LEWIS YOUNG
ROBERTSON & BURNINGHAM, INC.
INVESTMENT BANKERS
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SYRACUSE CITY

SECONDARY WATER DISTRIBUTION SYSTEM IMPACT FEE ANALYSIS

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FOR

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Submitted by:

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EXECUTIVE SUMMARY

The City of Syracuse (the City) is facing rapid growth due to the arrival of residents attracted to this rural community and affordable housing prices. The existing secondary water distribution system (the System) is reaching its full capacity at this time and must be expanded through additional capital investment and development of water source to adequately serve new residents. This *Secondary Water Distribution System Impact Fee Analysis* recommends that impact fees be used to fund the improvements that are needed by growth.

The City will assess two impact fees for secondary water infrastructure. The City will assess 1) a **Secondary Water Source Impact Fee** that will be imposed at plat recordation to recover the costs of water source and the Jensen reservoir, and 2) a **Secondary Water Distribution System Impact Fee** which will be assessed at time of building permit issuance and will recover the costs of secondary water distribution infrastructure. The Secondary Water Source Impact Fee and calculations are included in a separate analysis prepared by Epic Engineering. This analysis relates solely to the Secondary Water Distribution System Impact Fee.

The existing System, which is defined only as secondary water distribution lines and pumps, has been funded by existing residents as evidenced by no outstanding debt obligations. The System does not exhibit any deficiencies that must be cured through future capital projects nor does it hold excess capacity that could be used to serve new development.

It has been concluded that all additional capacity required to serve new growth can be reasonably funded through impact fees assessed to new development. Existing residents have already funded their existing infrastructure through rates, impact fees and taxes and it would be unfair to require existing users to help fund infrastructure needed for new residents as well.

OVERVIEW OF IMPACT FEES

In 1995 the Utah legislature passed the Utah Impact Fees Act which allows a city to assess an impact fee to new growth to recover the proportion of the City's infrastructure expense that will benefit new growth. The intent of the Act is to establish a fair and equitable mechanism and process to recover those costs from new development. All analysis performed meets the requirements of the Impact Fees Act and all assumptions are kept reasonable and fair.

Impact fees can only be collected to fund growth-related infrastructure and cannot be used to cure deficiencies in the existing system or to develop a system that provides greater service than existing system. Impact fees are structured to perpetuate the City's current service standards for each utility.

FUTURE GROWTH AND ERUS

PROJECTED GROWTH[1]

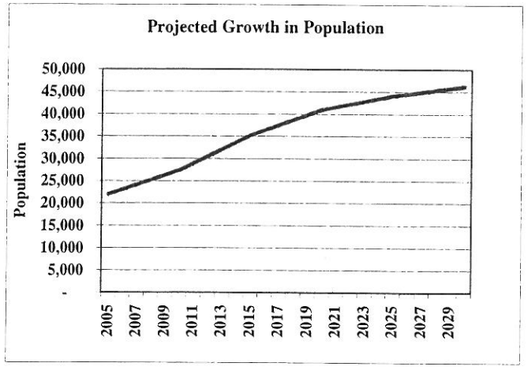
Syracuse is one of the fastest growing communities in Utah. Population is expected to grow from an estimated population of 22,500 in 2005 to a full buildout population in 2030 of approximately 46,218 which considers all future annexations. **This analysis uses a planning horizon of 2019** which is the projected buildout for the currently incorporated City land without future annexations and corresponds with the full capacity of the existing and future secondary water distribution facilities.

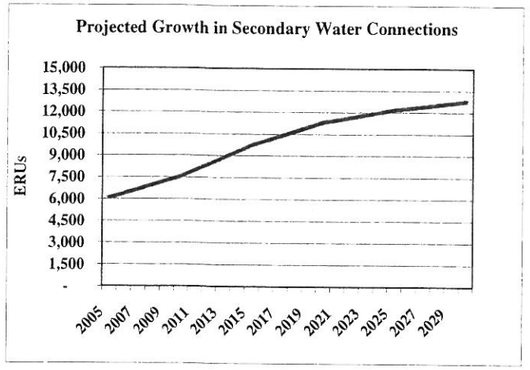
EQUIVALENT RESIDENTIAL UNIT

The impact fees will be assessed in terms of an Equivalent Residential Unit (ERU) which, by definition is a reasonable measure of demand that a single family dwelling unit would most closely exhibit. In this analysis an ERU is defined as **1 acre foot of water demand which equates to a quarter acre of fully irrigated land**. This most closely matches a residential lot of 16,000 Sf. ERUs apply to non-residential users as well which are assigned an ERU multiplier to reflect actual demand.

It is projected that there are approximately 5,614 secondary water ERUs within the City and, based upon landuse, that **an additional 4,312 ERUs will connect to the secondary water system**. This results in 9,926 total ERUs at the projected buildout for the currently incorporated area which is anticipated to occur in 2019.

FIGURE 1: PROPOSED GROWTH IN WATER CONNECTIONS AND POPULATION





[1] Wikstrom Analysis

SECONDARY WATER DISTRIBUTION SYSTEM CAPITAL PROJECTS

The capital projects that are included in the impact fees are documented in the *Secondary Water System Improvements Capital Facilities Plan (2006)* prepared by Epic Engineering which meets the requirements of a the full-scope Capital Facilities Plan (CFP)[2].

The Secondary Water Distribution System Impact Fee will be assessed in a City-Wide Service Area shown in the map in Appendix F. **Future secondary water projects total nearly $8 million** in construction year dollars, excluding the costs of the Jensen Reservoir. Professional expenses that relate to the planning of the improvements and the implementation of the fees are also recovered through the recommended impact fees. These costs results in an **impact fee of $1,836.22 per ERU** as shown below.

FIGURE 2: WATER CAPITAL IMPACT FEE PER ERU

Water Projects	Total Expense	ERUs Served	Cost per ERU
Capital Projects[1]	$ 7,929,220.23	4,312	$ 1,839.05
Impact Fee Updates	72,270.60	4,312	16.76
Beg. Fund Balance Credit[2]	(84,478.60)	4,312	(19.59)
Impact Fee per ERU	$ 7,917,012.22		**$ 1,836.22**

[1]Inflated to construction year costs at 3.5%

[2]Based upon a beginnning fund balance of $100,000 and inter-fund interest expense within the impact fee fund

Figure 3 shows the recommended schedule of residential lot sizes used as a basis for the residential impact fee assessment according to the average pervious[3] surface per residential lot size. Chapter 2 details the calculation of the percentage of pervious surfaces by lot size as calculated based upon a survey of residential lots within the City.

FIGURE 3: RECOMMENDED RESIDENTIAL IMPACT FEE SCHEDULE

Lot Sizes (Sf)			ERUs	Impact Fee	Lot Sizes			ERUs	Impact Fee
4,000	to	7,000	0.28	$ 523.03	25,001	to	27,000	1.79	$ 3,289.06
7,001	to	8,000	0.41	760.31	27,001	to	30,000	1.99	3,658.21
8,001	to	9,000	0.48	883.18	30,001	to	33,000	2.24	4,107.02
9,001	to	10,000	0.55	1,008.44	33,001	to	36,000	2.48	4,561.61
10,001	to	11,000	0.62	1,135.83	36,001	to	39,000	2.73	5,021.48
11,001	to	13,000	0.72	1,330.48	39,001	to	42,000	2.99	5,486.20
13,001	to	15,000	0.87	1,595.85	42,001	to	45,000	3.24	5,955.43
15,001	to	17,000	1.02	1,867.01	45,001	to	48,000	3.50	6,428.84
17,001	to	19,000	1.17	2,143.25	48,001	to	51,000	3.76	6,906.17
19,001	to	21,000	1.32	2,423.98	51,001	to	54,000	4.02	7,387.17
21,001	to	23,000	1.48	2,708.76	54,001	to	57,000	4.29	7,871.64
23,001	to	25,000	1.63	2,997.23	57,001	to	60,000	4.55	8,359.39

[2] Utah Impact Fees Act

[3] **Pervious Surface**: An area that is either currently irrigated or has the potential of being irrigated which is the opposite of an impervious surface which is a solid cover such as concrete, wood, etc that is not irrigable.

