

HILDALE CITY & TOWN OF COLORADO CITY CULINARY WATER IMPACT FEE FACILITIES PLAN

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PREPARED BY:



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I. INTRODUCTION

Sunrise Engineering, Inc. has been retained by Hildale City and the Town of Colorado City to complete an Impact Fee Facilities Plan (IFFP) and an Impact Fee Analysis (IFA) for the culinary water system.

This IFFP incorporates by reference associated portions of the “Hildale City and Town of Colorado City Culinary Water Master Plan Update” (CWMP), completed by Sunrise Engineering, Inc. and dated June 2022, which provides a plan for Capital Improvements over the design horizon of 20 years.

According to the State of Utah Impact Fee Act, a community that is less than 5,000 people as of the last census need not conform to all the requirements of the IFFP. Regardless, any impact fee from the entity with less than 5,000 people should still be based on a “reasonable plan”.

An impact fee that is charged by a community may be used to pay for capital costs and the debt service associated with surplus capacity built into the system provided actual costs can be documented. The surplus capacity in the water system can be assessed to growth, and for this reason, impact fees can pay for that portion of the debt service associated with the system surplus capacity. The impact fee should also be used to pay for the cost of improvements to the system that are required to support new growth as new connections are added to the system.

LENGTH OF PLANNING PERIOD

The CWMP uses a planning period of 20 years. This IFFP considers a planning period of 10 years, encompassing the start of FY2023 to the end of FY2032, based on regulations on impact fee collection and use. Impact fees must be used within six (6) years of their receipt according to Utah State Impact Fee law and within ten (10) years of receipt according to Arizona State Development Fee law. This plan accounts for all incoming fees to be used for eligible projects and debts in the continuous six (6) year window to satisfy the more stringent law.

PROJECTED GROWTH RATE

Hildale City and the Town of Colorado city are unique communities that share their water system across the Utah and Arizona border. Although their combined population is more than 5,000, Each community’s population is estimated to be below population requirement of 3,000 according to the US Census Bureau estimates. Therefore, Hildale and the Town of Colorado City, respectively, are not required to comply with all the requirements of the IFFP.

Per the information in the CWMP, the growth rate is analyzed in Equivalent Residential Units (ERUs). Table 1 allocates the ERU value by type of connection from the CWMP.

Table 1: ERUs Per Connection Type

Residential	Commercial	Industrial	Institutional
1.0	1.0	0.5	5.8

The projected number of ERUs at the end of the 10-year planning period is 1502. Table 2 details the CWMP growth rate analysis.

Table 2: Growth Rate Analysis

Population & Growth Rate						
Calendar year	Hildale Population	Colorado City Population	Total Population	Est. Growth Rate	# of Conn.	# of ERU
1990	1325	2426	3751			
2000	1895	3258	5153	3.23%		
2010	2660	4722	7382	3.66%		
2015	2926	4808	7734	0.94%		
2016	2926	4804	7730	-0.05%	891	868
2017	2916	4809	7725	-0.06%	895	891
2018	2916	4825	7741	0.21%	862	968
2019	2910	4836	7746	0.06%	995	1068
2020	2727	4531	7258	-6.30%	936	1004
2021	2825	4694	7519	3.60%	971	1039
2022	2931	4871	7803	3.77%	1009	1078
2023	3034	5042	8076	3.50%	1044	1116
2024	3140	5218	8358	3.50%	1081	1155
2025	3250	5401	8651	3.50%	1119	1195
2026	3364	5590	8954	3.50%	1158	1237
2027	3481	5786	9267	3.50%	1198	1280
2028	3595	5974	9568	3.25%	1237	1322
2029	3711	6168	9879	3.25%	1278	1365
2030	3832	6368	10200	3.25%	1319	1409
2031	3957	6575	10532	3.25%	1362	1455
2032	4085	6789	10874	3.25%	1406	1502
2033	4167	6925	11091	2.00%	1434	1532
2034	4250	7063	11313	2.00%	1463	1563
2035	4335	7204	11540	2.00%	1492	1594
2036	4422	7348	11770	2.00%	1522	1626
2037	4510	7495	12006	2.00%	1553	1659
2038	4600	7645	12246	2.00%	1584	1692
2039	4692	7798	12491	2.00%	1615	1726
2040	4786	7954	12741	2.00%	1648	1760
2041	4882	8113	12995	2.00%	1681	1796
2042	4980	8276	13255	2.00%	1714	1831

