

Powder Mountain Water and Sewer Improvement District

Sewer Impact Fee Analysis

Noticing Draft

September 13, 2021

PMWSID SANITARY SEWER IMPACT FEE ANALYSIS

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EXECUTIVE SUMMARY

Powder Mountain Water and Sewer District (the District) recently commissioned Gilson Engineering to prepare the *Sanitary Sewer System Impact Fee Facility Plan* (IFFP). The District has also retained CapEx Planning, LLC, (CapEx) to calculate the District's sewer impact fees in accordance with Utah State Law¹. An impact fee is a one-time charge to new development to reimburse the District for the cost of developing new sewer system capacity that will allow development to occur.

The recommended impact fee structure presented in this analysis has been prepared to satisfy the Impact Fees Act, Utah Code Ann. § 11-36-101 et. Seq., and represents the maximum sanitary sewer impact fees that the District may assess within the Sewer Service Area.

SEWER IMPACT FEE SEWER SERVICE AREA

The proposed impact fee Sewer Service Area for the District includes all area within the District boundaries excluding the Monument and Eden Heights development areas. Unlike water, the Sewer Service Area includes the Sheep Creek development. Areas outside of the Sewer Service Area plus those that will not connect directly to the District sanitary sewer system will need to construct their own facilities for development. The estimated demand at buildout for the Sewer Service Area is 910 ERCs and is anticipated to be reached at around 2058. Other development within the District's boundaries that will not connect to the District's sanitary sewer system are not included in the 910 ERCs. A map of the Sewer Service Area is included in Attachment A.

SEWER LEVEL OF SERVICE

Level of service (LOS) defines the demands that a typical residential user will place on the sanitary sewer system. LOS is defined in terms of an Equivalent Residential Connection (ERC) which represents the average demand of a single-family residence assuming 2.58 persons per connection. The demands of non-residential properties can be expressed as multiples of an ERC based on the gallons per day consumption. The sewer impact fee level of service is equivalent to 258 gpd per ERC.

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. As impact fees may only be used to perpetuate the current level of service, the District will be required to use other revenue sources 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. An impact fee credit has been included in the calculation to account for projects which will cure existing deficiencies/increase the level of service.

IMPACT FEE ELIGIBLE COSTS

The District will need to build approximately \$28.8M (FV) in the future improvements to keep the system operating as required. Of this amount, \$13.6M are growth-related system improvements that will allow new growth to connect to a safe and reliable culinary sewer system. Two outstanding bonds plus possible additional bonds support the construction of the improvements described in this document and in the IFFP. A portion of the bond costs will

¹ [Utah Code](#)

be included in the impact fees as impact fee-eligible costs.

The District will be required to use other revenue sources to fund projects identified in the IFFP that constitute repair and replacement, cure any existing deficiencies, or maintain the existing level of service for current users. These revenues are monthly sewer user rates, sewer reservation fees, and other non-operational revenues. Some projects may be required to be funded by developers as exactions in addition to the impact fees. These projects are described later in this document and are very specific to planning for an applicable development’s area. These projects are currently excluded from the impact fees.

RECOMMENDED SANITARY SEWER IMPACT FEE PER ERC

Figure ES.1 shows the impact fee calculations for each of the sanitary sewer components. A more detailed calculation is shown in the appendices.

FIGURE ES.1 : MAXIMUM LEGAL SANITARY SEWER IMPACT FEE

Component	Total Cost to Component	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Total Capacity (ERC)	Impact Fee per ERC
COLLECTION	\$ 14,415,639	65%	\$ 9,411,223	612	\$ 15,378
TREATMENT - LAGOONS/ PACKAGE TREATMENT PLANT	12,564,608	33%	4,149,646	399	10,400
TREATMENT - LUWDS	1,810,014	0%	-	82	-
PROFESSIONAL SERVICES/ CREDITS	54,031	100%	54,031	612	88
Collection Subtotal	\$ 28,844,293		\$ 13,614,900		\$ 25,866.22

The District reserves the right under the Impact Fees Act (Utah Code 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 resolution must include a provision that permits adjustment of the impact 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. The impact fee formula described in Figure ES.2 for a non-standard user is based upon the user’s anticipated daily flow multiplied by the equivalent ERCs.

