

WASHINGTON COUNTY



WATER
CONSERVANCY
DISTRICT

REGIONAL WATER

IMPACT FEE FACILITIES PLAN & IMPACT FEE ANALYSIS

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ANALYSIS



TABLE OF CONTENTS

Executive Summary	1
Introduction	1
Distinction Between Impact Fee Facilities Plan and Impact Fee Analysis	1
Level of Service	1
Excess Capacity Used by New Development	2
Building Facilities for New Development.....	2
Funding Construction of Facilities Used by New Development.....	2
Impact Fee Calculation	3
IMPACT FEE FACILITIES PLAN	4
UCA § 11-36a-301(1): Impact Fee Facilities Plan.....	5
UCA § 11-36a-302(1)(a)(i-ii): Existing and Proposed Service Level	5
UCA § 11-36a-302(1)(a)(iii): Excess Capacity	6
UCA § 11-36a-302(1)(a)(iv): Demand on Existing Facilities	7
UCA § 11-36a-302(1)(a)(v): Meeting Growth Demands	9
UCA § 11-36a-302(2): Revenue and Funding Sources for System Improvements	12
IMPACT FEE ANALYSIS	14
UCA § 11-36a-303(1): Impact Fee Analysis.....	15
UCA § 11-36a-304(1)(a): Excess Capacity and New Development.....	15
UCA § 11-36a-304(1)(b): System Improvements and New Development	16
UCA § 11-36a-304(1)(c): Relation of Anticipated Impacts to Anticipated Development Activity	19
UCA § 11-36a-304(1)(d): Proportionate Share of Costs for Existing Capacity and New System Improvements.....	19
UCA 11-36a-304(2)(a): Cost of Existing Facilities with Excess Capacity.....	19
UCA 11-36a-304(2)(b): Cost of Future System Improvements.....	20
UCA 11-36a-304(2)(c): Financing Sources for System Improvements.....	21
UCA § 11-36a-304(2)(d)-(e): New Development’s Contribution to Financing and Costs of System Improvements	23
UCA § 11-36a-304(2)(f): Development Credit to Offset Impact Fee	23
UCA § 11-36a-304(2)(g): Extraordinary Costs of Serving Development.....	23
UCA § 11-36a-304(2)(h): Time-Price Comparison.....	23
UCA § 11-36a-304(1)(d)(i): Proportionate Share of Existing Facilities Costs	24
UCA § 11-36a-304(1)(d)(ii): Proportionate Share of Costs of Impacts on Future System Improvements.....	24
UCA § 11-36a-304(1)(e): Impact Fee Calculation.....	26
UCA § 11-36a-306: Certification of Impact Fee Analysis	28
UCA § 11-36a-306(1): Certification of Impact Fee Facilities Plan.....	28
UCA § 11-36a-306(2): Certification of Impact Fee Analysis.....	29
APPENDIX.....	30

EXECUTIVE SUMMARY¹

INTRODUCTION

Utah's Impact Fee Act (Utah Code sections 11-36a-101 *et seq.*) permits public and some private entities to charge fees to fund the cost of public facilities necessary to meet the demands of new development. Simplified information regarding the purpose of an impact fee, key requirements, and some statutory limitations is available through the Utah Office of the Property Rights Ombudsman. See *Impact Fees*, Utah Dept. of Commerce: Office of the Property Rights Ombudsman, available at <https://propertyrights.utah.gov/find-the-law/legal-topics/impact-fees> (last visited November 19, 2025).

In compliance with the Act, Washington County Water Conservancy District (District) commissioned Applied Analysis and Bowen Collins & Associates (Consultants) to prepare the following 2025 Regional Water Impact Fee Facilities Plan (IFFP) and Impact Fee Analysis (IFA) for the 10-year planning window spanning 2024 to 2034 to benefit new development served by the District's regional system¹.

The District provides water to communities throughout Washington County through a network of regional facilities. These facilities deliver water to the District's retail water system customers and wholesale municipal customers, who in turn provide the water to individual homes, businesses and other institutions within their respective cities.

The District's system has some excess capacity that is not currently being used. This capacity can supply some water that will be needed by anticipated population growth and new development over the next 10 years. However, to supply the communities in Washington County with enough water to meet the projected demand, the District must build more facilities and expand its capacity.

These new facilities will enable the District to provide the water supply that will be used by new development as communities continue to grow. The Act allows the District to charge an impact fee as a condition of development approval to pay for facilities that new development requires. To charge the impact fee, the District must comply with the Act, which requires an IFFP and an IFA. What follows is a general summary, designed to assist a layperson in understanding the basics of the IFFP and IFA; however, the IFFP and IFA themselves contain the particular details and serve as the controlling documents.

DISTINCTION BETWEEN IMPACT FEE FACILITIES PLAN AND IMPACT FEE ANALYSIS

The IFFP describes the facilities needed to serve new development, while the IFA describes how the fee to pay for these facilities was calculated. The IFFP and IFA consider similar issues, but each serves a unique purpose. The key components and variables have been summarized below.

LEVEL OF SERVICE

The IFFP first addresses how much water the District's system must provide for each home, business or institution. This, along with the performance standard to treat and deliver the required water, is called the "level of service." Because homes, businesses and institutions all need different amounts of water, the level of service is presented in terms of the "equivalent residential connection" (ERC). The ERC is used to signify the amount of water provided to the average single-family residential home. A business, institutional connection, or other type of user may need more water than one ERC, but this is the basic starting unit for how to calculate the amount of water needed. The proposed level of service per ERC for annual average demand is 0.59

¹ This executive summary provides a broad overview and has been prepared to be understood by a lay person. See Utah Code § 11-36A-303(2). Please refer to the Utah Impact Fee Act itself for the precise statutory language and technical requirements of impact fees. Utah Code § 11-36A-101 *et seq.* Section 11-36a-502 of the Act requires a summary of the IFFP, and Section 11-36a-303 requires a summary of the IFA.

acre-feet per year, which is the existing level of service, and the proposed level of service per ERC for peak day demand is 917 gallons per day (gpd), which is lower than the existing level of service of 1,079 gpd.

EXCESS CAPACITY USED BY NEW DEVELOPMENT

The IFFP addresses whether the District's system has available water after serving all the current users in the system. This is called "excess capacity." The District has determined that it has some limited excess capacity in its public facilities (Table 3).

The IFFP and IFA address how new development will consume the District's excess capacity, the cost of the existing facilities with excess capacity, and how new development will pay its proportional share of the cost of the excess capacity. New development will consume all available excess capacity in existing facilities within the planning horizon, and the IFFP/IFA provides the basis for new development's proportionate share of the original cost of existing facilities (Table 11).

BUILDING FACILITIES FOR NEW DEVELOPMENT

The IFFP identifies the demands that population growth and new development will impose on the District's existing facilities and how the District will meet those demands. New development over the next 10 years will utilize all of the excess capacity in existing facilities and will still require additional water supply infrastructure (see, e.g., Figures 1-4). The IFFP identifies future facilities necessary to meet this additional demand (Table 4). The IFA utilizes and analyzes the facilities identified in the IFFP in order to calculate the impact fee.

FUNDING CONSTRUCTION OF FACILITIES USED BY NEW DEVELOPMENT

The IFFP and IFA both identify the revenue sources that will be used to pay for the excess capacity in existing facilities and the construction of new facilities (Table 5). Existing facilities are funded in part through current revenue bonds. The impact fee will help pay new development's portion of current revenue bonds that finance existing facilities. The District will pay for future facilities necessitated by development with impact fees².

The IFA addresses new development's contributions to the costs and financing of existing facilities, as well as future facilities. New development will use all the existing excess capacity and a portion of the capacity of future facilities. The impact fee is calculated to finance the costs of existing excess capacity and the portion of the future facilities capacity consumed by new development. New development's proportionate shares of existing facility costs and future facility costs are shown in Table 6 and Table 7, respectively. Each home, business or institution constructed in the next 10 years will only pay its proportionate share of the future facility costs. The remaining cost for new facilities will be paid for by development that occurs beyond the next 10 years.

The IFA also addresses whether other revenue sources have or will be used to fund excess capacity in existing facilities or the construction of facilities used by new development. The District actively pursues applicable grant funding opportunities and has received federal and state grants for certain projects in the IFFP. The portion of project costs that are anticipated to be paid for by grants is excluded from the impact fee calculation in the IFA. The District does not expect dedications of system improvements by development activity (in other words, it is not anticipated that individual developers will directly construct otherwise directly contribute to the system level improvements identified in the IFFP/IFA). However, should developer dedications be received, they will be credited appropriately toward the proposed impact fee total.

The monthly water rates paid by customers and the District's portion of collected property taxes pay for operation, maintenance, and repair and replacement costs of facilities, rather than the construction of new facilities necessitated by growth. However, the District's Board of Trustees may determine that a portion of the costs that could otherwise be paid for by impact fees will be

² Only costs permitted by Utah Code section 11-36a-305 were included in the impact fee calculation.

paid for by monthly water rates and/or property taxes. In such a case, the Board of Trustees may adopt an impact fee that is lower than the maximum allowable value identified in the IFA.

IMPACT FEE CALCULATION

To calculate the impact fee, the cost per acre-foot for public facilities needed to supply water is determined. These costs are multiplied by the level of service required for the respective ERC. This calculation is shown in Table ES-1. In addition to water infrastructure projects provided by the District, a portion of future water supply will be met through municipal secondary irrigation systems. For users that are connected to an active municipal pressurized secondary irrigation system where the municipality provides its own secondary irrigation water, a reduced impact fee is calculated that takes into account the reduction of cost to the District associated with serving this customer base. The calculated impact fee per ERC for customers with metered, pressurized secondary irrigation service provided by a municipality will include only the indoor water use component of the level of service, assuming the outdoor irrigation component is covered by the municipal pressurized irrigation system.

TABLE ES-1: IMPACT FEE CALCULATION

	IMPACT FEE QUALIFYING COSTS
Cost of Existing Public Facilities Servicing 10-Year Growth	\$25,005,673
Cost of Future Public Facilities Servicing 10-Year Growth	\$746,843,136
Total Cost of Facilities Servicing 10-Year Growth	\$771,848,809
	ANNUAL SUPPLY (ACRE-FEET)
Annual Supply Available for 10-Year Growth	26,375
Cost of Facilities per Acre-Foot	\$29,264
Acre-Foot of Supply per ERC	0.59
Cost of Supply Facilities per ERC	\$17,266

IMPACT FEE FACILITIES PLAN

UCA § 11-36A-301(1): IMPACT FEE FACILITIES PLAN

Section 11-36a-301(1) of the Act requires an IFFP to be prepared that addresses the requirements of the Act. The Consultants developed this IFFP based on information contained in the District's 2025 Regional Water Master Plan³ (2025 Master Plan) and financial planning information provided by the District.

The public facilities this IFFP identifies are system improvements designed to service development activity in the regional service area at large over the next 10 years (the "planning window"). They consist of existing public facilities with excess capacity and future public facilities planned to meet the demands of growth. The following sections address existing and proposed levels of service, increasing demands on existing supply, existing excess capacity, and additional supply from proposed future public facilities.

