



**DRINKING WATER  
IMPACT FEE FACILITY PLAN AND  
IMPACT FEE ANALYSIS**

(HAL Project No.: 126.52.100)

June 2024

# **SOUTH SALT LAKE CITY**

## **DRINKING WATER IMPACT FEE FACILITY PLAN AND IMPACT FEE ANALYSIS**

**(HAL Project No.: 126.52.100)**

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Project Manager**



**June 2024**

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# IMPACT FEE CERTIFICATION

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The Utah Impact Fee Act requires certifications for the Impact Fee Facilities Plan (IFFP) and the Impact Fee Analysis (IFA). Hansen, Allen & Luce provides these certifications with the understanding that the recommendations in the IFFP and IFA are followed by City Staff and elected officials. If all or a portion of the IFFP or IFA are modified or amended, or if assumptions presented in this analysis change substantially, this certification is no longer valid. All information provided to Hansen, Allen & Luce, Inc. is assumed to be correct, complete, and accurate.

## **IFFP Certification**

Hansen, Allen & Luce, Inc. certifies that the IFFP prepared for the drinking water system:

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. Costs 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;
  - c. An expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. Complies in each and every relevant respect with the Impact Fees Act.

## **IFA Certification**

Hansen, Allen & Luce, Inc. certifies that the IFA prepared for the drinking water system:

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. Costs 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;
  - c. An expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;
  - d. Costs with grants or other alternate sources of payment; and complies in each and every relevant respect with the Impact Fees Act

**HANSEN, ALLEN & LUCE, INC.**

# IMPACT FEE SUMMARY

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## PURPOSE OF STUDY

The **purpose** of the IFFP and IFA is to comply with the requirements of the Utah Impact Fees Act by identifying demands placed on the existing drinking water system by new development and by identifying the means by which the City of South Salt Lake (City) will meet these new demands. The South Salt Lake City Drinking Water System Master Plan (DWMP) has been used in support of this analysis. There are several growth-related capital facilities anticipated to be needed in the next 10 years, so the calculated impact fee is based on anticipated capital facility projects as well as existing excess capacity and documented historic costs.

The impact fee **service area** is the current City drinking water system boundary.

## LEVEL OF SERVICE

The existing and proposed **level of service** for the drinking water system includes the following:

### Level of Service

- Peak Day Source Capacity: 1,364 gallons per day per equivalent residential connection (gpd/ERC)
- Source Volume: 0.60 acre-feet/ERC (Annual Demand)
- Storage Capacity: 531 gallons/ERC
- Distribution Capacity: 50 pounds per square inch (psi) minimum pressure during peak day demand conditions and during peak instantaneous conditions

### Fire Suppression

- Minimum Fire Flow: 1,500 gallons per minute (gpm) for 2 hours (180,000 gallons fire suppression storage)
- Minimum Pressure: 20 psi residual during peak day + fire flow event

## IMPACT FEE CALCULATION

The existing system served about 5,484 ERCs at the end of 2021. Projected **growth** adds 2,263 ERCs in the next 10 years for a total of 7,747 ERCs.

The costs calculated for the capacity required for growth in the next 10 years comes from the new projects required entirely to provide capacity for new development.

The **drinking water impact fee** is calculated based on the estimated cost of projects required to support future growth. These costs were added together and divided by the number of ERCs that are projected to be added within the next 10 years.

Components of the impact fee are presented in Table S-1.

**Table S-1**  
**Proposed Impact Fee by Component**

<b>Component</b>	<b>Per Typical Residential Connection</b>
Source	\$5,367
Storage	\$1,311
Planning	\$38
<b>Total</b>	<b>\$6,716</b>

# **CHAPTER 1 INTRODUCTION**

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## **BACKGROUND**

The City is located in Salt Lake County, alongside I-15 and on the southern end of the Salt Lake metropolitan area. The City had an estimated population of 27,117 in July 2021 (United States Census Bureau, 2022). The primary drinking water sources for the City are wells and interconnections with Jordan Valley Water Conservancy District (JVWCD).

## **PURPOSE AND SCOPE**

The City has recognized the need to plan for increased demands on its drinking water system as a result of growth from the redevelopment of four transit-oriented development (TOD) areas. To do so, an IFFP and IFA were completed to allow the City to charge an impact fee to help pay for capital projects necessary to support future growth.

This report identifies those items that the Utah Impact Fees Act specifically requires, including demands placed upon existing facilities by new development and the proposed means by which the municipality will meet those demands. A DWMP was prepared to support this analysis. The DWMP identified several growth-related projects needed within the 10-year planning window. Therefore, the calculated impact fee is based on excess capacity and documented historic costs, as well as future capital projects.

## **IMPACT FEE COLLECTION**

Impact fees enable local governments to finance public facility improvements necessary for growth, without burdening existing customers with costs that are exclusively attributable to growth.

An impact fee is a one-time charge on new development to pay for that portion of a public facility that is required to support that new development.

In order to determine the appropriate impact fee, the cost of the facilities associated with future development must be proportionately distributed. As a guideline in determining the “proportionate share”, the fee must be found to be roughly proportionate and reasonably related to the impact caused by the new development.

## **MASTER PLANNING**

A DWMP was prepared in conjunction with this analysis, and is incorporated by reference into this analysis.

The master plan for the City’s drinking water system is more comprehensive than the IFFP and IFA. It provides the basis for the IFFP and IFA and identifies all capital facilities required of the drinking water system for the 20-year planning range, including maintenance, repair, replacement, and growth-related projects. The recommendations made within the DWMP are in compliance with current City policies and standard engineering practices.

A hydraulic model of the drinking water system was prepared to aid in the analyses performed to complete the DWMP. The model was used to assess existing performance, to establish a proposed level of service and to confirm the effectiveness of the proposed capital facility projects to maintain the proposed level of service over the next 10 years.

