



HERRIMAN CITY, UTAH

WATER IMPACT FEE ANALYSIS

PREPARED BY

ZIONS BANK PUBLIC FINANCE

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EXECUTIVE SUMMARY

Zions Bank Public Finance (Zions) is pleased to provide Herriman City (the City) with an update to the culinary and secondary water system impact fees. The following pages summarize the document and tables included. The intent is to provide a concise discussion of the calculation and identification of the maximum legal impact fee.

Since the last impact fee analysis, the City has constructed a secondary water system. Four Service Areas have been created within West and East Herriman, and for those who will and will not have access to secondary water. The table below defines the four service areas for the Impact Fee Analysis.

Figure ES1: Service Areas

Impact Fee Facilities Plan	Impact Fee Analysis
East Herriman	East Herriman Culinary and Secondary
East Herriman No Secondary	East Herriman Culinary Only
West Herriman - Pressure Zones 1 through 4	West Herriman Culinary and Secondary
West Herriman - Pressure Zones 5 and above	West Herriman Culinary Only

Growth and ERC Projections

Currently the City has a total of 8,064 indoor equivalent residential connections (ERCs)¹. The following table identifies the current and future ERCs by Service Area.

Figure ES2: ERCS

Culinary Water		
	Current	Future
West Herriman	8,064	24,919
East Herriman	-	18,084
Secondary Water		
West Herriman	-	17,012
East Herriman	-	13,309

Level of Service Definitions

The Impact Fee Facilities Plan has defined the current level of service in Herriman City as:

- Source: 800 gallons per day per indoor ERC
- Storage: 400 gallons per day per indoor ERC
- Distribution: 800 gallons per day per indoor ERC

¹ Herriman Water Impact Fee Facilities Plan Page 3

PROPORTIONATE SHARE ANALYSIS

The Impact Fee Act requires that the impact fee analysis 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.

Part of the proportionate share analysis is a consideration of the manner of funding existing public facilities. Historically the City has funded existing infrastructure through several different funding sources including:

- General Fund Revenues
- User Fees
- Grants
- Bond Proceeds
- Developer Exactions
- Impact Fees

Using impact fees places a burden on future users that is equal to the burden that was borne in the past by existing users. (Utah Impact Fees Act, 11-36a-304(2) (c) (d))

Existing Infrastructure and Capacity to Serve New Growth (Buy-In Component)

The City provided Zions with a list of all City owned assets for the culinary and secondary water systems in West Herriman (none exist in East Herriman). An analysis has been completed for each utility to identify the capacity to serve new growth. The components of each utility have been analyzed separately: storage, distribution and source, each with their own levels of service and future capacities. The tables detailing the buy-in capacity of each component in West Herriman can be found later in this document in Figures 3 through 8.

Outstanding and Future Debt

Included in the impact fee calculation were the outstanding water bonds (Series 2007 and Series 2011 Water Bonds) and a contemplated future bond (Series 2015). The outstanding and future bonds have been and will be used to fund projects for both the water and secondary water systems. Zions calculated the percentage of the bonds to be allocated to the different service areas, as well as percentage of the projects funded that will have capacity to serve future development. This is the amount included in the fee calculation per ERU. Further detail regarding debt can be found later in this document and in Appendices 5 and 6.

CALCULATED FEE

The impact fees have been calculated with all the above considerations for the four service areas.

Figure ES3: West Herriman Culinary Only Service Area

Meter Size	Indoor Impact Fee	Outdoor Impact Fee	Total Fee*
¾"	\$1,434	\$1,434	\$2,869
1"	\$2,395	\$2,395	\$4,791
1.5"	\$4,776	\$4,776	\$9,553
2"	\$7,645	\$7,645	\$15,291
3"	\$15,305	\$15,305	\$30,610
4"	\$23,911	\$23,911	\$47,822
6"	\$47,808	\$47,808	\$95,616
8"	\$76,496	\$76,496	\$152,991
*Does not include water rights fee			

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Figure ES4: East Herriman Culinary Only Service Area

<u>Meter Size</u>	<u>Indoor Impact Fee</u>	<u>Outdoor Impact Fee</u>	<u>Total Fee*</u>
¾"	\$1,464	\$1,464	\$2,928
1"	\$2,445	\$2,445	\$4,889
1.5"	\$4,875	\$4,875	\$9,750
2"	\$7,803	\$7,803	\$15,605
3"	\$15,620	\$15,620	\$31,240
4"	\$24,403	\$24,403	\$48,807
6"	\$48,792	\$48,792	\$97,584
8"	\$78,070	\$78,070	\$156,140
*Does not include water rights fee			

Figure ES5: East Herriman Culinary and Secondary Fee/ Residential

<u>Lot Size</u>	<u>Indoor Water Fee</u>	<u>Secondary Fee</u>	<u>Total Fee*</u>
<=¼ Acre Lot	\$1,464	\$476	\$1,940
¼ >to ½ Acre Lot	\$1,464	\$964	\$2,428
½ >to ¾ Acre Lot	\$1,464	\$2,041	\$3,505
¾ >to <1 Acre Lot	\$1,464	\$3,894	\$5,358
1 Acre**	\$1,464	\$4,883	\$6,347
*Does not include water rights fee			
**Any lots larger will be charged an additional proportional fee basis based on the above categories			

Figure ES6: East Herriman Culinary and Secondary Fee/ Nonresidential

<u>Meter Size</u>	<u>Indoor Impact Fee*</u>	<u>Secondary Impact Fee*</u> <u>Per 1,000 sq. ft.</u>
¾"	\$2,928	\$146
1"	\$4,889	\$146
1.5"	\$9,750	\$146
2"	\$15,605	\$146
3"	\$31,240	\$146
4"	\$48,807	\$146
6"	\$97,584	\$146
8"	\$156,140	\$146
*Does not include water rights fee		

EXECUTIVE SUMMARY

Figure ES7: West Herriman Culinary and Secondary Fee/ Residential

<u>Lot Size</u>	<u>Indoor Water Fee</u>	<u>Secondary Fee</u>	<u>Total Fee*</u>
<=1/4 Acre Lot	\$1,434	\$808	\$2,242
1/4 >to 1/2 Acre Lot	\$1,434	\$1,637	\$3,071
1/2 >to 3/4 Acre Lot	\$1,434	\$3,465	\$4,899
3/4 >to <1 Acre Lot	\$1,434	\$6,611	\$8,045
1 Acre**	\$1,434	\$8,290	\$9,725
*Does not include water rights fee			
**Any lots larger will be charged an additional proportional fee based on the above categories			