FIGURE 4: RECOMMENDED NON-RESIDENTIAL IMPACT FEE SCHEDULE

Non-Residential Users	Equivalent ERUs	Cost per ERU	Fee per SF Pervious Area
Square Foot of Pervious Area	0.000092	$ 1,836.22	**$ 0.17**

*Non-residential impact fees will be assessed only according to the amount of pervious surfaces

CHAPTER 1
GENERAL CONSIDERATIONS RELATED TO IMPACT FEES

IMPACT FEE OVERVIEW

An impact fee is distinctly different from a tax, special assessment, building permit fee, hook-up fee, or other reasonable permit or application fees, such as conditional use or subdivision application fees. Impact fees are charged to ensure that new growth pays its proportionate share of the costs of the development of municipal infrastructure needed to meet the future demands of new development.

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 existing system capacities, and (3) perpetuate a historic level of service paid to growth related facilities. Increases to an existing level of service or the curing of existing deficiencies in system facilities must be funded through revenue sources other than impact fees. These sources include, but or not limited to, user fees, property taxes or other general fund revenues.

UTAH IMPACT FEES ACT

Impact fees are controversial fees that have had significant legal consequences on cities, districts formed under Title 17A, counties and developers within Utah. Impact fees have been debated extensively, and until 1997 there were few stringent legal guidelines that municipalities and districts were required to follow when implementing impact fees. The current legislation regarding impact fees is set forth in the Impact Fees Act found in Utah State Code Title 11, Chapter 36, Sections 1-5.

The Impact Fees Act has been shaped over time by various court cases. Of all the court cases, Banberry Development Corp. vs. City of South Jordan[4] has likely been the most influential in the creation of the Act. This case established the requirements of the proportionate share tests and identification of a rational nexus between fees and project costs and capacities.

[4] 631 P. 2d 899, 903-4 (Utah 1981.)

DOCUMENTS NECESSARY TO SUPPORT IMPACT FEES

CAPITAL FACILITIES PLAN

The Impact Fees Act specifies that an entity serving a population of 5,000 or more, according to the last census, must prepare a Capital Facilities Plan (CFP) to support the need for and level of the recommended and adopted impact fees. The capital projects that are included in the Secondary Water Distribution System Impact Fee are documented in the *Secondary Water System Improvements Capital Facilities Plan* prepared by Epic Engineering which meets the requirements of a the full-scope Capital Facilities Plan[5].

WRITTEN IMPACT FEE ANALYSIS

The Act requires that a written impact fee analysis be prepared to clearly detail the calculation of the impact fees and explain all assumptions and key issues addressed with the impact fees. This *Secondary Water Distribution System Impact Fee Analysis* meets this requirement.

IMPACT FEE ENACTMENT

Impact fees must be enacted by ordinance following a 14 day noticing period and a public hearing. During the 14 day noticing period the City must have copies of the analysis and the proposed impact fee ordinance available for public. A public hearing must be held following the 14 day noticing period to receive comment from the public and discussion among the City Council.

GENERAL ADMINISTRATION OF IMPACT FEES

EXPENDITURE OF IMPACT FEES – UTAH CODE 11-36-302

The City may only expend impact fees for system improvements identified in the CFP.[6] 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, or provide an ultimate date by which the impact fees collected will be expended.[7]

The improvements that are funded through impact fees must be owned and operated by the City or other public entities with which the City has contracted or will contract with for services and improvements that will be operated on the behalf of the City.

The impact fee analysis should demonstrate the need for the City to collect and retain impact fees beyond the six years in order to more closely connect to the timing of capital improvements. The collection and expenditure of impact fees will be handled on a First In- First Out basis which reduces the chances of exceeding the six year limitation.

[5] Utah Impact Fees Act
[6] 11-36-302(1a)
[7] 11-36-302(2b)

The first funds collected will be the first funds spent and as long as the City does not pass six years without an impact fee expenses. It does not appear that this will be a concern given cashflows shown in Appendix D.

ACCOUNTING FOR IMPACT FEES – UTAH CODE 11-36-301

The Impact Fees Act requires any entity imposing impact fees to establish an interest-bearing ledger account for each type of public facility for which an impact fee is collected. Any interest earned in each account must remain in that account. At the end of each fiscal year, the City must prepare a report for each fund or account showing the source and amount of all monies collected, earned, and received by each account and all expenditures made from each account.

IMPACT FEE ORDINANCE AND ADOPTION

The creation of service areas and the definition of specific fees for each must be included in the ordinance. A map defining each service areas must be included as well during the 14-day noticing period that must pass before a public hearing can be held.

NON-STANDARD IMPACT FEE CALCULATIONS

The Impact Fees Act requires that the enacting ordinance include a provision for the calculation of the impact fees for a non-standard demand formula shown in Figure 3.6. The determination that the projected development creates a non-standard demand must be demonstrated by the fee-payer through reasonable and thorough analysis, engineering documentation, etcetera, and must demonstrate that the non-standard water usage will be permanent and cannot change with occupancy, landscaping, or other non-permanent characteristics.

FIGURE 1.1: EXPENSES INCLUDED OR EXCLUDED FROM THE IMPACT FEES

Qualifying Impact Fees Expenses	Expenses Not Included in Impact Fees
Debt service principal and interest expenses	Repair and replacement projects
Projects sized to accommodate growth	Projects needed to cure existing deficiencies
Planning and engineering expenses	Projects to be funded by State or Federal grants
Proportion of a replacement project upsizing that adds capacity for new growth	

CHAPTER 2
SECONDARY WATER SYSTEM DEMAND PROJECTIONS

OVERVIEW OF CITY AND THE SYSTEM

SYRACUSE CITY

Syracuse City is one of the fastest growing communities in the State. The City may have several annexations in the future but the impact fees proposed in this analysis will cover areas that are currently incorporated into the City as shown in the map in Attachment F: Map of Impact Fee Service Area. Buildout for this area is projected to occur in 2019.

WATER SYSTEM FUNDING

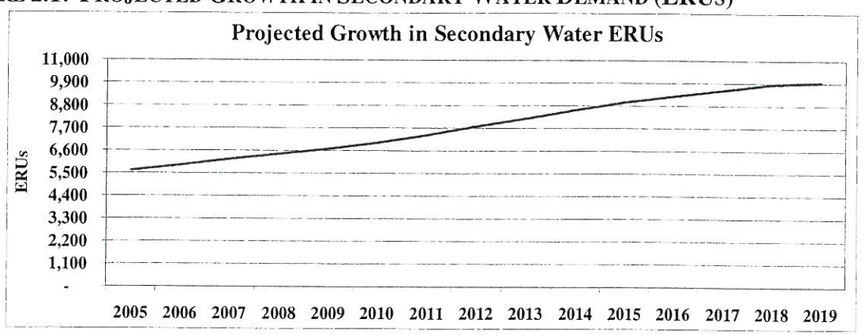
The City has not received Federal grants that have been used to fund any of the existing projects but has received two low interest loans for the improvements to the secondary water system. The water loan was received from the Permanent Community Impact Fund Board and the loan for improvements was received from the Utah Board of Water Quality. The City has no outstanding debt for any secondary water infrastructure.

PROJECTION OF DEMANDS AND ERUS

CURRENT AND PROJECTED DEMAND FOR SERVICES

The impact fees will be assessed in terms of an Equivalent Residential Unit (ERU) which, by definition, is a reasonable measure of demand that a single family dwelling unit would typically exhibit. In this analysis an ERU is defined as 1 acre foot of secondary water demand which equates to a quarter acre of fully irrigated land. This roughly equates to a residential lot of 16,000 Sf. Figure 2.1 below summarizes the growth future of secondary water ERUs which utilizes the population growth curve from the *Syracuse City Public Safety Impact Fee Analysis*[8].

FIGURE 2.1: PROJECTED GROWTH IN SECONDARY WATER DEMAND (ERUS)



[8] Prepared by Wikstrom Economic & Planning Consultants, Inc. September, 2004

An ERU can be applied to all land use types, both residential and non-residential alike, as long as an accurate ERU multiplier is calculated to account for demands for each type of land use. All residential lot sizes will be assigned an ERU multiplier according to the average pervious surface by size.

It is projected that there are approximately 5,614 secondary water ERUs within the City and based upon landuse there will be an additional 4,312 ERUs that will connect to the secondary water system. This results in 9,926 total ERUs at the projected buildout for the currently incorporated area which is anticipated to occur in 2019.

