

Sewer Impact Fee Analysis

DRAFT

January 2017

Prepared by:

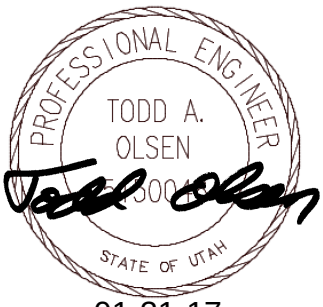
Bowen Collins & Associates, Inc.
CONSULTING ENGINEERS

SEWER IMPACT FEE ANALYSIS

DRAFT

January 2017

Project No. 235-16-01



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Prepared for:

IVINS UTAH
OUR HOME BENEATH THE BIG RED MOUNTAIN

Prepared by:

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CONSULTING ENGINEERS

TABLE OF CONTENTS

Page No.

EXECUTIVE SUMMARY ES-1
Introduction ES-1
Why Assess an Impact Fee? ES-1
How are Impact Fees Calculated? ES-1
Impact Fee Calculation ES-1
Recommended Impact Fee ES-2

IMPACT FEE ANALYSIS (SEWER) 1
Introduction 1
Impact On System - 11-36a-304(1)(A)(B) 2
Relation Of Impacts To Anticipated Development - 11-36a-304(1)(C) 3
Proportionate Share Analysis - 11-36a-304(D) 4
Excess Capacity to Accommodate Future Growth 4
Reimbursement Agreements 4
Future Improvements 4
Impact Fee Calculation - 11-36a-304(1)(E) 6
Bonding Interest Costs 6
Credit for User Fees 6
Impact Fee Studies 7
Recommended Impact Fee 7
Calculation of Non-Standard Impact Fees 7
Additional Considerations - 11-36a-304(2) 8
Manner of Financing – 11-36a-304(20(A-E) 8
User Charges 8
Special Assessments 8
Pioneering Agreements 8
Bonds 8
General Taxes 8
Federal and State Grants and Donations 8
Dedication Of System Improvements - 11-36a-304(2)(F) 9
Extraordinary Costs - 11-36a-304(2)(G) 9
Time-Price Differential - 11-36a-304(2)(H) 9
Impact Fee Certification - 11-36a-306(2) 10

LIST OF TABLES

No.	Title	On or Following Page No.
ES-1	Sewer Impact Fee Calculation per ERU	ES-2
ES-2	Recommended Sewer Impact Fee	ES-2
1	Projected Ivins City Sewer System Growth	2
2	Impact Fee Eligible Capital Projects	4
3	Impact Fee Calculation per ERU	6
4	Recommended Sewer Impact Fee	7

EXECUTIVE SUMMARY

INTRODUCTION

The purpose of the impact fee analysis (IFA) is to calculate the allowable impact fee that may be assessed to new development in accordance with Utah Code.

WHY ASSESS AN IMPACT FEE?

Until new development utilizes the full capacity of existing facilities the City can assess an impact fee to recover its cost of latent capacity available to serve future development. The general impact fee methodology divides the available capacity of existing and future capital projects between the number of existing and future users. Capacity is measured in terms of an Equivalent Residential Unit, or ERU, which represents the demand that a typical single family residence places on the system.

HOW ARE IMPACT FEES CALCULATED?

A fair impact fee is calculated by dividing the cost of existing and future facilities by the amount of new growth that will benefit from the unused capacity. Only the capacity that is needed to serve the projected growth within in the next ten years is included in the fee. Costs used in the calculation of impact fees include:

- New facilities required to maintain (but not exceed) the proposed level of service identified in the IFFP; only those expected to be built within ten years are considered in the final calculations of the impact fee.
- Historic costs of existing facilities that will serve new development
- Cost of professional services for engineering, planning, and preparation of the impact fee facilities plan and impact fee analysis

Costs not used in the impact fee calculation

- Operational and maintenance costs
- Cost of facilities constructed beyond 10 years
- Cost associated with capacity not expected to be used within 10 years
- Cost of facilities funded by grants, developer contributions, or other funds which the City is not required to repay
- Cost of renovating or reconstructing facilities which do not provide new capacity or needed enhancement of services to serve future development

IMPACT FEE CALCULATION

Impact fees for this analysis were calculated by dividing the proportional cost of facilities required to service 10-year growth by the amount of growth expected over the next 10-years based on ERUs. Calculated impact fees are summarized in Table ES-1.