UCA § 11-36A-302(1)(A)(I-II): EXISTING AND PROPOSED SERVICE LEVEL

The existing level of service for new development is 0.59 acre-feet of water per year per ERC of source demand. The existing level of service for peak day demand per ERC is calculated by multiplying average day usage by a factor of 1.73⁴. In 2023, the District implemented an annual source sizing standard for new development of 0.59 acre-feet per ERC based on long-term water conservation goals. This source sizing standard was adopted as the level of service for new development beginning in 2023. This level of service is significantly lower than what the annual source sizing standard per ERC would be based on historical usage data as detailed in the 2025 Master Plan⁵. However, the District concluded that adoption of the District's Water Efficiency Standards and corresponding requirements for new development to become more water efficient, adopted by the regional municipalities in their water conservation ordinances and District-imposed fees for excessive water use provide a reasonable basis for reducing the source sizing standard.

In accordance with the source sizing standard for new development proposed in the 2025 Master Plan, this IFFP also adopts 0.59 acre-feet per year per ERC as the level of service for new development. The peak day demand component of the source sizing standard for new connections governs how much water the system must be capable of delivering on any given day to meet temporary spikes in demand, such as those that occur when water users engage in multiple water-intensive activities during the same day. In a wholesale water system, the peaking factor is used to determine the sizing of distribution and treatment facilities. It does not increase the overall demand on an annual basis; it simply helps water providers meet temporary increases in water demand on any given day. The peaking factor in the 2025 Master Plan has been reduced based on new water use data, as described in the 2025 Master Plan. This IFFP adopts this peaking factor as a component of the proposed level of service.

The District's board of trustees recently adopted voluntary Ultra Water Efficiency Standards (UWES)⁶. These standards provide further limitations on outdoor water use, including stricter limitations on pools and outdoor irrigation. The source-sizing standard associated with these standards is 0.39 acre-feet per connection annually. This is a 34 percent reduction in demand in comparison to the standard level of service. Because these stricter standards will apply development by development on a limited or voluntary basis and it is not anticipated that they will apply to all developments, the 2025 Master Plan estimates how

³ Bowen Collins & Associates (2025). Regional Water Master Plan.

⁴ See Chapter 2 of 2025 Master Plan.

⁵ The District's water system infrastructure was evaluated in the 2025 Master Plan under both existing and projected future conditions. The master plan identifies a source sizing standard for existing customers of 0.68 acre-feet per ERC based on an analysis of recent historical water use data. This source sizing standard was used to determine existing users' current utilization of existing facilities, which in turn is used to determine the amount of excess capacity available in the system for new development. As stated in the body of this document, the current level of service offered to new development is 0.59 acre-feet per ERC.

⁶ Available at www.wcwcd.gov/wp-content/uploads/2025/08/Ultra-Water-Efficiency-Standards-050525.pdf

many future users will fall into this category and how this will impact projected water system demand. Table 1 and Table 2 summarize the existing and proposed level of service for new development.

TABLE 1: UNIT OF DEMAND – AVERAGE ANNUAL SOURCE DEMAND

DEMAND PER ERC (EXISTING/PROPOSED)	ACRE-FEET PER YEAR
Indoor	0.25
Outdoor	0.34
Total	0.59

TABLE 2: UNIT OF DEMAND – PEAK DAY DEMAND

DEMAND PER ERC	GALLONS PER DAY
Total Existing Peak Day Demand	1,079
Total Proposed Peak Day Demand	911

UCA § 11-36A-302(1)(A)(III): EXCESS CAPACITY

Section 302(1)(A) requires the plan to identify any excess capacity to accommodate future growth at the proposed level of service. The District will use excess capacity in existing public facilities to help meet the demands of new development during the 10-year planning window established in this IFFP. To determine excess capacity, the Consultants used the information and analysis found in the 2025 Master Plan to determine the amount of water allocated to existing development. The 2025 Master Plan evaluated existing and future demand throughout the system, and demand was allocated to facilities based on the most efficient operation of the entire system. The allocated demand assigned to each facility was subtracted from total capacity to determine excess capacity in each facility.

Using this methodology, existing potable water supply facilities have an excess capacity of 4,848 acre-feet from the Sand Hollow Wells System as summarized in Table 3.

TABLE 3: CAPACITY OF EXISTING WATER SUPPLY FACILITIES (ACRE-FEET PER YEAR)

EXISTING FACILITIES	CURRENTLY ALLOCATED CAPACITY	EXCESS CAPACITY	TOTAL CAPACITY
SUPPLY FACILITIES (ACRE-FEET)			
Cottam Wells	567	-	567
Crystal Creek Pipeline	1,819	-	1,819
Toquerville Springs	1,591	-	1,591
Quail Creek/Sand Hollow	24,920	-	24,920
Ence Wells	180	-	180
Sand Hollow Well System	5,144	4,848	9,992
Regional Potable City Resources	32,222	-	32,222
Total	66,443	4,848	71,291
TREATMENT FACILITIES PEAKING CAPACITY (GPM)			
Quail Creek 60 MGD Water Treatment Plant (WTP)	35,773	5,894	41,667
Total	35,773	5,894	41,667
STORAGE FACILITIES (GALLONS)			
Cottam Wells 3 MG Tank	1,551,101	1,448,899	3,000,000
Warner Valley Tank	1,249,201	750,799	2,000,000
Total	2,800,302	2,199,698	5,000,000

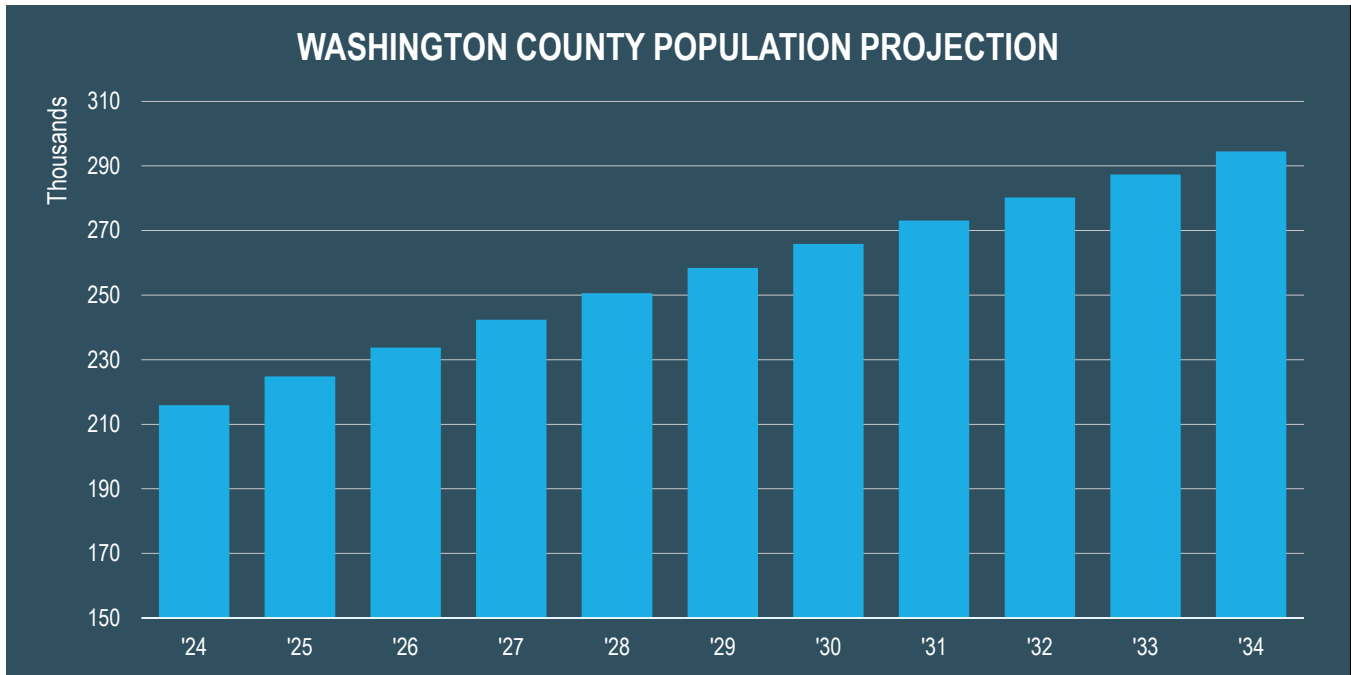
EXISTING FACILITIES	CURRENTLY ALLOCATED CAPACITY	EXCESS CAPACITY	TOTAL CAPACITY
DISTRIBUTION FACILITIES (GPM)			
Sand Hollow Regional Pipeline	4,000	11,800	15,800
Total	4,000	11,800	15,800

UCA § 11-36A-302(1)(A)(IV): DEMAND ON EXISTING FACILITIES

Section 302(a)(iv) requires the plan to identify demands placed upon existing public facilities by new development activity at the proposed level of service. Washington County’s population is projected to grow from 215,937 as of 2024 to 294,536 in 2034 as illustrated in

Figure 1 below. To accommodate this projected growth, the number of households in the county is anticipated to increase from approximately 76,476⁷ in 2024 to 112,003 in 2034 (see Figure 2 below). Note that the District does not currently provide water to all communities throughout Washington County. For the District’s regional service area, the household increase combined with non-residential growth is projected to add 47,099 ERCs over the next 10 years⁸. Additional information on growth assumptions can be found in Chapter 2 of the 2025 Master Plan.