## CHAPTER 2 SYSTEM DEMAND AND CAPACITY

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### GENERAL

The purpose of this section is to identify the current level of service, characterize the facilities of the existing system, and determine the remaining capacity of these facilities.

The City's existing drinking water system is comprised of a pipe network, water storage facilities, and water sources. These facilities are found within one pressure zone. Figure 1-1 in Appendix A illustrates the existing water system and its service area.

### EXISTING EQUIVALENT RESIDENTIAL CONNECTIONS

Water demands from non-residential water users, such as commercial, industrial, or civic water users have been determined in terms of an ERC. The use of ERCs is a common engineering practice used to describe the entire system's usage based on a common unit of measurement. An ERC is equal to the average demand of one residential connection. Using ERCs for analysis is a way to allocate existing and future demands over non-residential land uses. For this analysis, all residential connections, including townhouses and apartments were equated to one ERC for water demands.

The City operates one water system with both indoor and outdoor water demand being served by the drinking water system. At the end of 2021, the City was estimated to have 5,484 ERCs served by the drinking water system.

### LEVEL OF SERVICE

The City has established a level of service for the drinking water system through its minimum sizing requirements established by the Division of Drinking Water (DDW). The minimum sizing requirement establishes the sizing criteria for the City's distribution (pipes), source, and storage facilities. Details regarding the level of service are included in the DWMP. The level of service standards are shown below:

#### Level of Service

- Source Capacity: 1,364 gpd/ERC (Peak Day)
- Source Volume: 0.60 ac-ft/ERC (Annual Demand)
- Storage Capacity: 531 gallons/ERC
- Distribution Capacity: 50 psi minimum during peak day demand conditions and peak instantaneous conditions

#### Fire Suppression

- Minimum Fire Flow: 1,500 gpm for 2 hours (180,000 gallons fire suppression storage)
- Minimum Pressure: 20 psi residual during peak day + fire flow event

### METHODOLOGY USED TO DETERMINE EXISTING SYSTEM CAPACITY

Each component of the drinking water system was assessed as capacity in terms of gpm (for peak day source), acre-feet per year (for annual source), or gallons (for storage). Demands on each component were computed by applying the level of service to the amount of ERCs served by each component. The difference between the capacity of the component and the demand on the component is the component's remaining capacity, which can be used to serve future ERCs.

A hydraulic model was developed for the purpose of assessing system operation and distribution capacity.

## **WATER SOURCE & REMAINING CAPACITY**

The City's sources of drinking water are wells and interconnections with JVVCD. Table 2-1 summarizes the information for each source and total source capacity.

**Table 2-1  
Demand and Capacity of Existing Drinking Water Source**

<b>Source</b>	<b>Peak Day Source Capacity (gpm)<sup>1</sup></b>
300 East Well	725
700 East Well	1,200
Davis Well	2,900
JVVCD Connections	600
<b>Total</b>	<b>5,425</b>
<b>Demand at Level of Service<sup>2</sup></b>	<b>5,195</b>
<b>Capacity Remaining</b>	<b>+230</b>

1. See Table 3-1 of the DWMP
2. See Tables 3-4 and 3-5 of the DWMP

## **STORAGE FACILITIES AND REMAINING CAPACITY**

The City currently operates three concrete water storage tanks totaling 7.0 million gallons (MG). Table 2-2 shows the demand and capacity of each tank. Demands were calculated by applying the level of service to the ERCs served by each tank. The fire flow storage requirements were provided by the Fire Marshal as per IFC.

**Table 2-2  
Demand and Capacity of Existing Drinking Water Storage**

<b>Tank</b>	<b>Capacity (MG)</b>	<b>Existing Equalization Demand (MG)</b>	<b>Fire Storage (MG)</b>	<b>Emergency Storage (MG)</b>	<b>Existing Storage Demand (MG)</b>	<b>Remaining Capacity (MG)</b>
300 East Tank	1.00	-	-	-	-	-
1300 East Tank	4.00					
Davis Tank	2.00					
<b>Totals</b>	<b>7.00</b>	<b>2.91</b>	<b>2.50</b>	<b>1.08</b>	<b>6.49</b>	<b>0.51</b>

## **DISTRIBUTION SYSTEM**

Pipe diameters range from 4 inches to 24 inches, with the majority being 8 inches in diameter. The function of the larger pipes in the system is to fill the storage tanks and meet peak day and fire flow demands. Smaller pipes facilitate local distribution. Figure 1-1 in Appendix A illustrates the existing distribution pipes. A hydraulic model was used to identify areas with existing deficiencies and pipes required for future growth. Costs to fix deficiencies are not impact fee-eligible and are not considered in this report. The model was also used to identify pipes required for future growth. These projects are impact fee-eligible and are discussed further in Section 3.

## CHAPTER 3 IMPACT FEE FACILITY PLAN AND ANALYSIS

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This section relies on data presented in the previous sections to calculate a proposed impact fee based on the cost of projects needed to support projected growth. The costs of the drinking water system facility projects are presented. Also included in this section are the possible revenue sources that the City may consider to fund the recommended projects.

### GROWTH PROJECTIONS

The development of impact fees requires growth projections over the next 10 years. Growth projections for the City were made by incorporating the growth rate presented in the DWMP. Total growth projections for the City through 2032 are summarized in Table 3-1. Most growth in the City is expected to occur in the TOD areas.

**Table 3-1**  
**10 Year Growth Projections**

<b>Year</b>	<b>ERCs</b>
2022	5,484
2023	5,710
2024	5,937
2025	6,163
2026	6,389
2027	6,616
2028	6,842
2029	7,068
2030	7,295
2031	7,521
2032	7,747
<b>10-year Difference</b>	<b>+2,263</b>

The existing system served 5,484 ERCs at the end of 2021. Projected growth adds 2,263 ERCs in the next 10 years for a total of 7,747 ERCs. See Figures 2-1 and 2-2 in Appendix A for areas of projected growth.