II. SUMMARY OF CAPITAL IMPROVEMENTS

The capital improvements recommended for Hildale City and the Town of Colorado City for the 20-year planning period are listed in the CWMP. This Impact Facilities Fee Plan will consider projects in the 0 to 10-year improvements window.

A. WATER SOURCE

- **Well 15 Replacement** – Well 15 is currently being constructed to replace the existing Well 15 which is unable to produce water during peak demands. It is anticipated Replacement Well 15 will produce 20 gpm. This project is anticipated to be completed prior to adoption of impact fees. Therefore, it is not included in the impact fee calculations.

- **Well 17 Replacement** – This is an existing well that is unable to produce water during peak demands. The CWMP recommends that the City replace This well. It is expected that Well 17 would produce 80 gpm after replacement.
- **Treatment Plant Wells** – The CWMP proposes to drill additional wells in the Arizona side of the system. The City is currently working on a study to evaluate the locations of these two wells. The preliminary idea is to drill the wells at the treatment plant, one deep well and one shallow well. Based on evaluation of the output of existing wells, the CWMP anticipates that these wells will produce roughly 80 gpm for the shallow well and 120 gpm for the deep well.
- **Trailhead Well 1** – The City is looking at drilling additional wells in the nearby canyons to the northeast. The water from these canyons would be obtained from different geologic formations than their current wells. The Trailhead Well 1 would be located on City owned property by the Squirrel Canyon Trailhead. This well would provide additional source to the town The CWMP estimates that this well could produce 175 gpm.
- **Trailhead Well 2** – The CWMP recommends that the City drill an additional well on the City-owned land next to the Squirrel Canyon Trailhead. This well and all future wells up the canyon will require obtaining additional water rights. The CWMP estimates that this well will produce 175 gpm.

B. WATER TREATMENT

- **Mohave County ARPA Project** – According to the CWMP, the City is in the process of refurbishing and improving the existing treatment plant. Plant operators expect these improvements to allow for the treatment plant to operate the filters in parallel again and reach the design flow of 2,400 gpm.
- **Raw Water Transmission Line** – The CWMP recommends improvements to the transmission lines that carry the raw water from the wells to the treatment plant. The recommendation includes installation of a new 12" transmission line to convey water from the wells south of the treatment plant, including installation of maintenance access points.

C. WATER STORAGE

- **Sandhill Tank** – This tank would be constructed above the Elm Street tank to create a higher-pressure zone that would supply water to the area north of Utah Ave and east of the highway. The CWMP recommends this tank be at least a 1-million-gallon tank.

Based on the existing ADD, the Sandhill Tank would be able to serve 1,000 ERUs in the new pressure zone.

- **Tank Near Squirrel Canyon Trailhead** – This tank would be installed on the same site as Trailhead Wells 1 & 2. This tank would serve two purposes. First, it would collect the water from the proposed Trailhead Wells and eventually the Hildale Groundwater Project wells detailed in the CWMP. The second purpose is to create a higher-pressure zone on the northeast side of Hildale. This pressure zone would serve the existing and new building up the canyons north of Williams Ave. The CWMP recommends the tank capacity to be 500,000 gallons.