FIGURE 1: POPULATION GROWTH PROJECTION⁹

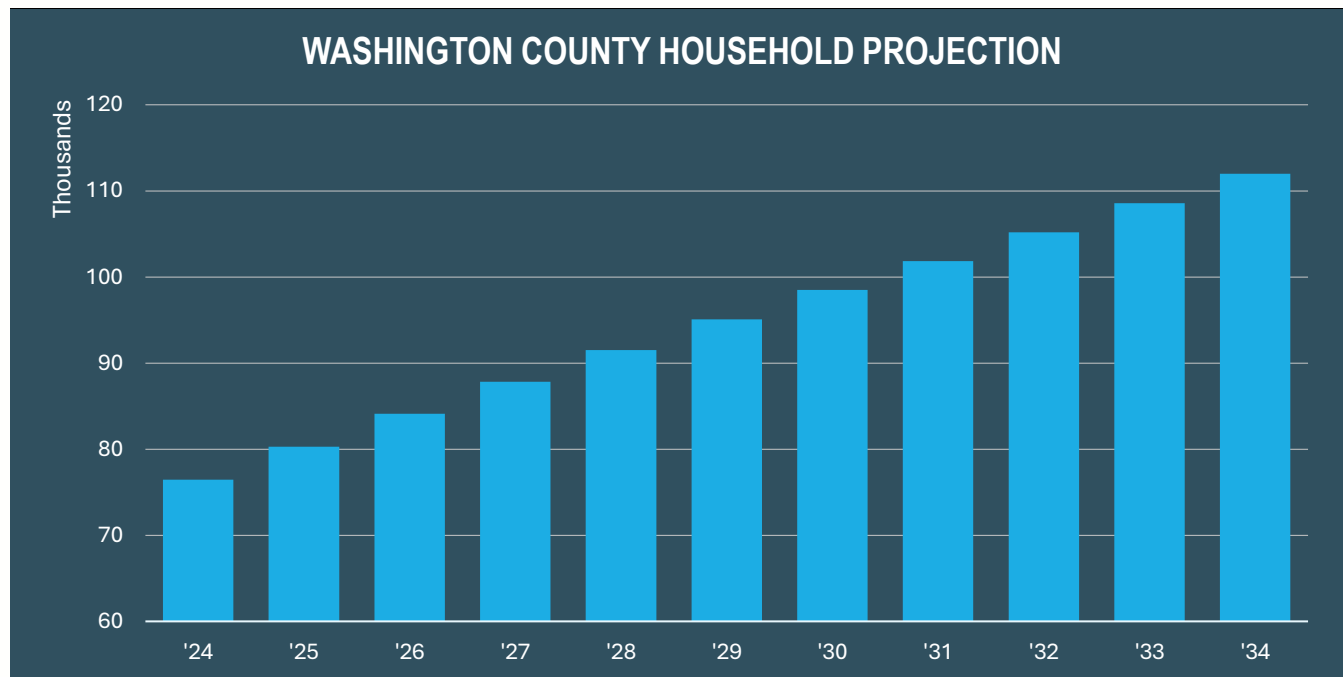


⁷ The estimated number of households in Washington County is based on estimates provided by the Kem C. Gardner Institute and may not coincide with previous estimates presented in the 2022 Master Plan. Growth projections for the county undergo regular updates which commonly result in new, updated planning estimates.

⁸The proposed growth rate for the service area was estimated using the overall county household growth projections provided by the Kem C. Gardner Institute and through coordination with the cities serviced by the District. The 2025 Master Plan assumes that non-residential development will grow in stride with residential development to meet new commercial, institutional, and industrial needs of the community.

⁹Kem C. Gardner Policy Institute, 2022 Baseline Projection with interpolation to 2024.

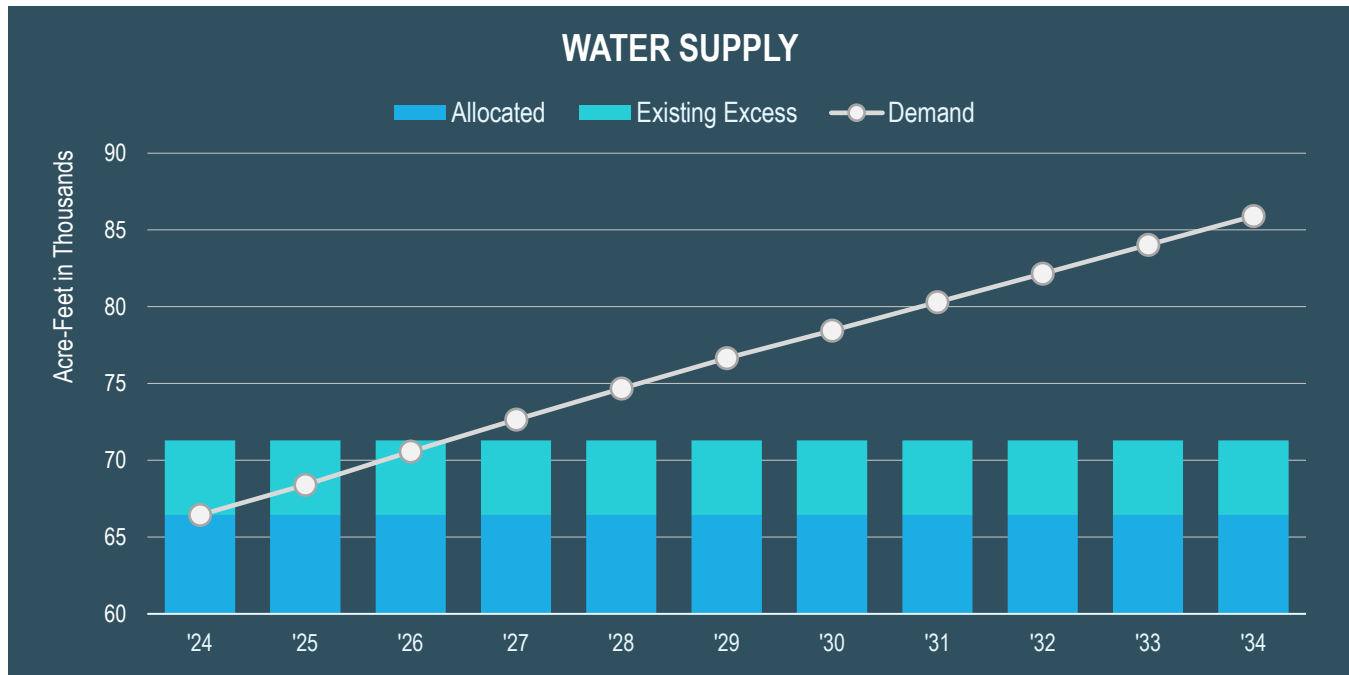
FIGURE 2: HOUSEHOLD GROWTH PROJECTION¹⁰



The currently allocated supply and existing excess water supply amounts are compared to projected water demand in Figure 3. Additional information on projected demand assumptions can be found in Chapter 2 and Chapter 4 of the 2025 Master Plan. With no additional supply, existing potable water sources will fall short of demand in 2027. It is estimated that the municipalities will have excess secondary irrigation supplies beyond this point in time, but those secondary irrigation sources require the potable water supply counterpart to facilitate new development.

¹⁰ Kem C. Gardner Policy Institute, 2022 Baseline Projection with interpolation to 2024.

FIGURE 3: WATER SUPPLY



UCA § 11-36A-302(1)(A)(V): MEETING GROWTH DEMANDS

Section 302(1)(a)(v) requires the plan to identify the means by which the District will meet growth demands. Chapter 2 of the 2025 Master Plan uses the population and household growth projections developed by the Kem C. Gardner Policy Institute to calculate the water supply needed to meet the demands of growth and identifies projects capable of meeting those demands over a 50-year planning window. To meet new growth demands within the 10-year planning window of this IFFP, the District determined that additional facilities would be necessary. Only facilities needed to service new development within the 10-year planning window have been included in the IFFP. The District evaluated potential projects and the anticipated timing of each to determine the facilities needed within the planning window. The projected supply and timing of each facility were determined by evaluating the anticipated water demands throughout the area of Washington County serviced by the District. Table 4 below identifies the means (i.e., various planned projects) by which the District will meet growth demands and outlines the additional capacity provided by each project¹¹. Note that not all projects provide a direct increase in water supply, but they are necessary in order to make the water supply usable and qualify as public facilities. In addition to developing water sources themselves, facilities such as treatment plants, storage tanks, pipelines, and pump stations are all required to treat, store, and convey water to customers. Chapter 4 of the 2025 Master Plan describes the components of the Regional Reuse Purification System, which consists of treatment facilities, pipelines, pump stations, and storage ponds that work collectively to produce additional water supply. The collective water supply made available by this combination of projects is shown in Table 4.

¹¹ The 2022 Regional Impact Fee Facilities Plan & Impact Fee Analysis included the Lake Powell Pipeline Project as a new water supply project within a 10-year planning window. Due to factors outside of the control of the District, the project is now projected to occur outside the 10-year planning window of this plan and has therefore been excluded from the analysis but remains a part of the District’s long-term planning.

TABLE 4: PLANNED PUBLIC FACILITIES

SOURCE DEVELOPMENT PROJECTS (SUPPLY)	PLANNED CONSTRUCTION YEAR	ADDITIONAL SUPPLY (ACRE-FEET)
SD2. Cottam Well 3	2025	889
SD10. Sand Hollow Well 7	2025	N/A ¹²
SD1. Ash Creek Pipeline/Chief Toquer Reservoir	2027	1,748
SD3. Cottam Well 4	2027	889
SD9. Potable Quality Agricultural Share Acquisition	2027	500
SD5. Expansion of Kolob Reservoir	2028	194
SD6. West Side Water Rights Development	2028	907.2
SD8. La Verkin Secondary Irrigation System Improvements	2028	949 ¹³
SD4. Cove Reservoir	2030	566
SD7. Municipal Groundwater Development	2030	3,000
Regional Reuse Purification System Components		
RC6. CPWRF Reuse Pump Station	2026	
RC7. CPWRF to La Verkin Irrigation Pipeline and Pond	2027	
RC9. TSWS Upper Pond to Chief Toquer Reservoir Pipeline and Pump Station	2028	
RT5. Advanced Water Purification Demonstration Facility	2028	
RT1. St. George Reuse Facility Upgrade	2029	
RS1. Reuse Forebay and Pump Station	2030	17,924 ¹⁴
RC1. SGRF to Reuse Forebay Pipeline and Pump Station	2030	
RC2. Reuse Forebay to Agricultural Exchange Pipeline and Pump Station	2030	
RC4. Gateway WRF Reuse Pump Station	2032	
RC8. La Verkin Irrigation Pond to TSWS Upper Pond Pipeline and Pump Station	2032	
RC10. Ivins Reservoir Reuse Pump Station	2033	
RT2. St. George Reuse Facility Expansion	2034	
Total Supply		27,567
Treatment Projects	Planned Construction Year	Additional Capacity (MGD)
SD11. Quail Creek WTP 90 MGD Expansion	2028	30
SD11. Quail Creek WTP Ozone Addition (to existing and expanded facility)	2028	90
SD12. West Side Water Treatment Plant	2033	12
Storage Projects	Planned Construction Year	Additional Capacity (MG)
ST1. Sand Hollow 2 MG Tank B	2025	2
ST2. Quail Creek 10 MG Tank B	2026	10
ST3. West Side Water Treatment Plant Storage Tanks	2033	5

¹² Sand Hollow Well 7 will increase the peaking capacity of the Sand Hollow Well Field to meet the peaking demands of new development but does not increase the overall annual yield of the system.