Table ES-1
Sewer Impact Fee Calculation per ERU

Sewer Collection System Components	Total Cost of Component	% Serving 10-year Growth	Cost Serving 10-year Growth	10-year ERUs Served	Cost Per ERU
Collection Facilities					
10-year Projects	$2,795,675	30.28%	$846,566	2,005	$422.23
10-Year Project Interest Costs	$542,032	33.1%	$179,413	2,005	$89.48
Subtotal	**$3,337,707**		**$1,025,979**		**$511.71**
Other					
Impact Fee Studies - Professional Fees	$80,000	100.0%	$80,000	2,005	$39.90
Subtotal	**$80,000**		**$80,000**		**$39.90**
Total	**$3,417,707**		**$1,105,979**		**$551.61**

The total impact fee per ERU can be calculated by adding up the fee for each component of the analysis. This is separate from any additional charges levied by the City for hookup costs or for other reasonable permit and application fees.

RECOMMENDED IMPACT FEE

The total calculated impact fee is summarized in Table ES-2. This is the legal maximum amount that may be charged as an impact fee. A lower amount may be adopted if desired, but a higher fee is not allowable under the requirements of Utah Code.

Table ES-2
Recommended Sewer Impact Fee

Current Impact Fee	Maximum Allowable Impact Fee	Percent Increase
$468.90	$551.61	17.6%

IMPACT FEE ANALYSIS

INTRODUCTION

Ivins City (City) has retained Bowen Collins & Associates (BC&A) to prepare an impact fee analysis (IFA) for its sewer system based on a recently completed impact fee facilities plan. An impact fee is a one-time fee, not a tax, imposed upon new development activity as a condition of development approval to mitigate the impact of the new development on public infrastructure. The purpose of an IFA is to calculate the allowable impact fee that may be assessed to new development in accordance with Utah Code.

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

1. Identify the impact of anticipated development activity on existing capacity
2. Identify the impact of anticipated development activity on system improvements required to maintain the established level of service
3. Demonstrate how the impacts are reasonably related to anticipated development activity
4. Estimate the proportionate share of:
    a. Costs of existing capacity that will be recouped
    b. Costs of impacts on system improvements that are reasonably related to the new development activity
5. Identify how the impact fee was calculated
6. Consider the following additional issues
    a. Manner of financing improvements
    b. Dedication of system improvements
    c. Extraordinary costs in servicing newly developed properties
    d. Time-price differential

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

IMPACT ON SYSTEM - 11-36a-304(1)(a)(b)

Growth within the City's service area, and projections of sewer flows resulting from said growth, is discussed in detail in the City's 2016 Sewer Master Plan and Impact Fee Facilities Plan (IFFP). For the purposes of impact fee calculation, growth in the system has been expressed in terms of equivalent residential units (ERUs). An ERU represents the demand that a typical single family residence places on the system. Growth in ERUs projected for the service area is summarized in Table 1.

Table 1
Projected Ivins City Sewer System Growth

	Projected ERUs	Estimated Dry Weather Sewer Flows (mgd)
2016	3,192	0.60
2020	4,241	0.80
2026	5,197	0.98
2030	5,835	1.10
2036	6,995	1.32
2040	7,768	1.46

As indicated in the table, projected growth for the 10-year planning window of this impact fee analysis is 2,005 ERUs. In order to maintain the established level of service, projected future growth will be met through a combination of available excess capacity in existing facilities and construction of additional capacity in new facilities. Use of excess capacity and required system improvements are detailed in the IFFP.

RELATION OF IMPACTS TO ANTICIPATED DEVELOPMENT - 11-36a-304(1)(c)

To satisfy the requirements of state law, it is necessary to show that all impacts identified in the impact fee analysis are reasonably related to the anticipated development activity. This has been documented in detail in the Impact Fee Facilities Plan. In short, only that capacity directly associated with demand placed upon existing system facilities by future development has been identified as an impact of the development. The steps completed to identify the impacts of anticipated development are as follows:

1. **Existing Demand** – The demand existing development places on the system was estimated based on historic demand records.
2. **Existing Capacity** – The capacities of existing facilities were calculated based on the level of service criteria established in the Impact Fee Facilities Plan.
3. **Existing Deficiencies** – Existing deficiencies in the system were looked for by comparing defined levels of service against calculated capacities. Where existing deficiencies existed, projects were identified to eliminate the deficiencies. Costs associated with existing deficiencies were not assigned to impacts of development.
4. **Future Demand -** The demand future development will place on the system was estimated based on development projections as discussed in the City's 2016 Sewer Master Plan and Impact Fee Facilities Plan.
5. **Future Demand Use of Existing Capacity** – Whenever possible, excess capacity in existing facilities has been used to serve future demands. Where this occurs, the amount of capacity used by future growth has been calculated as described in detail in the Impact Fee Facilities Plan.
6. **Future Deficiencies** – Where excess capacity is inadequate to meet projected demands, future deficiencies in the system were identified using the same established level of service criteria used for existing demands.
7. **Recommended Improvements** – Needed system improvements were identified to meet demands associated with future development.

