



SMITHFIELD CITY

Culinary Water Impact Fee Analysis September 2024



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EXECUTIVE SUMMARY

An impact fee is a one-time fee imposed on new development activity to mitigate the impact of new development on capital facilities. In conjunction with this Impact Fee Analysis, J-U-B Engineers Inc. prepared the Impact Fee Facilities Plan (IFFP) amended September 2024. The IFFP forms the basis for this impact fee analysis.

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 Smithfield City (“City”) may assess. The City will be required to use revenue sources other than impact fees to fund any projects that constitute repair and replacement, cure any existing deficiencies, or increase the level of service for existing users.

Water Service Levels

The City is anticipated to grow by 1,672 ERCs between 2022 and 2032 – the timeframe of the IFFP analysis.¹

Water Service Levels

Level of service (LOS) defines the water capital facility demands that a typical Equivalent Residential Connection (ERC), will require and should pay for with impact fees. The IFFP defines existing service levels as follows per ERC.

TABLE 1: CULINARY WATER EXISTING SERVICE LEVELS

Description	Existing LOS
Existing Water Supply	0.938 acre-feet/ERC
Existing Available Peak Demand	1,454 gpd/ERC
Transmission Lines: Peak Day	0.26 gpm/ERC (indoor) 2.03 gpm/ERC (outdoor)
Transmission Lines: Instantaneous Peak	0.35 gpm/ERC (indoor) 2.69 gpm/ERC (outdoor)
Storage	837 gpd/ERC + 840,000 gallons

Source: *Smithfield City Culinary Water System Impact Fee Facilities Plan, pp. 5*

The IFFP states that, “The proposed service level is based on the master plan for the available water supply, peak demand flows, transmission lines, and storage requirements to meet future needs. There are currently deficiencies in the existing system that do not meet these levels of service, specifically relating to storage and transmission lines.”²

Water Service Area

There is one service area for culinary water that encompasses the boundaries of Smithfield City.

¹Smithfield City Culinary Water System Impact Fee Facilities Plan, p. 2.

²Smithfield City Culinary Water System Impact Fee Facilities Plan, p. 6

Excess Capacity

The IFFP states that there is a current deficiency in the water supply, source, storage and transmission systems. However, the deficiency in supply is being met by the current construction of Central Park well. Other construction projects will address deficiencies in water source, storage and transmission.

New Construction

Based on the IFFP, total new construction costs required by growth in new development over the next 10 years are projected to reach \$5,993,063.

Culinary Water System Impact Fee Calculation

The maximum impact fee for 2024 is \$2,884.65 for a ¾” meter after credits are made for the construction of new projects that will partially benefit existing development.

TABLE 2: MAXIMUM IMPACT FEE PER ERC (¾”) - 2024

Summary of Maximum Impact Fee	Amount
New Construction	\$3,583.70
Consultant Costs	\$7.21
Subtotal Gross Fee	\$3,590.91
Credits for Deficiencies	(\$706.25)
Maximum Fee per ERC (¾”) in 2024	\$2,884.65

Although the gross fee of \$3,590.91 remains constant year over year, the impact fee credits decline each year as more ERCs (due to growth) are sharing the costs and payments associated with the portion of new projects that will benefit existing development.

TABLE 3: SUMMARY OF MAXIMUM IMPACT FEE FOR ¾” METERS, 2024-2032

Year	ERCs	PMT per year (Deficiencies)	Payment per ERC	NPV* - Credit	Max Fee per Year
2024	5,157	\$364,197.62	\$70.62	\$706.25	\$2,884.65
2025	5,311	\$364,197.62	\$68.57	\$670.94	\$2,919.96
2026	5,471	\$364,197.62	\$66.57	\$635.92	\$2,954.99
2027	5,635	\$364,197.62	\$64.63	\$601.14	\$2,989.76
2028	5,804	\$364,197.62	\$62.75	\$566.57	\$3,024.34
2029	5,978	\$364,197.62	\$60.92	\$532.15	\$3,058.75
2030	6,158	\$364,197.62	\$59.14	\$497.84	\$3,093.07
2031	6,343	\$364,197.62	\$57.42	\$463.59	\$3,127.32
2032	6,533	\$364,197.62	\$55.74	\$429.35	\$3,161.56

Single-family and multi-family residential fees will be charged on a per door basis. Nonresidential impact fees are calculated by multiplying the meter size by the AWWA meter ratio and gross fee per ERC as shown in Table 4. These calculations represent the maximum impact fee that may be charged.