FIGURE ES.2: CALCULATION OF SEWEE NON-STANDARD IMPACT FEE

Non-Standard Users Impact Fee Formula
Step 1: Daily demand divided by 400 gallons = Equivalent ERCs
Step 2: Multiply Equivalent ERCs by Impact Fee per ERC of \$25,777.98

CHAPTER 1: OVERVIEW OF THE SANITARY SEWER IMPACT FEES

PURPOSE OF AN IMPACT FEE

An impact fee is a payment of money imposed upon new development activity as a condition of development approval to mitigate the impact of new development on public infrastructure. An impact fee recovers the District's capital costs of excess sanitary sewer capacity reserved for new growth and the costs of future projects that add new capacity for growth. The impact fee is assessed directly to a new residential or non-residential development as a condition of receiving a building permit. Impact fees prevent existing users from paying growth-related costs through user rates. Impact fees also provide a mechanism for developers to construct system improvements at their own cost but receive repayment with other developers' impact fees who benefit from the improvements through reimbursement agreements. The Utah Impact Fees Act allows only certain costs to be included in an impact fee to fairly assess the true cost of system expansion to new growth. Eligible costs include future and historic projects that 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 were built by developers to serve a specific development may not be included in the impact fee. The portion of any system improvement that cures a deficiency or enhances the LOS may not be included.

This impact fee analysis provides documentation that there is a fair comparison, or rational nexus, between the impact fee charged to new development and the impact that growth has on the system.

IMPACT FEE ELIGIBLE COSTS

Impact fees are generally calculated based upon the following costs:

- New sanitary sewer capital infrastructure that will serve new development;
- Professional and planning expenses related to the construction of system improvements that will serve new development; and
- Historic costs of existing improvements that are system improvements, have capacity to serve new development, and have financial records available to determine the original cost of the asset.

Impact fees cannot include the following costs:

- Projects that cure system deficiencies for existing users;
- The portion of a project that increases the level of service 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; and
- Costs of reconstruction of facilities that do not have capacity to serve new growth.

EQUIVALENT RESIDENTIAL CONNECTION (ERC)

Capacity is measured in terms of an Equivalent Residential Connection, or ERC, which represent the demand that a typical single-family residence would place on the system. Commercial and non-residential developments' demands are estimated based upon ERCs estimated by the District. The impact fee per ERC is multiplied by the estimated number of ERCs to determine a total impact fee for a non-residential or multi-unit residential property. The capacity required for each ERC is found in Chapter 2 in this document.

PROJECT COSTS AND IMPACT FEE CALCULATIONS

The proposed impact fees are comprised of the costs of existing and future sewer capital projects that benefit additional development within the Service Area, and professional expenses pertaining to the regular update of the IFFP and impact fee analysis. No bonds are associated with the sewer system and therefore no bond interest costs are included in the sewer impact fee. A fair impact fee is calculated by dividing the cost of existing and future facilities by the number of new ERCs that will benefit from the available, unused capacity.

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

FUTURE SEWER DEMAND WITHIN THE SERVICE AREA

Currently there are 222 ERCs that are connected to the sewer system. An additional 331 ERCs are reserved and have not yet paid impact fees and an additional 357 of ERCs will be future ERUs that will add through buildout. The total buildout count of ERCs for the service area is estimated to be 910.

FIGURE 2.1: PROJECTED GROWTH IN SANITARY SEWER DEMAND

Impact Fee SA Culinary Water ERCs	
2020 ERCs - Existing	222
Reserved ERCs - Will Pay Impact Fee	331
Future ERCs - Unreserved Future ERCs	357
Total Service Area ERUs	910

LEVEL OF SERVICE ANALYSIS

SEWER LEVEL OF SERVICE

The IFFP states in Section 2 that “according to Utah State Administrative Rule R317-3, wastewater Lagoons are to be sized to accommodate the full PCF with a detention time of 120 days (at minimum evaporation time (i.e. winter). Based on the projected ERC schedule required sewer lagoon volume will exceed existing capacity (19.24 M-gal) by 2044.” The per capita flow is set at 100 gpd according to sizing rules and is applied to 2.58 persons per household to arrive at 258 gpd per ERC for sewer.

CHAPTER 3: SANITARY SEWER CAPITAL PROJECTS

The Impact Fees Act allows for the inclusion of various cost components in the calculation of the impact fees. These cost components are the construction costs of growth-driven improvements and appropriate professional services inflated from current dollars to construction year costs. Impact fees can only fund system improvements which are defined as facilities or lines that contribute to the entire system's capacity (system improvement) rather than just to a small, localized area (project improvement).