PROPORTIONATE SHARE ANALYSIS - 11-36a-304(d)

A comprehensive proportionate share analysis associated with anticipated future development and its impact on the system was completed as part of the Impact Fee Facilities Plan. A summary of that analysis is contained here.

Excess Capacity to Accommodate Future Growth

Future sewer system demand in the Ivins City service area will be accommodated by a combination of capacity in existing infrastructure and the construction of additional capacity in new facilities. Typically, the calculation of an impact fee incorporates a comprehensive proportionate share analysis associated with anticipated future development and its impact on both the existing system and future projects. However, as identified in the City's Impact Fee Facilities Plan, the vast majority of existing sewer lines were built by either Special Improvement Districts (SID) or private developers. As a result, the City has not directly paid for any substantial portion of the existing infrastructure. For this reason, a proportionate share analysis of existing facilities and the associated "buy-in" cost into existing system infrastructure will not be assessed to future users.

Reimbursement Agreements

There are no current reimbursement agreements existing within the system.

Future Improvements

In addition to using available existing capacity, demand associated with projected future development will be met through the construction of additional capacity in new facilities. A primary focus of the Impact Fee Facilities Plan was the identification of projects required to serve new development. The results of the Impact Fee Facilities Plan are summarized in Table 2. Included in the table are the costs of each required project and the portion of costs associated with development.

Table 2
Impact Fee Eligible Capital Projects

Project Identifier/ Description	City Construction/ Purchase Cost	Percent Attributable to 10-Year Growth	Cost Attributable to 10-Year Growth
S-1B - Tuachan Wash Sewer Line Replacement	$1,179,360	31.0%	$365,602
S-3 - 200 West Sewer Diversion	$387,500	53.5%	$207,312
S-4 - Highway 91 Sewer Line Project	$511,500	53.5%	$273,652
S-6 - 800 South/400 East to Pioneer Parkway Pipe Replacement	$717,315	0.0%	$0
Total	**$2,795,675**		**$846,566**

All cost estimates contained in this IFA have been taken directly from the IFFP. The basis of these estimates are documented in the City's IFFP and 2016 Sewer Master Plan. Estimated construction costs are given in 2016 dollars to account for the time value of money.

IMPACT FEE CALCULATION - 11-36a-304(1)(e)

Using the information contained in the previous sections, impact fees can be calculated by dividing the proportional cost of facilities required to service 10-year growth by the amount of growth expected over the next 10-years. Calculated impact fees are summarized in Table 3.

Table 3
Impact Fee Calculation per ERU

Sewer Collection System Components	Total Cost of Component	% Serving 10-year Growth	Cost Serving 10-year Growth	10-year ERUs Served	Cost Per ERU
Collection Facilities					
10-year Projects	$2,795,675	30.28%	$846,566	2,005	$422.23
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Subtotal	**$80,000**		**$80,000**		**$39.90**
Total	**$3,417,707**		**$1,105,979**		**$551.61**

The total impact fee per ERU can be calculated by adding up the fee for each component of the analysis. This is separate from any additional charges levied by the City for hookup costs or for other reasonable permit and application fees.

Bonding Interest Costs

In addition to construction costs, impact fees can include the anticipated costs associated with bond revenue for project funding. Upon evaluating the City's existing and projected reserve funds and impact fee funds, it is anticipated that the City will bond for the portion Project S-1B (Tuacahn Wash Sewer Line Replacement) which is attributed to future growth. The remaining portion of Project S-1B as well as the other two improvement projects will be paid out of available impact fee funds and reserve funds. Interest costs associated with this bond have been calculated using a 20 year loan period with a 4% annual interest rate and a 4% issuance fee on the bond. Similar to project construction costs, only that portion of interest expense associated with capacity for 10-year growth is included in the impact fee calculation.