### COST OF EXISTING AND FUTURE DRINKING WATER FACILITIES

Future growth can be served either by excess capacity in existing facilities or by constructing new facilities. The proposed impact fee will be based on both existing capacity and the projected cost of future construction projects. Costs attributable to existing facilities were not provided by the City and are not included in this analysis.

Future facilities needed to support growth are shown in Table 3-2 and on Figure 6-1 in Appendix A. Detailed estimates for future project costs have been included in Appendix B.



**Table 3-2  
Estimated Impact Fee-Eligible Cost of Future Facilities**

Project	Map ID <sup>1</sup>	Total Cost	Percent Eligible for Impact Fee <sup>2</sup>	Eligible Source Cost	Eligible Storage Cost	Total Eligible Cost	Capacity Added
Price Avenue Well	10-1	\$8,766,000	87.3%	\$7,653,000	\$0.00	\$7,653,000	1,500 gpm
3300 South Distribution Line	10-2	\$495,000	100.0%	\$495,000	\$0.00	\$495,000	3,410 ERCs
Davis Booster Distribution Line	10-3	\$900,000	40.0%	\$360,000	\$0.00	\$360,000	3,410 ERCs
Central Valley Road Distribution Line	10-4	\$5,460,000	100.0%	\$5,460,000	\$0.00	\$5,460,000	3,410 ERCs
1300 East 1.5 MG Tank	10-5	\$4,950,000	100.0%	\$0.00	\$4,950,000	\$4,950,000	1.5 MG
Harmony Park Well	10-6	\$4,335,000	100.0%	\$4,335,000	\$0.00	\$4,335,000	1,500 gpm
<b>TOTAL</b>		<b>\$24,906,000</b>		<b>\$18,303,000</b>	<b>\$4,950,000</b>	<b>\$23,253,000</b>	

1. Refer to Figure 6-1 in the City's DWMP for the project and its corresponding ID number. This figure has been included in Appendix A for reference.
2. In cases where the City is expected to upsize a developer-installed pipe, only the portion attributable to the upsize is considered impact fee eligible.

### IMPACT FEE UNIT CALCULATION

Only those costs attributed to the new growth in the next 10 years can be included in the impact fee. The following sections describe the impact fee calculation for each component.

#### Source

Projected growth in the system will require the construction of two additional wells. The source impact fee was calculated considering the estimated cost and estimated capacity of two future wells. See Table 3-3.

**Table 3-3  
Source Impact Fee Unit Calculation**

	<b>Existing<sup>1</sup></b>	<b>Future<sup>2</sup></b>	<b>Total</b>
Eligible Cost	\$0.00	\$18,303,000.00	\$18,303,000.00
Capacity (gpm)	230	3,000	3,230
<b>Source impact (per gpm)<sup>3</sup></b>			<b>\$5,666.56</b>
<b>Source impact (per ERC)<sup>4</sup></b>			<b>\$5,367.49</b>

1. No existing costs are applicable but remaining capacity was considered. See Table 2-1.
2. See Table 3-2.
3. Calculated as the sum of existing and future eligible costs divided by the sum of existing and future eligible capacity.
4. Calculated at a proposed level of service of 1,364 gpd/ERC or 0.947 gpm/ERC.

Expected source costs by time period are listed in Table 3-4. Source facilities are expected to support growth for more than 10 years. The portion of their costs attributable to growth outside of the 10-year planning window is not impact fee-eligible.

**Table 3-4  
Source Cost by Time Period**

<b>Time Period</b>	<b>ERCs served</b>	<b>Buy-in Cost</b>	<b>Growth Cost</b>	<b>Total Cost</b>
Existing	5,484	\$0.00	\$0.00	\$0.00
Next 10 years	2,263	\$0.00	\$12,145,011.46	\$12,145,011.46
Beyond 10 years	1,147	\$0.00	\$6,157,988.54	\$6,157,988.54
<b>Total</b>	<b>8,894</b>	<b>\$0.00</b>	<b>\$18,303,000.00</b>	<b>\$18,303,000.00</b>

### **Storage**

A future 1.5 MG tank will need to be constructed to provide the system additional capacity to accommodate future growth. The storage impact fee was calculated as shown in Table 3-5.

**Table 3-5  
Storage Impact Fee Unit Calculation**

	<b>Existing<sup>1</sup></b>	<b>Future<sup>2</sup></b>	<b>Total</b>
Eligible Cost	\$0.00	\$4,950,000.00	\$4,950,000.00
Capacity (gal)	505,595	1,500,000	2,005,595
<b>Storage impact (per gal)<sup>3</sup></b>			<b>\$2.47</b>
<b>Storage impact (per ERC)<sup>4</sup></b>			<b>\$1,310.56</b>

1. No existing costs are applicable but remaining capacity was considered. See Table 2-2.
2. See Table 3-2.
3. Calculated as the sum of existing and future eligible costs divided by the sum of existing and future eligible capacity.
4. Calculated at the proposed level of service of 531 gal/ERC.

Expected storage costs by time period are listed in Table 3-6. Storage facilities are expected to support growth for more than 10 years. The portion of their costs attributable to growth outside of the 10-year planning window is not impact fee-eligible.