EXISTING ASSETS

Only future capital project costs have been included in the impact fee calculation as none of the existing infrastructure cost is considered impact fee qualifying for the following reasons:

- **Production:** The District is currently utilizing the Hidden Lakes Well; however, Hidden Lakes has been built by SPM and the District is essentially borrowing capacity in the well until the Cobabe Well project is complete.

FUTURE SANITARY SEWER CAPITAL PROJECTS

In the next ten years, the District anticipates building various collection lines and treatment projects which will add capacity to accommodate new growth. All construction estimates have been prepared in 2021 dollars. As shown in Figure 3.1, project costs were sorted by whether they will meet 10-year impact fee qualifying demand, beyond ten-year demand, or whether any portion is non-qualifying (which included portions of the project that will be utilized by existing users). The costs of historic capital projects are defined in the corresponding IFFP prepared by Gilson Engineering.

FIGURE 3.1: FUTURE SANITARY SEWER CAPITAL PROJECT COSTS

Project	2021 Construction Cost	Construction Cost with Inflation	10 Year Impact Fee Qualifying Cost	Beyond 10 Year		% to Impact Fees
				Impact Fee Qualifying Cost	Non Impact Fee Qualifying	
COLLECTION	\$ 12,725,300	\$ 14,415,639	\$ 9,411,223	\$ -	\$ 5,004,416	65%
TREATMENT - LAGOONS/ PACKAGE TREATMENT PLANT	10,795,254	12,564,608	4,149,646	6,180,537	2,234,425	33%
TREATMENT - LUWDS	1,477,747	1,810,014	-	1,810,014	-	0%
OTHER	45,000	54,031	54,031	-	-	100%
TOTALS	\$ 25,043,300	\$ 28,844,293	\$ 13,614,900	\$ 7,990,551	\$ 7,238,841	

IMPACT FEE ANALYSIS UPDATES

As development occurs and capital project planning is periodically revised, the future lists of capital projects and their costs may be different than the information utilized in this analysis. For this reason, it is recommended that the District will perform updates to the IFFP and impact fee analysis periodically. It is difficult to predict the exact timing so a small portion may be spent on impact fee issues over the next ten years totaling \$58K or equivalent to \$17K per update if an update were performed every three years. The cost of preparing the current analyses has been included in the impact fee calculations.

CHAPTER 4: 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 proportionate share of all future and existing projects is shown in Figure 4.1.

MANNER OF FUNDING

The proportionate share analysis considers the manner of funding utilized for existing public facilities. Historically the District has funded existing infrastructure with revenue sources including sanitary sewer user rates and miscellaneous fees, sanitary sewer impact fees, and bond proceeds.

In the future, the District will rely solely upon user rate revenues to fund the operations and maintenance of the sewer system. Some rate revenues may be used to pay impact fee qualifying expenses in years when impact fee revenues are insufficient to cover the qualifying cost. However, if rate revenues are used to pay what should be funded through impact fees (due to a shortfall in impact fee revenues) then the sanitary sewer operating fund will be repaid with impact fees once the impact fee collections exceed costs.

Grant funding is not secured at this time; however, if any grants are received, future impact fees will be discounted according to the size of grant and what impact fee qualifying projects are funded by such grants.

SEWER RESERVATION FEES

The District charges a reservation fee to connections that have been approved but not fully connected. These fees are collected to recover the costs of maintaining the system so that the system is in good condition and ready to serve once the connection is made.

DEVELOPER CREDITS/FUNDING

If a project included in the IFFP (or a project that will offset the demand for a system improvement that is listed in the IFFP) is constructed by a developer, then that developer is entitled to a credit against impact fees owed. (Utah Impact Fees Act, 11-36a-304(2)(f)).

TIME-PRICE DIFFERENTIAL

Utah Code 11-36a-301(2)(h) allows for the inclusion of a time-price differential to create fairness for costs of projects paid at different times. To account for the time-price differential any projects constructed after 2021 include 3% annual inflation.

MAXIMUM LEGAL SANITARY SEWER IMPACT FEE PER ERC

The maximum impact fee is based on the combination of future construction costs and allowable professional fees and divided by the total and available capacities. The result is a very precise impact fee that complies with the Impact Fees Act. As shown in Figure 4.1, the maximum legal impact fee per ERC of sanitary sewer demand is calculated to be \$25,866.22.

