costs are characterized as system improvements and impact fee eligible.

The maximum impact fee that GWSSA 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 $2,195 per ERC for new connections in the GWSSA service area, or $1,910 for new connections in the SJSVSSD service area.

Table 6.7.2

RECOMMENDED IMPROVEMENTS - IMPACT FEE ELIGIBLE	Cost	Grant	Principal + Interest	% Allocable to New Growth SJSVSSD	% Allocable to New Growth GWSSA	Eligible IF Cost	ERC's Served	$/ERC
Sewer Improvements along HWY 191 - 1 and 2	$980,017	$98,002	$1,185,706	-	-	$1,185,705.65	896	$1,323.33
Sewer Improvements along HWY 191 - Extension to SJ County	$1,106,283	$0	$1,106,283	63.6%	36.4%	$403,137.03	1416	$284.70
TOTAL						$1,588,842.68		$1,608.03

6.8 Credits

Because a portion of future monthly usage rates may be used to service debt payments for proposed infrastructure, a reasonable impact fee may account for the portion paid by new users to debt service payments. To calculate the per-ERC credit requires a calculation of average contribution per ERC to the debt service payments over the course of the planning period.

For planned projects, GWSSA will pursue loans to fund a portion of the project. This analysis estimates that a portion of the project may be grant eligible. The remainder will be financed through a new loan with projected annual debt service payments of $59,285 (not including debt reserve) over 20

years. As new ERCs 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 we took the total impact fee eligible cost that may be offset by a credit for the portion of annual service payments used for the annual debt service of $59,285. We then divided the impact fee eligible portion by the number of ERCs served for each year through 2037. The average portion of user fees being used for debt service on impact fee eligible projects over the life of the loan is $17.57 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, $17.57 x 8.84 years = a credit of $155.36 per ERC. The calculation for this credit is detailed further in Appendix C. This credit is applicable to new connections in both the GWSSA and SJSVSSD service areas.

6.9 Recommended Sanitary Sewer Impact Fee

The total impact fee allowable for sanitary sewer 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 sanitary sewer projects differs for new ERCs in the GWSSA service area compared with those in the SJSVSSD service area. The recommended sanitary sewer impact fee for each of these areas is outlined in Tables 6.9.1 and 6.9.2. For the GWSSA service area, the total impact fee equals $2,194.64 less the credit of $155.36 for a recommended impact fee of $2,039. For the SJSVSSD service area, the total impact fee equals $1,909.94 less the credit of $155.36 for a recommended impact fee of $1,755.

Table 6.9.1

Sanitary Sewer Impact Fee Calculation – GWSSA Service Area	
Past Improvement Impact Fee	$ 586.60
Planned Projects Impact Fee	$ 1,608.03
Annual Service Payments Credit	$ (155.36)
Total Sanitary Sewer Impact Fee	$ 2,039

Table 6.9.2

Sanitary Sewer Impact Fee Calculation – SJSVSSD Service Area	
Past Improvement Impact Fee	$ 586.60
Planned Projects Impact Fee	$ 1,323.33
Annual Service Payments Credit	$ (155.36)
Total Sanitary Sewer Impact Fee	$ 1,755

6.10 Moab City Impact Fee

In addition to impact fees assessed by GWSSA, new connections to the sanitary sewer system are also charged impact fees to account for impacts to the collection and treatment systems of Moab City. Based on Moab City's 2017 Sewer Impact Fee Facilities Plan and Impact Fee Analysis, this includes a fee of $542 for collection and $788 for treatment, a total of $1,329 per ERC. For some customer types, the Moab City ERC calculation varies for flow and treatment impacts. New sanitary sewer connections in the SJSVSSD service area may also be subject to impact fees assessed by SJSVSSD.

7.0 Conclusion & Recommendations

Sunrise Engineering recommends the maximum reasonable impact fees for GWSSA's sanitary sewer system be no more than $2,039 for GWSSA service area connections and $1,755 for SJSVSSD service area connections assessed per ERC. Moab City and SJSVSSD impact fees would be in addition to this as applicable.

Before enacting the actual impact fees, GWSSA 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.

GWSSA has experienced steady growth over the past two decades and continual growth is expected. In addition to residential growth, GWSSA should also anticipate commercial and industrial growth which may place additional demands on the sanitary sewer system. This impact fee analysis will help the Agency apportion the costs of system improvements and expansion to the new growth that the

improvements will serve. Additionally, as the population served by GWSSA grows, GWSSA should be aware that in the future it may be required to complete a facilities plan to accompany future impact fee analyses.