Figure ES8: West Herriman Culinary and Secondary Fee/ Residential

<u>Meter Size</u>	<u>Indoor Impact Fee*</u>	<u>Secondary Impact Fee*</u> <u>Per 1,000 sq. ft.</u>
3/4"	\$2,869	\$223
1"	\$4,791	\$223
1.5"	\$9,553	\$223
2"	\$15,291	\$223
3"	\$30,610	\$223
4"	\$47,822	\$223
6"	\$95,616	\$223
8"	\$152,991	\$223
*Does not include water rights fee		

PROJECT OVERVIEW

Zions Bank Public Finance (Zions) is pleased to provide Herriman City (the City) with an update to the culinary and secondary water system impact fees. Herriman City realizes that its rapid growth as well as changes to the Impact Fees Act require updates and review of its impact fees as well as its facility planning. A Master Plan was developed by Horrocks Engineers (Engineers) in 2008 and the Capital Facilities Plan/Impact Fee Facilities Plan has been reviewed and adapted since. A final facilities plan was adopted in September, 2011. The following analysis has been created using the Herriman City Water Impact Fee Facilities Plan and City staff provided information.

The goal of the impact fee analysis is to calculate the maximum impact fee that may be assessed to new development and ensure the fee meets the requirements of the Impact Fees Act, Utah Code 11-36a-101 *et seq.* The sections and subsections of the impact fee analysis will directly address the following items, required by the code:

- Impact Fee Analysis Requirements (Utah Code 11-36a-304)
 - Identify Existing Capacity to serve growth
 - Proportionate Share Analysis
 - Identify the level of service
 - Identify the impact of future development on existing and future improvements
- Calculated Fee (Utah Code 11-36a-305)
- Certification (Utah Code 11-36a-306)

IMPACT FEE ANALYSIS REQUIREMENTS

Service Areas

This impact fee analysis calculates the impact fees for four separate service areas. The service areas have been defined in the Impact Fee Facilities Plan as: East Herriman, East Herriman No Secondary, West Herriman – Pressure Zones 1 through 4, and West Herriman – Pressure Zones 5 and above². In this analysis the service areas will be identified as follows:

Figure 1: Service Areas

Impact Fee Facilities Plan	Impact Fee Analysis
East Herriman	East Herriman Culinary and Secondary
East Herriman No Secondary	East Herriman Culinary Only
West Herriman - Pressure Zones 1 through 4	West Herriman Culinary and Secondary
West Herriman - Pressure Zones 5 and above	West Herriman Culinary Only

² Herriman Water Impact Fee Facilities Plan Page 13

Growth and ERC Projections

According to the Impact Fee Facilities Plan, the 2010 population was 21,785³. Population is important in the Capital Facilities and Impact Fee Facilities Planning as population, and other factors, drive project need and timing. However, this impact fee analysis is not population dependent. The driving force is the Equivalent Residential Connection (ERC). The Impact Fee Facilities Plan defines an ERC as 800 gallons per day usage⁴. Currently the City has 5,228 residential connections, six schools (180 ERCs), 14 churches (198 ERCs), 68 commercial connections (81 ERCs), and 76 City owned facilities (1,082 ERCs) and 476 master meters and 6 out of boundary meters (1,295 ERC's) for a total of 8,064 indoor equivalent residential connections (ERCs)⁵. Although this table reports that there are no current secondary water ERCs in either East or West Herriman, there are existing ERC's, that will be converting from culinary only, to culinary and secondary water use. The City reports that of the 8,064 culinary ERCs, 7,980 of those will convert to secondary water. The converted users make up 47% of the total 17,012 ERCs that will be connected to the West Herriman Secondary Water System.

Figure 2: ERCS

Culinary Water		
	Current	Future
West Herriman	8,064	24,919
East Herriman	-	18,084
Secondary Water		
West Herriman	-	17,012
East Herriman	-	13,309

There is significant growth still expected in Herriman. Growth in population and in ERCs will place increasing demand on the culinary and secondary water systems. The Master Plan and Impact Fee Facilities Plan discuss the growth patterns and the improvements that are required to maintain the current system and meet the needs of future growth extensively. As the table above shows, even over a shorter term horizon, ERC growth is still occurring and the City must keep up with demand. The Herriman Water Master Plan states “due to factors such as continued economic growth in the region, the trend of rapid growth appears to be continuing for the foreseeable future...population growth has slowed but it is expected to return to normal patterns in the future.”⁶ The Impact Fee Facilities Plan continues to clearly show the impact and consumption of current and future users of the culinary and secondary water system. The plan details the existing volumes of source and storage components of the system, as well as the difference between what is existing and what is needed.

³ The full population schedule and % change can be found in Section E: Supplemental Information, of this document, created by the City and incorporated into the IFFP.

⁴ Herriman Water Impact Fee Facilities Plan Page 4

⁵ Herriman Water Impact Fee Facilities Plan Page 3

⁶ Herriman City Water Master Plan Page 23

Level of Service Definitions

The Impact Fee Facilities Plan has defined the current level of service in Herriman City as:

- Source: 800 gallons per day per indoor ERC
- Storage: 400 gallons per day per indoor ERC
- Distribution: 800 gallons per day per indoor ERC
- Water Rights: .45 acre feet per indoor ERC⁷

Existing Infrastructure and Capacity to Serve New Growth (Buy-In Component)

Appendix 4 provides a detailed list of the assets owned and operated by Herriman City for culinary and secondary water in West Herriman. At the time of this analysis, there are no assets completed for either utility in East Herriman, thus no existing capacity and no buy in component will be considered for these service areas. Included with the assets is the original date of construction or acquisition and the original cost of the distribution, source, and storage components of the culinary water system and the storage component of the West Secondary system. The capacity to serve new growth was calculated for source, storage and distribution. Figures 3 through 8 below demonstrate the calculations for existing capacity for source, storage and distribution.

Source

The IFFP reports Herriman City has 17,144 gallons per minute (gpm) capacity in the existing source infrastructure (Appendix 13). The IFFP also has defined the capacity currently used and how much capacity the future six years projects will serve. The IFFP reports that the existing source requirements are 11,026 gpm. The City has excess capacity of 6,118 gpm to be included in the West Culinary Impact Fee. The source calculations are found later in this document and in Appendix 10 of this document.

