



**STORM DRAIN
IMPACT FEE ANALYSIS**

SOUTH JORDAN, UTAH

**DRAFT REPORT
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SECTION 1: EXECUTIVE SUMMARY

South Jordan City (the "City") has retained Lewis Young Robertson & Burningham, Inc. ("LYRB") to re-evaluate the City's storm water impact fees in accordance with the Capital Facilities Plan (CFP) and Capital Improvement Plan (CIP) prepared by the City.

The recommended impact fee structure presented in this analysis has been prepared to satisfy Utah State Code Title 11, Chapter 36, Sections 1-5 and represents the maximum impact fee that the City may assess. The City will be required to use other revenue sources to fund projects identified in the CFP that constitute repair and replacement, cure any existing deficiencies, or maintain the existing level of service for current users.

The proposed impact fees will be assessed to new development occurring in South Jordan City, excluding the Kennecott Master Subdivision ("KMS"). According to the City, the KMS Development will finance and construct all storm drainage facilities required for the Master Planned Community. Storm water facilities will be transferred to the City for operation and maintenance.

GENERAL IMPACT FEE REQUIREMENTS

- ☐ Before imposing impact fees, each local political subdivision and private entity shall prepare an impact fee analysis.
- ☐ All entities provide written notice of intent to prepare (or their intent to contract for such services) an impact fee analysis.
- ☐ The analysis must include aspects outlined in UCA 11-36-201 and may include other considerations (found in UCA 11-36-202).
- ☐ The primary focus is conducting a proportionate share analysis which establishes a reasonable relationship between cost of facilities and new development.
- ☐ Impact fees should consider the unique requirements found in UC 11-36-202(7-9) relating to fire suppression vehicles, school districts or charter schools, road facilities, and law enforcement facilities.
- ☐ Upon completion of the impact fee analysis, the entity must comply with the noticing requirements found in the Utah Code and hold a public hearing.
- ☐ The analysis should be accompanied by an impact fee certification.
- ☐ The impact fees are then adopted by enactment.
- ☐ Each municipality must comply with additional noticing requirements found in UCA 11-36-201 with regard to impact fee enactment.
- ☐ Impact fees do not take effect until 90 days after enactment.

This list is not inclusive of all legislative requirements. For complete requirements related to capital facility planning and impact fee legislation, please see Utah Code Title 11 Chapter 36.

PROJECT COSTS AND FINANCING

The proposed impact fees are comprised of the costs of future storm water capital projects as outlined in the City's Storm Drain Capital Facility Plan and professional expenses pertaining to the regular update of the CFP and impact fee analysis. At the direction of the City, no principal and interest payments relating to future bond issuance are included in this analysis. The City is planning to fund future projects on a pay-as-you-go basis using either impact fee revenues, user rates or general fund revenues. Future impact fee cash flows are projected based upon the annual schedule of capital and professional expenses and upon the measurable impervious surface of future development.

According to City records, the existing storm drain system is valued at \$19,822,373 based on original construction year costs. The book value of these assets as of 2010 is \$14,952,378. No buy-in component was calculated within the proportionate share analysis, due to the nature of the proposed projects relative to the growth in equivalent residential units (ERUs) and the CFP's determination to maintain existing levels of service (LOS).. Approximately 60 percent of the future capital expenditures projected in the CFP are related to curing deficiencies in the existing system, with the remaining 40 percent related to new growth.

TABLE I.1: VALUE OF EXISTING FACILITIES

CAPITAL COSTS	ORIGINAL VALUE	BOOK VALUE	IMPACT FEE ELIGIBLE	IMPACT FEE COSTS
Existing Facilities	\$19,822,373	\$14,952,378	0%	\$0

The capital costs as defined in the Capital Facilities Plan are outlined below. A total of \$9,756,561 has been applied to impact fees as growth-related costs. This is based on a 38.9 percent allocation of total future collection infrastructure improvements. However, the future treatment cost based on the Utah pollutant discharge elimination system (UPDES) permit stipulations are not included in the calculation of impact fees as this is considered an increase in the level of service. As a result of the new permit regulation regarding treatment of runoff, both existing and new development will be affected by increased capital costs. If the cost of these capital facilities were assessed within an impact fee, a credit would need to be extended for any contribution through user rates or other means of new development toward upgrading the existing system. As a result, the best approach to covering these costs is through general rates that are assessed to all users.

TABLE I.2: DISTRIBUTION OF FUTURE CAPITAL COSTS

CAPITAL NEEDS	ESTIMATED COST	ATTRIBUTED TO NEW GROWTH	GROWTH RELATED COSTS	2010 VALUE	IMPACT FEE ELIGIBLE	IMPACT FEE COSTS
Future Collection	\$24,294,000	38.9%	\$9,442,000	\$9,746,561	100%	\$9,746,561
Future Treatment	\$5,089,388	25.2%	\$1,281,107	\$1,322,430	0%	\$0
Updates to CIP and IFA	\$10,000	100%	\$10,000	\$10,000	100%	\$10,000
Total	\$29,393,388		\$10,733,107	\$11,078,992		\$9,756,561

The capital projects were inflated by an annual rate of 1.6 percent to account for construction inflation, based on historic growth in the Construction Cost Index (CCI) from 2008 to 2010.

STORM WATER DEMAND UNITS

The unit of measurement that best applies to the storm water impact fee analysis for the City is equivalent residential units (ERUs). An ERU is defined as the average amount of impervious surface for a single family residence within South Jordan which is equivalent to 4,752 square feet (rooflines, paved areas and other areas which prevent infiltration and create runoff).¹ Single family homes would be treated as one (1) ERU, while the ERUs for non single-family residential and commercial development would be calculated based on the measured amount of impervious area as the numerator and the 4,752 square feet as the denominator. The result or quotient would then be the total number of ERUs applicable to the property. The calculation of the impact fee would be the number of ERUs times the rate per ERU.