Credit for User Fees

In certain circumstances, improvement projects provide a benefit to both existing and future users. In such a situation, and especially for large projects that require substantial levels of funding, projects often cannot be funded from existing cash reserves and will require a bond. Where this is

the case, user fees would be used to pay for that portion of the bond that is serving existing users. For such projects, future users would already be paying for their portion of capacity via impact fees. Consequently, they should not be expected to pay through user rates the portion of the bond which is tied to the benefit of existing users. Where these circumstances exist, a need is created for a credit back to future users.

In the case of Ivins City, only one project identified in the Impact Fee Facilities Plan is shown to provide a benefit to both existing and future users. The portion of this project which existing users are responsible for is relatively small and will be paid for out of existing cash reserves, with the remaining portion being paid through a bond. Therefore, new users are only responsible for paying the portion of the project cost (and the proportional bond interest cost) associated with their respective capacity. Hence, no credit for user fees will be issued to future users.

Impact Fee Studies

Utah Code allows for the cost of planning and engineering associated with impact fee calculations to be recovered as part of an impact fee. This study includes the cost of this study and one impact fee update during the 10-year planning window.

Recommended Impact Fee

The total calculated impact fee is summarized in Table 4. This is the legal maximum amount that may be charged as an impact fee. A lower amount may be adopted if desired, but a higher fee is not allowable under the requirements of Utah Code.

Table 4
Recommended Sewer Impact Fee

Current Impact Fee	Maximum Allowable Impact Fee	Percent Increase
$468.90	$551.61	17.6%

Calculation of Non-Standard Impact Fees

The calculations above have been based on an ERU. The Impact Fee Enactment should include a provision that allows for calculation of a fee for customers other than typical residential connections. Consistent with the level of service standards established in the Impact Fee Facilities Plan, the following formula may be used to calculate an impact fee for a non-standard user based on the calculated daily indoor water use for an average residential connection.

$$\frac{Estimated\ Indoor\ Water\ Use}{187\ gallons\ per\ day^{1}}\ X\ Impact\ Fee\ per\ ERU = Impact\ Fee$$

[1] Based on average indoor water use per ERU for historical Ivins City records. Of this, 168 gpd is expected to enter the wastewater collection system, consistent with previous calculations.

ADDITIONAL CONSIDERATIONS - 11-36a-304(2)

MANNER OF FINANCING - 11-36a-304(2)(a-e)

As part of this Impact Fee Analysis, it is important to consider how each facility has been or will be paid for. Potential infrastructure funding includes a combination of different revenue sources.

User Charges

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. Interfund loans should be considered in subsequent accounting of impact fee expenditures.

Special Assessments

Where special assessments exist, the impact fee calculation must take into account funds contributed. No special assessments exist.

Pioneering Agreements

There are no existing pioneering agreements pertaining to the City's sewer facilities.

Bonds

Where the City's financial plans identify bonding will be required to finance impact fee eligible improvements, the portion of bond cost and interest expense attributable to future growth has been added to the calculation of the impact fee.

General Taxes

If taxes are used to pay for infrastructure, they should be accounted for in the impact fee calculation. Specifically, any contribution made by property owners through taxes should be credited toward their available capacity in the system. In this case, no taxes are proposed for the construction of infrastructure.

Federal and State Grants and Donations

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

Any existing infrastructure funded through past grants has not been included in the impact fee calculation.

DEDICATION OF SYSTEM IMPROVEMENTS - 11-36a-304(2)(f)

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 may be entitled to an appropriate credit against that particular developer's impact fee liability or a proportionate reimbursement.

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. improvements not identified in the impact fee facilities plan) without credit against the impact fee.

EXTRAORDINARY COSTS - 11-36a-304(2)(g)

The Impact Fees Act indicates the analysis should include consideration of any extraordinary costs of servicing newly developed properties. In cases where one area of potential growth may cost significantly more to service than other growth, a separate service area may be warranted. No areas with extraordinary costs have been identified as part of this analysis.

TIME-PRICE DIFFERENTIAL - 11-36a-304(2)(h)

Utah Code allows consideration of time-price differential in order to create fairness for amounts paid at different times. To account for the time value of money, all project costs have been presented in terms of estimated 2016 costs.

IMPACT FEE CERTIFICATION - 11-36a-306(2)

This report 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(2), Bowen Collins & Associates 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. costs of operation and maintenance of public facilities;
    b. costs of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; 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; and
3. Complies in each and every relevant respect with the Impact Fees Act.

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