Storage

Water storage has finite capacity and analyzing the used and unused capacity is relatively easy. The gallons per day (gpd) of storage requirements are the current level of service, 400 gpd plus the fire flow requirements for indoor water. The resulting gpd of storage calculations are found in Appendix 7 of this document. For secondary water 1,140 gpd was used based on the definition in the IFFP.

Distribution

In order to calculate the capacity to serve new growth in the source and distribution components, the original values are brought to present value in order to compare the expenses with the present value of the future projects. Then a percentage of investments for the existing infrastructure, future six year projects, and beyond six year projects are calculated. This percentage determines the percentage of build-out ERCs that will be served by the existing, future six years and beyond six year projects. From there, we can determine the future and existing demand of the existing infrastructure to be included as a buy in component of the impact fee.

⁷ Water rights are not included in this impact fee analysis; however there is a water rights impact fee, calculated by the City based on market rates and assessed at the time of impact fee payment.

Figure 3: West Culinary: Proportionate Share (Buy In) Analysis for Storage

	Total Construction Costs	Capacity	% Existing	% Future	ERCs to be Served
West Culinary Storage Projects		MGD*			
IFFP Projects	2,953,191	3,000,000	0%	100%	6,546
Existing Facilities	4,372,234	11,384,600	60%	40%	10,014
Total	7,325,425				16,559

**Horrock Engineers Herriman City IFFP*

	ERC	MG
Build-out ERCs	24,919	11,421,114
Future ERCs	17,177	7,872,726
Current ERCs	7,742	3,548,387
GPD Storage**	458	

	Construction/Original Cost	% to Growth	Cost to Growth
Future Project	2,953,191	100%	2,953,191
Existing Facilities	4,372,234	40%	1,762,634
Total			4,715,825
ERCs			16,559
Fee per ERC			\$ 285

Future Value (Construction Cost) is used for future projects and Original Cost is used to calculate the existing facility buy in fee.

**Appendix 7

Figure 4: West Secondary: Proportionate Share (Buy In) Analysis for Storage

	Total Construction Costs	MGD	% Existing	% Future	ERCs to be Served
West Secondary Storage Projects		MGD			
IFFP Projects	2,039,110	5,551,809	0%	100%	4,870
Existing Facilities	4,889,000	10,510,000	0%	100%	9,219
Total	6,928,110				14,089

	ERC	MG
Build-out ERCs	17,012	19,393,680
Future ERCs	17,012	19,393,680
Current ERCs	-	-
GPD Storage*	1,140	

	Construction/Original Cost	% to Growth	Cost to Growth
Future Project	2,039,110	100%	2,039,110
Existing Facilities	4,889,000	100%	4,889,000
Total			6,928,110
ERCs			14,089
Fee per ERC			\$ 492

Future Value (Construction Cost) is used for future projects and Original Cost is used to calculate the existing facility buy in fee.

*Horrocks Engineers Herriman City IFFP

Figure 5: West Culinary: Proportionate Share (Buy In) Analysis for Distribution

	PV Cost	% of System	Capacity	Existing Demand	% Existing	% Future	ERCs to be Served
West Culinary Distribution Projects			MGD				
Beyond 6 Year Projects	1,389,637	5%	0.98	NA	NA	NA	NA
IFFP Projects	4,133,283	15%	2.92	-	0%	100%	3,651
Existing Facilities	22,688,927	80%	16.03	6.19	39%	61%	12,299
Total	28,211,847	100%					15,950

	ERC	MGD
Build-out ERCs	24,919	19.94
Future ERCs	17,177	13.74
Current ERCs	7,742	6.19
MGD per ERC	0.0008	

	FV	Impact Fee Qualifying Costs	% to Growth	Cost to Growth
IFFP Projects	4,476,267	3,286,653	100%	3,286,653
Existing Facilities		18,175,628	61%	11,154,134
Total				14,440,787
ERCs				15,950
Fee per ERC				\$ 905

This calculation uses the Present Value (PV) of the existing infrastructure, IFFP Projects and Beyond Six Year Horizon Projects to determine how much of the total system is made up of each component. The percentage is then applied to demand to determine a proportionate share. To calculate the final fee per ERC, the values are calculated as Future Value (FV) and Original Cost for future projects and existing facilities listed under Impact Fee Qualifying Costs.

Figure 6: West Secondary: Proportionate Share (Buy In) Analysis for Distribution

	PV Cost	% of System	Capacity	Existing Demand	% Existing	% Future	ERCs to be Served
West Secondary Distribution Projects			MGD				
Beyond 6 Year Projects	12,398,274	67%	12.99	NA	NA	NA	NA
IFFP Projects	6,105,746	33%	6.40	-	0%	100%	5,613
Existing Facilities	-	0%	-	-	0%	100%	-
Total	18,504,020	100%					5,613

	ERC	MGD
Build-out ERCs	17,012	19.39
Future ERCs	17,012	19.39
Current ERCs	-	-
MGD per ERC	0.00114	

	FV	Impact Fee Qualifying Costs	% to Growth	Cost to Growth
IFFP Projects	6,674,930	4,258,632	100%	4,258,632
Existing Facilities		-	100%	-
Total				4,258,632
ERCs				5,613
Fee per ERC				\$ 759

This calculation uses the Present Value (PV) of the existing infrastructure, IFFP Projects and Beyond Six Year Horizon Projects to determine how much of the total system is made up of each component. The percentage is then applied to demand to determine a proportionate share. To calculate the final fee per ERC, the values are calculated as Future Value (FV) and Original Cost for future projects and existing facilities listed under Impact Fee Qualifying Costs.

Figure 7: West Culinary Proportionate Share (Buy In) Analysis for Source

	Total Construction Costs	Capacity MGD	% Existing	% Future	ERCs to be Served
West Culinary Source Projects		MGD			
IFFP Projects	1,621,549	2.59	0%	100%	3,240
Existing Facilities	1,796,186	27.57	68%	32%	11,113
Total	3,417,735	30.16			14,353

	ERC	MGD
Build-out ERCs	24,919	19.94
Future ERCs	16,855	13.48
Current ERCs	8,064	6.45
	0.0008	

	Construction/Original Cost	% to Growth	Cost to Growth
Future Project	1,621,549	100%	1,621,549
Existing Facilities	1,796,186	32%	579,247
Total			2,200,796
ERCs			14,353
Fee per ERC			\$ 153

The IFFP reports that the City has 6,118 gpm (8.89 MGD) excess capacity. The percent related to growth is calculated from the 8.89 MGD/27.57 existing total capacity = 32%

Future Value (Construction Cost) is used for future projects and Original Cost is used to calculate the existing facility buy in fee.