Based on existing planning data, utilizing building permit and water connection information, there are a total of 11,777 residential ERUs (excluding multi-family development) and 5,602 non single-family residential and commercial ERUs, for a total of 17,379 existing ERUs within the City Proper, which excludes the KMS area.² Rather than assume each multi-family unit is equivalent to one ERU, the rate analysis presented here converts all multi-family units to ERUs based on the impervious surface for this development type. This is due to the differences in average impervious surface for high-density residential and low-density residential development. Commercial ERUs are calculated using the existing and projected impervious surface within each commercial zone. For the purposes of the impact fee calculations, the estimated 2008 ERUs are used to determine new growth as this is the horizon of the capital facilities plan.

¹ Source: South Jordan City

² The Kennecott Master Subdivision (KMS) is excluded in the analysis of impact fees based on the agreement between the KMS development and the City for the Master Planned Community to provide and construct all necessary capital improvements related to storm drain facilities.

TABLE I.3: ERU ESTIMATES

FAIR SHARE	2008 ERUS	2010 ERUS	BUILDOUT ERUS	NEW GROWTH FROM 2008
ERUs (excluding KMS)	16,760	17,379	24,107	7,347

CONSUMPTION OF ANY EXISTING CAPACITY

According to City records, the existing storm drain system is valued at \$19,822,373 based on original construction year costs. The book value of these assets as of 2010 is \$14,952,378. No buy-in component was calculated within the proportionate share analysis, due to the nature of the proposed projects relative to the growth in ERUs and the determination of the CFP to maintain existing levels of service. Approximately 60 percent of the future capital expenditures projected in the CFP are related to curing deficiencies in the existing system, with approximately 40 percent related to new growth. As a result, only future capital improvements have been attributable to new growth, as illustrated in the proportionate share analysis. In addition, there is no impact fee fund balance related to the storm drain utility. In addition, there is no impact fee fund balance related to the storm drain utility.

In addition, LYRB compared the existing level of investment to verify the exclusion of any buy-in component. Based on the value of existing infrastructure, the City has invested \$1,183 per ERU. This represents the original construction value. Utilizing a modest inflationary growth of 1.6 percent brings the value of the existing infrastructure to \$22,889,203 or an investment of \$1,365 per ERU. The calculated impact fee falls within the range of the existing level of investment further justifying the exclusion of a buy-in component. According to South Jordan City, the existing level of service for the storm drain utility is built to service a 100-year storm for the retention/detention basins, and with the capacity to service a ten-year storm for the drainage pipelines. The LOS has been determined by the City at .2 CFS (cubic feet per second) for controlled release per ERU.

CALCULATION OF PROPOSED STORM WATER IMPACT FEE

The proportionate share analysis determines the proportionate cost assignable to new development based on the proposed capital projects and the estimated ERU growth. The total cost applicable to new growth is \$9,746,561. Based on an estimated increase of 7,347 ERUs through buildout, the total impact fee related to new development is \$1,328. As stated above, no buy-in component was calculated within the proportionate share analysis due to the the desire to maintain existing levels of service and the relative growth in ERUs. Approximately 60 percent of the future capital expenditures projected in the CFP are related to curing deficiencies in the existing system.

TABLE I.4: ILLUSTRATION OF IMPACT FEE CALCULATION

	Value (2010\$)
Future Facilities Related to New Growth (Excluding Treatment)	\$9,746,561
Future Treatment Facilities Related to New Growth	\$0
Update to Impact Fee Analysis (IFA)	\$10,000
Total	\$9,756,561
Total ERU Growth through Buildout	7,347
Buy-In (Based on Original Cost)	\$0
New Growth Portion	\$1,328
Total Impact Fee	\$1,328

The impact fee by land-use type is illustrated below. The average impervious surface per residential unit calculation, based on the R-2.5 zone, established one ERU as equivalent to 4,752 impervious square feet of land. The City provided the average impervious surface for each land-use category to determine the impact fee multiplier.

TABLE 1.5: DETERMINATION OF IMPACT FEES BY LAND-USE

LOT SIZE	AVG. IMPERVIOUS SQ. FT.	MULTIPLIER	FEE PER ERU	2010 IMPACT FEE	EXISTING FEES
Res/A-1 (per Unit)	11,080	2.33	\$1,328	\$3,094	\$2,910
Res/A-5 (per Unit)	11,080	2.33	\$1,328	\$3,094	\$2,910
Res/R-1.8 (per Unit)	5,804	1.22	\$1,328	\$1,620	\$1,519
ResLR-2.5 (per Unit)	4,752	1.00	\$1,328	\$1,328	\$1,433
ResLR-3 (per Unit)	4,005	0.84	\$1,328	\$1,116	\$1,046
All Other Land Uses (per ERU)	N/A	1.00	\$1,328	\$1,328	\$1,433

CALCULATION OF NON-STANDARD IMPACT FEE

All non-standard impact fees will be assessed on a per ERU basis. Impact fees will be calculated using the following formula:

$$\boxed{((\text{AVERAGE IMPERVIOUS SURFACE} \div 4,752) \times \$1,328)}$$

EXPENDITURE OF IMPACT FEES

Legislation requires that impact fees should be spent or encumbered within six years after each impact fee is paid. The City's CIP, which identifies projected cost within the next five years, has identified \$16.6 million in capital costs necessary. Of these costs, \$3.04 million has been identified in the next two years as growth related costs (See Appendix A for a detailed list of CIP costs). Impact fees collected in the next five to six years should be spent only on those projects outlined in the CFP and CIP as growth related costs.

IMPACT FEE CERTIFICATION

LYRB certifies that the attached impact fee analysis includes only the costs for qualifying public facilities that are allowed under the Impact Fees Act that are projected to be incurred or encumbered within six years after each impact fee is paid; contains no cost for operation and maintenance of public facilities; offsets costs with grants or other alternate sources of payment; does not include 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; and complies in each and every relevant respect with the Impact Fees Act.