FIGURE 4.1: SANITARY SEWER PROPORTIONATE SHARE

Component	Total Cost to Component	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Total Capacity (ERC)	Impact Fee per ERC
COLLECTION	\$ 14,415,639	65%	\$ 9,411,223	612	\$ 15,378
TREATMENT - LAGOONS/ PACKAGE TREATMENT PLANT	12,564,608	33%	4,149,646	399	10,400
TREATMENT - LUWDS	1,810,014	0%	-	82	-
PROFESSIONAL SERVICES/ CREDITS	54,031	100%	54,031	612	88
Totals	\$ 28,844,293		\$ 13,614,900		\$ 25,866.22

CHAPTER 5: SANITARY SEWER IMPACT FEE CALCULATION

DETERMINATION OF RESIDENTIAL AND NON-RESIDENTIAL IMPACT FEES

Figure 5.1 shows the maximum legal impact fee that the District can assess per ERC. Residences are assessed a sanitary sewer impact fee equivalent to one ERC which assumes the typical demand of 258 gallons per day. Non-residential connections will be assessed a sanitary sewer impact fee according to their number of ERCs based on gallons per day demand.

FIGURE 5.1: DISTRICT-WIDE SANITARY SEWER IMPACT FEE

Component	Total Cost to Component	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Total Capacity (ERC)	Impact Fee per ERC
COLLECTION	\$ 14,415,639	65%	\$ 9,411,223	612	\$ 15,378
TREATMENT - LAGOONS/ PACKAGE TREATMENT PLANT	12,564,608	33%	4,149,646	399	10,400
TREATMENT - LUWDS	1,810,014	0%	-	82	-
PROFESSIONAL SERVICES/ CREDITS	54,031	100%	54,031	612	88
Totals	\$ 28,844,293		\$ 13,614,900		\$ 25,866.22

NON-STANDARD DEMAND ADJUSTMENTS

The District reserves the right under the Impact Fees Act (Utah Code 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 resolution must 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. The impact fee formulas shown below in Figure 5.2 for a non-standard user is based upon the user’s anticipated annual indoor water demand divided by 258 gallons per day to arrive at ERCs which is then multiplied by \$25,866.22.

FIGURE 5.2: CALCULATION OF NON-STANDARD IMPACT FEE

Non-Standard Users Impact Fee Formula
Step 1: Daily demand divided by 258 gallons = Equivalent ERCs
Step 2: Multiply Equivalent ERCs by Impact Fee per ERC of \$25,866.22

APPENDICES: CERTIFICATION AND IMPACT FEE CALCULATIONS

In accordance with Utah Code Annotated, 11-36a-306(2), CapEx Planning, LLC, makes the following certification:
CapEx Planning, LLC 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.

CapEx Planning, LLC makes this certification with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plan (IFFP) made in the CFP or in the impact fee analysis are followed in their entirety by District staff and Board in accordance to the specific policies established for the Sewer Service Area.
2. If all or a portion of the IFFP or impact fee analysis are modified or amended, this certification is no longer valid.
3. All information provided to CapEx Planning LLC., its contractors or suppliers is assumed to be correct, complete and accurate. This includes information provided by Powder Mountain Water and Sewer Improvement District and outside sources.