**Table 3-6  
Storage Cost by Time Period**

<b>Time Period</b>	<b>ERCs served</b>	<b>Buy-in Cost</b>	<b>Growth Cost</b>	<b>Total Cost</b>
Existing	5,484	\$0.00	\$0.00	\$0.00
Next 10 years	2,263	\$0.00	\$2,965,794.07	\$2,965,794.07
Beyond 10 years	1,514	\$0.00	\$1,984,205.93	\$1,984,205.93
<b>Total</b>	<b>9,261</b>	<b>\$0.00</b>	<b>\$4,950,000.00</b>	<b>\$4,950,000.00</b>

## Planning

The planning portion of the impact fee was calculated as shown in Table 3-7. Portions of the City's 2022 DWMP that are attributable to growth (approximately 60% of total expenditures) are impact fee eligible. 100% of costs associated with the IFFP and IFA are impact fee eligible.

**Table 3-7  
Planning Component of Impact Fee**

<b>Planning Document</b>	<b>Cost</b>	<b>% of Plan Associated with Growth</b>	<b>Cost Associated with Growth</b>	<b>ERCs Served<sup>1</sup></b>	<b>Cost per ERC</b>
2022 DWMP	\$30,804.00	60%	\$18,482.40	1,132	\$16.33
2022 IFFP and IFA	\$14,539.00	100%	\$14,539.00	679	\$21.41
<b>Total</b>	<b>\$45,343.00</b>	<b>-</b>	<b>\$33,021.40</b>		<b>\$37.74</b>

1. It is assumed that the DWMP will serve 5-years of growth and the IFFP and IFA will serve 3-years of growth.

## TOTAL IMPACT FEE CALCULATION

Table 3-8 is a summary of the components of the impact fee for each type of use.

**Table 3-8  
Total Proposed Impact Fee**

<b>Component</b>	<b>Per Typical Residential Connection</b>
Source	\$5,367
Storage	\$1,311
Planning	\$38
<b>Total</b>	<b>\$6,716</b>

Table 3-9 shows the recommended impact fee by meter size. Users requiring larger meters will individually be assessed an ERC capacity based on projected water use.

**Table 3-9  
South Salt Lake City Drinking Water  
Impact Fee Based on Meter Size**

<b>Water Meter Size</b>	<b>ERC</b>	<b>Impact Fee</b>
¾" or 1"	1.00	\$6,716
1 ½ "	3.33	\$13,432
2"	5.33	\$21,491

For other meter sizes, or when the values listed in Table 3-9 may not lead to an equitable result, the impact fee may alternatively be calculated based on anticipated peak day water consumption gallons per day as follows:

$$\text{Impact fee} = (\text{water consumption, gpd}) / (1,364 \text{ gpd/ERU}) * (\$6,716 \text{ per ERC})$$

For example, a nonresidential customer anticipated to discharge 2,000 gpd would have an impact fee calculated as follows:

$$\text{Impact fee} = (2,000 \text{ gpd}) / (1,364 \text{ gpd/ERU}) * (\$6,716 \text{ per ERU}) = \$9,848$$

Table 3-10 is a summary of the existing and future facility costs by drinking water system component and by time period. Costs attributed to the next 10 years will support projected growth inside of the 10-year impact fee planning period and are impact fee-eligible. Costs attributed to beyond 10 years are not impact fee-eligible.

**Table 3-10  
Facility Cost by Time Period**

	<b>Existing</b>	<b>Next 10 Years</b>	<b>Beyond 10 Years</b>	<b>Total</b>
Source	\$0.00	\$12,145,011.46	\$6,157,988.54	\$18,303,000.00
Storage	\$0.00	\$2,965,794.07	\$1,984,205.93	\$4,950,000.00
Planning	\$0.00	\$85,428.13	\$0.00	\$85,428.13
<b>Total</b>	<b>\$0.00</b>	<b>\$15,196,233.66</b>	<b>\$8,142,194.47</b>	<b>\$23,338,428.13</b>

## **REVENUE OPTIONS**

### **General Obligation Bonds through Property Taxes**

This form of debt enables the City to issue general obligation bonds for capital improvements and replacement. General Obligation (G.O.) Bonds would be used for items not typically financed through the Water Revenue Bonds (for example, the purchase of water source to ensure a sufficient water supply for the City in the future). G.O. bonds are debt instruments backed by the full faith and credit of the City which would be secured by an unconditional pledge of the City to levy assessments, charges or ad valorem taxes necessary to retire the bonds. G.O. bonds are the lowest-cost form of debt financing available to local governments and can be combined with other revenue sources such as specific fees, or special assessment charges to form a dual security through the City's revenue generating authority. These bonds are supported by the City as a whole, so the amount of debt issued for the water system is limited to a fixed percentage of the real market value for taxable property within the City. For growth related projects this type of revenue places an unfair burden on existing residents as they had previously paid for their level of service.

### **Revenue Bonds**

This form of debt financing is also available to the City for utility related capital improvements. Unlike G.O. bonds, revenue bonds are not backed by the City as a whole, but constitute a lien against the water service charge revenues of a Water Utility. Revenue bonds present a greater risk to the investor than do G.O. bonds, since repayment of debt depends on an adequate revenue stream, legally defensible rate structure /and sound fiscal management by the issuing jurisdiction. Due to this increased risk, revenue bonds generally require a higher interest rate than G.O. bonds, although currently interest rates are at historic lows. This type of debt also has very specific coverage requirements in the form of a reserve fund specifying an amount, usually expressed in terms of average or maximum debt service due in any future year. This debt service is required to be held as a cash reserve for annual debt service payment to the benefit of bondholders. Typically, voter approval is not required when issuing revenue bonds. For growth related projects this type of revenue places an unfair burden on existing residents as they had previously paid for their level of service.

## **State/Federal Grants and Loans**

Historically, both local and county governments have experienced significant infrastructure funding support from state and federal government agencies in the form of block grants, direct grants in aid, interagency loans, and general revenue sharing. Federal expenditure pressures and virtual elimination of federal revenue sharing dollars are clear indicators that local government may be left to its own devices regarding infrastructure finance in general. However, state/federal grants and loans should be further investigated as a possible funding source for needed water system improvements.