SECTION II: OVERVIEW OF IMPACT FEES

Impact fees are one-time fees charged to new development that serve to: (1) proportionally allocate the cost of future projects to the new development that they will be constructed to serve; and (2) allow new customers to buy in to excess capacity in the existing system. Therefore, the basic impact fee methodology is essentially a blending of future project costs and the unused value of the existing system. An impact fee is distinctly different from a tax, special assessment, building permit fee, hook-up fee, or other reasonable permit or application fee such as a conditional use or subdivision application fee.

Current legislation regarding the implementation of impact fees is set forth in the Impact Fees Act (Utah Code Annotated §11-36-101 et seq). This legislation gives certainty to the ability of this City and other local governments to impose equitable impact fees on new development.

REQUIRED ELEMENTS FOR THE ADOPTION OF IMPACT FEES

Local governments must follow the requirements established in the Impact Fees Act regarding the assessment of impact fees. The following documents must be prepared and completed before the City can legally commence public notice and adopt the proposed impact fees.

(1) NOTICING REQUIREMENTS

Before preparing the impact fee analysis the local political subdivision or private entity must provide public notice by posting a public notice on the Utah Public Notice website (11-36-201(5)(b)(i)).

(2) CAPITAL FACILITIES PLAN

The Impact Fees Act requires that a city, county or district serving a population of 5,000 or greater have a Capital Facilities Plan prepared in coordination and compliance with its General Plan that identifies:

- ☐ the demands that will be placed upon the existing and future facilities by new development; and
- ☐ the proposed means that the City will use to accommodate the additional demand.³

The City meets this requirement with the Storm Water Capital Facilities Plan adopted in 2011.

(3) WRITTEN IMPACT FEE AND PROPORTIONATE SHARE ANALYSIS

The written impact fee analysis is required under the Impact Fees Act and must identify the impacts placed on the facilities by development activity and how these impacts are reasonably related to the new development. The written impact fee analysis must include a proportionate share analysis, as described below, and clearly detail all cost components and the methodology used to calculate each impact fee. Specifically, an impact fee must:⁴

- ☐ identify the anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity;
- ☐ identify the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service for each public facility;
- ☐ demonstrate how those anticipated impacts are reasonably related to the anticipated development activity;
- ☐ 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; and
- ☐ identify how the impact fee was calculated.

³ 11-36-201(2)(c)

⁴ 11-36-201(5)(a)

The Impact Fees Act requires that the written analysis include a proportionate share analysis which is intended to equitably divide the cost of proposed capital facilities between future and existing users relative to the benefit each group will receive from the improvement.

In analyzing whether or not the proportionate share of the costs of public facilities are reasonably related to the new development activity, the impact fee analysis should 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;
- ☐ the cost of system improvements for each public facility;
- ☐ other than impact fees, the manner of financing each public facility, such as user charges, special assessments, bonded indebtedness, general taxes, or federal grants;
- ☐ 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;
- ☐ the relative extent to which development activity will contribute to the cost of existing public facilities and system improvements in the future;
- ☐ 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;
- ☐ extraordinary costs, if any, in servicing the newly developed properties; and
- ☐ the time-price differential inherent in fair comparisons of amounts paid at different times.

(4) EXECUTIVE SUMMARY

The Impact Fees Act requires that an Executive Summary of the impact fee analysis be prepared that provides a clear and concise overview of the proposed impact fee structure and assumptions used to calculate the maximum allowable impact fees.⁵

(5) IMPACT FEE ENACTMENT

The Impact Fee Enactment, referred to in this analysis as the Ordinance, must be adopted by the City Council to enact the proposed fees. The Ordinance may not impose a fee higher than the maximum legal fee defined in this written analysis, but the Ordinance may adopt a fee that is lower than the maximum fee defined in this analysis.⁶ An impact fee enactment may not take effect until 90 days after it is enacted.

According to the Impact Fees Act, the enactment must contain:

- ☐ a provision establishing one or more service areas within which the local political subdivision or private entity calculates and imposes impact fees for various land use categories;
- ☐ a schedule of impact fees for each type of development activity that specifies the amount of the impact fee to be imposed for each type of system improvement; or
 - the formula that the local political subdivision or private entity, as the case may be, will use to calculate each impact fee;
- ☐ a provision authorizing the local political subdivision or private entity, as the case may be, to adjust the standard impact fee at the time the fee is charged to respond to:
 - unusual circumstances in specific cases; or
 - a request for a prompt and individualized impact fee review for:
 - the development activity of the state or a school district or charter school; and
 - an offset or credit for a public facility for which an impact fee has been or will be collected;
- ☐ a determination that the impact fees are imposed fairly; and
- ☐ a provision governing calculation of the amount of the impact fee to be imposed on a particular development that permits adjustment of the amount of the fee based upon studies and data submitted by the developer; and

⁵ 11-36-201(5)(d)

⁶ 11-36-202(1)(a-b)

- allows a developer, including a school district or charter school, to receive a credit against or proportionate reimbursement of an impact fee if the developer:
 - dedicates land for a system improvement;
 - builds and dedicates some or all of a system improvement; or
 - dedicates a public facility that the local political subdivision or private entity and the developer agree will reduce the need for a system improvement.
- ☐ a provision in an impact fee enactment that provides for fee exemption based on related development activity.

IMPACT FEE NOTICING AND ADOPTION REQUIREMENTS – 11-36-202

The actual adoption of an impact fee must be done by Ordinance. This Ordinance must include the provisions described above and must be reviewed during a public hearing. A reasonable notice of the public hearing must be posted in three public places or on the entity’s website *and* published in a local newspaper at least ten (10) days before the actual hearing. A copy of the proposed Impact Fee Ordinance, the Written Impact Fee Analysis, Executive Summary, and Capital Facilities Plan must be made available to the public during the 10-day noticing period for public review and inspection. Copies of these four items must also be submitted to the registered agent of the Utah Home Builders Association, the registered agent of the Utah Association of Realtors and the registered agent of the Utah Chapter of the Associated General Contractors of America. In addition, a written certification must accompany the impact fee analysis.

