

Mt. Olympus Improvement District



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Wastewater Impact Fee Analysis



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EXECUTIVE SUMMARY

Mt. Olympus Improvement District (“MOID” or the “District”) commissioned Zions Public Finance, Inc. (Zions) to calculate the District’s impact fees in accordance with Utah State Law. An impact fee is a payment of money imposed upon new development activity to mitigate the impact of new development on public infrastructure. In conjunction with this project, Hansen Allen & Luce, Inc. (HAL) prepared the *Wastewater Collection System Impact Fee Facilities Plan* (IFFP) dated July 2021.

The recommended impact fee structure presented in this analysis has been prepared to satisfy the Impact Fees Act, Utah Code Ann. § 11-36a-101 et. seq., and represents the maximum impact fees that the District may assess. The District will be required to use revenue sources other than impact fees to fund any projects identified in the IFFP that constitute repair and replacement, cure any existing deficiencies, or increase the level of service for existing users.

Wastewater System Overview

Level of Service – Equivalent Residential Unit

Level of service (LOS) defines the wastewater demands that a typical residential user, expressed as an Equivalent Residential Unit (ERU), will require and should pay for through impact fees. Impact fee law prohibits the use of impact fees to increase the LOS above the current demands. At times, a wastewater system may need to increase the LOS to cure an existing deficiency, but projects that fix deficiencies must be paid for through non-impact fee revenues and a credit must be provided to the impact fee payer. In this analysis, a credit has been calculated to offset the portion of the future capital projects that will benefit existing users.

TABLE 1: SERVICE LEVELS

Criteria	LOS	Units
Average Daily Flow (without infiltration)	200	gallons/day/ERU
Average Daily Flow (with infiltration)	263	gallons/day/ERU

A residential unit is equated to one ERU and non-residential properties are converted to the appropriate number of ERUs.

In 2021 the District serves 52,478 ERUs and is anticipated to grow to approximately 57,277 ERUs by 2030, for an increase of 4,799 ERUs over the 10-year period.

Wastewater Service Area

The Service Area covers the entire District for the purpose of calculating impact fees.

Existing Excess Capacity

The IFFP identifies existing excess capacity in the wastewater collection system. Acquired at an actual cost of \$20,953,282, the wastewater collection system has capacity to serve 72,462 ERUs and currently serves 52,478 ERUs.

The IFFP further identifies existing excess capacity in the wastewater treatment system. Acquired at an actual cost of \$171,486,510, the wastewater treatment system has capacity to serve 71,477 ERUs and currently serves 52,478 ERUs.

New Construction Costs

The IFFP identifies a total of \$7,570,000 in new construction costs. Total capacity for these new projects is 72,462 ERUs. The IFFP also notes construction projects in the amount of \$9,300,000 that are necessary to cure existing deficiencies. Credits must be made for the cost of the projects that cure deficiencies so that new development does not pay twice.

Wastewater Impact Fee Calculation

The maximum impact fee calculation is shown in the table below and results in a maximum fee of \$758.94 per ERU.

TABLE 2: PROPORTIONATE SHARE ANALYSIS

	Amount
Buy-In Collection System	\$289.16
Buy-In Treatment System	\$561.41
New Construction Collection	\$104.47
Consultant Costs	\$7.30
Fund Balance Credit	(\$100.85)
Credits for Deficiencies	(\$102.55)
Credits for Outstanding Bonds	\$0.00
Maximum Fee per ERU	\$758.94

Non-Standard Demand Adjustments

The District reserves the right under the Impact Fees Act (Utah Code Ann. § 11-36a-402(1)(c, d)) to assess an adjusted fee to respond to unusual circumstances and to ensure that the impact fees are assessed fairly. The impact fee ordinance should include a provision that permits adjustment of the fee for a development based upon studies and data submitted by the developer that indicate a more realistic and accurate impact upon the District's infrastructure.

CHAPTER 1: OVERVIEW OF THE WASTEWATER IMPACT FEES

Summary

An impact fee is intended to recover the District's costs of building excess wastewater capacity from new residential or non-residential development rather than passing these growth-related costs on to existing users through rates.