Dated: 9/13/2021
CapEx Planning, LLC

Appendix A: ERC Projections for Sanitary Sewer

CURRENT AND FUTURE ERCs FOR THE SANITARY SEWER SERVICE AREA

	A	B	C	D	E	F	G	H	I	J	K
1	TABLE A.1: GROWTH PROJECTIONS										
2					490	800					
3	Year	Population	Growth Rate	Total District ERCs	Impact Fee Service Area A ERCs	Impact Fee Service Area B ERCs	Impact Fee Service Area A gpd	Impact Fee Service DFB gpd	Req'd Lagoon	Peak Day Demand	Annual Demand (AF)
4	2020	573		222	468	179	229,104	143,190	6.87		
5	2021	599	5%	232	489	187	239,424	149,640	7.18		
6	2022	624	4%	242	510	195	249,744	156,090	7.49		
7	2023	650	4%	252	531	203	260,064	162,540	7.80		
8	2024	676	4%	262	552	211	270,384	168,990	8.11		
9	2025	715	6%	277	583	223	285,864	178,665	8.58		
10	2026	753	5%	292	615	235	301,344	188,340	9.04		
11	2027	792	5%	307	647	248	316,824	198,015	9.50		
12	2028	831	5%	322	678	260	332,304	207,690	9.97		
13	2029	869	5%	337	710	272	347,784	217,365	10.43		
14	2030	908	4%	352	741	284	363,264	227,040	10.90		
15	2031	960	6%	372	783	300	383,904	239,940	11.52		
16	2032	1,011	5%	392	826	316	404,544	252,840	12.14		
17	2033	1,063	5%	412	868	332	425,184	265,740	12.76		
18	2034	1,115	5%	432	910	348	445,824	278,640	13.37		
19	2035	1,166	5%	452	952	364	466,464	291,540	13.99		
20	2036	1,218	4%	472	994	381	487,104	304,440	14.61		
21	2037	1,269	4%	492	1,036	397	507,744	317,340	15.23		
22	2038	1,321	4%	512	1,078	413	528,384	330,240	15.85		
23	2039	1,373	4%	532	1,120	429	549,024	343,140	16.47		
24	2040	1,424	4%	552	1,163	445	569,664	356,040	17.09		
25	2041	1,476	4%	572	1,205	461	590,304	368,940	17.71		
26	2042	1,527	3%	592	1,247	477	610,944	381,840	18.33		
27	2043	1,579	3%	612	1,289	493	631,584	394,740	18.95		
28	2044	1,631	3%	632	1,331	510	652,224	407,640	19.57		
29	2045	1,682	3%	652	1,373	526	672,864	420,540	20.19		
30	2046	1,734	3%	672	1,415	542	693,504	433,440	20.81		
31	2047	1,785	3%	692	1,457	558	714,144	446,340	21.42		
32	2048	1,837	3%	712	1,500	574	734,784	459,240	22.04		
33	2049	1,889	3%	732	1,542	590	755,424	472,140	22.66		
34	2050	1,940	3%	752	1,584	606	776,064	485,040	23.28		
35	2051	1,992	3%	772	1,626	622	796,704	497,940	23.90		
36	2052	2,043	3%	792	1,668	639	817,344	510,840	24.52		
37	2053	2,095	3%	812	1,710	655	837,984	523,740	25.14		
38	2054	2,147	2%	832	1,752	671	858,624	536,640	25.76		
39	2055	2,198	2%	852	1,794	687	879,264	549,540	26.38		
40	2056	2,250	2%	872	1,837	703	899,904	562,440	27.00		
41	2057	2,301	2%	892	1,879	719	920,544	575,440	27.62		
42	2058	2,348	2%	910	1,917	734	939,120	586,950	28.17		
43	Buildout										

Source: Section 5 - Appendix B - PMWSID ERC Schedule, "Sewer Impact Fee Facility Plan" prepared by Gilson Engineering

TABLE A.2: CULINARY WATER ERCs

Impact Fee SA Culinary Water ERCs	
2020 ERCs - Existing	222
Reserved ERCs - Will Pay Impact Fee	331
Future ERCs - Unreserved Future ERCs	357
Total Service Area ERUs	910