At the end of the 10-day noticing period, a public hearing shall be held at which point the City Council may adopt, amend and adopt, or reject the Impact Fee Ordinance and proposed fee schedule. Following the adoption, Utah Code Sections 10-3-711 and 712 require that a summary of the Ordinance be published in order for it to become effective.

ACCOUNTING FOR, EXPENDITURE OF, AND REFUNDING OF IMPACT FEES

ACCOUNTING FOR IMPACT FEES

The Impact Fees Act requires that any entity that imposes impact fees establish an interest bearing ledger account for each type of public facility for which an impact fee is collected. All impact fee receipts must be deposited into the appropriate account. Any interest earned in each account must remain in the corresponding account. At the end of each fiscal year, the City must prepare a report in a format developed by the state auditor on each fund or account showing the source and amount of all monies collected, earned, expended or received by each account. Once the City has received payment, the impact fees will be deposited into each specific Impact Fee Fund and used to defray capital costs as identified herein and in the CFP.

EXPENDITURE OF IMPACT FEES

The City may only expend impact fees for system improvements identified in the Capital Facilities Plan.⁷ All funds collected must be spent or encumbered within six years of collection or the City must provide an extraordinary or compelling reason why the fees must be held longer and provide an ultimate date by which the impact fees collected will be expended.⁸ The improvements that are financed through impact fees must be owned and operated by the City or another local public entity with which the City has contracted or will contract for services and improvements that will be operated on the City’s behalf.

REFUNDING OF IMPACT FEES

The City is required to refund any impact fees collected, plus interest earned since their collection, if: 1) a developer who has paid impact fees does not proceed with the development activity and has filed a written request for a refund; 2) the fees have not been spent or encumbered within the six-year period; or 3) no impact has resulted.⁹

⁷ 11-36-302(1(a))

⁸ 11-36-302(2(b))

⁹ 11-36-303(1-3)



Impact fees serve three main purposes: (1) proportionally allocate the costs of future projects to the new development that they will be constructed to serve, (2) allow new customers to purchase equity in the existing system capacity, and (3) perpetuate the historic level of service paid to growth-related facilities.

IMPACT FEES AS A SOURCE OF REVENUE

An impact fee is distinctly different from a tax, special assessment, building permit fee, hook-up fee, or other reasonable permit or application fee such as a conditional use or subdivision application fee.

Cities generally cannot pay for all necessary improvements using only revenues generated by property taxes, user fees or other sources of revenue. This situation raises the question of whether current residents should be required to pay for new capital facilities serving only new growth, or if new residents and businesses should be required to pay for new capital facilities serving new growth. Although the growth of industry and residences within a city is an overall positive occurrence since it leads to increased user fees and property tax revenues, the incoming entities, not existing residents, must be responsible for improvements that add capacity that directly benefits the new development.

SECTION III: FUTURE IMPACTS FROM GROWTH

The impact fee analysis is based on future growth related to residential and commercial development. Residential growth is measured based on the number of single family units, with one single family unit equivalent to one ERU. Building permit data and land use data was analyzed to determine existing residential ERUs and project future growth. Table 3.1 illustrates the building permit data. A total of 11,777 residential ERUs were identified for the City Proper, excluding multifamily units.

TABLE 3.1: BUILDING PERMIT DATA

	PERMITTED UNITS	COMPLETED UNITS	OCCUPIED UNITS	HIGH DENSITY RESIDENTIAL UNITS BY COMMUNITY	ESTIMATED RESIDENTIAL ERUS
City Proper	12,855	12,664	12,221	887	11,777
Kennecott Master Subdivision (KMS)	2,914	2,797	2,699	315	2,482
Total	15,769	15,461	14,920	1,202	14,259

Source: South Jordan City

The City estimates a buildout of 15,000 residential ERUs for the City proper area and over 20,000 units for the KMS area. KMS units are based on total allowable units by agreement between Kennecott Land and South Jordan City.

Commercial ERUs are based on the impervious surface throughout the City for commercial zones. The City currently has approximately 26,622,472 square feet of impervious surface¹⁰ within commercial zones (including high density residential), and based upon the City's undeveloped land-use planning, the total impervious surface that the City will be required to account for at build-out will increase by approximately 16,656,743 square feet. Therefore, the City's total non-residential impervious surface at build-out will amount to approximately 43,279,214 square feet. The allocation of impervious surface is shown in Table 3.2.

TABLE 3.2: ILLUSTRATION OF IMPERVIOUS SQ FT (SOUTH JORDAN PROPER)

LAND USE ID	DESCRIPTION	TOTAL AREA (SQ Ft)	IMPERVIOUS SQ FT	
			EXISTING	POTENTIAL
COM	Commercial	24,903,056	7,343,335	7,492,196
HD	High Density Residential	3,108,379	985,699	-
IND	Industrial	1,941,724	1,069,452	-
NOS	Natural Open Space	15,868,882	17,266	-
O	Office	12,516,213	4,909,184	1,732,023
OS	Open Space	30,527,641	1,502,970	194,508
PUBLIC	Public Use	18,261,567	2,942,966	165,690
TC-MU	Towne Center – Mixed Use	1,870,540	1,257,252	140,563
TOD-MU	Transit Oriented Development – Mixed Use	5,402,987	1,713,062	791,429
VCOM	Village Commercial	1,237,522	173,396	199,825
VMR	Village Mixed Residential	3,609,685	36,510	147,576
VMU	Village Mixed Use	21,598,913	4,671,380	5,792,932
Total			26,622,472	16,656,743

Source: South Jordan City

¹⁰ Source: South Jordan City GIS

The impervious surface analysis is converted into a base unit of measurement that can easily be applied to the varying land-uses within the City. The unit of measurement that best applies to the storm water impact fee analysis for the City is equivalent residential units (ERUs). An ERU is defined as the average amount of impervious surface on a single family residence within South Jordan which is equivalent to 4,752 square feet (rooflines, paved areas and other areas which prevent infiltration and create runoff) according to a GIS survey conducted by South Jordan City. Single family homes would be treated as one (1) ERU and the ERUs for non-single family residential and commercial development would be calculated based on the measured amount of impervious area as the numerator and the 4,752 square feet as the denominator. The result would then be the total number of ERUs applicable to the property. The calculation of the impact fee would be the number of ERUs times the rate per ERU.