The Utah Impact Fees Act allows only certain costs to be included in an impact fee so that only the fair cost of expansionary projects or existing unused capacity paid by the District is assessed through an impact fee. Eligible costs include future projects, historic costs of existing assets that still have capacity available to serve growth, future or outstanding debt related to these eligible projects, and certain professional expenses related to planning for growth. Project improvements that only serve a specific development or subdivision cannot be included. System improvements that cure a deficiency or enhance the LOS cannot be included without an appropriate credit.

The impact fee analysis provides documentation of a fair comparison, or rational nexus, between the impact fee charged to new development and the demands that new growth will have on the system.

Costs to be Included in the Impact Fee

The impact fees proposed in this analysis are calculated based upon:

- Buy-in to existing, excess capacity;
- New capital infrastructure that will serve new development; and
- Professional and planning expenses related to the construction of system improvements that will serve new development.

The costs that cannot be included in the impact fee are as follows:

- Projects that cure system deficiencies for existing users;
- Projects that increase the LOS above that which is currently provided;
- Operations and maintenance costs;
- Costs of facilities funded by grants or other funds that the District does not have to repay;
- Interest costs related to outstanding or future bonds that have been issued to fund non-impact fee eligible projects such as repair and replacement and curing deficiency; and
- Costs of reconstruction of facilities that do not have capacity to serve new growth.

Utah Code Legal Requirements

Utah law requires that entities prepare an Impact Fee Analysis (IFA) before enacting an impact fee. Utah law also requires that entities give notice of their intent to prepare and adopt an IFA. This IFA follows all legal requirements as outlined below. The District has retained Zions Public Finance, Inc. (ZPFI) to prepare this Impact Fee Analysis in accordance with legal requirements.

Notice of Intent to Prepare Impact Fee Analysis

A local political subdivision must provide written notice of its intent to prepare an IFA before preparing the Plan (Utah Code §11-36a-503). This notice must be posted on the Utah Public Notice website.

Preparation of Impact Fee Analysis

Utah Code requires that each local political subdivision, before imposing an impact fee, prepare an impact fee analysis. (Utah Code 11-36a-304).

Section 11-36a-304 of the Utah Code outlines the requirements of an impact fee analysis which is required to:

- (1) An impact fee analysis shall:
 - (a) identify the anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity;
 - (b) identify the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service for each public facility;
 - (c) demonstrate how the anticipated impacts described in subsections (1)(a) and (b) are reasonably related to the anticipated development activity;
 - (d) estimate the proportionate share of:
 - (i) the costs for existing capacity that will be recouped; and
 - (ii) the costs of impacts on system improvements that are reasonably related to the new development activity; and
 - (e) identify how the impact fee was calculated.
- (2) In analyzing whether or not the proportionate share of the costs of public facilities are reasonably related to the new development activity, the local political subdivision or private entity, as the case may be, shall identify, if applicable:
 - (a) the cost of each existing public facility that has excess capacity to serve the anticipated development resulting from the new development activity;
 - (b) the cost of system improvements for each public facility;
 - (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;
 - (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;
 - (e) the relative extent to which development activity will contribute to the cost of existing public facilities and system improvements in the future;
 - (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;

- (g) extraordinary costs, if any, in servicing the newly-developed properties; and
- (h) the time-price differential inherent in fair comparisons of amounts paid at different times.

Certification of Impact Fee Analysis

Utah Code states that an Impact Fee Analysis shall include a written certification from the person or entity that prepares the Impact Fee Analysis. This certification is included at the conclusion of this analysis.

CHAPTER 2: IMPACT FROM GROWTH UPON THE DISTRICT'S FACILITIES AND LEVEL OF SERVICE

Utah Code 11-36a-304(1)(a)

Service Area

The service area includes all areas within the District boundaries.

Wastewater Demands

The table below shows ERU growth projections.