APPENDIX A:

EXHIBITS

Exhibit 1 - ERC calculation factors*

Customer Type	Units	ERCs per Unit
Permanent Residential		
Single Family	Residence	1.00
Multifamily, 2 Bedrooms or Larger or ADU > 700 ft2	Unit	1.00
Multifamily, 1 Bedroom or Smaller or ADU < 700 ft2	Unit	0.56
Overnight Accomodations		
Rental Unit with Kitchen, 2 Bedrooms or Larger	Unit	1.20
Rental Unit with Kitchen, 1 Bedroom or Smaller	Unit	1.00
Hotel/Motel (No Kitchen)	Unit	0.78
Other		
Auto Repair	1,000 ft2	0.16
Bakery	1,000 ft2	0.53
Bank	1,000 ft2	0.50
Beauty/Barber Shop	Chair	0.25
Campground/RV Park	Site	0.79
Car Wash - Auto	Each	10.00
Car Wash - Wand	Wand	5.00
Commercial	1,000 ft2	0.15
Dry Cleaner	1,000 ft2	0.59
Fast Food	1,000 ft2	2.86
Gas Station/Convenience Store	1,000 ft2	0.28
Grocery Store	1,000 ft2	0.32
Laundromat	Washer	0.71
Office	1,000 ft2	0.25
Restaurant	Seat	0.09
Retail	1,000 ft2	0.15
Schools	Students	0.07
Theater	Seat	0.01
Warehouse	1,000 ft2	0.11

*ERC determination is made by the GWSSA manager. For instances which are not specifically covered here, this list will be used as a guideline to determine ERCs.

SCALE: 1"=2,000'

LEGEND

- EXISTING 12" SEWER
- EXISTING 8" SEWER
- PROPOSED 12" SEWER
- PROPOSED 10" SEWER

GWSSA SANITARY SEWER

EXHIBIT 2

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APPENDIX B:

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 6.5 for GWSSA's sanitary sewer system.

b) *The cost of system improvements for each public facility:*
   The costs of projected system improvements for the GWSSA's sanitary sewer 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 for past projects and debt and self-funding for proposed 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 6.8 of this analysis and the funding plan assumes 10% grant and a 20-year loan at 3.0 percent interest. 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. GWSSA must address this issue if and when a developer proposes to dedicate new system improvements to offset the demand for the agency 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 6.8 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, GWSSA should review and update this impact fee analysis at least once every five years.

APPENDIX C:

ANNUAL USER FEE CREDIT CALCULATIONS

CALCULATION OF THE AVERAGE YEARS THAT NEW CONNECTIONS WILL PAY USER FEES WITHIN THE 20 YEAR PLANNIND PERIOD				
Year	ERC's	New ERC's	Years Remaining in Planning Period	Total Years (Years Remaining x New ERC's)
2017	2758	0	20	0
2018	2813	55	19	1048
2019	2869	56	18	1013
2020	2927	57	17	976
2021	2985	59	16	937
2022	3045	60	15	896
2023	3106	61	14	853
2024	3168	62	13	808
2025	3231	63	12	760
2026	3296	65	11	711
2027	3362	66	10	659
2028	3429	67	9	605
2029	3498	69	8	549
2030	3568	70	7	490
2031	3639	71	6	428
2032	3712	73	5	364
2033	3786	74	4	297
2034	3862	76	3	227
2035	3939	77	2	154
2036	4018	79	1	79
2037	4098	80	0	0
		1340	Total Years	11852

	Average Years (Total Years/New ERC's)	8.84

CALCULATION OF THE AVERAGE ANNUAL PORTION OF THE USER FEE PAID TO PLANNED PROJECTS AND THE USER FEE CREDIT			
Year	ERC's	Annual Eligible Project Debt Service	Portion of User Fee to Planned Projects
2017	2758	$ 59,285.30	$ 21.50
2018	2813	$ 59,285.30	$ 21.07
2019	2869	$ 59,285.30	$ 20.66
2020	2927	$ 59,285.30	$ 20.26
2021	2985	$ 59,285.30	$ 19.86
2022	3045	$ 59,285.30	$ 19.47
2023	3106	$ 59,285.30	$ 19.09
2024	3168	$ 59,285.30	$ 18.71
2025	3231	$ 59,285.30	$ 18.35
2026	3296	$ 59,285.30	$ 17.99
2027	3362	$ 59,285.30	$ 17.63
2028	3429	$ 59,285.30	$ 17.29
2029	3498	$ 59,285.30	$ 16.95
2030	3568	$ 59,285.30	$ 16.62
2031	3639	$ 59,285.30	$ 16.29
2032	3712	$ 59,285.30	$ 15.97
2033	3786	$ 59,285.30	$ 15.66
2034	3862	$ 59,285.30	$ 15.35
2035	3939	$ 59,285.30	$ 15.05
2036	4018	$ 59,285.30	$ 14.76
2037	4098	$ 59,285.30	$ 14.47
(A) Average Portion of Annual User Fee to Planned Projects			$17.57
	(B) Average Years of Payment		8.84

User Fee Credit	$155.36