PROJECTION OF SECONDARY WATER DEMANDS

FIGURE 2.2: PROJECTED GROWTH IN WATER DEMAND[9]

Year	ERU	Year	ERU	Year	ERU
2005	5,614	2010	6,969	2015	8,969
2006	5,885	2011	7,369	2016	9,261
2007	6,156	2012	7,769	2017	9,553
2008	6,427	2013	8,169	2018	9,844
2009	6,698	2014	8,569	2019	9,926

PROJECTION OF UNDEVELOPED LAND

The projection of ERUs begins with an assessment of developed and undeveloped land within the City. The City's planning department estimates that there are currently 5,978 acres within the currently incorporated City boundaries. The total acreage is categorized by developed and undeveloped land within each land use and is used to calculate a number of future residential units and undeveloped non-residential acreage as shown in Figure 2.3.

This Figure 2.3 starts by dividing the total City acreage between gross developed and gross undeveloped land. Gross undeveloped land is converted to net undeveloped land by removing 20% of the gross area to account for the area required for roadways, easements, sidewalks, parks, and other City uses.

The net undeveloped acreage is then multiplied by the number of residential units per net undeveloped acre[10] to calculate the total undeveloped units. Non-residential land uses are expressed in developed or undeveloped acres as there is not a common unit that would apply to all non-residential land uses.

[9] Projections based upon the City's currently incorporated land which is anticipated to reach buildout by 2019.
[10] Units per acre of net developable land has been provided by the City Planning Department.

FIGURE 2.3: UNDEVELOPED UNITS AND ACREAGE IN THE CITY (2006)

Zoning Class	Total Acres	Gross Developed Acres	Gross Undeveloped Acres	Net Undeveloped Acreage*	Units per Acre	Total Undeveloped Units
Residential						
A-1 (Units)	250	100	150	120	0.67	80
R-1 (Units)	2,176	783	1,393	1,114	2.90	3,231
R-2 (Units)	2,290	1,630	660	528	3.79	2,001
R-3 (Units)	368	331	38	30	5.44	164
R-4 (Units)	30.92	30.92	-	-	14.52	-
Non-Residential						
Commercial	603	161.45	442	353		
Other	261	100.00	161.00	129		
Totals	5,979	3,136	2,843	2,274		**5,476**

*Assumes 20% of gross acreage will be used for roads, sidewalks, etc.

PROJECTION OF ERUS

The total undeveloped residential units and undeveloped non-residential acres calculated in Figure 2.3 are carried on to Figure 2.4 which calculates the currently undeveloped secondary water ERUs projected to add to the system through buildout.

FIGURE 2.4: PROJECTED FUTURE SECONDARY WATER ERUS

Residential Land Use	Total Units	Developed	Undeveloped	ERUs per Unit	Equivalent ERUs
Residential Land Use					
A-1 (Units)	134	54	80	3.93	316.11
R-1 (Units)	5,047	1,816	3,231	0.73	2,344.33
R-2 (Units)	6,942	4,941	2,001	0.53	1,063.61
R-3 (Units)	1,604	1,440	164	0.33	54.30
R-4 (Units)	359	359	-	0.09	-
Totals	14,087	8,610	5,476		**3,778.34**
Commercial Land Use					
Commercial	603	161	442	0.80	353.24
Others	400	310	90	2.00	180.00
Totals	1,003	471	532		**533.24**

Total Undeveloped ERUs **4,311.58**

PROJECTED 2.5: PROJECTED ERUS PER UNIT/ACRE

Residential Land Use	Average Lot Size	Average Sf Pervious	% Pervious	Demand in Acre Feet	ERUs per Unit
Residential Land Use					
A-1 (Units)	52,012	42,816	82%	3.93	3.93
R-1 (Units)	12,017	7,901	66%	0.73	0.73
R-2 (Units)	9,195	5,788	63%	0.53	0.53
R-3 (Units)	6,406	3,613	56%	0.33	0.33
R-4 (Units)	2,400	1,008	42%	0.09	0.09
Totals					
Commercial Land Use					
Commercial	43,560	8,712	20%	0.80	0.80
Others	43,560	21,780	50%	2.00	2.00
Totals					

CALCULATION OF PERVIOUS SURFACES BY LOT SIZE

LOT SURVEY

Accurate impact fees are based upon an accurate assessment of the secondary water demands that different classes and sizes of user will place upon the System. Secondary water demand projections and impact fees are based upon an amount of pervious surfaces that may be irrigated.

The City has performed a survey of residential lots ranging from 9,000 Sf up to lots of one and a half acres to calculate a reasonable projection of pervious surfaces by residential lot size. The survey concluded that as the lot size increases, the percentage of pervious surfaces increases as well. Typically the size of a home, driveway, and other impervious areas do not increase proportionately with the size of the lot. Appendix C shows the results of the lot survey.

The findings of the lot survey have been plotted and a logarithmic curve, shown in Figure 2.5, was plotted which provided an R^2 value of 72%. R^2 is a measure of how well the projected curve matches the observed points. Therefore 72% of the data is fitted to the curve which is a very strong correlation, particularly dealing with the residential lot characteristics. The formula for the logarithmic curve is found in Figure 2.6 and is used as the basis of projecting the impervious surfaces for the full range of residential lot sizes that may connect to the secondary water system.

FIGURE 2.6: PERVIOUS AREA BY RESIDENTIAL LOT

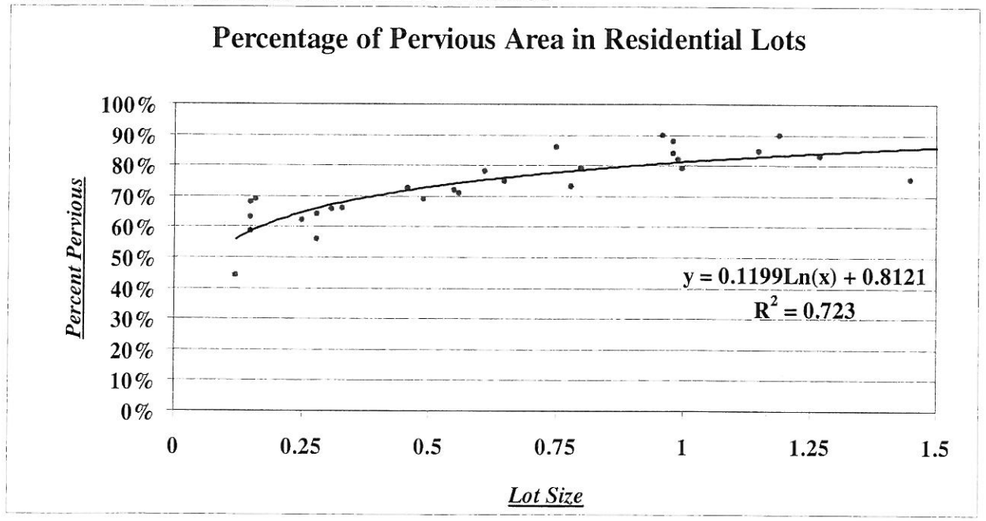


FIGURE 2.7: PROJECTED PERVIOUS SURFACES BY LOT SIZE

Lot Sizes			Median Size	Lot Size (X*)	% Pervious	AF Water	ERUs
4,000	to	7,000	5,500	0.1263	**56.40%**	**0.28**	**0.28**
7,001	to	8,000	7,501	0.1722	**60.12%**	**0.41**	**0.41**
8,001	to	9,000	8,501	0.1951	**61.62%**	**0.48**	**0.48**
9,001	to	10,000	9,501	0.2181	**62.95%**	**0.55**	**0.55**
10,001	to	11,000	10,501	0.2411	**64.15%**	**0.62**	**0.62**
11,001	to	13,000	12,001	0.2755	**65.75%**	**0.72**	**0.72**
13,001	to	15,000	14,001	0.3214	**67.60%**	**0.87**	**0.87**
15,001	to	17,000	16,001	0.3673	**69.20%**	**1.02**	**1.02**
17,001	to	19,000	18,001	0.4132	**70.61%**	**1.17**	**1.17**
19,001	to	21,000	20,001	0.4591	**71.88%**	**1.32**	**1.32**
21,001	to	23,000	22,001	0.5051	**73.02%**	**1.48**	**1.48**
23,001	to	25,000	24,001	0.5510	**74.06%**	**1.63**	**1.63**
25,001	to	27,000	26,001	0.5969	**75.02%**	**1.79**	**1.79**
27,001	to	30,000	28,501	0.6543	**76.12%**	**1.99**	**1.99**
30,001	to	33,000	31,501	0.7232	**77.32%**	**2.24**	**2.24**
33,001	to	36,000	34,501	0.7920	**78.41%**	**2.48**	**2.48**
36,001	to	39,000	37,501	0.8609	**79.41%**	**2.73**	**2.73**
39,001	to	42,000	40,501	0.9298	**80.34%**	**2.99**	**2.99**
42,001	to	45,000	43,501	0.9986	**81.19%**	**3.24**	**3.24**
45,001	to	48,000	46,501	1.0675	**81.99%**	**3.50**	**3.50**
48,001	to	51,000	49,501	1.1364	**82.74%**	**3.76**	**3.76**
51,001	to	54,000	52,501	1.2052	**83.45%**	**4.02**	**4.02**
54,001	to	57,000	55,501	1.2741	**84.11%**	**4.29**	**4.29**
57,001	to	60,000	58,501	1.3430	**84.75%**	**4.55**	**4.55**