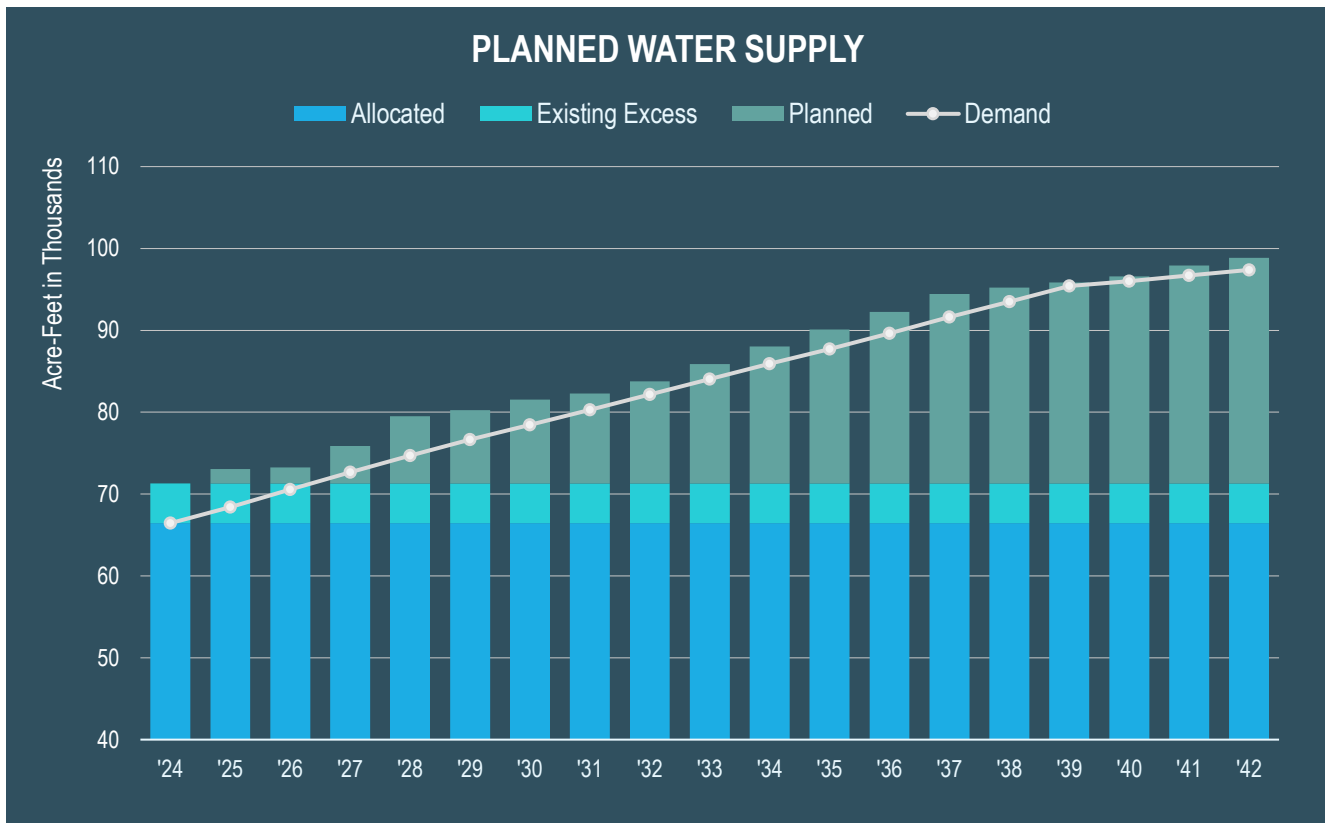
¹³ This value represents the estimated yield from this improvement through the year 2042, which is the point at which the planned local water supply and the associated reuse is anticipated to be fully allocated in the system. Additional water may be available from this project beyond that point, but only the capacity and associated cost of said capacity that is known at this time to be available to the RWSA service area collectively is included here.

¹⁴ This value represents the anticipated yield from the Regional Reuse Purification System with the improvements included in the IFFP. The Regional Reuse Purification System is comprised of various projects, including treatment, distribution, and storage, all of which work together collectively to make additional reuse water available to meet the needs for future growth. Additional Regional Reuse Purification System projects are planned to occur beyond the 10-year planning window of this IFFP that will increase the yield of the system, but the cost and yield of those future improvements are not included in this study. The Regional Reuse Purification System will be supported by additional projects to be constructed by the District's Reuse Program Partners, but only the projects to be funded by the District are included in this IFFP. The components of the Regional Reuse Purification System will be operated either by the District or on behalf of the District and meet the statutory definition for public facilities because it is anticipated to serve aspects of water supply, treatment, storage, and distribution.

SOURCE DEVELOPMENT PROJECTS (SUPPLY)	PLANNED CONSTRUCTION YEAR	ADDITIONAL SUPPLY (ACRE-FEET)
	Planned Construction Year	Additional Capacity (gpm)
Distribution Projects		
C1. Quail to Cottam Pump Stations and Pipeline Project, Phase 1	2025	4,500
C3. Sand Hollow 2 MG to Crossroads Pipeline Upsize	2025	320
C4. Cottam to Casa Pipeline	2025	2,400
C5. Toquerville Springs to Cottam Pipeline Pump Station	2026	1,000
C12. Cottam to Virgin Pipeline, Reach 3	2029	4,900
C7, C8, C9. Washington Fields Regional Pipeline Interconnect, Phases 1-3 ¹⁵	2029	15,800
C2. Quail to Cottam Pump Stations and Pipeline Project, Phase 2	2030	4,500

The District anticipates that new water system projects to be constructed in the next 10 years will contribute 27,566 acre-feet of additional supply to service future growth as depicted in Figure 4 below.

FIGURE 4: PLANNED WATER SUPPLY¹⁶



¹⁵ The Washington Fields Regional Pipeline Interconnect Project is projected to occur in multiple phases, with each phase adding additional pumping capacity to the system. Because the majority of costs associated with the project pertain to Phase 1, which involves the construction of the pipeline and pump station, the total project cost and capacity, including costs and capacity from future phases that are projected to occur outside of the 10-year planning window, has been included. This fairly allocates the cost of the facility across the life of the project to avoid disproportionately charging users in the short-term more than users in the long-term.

¹⁶ As shown in Figure 4, new projects to be constructed within the next 10 years will have capacity to service growth beyond the 10-year planning window. This IFFP/IFA and the impact fee calculated thereon only include the proportionate share of these projects that will be used by growth within the next 10-years. The excess capacity and cost of said capacity not used by growth in the next 10 years will be allocated to users beyond the 10-year planning window and captured in future impact fee studies. The figure includes Type 1 reuse water and that will be used to meet secondary irrigation demands, offsetting potable water demands and extending the overall source capacity of the system.

UCA § 11-36A-302(2): REVENUE AND FUNDING SOURCES FOR SYSTEM IMPROVEMENTS

Section 302(2) requires the District to “generally consider all revenue sources to finance the impacts on system improvements”. Table 5 shows the projected system improvements with the anticipated revenue and funding sources for each. The District has evaluated all sources of revenue and funding to finance the impacts of system improvements as set forth further in the IFA.

After considering reasonable potential revenue and funding sources, the District has determined that impact fees will be necessary to fund most of the cost of the facilities identified below. The District has secured state and federal grant funding for a portion of the projects included in the IFFP, but impact fees will be needed to cover the portion of the projects not funded by grants. The impact fee calculation will not include the portion of projects that will be funded through grants. The District will continue to seek additional grant money for projects but only grants that have been secured to date are accounted for in this analysis, since grants are not guaranteed. Interfund loans and bonds may be necessary for cash flow purposes to initially fund some project costs but must be paid back and so are not considered sources of revenue to cover the cost of the facilities. Given the absence of other dependable funding sources, impact fees are necessary to maintain the proposed level of service.

[SEE TABLE 5 ON NEXT PAGE]

TABLE 5: REVENUE AND FUNDING SOURCES FOR SYSTEM IMPROVEMENTS

EXISTING FACILITIES	BONDS	GRANTS	DEDICATIONS
Sand Hollow Well System	None	None	None
Sand Hollow Regional Pipeline	\$10,435,500	None	None
Cottam Wells 3MG Tank	None	None	None
Warner Valley Tank	None	None	None
Subtotal	\$10,435,500	\$0	\$0
FUTURE FACILITIES	BONDS	GRANTS	DEDICATIONS
SOURCE DEVELOPMENT PROJECTS			
SD2. Cottam Well 3	None	None	None
SD10. Sand Hollow Well 7	None	None	None
SD1. Ash Creek Pipeline/Chief Toquer Reservoir	\$10,435,500	\$23,959,750	None
SD3. Cottam Well 4	None	None	None
SD9. Potable Quality Agricultural Share Acquisition	None	None	None
SD5. Expansion of Kolob Reservoir	None	None	None
SD6. West Side Water Rights Development	None	None	None
SD8. La Verkin Secondary Irrigation System Improvements	\$13,664,500	None	None
SD4. Cove Reservoir	None	None	None
SD7. Municipal Groundwater Development	None	\$300,000	None
SD16. Agricultural Share Acquisition (2,098 acre-feet/year)	None	None	None
Regional Reuse Purification System Components	None	None	None
RC6. CPWRF Reuse Pump Station	\$2,005,692	None	None
RC7. CPWRF to La Verkin Irrigation Pipeline and Pond	\$1,511,617	\$2,994,382	None
RC9. TSWs Upper Pond to Chief Toquer Reservoir Pipeline and Pump Station	\$3,440,650	\$2,000,000	None
RT5. Advanced Water Purification Demonstration Facility	\$1,580,996	\$5,419,004	None
RT1. St. George Reuse Facility Upgrade	\$31,062,072	\$1,921,684	None
RS1. Reuse Forebay and Pump Station	\$29,423,686	\$85,541	None
RC1. SGRF to Reuse Forebay Pipeline and Pump Station	\$188,967,738	\$3,244,407	None
RC2. Reuse Forebay to Agricultural Exchange Pipeline and Pump Station	\$106,955,479	\$643,521	None
RC4. Gateway WRF Reuse Components	\$17,252,615	\$231,385	None
RC8. La Verkin Irrigation Pond to TSWs Upper Pond Pipeline and Pump Station	\$10,527,336	None	None
RC10. Ivins Reservoir Reuse Pump Station	\$1,068,200	None	None
RT2. St. George Reuse Facility Expansion	\$873,670	\$290,003	None
Subtotal	\$413,149,941	\$41,089,677	\$0
TREATMENT PROJECTS			
SD11. Quail Creek WTP 90 MGD Expansion	None	None	None
SD11. Quail Creek WTP Ozone Addition	None	None	None
SD12. West Side Water Treatment Plant	None	None	None
Subtotal	\$0	\$0	\$0
STORAGE PROJECTS			
ST1. Sand Hollow 2 MG Tank B	None	None	None
ST2. Quail Creek 10 MG Tank B	None	None	None
ST3. West Side Water Treatment Plant Storage Tanks	None	None	None
Subtotal	\$0	\$0	\$0
DISTRIBUTION PROJECTS			
C1. Quail to Cottam Pump Stations and Pipeline Project, Phase 1	None	None	None
C3. Sand Hollow 2 MG to Crossroads Pipeline Upsize	None	None	None
C4. Cottam to Casa Pipeline	None	\$1,690,000	None
C5. Toquerville Springs to Cottam Pipeline Pump Station	None	None	None
C12. Cottam to Virgin Pipeline, Reach 3	None	None	None
C7, C8, C9. Washington Fields Regional Pipeline Interconnect	None	None	None
C2. Quail to Cottam Pump Stations and Pipeline Project, Phase 1	None	None	None
Subtotal	\$0	\$1,690,000	\$0
Total	\$423,585,441	\$42,779,677	\$0

IMPACT FEE ANALYSIS

UCA § 11-36A-303(1): IMPACT FEE ANALYSIS

Section 11-36a-303(1) of the Act requires a written analysis of each proposed impact fee. While a summary of this analysis designed to be understood by a lay person has been included in the Executive Summary above, the impact fee is based on an analysis and consideration of each of the statutory factors, which are addressed in subsections below. The IFA relies on information from the 2025 Master Plan, the IFFP, and financial planning information provided by the District. The following sections also address the impact of new development on excess capacity and new capacity of system improvements¹⁷ with regard to usage and financing.