TABLE 3: GROWTH IN DEMAND

Year	ERUs
2020	51,727
2021	52,478
2022	53,146
2023	53,740
2024	54,276
2025	54,769
2026	55,295
2027	55,804
2028	56,302
2029	56,791
2030	57,277

Existing and Proposed LOS Analysis

Level of Service (LOS) defines how much of the wastewater system a typical residential user, defined as an Equivalent Residential Unit (ERU), will require and can fairly fund through impact fee revenue. LOS is based upon historic observed wastewater demands per ERU. Impact fee law prohibits the use of impact fees to increase the LOS above the current demands. At times, a wastewater system may need to increase a LOS to cure an existing deficiency, but projects that fix deficiencies must be paid for by non-impact fee revenues and a credit must be provided to the impact fee payer. In this analysis, a credit has been calculated to offset the portion of the future capital projects which will benefit existing users.

TABLE 4: SERVICE LEVELS

Criteria	LOS	Units
Average Daily Flow (without infiltration)	200	gallons/day/ERU
Average Daily Flow (with infiltration)	263	gallons/day/ERU

CHAPTER 3: IMPACT ON CAPACITY FROM DEVELOPMENT ACTIVITY

Utah Code 11-36a-304(1)(b)(c)

Excess Capacity

The District has the right to increase the established LOS in the future by constructing facilities that will provide greater capacity per ERU, but such LOS increases cannot be funded through impact fees. If the proposed LOS is higher than the existing LOS, then a deficiency exists and will be cured through sources of funding other than impact fees. Each of the future projects identified in the IFFP will serve existing residents, as well as new development which means a credit has been included in the impact fee calculation to offset the cost of constructing infrastructure that cures deficiencies for existing users.

Tables 5 and 7 show the existing projects which have excess capacity to serve 10-year growth and Table 9 later in this document shows the future capital projects that will be constructed within the 10-year impact fee planning horizon.

TABLE 5: EXISTING PROJECTS WITH EXCESS CAPACITY – COLLECTION SYSTEM

Existing System Project Costs	Estimated 2020 ERUs	Estimated Future ERUs	Existing Development (2020) Cost Share	Future Development Cost Share
\$20,953,282	51,727	72,462	\$14,957,501	\$5,995,781

Source: Mt. Olympus Improvement District Impact Fee Facilities Plan

With growth of 4,799 ERUs over the next 10 years (2021-2030), new growth represents 6.6 percent of the 72,462 ERU total capacity of the existing collection system. This means that new development between 2021 and 2030 is responsible for 6.6 percent of the costs of the existing collection system, or for \$1,387,690.

TABLE 6: CONSUMPTION OF EXISTING COLLECTION SYSTEM CAPACITY BY NEW DEVELOPMENT, 2021-2030

Collection System	
Existing System Project Costs	\$20,953,282
Total Capacity of System	72,462
Growth in ERUs, 2021-2030	4,799
% of Capacity Consumed, 2021-2030	6.6%
Excess Capacity Cost Consumed, 2021-2030	\$1,387,690

Existing system treatment costs are as follows:

TABLE 7: EXISTING PROJECTS WITH EXCESS CAPACITY – TREATMENT SYSTEM

Existing System Project Costs	2020 Existing ERUs	Estimated Future ERUs	Existing Development Cost Share	Future Development Cost Share
\$40,127,843	51,727	71,477	\$29,040,012	\$11,087,831

Source: Mt. Olympus Improvement District Impact Fee Facilities Plan

With growth of 4,799 ERUs over the next 10 years (2021-2030), new growth represents 6.7 percent of the 71,477 ERU total capacity of the existing treatment system. This means that new development between 2021 and 2030 is responsible for 6.7 percent of the costs of the existing treatment system, or for \$2,694,203.