Based on the above land-use data, and utilizing building permit and water connection information, there are a total of 11,777 single-family residential ERUs (excluding multifamily development) and 5,602 non-single family residential and commercial ERUs, for a total of 17,379 existing ERUs within the City, excluding the KMS area.¹¹ Commercial ERUs are calculated using the existing and projected impervious surface within each commercial zone. For the purposes of the impact fee calculations, the estimated 2008 ERUs are used to determine new growth as this is the horizon of the capital facilities plan.

The projected ERUs at buildout equals 24,107 units for a total of 7,347 new ERUs since 2008.

TABLE 3.3: ERU GROWTH ESTIMATES

	2008 ERUs	2010 ERUs	BUILDOUT ERUs	NEW GROWTH FROM 2008
ERUs (Excluding KMS)	16,760	17,379	24,107	7,347

¹¹ The Kennecott Master Subdivision (KMS) is excluded in the analysis of impact fees based on the agreement between the KMS development and the City for the Master Planned Community to provide and construct all necessary capital improvements related to storm drain facilities.

SECTION IV: CAPITAL PROJECT COSTS AND PROPOSED DEBT

The Impact Fees Act allows for the inclusion of four cost components in the calculation of the impact fees. These cost components are: (1) the construction costs of growth-driven improvements, (2) appropriate professional service costs, (3) the outstanding costs of issuance and interest that relate to bonds used to finance projects with unused capacity, and 4) the future costs of issuance and interest that relate to future financing with bonds or inter-fund loans to finance growth-driven capital projects that cannot be cash funded within a six-year time period from when impact fees are collected.

CONSUMPTION OF ANY EXISTING CAPACITY

According to City records, the existing storm drain system is valued at \$19,822,373 based on original construction year costs. The book value of these assets as of 2010 is \$14,952,378. No buy-in component was calculated within the proportionate share analysis, due to the nature of the proposed projects relative to the growth in ERUs and the commitment of the City to maintain existing service levels. Approximately 60 percent of the future capital expenditures projected in the CFP are related to curing deficiencies in the existing system, with approximately 40 percent related to new growth. As a result, only future capital improvements have been attributable to new growth, as illustrated in the proportionate share analysis. In addition, there is no impact fee fund balance related to the storm drain utility.

TABLE 4.1: VALUE OF EXISTING FACILITIES

CAPITAL COSTS	ORIGINAL VALUE	BOOK VALUE	IMPACT FEE ELIGIBLE	IMPACT FEE COSTS
Existing Facilities	\$19,822,373	\$14,952,378	0%	\$0

Source: South Jordan City

In addition, LYRB compared the existing level of investment to verify the exclusion of any buy-in component. Based on the value of existing infrastructure, the City has invested \$1,183 per ERU. This represents the original construction value. Utilizing a modest inflationary growth of 1.6 percent brings the value of the existing infrastructure to \$22,889,203 or an investment of \$1,365 per ERU. The calculated impact fee falls within the range of the existing level of investment further justifying the exclusion of a buy-in component. According to the City, the existing level of service (LOS) for the storm drain utility is built to service a 100-year storm for the retention/detention basins, and with the capacity to service a ten-year storm for the drainage pipelines. The LOS has been determined by the City at .2 CFS (cubic feet per second) for controlled release per ERU.

FUTURE CAPITAL AND PROFESSIONAL SERVICES COSTS

The Storm Drain Master Plan distinguishes between system facilities (major) and project facilities (minor). System facilities are defined as major systems that service more than one development. Project facilities are defined as minor systems that service a single development internally such as a subdivision storm drain collection system.

FUTURE CAPITAL PROJECT COSTS

The costs of future capital projects are defined in the Capital Facilities Plan and are summarized in Figure 4.2. The City estimates that approximately \$24.294 million (2008\$) of future storm water projects will be required to sufficiently serve the City through build-out. Nearly \$15 million of the capital projects identified in the CFP are projects that are required to fix deficiencies in the current system or project improvements. Project improvements are improvements that serve only a specific area or development rather than the entire community. The costs of project improvements and of projects that are required to fix existing deficiencies are considered to be associated with the current or existing level of service and cannot be funded through impact fees but must be analyzed within the rate structure.

TABLE 4.2: ILLUSTRATION OF 2008 CAPITAL COSTS RELATED TO NEW GROWTH

	COST ESTIMATES	PROPORTIONATE SHARE		ALLOCATION	
	2008	LEVEL OF SERVICE	GROWTH-RELATED	LEVEL OF SERVICE	GROWTH-RELATED
Bingham Basin	\$1,206,493	63.0%	37.0%	\$760,635	\$445,858
Bangerter Basin	\$1,421,000	30.1%	69.9%	\$428,096	\$992,904
98th South Basin	\$7,506,713	84.6%	15.4%	\$6,348,949	\$1,157,764
Redwood Basin	\$1,038,548	17.3%	82.7%	\$179,167	\$859,381
106th Basin	\$2,748,325	52.9%	47.1%	\$1,455,007	\$1,293,318
Midas Basin	\$7,836,471	52.2%	47.8%	\$4,087,475	\$3,748,996
Jordan Basin	\$2,536,693	62.8%	37.2%	\$1,592,474	\$944,219
Rounded Total	\$24,294,000			\$14,852,000	\$9,442,000
				Attributed to New Growth	38.9%

Source: South Jordan City, LYRB

The capital projects illustrated above are based on 2008 estimates. The capital projects were inflated by an annual rate of 1.6 percent to account for construction inflation, based on historic growth in the Construction Cost Index (CCI) from 2008 to 2010. A total of \$9.747 million has been identified in the table below as growth related capital expenditures and can be funded through impact fee revenues.