UCA § 11-36A-304(1)(A): EXCESS CAPACITY AND NEW DEVELOPMENT

Section 304(a)(1) requires the analysis to identify the anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity. Existing public facilities with excess capacity are identified in Table 6. As shown in Figure 3 of the IFFP, demand driven by anticipated new development will exhaust existing excess supply capacity by 2027. Existing excess system capacity is made available by a number of system components, including wells, pipelines, treatment facilities, and storage tanks. The portion of these existing facilities with excess capacity that will be used by future growth is shown in Table 6. The following sections describe how the percentages in Table 6 were determined.

TABLE 6: EXISTING EXCESS CAPACITY IN PUBLIC FACILITIES

EXISTING FACILITIES	EXCESS CAPACITY	TOTAL CAPACITY	% SERVING EXISTING DEVELOPMENT	% CAPACITY SERVING 10-YEAR GROWTH	EXCESS CAPACITY AVAILABLE FOR GROWTH BEYOND 10 YEARS
Sand Hollow Well System ¹⁸	4,848 acre-feet	9,992 acre-feet	51.5%	48.5%	0%
Sand Hollow Regional Pipeline ¹⁹	11,800 gpm	15,800 gpm	25.3%	22.2%	52.5%
Cottam Wells 3 MG Tank ²⁰	1,448,899 gal	3,000,000 gal	51.7%	48.3%	0%
Warner Valley Tank	750,799 gal	2,000,000 gal	62.5%	37.5%	0%
Quail Creek 60 MGD WTP	5,894 gpm	41,667 gpm	85.9%	14.1%	0%

Sand Hollow Well System

The excess water supply capacity in the District's system comes from the Sand Hollow Well System. Based on the supply and demand evaluation contained in Chapter 4 of the 2025 Master Plan, there is an estimated excess source capacity of 4,848 acre-feet, which represents 48.5 percent of the capacity of the Sand Hollow Well System. As indicated in Table 6, all excess supply capacity in the Sand Hollow Well System is anticipated to be utilized by new development over the next 10 years.

¹⁷ The public facilities identified in this IFA and the IFFP are system improvements designed to provide service to new development activity in the regional service area at large over the next 10 years. They consist of existing public facilities with excess capacity and future public facilities that are planned to meet the demands of growth.

¹⁸ The Sand Hollow Well System consists of wells, piping, and a groundwater treatment plant designed to deliver up to 9,992 acre-feet of water per year. Finished water storage facilities in the Sand Hollow system are not included in this capacity and are included separately.

¹⁹ The Sand Hollow Regional Pipeline has capacity to serve development beyond the 10-year planning window. Only the proportionate share of the cost attributable to growth in the 10-year window is included in the impact fee calculation. Total capacity is calculated assuming a maximum design velocity of 5 feet per second.

²⁰ The excess capacity in the Cottam Well 3 MG Tank and Warner Valley Tank is calculated by grouping all district storage facilities and allocating the overall excess storage capacity to these two storage tanks.

Sand Hollow Regional Pipeline

The Sand Hollow Regional Pipeline is a 36-inch diameter transmission pipeline with a maximum design capacity of 15,800 gpm (flow velocity of 5 feet per second). The existing system utilizes 4,000 gpm of capacity from this line (25.3 percent), and growth over the next 10 years is anticipated to use an additional 3,500 gpm (22.2 percent), with the remaining 52.5 percent of capacity being used by growth beyond the 10-year planning window.

Cottam Wells 3 MG Tank Warner Valley Tank

Based on the storage utilization estimates presented in Chapter 5 of the 2025 Master Plan, there is excess storage capacity of 1,448,899 gallons in the Cottam Wells 3 MG Tank. It is anticipated that all this excess storage capacity will be utilized by new development within the 10-year planning window.

Warner Valley Tank

Based on the storage utilization estimates presented in Chapter 5 of the 2025 Master Plan, there is excess storage capacity of 750,799 gallons in the Warner Valley Tank. It is anticipated that all this excess storage capacity will be utilized by new development within the 10-year planning window.

Quail Creek 60 MGD WTP

Chapter 4 of the 2025 Master Plan identifies an excess peak source production capacity of 10,018 gpm. 4,124 gpm of excess capacity is in the Sand Hollow Well System, and 5,894 gpm of capacity is in the existing 60 MGD Quail Creek WTP. It is anticipated that this excess capacity will be fully utilized by new development within the 10-year planning window.

UCA § 11-36A-304(1)(B): SYSTEM IMPROVEMENTS AND NEW DEVELOPMENT

Section 304(1)(b) requires that the analysis identify the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service. To maintain the level of service shown in Table of the IFFP, the District plans to develop and construct the future supply, distribution, storage and treatment system improvements as shown in Table 7. As shown in Figure 4 of the IFFP, demand driven by anticipated new development will require additional system improvements to maintain the proposed level of service. The portion of the future system improvements attributable to new development is shown in Table 7. The proposed projects address future needs for both average annual demand and peak day demand at the proposed level of service and are required to maintain the level of service. The public facilities listed in Table 7 meet the statutory requirements for a "Public Facility" as defined in UCA § 11-36A-102(17).

Table 7 provides a breakdown of new public facilities and the percentage of the project costs attributed to existing and future users. Pursuant to UCA §11-36A-304(1)(d), the impact fee analysis is required to "estimate the proportionate share" of which is defined in UCA §11-36A-102(16) to be "the cost of public facilities that are roughly proportionate and reasonably related to the service demand and needs of any development activity". While most projects identified in Table 7 are required solely to meet the needs of future growth, some projects also benefit existing users, while others possess capacity to service growth beyond the 10-year planning window. Only those costs necessitated by new development during the planning window have been included in the impact fee analysis. The following sections describe the methodology used to determine the percentages shown in Table 7. Additional information is found in the 2025 Master Plan.

TABLE 7: PLANNED PUBLIC FACILITIES

FUTURE FACILITIES	PROJECT YEAR	% ATTRIBUTABLE TO EXISTING USERS	% ATTRIBUTABLE TO GROWTH IN 10-YEAR PLANNING WINDOW	% ATTRIBUTABLE TO GROWTH BEYOND 10 YEARS
SOURCE DEVELOPMENT PROJECTS				
SD2. Cottam Well 3	2025	0.0%	78.1%	21.9%
SD10. Sand Hollow Well 7	2025	0.0%	100.0%	0.0%
SD1. Ash Creek Pipeline/Chief Toquer Reservoir	2027	0.0%	78.1%	21.9%
SD3. Cottam Well 4	2027	0.0%	78.1%	21.9%
SD9. Potable Quality Agricultural Share Acquisition	2025-2034	0.0%	78.1%	21.9%
SD5. Expansion of Kolob Reservoir	2028	0.0%	78.1%	21.9%
SD6. West Side Water Rights Development	2028	0.0%	78.1%	21.9%
SD8. La Verkin Secondary Irrigation System Improvements	2028	0.0%	78.1%	21.9%
SD4. Cove Reservoir	2030	0.0%	78.1%	21.9%
SD7. Municipal Groundwater Development	2030	0.0%	78.1%	21.9%
<i>Regional Reuse Purification System Components</i>				
RC6. CPWRF Reuse Pump Station	2026	0.0%	78.1%	21.9%
RC7. CPWRF to La Verkin Irrigation Pipeline and Pond	2027	0.0%	78.1%	21.9%
RC9. TSWS Upper Pond to Chief Toquer Reservoir Pipeline and Pump Station	2028	0.0%	78.1%	21.9%
RT5. Advanced Water Purification Demonstration Facility	2028	0.0%	0.0%	100.0%
RT1. St. George Reuse Facility Upgrade	2029	0.0%	65.6%	34.4%
RS1. Reuse Forebay and Pump Station	2030	0.0%	65.6%	34.4%
RC1. SGRF to Reuse Forebay Pipeline and Pump Station	2030	0.0%	65.6%	34.4%
RC2. Reuse Forebay to Agricultural Exchange Pipeline and Pump Station	2030	0.0%	65.6%	34.4%
RC4. Gateway WRF Reuse Pump Station	2032	0.0%	78.1%	21.9%
RC8. La Verkin Irrigation Pond to TSWS Upper Pond Pipeline and Pump Station	2032	0.0%	78.1%	21.9%
RC10. Ivins Reservoir Reuse Pump Station	2033	0.0%	78.1%	21.9%
RT2. St. George Reuse Facility Expansion	2034	0.0%	65.6%	34.4%
TREATMENT PROJECTS				
SD11. Quail Creek WTP 90 MGD Expansion	2028	0.0%	31.4%	68.6%
SD11. Quail Creek WTP Ozone Addition	2028	57.2%	13.4%	29.3%
SD12. West Side Water Treatment Plant	2033	0%	78.1%	21.9%
STORAGE PROJECTS				
ST1. Sand Hollow 2 MG Tank B	2025	0.0%	77.7%	22.3%
ST2. Quail Creek 10 MG Tank B	2026	0.0%	77.7%	22.3%
ST3. West Side Water Treatment Plant Storage Tanks	2033	0.0%	77.7%	22.3%
CONVEYANCE PROJECTS				
C1. Quail to Cottam Pump Stations and Pipeline Project, Phase 1	2025	11.8%	26.3%	61.9%
C3. Sand Hollow 2 MG to Crossroads Pipeline Upsize	2025	93.7%	6.3%	0.0%
C4. Cottam to Casa Pipeline	2025	0.0%	50.0%	50.0%
C5. Toquerville Springs to Cottam Pipeline Pump Station	2026	0.0%	78.1%	21.9%
C12. Cottam to Virgin Pipeline, Reach 3	2029	15.8%	22.2%	62.0%
C7, C8, C9. Washington Fields Regional Pipeline Interconnect	2029	0.0%	44.9%	55.1%
C2. Quail to Cottam Pump Stations and Pipeline Project, Phase 2	2030	11.8%	26.3%	61.9%

Source Development Projects

As discussed previously in the description of the “Sand Hollow Well System”, existing excess water supply capacity will be fully utilized by projected growth over the next 10 years. New water supply development projects will be needed to meet the total projected demand over the next 10 years.

Projected future water demand is a result of the combination of new ERCs added to the system at the 0.59 acre-feet per year standard and those added at the 0.39 acre-feet per year standard (see UCA §11-36a-302(1)(a)(I-II) in IFFP). In the 2025 Master Plan, it was estimated that 85 percent of new growth will be added to the system at the 0.59 acre-feet per year standard and that 15 percent of new growth will be added at the 0.39 acre-feet per year standard. Growth projections indicated that 47,099 new ERCs will be added to the system over the next 10 years, which corresponds to an added demand of 26,375 acre-feet per year. Assuming that the remaining excess supply capacity in the system is fully utilized by 10-year growth, new supply projects will need to meet the remaining 10-year supply demand of 21,527 acre-feet ($26,375 \text{ acre-feet} - 4,848 \text{ acre-feet} = 21,527 \text{ acre-feet}$). New water supply projects included in the IFFP are expected to produce an estimated 27,567 acre-feet of water. By grouping these future water supply projects, it is anticipated that 10-year growth will utilize 78.1 percent of their combined capacity ($21,527 \text{ acre-feet} / 27,567 \text{ acre-feet} = 0.781$ or 78.1 percent).