TABLE 8: CONSUMPTION OF EXISTING TREATMENT SYSTEM CAPACITY BY NEW DEVELOPMENT, 2021-2030

Treatment Facility - CVWRF	
Existing Treatment Facility Cost	\$171,486,510
% Owned by MOID	23.4%
Amount Owned by MOID	\$40,127,843.34
Total Capacity in ERUs - MOID	71,477
% of Capacity Consumed by New Development Over Next 10 Years	6.7%
Cost Attributable to New Development, 2021-2030	\$2,694,202.61

CHAPTER 4: SYSTEM IMPROVEMENTS REQUIRED FROM DEVELOPMENT ACTIVITY

Utah Code 11-36a-304(1)(b)(c)

Future 10-Year Wastewater Capital Projects

The District intends to build the following projects within the impact fee planning horizon to serve the demands of new growth

TABLE 9: IMPACT-FEE ELIGIBLE CAPITAL PROJECTS – NEW CONSTRUCTION

Project ID	Description	Cost
F-1	Install 1,000 ft of 48" gravity line from A8 to A3. A bore crossing is required at the I-15 crossing	\$2,520,000
F-2	Install 2,425 ft of parallel 18" gravity line next to existing 42" gravity line from A14 to A8	\$1,400,000
F-3	Install 130 ft of parallel 18" gravity line next to existing 27" gravity line from C1C to A38	\$80,000
F-4	Remove and upgrade existing 8" gravity line to 2,310 ft of 10" gravity line from A53-52 to A53-33. Remove and upgrade existing 10" gravity line to 460 ft of 12" gravity line from A53-9 to A53-5	\$3,570,000
TOTAL		\$7,570,000

Source: Mt. Olympus Improvement District Impact Fee Facilities Plan

Based on information provided by HAL, these new projects will have capacity to serve 72,462 ERUs.

The Wastewater Collection Master Plan, also prepared by HAL, in Table 8-1 identifies the construction of new projects needed to cure existing deficiencies at a total cost of \$9,300,000. Credits against the gross impact fee must be calculated for these projects to that new development does not pay twice.

CHAPTER 5: PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires the Impact Fee Analysis to estimate the proportionate share of the future and historic cost of existing system improvements that benefit new growth and can be recouped through impact fees. The impact fee for existing assets must be based on the actual costs while the fees for construction of new facilities must be based on reasonable future costs of the system. This chapter will show that the proposed impact fee for system improvements is reasonably related to the impact on the wastewater system from future development activity.

Maximum Legal Wastewater Impact Fee per ERU

Existing Projects with Excess Capacity

The capacity to be consumed over the next ten years is \$1,387,690 for the collection system and \$2,694,203 for the treatment system. With projected growth of 4,799 ERUs over the next 10 years, the cost per ERU is \$289.16 for buy-in to the collection system and \$561.41 for buy-in to the treatment system.

TABLE 10: PROPORTIONATE SHARE ANALYSIS-EXCESS CAPACITY BUY-IN

BUY-IN TO EXISTING EXCESS CAPACITY	
Collection System	
Existing System Project Costs	\$20,953,282
Total Capacity of System	72,462
Growth in ERUs, 2021-2030	4,799
% of Capacity Consumed, 2021-2030	6.6%
Excess Capacity Cost Consumed, 2021-2030	\$1,387,690
Cost per ERU	\$289.16
Treatment Facility - CVWRF	
Existing Treatment Facility Cost	\$171,486,510
% Owned by MOID	23.4%
Amount Owned by MOID	\$40,127,843.34
Total Capacity in ERUs - MOID	71,477
% of Capacity Consumed by New Development Over Next 10 Years	6.7%
Cost Attributable to New Development, 2021-2030	\$2,694,202.61
Growth in ERUs 2021-2030	4,799
Cost per ERU	\$561.41

New Construction

Table 11 summarizes the cost of future system improvements to be constructed within the next 10 years and what portion of these costs are attributable to 10-year growth.

TABLE 11: PROPORTIONATE SHARE ANALYSIS

	Amount
Collection System Improvements	\$7,570,000
Capacity of Improvements	72,462
Cost per ERU	\$104.47

Consultant Fees

The Impact Fees Act allows for fees charged to include the reimbursement of engineering and consultant costs incurred in the preparation of the IFFP and IFA.

TABLE 12: PROPORTIONATE SHARE ANALYSIS – CONSULTANT FEES

Consultant Costs	Amount
HAL	\$25,250
ZPFI	\$9,760
Total Consultant Costs	\$35,010
Growth in ERUs 2021-2030	4,799
Cost per ERU	\$7.30

Impact Fee Fund Balance

A credit needs to be made for unspent funds in the impact fees account that can be used to offset the costs of the future capital improvements. These funds were collected to meet the needs of new growth and development.

