



TECHNICAL MEMORANDUM

TO: Riley Astill
COPIES: File
FROM: Nathan Davis, P.E.
DATE: May 26, 2023
SUBJECT: Impact Fees Buy In Amounts
JOB NO.: 295-22-02

SECTION 1 INTRODUCTION AND BACKGROUND

Kearns Improvement District (KID or District), with the assistance of Bowen Collins & Associates (BC&A), completed an update to their Capital Facilities Plan (CFP), Impact Fee Facilities Plan (IFFP), and Impact Fee Analysis (IFA) for both the water and sewer system in October 2022. As part of this project, new impact fees were established and put into place effective January 1, 2023.

Pursuant to the requirements of an IFFP and IFA as outlined in Title 11, Chapter 36a of the Utah Code (the Impact Fees Act), the impact fee includes funds that are intended to buy in to the excess capacity of the existing system. The purpose of this memo is to summarize the total buy in amount for the water system impact fee and the sewer system impact fee.

SECTION 2 WATER IMPACT FEE BUY IN

Table 5 of the Water IFA details the pieces that comprise the total impact fee of \$3,905.63. To determine the buy in portion of this fee the amounts related to existing facilities are totaled. This is detailed in Table 1.

Table 1
Water Impact Fee Buy In Summary

Existing System Components	Cost Per ERC
Existing Transmission Facilities	\$822.46
Existing Transmission Facility Interest Costs Outstanding	\$270.69
Existing Storage Facilities	\$866.11
Existing Storage Facility Interest Costs Outstanding	\$153.78
Maintenance & Construction Shops	\$112.48
New Office Building	\$90.26
Existing System Buy In Total	\$2,315.77

The existing system components of the water impact fee add up to \$2,315.77, which is 59.4% of the \$3,906.63 base water impact fee. If the District has debt that was incurred to pay for capital improvement projects that affected the existing system capacity and the repayment of such debt is being funded by user fees, then the remaining payments would be deducted from this buy in amount. However, the current water impact fee does not include a credit for existing system improvements as shown in Table 6 of the Water IFA.

The water impact fee buy in amount per ERC is summarized in Table 2. For other meter sizes, the buy in amount can be calculated using the buy in percentage also shown in the table.

**Table 2
Water Impact Fee Summary per ERC**

Year	Base Impact Fee	Total Overall Fee	Existing System Buy In	Existing System Buy In % of Total Overall Fee
2023	\$3,905.63	\$3,804.14	\$2,315.77	60.9%
2024	\$3,905.63	\$3,812.41	\$2,315.77	60.7%
2025	\$3,905.63	\$3,820.63	\$2,315.77	60.6%
2026	\$3,905.63	\$3,828.44	\$2,315.77	60.5%
2027	\$3,905.63	\$3,835.88	\$2,315.77	60.4%
2028	\$3,905.63	\$3,842.97	\$2,315.77	60.3%
2029	\$3,905.63	\$3,849.74	\$2,315.77	60.2%
2030	\$3,905.63	\$3,856.20	\$2,315.77	60.1%
2031	\$3,905.63	\$3,862.37	\$2,315.77	60.0%

SECTION 3 SEWER IMPACT FEE BUY-IN

Table 5 of the Sewer IFA details the pieces that comprise the total impact fee of \$4,592.99. To determine the buy in portion of this fee the amounts related to existing facilities are totaled. This is detailed in Table 3.

**Table 3
Sewer Impact Fee Buy In Summary**

Existing System Components	Cost Per ERC
Existing Collection Facilities	\$959.28
Existing Collection Facility Interest Costs	\$225.43
Existing Treatment Facilities	\$510.79
Existing Treatment Facility Interest Costs	\$0.00
Administrative & Shop Buildings	\$128.44
Existing System Buy In Total	\$1,823.94



**WATER
IMPACT FEE
ANALYSIS**



WATER IMPACT FEE ANALYSIS

October 2022

Prepared for:



Prepared by:



**Table 4
Impact Fee Eligible Capital Projects**

Project¹	Description	District Construction/Purchase Cost²	Percent Attributable to 10-Year Growth	Cost Attributable to 10-Year Growth²
4A	Easement purchase for future Project 4B (628 LF 10-ft wide adjacent to ROW)	\$114,000	14.0%	\$15,983
27	Replace Existing 12" with 18", Zone A Tanks to 5600 W 5400 S (5,000 ft)	\$2,369,000	1.1%	\$26,770
6	6200 S 5211 W Booster Pump Station (additional 8,100 gpm ~ 1,500 hp)	\$5,650,000	29.7%	\$1,677,485
8	Zone D 5 MG Storage	\$6,993,000	17.2%	\$1,204,894
12	New 12" Waterline looped from Zone D Pump station @ 6000 S up to 5800 S & around to 6800 W & 6200 S (5,460 ft)	\$1,233,000	43.6%	\$538,081
28	New Parallel 20", 6000 S U111 to 6200 S U111 (1,550 ft)	\$732,000	84.7%	\$619,725
29	New 18", 6465 S U111 to 6600 S U111 (1,000 ft)	\$598,000	84.7%	\$506,278
30	New 12" Waterline, 6600 S U111 to 7000 S U111 (2700 ft)	\$54,000	43.6%	\$23,566
31	New 12" Waterline, 7000 S U111 to 7000 S MVC (1,920 ft)	\$40,000	43.6%	\$17,456
35	SCADA Upgrade Program	\$937,000	14.0%	\$131,367
	Total	\$18,720,000		\$4,761,605

¹ Project number represents numbering used in IFFP found in the water IFFP.

² Costs are adjusted for inflation (3%)

All cost estimates contained in this IFA have been taken directly from the IFFP. The basis of these estimates are documented in the IFFP and District Capital Facilities Plan.



SEWER IMPACT FEE ANALYSIS



SEWER IMPACT FEE ANALYSIS

October 2022

Prepared for:



Prepared by:



In this IFA, public facility costs already incurred by the District are included in the impact fee only to the extent that new growth will be served by the previously constructed improvements.

Reimbursement Agreements

There are no currently active reimbursement agreements that will affect impact fees 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 4. Included in the table are the costs of each required project and the portion of costs associated with new development.

Table 4
Impact Fee Eligible Capital Projects

Project ¹	Description	District Construction/ Purchase Cost ²	Percent Attributable to 10-Year Growth	Cost Attributable to 10-Year Growth ²
5	Loder Dr, from 6200 S north to 6175 S. East on 6175 S to Longmore Dr (4985W). North on Longmore Dr to 6110 S. East on 6110 S to Cougar Lane. (Upsize 2,950 ft of 12" & 15" to 24" SS)	\$3,450,000	28.86%	\$995,802
6A	6200 S, from High Bluff Dr to Copper City Dr (Upsize 2,950 ft of 10" & 12" to 18" SS)	\$2,260,000	50.57%	\$1,142,935
23	4700 S Outfall from Redwood Rd to Central Valley connection at 4100 S & 700 W (Upsize 10,600 ft of 24-30" to 36-60" SS)	\$14,650,000	16.05%	\$2,350,681
CVWRF Improvements	CVWRF Improvements	\$49,885,000	9.59%	\$4,783,972
	Total	\$70,245,000		\$9,273,389

¹ Project number represents numbering used in IFFP found in the sewer IFFP.

² Costs are adjusted for inflation (3%)

All cost estimates contained in this IFA have been taken directly from the IFFP. The basis of these estimates are documented in the IFFP and District Capital Facilities Plan.



TECHNICAL MEMORANDUM

2018 Amendment to Sewer Impact Fee Facilities Plan & Impact Fee Analysis

TO: Greg Anderson, P.E./Kearns Improvement District

COPIES: File

FROM: Keith Larson P.E., Andrew McKinnon, P.E.
Bowen, Collins & Associates
154 East 14000 South
Draper, Utah 84020

DATE: Updated May 3, 2018

INTRODUCTION

In order to prepare for future growth and provide service to its sewer system customers, Kearns Improvement District (District) retained Bowen Collins & Associates (BC&A) to prepare a Capital Facilities Plan, Impact Fee Facilities Plan, and Impact Fee Analysis. The Capital Facilities Plan (CFP) was completed in January 2016 and the Impact Fee Facilities Plan (IFFP) and Impact Fee Analysis were completed in June and July of 2016. Since the time of the plans' adoption, developers at the western edge of the Kearns Improvement District have expedited plans of development for some areas. As a result, additional growth and capital projects in the District's capital facilities plan will now be completed within the next 10 years and should be included as part of the IFFP. The purpose of this memorandum is to amend the plans to reflect these changes.

DEVELOPMENT CHANGES SINCE PLAN ADOPTION

Since the completion of the Capital Facilities and Impact Fee Facilities Plans, Kearns Improvement District has seen several changes in development plans in the District. The three areas that have notified KID of their interest to develop are shown in Figure 1 and described below:

- **Woods Development** – The Woods Development at the southwest corner of the District lies partially in and partially outside the Kearns Improvement District's existing service area boundary. This area which currently is part of unincorporated Salt Lake County will be annexed into the Kearns Improvement District. The area will be developed as a mix of single family, multi-family, and commercial with a community center and school.
- **Sunset Phase III** – The Sunset Hills Phase III area that is located inside the District directly north of the Woods Development is anticipated to develop to buildout in the next 10 years. This area will be developed with single family homes.