TABLE 4.3: ILLUSTRATION OF 2010 CAPITAL COSTS RELATED TO NEW GROWTH

	COST ESTIMATES	PROPORTIONATE SHARE		ALLOCATION	
	2010	LEVEL OF SERVICE	GROWTH-RELATED	LEVEL OF SERVICE	GROWTH-RELATED
Bingham Basin	\$1,245,409	63.0%	37.0%	\$785,170	\$460,240
Bangerter Basin	\$1,466,836	30.1%	69.9%	\$441,904	\$1,024,931
98th South Basin	\$7,748,850	84.6%	15.4%	\$6,553,740	\$1,195,109
Redwood Basin	\$1,072,047	17.3%	82.7%	\$184,946	\$887,102
106th Basin	\$2,836,975	52.9%	47.1%	\$1,501,940	\$1,335,035
Midas Basin	\$8,089,244	52.2%	47.8%	\$4,219,320	\$3,869,923
Jordan Basin	\$2,618,517	62.8%	37.2%	\$1,643,841	\$974,676
Rounded Total	\$25,078,000			\$15,331,000	\$9,747,000
				Attributed to New Growth	38.9%

Source: South Jordan City, LYRB

In addition to the proposed capital projects for system improvements, approximately \$1.32 million (2010\$) has been identified to fund treatment costs related to UPDES compliance issues identified in the CFP. Based on the City's UPDES Municipal Permit to discharge storm water to natural waterways, the City is required to implement measures to improve the water quality of the storm water discharge. This requirement applies to both existing and future development.

TABLE 4.4: ILLUSTRATION OF TREATMENT CAPITAL FACILITY COSTS

TREATMENT ALLOCATION	EXISTING DEVELOPMENT	GROWTH-RELATED	TOTAL COSTS
2008	\$3,808,281	\$1,281,107	\$5,089,388
2010	\$3,931,121	\$1,322,430	\$5,253,551

Source: South Jordan City, LYRB

However, the future treatment cost based on the Utah pollutant discharge elimination system (UPDES) permit stipulations are not included in the calculation of impact fees as this is considered an increase in the level of service. As a result of the new permit regulation regarding treatment of runoff, both existing and new development will be affected by increased capital costs. If the cost of these capital facilities were assessed within an impact fee, a credit would need to be extended for any contribution through user rates or other means of new

development toward upgrading the existing system. As a result, the best approach to covering these costs is through general rates that are assessed to all users.

ESTIMATED COST RELATION TO NEW GROWTH

The estimated costs attributed to new growth were analyzed by City Planning and Engineering Staff based on existing development versus future development patterns. From this analysis, a portion of future development costs were attributed to new growth and included in this impact fee analysis as shown in Tables 4.2 and 4.3. Capital projects related to curing existing deficiencies were not included in the calculation of the impact fees.

FUTURE CAPITAL FINANCING COSTS

DEBT FINANCING

In the event the City has not amassed sufficient impact fees to pay for the construction of time sensitive or urgent capital projects needed to accommodate new growth, the City must look to revenue sources other than impact fees for funding. The Impact Fees Act allows for the costs related to the financing of future capital projects, including costs of issuance and interest costs, to be legally included in the impact fee. This allows the City to finance and quickly construct infrastructure for new development and reimburse itself later from impact fee revenues for the costs of principal and interest. However, the City does not foresee using debt financing to fund future projects in the foreseeable future. Thus, costs related to debt financing are not included in this analysis.

IMPACT FEE ANALYSIS UPDATES

As development occurs and capital project planning is periodically revised, the future lists of capital projects and their costs may be different than the information utilized in this analysis. For this reason, it is assumed that the City will perform an update to the analysis within the next five years. The cost of preparing this analysis has been included in the impact fee calculations. The cost of updating this analysis is approximately \$10,000.

SECTION V: PROPORTIONATE SHARE ANALYSIS

The written impact fee analysis is required under the Impact Fees Act and must identify the impacts placed on the facilities by development activity and how these impacts are reasonably related to the new development. The written impact fee analysis must include a proportionate share analysis, clearly detailing each cost component and the methodology used to calculate each impact fee. A local political subdivision or private entity may only impose impact fees on development activities when its plan for financing system improvements establishes that impact fees are necessary to achieve an equitable allocation to the costs borne in the past and to be borne in the future (UCA 11-36-201(4)). Specifically, an impact fee must:¹²

1. identify the anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity;
2. identify the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service for each public facility;
3. demonstrate how those anticipated impacts are reasonably related to the anticipated development activity;
4. estimate the proportionate share of:
 - a. the costs for existing capacity that will be recouped; and
 - b. the costs of impacts on system improvements that are reasonably related to the new development activity; and
5. identify how the impact fee was calculated.

Items 1-3 are identified in the previous sections. This section addresses items 4-5, or the Proportionate Share Analysis. The Impact Fees Act requires that the written analysis include a proportionate share analysis which is intended to equitably divide the cost of proposed capital facilities between future and existing users relative to the benefit each group will receive from the improvement.

In analyzing whether or not the proportionate share of the costs of public facilities are reasonably related to the new development activity, the impact fee analysis should identify **if applicable:**¹³

- ☐ the cost of each existing public facility that has excess capacity to serve the anticipated development resulting from the new development activity;
- ☐ the cost of system improvements for each public facility;
- ☐ other than impact fees, the manner of financing each public facility, such as user charges, special assessments, bonded indebtedness, general taxes, or federal grants;
- ☐ 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;
- ☐ the relative extent to which development activity will contribute to the cost of existing public facilities and system improvements in the future;
- ☐ 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;
- ☐ extraordinary costs, if any, in servicing the newly developed properties; and
- ☐ the time-price differential inherent in fair comparisons of amounts paid at different times.