TABLE 13: PROPORTIONATE SHARE ANALYSIS – IMPACT FEE FUND BALANCE

Impact Fee Fund Balance	Amount
Impact Fee Fund Balance (Capacity Fees)	\$483,971
Growth in ERUs 2021-2031	4,799
Cost per ERU	(\$100.85)

Summary of Gross Impact Fee

The gross impact fee is the impact calculated before credits before deficiencies are taken into account.

TABLE 14: PROPORTIONATE SHARE ANALYSIS – GROSS FEE

Gross Impact Fee Summary	
Buy-In Collection System	\$289.16
Buy-In Treatment System	\$561.41
New Construction Collection	\$104.47
Consultant Costs	\$7.30
Fund Balance Credit	(\$100.85)
TOTAL	\$861.49

Credits Against Impact Fees

Because there are existing deficiencies of \$9,300,000¹ based on the LOS, a portion of the cost of the new facilities is needed to make up for these existing deficiencies. New development cannot be expected to pay the full impact fees and then also contribute to this existing deficiency in the system through user

¹ Mt. Olympus Improvement District *Impact Fee Facilities Plan*, Table 8-1

rate revenues or other sources. Therefore, credits have been made for the portion of the projects that will be used to cure existing deficiencies. The table below shows these credits and the maximum fee that may be charged each year.

This analysis assumes that costs are spread equally over 20 years.

TABLE 15: CREDIT AMOUNT FOR NEW DEVELOPMENT

Year	ERUs	Pmt per Yr	Pmt per ERU	NPV* of Credits
2021	52,478	\$465,000	\$8.86	\$111.50
2022	53,146	\$465,000	\$8.75	\$107.10
2023	53,740	\$465,000	\$8.65	\$102.63
2024	54,276	\$465,000	\$8.57	\$98.08
2025	54,769	\$465,000	\$8.49	\$93.44
2026	55,295	\$465,000	\$8.41	\$88.69
2027	55,804	\$465,000	\$8.33	\$83.82
2028	56,302	\$465,000	\$8.26	\$78.84
2029	56,791	\$465,000	\$8.19	\$73.74
2030	57,277	\$465,000	\$8.12	\$68.50
2031	57,764	\$465,000	\$8.05	\$63.12
2032	58,255	\$465,000	\$7.98	\$57.60
2033	58,744	\$465,000	\$7.92	\$51.92
2034	59,228	\$465,000	\$7.85	\$46.08
2035	59,706	\$465,000	\$7.79	\$40.07
2036	60,180	\$465,000	\$7.73	\$33.89
2037	60,655	\$465,000	\$7.67	\$27.52
2038	61,130	\$465,000	\$7.61	\$20.95
2039	61,609	\$465,000	\$7.55	\$14.18
2040	62,093	\$465,000	\$7.49	\$7.20

*NPV = net present value discounted at a rate of 4 percent

The average impact fee credit for deficiencies for 2021 through 2025 is \$102.55. Therefore, the maximum impact that can be charged per ERU is calculated by subtracting \$102.55 from the gross fee of \$861.49 to arrive at a **maximum fee of \$758.94 per ERU.**

Non-Standard Demand Adjustments

The District reserves the right under the Impact Fees Act (Utah Code Ann. § 11-36a-402(1)(c, d)) to assess an adjusted fee to respond to unusual circumstances and to ensure that the impact fees are assessed fairly. The impact fee ordinance should include a provision that permits adjustment of the fee for a development based upon studies and data submitted by the developer that indicate a more realistic and accurate impact upon the District's infrastructure.

CERTIFICATION

In accordance with Utah Code Annotated, 11-36a-306(2), Zions Public Finance, Inc., makes the following certification:

Zions Public Finance, Inc. certifies that the attached impact fee analysis:

1. includes only the cost 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. cost 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;
 - 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. offset costs with grants or other alternate sources of payment; and
4. complies in each and every relevant respect with the Impact Fees Act.

ZIONS PUBLIC FINANCE, INC.