Figure 8: West Secondary Proportionate Share (Buy In) Analysis for Source

	Total Construction Costs	MGD	% Existing	% Future	ERCs to be Served
West Secondary Source Projects		MGD			
IFFP Projects	1,542,552	2.88	0%	100%	2,526
Existing Facilities	-	-	0%	100%	-
Total	1,542,552				2,526

	ERC	MGD
Build-out ERCs	17,012	19.39
Future ERCs	17,012	19.39
Current ERCs	-	-
GPM Source*	0.001140	

	Construction/Original Cost	% to Growth	Cost to Growth
Future Project	1,542,552	100%	1,542,552
Existing Facilities	-	100%	-
Total			1,542,552
ERCs			2,526
Fee per ERC			\$ 611

Future Value (Construction Cost) is used for future projects and Original Cost is used to calculate the existing facility buy in fee.

*Horrocks Engineers Herriman City IFFP

Outstanding Debt

As mentioned previously, certain existing infrastructure was funded with bond proceeds. The Utah Impact Fees Act does allow for the inclusion of outstanding principle and interest costs of existing improvements funding by bond proceeds that still have capacity to serve new growth. Herriman refunded a 2005 and 2006 bonds with a Series 2007 Water Bond. A thorough analysis on what projects were funded with these bonds has been completed. This debt funded projects for both the culinary and secondary water systems. The figure below details the projects and the percent relating to West Herriman Secondary and West Herriman Culinary water projects. It should be noted that the project costs themselves have already been accounted for in the asset list in Appendix 4 and only the interest component of the bond will be included to avoid double counting the project cost. The percentages to each service area and capacity to serve growth remain the same however. The projects funded were analyzed for capacity to serve future development along with the other assets, described in the previous subsection. A Series 2011 Bond has been issues to fund secondary and culinary water as well. The full principal (as a credit to offset projects in the IFFP) and interest have been included into the fee calculation. The projects and service areas benefitted are detailed below, however, for both of the outstanding bonds there is further detail in Appendix 6 of this document.

Figure 9: Series 2007 Water Bond

Projects	Cost	Service Area	Percent Benefit
Blackridge Reservoir*	4,889,000	West Secondary	61%
Main Street 16" Waterline	55,345	West Culinary	1%
3 MG Tank	1,672,415	West Culinary	21%
12900 S 16" Waterline	541,740	West Culinary	7%
7530 W 12" and 16" Waterline	401,899	West Culinary	5%
Stoke Well	396,661	West Culinary	5%
Construction Total	7,957,060		100%

*Only Herriman City's Portion of the project included

Total Benefit Per Service Area	
West Culinary	39%
West Secondary	61%
Total	100%

Figure 10: Series 2011 Water Bond

Project	FV	% to Service Area
West Culinary		
5600 West	700,000	30%
Remodel of Pump Station	100,000	
Town Center Well and 14" Waterline	950,000	
Mountain View Corridor	172,979	
Subtotal	1,922,979	
West Secondary		
5600 West	700,000	50%
Blackridge Secondary Infrastructure	2,400,000	
Mountain View Corridor	129,010	
Subtotal	3,229,010	
East Culinary		
JWCD 3200 W. Connection	900,000	19%
Mountain View Corridor	292,059	
Subtotal	1,192,059	
East Secondary		
Mountain View Corridor	90,449	1%
Subtotal	90,449	
Total Construction Costs	6,434,497	

Future Debt

Similar to outstanding debt, anticipated debt may also be included into the impact fee analysis. As Herriman has a great deal of infrastructure needed in the next six years, it is expected that another bond, in about 2015, will need to be issued. The bond will fund both culinary and secondary water projects for both East and West Herriman. The figures below detail the projects funded, service area the projects will serve and the cost (Appendix 6). The figures also detail the percent related to growth and percentage to each service area. To find the full detail on the debt service payments, see Appendix 5. Only the interest component will be included in the final fee as the principal will counter the construction expense of the funded projects.

Figure 11: Series 2015 Water Bond

Projects 2015 Water Debt	FV	FV Growth Related Portion	% to Growth	% to Service Area
West Culinary				
Construct New 8" 13270 S (Connect 5800 W with 5700 W)	98,121	19,624	20%	38%
Replace 6" with 8" and connect to 10" main instead (13360 S from Pioneer St to end of cul-de-sac)	148,395	29,679	20%	
West Culinary Growth Related Improvement - 3MG Tank	2,953,191	2,953,191	100%	
West Culinary Growth Related Improvement - Distribution Improvements	1,051,334	1,051,334	100%	
Construct New 8" (Long Ridge Dr to Ensenada Ct to loop)	81,831	16,366	20%	
Replace 6" with 8" (Tick Lane)	94,270	18,854	20%	
West Culinary Growth Related Improvements - Distribution	90,048	90,048	100%	
Subtotal	4,517,190	4,179,097		
West Secondary				
West Secondary Growth Related Improvement - Well	1,542,552	1,542,552	100%	59%
West Secondary Growth Related Improvement - Distribution Improvements	385,230	385,230	100%	
West Secondary Parallel to Culinary - Distribution Improvement	1,764,046	799,113	45%	
West Secondary Growth Related Improvements - 5 MG Reservoir	2,039,110	2,039,110	100%	
West Secondary Growth Related Improvements - Distribution Projects	466,164	466,164	100%	
West Secondary Parallel to Culinary - Distribution Improvement	767,976	347,893	45%	
Subtotal	6,965,078	5,580,062		
East Culinary				
East Culinary Growth Related Improvement - Distribution Improvement	186,332	186,332	100%	2%
Subtotal	186,332	186,332		
East Secondary				
East Secondary Growth Related Improvement - Distribution Improvements	43,454	43,454	100%	1%
East Secondary Growth Related Improvement - Distribution Improvements	56,240	56,240	100%	
Subtotal	99,694	99,694		
Total Bond Proceeds	11,768,294	10,045,185		

PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires that the impact fee analysis 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.