Maximum impact fees by year are shown in Table 4, based on meter size.

TABLE 4: CULINARY WATER MAXIMUM IMPACT FEES

Meter Size - inches	2024	2025	2026	2027	2028	2029	2030
0.75	\$2,884.65	\$2,919.96	\$2,954.99	\$2,989.76	\$3,024.34	\$3,058.75	\$3,093.07
1	\$4,038.52	\$4,087.95	\$4,136.99	\$4,185.67	\$4,234.07	\$4,282.26	\$4,330.29
1.5	\$8,077.03	\$8,175.90	\$8,273.97	\$8,371.34	\$8,468.14	\$8,564.51	\$8,660.58
2	\$11,538.62	\$11,679.85	\$11,819.96	\$11,959.05	\$12,097.34	\$12,235.02	\$12,372.26
3	\$23,077.24	\$23,359.70	\$23,639.92	\$23,918.10	\$24,194.68	\$24,470.03	\$24,744.52
4	\$46,154.47	\$46,719.41	\$47,279.84	\$47,836.21	\$48,389.37	\$48,940.06	\$49,489.05
6	\$92,308.94	\$93,438.81	\$94,559.68	\$95,672.41	\$96,778.73	\$97,880.12	\$98,978.09
8	\$115,386.18	\$116,798.51	\$118,199.60	\$119,590.51	\$120,973.41	\$122,350.15	\$123,722.62

CHAPTER 1: OVERVIEW OF THE WATER IMPACT FEES

Summary

An impact fee is intended to recover the City's costs of building water system capacity to serve new residential and 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 for by the City is assessed through an impact fee.

Costs to be Included in the Impact Fee

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

- 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:

- Costs for projects that cure system deficiencies;
- Costs for 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 City does not have to repay; and
- Costs of reconstruction of facilities that do not have capacity to serve new growth.

Utah Code Legal Requirements

Utah law requires that communities and special districts prepare an Impact Fee Analysis (IFA) before enacting an impact fee. Utah law also requires that communities/districts give notice of their intent to prepare and adopt an IFA. This IFA follows all legal requirements as outlined below. The City 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. The City has complied with this noticing requirement for the IFA by posting notice.

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 CITY'S FACILITIES AND LEVEL OF SERVICE

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

Projected Water Demands

Table 5 shows ERC growth projections which will place additional demand on the City's water system. The City's water system currently (year 2024) serves 5,157 equivalent residential connections (ERCs) which will grow to an estimated 6,533 ERCs by 2032. The IFFP is based on 2022 data and therefore calculates the growth between 2022 and 2032 as 1,672 ERCs.

Water Service Area

ERCs within Smithfield City are projected to grow as follows:

TABLE 5: GROWTH IN DEMAND

Year	ERCs
2022	4,861
2023	5,007
2024	5,157
2025	5,311
2026	5,471
2027	5,635
2028	5,804
2029	5,978
2030	6,158
2031	6,343
2032	6,533
Growth in ERCs, 2022-2032	1,672

Source: Smithfield City Culinary Water System Impact Fee Facilities Plan, p.2

Existing and Proposed LOS Analysis

Level of service (LOS) defines the water capital facility demands that a typical Equivalent Residential Connection (ERC) will require and should pay for with impact fees. The IFFP defines existing service levels as follows per ERC.

TABLE 6: EXISTING SERVICE LEVELS

Description	Existing LOS
Existing Water Supply	0.938 acre-feet/ERC
Existing Available Peak Demand	1,454 gpd/ERC
Transmission Lines: Peak Day	0.26 gpm/ERC (indoor) 2.03 gpm/ERC (outdoor)
Transmission Lines: Instantaneous Peak	0.35 gpm/ERC (indoor) 2.69 gpm/ERC (outdoor)

Description	Existing LOS
Storage	837 gpd/ERC + 840,000 gallons
<i>Source: Smithfield City Culinary Water System Impact Fee Facilities Plan, p. 5</i>	

The IFFP states that, “The proposed service level is based on the master plan for the available water supply, peak demand flows, transmission lines, and storage requirements to meet future needs. There are currently deficiencies in the existing system that do not meet these levels of service, specifically relating to storage and transmission lines.”³

CHAPTER 3: IMPACT ON CAPACITY FROM DEVELOPMENT ACTIVITY

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

Excess Capacity

The IFFP identifies current deficiencies in the City’s water supply, source, storage and transmission systems and states that the Central Park Well is currently under construction to alleviate some of the current deficiencies.