A B C D E F G H I J K

Appendix C: Sanitary Sewer Ten Year Capital Projects

1 A B C D E F G H I J K L M N O P Q 1
 2 TABLE C.1: SEWER CAPITAL PROJECTS Inflation Rate* 1.00% 2

3	Project	Development	Capacity	Funding	% Impact Fee Qualifying 10 Year	% Impact Fee Qualifying Beyond 10 Year	% Non-Impact Fee Qualifying	Year to be Constructed/ Start Dates	Year to be Constructed/ End Dates	2021 Construction Cost	Construction Cost with Inflation	10 Year Impact Fee Qualifying Cost	Beyond 10 Year Impact Fee Qualifying Cost	Non Impact Fee Qualifying
4	Collection													
5	Lefty's Main Trunk Line (Eliminating Existing LS.1 to UT-158)	District	933	PMW/SID	91%	0%	9%	2023	2024	\$ 4,232,656	\$ 4,557,781	\$ 4,147,581	\$ -	\$ 410,200
6	Secondary Trunk Lines (Eliminating Existing LS.2 & LS.3)	District	933	PMW/SID	82%	0%	18%	2023	2024	463,137	498,712	408,944	-	89,768
7	Secondary Trunk Lines (Eliminating Existing LS.4 & LS.5)	District	933	PMW/SID	82%	0%	18%	2023	2024	971,074	1,045,665	857,446	-	188,220
8	Secondary Trunk Lines (Summit Other to Lefty's Main)	District	933	PMW/SID	100%	0%	0%	2032	2033	1,155,383	1,623,309	1,623,309	-	-
9	Existing Metering Building Improvements	District	933	PMW/SID	73%	0%	27%	2022	2023	869,950	909,489	663,927	-	245,562
10	Sheep Creek Improvements	District	933	PMW/SID	47%	0%	53%	2022	2030	2,498,090	2,904,412	1,369,233	-	1,535,189
11	Snowflake Improvements	District	933	PMW/SID	38%	0%	62%	2022	2025	832,485	896,823	340,793	-	556,030
12	Other Improvements	District	933	PMW/SID	0%	0%	100%	2022	2030	1,702,525	1,979,446	-	-	1,979,446
13														
14	Collection Totals									\$ 12,725,300	\$ 14,415,639	\$ 9,411,223	\$ -	\$ 5,004,416
15	TREATMENT - LAGOONS/ PACKAGE TREATMENT PLANT													
16	Main Package Treatment Plant	District	294	PMW/SID	0%	100%	0%	2022	2037	5,045,964	6,180,537	-	6,180,537	-
17	Sewer Lagoons Improvements	District	621	PMW/SID	6%	0%	3%	2022	2027	5,749,290	6,384,071	4,149,646	-	2,234,425
18	Treatment Totals									\$ 10,795,254	\$ 12,564,608	\$ 4,149,646	\$ 6,180,537	\$ 2,234,425
19														
20														
21	TREATMENT - LUWDS													
22	Large Underground Wastewater Disposal Systems	District/Monument	43	PMW/SID	0%	100%	0%	2032	2037	1,477,747	1,810,014	-	1,810,014	-
23														
24	Treatment Totals									\$ 1,477,747	\$ 1,810,014	\$ -	\$ 1,810,014	\$ -
25	Other	Other												
26	Impact Fee Updates				100%	0%	0%	2022	2032	\$ 45,000	\$ 54,031	\$ 54,031	\$ -	\$ -
27														
28	Other Totals									\$ 45,000	\$ 54,031	\$ 54,031	\$ -	\$ -
29														
30	Total Sanitary Sewer Projects									\$ 25,043,300	\$ 28,844,293	\$ 13,614,900	\$ 7,990,551	\$ 7,238,841

31 *Based on 20 years average cost of inflation using ENR and net of interest earnings

32	Project	2021 Construction Cost	Construction Cost with Inflation	10 Year Impact Fee Qualifying Cost	Beyond 10 Year Impact Fee Qualifying Cost	Non Impact Fee Qualifying	% to Impact Fees
33	COLLECTION	\$ 12,725,300	\$ 14,415,639	\$ 9,411,223	\$ -	\$ 5,004,416	69%
34	TREATMENT - LAGOONS/ PACKAGE TREATMENT PLANT	10,795,254	12,564,608	4,149,646	6,180,537	2,234,425	33%
35	TREATMENT - LUWDS	1,477,747	1,810,014	-	1,810,014	-	0%
36	OTHER	45,000	54,031	54,031	-	-	100%
37	TOTALS	\$ 25,043,300	\$ 28,844,293	\$ 13,614,900	\$ 7,990,551	\$ 7,238,841	