*** Formula used in calculating the pervious surfaces (y = 0.1199Ln(x) + 0.8121)**

SECONDARY WATER SYSTEM SERVICE STANDARDS

The impact fee service standard defines the typical improvements that can be funded through impact fees. The City will meet the Utah State Drinking Water Requirements as the minimum standard for water service. The service standards that serve as the basis for the capital project planning and sizing are documented in the *Secondary Water System Improvements Capital Facilities Plan (2006)* prepared by Epic Engineering which meets the requirements of a the full-scope Capital Facilities Plan (CFP)[11].

[11] Utah Impact Fees Act

CHAPTER 3
CAPITAL NEEDS AND IMPACT FEE CALCULATION

SYSTEM AND PROJECT IMPROVEMENTS

System improvements, as defined in the Impact Fees Act, are improvements that "benefit the system as a whole" and can be funded through impact fees. Project improvements are defined in the Act as improvements that "benefit a local area" or specific development and contribute to the use and convenience of residents of that development. Project improvements must be funded by a revenue source other than impact fees, most typically by the developer. All capital projects included in the impact fee analysis are considered to by system improvements[12]. All projects identified in the CFP should be considered to be system improvements and therefore can be funded through impact fees.

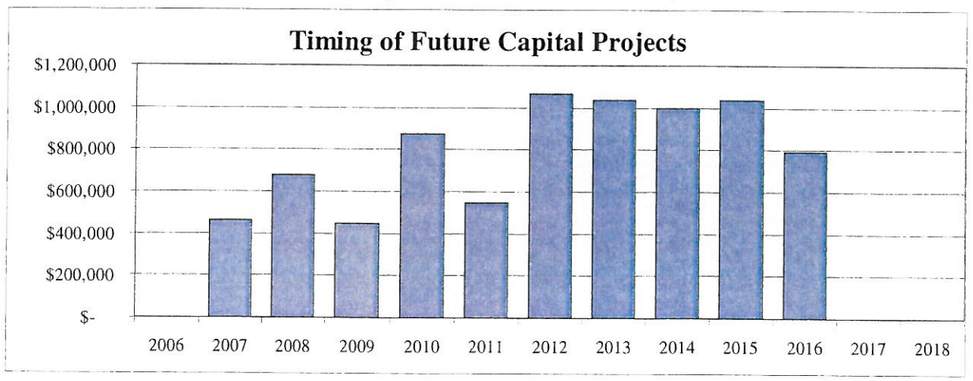
FIGURE 3.1: SYSTEM VS PROJECT IMPROVEMENTS

Secondary Water System Improvements	Secondary Water Project Improvements
Water Source: Water Rights, Water Leases	**Distribution:** lines to individual users
Water Supply: Wells, Diversion Points	
Water Storage: Water Tanks, Reservoirs,	
Water Distribution: Normally lines larger than 8"	

FUTURE CAPITAL PROJECTS

The City has the following capital needs for the water system which should provide adequate service through buildout.

FIGURE 3.2: FUTURE WATER PROJECTS EXPENSE AND TIMING



[12] *Secondary Water System Improvements Capital Facilities Plan (2006)* prepared by Epic Engineering

The City needs to construct many projects for the secondary water system to maintain the level of service. The current year cost, in 2005 dollars, is estimated at $6,458,964 and with a 3.5% construction inflation expense the construction year cost is $7,929,220. A detailed listing of the capital projects and timings are found in Appendix B of this report.

BUY-IN TO EXISTING INFRASTRUCTURE

The City's water system has little capacity for new growth to buy into with the exception of the recently completed Jensen Reservoir. However, Jensen reservoir is directly related to the use of the Layton Canal Water and the costs of the reservoir are recovered through the water source impact fee calculated in the separate Water Source Impact Fee Analysis.

The City currently owns water rights to cover all existing properties and City parks and facilities but none for new growth to utilize. The current water storage tanks and distribution systems are currently nearing capacity as well. Therefore new growth will not be assessed an impact fee to recover any value or debt service expense related to the existing water system or source.

CALCULATION OF THE SECONDARY WATER IMPACT FEE

IMPACT FEE PER ERU

The base impact fee per ERU is calculated by dividing the total growth-related construction year capital costs by the number of future ERUs that will benefit from the improvements. The capital expense that can be recovered through impact fees, as defined in Appendix B of this analysis, is $7,929,220 and will benefit the remaining 4,312 ERUs that will connect to the system through 2019. The impact fees can also include the costs of planning and professional expenses related to the impact fees which include future updates which are programmed for every four years through 2019.

A credit is provided for the beginning secondary water impact fee fund balance of $100,000 but is reduced slightly to account for the interest expense related to the interfund loans to the impact fee fund made in years that the fund had reached a deficit. Appendix D details the impact fee cashflows, fund balances, interest earnings and expenses, and the calculation of the fee per ERU.

FIGURE 3.3: WATER CAPITAL IMPACT FEE PER ERU

Water Projects		Total Expense	ERUs Served		Cost per ERU
Capital Projects[1]	$	7,929,220.23	4,312	$	1,839.05
Impact Fee Updates		72,270.60	4,312		16.76
Beg. Fund Balance Credit[2]		(84,478.60)	4,312		(19.59)
Impact Fee per ERU	$	7,917,012.22		**$**	**1,836.22**

[1]Inflated to construction year costs at 3.5%

[2]Based upon a beginnning fund balance of $100,000 and inter-fund interest expense within the impact fee fund

The recommended residential impact fees found below in Figure 3.4 are based upon total size of the lot. Equivalent ERUs are based upon the amount of pervious area and the duty of four acre-feet per acre of fully irrigated or pervious area.

FIGURE 3.4: RECOMMENDED RESIDENTIAL IMPACT FEE SCHEDULE

Lot Sizes (Sf)			ERUs	Impact Fee	Lot Sizes			ERUs	Impact Fee
4,000	to	7,000	0.28	**$ 523.03**	25,001	to	27,000	1.79	**$ 3,289.06**
7,001	to	8,000	0.41	**760.31**	27,001	to	30,000	1.99	**3,658.21**
8,001	to	9,000	0.48	**883.18**	30,001	to	33,000	2.24	**4,107.02**
9,001	to	10,000	0.55	**1,008.44**	33,001	to	36,000	2.48	**4,561.61**
10,001	to	11,000	0.62	**1,135.83**	36,001	to	39,000	2.73	**5,021.48**
11,001	to	13,000	0.72	**1,330.48**	39,001	to	42,000	2.99	**5,486.20**
13,001	to	15,000	0.87	**1,595.85**	42,001	to	45,000	3.24	**5,955.43**
15,001	to	17,000	1.02	**1,867.01**	45,001	to	48,000	3.50	**6,428.84**
17,001	to	19,000	1.17	**2,143.25**	48,001	to	51,000	3.76	**6,906.17**
19,001	to	21,000	1.32	**2,423.98**	51,001	to	54,000	4.02	**7,387.17**
21,001	to	23,000	1.48	**2,708.76**	54,001	to	57,000	4.29	**7,871.64**
23,001	to	25,000	1.63	**2,997.23**	57,001	to	60,000	4.55	**8,359.39**

Non-residential impact fees will be assessed according to the amount of pervious area according to the site plan which will be reviewed at the time of building permit issuance. The fee below is based upon one square foot of fully pervious area.