D. WATER DISTRIBUTION

- **Fire Hydrants** – This project proposes to install additional fire hydrants to meet the minimum required spacing. The CWMP recommends that this project replace all undersized lines, based on fire flow, which are not already included in the other improvements. This project would help bring the system into compliance with fire flow requirements.
- **Jessop Ave Line** – This project proposes to install a new 8" diameter line on Jessop Ave from Juniper St. to Redwood St. and tie into the existing north and south lines on Redwood St, Maple St., Elm St., and Juniper St. This line will provide some looping in the area and mitigate the low pressures experienced in this area.
- **University Ave Line** – This project proposes to install a new 8" that would extend from University Ave east to the irrigation canal and then down the irrigation canal alignment to Township Ave. This added line will provide looping to the east side of Colorado City that is experiencing inadequate fire flow.
- **Canyon St Line** – This project proposes to install a new 8" water main in Canyon St. from Memorial St. to Newel Ave. This would provide looping to the northeast Hildale area and help mitigate some of the low pressures and low fire flows. This water main would also function as a trunkline for delivering water from the new wells in the Hildale Groundwater Project and the Trailhead Wells.

III. PROPORTIONATE SHARE ANALYSIS

Impact fee laws in Utah and Arizona require that only that portion of the facility, whether existing, new, or future, that is required for growth may be included in the impact fee calculations. A proportionate share analysis must be made of all the facilities to determine a reasonable and logical ratio of cost for each improvement.

A. WATER SOURCE

Analysis of the water source projects proposed in the CWMP found that, except for the Well 15 Replacement Project, all proposed source projects in the 10-year planning period are partially impact fee eligible. According to data from the CWMP, Hildale City and the Town of Colorado City are projected to be in a source deficit of 286 gpm by the year 2032. The proportion of the estimated 630 gpm produced by the eligible proposed source projects required for future growth was used to determine the percentage of eligibility. Based on this analysis, the proposed source projects are 45.4% impact fee eligible.

B. WATER TREATMENT

The two water treatment projects listed in the CWMP intend to improve the existing water treatment system. The goal of these improvements is for the treatment system to be able to produce the amount of water it was originally built to produce. The issues addressed by these two projects are not the result of growth. Neither of the treatment projects are impact fee eligible.

C. WATER STORAGE

Two water storage projects are proposed in the CWMP during the planning period. The Sandhill Tank project will create a new pressure zone to serve new growth in the area north of Utah Avenue. This tank project is 100% impact fee eligible. The Tank near Squirrel Canyon Trail Head project will function as storage for the proposed Trailhead Well and create a new pressure zone for existing and future developments up the canyons north of Williams Avenue. Based on the proportion of available buildable area to existing developed area within the zoned boundary north of Williams Avenue, the Tank near Squirrel Canyon Trail Head project is 43% impact fee eligible.

D. WATER DISTRIBUTION

All CWMP proposed water distribution projects in the 10-year planning period serve to improve the existing level of service for the system users or provide currently needed fire flows. These projects are not considered impact fee eligible.

E. FUTURE PLANNING

Utah and Arizona Law require the capital facilities plan be updated every five (5) years. Since this plan update falls within the 10-year planning period, it is 100% impact fee eligible.

IV. IMPACT FEE ANALYSIS

The total cost that is eligible for the impact fee assessment is equal to the portion of any planned water improvements project that will be constructed in the next 10 years to accommodate new growth. The combined total cost that is due to new growth is divided by the projected number of new ERUs that will be added to the system. Please note that this impact fee calculation assumes that Hildale City and the Town of Colorado City will not need to purchase any additional water rights. Should the City choose otherwise, the impact fee should be adjusted accordingly.

It is recommended that Hildale City and the Town of Colorado City begin charging impact fees per ERU. The maximum allowable impact fee was calculated to be \$5,591.75. Table 3 contains the analysis performed to determine the impact fee.