40	Project	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
41	Collection																
42	Lefty's Main Trunk Line (Eliminating Existing LS.1 to UT-158)	\$ -	\$ -	\$ 2,245,212	\$ 2,312,569	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43	Secondary Trunk Lines (Eliminating Existing LS.2 & LS.3)	-	-	245,674	253,045	-	-	-	-	-	-	-	-	-	-	-	-
44	Secondary Trunk Lines (Eliminating Existing LS.4 & LS.5)	-	-	515,106	530,559	-	-	-	-	-	-	-	-	-	-	-	-
45	Secondary Trunk Lines (Summit Other to Lefty's Main)	-	-	-	-	-	-	-	-	-	-	799,660	823,650	-	-	-	-
46	Existing Metering Building Improvements	-	448,024	461,465	-	-	-	-	-	-	-	-	-	-	-	-	-
47	Sheep Creek Improvements	-	285,893	294,469	303,303	312,402	321,775	331,428	341,371	351,612	362,160	-	-	-	-	-	-
48	Snowflake Improvements	-	214,365	220,796	227,420	234,242	-	-	-	-	-	-	-	-	-	-	-
49	Other Improvements	-	194,845	200,690	206,711	212,912	219,299	225,878	232,655	239,634	246,823	-	-	-	-	-	-
50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	Subtotal	\$ -	\$ 1,143,126	\$ 4,183,410	\$ 3,833,603	\$ 759,557	\$ 541,074	\$ 557,306	\$ 574,025	\$ 591,246	\$ 608,983	\$ -	\$ 799,660	\$ 823,650	\$ -	\$ -	\$ -
52	TREATMENT - LAGOONS/ PACKAGE TREATMENT PLANT																
53	Main Package Treatment Plant	-	-	-	-	-	-	-	-	-	-	-	1,164,132	1,199,056	1,235,028	1,272,079	1,310,241
54	Sewer Lagoons Improvements	-	986,961	1,016,570	1,047,067	1,078,479	1,110,834	1,144,159	-	-	-	-	-	-	-	-	-
55		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	Subtotal	\$ -	\$ 986,961	\$ 1,016,570	\$ 1,047,067	\$ 1,078,479	\$ 1,110,834	\$ 1,144,159	\$ -	\$ -	\$ -	\$ -	\$ 1,164,132	\$ 1,199,056	\$ 1,235,028	\$ 1,272,079	\$ 1,310,241
57	TREATMENT - LUWDS																
58	Large Underground Wastewater Disposal Systems	-	-	-	-	-	-	-	-	-	-	-	340,924	351,152	361,687	372,537	383,714
59		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 340,924	\$ 351,152	\$ 361,687	\$ 372,537	\$ 383,714
61	Other	Other															
62	Impact Fee Updates	-	4,214	4,340	4,470	4,604	4,742	4,885	5,031	5,182	5,338	5,498	5,663	-	-	-	-
63		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	Subtotal	\$ -	\$ 4,214	\$ 4,340	\$ 4,470	\$ 4,604	\$ 4,742	\$ 4,885	\$ 5,031	\$ 5,182	\$ 5,338	\$ 5,498	\$ 5,663	\$ -	\$ -	\$ -	\$ -
65	Total Capital Projects	\$ -	\$ 2,134,301	\$ 5,204,320	\$ 4,885,141	\$ 1,842,640	\$ 1,656,650	\$ 1,706,350	\$ 579,056	\$ 596,428	\$ 614,321	\$ 5,498	\$ 2,310,379	\$ 2,373,858	\$ 1,596,715	\$ 1,644,616	\$ 1,693,955

66	Project	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
67	Collection																
68	10 Year Qualifying	\$ -	\$ 543,294	\$ 3,226,574	\$ 2,976,395	\$ 236,288	\$ 151,694	\$ 156,245	\$ 160,932	\$ 165,760	\$ 170,733	\$ -	\$ 799,660	\$ 823,650	\$ -	\$ -	\$ -
69	Beyond 10 Year Qualifying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	Non-Qualifying	-	599,832	956,836	857,208	523,269	389,380	401,061	413,093	425,486	438,251	-	-	-	-	-	-
71	Subtotal	\$ -	\$ 1,143,126	\$ 4,183,410	\$ 3,833,603	\$ 759,557	\$ 541,074	\$ 557,306	\$ 574,025	\$ 591,246	\$ 608,983	\$ -	\$ 799,660	\$ 823,650	\$ -	\$ -	\$ -
72	TREATMENT - LAGOONS/ PACKAGE TREATMENT PLANT																
73	10 Year Qualifying	\$ -	\$ 641,525	\$ 660,771	\$ 680,594	\$ 701,012	\$ 722,042	\$ 743,703	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
74	Beyond 10 Year Qualifying	-	-	-	-	-	-	-	-	-	-	-	1,164,132	1,199,056	1,235,028	1,272,079	1,310,241
75	Non-Qualifying	-	345,437	355,800	366,474	377,468	388,792	400,466	-	-	-	-	-	-	-	-	-
76	Subtotal	\$ -	\$ 986,961	\$ 1,016,570	\$ 1,047,067	\$ 1,078,479	\$ 1,110,834	\$ 1,144,159	\$ -	\$ -	\$ -	\$ -	\$ 1,164,132	\$ 1,199,056	\$ 1,235,028	\$ 1,272,079	\$ 1,310,241
77	TREATMENT - LUWDS																
78	10 Year Qualifying	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
79	Beyond 10 Year Qualifying	-	-	-	-	-	-	-	-	-	-	-	340,924	351,152	361,687	372,537	383,714
80	Non-Qualifying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 340,924	\$ 351,152	\$ 361,687	\$ 372,537	\$ 383,714
82	Impact Fee Updates																
83	10 Year Qualifying	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
84	Beyond 10 Year Qualifying	-	4,214	4,340	4,470	4,604	4,742	4,885	5,031	5,182	5,338	5,498	5,663	-	-	-	-
85	Non-Qualifying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	Subtotal	\$ -	\$ 4,214	\$ 4,340	\$ 4,470	\$ 4,604	\$ 4,742	\$ 4,885	\$ 5,031	\$ 5,182	\$ 5,338	\$ 5,498	\$ 5,663	\$ -	\$ -	\$ -	\$ -
87	Qualifying Total	\$ -	\$ 1,189,033	\$ 3,891,694	\$ 3,663,459	\$ 941,904	\$ 878,478	\$ 904,832	\$ 165,962	\$ 170,942	\$ 176,070	\$ 5,498	\$ 2,310,379	\$ 2,373,858	\$ 1,596,715	\$ 1,644,616	\$ 1,693,955
88																	