It is also important to assess likely trends regarding federal / state assistance in infrastructure financing. Future trends indicate that grants will be replaced by loans through a public works revolving fund. Local governments can expect to access these revolving funds or public works trust funds by demonstrating both the need for and the ability to repay the borrowed monies, with interest. As with the revenue bonds discussed earlier, the ability of infrastructure programs to wisely manage their own finances will be a key element in evaluating whether many secondary funding sources, such as federal/state loans, will be available to the City.

Not charging impact fees or significantly lowering them could be viewed negatively from the perspective of State/Federal funding agencies. Charging a proper impact fee signals to these agencies that the community is using all possible means to finance the projects required to provide vital services their residents.

## **User Fees**

Similar to property taxes on existing residents, user fees to pay for improvements related to new growth-related projects places an unfair burden on existing residents as they had previously paid for their level of service.

## **Impact Fees**

As discussed in Section 1, an impact fee is a one-time charge to a new development for the purpose of raising funds for the construction of improvements required by the new growth and to maintain the current level of service. Impact fees in Utah are regulated by the Impact Fee Statute and substantial case law. Impact fees are a form of a development exaction that requires a fee to offset the burdens created by the development on existing municipal services. Funding the future improvements required by growth through impact fees does not place the burden on existing residents to provide funding of these new improvements.

## REFERENCES

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State of Utah. 2014c. Utah Code Annotated, Section Utah Code 11-36a: Impact Fees Act

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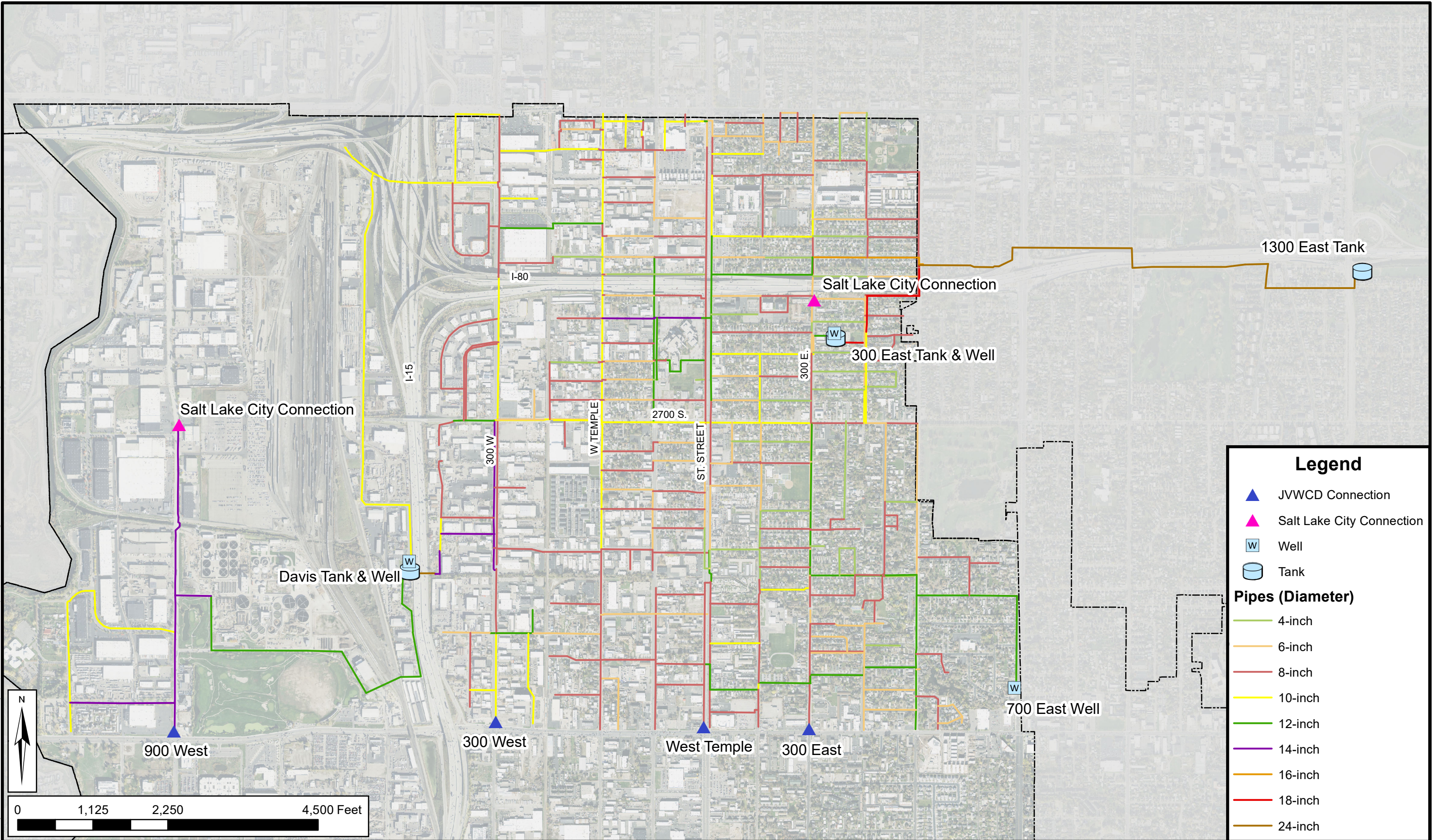
# **APPENDIX A**