Both the recent update to the Master Plan (2008) and the IFFP demonstrate significant growth in the City. The City reports that from 2010 to 2011 the population has increased 10.45% (21,785 to 24,062 persons). Herriman must keep up with growing demand and has annexed East Herriman in recent years and must begin building infrastructure in order to support growth and economic development in that area. The IFFP clearly defines what projects are growth related, repair and replacement, or pipe upsizing (the upsizing may include some element of growth). The projects are detailed later in the Future Capital Projects section.

Part of the proportionate share analysis is consideration of the manner of funding existing public facilities. Historically the City has funded existing infrastructure through several different funding sources including:

- General Fund Revenues
- User Fees
- Grants
- Bond Proceeds
- Developer Exactions
- Impact Fees

In calculating the buy-in (for existing infrastructure capacity) component of this analysis no grant funded infrastructure has been included. Once the grant funding projects have been removed, all remaining infrastructure has been funded by existing residents. In order to ensure fairness to existing users, impact fees are an appropriate means of funding future capital infrastructure. Using impact fees places a burden on future users that is equal to the burden that was borne in the past by existing users. (Utah Impact Fees Act, 11-36a-304(2) (c) (d))

Just as existing infrastructure has been funded through different means; it is required by the Impact Fees Act to evaluate all means of funding future capital. There are positives and negative aspects to the various forms of funding. It is important to evaluate each.

General Fund/User Rates

The general fund and user rates have both been funded in one form or another by existing users. It would be an additional burden to existing users to use this revenue source to fund future capital to meet the needs of future users. This is not an equitable policy and can place too much stress on the tight budgets of the general fund and other user rate funds.

In the calculation of the credit for secondary water specifically, rates were a very important consideration. Currently there are not secondary water users, and no secondary water rate structure in the City. There is an outstanding bond and existing capital project that has been funded through a bond in 2007 (Blackridge Reservoir). Since user rates are the primary funding source of the project, and rates will be a major funding source to continue to pay this bond off, the credit has been calculated and included into the impact fee for West Herriman Secondary Water.

Property Taxes

It is true that property taxes may be a stable source of income. However, property taxes are not based on impact placed upon a system. Property taxes are based upon property valuation. Using property taxes to fund future capital again places too much burden on existing users and subsidizes growth.

Impact Fees

Impact fees are a fair and equitable means of providing infrastructure for future development. They provide a rational nexus between the costs borne in the past and the costs required in the future. The Impact Fees Act ensures that future development is not paying any more than what future growth will demand. Existing users and future users receive equal treatment; therefore impact fees are the optimal funding mechanism for future growth related capital needs.

Developer Credits

If projects included in the Impact Fee Facilities Plan (or a project that will offset the demand for a system improvement that is listed in the IFFP) are constructed by developers, that developer is entitled to a credit against impact fees owed. (Utah Impact Fees Act, 11-36a-304(2) (f).)

Time-Price Differential

Utah Code 11-36a-301(2) (h) allows for the inclusion of a time-price differential in order to create fairness for amounts paid at different times. To address the time-price differential, this analysis includes an inflationary component to account for construction inflation for future projects. Projects constructed after the year 2012 will be calculated at a future value with a net 4% inflation rate⁸. All users who pay an impact fee today or within the next six years will benefit from projects to be constructed and included in the fee.

Other

In this particular analysis, there is also a credit for unspent impact fee revenues collected in the past. The current impact fee fund balance for culinary and secondary water was credited against each respective fee.

Impact Fee Facilities Plan – Future Capital Projects

The figure below has been creating using information from the IFFP. The capital project table in Appendix 2 lists the capital projects expected to be constructed within the next six years. The table calculates the future value construction cost, based on the 2011 construction estimates, and inflated by 4%. The table also includes the percentage of the project that is growth related. Only the growth related portions of the projects are calculated into the fee. The amount not growth related must be funded by other means outside of impact fees.

As discussed previously, there are not currently any secondary water users in Herriman City, however over the next several years, a majority (7,980 of 8,064) will convert from culinary ERCs to culinary and secondary ERCs. Capital projects for secondary water in the next six years (as well as the existing reservoir) are listed as 100% growth related projects; however the credit that has been calculated and applied per ERC addresses the percentage relating to existing users converting to secondary water. More discussion regarding this credit is found below.

Credit Calculation for Culinary Existing Users Converting to Secondary Water

In the capital projects and bond scenarios, projects relating to secondary have all been identified in the IFFP as 100% growth related projects as there are no existing users of the secondary system. However, there are current culinary only users who will be converting to culinary/secondary ERCs and thus a credit per ERC has been calculated. Appendix 15 details this calculation considering distribution, storage and source of secondary water. The City reports that 7,980 of the 8,064 existing ERCs will convert to secondary water. The 7,980 is 47% of the total West Herriman Secondary ERC (17,012). So this same percentage has been applied to the storage, distribution and source portions of the 2007, 2011 and 2015 bonds as well as any secondary water capital projects not being constructed with a bond. The net present value credit per ERC is

⁸ Based on a 20 year average cost of inflation using Engineering News Record and net of interest earnings

\$689.12. Appendix 12.A reflects this amount being netted from the secondary water fee per ERC and then calculated through the ERC multipliers.

CALCULATED FEE

The impact fees have been calculated with all the above considerations for the four service areas. The fee is calculated per a single ERC. Development will pay the fee in each dependent on the service area in which they are building. As an example a new development in West Herriman Culinary and Secondary service area will pay a culinary water fee (based on meter size) plus a secondary fee (based on the irrigable area of each lot size). The fees per ERC per service area can be found in Figures 12, 13, 14, and 15. These tables can also be found in Appendix 11. These tables and appendix represent a base figure that is then calculated into a maximum legal fee based on meter size and lot sizes for culinary and secondary water respectively.