APPENDIX D: SANITARY SEWER CALCULATION OF THE IMPACT FEE PER ERC

TABLE D.1: IMPACT FEE CALCULATION

	A	B	C	D	E	F	
1	Component	Total Cost to Component	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Total Capacity (ERC)	Impact Fee per ERC	1
2	COLLECTION						2
3	Future 10 Year Capital Projects	\$ 14,415,639	65.28%	\$ 9,411,223	612	\$ 15,378	3
4	Future Collection Related Debt to be Issued - INTEREST ONLY	-	65.28%	-	612	-	4
5	Existing Collection	-	0.00%	-	612	-	5
6	Existing Collection Related Debt - INTEREST ONLY	-	0.00%	-	612	-	6
7	Collection Subtotal	\$ 14,415,639		\$ 9,411,223		\$ 15,377.81	7
8							8
9	TREATMENT - LAGOONS/ PACKAGE TREATMENT PLANT						9
10	Future 10 Year Capital Projects	\$ 12,564,608	33.03%	\$ 4,149,646	399	\$ 10,400	10
11	Future Treatment Related Debt to be Issued - INTEREST ONLY	-	33.03%	-	399	-	11
12	Existing Treatment Projects	-	0.00%	-	399	-	12
13	Existing Treatment Related Debt - OUTSTANDING INTEREST	-	0.00%	-	399	-	13
14							14
15	Treatment Subtotal	\$ 12,564,608		\$ 4,149,646		\$ 10,400.12	15
16							16
17	TREATMENT - LUWDS						17
18	Future 10 Year Capital Projects	\$ 1,810,014	0.00%	\$ -	82	\$ -	18
19	Future Treatment Related Debt to be Issued - INTEREST ONLY	-	0.00%	-	82	-	19
20	Existing Treatment Projects	-	0.00%	-	82	-	20
21	Existing Treatment Related Debt - OUTSTANDING INTEREST	-	0.00%	-	82	-	21
22							22
23	Treatment Subtotal	\$ 1,810,014		\$ -		\$ -	23
24							24
25	PROFESSIONAL SERVICES/ CREDITS						25
26	Credit for Projects Benefitting Existing Users				612		26
27	Professional Services Expense	54,031	100%	54,031	612	88	27
28	Professional Services/Credits Subtotal	54,031		54,031		88.29	28
29							29
30	Total Impact Fee Per ERC	\$ 28,844,293		\$ 13,614,900		\$ 25,866.22	30
31							31

A B C D E F

Appendix E: Maximum Sanitary Sewer Impact Fees

	A	B	C	D	
1	TABLE E.1: Sanitary Sewer Impact Fee				1
2	Units of Measure		Sewer Impact Fee		2
3	District Fee per ERU		\$ 25,866.22		3
4	Monument/ Eden Heights		Developer Funded		4
5	LUWDS Fee per ERU		Developer Funded		5
6					6
7					7
8	TABLE E.2: NON-STANDARD IMPACT FEE CALCULATION				8
9	Non-Standard Users Impact Fee Formula				9
10	Step 1: Daily demand divided by 258 gallons = Equivalent ERCs				10
11	Step 2: Multiply Equivalent ERCs by Impact Fee per ERC of \$25,866.22				11
12					12
	A	B	C	D	