## **Information from the Drinking Water Master Plan**

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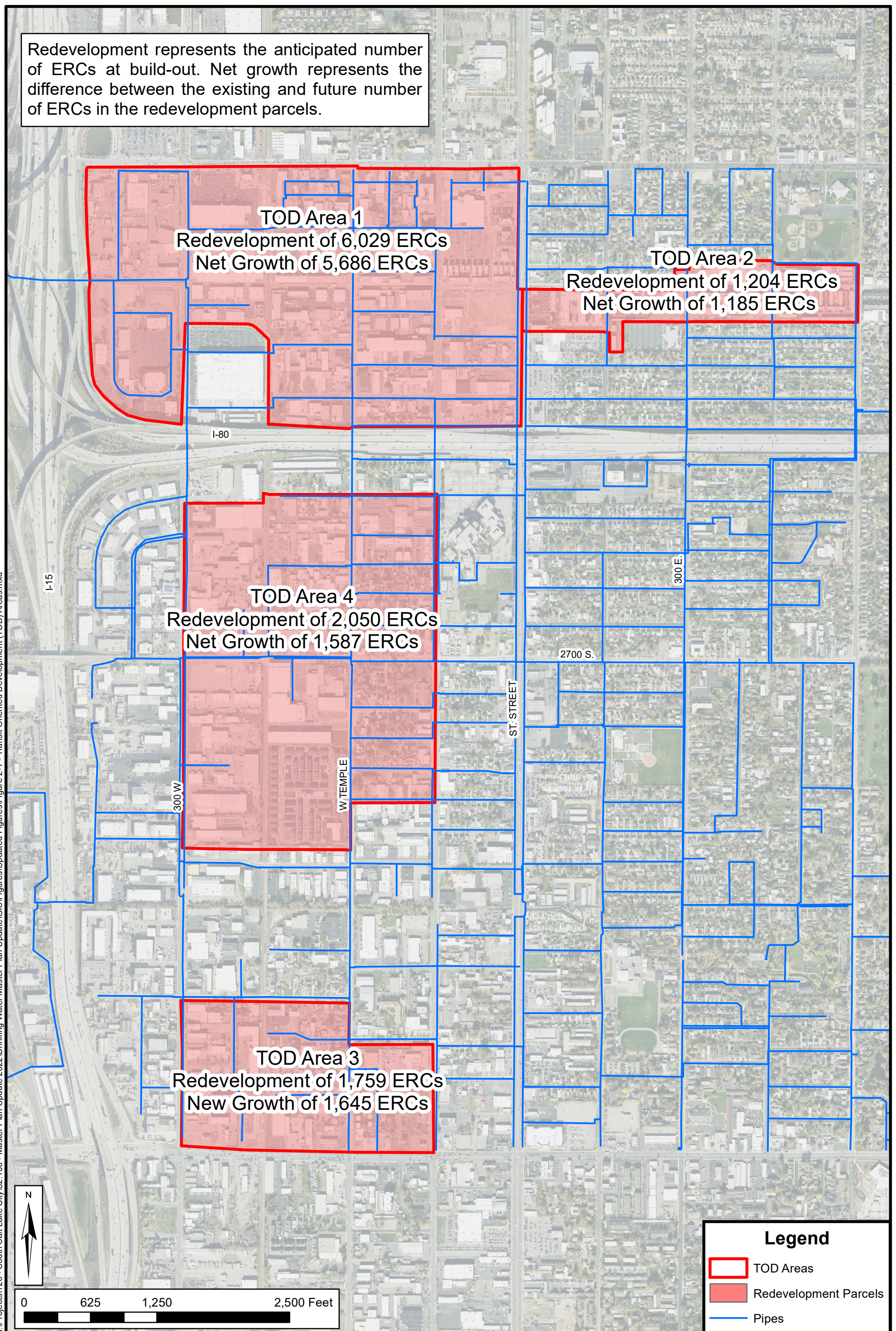


Date: 8/15/2023  
Document Path: H:\Projects\126 - South Salt Lake City\52.100 - Master Plan Update\GIS\Figures\Updated Figures\Figure 1-1 - Existing System.mxd