CONSUMPTION OF ANY EXISTING CAPACITY

According to City records, the existing storm drain system is valued at \$19,822,373 based on original construction year costs. The book value of these assets as of 2010 is \$14,952,378. No buy-in component was calculated within the proportionate share analysis, due to the nature of the proposed projects relative to the

¹² 11-36-201(5)(a)

¹³ 11-36-201(5)(c)

growth in ERUs. Approximately 60 percent of the future capital expenditures projected in the CFP are related to curing deficiencies in the existing system, with approximately 40 percent related to new growth. As a result, only future capital improvements have been attributable to new growth, as illustrated in the proportionate share analysis. In addition, there is no impact fee fund balance related to the storm drain utility.

In addition, LYRB compared the existing level of investment to verify the exclusion of any buy-in component. Based on the value of existing infrastructure, the City has invested \$1,183 per ERU. This represents the original construction value. Utilizing a modest inflationary growth of 1.6 percent brings the value of the existing infrastructure to \$22,889,203 or an investment of \$1,365 per ERU. The calculated impact fee falls within the range of the existing level of investment further justifying the exclusion of a buy-in component. The existing level of service (LOS) for the storm drain utility is built to service a 100-year storm for the retention/detention basins, and with the capacity to service a ten-year storm for the drainage pipelines. The LOS has been determined by the City at .2 CFS (cubic feet per second) for controlled release per ERU.

MANNER OF FINANCING EXISTING PUBLIC FACILITIES

South Jordan City has funded existing storm water infrastructure through a combination of different revenue sources including property taxes and General Fund revenues. State and Federal Grants have not been received by the City to fund storm water improvements, thus the level of service that currently exists has been funded by the existing residents through fees and taxes.

The City's objective is to fairly and equitably recover the costs of new growth-related infrastructure from new development. This implies that new growth will be expected to pay its fair share of the costs that will be incurred for improvements that serve new growth. In accordance with this philosophy, the following explains the pros and cons of the funding mechanisms that are available to the City to pay for new infrastructure.

PROPERTY TAX REVENUES OR GENERAL FUND REVENUES

Ad valorem taxes such as property taxes are a stable source of revenue. However, ad valorem taxes allocate new system costs to new development based upon property valuation rather than true impact. In addition, the costs of new infrastructure would be borne by existing users who have already contributed to the existing infrastructure through their property taxes and other fees. This would place an unfair burden upon existing users who have already paid for existing infrastructure and will continue to subsidize growth.

USER FEES

Like property tax and General Fund revenues, user fees require existing users to subsidize new growth since existing users have already contributed to infrastructure.

SPECIAL ASSESSMENT AREA BONDS

Special Assessment Area (SAA) bonds are an acceptable mechanism to recover the costs of growth-related infrastructure from new users by means of placing an assessment upon a property user's land. SAA bonds are a stable funding mechanism but have some limitations. One limitation is that assessments are typically based upon lot size rather than by a measure of the true impact that a user will have. Special Assessment Areas generally work best in specific geographic areas, and would be difficult to establish and administer when parcels are spread throughout a City.

IMPACT FEES

Impact fees have become an ideal mechanism for funding growth-related infrastructure. Analysis is required to accurately assess the true impact of a particular user upon the City infrastructure and to prevent existing users from subsidizing new growth.

It is the opinion of this analysis that given the intent of the City to equitably allocate the costs of growth-related infrastructure in accordance with the true impact that a user will place upon the storm water system, impact fees should be used to fund growth-related infrastructure planned by the City.

PROPOSED CREDITS OWED TO DEVELOPMENT

The Impact Fees Act requires that credits be paid back to development for future fees that may be paid to fund system improvements found in the CFP. Credits may also be paid back to developers who have constructed or directly funded items that are included in the CFP or donated to the City in lieu of impact fees. This situation does not apply to developer exactions or improvements required to offset density or as a condition for development. Any item that a developer funds must be included in the CFP if a credit is to be issued.

The credits are applicable only in situations where the City has specifically included a dedicated fee in storm water or other utility rates to pay for the new growth-related improvements or a specific property tax levy to fund a particular GO bond that has been issued to fund growth-related improvements. In the situation that a developer chooses to construct facilities found in the CFP in lieu of impact fees, an appropriate arrangement must be made between the developer and the City. Such arrangements are not contemplated in this analysis. In addition, since no excess capacity was found by the engineers, and therefore no buy-in component was calculated in the proposed impact fee, future users will not receive a credit toward the proposed impacts fee for any future payments from user rates.

GROWTH-DRIVEN EXTRAORDINARY COSTS

The City does not anticipate any extraordinary costs necessary to provide services to future development.

SUMMARY OF TIME PRICE DIFFERENTIAL

The Impact Fees Act allows for the inclusion of a time price differential to ensure that the future value of costs incurred at a later date are accurately calculated to include the costs of construction inflation. An inflation component was used to estimate the capital project costs that are to be constructed Fiscal Year 2011. The capital projects were inflated by an annual rate of 1.6 percent to account for construction inflation, based on historic growth in the Construction Cost Index (CCI) from 2008 to 2010. A time price differential is not contemplated for the costs of bond debt service as the City will fund future projects on a cash basis.

PROPOSED IMPACT FEE

The proportionate share analysis determines the proportionate cost assignable to new development based on the proposed capital projects and the estimated ERU growth. The total cost applicable to new growth, including updates to the CFP and IFA, is \$9,756,561.