CHAPTER 4: SYSTEM IMPROVEMENTS REQUIRED FROM DEVELOPMENT ACTIVITY

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

The means by which the City will meet growth demands include constructing the following projects as set forth in the Impact Fee Facilities Plan. This will occur through requiring new development to pay for its fair share of existing excess capacity consumed over the next 10 years as well as paying for its fair share of new construction projects.

The cost of new capital facility construction projects that will benefit new development over the next 10 years total \$5,993,063.

TABLE 7: NEW CONSTRUCTION IMPROVEMENTS

Item	Project	Estimated Cost	Existing System	10-Yr Plan
1	New 3 MG 5,000 ft Reservoir including Booster Station and Piping to Tank	\$7,261,962.50	\$2,201,827	\$3,385,527
2	Upsizing for fire flow at 200 W and 560 S	\$399,110.30	\$212,327	\$186,784
3	Upsizing piping for fire flow at 500 N between Main St. and 80 W	\$180,199.55	\$138,213	\$41,986
4	Upsizing for fire flow at 800 W between 100 S and Maintenance	\$159,425.72	\$44,799	\$114,627
5	Upsizing for fire flow at end of 470 N near 200 W	\$45,725.44	\$38,181	\$7,545

³Smithfield City Culinary Water System Impact Fee Facilities Plan, p. 6

Item	Project	Estimated Cost	Existing System	10-Yr Plan
6	Upsizing for fire flow at 200 E between 300 N and 400 N	\$181,799.94	\$157,075	\$24,725
7	Spring Line upsizing	\$5,864,697.00	\$5,160,933	\$703,764
8	Central Park Well	\$3,298,307	\$1,291,287	\$1,528,106
TOTAL		\$17,391,228	\$9,244,643	\$5,993,063

Source: Smithfield City Culinary Water System IFFP, p. V

CHAPTER 5: PROPORTIONATE SHARE ANALYSIS

Maximum Legal Water Impact Fee per ERC

The Impact Fees Act requires the Impact Fee Analysis to estimate the proportionate share of the future and actual cost of existing system improvements that benefit new growth that can be recouped through impact fees. The impact fee for existing assets must be based on the actual costs (when excess capacity is available) while the fees for construction of new facilities can be based on reasonable future costs of the system. The IFFP does not identify any existing, excess capacity that can be used in the calculation of impact fees but does identify a portion of new construction costs as benefitting existing development.

New Construction

Total new improvement costs attributable to new development over the next 10 years will reach \$5,993,063.

TABLE 8: PROPORTIONATE SHARE ANALYSIS, NEW IMPROVEMENTS

New Construction	Amount
Cost to New Development 10 Years	\$5,993,062.99
Growth in ERCs, 2022-2032	1,672
Cost per ERC	\$3,583.70

Consultant Costs

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

TABLE 9: PROPORTIONATE SHARE ANALYSIS – CONSULTANT COSTS

Consultant Costs	Amount
J-U-B	\$6,052.80
ZPFI	\$6,000
Growth in ERCs, 2022-2032	1,672
Cost per ERC	\$7.21

Impact Fee Fund Balance

Based on information provided by the City, there was an unspent fund balance of \$1,960,690 as of June 2024. This fund balance can be used to pay down the portion of new improvements that benefit existing development and reduce the overall credit that must be made for the portion of the projects that benefit new development.

Gross Fee Before Credits

The gross fee includes the cost of new construction projects and consultant costs. The gross fee is later adjusted with credits for the portion of the new projects that will benefit existing development.

TABLE 10: GROSS FEE BEFORE CREDITS

Gross Fee before Credits - Summary	Amount
New Construction	\$3,583.70
Consultant Costs	\$7.21
Subtotal Gross Fee	\$3,590.91

Credits Against Impact Fees

Credits must be made for the proportionate share of new projects that benefit existing development in order that new development is not charged twice. The proportionate share of new projects benefitting existing development is \$9,244,643 based on the IFFP. This amount can be reduced to \$7,283,952 by using the City's impact fee fund balance of \$1,960,690. This remaining cost is anticipated to be paid for with increased rates, spread over 20 years, and therefore new development must be credited so that it does not pay the full impact fee as well as higher rates.