FIGURE 3.5: RECOMMENDED NON-RESIDENTIAL IMPACT FEE SCHEDULE

Non-Residential Users	Equivalent ERUs	Cost per ERU	Fee per SF Pervious Area
Square Foot of Pervious Area	0.000092	$ 1,836.22	**$ 0.17**

*Non-residential impact fees will be assessed only according to the amount of pervious surfaces

The Impact Fees Act requires that the impact fee analysis include a formula for the calculation of a non-standard impact fee. Although the fee in Figure 3.5 will cover just about any irregular circumstance, Figure 3.6 is provided below to meet the requirements of the Act.

FIGURE 3.6: NON-STANDARD IMPACT FEE CALCULATION

Estimated Pervious Surface (Square Foot)	X	$ 0.17	=	Non-Standard Impact Fee

PROJECTED IMPACT FEE CASHFLOWS

The Impact Fees Act requires that all impact fees collected for a particular utility must be held within a separate interest-bearing account. All funds deposited into or taken from the account must be carefully accounted for and a year end statement of all cashflows must be prepared annually.

The secondary water distribution system impact fee fund starts with a $100,000 balance and ends with a zero ending balance in 2019 once buildout is reached. A zero ending balance demonstrate that, including interest revenues or expenses, the City has neither made a profit nor lost funds through the collection of the impact fees.

As shown in Figure 3.7 the annual expenses exceed revenues at several points. This causes the impact fee fund to be drawn down. The impact fee fund reaches a deficit in 2012 which does not recover until 2019. In the years when the fund balance is positive the fund earns interest which is added to the fund balance. In years when a deficit exists it is assumed that the City will borrow from other City funds to cover impact fee expenses until revenues become sufficient enough to cover costs and repay any inter-fund loans.

FIGURE 3.7: PROJECTION OF REVENUES AND EXPENSES

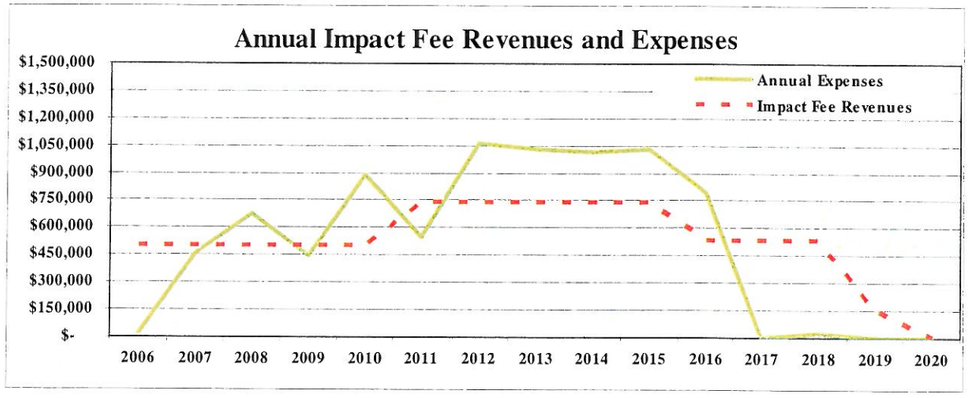
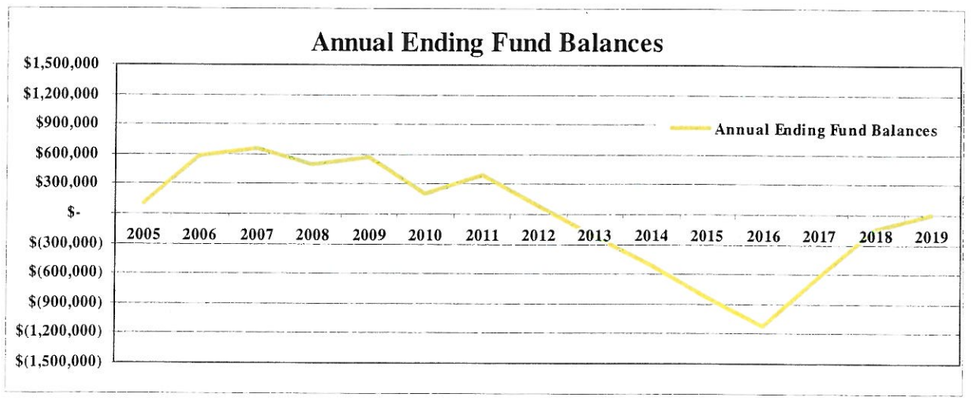


FIGURE 3.8: ANNUALLY ENDING FUND BALANCES



CHAPTER 4
PROPORTIONATE SHARE ANALYSIS

MANNER OF FINANCING EXISTING INFRASTRUCTURE

The City has used tax revenues, user rate revenues, and impact fees to fund the existing secondary water distribution system projects. The City has received two low interest loans for the improvements to the water system. The water loan was received from the Permanent Community Impact Fund Board and the loan for improvements was received from the Utah Board of Water Quality. There is no outstanding debt related to the System.

FINANCIAL LEVEL OF CONTRIBUTION

GRANTS/ LOW INTEREST LOANS

The City has received two low interest loans for the improvements to the water system. The water loan was received from the Permanent Community Impact Fund Board and the loan for improvements was received from the Utah Board of Water Quality. The value of improvements funded by grants cannot be included in the impact fee calculation as it is not value directly contributed by existing residents however the low interest loan expenses are included and viewed as a standard debt service expense.

REVENUE SOURCES AND IMPACT FEE CREDITS

FIGURE 4.1: SUMMARY OF REVENUE CREDITS AGAINST IMPACT FEES

Revenues	Historic Use 5 Year Use for Capital Projects	Impact Fee Credit Provided
Property Tax	Used for repair and replacement, no growth-related projects	Not Provided
Sales Tax	Used for repair and replacement, no growth-related projects	Not Provided
Water User Fees	Used for repair and replacement, no growth-related projects	Not Provided
Class C Road Funds	Used for repair and replacement, no growth-related projects	Not Provided
User Fees	Used for repair and replacement, no growth-related projects	Not Provided

CONSIDERATION OF USER RATES

The City currently assesses secondary water rates for the system. These rates do not include components for future growth-related capital expenses since it is planned that impact fees will cover expansionary costs. Repair and replacement expenses, which cannot be recovered through impact fees, are covered through user rates.

CONSIDERATION OF PROPERTY TAXES

City policy and financial statements indicate that property tax revenues or other general fund revenues are not transferred to the secondary water enterprise fund. Therefore a credit is not entitled for property tax used for the secondary water growth-related capital improvements.

DEBT SERVICE CREDITS

The City does not have any outstanding debt related to the secondary water system. The City does not anticipate issuing bonds to construct any future secondary water projects related to growth and therefore a credit is not due to the secondary water impact fee payers.

CONNECTION FEES

The City assesses a secondary water connection fee that covers the costs of connecting a user to the system. This does not include any elements of system infrastructure costs but rather covers only the costs of the line and hardware needed to connect the user to the secondary water system.

CAPITAL CONTRIBUTIONS

The City has received capital contributions from developers for local distribution system improvements which are considered to be project improvements. These improvements cannot be included in the impact fees and therefore will not be considered in the calculation of the fees or credits.

DEVELOPER EXACTIONS AND CREDITS

QUALIFYING IMPROVEMENTS

Improvements exacted from developers that may qualify for credit against impact fees are only those found within the Capital Facilities Plan and are classified as growth-related impact-eligible. There may be exactions that the City requires of developers for project improvements or for other non-impact fee eligible projects. If the developer requires reimbursement for non-impact fee eligible projects then another source of revenue must be used by the City to reimburse for the project. These other revenues for reimbursement are not addressed in this analysis.

EXEMPTIONS AND WAIVERS

The City has the option to exempt impact fees for low income housing projects or projects that have a public purpose. The City has the right to modify the impact fee to meet unusual circumstances of a project. If it can be demonstrated by a developer that a project will have a lesser impact upon City infrastructure than calculated in the analysis then the City should assess a reduced impact fee. To demonstrate the lesser demand the developer must present a formal and comprehensive analysis that clearly demonstrates the lesser impacts. The developer must also be able to give the City reasonable assurance that the reduced impact will continue throughout the life of the project.

CHAPTER 5
CONCLUSION

The City of Syracuse is facing rapid growth from development within the incorporated City boundaries and also from new annexation areas that are adding to the City. This creates a tremendous demand on City infrastructure and would raise the costs for existing users without the use of impact fees. The impact fees calculated and recommended in this analysis are fair, accurate, and follow the requirements of the Utah Impact Fees Act.