Table A-2
(Replaces Table ES-4 and Table 5)
Sewer Project Costs Allocated to Projected Development, 10-year Planning Window^a

CFP #	Name	Total Cost	Percent to Existing	Percent to 10-yr Growth	Percent to Beyond 10-yr	Cost to Existing	Cost to 10-yr Growth	Cost to Beyond 10-yr
2 ^b	Outfall 1, 5400 S -Mountain View Corridor OF 1-75 to OF 1-79 (Upsize 800 ft of 8" and 15" to 18" SS)	\$45,477	5.11%	27.65%	67.23%	\$2,324	\$12,574	\$30,574
3	Outfall 2A – Replace existing 27" sewer line with 36" (4,875 ft from OF2A-41 to OF2A-23)	\$3,579,100	30.20%	40.40%	29.40%	\$1,080,888	\$1,445,956	\$1,052,255
5	Outfall 6 – Replace 15" and 18" sewer line with 24" (1,655 ft from OF6-9 to OF2-41)	\$776,700	16.10%	53.00%	30.90%	\$125,049	\$411,651	\$240,000
8 ^b	Outfall 12 – New 12" sewer line from about 6350 S to 6200 S (1,100 ft from OF6-53 to OF12-1)	\$156,834	0.00%	69.10%	30.90%	\$0	\$108,372	\$48,462
9 ^b	Outfall 12 – New 10" sewer line along 6200 S from the railroad east to Mountain View Corridor (2,050 ft from OF12-1 to OF12-2)	\$629,828	0.00%	69.10%	30.90%	\$0	\$435,211	\$194,617
10	OF 6-54 to OF 6-55 SE PRI & Gateway to the Oquirrhs (2,200 ft of 15")	\$506,500	0.00%	34.04%	65.96%	\$0	\$172,413	\$334,087
11	OF 6-55 to OF 6-56 Gateway to the Oquirrhs & Glen Wood (3,300' of 15" SS)	\$754,100	0.00%	36.04%	63.96%	\$0	\$271,778	\$482,322
12	OF 6-56 to end Glen Wood properties (1,300 ft of 12")	\$258,900	0.00%	36.04%	63.96%	\$0	\$93,308	\$165,592

^aCosts have been adjusted for inflation (3% per year)

^bCost reflects actual cost of construction as documented by KID

Table A-2 (continued)
Sewer Project Costs Allocated to Projected Development, 10-year Planning Window^a

CFP #	Name	Total Cost	Percent to Existing	Percent to 10-yr Growth	Percent to Beyond 10-yr	Cost to Existing	Cost to 10-yr Growth	Cost to Beyond 10-yr
13	Outfall 13 – New 15” sewer line starting at about 6600 S going North along the railroad, then west at 6200 S to Bacchus Hwy.	\$1,062,700	0.00%	71.60%	28.40%	\$0	\$760,893	\$301,807
16	OF 1-76 to OF1-77 Western development 5400 S to 5800 S (950 ft of 15" SS)	\$225,100	0.00%	29.14%	70.86%	\$0	\$65,594	\$159,506
17	OF 1-77 to OF 178 Western development 5400 S to 5800 S (4,300 ft of 15" SS)	\$832,900	0.00%	39.66%	60.34%	\$0	\$330,328	\$502,572
19 ^b	New Maintenance & Construction Shops (35% of total cost ²)	\$1,783,797	79.10%	20.90%	0.00%	\$1,410,983	\$372,814	\$0
20 ^b	New Office Building Annex (35% of total cost ^c)	\$551,016	16.20%	41.20%	42.60%	\$89,265	\$227,019	\$234,733
21	Nutrient Removal (11.0% of total cost)	\$14,473,360	66.10%	17.83%	16.06%	\$9,566,891	\$2,580,600	\$2,324,422
	Total Costs	\$25,659,611				\$12,279,151	\$7,300,859	\$6,078,149

^aCosts have been adjusted for inflation (3% per year)

^bCost reflects actual cost of construction as documented by KID

^cRemaining cost assigned to water



TECHNICAL MEMORANDUM

2018 Amendment to Water Impact Fee Facilities Plan & Impact Fee Analysis

TO: Greg Anderson, P.E./Kearns Improvement District

COPIES: File

FROM: Keith Larson P.E., Andrew McKinnon, P.E.
Bowen, Collins & Associates
154 East 14000 South
Draper, Utah 84020

DATE: Updated May 4, 2018

INTRODUCTION

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**Table A-2
(Replaces Tables ES-4 and Table 5)
Project Costs Allocated to Projected Development, 10-year Planning Window^a**