Figure 12: West Herriman Culinary Base Fee per ERC

West Herriman Culinary Water	Cost	% to Service Area	% to Component	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
Distribution Impact Fee							
IFFP Projects	4,476,267	100%	100%	73%	3,286,653	15,628	210
Series 2011 Bond Proceeds	(6,585,000)	30%	15%	0%	-	15,628	-
Series 2011 Debt Service	9,636,216	30%	15%	0%	-	15,628	-
Series 2015 Bond Proceeds	(13,298,172)	38%	13%	78%	(531,729)	15,628	(34)
Series 2015 Debt Service	21,674,731	38%	13%	78%	866,667	15,628	55
Buy In - Existing Assets	18,175,628	100%	100%	60%	10,862,101	15,628	695
Buy In - 2007 Water Bond Interest Only*	7,492,042	39%	13%	0%	-	15,628	-
Subtotal	41,571,711			35%	14,483,692		927
Storage Impact Fee							
IFFP Projects	2,953,191	100%	100%	100%	2,953,191	16,559	178
Series 2011 Bond Proceeds	(6,585,000)	30%	0%	100%	-	16,559	-
Series 2011 Debt Service	9,636,216	30%	0%	100%	-	16,559	-
Series 2015 Bond Proceeds	(13,298,172)	38%	25%	100%	(1,280,928)	16,559	(77)
Series 2015 Debt Service	21,674,731	38%	25%	100%	2,087,789	16,559	126
Buy In - Existing Assets	4,372,234	100%	100%	40%	1,762,634	16,559	106
Buy In - 2007 Water Bond Interest Only*	7,492,042	39%	21%	0%	-	16,559	-
Subtotal	26,245,242				5,522,685		334
Source Impact Fee							
IFFP Projects	1,621,549	100%	100%	100%	1,621,549	14,353	113
Series 2011 Bond Proceeds	(6,585,000)	30%	15%	100%	(290,552.57)	14,353	(20)
Series 2011 Debt Service	9,636,216	30%	15%	100%	425,182.60	14,353	30
Series 2015 Bond Proceeds	(13,298,172)	38%	0%	0%	-	14,353	-
Series 2015 Debt Service	21,674,731	38%	0%	0%	-	14,353	-
Buy In - Existing Assets	1,796,186	100%	100%	32%	579,247	14,353	40
Buy In - 2007 Water Bond Interest Only*	7,492,042	39%	5%	0%	-	14,353	-
Subtotal							163
Impact Fee Fund Balance Credit							
Impact Fee Fund Balance Credit	645,018	28%	100%	100%	177,380	15,628	11
Total Impact Fee Per ERC							\$ 1,434

Figure 13: West Herriman Secondary Base Fee per ERC

West Herriman Secondary Water	Cost	% to Service Area	% to Component	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
Distribution Impact Fee							
IFFP Projects	6,674,930	100%	100%	64%	4,258,632	5,613	759
Series 2011 Bond Proceeds	(6,585,000)	50%	13%	100%	(425,751)	5,613	(76)
Series 2011 Debt Service	9,636,216	50%	13%	100%	623,026	5,613	111
Series 2015 Bond Proceeds	(13,298,172)	59%	29%	59%	(1,336,513)	5,613	(238)
Series 2015 Debt Service	21,674,731	59%	29%	59%	2,178,387	5,613	388
Buy In - Existing Assets	-	100%	100%	0%	-	5,613	-
Buy In - 2007 Water Bond Interest Only*	7,492,042	61%	0%	0%	-	5,613	-
Subtotal	25,594,747			21%	5,297,781		944
Storage Impact Fee							
IFFP Projects	2,039,110	100%	100%	100%	2,039,110	14,089	145
Series 2011 Bond Proceeds	(6,585,000)	50%	37%	100%	(1,232,558)	14,089	(87)
Series 2011 Debt Service	9,636,216	50%	37%	100%	1,803,674	14,089	128
Series 2015 Bond Proceeds	(13,298,172)	59%	17%	100%	(1,363,740)	14,089	(97)
Series 2015 Debt Service	21,674,731	59%	17%	100%	2,222,764	14,089	158
Buy In - Existing Assets	4,889,000	100%	100%	100%	4,889,000	14,089	347
Buy In - 2007 Water Bond Interest Only*	7,492,042	61%	100%	100%	4,603,282	14,089	327
Subtotal	25,847,927				12,961,533		920
Source Impact Fee							
IFFP Projects	1,542,552	100%	100%	100%	1,542,552	2,526	611
Series 2011 Bond Proceeds	(6,585,000)	50%	0%	0%	-	2,526	-
Series 2011 Debt Service	9,636,216	50%	0%	0%	-	2,526	-
Series 2015 Bond Proceeds	(13,298,172)	59%	13%	100%	(1,031,646.14)	2,526	(408)
Series 2015 Debt Service	21,674,731	59%	13%	100%	1,681,483.11	2,526	666
Buy In - Existing Assets	-	100%	100%	0%	-	2,526	-
Buy In - 2007 Water Bond Interest Only*	7,492,042	61%	0%	0%	-	2,526	-
Subtotal							868
Impact Fee Fund Balance Credit							
Impact Fee Fund Balance Credit	645,018	73%	100%	100%	467,638	5,613	83
Total Impact Fee Per ERC							\$ 2,815

Figure 14: East Herriman Culinary Base Fee per ERC

East Herriman Culinary Water	Cost	% to Service Area	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
IFFP Projects	7,717,578	100%	100%	7,717,578	5,749	1,343
Series 2011 Bond Proceeds	(6,585,000)	19%	100%	(1,219,941)	5,749	(212)
Series 2011 Debt Service	9,636,216	19%	100%	1,785,212	5,749	311
Series 2015 Bond Proceeds	(13,298,172)	2%	100%	(210,555)	5,749	(37)
Series 2015 Debt Service	21,674,731	2%	100%	343,184	5,749	60
Buy In - Existing Assets	-	0%	0%	-	5,749	-
Buy In - 2007 Water Bond Interest Only*	7,492,042	0%	0%	-	5,749	-
Total Impact Fee Per ERC	26,637,395		32%	8,415,478		\$ 1,464

Figure 15: East Herriman Secondary Base Fee per ERC

East Herriman Secondary Water	Cost	% to Service Area	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
IFFP Projects	1,324,903	100%	100%	1,324,903	1,149	1,153
Series 2011 Bond Proceeds	(6,585,000)	1%	100%	(92,565)	1,149	(81)
Series 2011 Debt Service	9,636,216	1%	100%	135,455	1,149	118
Series 2015 Bond Proceeds	(13,298,172)	1%	100%	(112,654)	1,149	(98)
Series 2015 Debt Service	21,674,731	1%	100%	183,616	1,149	160
Buy In - Existing Assets	-	0%	0%	-	1,149	-
Buy In - 2007 Water Bond Interest Only*	7,492,042	0%	0%	-	1,149	-
Total Impact Fee Per ERC	20,244,720		7%	1,438,755		\$ 1,252

The maximum legal fees, with multipliers and ERC conversions for the four service areas are found in the next several pages and in Appendices 12: A and 12: B of this document. The fee schedule will be incorporated into the City Ordinance and given to the building department for impact fee assessment at the time of building permit issuance. The ERC conversion is based on meter size for culinary users and by lot size and 1,000 square foot units for secondary residential and non-residential users respectively. The lot size and pervious area⁹ assumptions are also detailed in Appendices 12: A and 12: B and were approved by City staff. It is noted that there is also a water rights impact fee, this is not included in this analysis and will be assessed at the time of impact fee payment and is calculated by the City based on the current market price or water rights.