Benefit of the doubt has been given to the development community in this analysis in all issues on proportionality which has resulted in a very conservative and defensible impact fee analysis. The defensibility of this analysis exceeds the test of the Impact Fee Act. The resulting fees are equitable, proportionally allocated to growth, and utilizes an accurate method of assessment to new development.

FIGURE 5.1: WATER CAPITAL IMPACT FEE PER ERU

Water Projects	Total Expense	ERUs Served	Cost per ERU
Capital Projects[1]	$ 7,929,220.23	4,312	$ 1,839.05
Impact Fee Updates	72,270.60	4,312	16.76
Beg. Fund Balance Credit[2]	(84,478.60)	4,312	(19.59)
Impact Fee per ERU	$ 7,917,012.22		**$ 1,836.22**

[1]Inflated to construction year costs at 3.5%

[2]Based upon a beginnning fund balance of $100,000 and inter-fund interest expense within the impact fee fund

FIGURE 5.2: RECOMMENDED RESIDENTIAL IMPACT FEE SCHEDULE

Lot Sizes (Sf)			ERUs	Impact Fee	Lot Sizes			ERUs	Impact Fee
4,000	to	7,000	0.28	**$ 523.03**	25,001	to	27,000	1.79	**$ 3,289.06**
7,001	to	8,000	0.41	**760.31**	27,001	to	30,000	1.99	**3,658.21**
8,001	to	9,000	0.48	**883.18**	30,001	to	33,000	2.24	**4,107.02**
9,001	to	10,000	0.55	**1,008.44**	33,001	to	36,000	2.48	**4,561.61**
10,001	to	11,000	0.62	**1,135.83**	36,001	to	39,000	2.73	**5,021.48**
11,001	to	13,000	0.72	**1,330.48**	39,001	to	42,000	2.99	**5,486.20**
13,001	to	15,000	0.87	**1,595.85**	42,001	to	45,000	3.24	**5,955.43**
15,001	to	17,000	1.02	**1,867.01**	45,001	to	48,000	3.50	**6,428.84**
17,001	to	19,000	1.17	**2,143.25**	48,001	to	51,000	3.76	**6,906.17**
19,001	to	21,000	1.32	**2,423.98**	51,001	to	54,000	4.02	**7,387.17**
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23,001	to	25,000	1.63	**2,997.23**	57,001	to	60,000	4.55	**8,359.39**

FIGURE 5.3: RECOMMENDED NON-RESIDENTIAL IMPACT FEE SCHEDULE

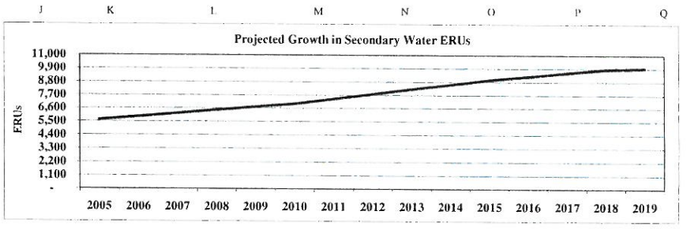
Non-Residential Users	Equivalent ERUs	Cost per ERU	Fee per SF Pervious Area
Square Foot of Pervious Area	0.000092	$ 1,836.22	**$ 0.17**

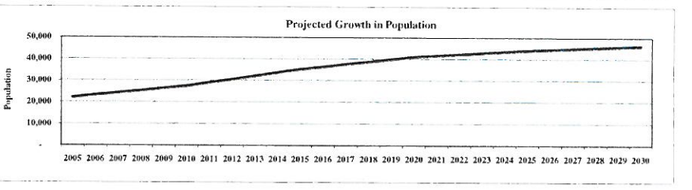
*Non-residential impact fees will be assessed only according to the amount of pervious surfaces

APPENDIX A: GROWTH IN SECONDARY WATER DEMAND

Table 1: Projected Water Demands

Year	Growth Rate	Population	ERUs	Additional ERUs
2005		22,000	5,614	
2006	5%	23,068	5,885	271
2007	5%	24,136	6,156	271
2008	4%	25,205	6,427	271
2009	4%	26,273	6,698	271
2010	4%	27,341	6,969	271
2011	6%	28,919	7,369	400
2012	5%	30,496	7,769	400
2013	5%	32,074	8,169	400
2014	5%	33,651	8,569	400
2015	5%	35,229	8,969	400
2016	3%	36,379	9,261	292
2017	3%	37,529	9,553	292
2018	3%	38,680	9,844	292
2019	3%	39,830	9,926	81
2020	3%	40,980		
2021	2%	41,602		
2022	1%	42,223		
2023	1%	42,845		
2024	1%	43,466		
2025	1%	44,088		
2026	1%	44,514		
2027	1%	44,940		
2028	1%	45,366		
2029	1%	45,792		
2030	1%	46,218		
			Total Additional ERUs	4,312





Year	ERU	Year	ERU	Year	ERU
2005	5,614	2010	6,969	2015	8,969
2006	5,885	2011	7,369	2016	9,261
2007	6,156	2012	7,769	2017	9,553
2008	6,427	2013	8,169	2018	9,844
2009	6,698	2014	8,569	2019	9,926

*Projection is based upon currently incorporated City boundaries

Zoning Class	Total Acres	Gross Developed Acres	Gross Undeveloped Acres	Net Undeveloped Acreage*	Units per Acre	Total Undeveloped Units
Residential						
A-1 (Units)	250	100	150	120	0.67	80
R-1 (Units)	2,176	783	1,393	1,114	2.90	3,231
R-2 (Units)	2,290	1,630	660	528	3.79	2,001
R-3 (Units)	368	331	38	30	5.44	164
R-4 (Units)	30.92	30.92	-	-	14.52	-
Non-Residential						
Commercial	603	161.45	442	353		
Other	261	100.00	161.00	129		
Totals	5,979	3,136	2,843	2,274		5,476

*Assumes 20% of gross acreage will be used for roads, sidewalks, etc

Residential Land Use	Total Units	Developed	Undeveloped	ERUs per Unit	Equivalent ERUs
Residential Land Use					
A-1 (Units)	134	54	80	3.93	316.11
R-1 (Units)	5,047	1,816	3,231	0.73	2,344.33
R-2 (Units)	6,942	4,941	2,001	0.53	1,063.61
R-3 (Units)	1,604	1,440	164	0.33	54.30
R-4 (Units)	359	359	-	0.09	-
Totals	14,087	8,610	5,476		3,778.34
Commercial Land Use					
Commercial	603	161	442	0.80	353.24
Others	400	310	90	2.00	180.00
Totals	1,003	471	532		533.24
				Total Undeveloped ERUs	4,311.58
				18%	

ZONE	SQ. FEET	DEVELOPED	UNDEVELOPED	MASTERPLAN TOTALS
GENERAL COMMERICAL I - II	26255262.93	161.45	441.29	602.74
R-1 TOTAL	94770262.65	782.90	1,392.72	2,175.63
R-2 TOTAL	99739544.86	1629.72	659.98	2,289.70
R-3 TOTAL	16049954.10	330.85	37.61	368.46
R-4	1346676.18	30.92	0	30.92
TOTAL AREA OF CITY	**260401966.00**	**N/A**		**5,978**

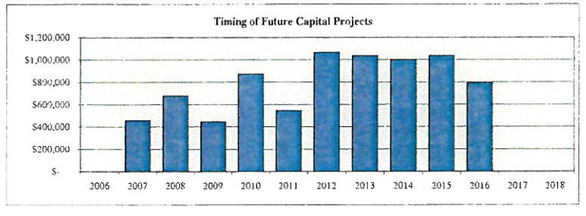
*Some of the undeveloped portions of the General Plan are not currently annexed in the City See map for details

Residential Land Use	Average Lot Size	Average SF Pervious	% Pervious	Demand in Acre Feet	ERU's per Unit
Residential Land Use					
A-1 (Units)	52,012	42,816	82%	3.93	3.93
R-1 (Units)	12,017	7,901	66%	0.73	0.73
R-2 (Units)	9,195	5,788	63%	0.53	0.53
R-3 (Units)	6,406	3,613	56%	0.33	0.33
R-4 (Units)	2,400	1,008	42%	0.09	0.09
Totals					
Commercial Land Use					
Commercial	43,560	8,712	20%	0.80	0.80
Others	43,560	21,780	50%	2.00	2.00
Totals					