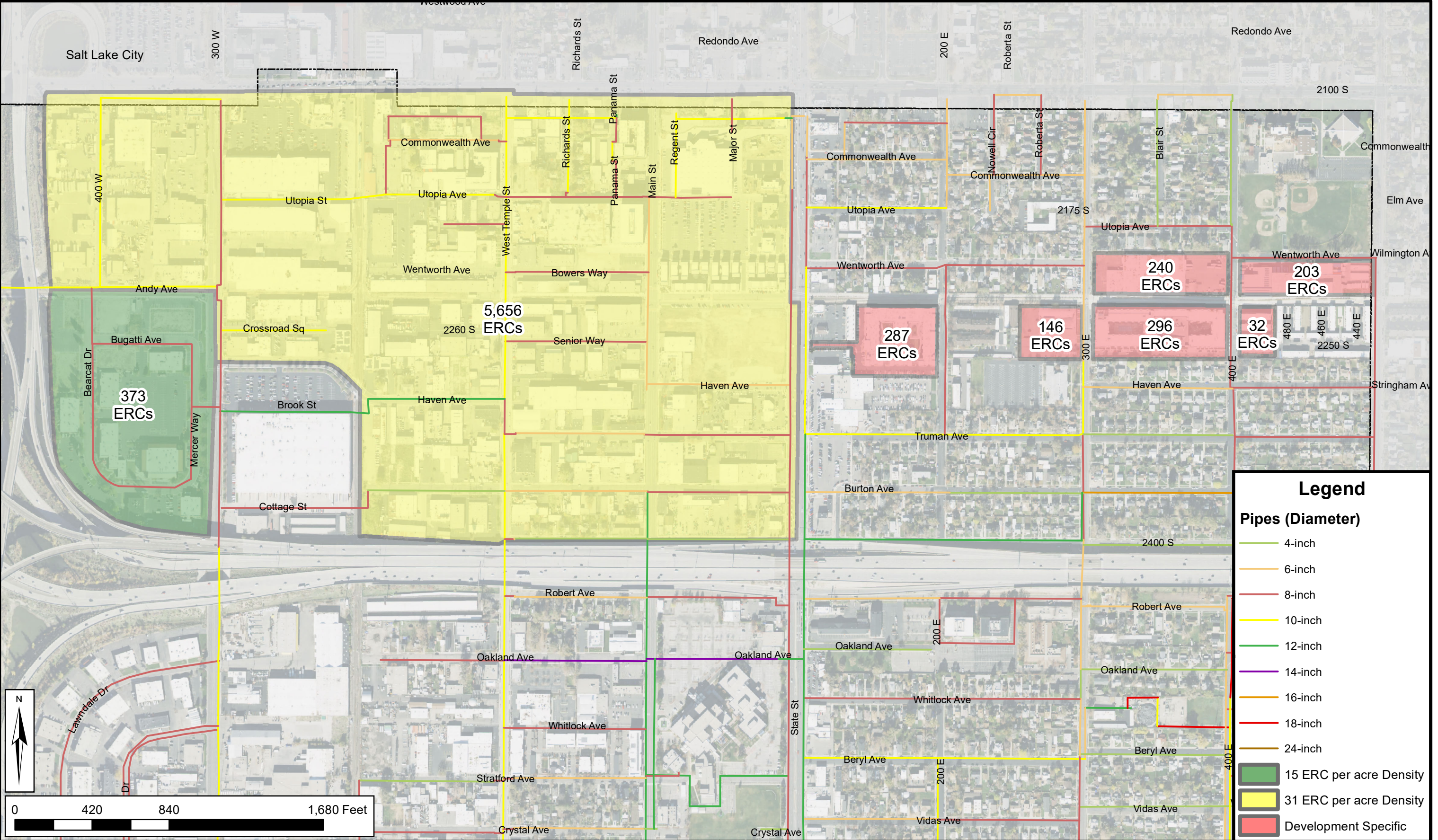
Redevelopment represents the anticipated number of ERCs at build-out. Net growth represents the difference between the existing and future number of ERCs in the redevelopment parcels.



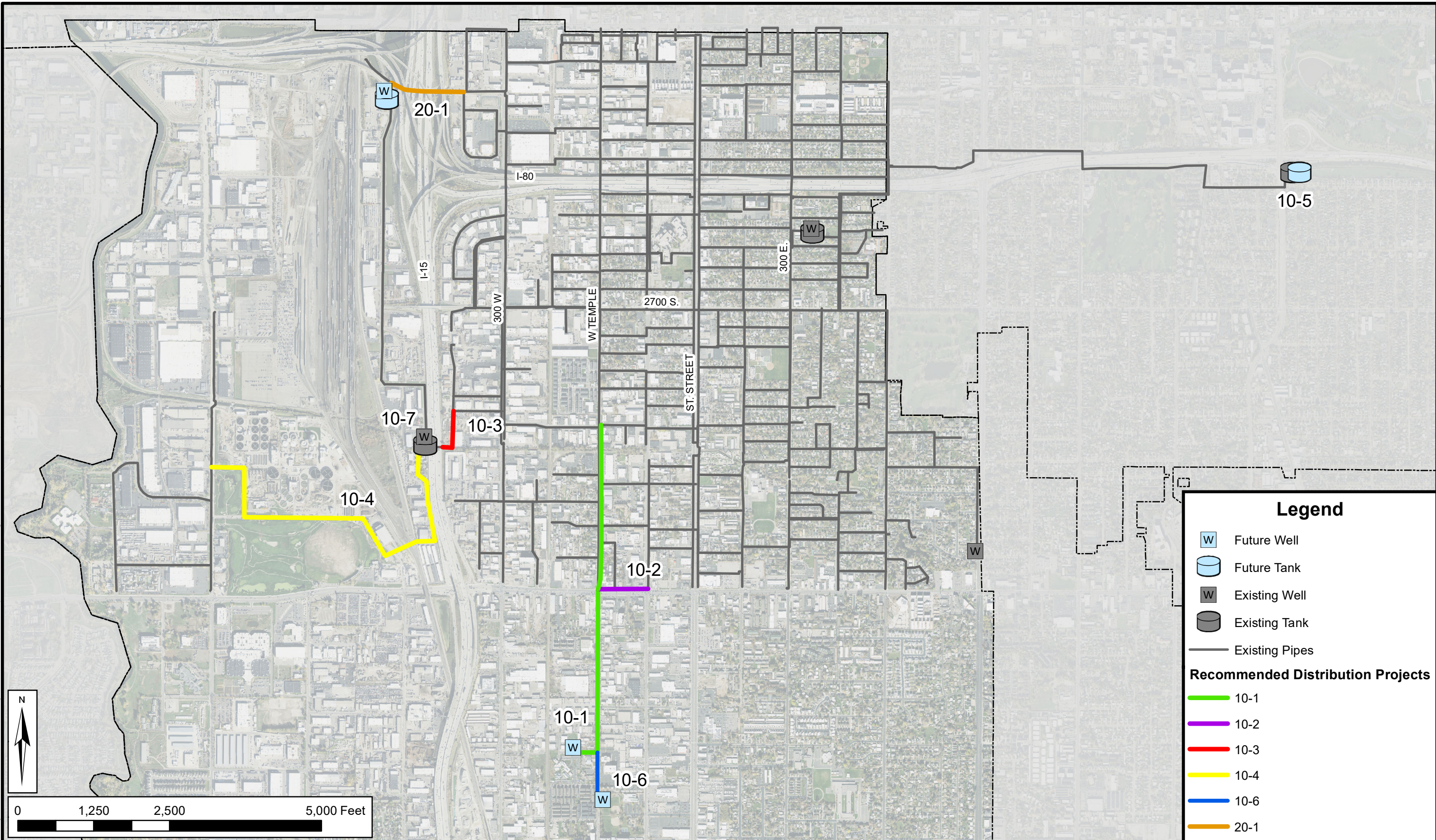
Date: 8/22/2023  
Document Path: H:\Projects\126 - South Salt Lake City\52.100 - Master Plan Update\GIS\Figures\Updated Figures\Figure 2-1 - Transit Oriented Development (TOD) Areas.mxd