TABLE 11: CREDITS ON PROJECTS BENEFITTING EXISTING DEVELOPMENT

Year	ERCs	PMT per year	PMT per ERC	NPV* - Credit
2024	5,157	\$364,197.62	\$70.62	\$706.25
2025	5,311	\$364,197.62	\$68.57	\$670.94
2026	5,471	\$364,197.62	\$66.57	\$635.92
2027	5,635	\$364,197.62	\$64.63	\$601.14
2028	5,804	\$364,197.62	\$62.75	\$566.57
2029	5,978	\$364,197.62	\$60.92	\$532.15
2030	6,158	\$364,197.62	\$59.14	\$497.84
2031	6,343	\$364,197.62	\$57.42	\$463.59
2032	6,533	\$364,197.62	\$55.74	\$429.35

*NPV = net present value discounted at 5 percent

These credits are then applied to the gross fee calculated to arrive at the maximum fee per ERC per year.

TABLE 12: MAXIMUM IMPACT FEES FOR 3/4" METERS BY YEAR

Year	ERCs	PMT per year (Deficiencies)	Payment per ERC	NPV* - Credit	Max Fee per Year
2024	5,157	\$364,197.62	\$70.62	\$706.25	\$2,884.65
2025	5,311	\$364,197.62	\$68.57	\$670.94	\$2,919.96

Year	ERCs	PMT per year (Deficiencies)	Payment per ERC	NPV* - Credit	Max Fee per Year
2026	5,471	\$364,197.62	\$66.57	\$635.92	\$2,954.99
2027	5,635	\$364,197.62	\$64.63	\$601.14	\$2,989.76
2028	5,804	\$364,197.62	\$62.75	\$566.57	\$3,024.34
2029	5,978	\$364,197.62	\$60.92	\$532.15	\$3,058.75
2030	6,158	\$364,197.62	\$59.14	\$497.84	\$3,093.07
2031	6,343	\$364,197.62	\$57.42	\$463.59	\$3,127.32
2032	6,533	\$364,197.62	\$55.74	\$429.35	\$3,161.56

Single-family and multi-family residential fees will be charged on a per door basis. Nonresidential impact fees are calculated by multiplying the meter size by the AWWA meter ratio and gross fee per ERC as shown in Tables 15 and 16. These calculations represent the maximum impact fees that may be charged.

TABLE 13: PROPORTIONATE SHARE ANALYSIS – FUND BALANCE

Meter Size (inches)	Maximum Flow Rate (gpm)	AWWA Ratio	Table Used (AWWA M6, 2018 Addendum, Table 5-3)
0.75	25.00	1.0	Multijet Meter Table (AWWA C708)
1	35.00	1.4	Multijet Meter Table (AWWA C708)
1.5	70.00	2.8	Multijet Meter Table (AWWA C708)
2	100.00	4.0	Multijet Meter Table (AWWA C708)
3	200.00	8.0	Electromagnetic and Ultrasonic Meter Type 1 Table (AWWA C715)
4	400.00	16.0	Electromagnetic and Ultrasonic Meter Type 1 Table (AWWA C715)
6	800.00	32.0	Electromagnetic and Ultrasonic Meter Type 1 Table (AWWA C715)
8	1000.00	40.0	Electromagnetic and Ultrasonic Meter Type 1 Table (AWWA C715)

TABLE 14: MAXIMUM IMPACT FEES BY YEAR AND METER SIZE

Meter Size (inches)	2024	2025	2026	2027	2028	2029	2030
0.75	\$2,884.65	\$2,919.96	\$2,954.99	\$2,989.76	\$3,024.34	\$3,058.75	\$3,093.07
1	\$4,038.52	\$4,087.95	\$4,136.99	\$4,185.67	\$4,234.07	\$4,282.26	\$4,330.29
1.5	\$8,077.03	\$8,175.90	\$8,273.97	\$8,371.34	\$8,468.14	\$8,564.51	\$8,660.58
2	\$11,538.62	\$11,679.85	\$11,819.96	\$11,959.05	\$12,097.34	\$12,235.02	\$12,372.26
3	\$23,077.24	\$23,359.70	\$23,639.92	\$23,918.10	\$24,194.68	\$24,470.03	\$24,744.52
4	\$46,154.47	\$46,719.41	\$47,279.84	\$47,836.21	\$48,389.37	\$48,940.06	\$49,489.05
6	\$92,308.94	\$93,438.81	\$94,559.68	\$95,672.41	\$96,778.73	\$97,880.12	\$98,978.09
8	\$115,386.18	\$116,798.51	\$118,199.60	\$119,590.51	\$120,973.41	\$122,350.15	\$123,722.62

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; or
 - b. cost for 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;

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.