Some of the projects to be constructed in the next 10 years possess additional capacity that will be utilized beyond the 10-year planning window. Because these facilities possess this excess capacity, the proportionate share of the capacity of these sources that will be used beyond the 10-year planning window is deferred to that later period. For such projects, the percentage utilized by growth over the next 10 years is reduced from 78.1 percent to 65.6 percent. This calculation is based on the assumption that later phases of the Regional Reuse Purification System that occur beyond the 10-year planning window will add an additional 5,235 acre-feet of annual supply, bringing the total combined yield of new projects to 32,802 acre-feet. Anticipated demand over the next 10 years (21,527 acre-feet) represents 65.6 percent of this overall total supply.

For the Sand Hollow Well 7 project, it is anticipated that 100 percent of the project capacity will be utilized by new development over the next 10 years.

Treatment Projects

New treatment projects consist of an upgrade to the Quail Creek WTP to expand the treatment capacity to 90 MGD as well as add a new treatment process (ozone) to improve the overall quality and consistency of the treated water. The West Side Water Treatment Plant is a new treatment facility that will treat water from Gunlock Reservoir to be used for potable applications in conjunction with agricultural exchange made possible through the Regional Reuse Purification System. The projected increase in peak day potable water demand over the next 10 years is 20,905 gpm. The existing excess peaking capacity in the system is estimated to be 10,018 gpm (capacity in the Sand Hollow Wells System and the Quail Creek 60 MGD WTP), so 10,887 gpm of new demand must be satisfied by new projects. The total new peaking capacity added by new water supply projects, including the new treatment facilities, is estimated to be 34,666 gpm. Therefore, it is anticipated that new development over the next 10 years will utilize 31.4 percent of the combined treatment plant capacity. However, the capacity of West Side WTP is governed by the annual yield of water supplied rather than its peaking capacity. The yield made available through the Regional Reuse Purification System is contingent upon this facility, therefore the capacity anticipated to be used by new development over the next 10 years aligns with the percentage of the Regional Reuse Purification System supply described above in “Source Development Projects”, or 78.1 percent.

For the ozone treatment component, because the improvements improve the overall quality of the treated water and provide a benefit to existing users, the proportionate share of the facility capacity has been allocated to existing users, users in the next 10 years, and users beyond the next 10 years.

Storage Facilities

As discussed previously in the description of the excess capacity of the Cottam Wells 3 MG Tank and Warner Valley Tank, there are 2,199,698 gallons of excess storage capacity between these two facilities that is anticipated to be fully utilized by development over the next 10 years. The total forecasted storage requirement over the next 10 years is 15,401,964 gallons. Assuming the existing storage capacity is fully utilized by 10-year growth, new storage facilities will need to provide 13,202,266 gallons of storage volume (15,401,964 gallons – 2,199,698 gallons = 13,202,266 gallons). Planned storage projects over the next 10 years will add 17,000,000 gallons of combined new storage capacity. Therefore, by grouping the future storage projects, new development over the 10-year planning window will utilize 77.7 percent of new storage projects (13,202,266 gallons/17,000,000 gallons = 0.777 or 77.7 percent).

Distribution Projects

The allocations of pipeline and pump station capacity for future distribution projects have been determined based on the anticipated use by existing users, users over the next 10 years, and users beyond the next 10 years. If a project involves the upsize of an existing pipe, the proportionate demand from existing users relative to that of future users has been accounted for. Because existing users will be receiving a new facility and will continue to use said facility, this proportionate share of the project will not be paid for by future users. For projects that involve a system expansion that does not benefit existing users, the proportionate share of project cost has been allocated to future users based on the anticipated utilization in the 10-year planning window and in the window beyond 10 years.

UCA § 11-36A-304(1)(C): RELATION OF ANTICIPATED IMPACTS TO ANTICIPATED DEVELOPMENT ACTIVITY

Under section 304(1)(c), the analysis, subject to section 304(2), must demonstrate how the anticipated impacts described above are reasonably related to the anticipated development activity. New development's anticipated impacts—both with respect to existing capacity and system improvements required to maintain the established level of service—are addressed in the immediately preceding sections. Based on analysis of the applicable factors of section 304(2), the anticipated impacts are reasonably related to anticipated development activity.

UCA § 11-36A-304(1)(D): PROPORTIONATE SHARE OF COSTS FOR EXISTING CAPACITY AND NEW SYSTEM IMPROVEMENTS

Under section 304(1)(d), the analysis must estimate the proportionate share of the costs for existing capacity that will be recouped, and the costs of impacts on system improvements that are reasonably related to the new development activity. Section 304(2) sets forth factors to address in performing this analysis which are addressed in detail in the following sections, followed by the sections setting for the estimates required under section 304(1)(d).

UCA 11-36A-304(2)(A): COST OF EXISTING FACILITIES WITH EXCESS CAPACITY

Under section 304(2)(a), the analysis must identify, if applicable, the cost of each existing public facility that has excess capacity to serve the anticipated development resulting from the new development activity. To calculate the cost of existing excess capacity, the original construction costs of each project with excess capacity were obtained and are identified in Table 8 below.

TABLE 8: COST OF EXISTING FACILITIES WITH EXCESS CAPACITY²¹

EXISTING FACILITIES	ORIGINAL CAPITAL EXPENSE
Sand Hollow Well System	\$26,766,995
Sand Hollow Regional Pipeline	\$17,176,334
Cottam 3 MG Tank	\$5,130,049
Warner Valley Tank	\$6,095,165
Quail Creek 60 MGD WTP	\$24,375,464
Total	\$79,544,007

UCA 11-36A-304(2)(B): COST OF FUTURE SYSTEM IMPROVEMENTS

Under section 304(2)(b), the analysis must identify, if applicable, the cost of system improvements for each public facility. The future system improvements listed below are anticipated to serve growth within the 10-year planning window. These system improvements include future facilities and expansions to current facilities necessitated by growth. Each qualifies as a public facility under the Act. The projected capital expenditure estimates for each project excluding financing costs are listed in Table 9.

TABLE 9: COST OF FUTURE SYSTEM IMPROVEMENTS²²

PLANNED WATER SYSTEM SUPPLIES	PLANNED CONSTRUCTION YEAR	ESTIMATED PROJECT COST
SD2. Cottam Well 3	2025	\$1,944,000
SD10. Sand Hollow Well 7	2025	\$1,276,000
SD1. Ash Creek Pipeline/Chief Toquer Reservoir	2027	\$85,473,000
SD3. Cottam Well 4	2027	\$2,768,000
SD9. Potable Quality Agricultural Share Acquisition	2027	\$1,900,000
SD5. Expansion of Kolob Reservoir	2028	\$8,366,000
SD6. West Side Water Rights Development	2028	\$4,356,000
SD8. La Verkin Secondary Irrigation System Improvements	2028	\$13,664,500
SD4. Cove Reservoir	2030	\$9,000,000
SD7. Municipal Groundwater Development	2030	\$9,050,000
Regional Reuse Purification System Components		
RC6. CPWRF Reuse Pump Station	2026	\$8,567,000
RC7. CPWRF to La Verkin Irrigation Pipeline and Pond	2027	\$8,372,000
RC9. TSWS Upper Pond to Chief Toquer Reservoir Pipeline and Pump Station	2028	\$5,754,000
RT5. Advanced Water Purification Demonstration Facility	2028	\$7,000,000
RT1. St. George Reuse Facility Upgrade	2029	\$48,166,000
RS1. Reuse Forebay and Pump Station	2030	\$52,373,000
RC1. SGRF to Reuse Forebay Pipeline and Pump Station	2030	\$236,826,000
RC2. Reuse Forebay to Agricultural Exchange Pipeline and Pump Station	2030	\$107,599,000
RC4. Gateway WRF Reuse Pump Station	2032	\$17,484,000
RC8. La Verkin Irrigation Pond to TSWS Upper Pond Pipeline and Pump Station	2032	\$13,914,000
RC10. Ivins Reservoir Reuse Pump Station	2033	\$2,180,000
RT2. St. George Reuse Facility Expansion	2034	\$1,783,000
Subtotal		\$647,815,500
TREATMENT PROJECTS		
SD11. Quail Creek WTP 90 MGD Expansion	2028	\$142,600,800
SD11. Quail Creek WTP Ozone Addition	2028	\$35,650,200

²¹ Data from Washington County Water Conservancy District 2022 Book Asset Detail and from construction cost data for completed projects. Capital expenses include financing costs from bonds used to fund projects.

²² Costs taken from the 2025 Master Plan.

PLANNED WATER SYSTEM SUPPLIES	PLANNED CONSTRUCTION YEAR	ESTIMATED PROJECT COST
SD12. West Side Water Treatment Plant	2033	\$113,309,000
Subtotal		\$291,560,000
STORAGE PROJECTS		
ST1. Sand Hollow 2 MG Tank B	2025	\$8,035,000
ST2. Quail Creek 10 MG Tank B	2026	\$29,579,000
ST3. West Side Water Treatment Plant Storage Tanks	2033	\$22,770,000
Subtotal		\$60,384,000
CONVEYANCE PROJECTS		
C1. Quail to Cottam Pump Stations and Pipeline Project, Phase 1	2025	\$27,072,000
C3. Sand Hollow 2 MG to Crossroads Pipeline Upsize	2025	\$2,106,000
C4. Cottam to Casa Pipeline	2025	\$1,690,000
C5. Toquerville Springs to Cottam Pipeline Pump Station	2026	\$1,741,000
C12. Cottam to Virgin Pipeline, Reach 3	2029	\$1,160,000
C7, C8, C9. Washington Fields Regional Pipeline Interconnect	2029	\$26,625,000
C2. Quail to Cottam Pump Stations and Pipeline Project, Phase 1	2030	\$8,892,000
Subtotal		\$69,286,000
Total		\$1,069,045,500

UCA 11-36A-304(2)(C): FINANCING SOURCES FOR SYSTEM IMPROVEMENTS

Under section 304(2)(c), the analysis must identify, if applicable, the manner of financing for each public facility, such as user charges, special assessments, bonded indebtedness, general taxes, or federal grants, other than impact fees²³. Table 5 of the IFFP identifies funding sources (bond financing and grants) for future facilities necessary to meet the demands of growth, and Table 10 shows the anticipated financing costs and grant funding for system improvements.