APPENDIX B: FUTURE CAPITAL PROJECTS @ 3.5% INFLATION

Water Pooling Future Capital Projects

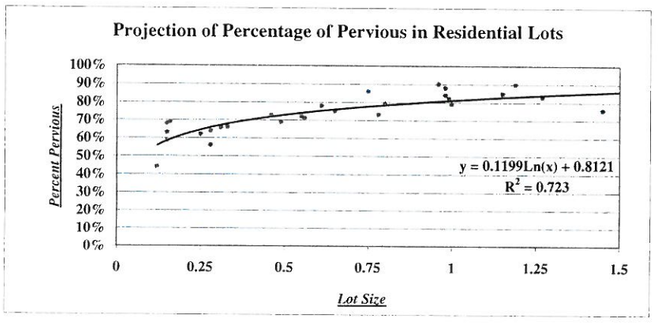
#	Project	Current Year Costs	% to Growth	Cost to Impact Fees	Construction Date	Construction Year Costs	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Totals
1	New 16" Waterline. Bluff Road -1000 West to Jensen Park	275,418.00	100%	275,418.00	2007	285,058	-	285,058	-	-	-	-	-	-	-	-	-	-	-	-	-	285,058
2	Tie 1000 West Land Drain into Fish Pond	167,640.00	100%	167,640.00	2007	173,507	-	173,507	-	-	-	-	-	-	-	-	-	-	-	-	-	173,507
3	New 16" Waterline. Bluff Road - Jensen Park to 6 Way	350,532.00	100%	350,532.00	2008	375,499	-	-	375,499	-	-	-	-	-	-	-	-	-	-	-	-	375,499
4	New 8" Waterline- 2000 West - 2700 South to 3300 South	145,520.00	100%	145,520.00	2008	155,885	-	-	155,885	-	-	-	-	-	-	-	-	-	-	-	-	155,885
5	New 10" Waterline. 3700 South - Bluff Road to 580 West	55,319.00	100%	55,319.00	2008	59,259	-	-	59,259	-	-	-	-	-	-	-	-	-	-	-	-	59,259
6	New 10" Waterline. Bluff Road -1000 West to 3700 South	80,464.00	100%	80,464.00	2008	86,195	-	-	86,195	-	-	-	-	-	-	-	-	-	-	-	-	86,195
7	New 16" Waterline. 1000 West - 3200 South to Bluff Road	133,536.00	100%	133,536.00	2009	148,054	-	-	-	148,054	-	-	-	-	-	-	-	-	-	-	-	148,054
8	New 18" Waterline. 1000 West - 2700 South to 3200 South	269,373.00	100%	269,373.00	2009	298,659	-	-	-	298,659	-	-	-	-	-	-	-	-	-	-	-	298,659
9	New 14" Waterline. 2000 West - 1700 South to 2700 South	379,957.00	100%	379,957.00	2010	436,009	-	-	-	-	436,009	-	-	-	-	-	-	-	-	-	-	436,009
10	New 14" Waterline. 2500 West - 700 South to 1700 South	379,957.00	100%	379,957.00	2010	436,009	-	-	-	-	436,009	-	-	-	-	-	-	-	-	-	-	436,009
11	New 14" Waterline. 1700 South - Bluff Road to 3000 West	78,859.00	100%	78,859.00	2011	93,660	-	-	-	-	-	93,660	-	-	-	-	-	-	-	-	-	93,660
12	New 14" Waterline. 1700 South - 3000 West to 4000 West	379,957.00	100%	379,957.00	2011	451,270	-	-	-	-	-	451,270	-	-	-	-	-	-	-	-	-	451,270
13	New 10" Waterline. Bluff Road - Bluff Road Pond to 6 Way	321,856.00	100%	321,856.00	2012	395,643	-	-	-	-	-	-	395,643	-	-	-	-	-	-	-	-	395,643
14	New 12" Waterline. 2700 South - 500 West to 1000 West	164,459.00	100%	164,459.00	2012	202,162	-	-	-	-	-	-	202,162	-	-	-	-	-	-	-	-	202,162
15	New 14" Waterline. 2700 South - 1000 West to 6 Way	379,957.00	100%	379,957.00	2012	467,064	-	-	-	-	-	-	467,064	-	-	-	-	-	-	-	-	467,064
16	New 14" Waterline. 2700 South - 2000 West to 4000 Wes	759,914.00	100%	759,914.00	2013	966,823	-	-	-	-	-	-	-	966,823	-	-	-	-	-	-	-	966,823
17	Add 2 pumps to um station at Free port reservoir	53,500.00	100%	53,500.00	2014	68,067	-	-	-	-	-	-	-	68,067	-	-	-	-	-	-	-	68,067
18	New 14" Waterline. 3000 West - 700 South to 1700 South	379,957.00	100%	379,957.00	2014	500,331	-	-	-	-	-	-	-	-	500,331	-	-	-	-	-	-	500,331
19	New 14" Waterline. 3000 West -1700 South to 2700 South	379,957.00	100%	379,957.00	2014	500,331	-	-	-	-	-	-	-	-	500,331	-	-	-	-	-	-	500,331
20	New 14" Waterline. 4000 West - 700 South to 1700 South	379,957.00	100%	379,957.00	2015	517,842	-	-	-	-	-	-	-	-	-	517,842	-	-	-	-	-	517,842
21	New 14" Waterline. 4000 West - 1700 South to 2700 South	379,957.00	100%	379,957.00	2015	517,842	-	-	-	-	-	-	-	-	-	517,842	-	-	-	-	-	517,842
22	New 12" Waterline. 1000 West - 1700 South to 2700 south	328,918.00	100%	328,918.00	2016	463,971	-	-	-	-	-	-	-	-	-	-	463,971	-	-	-	-	463,971
23	2 or 3 Land Drain Pump Stations	234,000.00	100%	234,000.00	2016	330,080	-	-	-	-	-	-	-	-	-	-	330,080	-	-	-	-	330,080
	Total Costs	$ 6,458,964		$ 6,458,964		$ 7,929,220	$ -	$ -	$ 458,565	$ 676,837	$ 446,712	$ 872,019	$ 544,929	$ 1,064,869	$ 1,034,890	$ 1,000,662	$ 1,035,685	$ 794,051	$ -	$ -	$ -	$ 7,929,220



Future Secondary Water Capital Projects

APPENDIX C: SECONDARY WATER PERVIOUS LAND ANALYSIS

Address	Acres						% of Pervious
	0 - .20	.20 - .40	.40 - .60	.60 - .80	.80 - 1.0	1.0 - 1.5+	
2899 West 2125 South	0.16						69.00%
3519 West PrincevilleDrive	0.12						44.00%
2912 West 2025 South	0.15						58.50%
2768 West 2175 South	0.15						68.00%
2129 South Lake Mesa Drive	0.15						63.00%
3411 South 875 West		0.31					65.60%
3737 West Inverness Drive		0.25					62.00%
1522 West 2175 South		0.28					64.00%
3846 South 600 West		0.28					56.00%
847 West 3050 South		0.33					66.00%
3089 South 800 West			0.49				69.00%
2463 South 1375 West			0.46				72.60%
1258 South 2375 West			0.56				71.00%
1756 South 3300 West			0.55				88.00%
3235 South Bluff Road			0.55				72.00%
3419 South Bluff Road				0.75			86.00%
3871 West 1700 South				0.65			75.00%
2722 West 2850 South				0.61			78.00%
322 South 2000 West				0.8			79.00%
2279 South 1000 West				0.78			73.30%
3400 West 1700 South					0.98		84.00%
1863 South Bluff Road					0.99		82.00%
1518 South 4000 West					1.00		79.00%
1502 South 1000 West					0.96		90.00%
2255 West 1700 South					0.98		88.00%
2732 West 700 South						1.27	83.00%
1612 South 2650 West						1.19	89.80%
1342 West White Sands Lane						1.5	80.00%
512 West 3700 South						1.15	84.70%
1290 West 2700 South						1.45	75.60%
Totals	0.146	0.29	0.522	0.718	0.981	1.324	
	60.60%	62.72%	74.52%	78.26%	84.60%	82.62%	