TABLE 1.4: ILLUSTRATION OF IMPACT FEE ELIGIBLE COSTS

CAPITAL NEEDS	ESTIMATED COST	ATTRIBUTED TO NEW GROWTH	GROWTH RELATED COSTS	2010 VALUE	IMPACT FEE ELIGIBLE	IMPACT FEE COSTS
Existing Facilities	\$19,822,373	0%	\$0	\$14,952,378	0%	\$0
Future Collection	\$24,294,000	38.9%	\$9,442,000	\$9,746,561	100%	\$9,746,561
Future Treatment	\$5,089,388	25.2%	\$1,281,107	\$1,322,430	0%	\$0
Updates to CIP and IFA	\$10,000	100%	\$10,000	\$10,000	100%	\$10,000
Total	\$29,393,388		\$10,733,107	\$11,078,992		\$9,756,561

Based on an estimated increase of 7,347 ERUs through buildout, the total impact fee related to new development is \$1,328. As stated above, no buy-in component was calculated in the proportionate share analysis due to the emphasis of the proposed projects on curing existing deficiencies and the relative growth in ERUs. Approximately 60 percent of the future capital expenditures projected in the CFP are related to curing deficiencies in the existing system, with approximately 40 percent related to new growth. In addition, there is no impact fee fund balance related to the storm drain utility.

TABLE 1.5: ILLUSTRATION OF IMPACT FEE CALCULATION

	Value (2010\$)
Future Facilities Related to New Growth (Excluding Treatment)	\$9,746,561
Future Treatment Facilities Related to New Growth	\$0
Update to Impact Fee Analysis (IFA)	\$10,000
Total	\$9,756,561
Total ERU Growth through Buildout	7,347
Buy-In (Based on Original Cost)	\$0
New Growth Portion	\$1,328
Total Impact Fee	\$1,328

The impact fee by land-use type is illustrated in Table 1.6. The average impervious surface per residential unit, calculated based on the R-2.5 zone suggests one ERU is equivalent to 4,752 impervious square feet of land. The City provided the average impervious surface for each land-use category to determine the impact fee multiplier.

TABLE 1.6: DETERMINATION OF IMPACT FEES BY LAND-USE

LOT SIZE	AVG. IMPERVIOUS SQ. FT.	MULTIPLIER	FEE PER ERU	2010 IMPACT FEE	EXISTING FEES
Res/A-1 (per Unit)	11,080	2.33	\$1,328	\$3,094	\$2,910
Res/A-5 (per Unit)	11,080	2.33	\$1,328	\$3,094	\$2,910
Res/R-1.8 (per Unit)	5,804	1.22	\$1,328	\$1,620	\$1,519
ResLR-2.5 (per Unit)	4,752	1.00	\$1,328	\$1,328	\$1,433
ResLR-3 (per Unit)	4,005	0.84	\$1,328	\$1,116	\$1,046
All Other Land Uses (per ERU)	N/A	1.00	\$1,328	\$1,328	\$1,433

All non-standard impact fees will be assessed on a per ERU basis. Impact fees will be calculated using the following formula:

$$\boxed{((\text{AVERAGE IMPERVIOUS SURFACE} \div 4,752) \times \$1,328)}$$

Legislation requires that impact fees should be spent or encumbered with six years after each impact fee is paid. The City's CIP has identified \$16.6 million in capital costs necessary within the next five years. Of these costs \$3.04 million have been identified in the next two years as growth related costs (See Appendix A for a detailed list of CIP costs). Impact fees collected in the next five to six years should be spent only on those projects outlined in the CFP and CIP as growth related costs.

APPENDIX A: CAPITAL IMPROVEMENT PROJECTS

TABLE A.1: CAPITAL IMPROVEMENT PLAN

FISCAL YEAR	PID	PRIORITY (WITHIN FY)	PROJECT	ESTIMATED COST	IMPACT FEE ELIGIBLE
10-11**	1	1	M-B Pipeline 5	\$175,658.25	100%
10-11'	2	2	M-B Pipeline 7	\$100,000.00	0%
10-11'	3	3	M-B Pipeline 4	\$176,487.04	0%
10-11'	4	4	J-E Proposed Detention Basin (UDOT)	\$152,192.00	0%
10-11'	5	5	M-E Proposed Detention Basin (UDOT)	\$521,623.00	75%
11-12'	6	1	102nd S Pipeline	\$786,286.00	100%
11-12'	7	2	102nd S Detention Basin (4.0 Ac-ft)	\$100,138.00	100%
11-12'	8	3	4000 W. Pipeline	\$794,417.00	0%
11-12'	9	4	Country Corssing Pipeline	\$557,758.00	100%
11-12'	10	5	West 98th Pipeline Project	\$2,506,952.00	10%
11-12'	11	6	East 98th Pipeline Project	\$294,948.00	0%
11-12'	12	7	118th South 40th West Detention Basin (3 Ac-ft)	\$364,096.00	100%
11-12'	13	8	Sump Drain	\$6,867.00	0%
11-12'	14	9	4800 W. Pipeline	\$412,076.00	100%
12-13'	15	1	106th-A Pipeline 3	\$135,216.00	TBD
12-13'	16	2	Redwood Pipeline 1	\$175,802.00	TBD
12-13'	17	3	Bang-C Pipeline	\$158,894.00	TBD
12-13'	18	5	Redwood Pipeline 2	\$179,167.00	TBD
12-13'	19	6	106th-A Pipeline 2	\$84,053.00	TBD
12-13'	20	7	106th-A Pipeline 6	\$134,049.00	TBD
13-14'	21	1	M-E Pipeline 2	\$146,272.00	TBD
13-14'	22	2	M-B Pipeline 6	\$541,654.00	TBD
13-14'	23	3	M-B Pipeline 1	\$1,303,280.00	TBD
13-14'	24	4	M-B Proposed Detention Basin 1	\$1,755,139.00	TBD
13-14'	25	5	M-B Pipeline 2	\$320,151.00	TBD
14-15'	26	1	J-E Pipeline 2	\$124,572.00	TBD
14-15'	27	2	J-D Pipeline	\$165,089.00	TBD
14-15'	28	3	J-B Pipeline 1	\$283,446.00	TBD
14-15'	29	4	J-B Pipeline 2	\$195,614.00	TBD
14-15'	30	5	J-F Pipeline	\$94,768.00	TBD
14-15'	31	6	98th-D Pipeline	\$1,916,558.00	TBD
14-15'	32	7	98th-D Proposed Detention Basin	\$1,894,963.00	TBD
				\$16,558,187.29	\$3,037,924.70