⁹ Provided by Herriman City staff

In accordance with Utah Code Annotated, 11-36a-306(2), Matthew Millis on behalf of Zions Bank Public Finance, makes the following certification:

I certify that the attached impact fee analysis:

1. includes only the cost of public facilities that are:
 - a. allowed under the Impact Fees Act; and
 - b. actually incurred; or
 - c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. does not include:
 - a. costs of operation and maintenance of public facilities;
 - b. cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
 - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;
3. offset costs with grants or other alternate sources of payment; and
4. complies in each and every relevant respect with the Impact Fees Act.

Matthew Millis makes this certification with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plans (“IFFPs”) made in the IFFP documents or in the impact fee analysis documents are followed in their entirety by Herriman City staff and elected officials.
2. If all or a portion of the IFFPs or impact fee analyses are modified or amended, this certification is no longer valid.
3. All information provided to Zions Bank Public Finance, its contractors or suppliers is assumed to be correct, complete and accurate. This includes information provided by Herriman City and outside sources. Copies of letters requesting data are included as appendices to the IFFPs and the impact fee analysis.

Dated: 8/11/2011

ZIONS BANK PUBLIC FINANCE

By Matthew Millis



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Appendix 1: ERC

CURRENT AND FUTURE ERCs BY SERVICE AREA

Culinary Water		
	Current	Future
West Herriman	8,064	24,919
East Herriman	-	18,084
Secondary Water		
West Herriman	-	17,012
East Herriman	-	13,309

Calculated based on the 2008 Herriman City Master Plan ERC and need projections for each zone and gallons per day level of service standards for source and storage.

The 2011 Herriman City Impact Fee Facilities Plan defines an ERC as 800 gpd.



Appendix 2: Capital Projects, 6 Year Horizon
Inflation Rate*

4%

West Culinary

Project Name	Year to be Constructed	2011 Cost	Construction Cost	% Impact Fee Qualifying	Impact Fee Qualifying Cost	Non Impact Fee Qualifying
Replace 6" with 8" (Main Street from Dillan Cir to Rose Canyon Road)	2011	124,613	124,613	20%	24,923	99,690
West Culinary Growth Related Improvement - Distribution Improvement	2011	1,173,625	1,173,625	100%	1,173,625	-
Replace 6" with 8" (13293 S from Rose Canyon Rd to the East)	2012	109,116	113,481	20%	22,696	90,785
Replace 4" with 8" (13000 S from 6100 W to 5800 W)	2012	265,201	275,809	20%	55,161.81	220,647
West Culinary Growth Related Improvement - New Well	2012	1,559,182	1,621,549	100%	1,621,549	-
West Culinary Growth Related Improvement - Distribution Improvement	2012	240,602	250,226	100%	250,226	-
Replace 4" with 8" (5900 W from 12900 S to 131000 S)	2013	181,072	195,847	20%	39,169	156,678
Replace 4" with 8" (6100 W from 13000 S to Main Street)	2013	93,124	100,723	20%	20,145	80,578
West Culinary Growth Related Improvements - Distribution	2013	392,027	424,016	100%	424,016	-
Replace 4" with 8" (Intersection of Pioneer St and 12900 S)	2014	9,106	10,243	20%	2,049	8,194
Replace 4" with 8" (13011 S from Pioneer St going East)	2014	25,881	29,113	20%	5,823	23,290
Replace 4" with 8" (4950 W from 126000 S to approximately 12200 S)	2014	190,753	214,571	20%	42,914	171,657
Construct New 8" 13270 S. (Connect 5800 W with 5700 W)	2015	83,874	98,121	20%	19,624	78,497
Replace 6" with 8" and connect to 10" main instead (13360 S from Pioneer St to end of cul-de-sac)	2015	126,849	148,395	20%	29,679	118,716
West Culinary Growth Related Improvement - 3MG Tank	2015	2,524,400	2,953,191	100%	2,953,191	-
West Culinary Growth Related Improvement - Distribution Improvements	2015	898,685	1,051,334	100%	1,051,334	-
Construct New 8" (Long Ridge Dr to Ensenada Ct to loop)	2016	67,259	81,831	20%	16,366	65,465
Replace 6" with 8" (Tick Lane)	2016	77,483	94,270	20%	18,854	75,416
West Culinary Growth Related Improvements - Distribution	2016	74,013	90,048	100%	90,048	-
Six Year West Secondary Total		\$ 8,216,865	\$ 9,051,007	87%	\$ 7,861,394	\$ 1,189,613

*Based on 20 years average cost of inflation using ENR and net of interest earnings

West Culinary

By Component	2011 Cost	Construction Cost	IF Qualifying
Distribution	4,133,283	4,476,267	3,286,653
Storage	2,524,400	2,953,191	2,953,191
Source/Supply	1,559,182	1,621,549	1,621,549
Total	\$ 8,216,865	\$ 9,051,007	\$ 7,861,394

West Secondary

Project Name	Year to be Constructed	2011 Cost	Construction Cost	% Impact Fee Qualifying	Impact Fee Qualifying Cost	Non Impact Fee Qualifying
West Secondary Growth Related Improvement - Booster Station and Distribution Improvements	2011	1,406,172	1,406,172	100%	1,406,172	-
West Secondary Parallel to Culinary - Distribution Improvement	2011	914,209	914,209	45%	414,137	500,072
West Secondary Parallel to Culinary - Distribution Improvement	2012	933,782	971,133	45%	439,923	531,210
West Secondary Growth Related Improvement - Well	2015	1,318,580	1,542,552	100%	1,542,552	-
West Secondary Growth Related Improvement - Distribution Improvements	2015	329,296	385,230	100%	385,230	-
West Secondary Parallel to Culinary - Distribution Improvement	2015	1,507,914	1,764,046	45%	799,113	964,933
West Secondary Growth Related Improvements - 5 MG Reservoir	2016	1,676,000	2,039,110	100%	2,039,110	-
West Secondary Growth Related Improvements - Distribution Projects	2016	383,153	466,164	100%	466,164	-
West Secondary Parallel to Culinary - Distribution Improvement	2016	631,220	767,976	45%	347,893	420,083
Six Year West Secondary Total		\$ 9,100,326	\$ 10,256,592	76%	\$ 7,840,294	\$ 2,416,298

*Projects listed as 100% growth related have been included in the credit calculation for existing culinary water users who will convert to secondary ERCs.