Lot Sizes			Median Size	Lot Size (X*)	% Pervious	AF Water	ERUs
4,000	to	7,000	5,500	0.1263	56.40%	0.28	0.28
7,001	to	8,000	7,501	0.1722	60.12%	0.41	0.41
8,001	to	9,000	8,501	0.1951	61.62%	0.48	0.48
9,001	to	10,000	9,501	0.2181	62.95%	0.55	0.55
10,001	to	11,000	10,501	0.2411	64.15%	0.62	0.62
11,001	to	13,000	12,001	0.2755	65.75%	0.72	0.72
13,001	to	15,000	14,001	0.3214	67.60%	0.87	0.87
15,001	to	17,000	16,001	0.3673	69.20%	1.02	1.02
17,001	to	19,000	18,001	0.4132	70.61%	1.17	1.17
19,001	to	21,000	20,001	0.4591	71.88%	1.32	1.32
21,001	to	23,000	22,001	0.5051	73.02%	1.48	1.48
23,001	to	25,000	24,001	0.5510	74.06%	1.63	1.63
25,001	to	27,000	26,001	0.5969	75.02%	1.79	1.79
27,001	to	30,000	28,501	0.6543	76.12%	1.99	1.99
30,001	to	33,000	31,501	0.7232	77.32%	2.24	2.24
33,001	to	36,000	34,501	0.7920	78.41%	2.48	2.48
36,001	to	39,000	37,501	0.8609	79.41%	2.73	2.73
39,001	to	42,000	40,501	0.9298	80.34%	2.99	2.99
42,001	to	45,000	43,501	0.9986	81.19%	3.24	3.24
45,001	to	48,000	46,501	1.0675	81.99%	3.50	3.50
48,001	to	51,000	49,501	1.1364	82.74%	3.76	3.76
51,001	to	54,000	52,501	1.2052	83.45%	4.02	4.02
54,001	to	57,000	55,501	1.2741	84.11%	4.29	4.29
57,001	to	60,000	58,501	1.3430	84.75%	4.55	4.55

*** Formula used in calculating the pervious surfaces (y = 0.1199Ln(x) + 0.8121)**

APPENDIX D: SECONDARY WATER CASHFLOW ANALYSIS AND IMPACT FEE CALCULATION

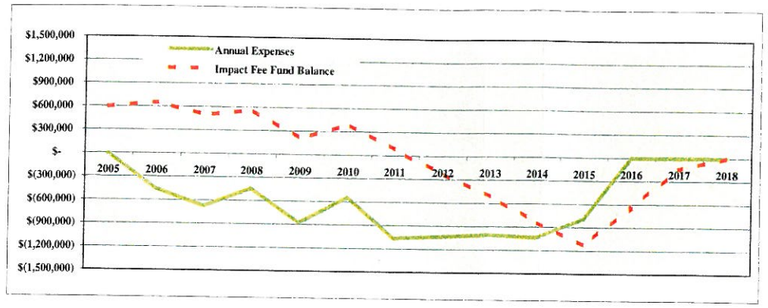
Growth Projections to Build-Out			Future Project Impact Fee Revenue		Future Capital and Financing Expense									
Fiscal Year	Total ERUs Demanded	Annual ERUs Added	Proposed Impact Fee per ERU	Annual Impact Fee Revenue	Capital Project Costs	Impact Fee Updates	Total Expenses	Fiscal Year	Impact Fee Revenues	Total Expenses	Excess/Shortfalls	Interest Income	Annual Ending Fund Balance
2005	5,614		$ -	$ -	$ -	$ -	$ -	2004	$ -	$ -	$ -	$ -	$ 100,000
2006	5,885	271	1,823.98	494,151	-	(4,000)	(4,000)	2005	494,151	(4,000)	490,151	4,000	594,151
2007	6,156	271	1,823.98	494,151	(458,565)	-	(458,565)	2006	494,151	(458,565)	35,586	23,766	653,503
2008	6,427	271	1,823.98	494,151	(676,837)	-	(676,837)	2007	494,151	(676,837)	(182,687)	26,140	496,956
2009	6,698	271	1,823.98	494,151	(446,712)	-	(446,712)	2008	494,151	(446,712)	47,438	19,878	564,273
2010	6,969	271	1,823.98	494,151	(872,019)	(4,502)	(876,521)	2009	494,151	(876,521)	(382,370)	22,571	204,474
2011	7,369	400	1,823.98	729,800	(544,929)	-	(544,929)	2010	729,800	(544,929)	184,870	8,179	397,523
2012	7,769	400	1,823.98	729,800	(1,064,869)	-	(1,064,869)	2011	729,800	(1,064,869)	(335,070)	15,901	78,354
2013	8,169	400	1,823.98	729,800	(1,034,890)	-	(1,034,890)	2012	729,800	(1,034,890)	(305,090)	3,134	(223,601)
2014	8,569	400	1,823.98	729,800	(1,000,662)	(5,067)	(1,005,729)	2013	729,800	(1,005,729)	(275,929)	(8,944)	(508,474)
2015	8,969	400	1,823.98	729,800	(1,035,685)	-	(1,035,685)	2014	729,800	(1,035,685)	(305,885)	(20,339)	(834,698)
2016	9,261	292	1,823.98	532,084	(794,051)	-	(794,051)	2015	532,084	(794,051)	(261,967)	(33,388)	(1,130,053)
2017	9,553	292	1,823.98	532,084	-	-	-	2016	532,084	-	532,084	(45,202)	(643,171)
2018	9,844	292	1,823.98	532,084	-	(5,703)	(5,703)	2017	532,084	(5,703)	526,381	(25,727)	(142,517)
2019	9,926	81	1,823.98	148,217	-	-	-	2018	148,217	-	148,217	(5,701)	0
		4,312		$ 7,864,224	$ (7,929,220)	$ (19,272)	$ (7,948,492)		$ 7,864,224	$ (7,948,492)	$ (84,269)	$ (15,731)	

Proposed Impact Fee per ERU			
Year	Proposed Fee	Year	Proposed Fee
2006	$ 1,823.98	2014	1,823.98
2007	1,823.98	2015	1,823.98
2008	1,823.98	2016	1,823.98
2009	1,823.98	2017	1,823.98
2010	1,823.98	2018	1,823.98
2011	1,823.98	2019	1,823.98
2012	1,823.98	2020	1,823.98
2013	1,823.98		

Water Projects	Total Expense	ApplicableERUs	Cost per ERU
Capital Projects[1]	$ 7,929,220.23	4,312	$ 1,839.05
Impact Fee Updates	19,272.16	4,312	4.47
Interest Earned Credit[2]	(84,268.77)	4,312	(19.54)
Impact Fee per ERU	$ 7,864,223.62		$ 1,823.98

[1] Inflated to construction year costs at 3.5%

[2] Based upon earnings from the impact fee fund



APPENDIX E: RECOMMENDED IMPACT FEES

Lot Sizes (Sf)		ERUs	Impact Fee	Lot Sizes		ERUs	Impact Fee
4,000	7,000	0.28	**$ 519.54**	25,001	27,000	1.79	**$ 3,267.13**
7,001	8,000	0.41	**755.24**	27,001	30,000	1.99	**3,633.82**
8,001	9,000	0.48	**877.29**	30,001	33,000	2.24	**4,079.63**
9,001	10,000	0.55	**1,001.72**	33,001	36,000	2.48	**4,531.19**
10,001	11,000	0.62	**1,128.26**	36,001	39,000	2.73	**4,988.00**
11,001	13,000	0.72	**1,321.61**	39,001	42,000	2.99	**5,449.62**
13,001	15,000	0.87	**1,585.21**	42,001	45,000	3.24	**5,915.72**
15,001	17,000	1.02	**1,854.57**	45,001	48,000	3.50	**6,385.97**
17,001	19,000	1.17	**2,128.96**	48,001	51,000	3.76	**6,860.12**
19,001	21,000	1.32	**2,407.82**	51,001	54,000	4.02	**7,337.91**
21,001	23,000	1.48	**2,690.70**	54,001	57,000	4.29	**7,819.15**
23,001	25,000	1.63	**2,977.24**	57,001	60,000	4.55	**8,303.65**

Non-Residential Users	Equivalent ERUs	Cost per ERU	Fee per 1k Sf Pervious Area
Per Square Foot of Pervious Area	0.000092	$ 1,823.98	**$ 0.17**

*Non-residential impact fees will be assessed only according to the amount of pervious surfaces