Date: 8/14/2023  
Document Path: H:\Projects\126 - South Salt Lake City\52.100 - Master Plan Update 2022\Drinking Water Master Plan Update\GIS\Figures\Updated Figures\Figure 2-2 - Transit Oriented Development (TOD) Areas 1 and 2.mxd









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# APPENDIX B

## Estimated Future Project Costs

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**South Salt Lake City Capital Facility Plan  
Drinking Water Recommended Improvements  
Preliminary Engineers Cost Estimates**

	Item	Unit	Unit Price	Quantity	Total Price
<b>10-1</b>	<b><i>Price Avenue Well</i></b>				
	Well drilling and development (1,500 gpm)	LS	\$ 2,000,000	1	\$ 2,000,000
	Well equipment and well house	LS	\$ 1,000,000	1	\$ 1,000,000
	Install new 20" pipe	LF	\$ 900	2700	\$ 2,430,000
	Install new 16" pipe	LF	\$ 700	500	\$ 350,000
	Replace 8" pipe with 16" pipe	LF	\$ 700	1000	\$ 700,000
	Replace 8" pipe with 12" pipe	LF	\$ 500	1650	\$ 825,000
	Total				\$ 7,305,000
	Engineering & Admin. (10%)				\$ 730,500
	Contingency (10%)				\$ 730,500
	<b>Total to Price Avenue Well</b>				<b>\$ 8,766,000</b>
<b>10-2</b>	<b><i>3300 South Distribution Line</i></b>				
	Install new 12" pipe	LF	\$ 500	825	\$ 412,500
	Total				\$ 412,500
	Engineering & Admin. (10%)				\$ 41,250
	Contingency (10%)				\$ 41,250
	<b>Total to 3300 South Distribution Line</b>				<b>\$ 495,000</b>
<b>10-3</b>	<b><i>Davis Booster Distribution Line</i></b>				
	Install new 24" pipe	LF	\$ 1,000	750	\$ 750,000
	Total				\$ 750,000
	Engineering & Admin. (10%)				\$ 75,000
	Contingency (10%)				\$ 75,000
	<b>Total to Davis Booster Distribution Line</b>				<b>\$ 900,000</b>
<b>10-4</b>	<b><i>Central Valley Road Distribution Line</i></b>				
	Install parallel 16" pipe	LF	\$ 700	6500	\$ 4,550,000
	Total				\$ 4,550,000
	Engineering & Admin. (10%)				\$ 455,000
	Contingency (10%)				\$ 455,000
	<b>Total to Central Valley Road Distribution Line</b>				<b>\$ 5,460,000</b>
<b>10-5</b>	<b><i>1300 East 1.5 MG Tank</i></b>				
	Construct 1.5 MG tank	GAL	\$ 2.75	1,500,000	\$ 4,125,000
	Total				\$ 4,125,000
	Engineering & Admin. (10%)				\$ 412,500
	Contingency (10%)				\$ 412,500
	<b>Total to 1300 East 1.5 MG Tank</b>				<b>\$ 4,950,000</b>
<b>10-6</b>	<b><i>Harmony Park Well</i></b>				
	Well drilling and development (1,500 gpm)	LS	\$ 2,000,000	1	\$ 2,000,000
	Well equipment and well house	LS	\$ 1,000,000	1	\$ 1,000,000
	Install new 16" pipe	LF	\$ 700	875	\$ 612,500
	Total				\$ 3,612,500
	Engineering & Admin. (10%)				\$ 361,250
	Contingency (10%)				\$ 361,250
	<b>Total to Harmony Park Well</b>				<b>\$ 4,335,000</b>
<b>10-7</b>	<b><i>Davis Well Treatment</i></b>				
	Treatment	LS	\$ 1,950,000	1	\$ 1,950,000
	Total				\$ 1,950,000
	Engineering & Admin. (10%)				\$ 195,000
	Contingency (10%)				\$ 195,000
	<b>Total to Davis Well Treatment</b>				<b>\$ 2,340,000</b>

**South Salt Lake City Capital Facility Plan  
Drinking Water Recommended Improvements  
Preliminary Engineers Cost Estimates**

	Item	Unit	Unit Price	Quantity	Total Price
<b>20-1</b>	<b><i>Bolinder Source and Storage</i></b>				
	Well drilling and development (1,000 gpm)	LS	\$ 1,500,000	1	\$ 1,500,000
	Upgrades to well equipment and well house	LS	\$ 1,000,000	1	\$ 1,000,000
	Treatment	LS	\$ 1,950,000	1	\$ 1,950,000
	Demolish existing 1.0 MG tanks	LS	\$ 300,000	1	\$ 300,000
	Construct 1 MG tank	GAL	\$ 1.75	1,000,000	\$ 1,750,000
	Install 1,600 gpm pump	LS	\$ 1,250,000	1	\$ 1,250,000
	Install parallel 12" pipe	LF	\$ 500	1500	\$ 750,000
	Total				\$ 8,500,000
	Engineering & Admin. (10%)				\$ 850,000
	Contingency (10%)				\$ 850,000
	<b>Total to Bolinder Source and Storage</b>				<b>\$ 10,200,000</b>

**Total Costs \$ 37,446,000**