Table 3: Impact Fee Analysis

Source Projects	Current Costs	Year	Costs w/ Inflation*	Financed Costs**	% IF El.	IF El. Cost
Well 15 Replacement	\$ 644,325.00	2023	\$ 663,655	\$ 758,284	0.0%	\$ -
Well 17 Replacement	\$ 644,325.00	2023	\$ 663,655	\$ 758,284	45.4%	\$ 344,536
Treatment Plant Wells	\$ 1,288,650.00	2023	\$ 1,327,310	\$ 1,516,567	45.4%	\$ 689,072
Trailhead Well 1	\$ 2,445,250.00	2025	\$ 2,671,991	\$ 3,052,984	45.4%	\$ 1,387,163
Trailhead Well 2	\$ 1,713,100.00	2028	\$ 2,045,531	\$ 2,337,198	45.4%	\$ 1,061,937
Sub total			\$ 23,631,900			
Water Treatment Projects	Current Costs	Year	Costs w/ Inflation			
Mohave County ARPA Project	\$ 948,000.00	2023	\$ 976,440	\$ 1,115,668	0.0%	\$ -
Raw Water Transmission Line	\$ 998,800.00	2023	\$ 1,028,764	\$ 1,175,453	0.0%	\$ -
Sub total			\$ 2,005,204			
Storage Projects	Current Costs	Year	Costs w/ Inflation			
Sandhill Tank	\$ 3,983,400.00	2025	\$ 4,352,769	\$ 4,973,420	100.0%	\$ 4,973,420
Tank Near Squirrel Canyon Trail Head	\$ 1,864,100.00	2028	\$ 2,225,833	\$ 2,543,209	43.0%	\$ 1,093,580
Sub total			\$ 12,993,804			
Distribution System Projects	Current Costs	Year	Costs w/ Inflation			
Fire Hydrants	\$ 1,733,500.00	2023	\$ 1,785,505	\$ 2,040,096	0.0%	\$ -
Jessop Ave Line	\$ 808,770.00	2025	\$ 883,765	\$ 1,009,779	0.0%	\$ -
University Ave Line	\$ 326,000.00	2030	\$ 412,967	\$ 471,851	0.0%	\$ -
Canyon St Line	\$ 374,900.00	2028	\$ 447,650	\$ 511,480	0.0%	\$ -
Sub total			\$ 3,529,887			
Future Planning Projects	Current Costs	Year	Costs w/ Inflation			
Capital Facilities Plan and IFFP & IFA Update	\$ 50,000	\$ 2,028	\$ 59,703	\$ 68,215	1000.0%	\$ 682,155
Sub total			\$ 59,703	Impact Fee Amount		\$ 10,231,863
Total			\$ 38,690,611	Number of New ERUs		1,830
				Impact Fee per ERU		\$ 5,591.75

* Inflation is assumed at 3%

**Financed costs assume a 10-year 2.5% interest loan

It is important to note that these impact fees are for the improvements summarized in this Plan and do not provide for the City to design and build anything beyond the proposed projects. All new additions to the system will need to be considered in the impact fee calculations. Otherwise, the developer should be required to make the improvements.

V. IMPACT FEE CERTIFICATION

In general, it is beneficial to update this impact fee facilities plan and analysis at least every five years, or more frequently if drastic growth or changes affect the assumptions and data in this plan. It is assumed that this plan will be updated as recommended.

There are items relating to impact fees that Hildale City and the Town of Colorado City must consider when planning for, collecting, and expending impact fees in accordance with Utah Code 11-36a-101 and Arizona Code 9-463.05.

City staff must understand that impact fees can only be expended for a system improvement that is identified in the Impact Fee Facilities Plan and that is for the specific facility type for which the fee was collected. Impact fees must be expended or encumbered for a permissible use within six years of their receipt unless Utah Code 11-36a-602(2)(b) applies. Also, impact fees must have a proper accounting (track each fee in and out) in accordance with Utah Code 11-36a-601 and Arizona Code 9-463.05.

In accordance with Utah Code 11-36a-306 a certification of impact fee analysis is located in Appendix A.