

# GRAND WATER AND SEWER SERVICE AGENCY

## WATER & WASTEWATER IMPACT-FEE STUDY

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### Prepared by:

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## EXECUTIVE SUMMARY

This report is an Impact Fee Study for the Grand Water and Sewer Service Agency's (GWSSA or Agency) culinary water and wastewater systems. The purpose of this study was to analyze the water and wastewater systems to determine the maximum impact fee that can be charged based on a reasonable plan. The amount of the impact fee for future commercial and large residential customers will be based on the ratio of meter flow capacity versus the flow capacity of a standard residential meter. The use of impact fee money will help the Agency to maintain its high level of service to its water and wastewater customers by reducing the amount of debt service required to finance future construction projects as they become necessary.

The charges will be assessed on a equivalent residential connection (ERC) basis, or the number of ERCs to which a commercial connection is equivalent. In general, ERCs will be calculated based on the water meter size that is installed as required by the building code or requested by the customer. ERCs will be based on a multiplier calculated by the maximum flow that a given size of meter is rated at compared to a standard 3/4" by 5/8" meter per the table below.

Water Meter Size VS # of ERCs		
Meter Size	AWWA Max Flow (gpm)	ERC's
3/4 X 5/8 inch	20	1
3/4 inch	30	1.5
1 inch	50	2.5
1-1/2 inch	100	5
2 inch	160	8
3 inch	300	15
4 inch	500	25
6 inch	1000	50
8 inch	1600	80

The Agency currently charges an impact fee of \$4,712.32 for all new water system connections and a fee of \$5,089.27 for wastewater connections.

The impact fee that will be charged on an ongoing basis is based on a study period of 6 years. However, the upgrades are anticipated to provide capacity in excess of 6 years. Therefore, the fee was calculated by dividing the cost of planned system upgrades, existing bond/debt payments and miscellaneous fees attributed to growth by the number of by the additional ERCs that can be served by the excess capacity provided by previous system upgrades, or the planned system upgrades. This is because the improvements are sized to accommodate more growth than will occur in the 6 year impact fee period. Projects, which will be completed after the 6 years, may be discussed in the report but are not included in the calculated impact fee.

Each system is comprised of subsystems. The water system is made up of a supply system, distribution system, storage system, and treatment system. The supply system is limited by water rights and source capacity, the distribution system is the series of pipes that distribute water, the storage system is made up of tanks that provide storage, and the treatment system is the chlorination system that ensures a safe drinking water supply.

The recommended improvements for the water system consist of increasing the amount of municipal water right associated with the existing wells. The cost of the necessary water right work associated with growth is shown in table 2.4.1.2 below for the Professional Expenses (Water Right Work).

The Culinary Water Impact fee was calculated according in table 2.4.1.2 below. The table calculates the culinary impact fee by dividing the costs attributed to growth by the number of ERCs served. It also shows the percent of the impact fee which should be attributed to each portion of the impact fee.

<b>Table 2.4.1.2 -- GWSSA Culinary Water Impact Fee Cost Per ERC</b>						
<b>Description</b>	<b>Total Costs</b>	<b>%</b>	<b>Costs</b>	<b>Related</b>	<b>Cost per</b>	<b>Percent</b>
	<b>for projects</b>	<b>Attributable</b>	<b>Attributable</b>	<b>ERCs</b>	<b>Cost per</b>	<b>of Total</b>
	<b>in IF Period</b>	<b>to Growth</b>	<b>to Growth</b>	<b>Served</b>	<b>New ERC</b>	<b>IF</b>
Existing Bond / Debt Payments						
2000 DDW Bond (20 year)	\$ 1,362,372.00	90%	\$ 1,226,134.80	935	\$ 1,311.37	62.7%
2001 DDW Bond 2 (20 year)	\$ 167,617.50	90%	\$ 150,855.75	935	\$ 161.34	7.7%
1998 RD Bond (40 year)	\$ 610,176.00	90%	\$ 549,158.40	935	\$ 587.34	28.1%
Total Debt/Bond Payments:	\$ 2,140,165.50		\$ 1,926,148.95		\$ 2,060.05	98.4%
Miscellaneous Fees						
Professional Expenses (Water Right Work)	\$ 15,000.00	100%	\$ 15,000.00	1,722	\$ 8.71	0.4%
Professional Expenses (impact fee study)	\$ 6,500.00	100%	\$ 6,500.00	267	\$ 24.34	1.2%
Total Miscellaneous Fee	\$ 6,500.00		\$ 6,500.00		\$ 33.05	1.6%
Total Impact Fee Cost per New ERC:						<b>\$2,093.10</b>

The wastewater system consists of the collection system owned by the Agency, along with interceptors and a treatment system which are owned and operated primarily by Moab City, and is, therefore, not evaluated in this study.

The recommended improvements for the wastewater system include the upsizing of three manhole to manhole sections of pipe. The cost associated with this project is shown in table 3.4.1.2, below, for the Sewer Collection System Improvements.

The Wastewater Impact Fee was calculated according to table 3.4.1.2 below. The table calculates the wastewater impact fee by dividing the costs attributed to growth by the number of ERCs served. It then shows the percent of the impact fee which is attributed to each portion of the impact fee.

<b>Table 3.4.1.2 -- GWSSA Wastewater Impact Fee Cost Per ERC</b>						
<b>Description</b>	<b>Total Costs for projects in IF Period</b>	<b>% Attributable to Growth</b>	<b>Costs Attributable to Growth</b>	<b>Related ERCs Served</b>	<b>Cost per New ERC</b>	<b>Percent of Total IF</b>
Capital Project Fees						
Sewer Collection System Improvements	\$ 109,000.00	100%	\$ 109,000.00	539	\$ 202.23	10.4%
Total Capital Project Fee	\$ 109,000.00		\$ 109,000.00		\$ 202.23	10.4%
Existing Bond / Debt Payments						
1997 CIB Bond (25 year)	\$ 154,190.00	100%	\$ 154,190.00	736	\$ 209.50	10.7%
1996 RD Bond (40 year)	\$ 830,856.00	100%	\$ 830,856.00	736	\$ 1,128.88	57.8%
DWQ Bond	\$ 294,000.00	100%	\$ 294,000.00	736	\$ 399.46	20.5%
Total Debt/Bond Payments:	\$1,279,046.00		\$ 1,279,046.00		\$1,737.84	89.0%
Miscellaneous Fees						
Professional Expenses (impact fee study)	\$ 6,500.00	100%	\$ 6,500.00	516	\$ 12.60	0.6%
Total Miscellaneous Fee	\$ 6,500.00		\$ 6,500.00		\$ 12.60	0.6%

Total Impact Fee Cost per New ERC: \$1,952.67

The maximum impact fee that can be charged for the culinary water system is \$2,093.10 based on the methodology used in this report. While the impact fee that can be charged for the collection portion of wastewater system is \$1,952.67, the Agency has the discretion to set the fee at or below the maximum allowable impact fee.

It is recommended that the Agency review the existing culinary water and wastewater impact fees and adjust the fees based on the information provided in this report. Impact fees should be reviewed every 3 to 5 years.