Some of the future system improvements are planned to be funded by issuing new bonds which were modeled during the impact fee calculation. The District is pursuing two major sources of project funding:

1. Funding from the State of Utah for Regional Reuse Purification System Components - The District is working with the State of Utah on a loan for \$195,000,000 to use toward the Regional Reuse Purification System. The loan is anticipated to have an initiation fee of \$300,000 and an annual interest rate of 0.5 percent. The anticipated term of the loan is 40 years.
2. Water Infrastructure Finance and Innovation Act (WIFIA) Loan - The District is pursuing a loan from the federal government through the WIFIA program. The District is planning to fund a portion of the Regional Reuse Purification System that is not funded by grants (total estimated funding through WIFIA is estimated to be \$213,334,000). Loan initiation fees are estimated to be \$500,000. Under this program, loan interest rates are set by the federal treasury, which are estimated to be approximately 4.0 percent annually. The term of the WIFIA loan is assumed to be 30 years.

All future system improvement costs and financing costs have been presented in today's dollars with no increases to account for future inflation.

User charges and general taxes finance operation, maintenance, repair and replacement costs of facilities. The District does not currently plan to use user charges or tax revenue for capital expenditures associated with the identified facilities. Because the facilities are intended to meet the demands of growth, the District has elected to use impact fees as the most appropriate tool for covering capital costs. The District's Board of Trustees has the legislative discretion to make a policy judgment that a portion of the costs for system improvements required to serve new development be paid by water rates and/or property taxes

²³ Funding sources were considered as part of the impact fee facilities plan and the discussion in the plan is incorporated here.

rather than by the full impact fee calculated in this analysis. If the District's Board of Trustees makes such a determination, the impact fee will be adjusted accordingly.

The District does not anticipate any special assessments.

TABLE 10: FINANCING SOURCES FOR FUTURE PROJECTS

SOURCE DEVELOPMENT PROJECTS	ESTIMATED CAPITAL COST	ANTICIPATED FINANCING COSTS	ANTICIPATED GRANT FUNDING	ESTIMATED NET PROJECT COSTS
SD2. Cottam Well 3	\$1,944,000	\$0	\$0	\$1,944,000
SD10. Sand Hollow Well 7	\$1,276,000	\$0	\$0	\$1,276,000
SD1. Ash Creek Pipeline/Chief Toquer Reservoir	\$85,473,000	\$5,441,343	\$23,959,750	\$66,954,593
SD3. Cottam Well 4	\$2,768,000	\$0	\$0	\$2,768,000
SD9. Potable Quality Agricultural Share Acquisition	\$1,900,000	\$0	\$0	\$1,900,000
SD5. Expansion of Kolob Reservoir	\$8,366,000	\$0	\$0	\$8,366,000
SD6. West Side Water Rights Development	\$4,356,000	\$0	\$0	\$4,356,000
SD8. La Verkin Secondary Irrigation System Improvements	\$13,664,500	\$1,469,234	\$0	\$15,133,734
SD4. Cove Reservoir	\$9,000,000	\$0	\$0	\$9,000,000
SD7. Municipal Groundwater Development	\$9,050,000	\$0	\$300,000	\$8,750,000
Regional Reuse Purification System Components				
RC6. CPWRF Reuse Pump Station	\$8,567,000	\$215,656	\$0	\$8,782,656
RC7. CPWRF to La Verkin Irrigation Pipeline and Pond	\$8,372,000	\$162,532	\$2,994,382	\$5,540,150
RC9. TSWs Upper Pond to Chief Toquer Reservoir Pipeline and Pump Station	\$5,754,000	\$2,150,596	\$2,000,000	\$5,904,596
RT5. Advanced Water Purification Demonstration Facility	\$7,000,000	\$169,992	\$5,419,004	\$1,750,988
RT1. St. George Reuse Facility Upgrade	\$48,166,000	\$18,245,451	\$1,921,684	\$64,489,767
RS1. Reuse Forebay and Pump Station	\$52,373,000	\$19,371,199	\$85,541	\$71,658,658
RC1. SGRF to Reuse Forebay Pipeline and Pump Station	\$236,826,000	\$93,002,821	\$3,244,407	\$326,584,414
RC2. Reuse Forebay to Agricultural Exchange Pipeline and Pump Station	\$107,599,000	\$25,843,587	\$643,521	\$132,799,066
RC4. Gateway WRF Reuse Components	\$17,484,000	\$6,980,150	\$231,385	\$24,232,765
RC8. La Verkin Irrigation Pond to TSWs Upper Pond Pipeline and Pump Station	\$13,914,000	\$5,437,788	\$0	\$19,351,788
RC10. Ivins Reservoir Reuse Pump Station	\$2,180,000	\$789,484	\$0	\$2,969,484
RT2. St. George Reuse Facility Expansion	\$1,783,000	\$645,711	\$290,003	\$2,138,708
Subtotal	\$647,815,500	\$179,925,547	\$41,089,677	\$786,651,370
TREATMENT PROJECTS				
SD11. Quail Creek WTP 90 MGD Expansion	\$142,600,800	\$0	\$0	\$142,600,800
SD11. Quail Creek WTP Ozone Addition	\$35,650,200	\$0	\$0	\$35,650,200
SD12. West Side Water Treatment Plant	\$113,309,000	\$0	\$0	\$113,309,000
Subtotal	\$291,560,000	\$0	\$0	\$291,560,000
STORAGE PROJECTS				
ST1. Sand Hollow 2 MG Tank B	\$8,035,000	\$0	\$0	\$8,035,000
ST2. Quail Creek 10 MG Tank B	\$29,579,000	\$0	\$0	\$29,579,000
ST3. West Side Water Treatment Plant Storage Tanks	\$22,770,000	\$0	\$0	\$22,770,000
Subtotal	\$60,384,000	\$0	\$0	\$60,384,000
CONVEYANCE PROJECTS				
C1. Quail to Cottam Pump Stations and Pipeline Project, Phase 1	\$27,072,000	\$0	\$0	\$27,072,000
C3. Sand Hollow 2 MG to Crossroads Pipeline Upsize	\$2,106,000	\$0	\$0	\$2,106,000
C4. Cottam to Casa Pipeline	\$1,690,000	\$0	\$1,690,000	\$0
C5. Toquerville Springs to Cottam Pipeline Pump Station	\$1,741,000	\$0	\$0	\$1,741,000
C12. Cottam to Virgin Pipeline, Reach 3	\$1,160,000	\$0	\$0	\$1,160,000
C7, C8, C9. Washington Fields Regional Pipeline Interconnect	\$26,625,000	\$0	\$0	\$26,625,000
C2. Quail to Cottam Pump Stations and Pipeline Project, Phase 1	\$8,892,000	\$0	\$0	\$8,892,000
Subtotal	\$69,286,000	\$0	\$1,690,000	\$67,596,000
Total	\$1,069,045,500	\$179,925,547	\$42,779,677	\$1,206,191,370

UCA § 11-36A-304(2)(D)-(E): NEW DEVELOPMENT'S CONTRIBUTION TO FINANCING AND COSTS OF SYSTEM IMPROVEMENTS

Under section 304(2)(d), the analysis must identify, if applicable, 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. Section 304(2)(e) similarly requires identification of the relative extent to which development activity will contribute to the cost of existing public facilities and system improvements in the future.

The District's current facilities provide sufficient capacity to existing customers to meet current demand. However, some of the proposed new projects do provide a benefit to existing users, and this benefit to existing users has been accounted for in the analysis. Some existing facilities with excess capacity have been funded by bonds. Demand from new development will consume a portion of existing excess capacity, and therefore new development should be expected to share the original costs of existing facilities proportionate to its relative use of existing excess capacity of those facilities.

New development is expected to consume a portion of existing excess capacity and a portion of the capacity of future facilities. The impact fee is intended to finance the proportionate use of existing excess capacity and the portion of the future facilities' capacity that will be consumed by new development in the 10-year planning window.

UCA § 11-36A-304(2)(F): DEVELOPMENT CREDIT TO OFFSET IMPACT FEE

Under section 304(2)(f), the analysis must identify, if applicable, 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.

Given the nature of the system improvements contemplated in the IFFP and IFA, the District does not anticipate dedications of system improvements, including public facilities, by development activity. Should any dedication occur, it would be entitled to a credit against impact fees calculated on an individual basis, taking into account the demands for system improvements that would be relieved inside or outside the proposed development.

UCA § 11-36A-304(2)(G): EXTRAORDINARY COSTS OF SERVING DEVELOPMENT

Under section 304(2)(g), the analysis must identify, if applicable, extraordinary costs, if any, in servicing the newly developed properties. The District does not anticipate incurring extraordinary costs to serve newly developed properties under this Regional IFFP and IFA.

UCA § 11-36A-304(2)(H): TIME-PRICE COMPARISON

Under section 304(2)(h), the analysis must identify, if applicable, the time-price differential inherent in fair comparisons of amounts paid at different times. This analysis states the costs of future facilities in 2025 dollars, while using original construction costs for existing facilities with excess capacity that have not been adjusted for inflation or depreciated replacement value. The Consultants recognize that future project costs may increase relative to 2025 estimates. However, due to uncertainty regarding future inflation costs, no adjustments for inflation have been applied to estimated project costs in the future. This calculation provides the benefit of the time-value of money to new development and reduces the amount of the impact fee.

UCA § 11-36A-304(1)(D)(I): PROPORTIONATE SHARE OF EXISTING FACILITIES COSTS

Section 304(1)(d)(i) requires the analysis to estimate the proportionate share of the costs for existing capacity that will be recouped. New development is expected to consume a portion of excess capacity of existing facilities within the 10-year planning window. The proportionate share of costs, based on the proportion of excess to total capacity, which will be recouped is estimated in Table 11 below.

TABLE 11: PROPORTIONATE SHARE OF EXISTING FACILITIES

EXISTING FACILITIES	ORIGINAL COST	EXCESS SHARE TO 10-YEAR GROWTH	COST OF EXCESS CAPACITY USED BY 10-YEAR GROWTH
Sand Hollow Well System	\$26,766,995	48.5%	\$12,987,029
Sand Hollow Regional Pipeline	\$17,176,334	22.2%	\$3,804,884
Cottam Well 3 MG Tank	\$5,130,049	48.3%	\$2,477,641
Warner Valley Tank	\$6,095,165	37.5%	\$2,288,122
Quail Creek 60 MGD WTP	\$24,375,464	14.1%	\$3,447,998
Total			\$25,005,673

UCA § 11-36A-304(1)(D)(II): PROPORTIONATE SHARE OF COSTS OF IMPACTS ON FUTURE SYSTEM IMPROVEMENTS

Section 304(1)(d)(ii) requires the analysis to estimate the costs of impacts on system improvements that are reasonably related to the new development activity.

As discussed above, new development necessitates the vast majority of future system improvements planned in the next 10 years, while some future projects also provide benefits to existing users. New development will only pay its proportionate share of each project. The proportionate share of projected capital expenditures for future system improvements associated with capacity needed to serve the 10-year growth is outlined in Table 12 below.

Table 12 reflects the costs of impacts on system improvements that are reasonably related to development activity within the 10-year planning window. It should be emphasized that the total cost for new system improvements will not be paid for solely by new development within the planning window. New development within the planning window will only pay its proportionate share of the cost of these future system improvements as determined by the impact fee calculation per ERC. The remainder of the cost will be paid for by existing users or new development that occurs beyond the 10-year planning window, which will also benefit from some of these facilities and are expected to bear their proportionate share.