CFP #	Name	Total Cost	Percent to Existing	Percent to 10-yr Growth	Percent to Beyond 10 Year	Cost to Existing	Cost to 10-yr Growth	Cost to Beyond 10-yr
1 ^b	Gravity - Replace Office Tank with 5 MG tank	\$4,472,530	91.30%	0.30%	8.40%	\$4,083,420	\$13,418	\$375,693
2 ^b	Gravity - Replace 16" with 30" water line – 5400 S	\$1,160,379	81.10%	14.50%	4.40%	\$941,068	\$168,255	\$51,057
3	Zone A - New 2 MG tank	\$2,408,600	81.50%	11.70%	6.80%	\$1,963,009	\$281,806	\$163,785
4	Zone A – Replace 12" and 14" with 18" water line – 6200 S	\$1,125,500	76.20%	6.00%	17.80%	\$857,631	\$67,530	\$200,339
5	Zone B – New 16" water line parallel to 14" from Ford Tank	\$956,700	75.90%	15.30%	8.80%	\$726,135	\$146,375	\$84,190
6	Zone C – 6200 S booster pump station	\$5,077,600	7.00%	43.40%	49.60%	\$355,432	\$2,203,678	\$2,518,490
8	Zone D – New 4 MG tank	\$4,155,000	0.00%	37.50%	62.50%	\$0	\$1,558,125	\$2,596,875
9	Zone D – Existing pump station enhancements	\$253,400	0.00%	71.00%	29.00%	\$0	\$179,914	\$73,486
11 ^b	Zone D – New 24" and 18" water line – 6200 S	\$792,014	0.00%	44.10%	55.90%	\$0	\$349,278	\$442,736
12	Zone D – New 12" water line from Zone D tank	\$1,051,400	0.00%	40.70%	59.30%	\$0	\$427,920	\$623,480
13	Zone D - 30" Waterline from Zone D Tank to U111 @ 5600 S	\$2,296,000	0.00%	37.50%	62.50%	\$0	\$861,000	\$1,435,000
18	Zone D - New 12" from U111 @ 5600 S to 5450 S	\$236,400	0.00%	37.50%	62.50%	\$0	\$88,650	\$147,750

^aCosts have been adjusted for inflation (3% per year)

^bCost reflects actual cost of construction as documented by KID

**Table A-2 (continued)
Project Costs Allocated to Projected Development, 10-year Planning Window^a**

CFP #	Name	Total Cost	Percent to Existing	Percent to 10-yr Growth	Percent to Beyond 10 Year	Cost to Existing	Cost to 10-yr Growth	Cost to Beyond 10-yr
19	Zone D - New 10" from U111 @ 5400 S to 7500 W 5400 S	\$371,400	0.00%	37.50%	62.50%	\$0	\$139,275	\$232,125
20	Zone E - New 1.5 MG Storage Tank	\$1,890,000	0.00%	96.54%	3.46%	\$0	\$1,824,606	\$65,394
21	Zone E - New Zone E Pump Station	\$1,418,100	0.00%	96.54%	3.46%	\$0	\$1,369,034	\$49,066
22	Zone D - New Waterline 6450 S 7100 W to Zone E Pump Station	\$123,800	0.00%	96.54%	3.46%	\$0	\$119,517	\$4,283
23	Zone E - New 14" Waterline from Zone E Pump to Zone E Tank	\$686,600	0.00%	96.54%	3.46%	\$0	\$662,844	\$23,756
24 ^b	Hercules Well	\$1,288,926	0.00%	45.40%	54.60%	\$0	\$585,139	\$703,787
25 ^b	New Maintenance & Construction Shops (65% of total costs)	\$3,312,766	77.20%	22.80%	0.00%	\$2,557,455	\$755,311	\$0
26A ^b	New Office Building (65% of total costs)	\$1,023,315	11.20%	40.30%	48.50%	\$114,611	\$412,396	\$496,308
	Total	\$34,100,431				\$11,598,762	\$12,214,070	\$10,287,600

^aCosts have been adjusted for inflation (3% per year)

^bCost reflects actual cost of construction as documented by KID



For ease of use and access to our information KID has included the summaries of our Capital Facilities Plan, Impact Fee Facilities Plan and Impact Fee Analysis for Water and Sewer. The summaries are from the following documents:

- Technical Memorandum, Impact Fees Buy In Amounts, dated May 26, 2023
- Water Impact Fee Facilities Plan and Impact Fee Analysis, dated October 2022
- Sewer Impact Fee Facilities Plan and Impact Fee analysis, dated October 2022
- Technical Memorandum, 2018 Amendment to Sewer Impact Fee Facilities Plan & Impact Fee Analysis
- Technical Memorandum, 2018 Amendment to Water Impact Fee Facilities Plan & Impact Fee Analysis

These documents totaling 231 pages, are available in their entirety by contacting KID.