TABLE 12: PROPORTIONATE SHARE OF FUTURE SYSTEM IMPROVEMENTS

SOURCE DEVELOPMENT PROJECTS	% ATTRIBUTABLE TO 10-YEAR GROWTH	PROJECT NET CAPITAL PROJECT COSTS	IMPACT FEE ELIGIBLE EXPENSE
SD2. Cottam Well 3	78.1%	\$1,944,000	\$1,518,107
SD10. Sand Hollow Well 7	100.0%	\$1,276,000	\$1,276,000
SD1. Ash Creek Pipeline/Chief Toquer Reservoir	78.1%	\$66,954,593	\$52,286,119
SD3. Cottam Well 4	78.1%	\$2,768,000	\$2,161,584
SD9. Potable Quality Agricultural Share Acquisition	78.1%	\$1,900,000	\$1,483,746
SD5. Expansion of Kolob Reservoir	78.1%	\$8,366,000	\$6,533,169
SD6. West Side Water Rights Development	78.1%	\$4,356,000	\$3,401,683
SD8. La Verkin Secondary Irrigation System Improvements	78.1%	\$15,133,734	\$11,818,222
SD4. Cove Reservoir	78.1%	\$9,000,000	\$7,028,272
SD7. Municipal Groundwater Development	78.1%	\$8,750,000	\$6,833,042
Regional Reuse Purification System Components			
RC6. CPWRF Reuse Pump Station	78.1%	\$8,782,656	\$6,858,544
RC7. CPWRF to La Verkin Irrigation Pipeline and Pond	78.1%	\$5,540,150	\$4,326,409
RC9. TSWS Upper Pond to Chief Toquer Reservoir Pipeline and Pump Station	78.1%	\$5,904,596	\$4,611,011
RT5. Advanced Water Purification Demonstration Facility	0.0%	\$1,750,988	\$0
RT1. St. George Reuse Facility Upgrade	65.6%	\$64,489,767	\$42,323,884
RS1. Reuse Forebay and Pump Station	65.6%	\$71,658,658	\$47,028,744
RC1. SGRF to Reuse Forebay Pipeline and Pump Station	65.6%	\$326,584,414	\$214,333,554
RC2. Reuse Forebay to Agricultural Exchange Pipeline and Pump Station	65.6%	\$132,799,066	\$87,154,483
RC4. Gateway WRF Reuse Pump Station	78.1%	\$24,232,765	\$18,923,829
RC8. La Verkin Irrigation Pond to TSWS Upper Pond Pipeline and Pump Station	78.1%	\$19,351,788	\$15,112,181
RC10. Ivins Reservoir Reuse Pump Station	78.1%	\$2,969,484	\$2,318,927
RT2. St. George Reuse Facility Expansion	65.6%	\$2,138,708	\$1,403,609
TREATMENT PROJECTS			
SD11. Quail Creek WTP 90 MGD Expansion	31.4%	\$142,600,800	\$44,784,368
SD11. Quail Creek WTP Ozone Addition	13.4%	\$35,650,200	\$4,787,849
SD12. West Side Water Treatment Plant	78.1%	\$113,309,000	\$88,485,160
STORAGE PROJECTS			
ST1. Sand Hollow 2 MG Tank B	77.7%	\$8,035,000	\$6,240,012
ST2. Quail Creek 10 MG Tank B	77.7%	\$29,579,000	\$22,971,166
ST3. West Side Water Treatment Plant Storage Tanks	77.7%	\$22,770,000	\$17,683,270
CONVEYANCE PROJECTS			
C1. Quail to Cottam Pump Stations and Pipeline Project, Phase 1	26.3%	\$27,072,000	\$7,108,811
C3. Sand Hollow 2 MG to Crossroads Pipeline Upsize	6.3%	\$2,106,000	\$133,450
C4. Cottam to Casa Pipeline	50.0%	\$0	\$0
C5. Toquerville Springs to Cottam Pipeline Pump Station	78.1%	\$1,741,000	\$1,359,580
C12. Cottam to Virgin Pipeline, Reach 3	22.2%	\$1,160,000	\$257,520
C7, C8, C9. Washington Fields Regional Pipeline Interconnect	44.9%	\$26,625,000	\$11,961,886
C2. Quail to Cottam Pump Stations and Pipeline Project, Phase 1	26.3%	\$8,892,000	\$2,334,942
Total		\$1,206,191,370	\$746,843,136

UCA § 11-36A-304(1)(E): IMPACT FEE CALCULATION

Section 304(1)(e) requires the analysis to identify how the impact fee was calculated. To calculate the impact fee, the District identified and analyzed the applicable statutory factors, as set forth above. The proportionate share of the cost of existing facilities with excess capacity is added to the proportionate share of the cost of future facilities necessary to meet the demands of growth over the next 10 years to determine the total cost of facilities servicing 10-year growth. The proportionate total cost of existing facilities and future facilities to be constructed over the next 10 years is then divided by the yield (in acre-feet) made available over the next 10 years to determine the cost of facilities per acre-foot of yield. This cost per acre-foot is multiplied by the level of service (0.59 acre-feet per ERC) to determine the impact fee for one ERC. The calculation is shown in Tables 13.²⁴

In addition to water infrastructure projects provided by the District, a portion of future water supply will be met through municipal secondary irrigation systems. For users that are connected to an active municipal pressurized secondary irrigation system where the city provides its own secondary irrigation water, a reduced impact fee is calculated that takes into account the reduction of cost to the District associated with serving this customer base. The calculated impact fee per ERC for customers with metered, pressurized secondary irrigation service provided by a municipality will include only the indoor water use component of the level of service, assuming the outdoor irrigation component is covered by the municipal pressurized irrigation system.

TABLE 13: CALCULATION OF IMPACT FEE

	IMPACT FEE QUALIFYING COSTS
Cost of Existing Public Facilities Servicing 10-Year Growth	\$25,005,673
Cost of Future Public Facilities Servicing 10-Year Growth	\$746,843,136
Total Cost of Facilities Servicing 10-Year Growth	\$771,848,809
	ANNUAL SUPPLY (ACRE-FEET)
Annual Supply Available for 10-Year Growth	26,375
Cost of Supply Facilities per Acre-Foot	\$29,264
Acre-Foot of Supply per ERC	0.59
Cost of Supply Facilities per ERC	\$17,266

For standard residential and non-residential connections, impact fees will be assessed based on meter size of the connection as shown in Table 14. Standard residential connections are typically served by a ¾-inch meter or smaller and represent one ERC. Standard non-residential connections are any non-residential meter connection of 2-inch or smaller.

TABLE 14: STANDARD IMPACT FEE SCHEDULE

METER SIZE (INCHES)	ERCs	IMPACT FEE
¾-inch Residential, Water Efficient User (0.59 acre-feet)	1	\$17,266
¾-inch Non-Residential	1.15	\$19,856
1-inch Non-Residential	3.1	\$53,524
1 ½-inch Non-Residential	7.6	\$131,219
2-inch Non-Residential	19.0	\$328,049

²⁴ In some cases, an impact fee credit is included when bonds used to fund projects that provide capacity to existing users are being paid off through the collection of user fees. The District holds sufficient cash reserves to cover the payments for its existing debt service and the portion of future debt service that would be used to address existing system deficiencies. User rates from new users are not needed to cover debt service for bonds used to fund projects that service existing users. Therefore, no impact fee credit for user fees is included in the impact fee calculation.

For non-standard residential connections or for non-residential meter connections larger than 2-inch, the impact fee will be assessed by determining the total ERCs for the connection. The equation shown below is the basis for calculating the impact fee for a non-standard connection.

$$\frac{\textit{Total Water Supply Need}}{\textit{0.59 acre foot per year}} \times \textit{Impact Fee per ERC} = \textit{Impact Fee}$$

The District has recently adopted ultra water efficiency standards that are intended to apply in limited circumstances where the District may provide retail service, as well as in developments in the regional cities that voluntarily accept the standards. In the event that the UWES standards apply in a particular development, the equation above for calculating the impact fee for a non-standard connection will be used to calculate an adjustment to the impact fee.

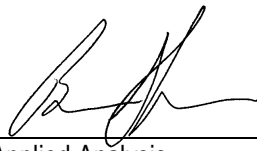
UCA § 11-36A-306: CERTIFICATION OF IMPACT FEE ANALYSIS

The Act requires the Consultants preparing the IFFP and IFA certify their analysis. The Consultants provide the required certification with the understanding that it is the District's intent to construct the projects proposed in the IFFP. If all or a portion of the IFFP or IFA are modified or amended, or if the assumptions utilized in this analysis change substantially, the IFFP and IFA should be reviewed and updated to reflect these changes.

UCA § 11-36A-306(1): CERTIFICATION OF IMPACT FEE FACILITIES PLAN

Applied Analysis and Bowen Collins & Associates certify that the foregoing IFFP:

1. Includes only the costs 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; and
3. complies in each and every relevant respect with the Impact Fees Act.



Applied Analysis

By: Brian Gordon, Principal



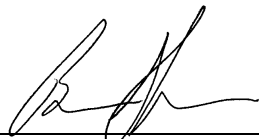
Bowen Collins & Associates

By: Aaron Anderson, P.E., Principal

UCA § 11-36A-306(2): CERTIFICATION OF IMPACT FEE ANALYSIS

Applied Analysis and Bowen Collins & Associates certify that the foregoing IFA:

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



Applied Analysis
By: Brian Gordon, Principal



Bowen Collins & Associates
By: Aaron Anderson, P.E., Principal

APPENDIX

RECENT HISTORICAL WATER USE DATA FOR NON-RESIDENTIAL METER SIZES

METER SIZE (INCHES)	AVGERAGE USE PER CONNECTION (GALLONS/YEAR)	AVERAGE HISTORICAL USE PER SINGLE FAMILY CONNECTION (GALLONS/YEAR)	DEMAND RATIO
2021			
¾"		182,462	1.0
1"		182,462	2.8
1 ½"		182,462	6.8
2"		182,462	15.5
2022			
¾"		174,023	1.0
1"		174,023	2.7
1 ½"		174,023	6.9
2"		174,023	17.1
2023			
¾"		162,634	1.0
1"		162,634	2.5
1 ½"		162,634	6.1
2"		162,634	16.9
OVERALL AVERAGE			DEMAND RATIO
¾"			1.0
1"			2.7
1 ½"			6.6
2"			16.5


VALUES USED IN MASTER PLAN

METER SIZE (INCHES)	RATIO
¾"	1.0
1"	2.7
1 ½"	6.6
2	16.5

Source Sizing Standard for Existing Users per 2025 Master Plan	0.68 AFY
Target Level of Service for New Development	0.59 AFY
Ratio	1.15

ADJUSTED METER RATIOS RELATIVE TO 0.59 AFY LOS

METER SIZE (INCHES)	PROPOSED RATIOS
¾"	1.15
1"	3.1
1 ½"	7.6
2	19.0

The background is a blurred landscape of a river valley. A large, stylized blue graphic, resembling a drop or a wave, is positioned on the right side of the page. The text is located in the bottom left corner.

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