West Secondary

By Component	2011 Cost	Construction Cost	IF Qualifying
Distribution	6,105,746	6,674,930	4,258,632
Storage	1,676,000	2,039,110	2,039,110
Source/Supply	1,318,580	1,542,552	1,542,552
Total	\$ 9,100,326	\$ 10,256,592	\$ 7,840,294

East Culinary

Project Name	Year to be Constructed	2011 Cost	Construction Cost	% Impact Fee Qualifying	Impact Fee Qualifying Cost	Non Impact Fee Qualifying
East Culinary Growth Related Improvement - Booster Station and Distribution Improvements	2011	1,403,499	1,403,499	100%	1,403,499	-
East Culinary Growth Related Improvement - 3 MG Tank	2012	4,248,719	4,418,668	100%	4,418,668	-
East Culinary Growth Related Improvement - Distribution Improvements	2012	1,424,319	1,481,292	100%	1,481,292	-
East Culinary Growth Related Improvement - Distribution Improvement	2013	111,618	120,726	100%	120,726	-
East Culinary Growth Related Improvement - Distribution Improvement	2014	95,178	107,062	100%	107,062	-
East Culinary Growth Related Improvement - Distribution Improvement	2016	153,151	186,332	100%	186,332	-
Six Year East Culinary Total		\$ 7,436,484	\$ 7,717,578	100%	\$ 7,717,578	\$ -

East Culinary

By Component	2011 Cost	Construction Cost	IF Qualifying
Distribution	3,187,765	3,298,911	3,298,911
Storage	4,248,719	4,418,668	4,418,668
Source/Supply	-	-	-
Total	\$ 7,436,484	\$ 7,717,578	\$ 7,717,578

East Secondary

Project Name	Year to be Constructed	2011 Cost	Construction Cost	% Impact Fee Qualifying	Impact Fee Qualifying Cost	Non Impact Fee Qualifying
East Secondary Growth Related Improvement - Booster Station and Distribution Improvements	2011	673,114	673,114	100%	673,114	-
East Secondary Growth Related Improvement - Distribution Improvements	2012	439,966	457,565	100%	457,565	-
East Secondary Growth Related Improvement - Distribution Improvements	2013	47,051	50,890	100%	50,890	-
East Secondary Growth Related Improvement - Distribution Improvements	2014	38,796	43,640	100%	43,640	-
East Secondary Growth Related Improvement - Distribution Improvements	2015	37,145	43,454	100%	43,454	-
East Secondary Growth Related Improvement - Distribution Improvements	2016	46,225	56,240	100%	56,240	-
Six Year East Secondary Total		\$ 1,282,297	\$ 1,324,903	100%	\$ 1,324,903	\$ -

Source: Herriman City Impact Fee Facilities Plan

East Secondary

By Component	2011 Cost	Construction Cost	IF Qualifying
Distribution	1,282,297	1,324,903	1,324,903
Storage	-	-	-
Source/Supply	-	-	-
Total	\$ 1,282,297	\$ 1,324,903	\$ 1,324,903



Appendix 3:
Beyond Six Year Capital Projects
Inflation Rate*

4%

West Culinary

Project Name	Year to be Constructed	Cost (PV)	Cost (FV)	% Impact Fee Qualifying	Impact Fee Qualifying Cost	Non Impact Fee Qualifying
Replace 6" with 8" (Butterfield Park)	2017	26,201	33,153	20%	6,631	26,522
Replace 4" with 8" (Jr High next to Butterfield Park)	2017	13,580	17,183	20%	3,437	13,746
Replace 4" with 8" (East of River Chase Rd)	2017	69,495	87,933	20%	17,587	70,347
West Culinary Growth Related Improvement	2017	21,792	27,574	100%	27,574	-
Construct New 8" (River Chase Rd to Rose Crest Rd)	2018	182,765	240,506	20%	48,101	192,405
West Culinary Growth Related Improvement	2018	16,950	22,305	100%	22,305	-
West Culinary Growth Related Improvement	2019	14,528	19,883	100%	19,883	-
West Culinary Growth Related Improvement	2020	16,465	23,435	100%	23,435	-
West Culinary Growth Related Improvement	2030	939,520	1,979,427	100%	1,979,427	-
Beyond Six Year West Culinary Total		\$ 1,301,296	\$ 2,451,398	88%	\$ 2,148,378	\$ 303,020

West Secondary

Project Name	Year to be Constructed	Cost (PV)	Cost (FV)	% Impact Fee Qualifying	Impact Fee Qualifying Cost	Non Impact Fee Qualifying
West Secondary Growth Related Improvement	2017	87,319	110,486	100%	110,486	-
West Secondary Parallel to Culinary	2017	673,807	852,581	45%	386,219	466,362
West Secondary Growth Related Improvement	2018	67,915	89,372	100%	89,372	-
West Secondary Parallel to Culinary	2018	524,072	689,643	45%	312,408	377,235
West Secondary Growth Related Improvement	2019	58,213	79,669	100%	79,669	-
West Secondary Parallel to Culinary	2019	449,205	614,768	45%	278,490	336,278
West Secondary Growth Related Improvement	2020	65,975	93,903	100%	93,903	-
West Secondary Parallel to Culinary	2020	509,099	724,607	45%	328,247	396,360
West Secondary Growth Related Improvement	2025	3,764,555	6,518,991	100%	6,518,991	-
West Secondary Parallel to Culinary	2025	29,049,502	50,304,338	45%	22,787,865	27,516,473
Beyond Six Year West Secondary Total		\$ 35,249,662	\$ 60,078,358	52%	\$ 30,985,650	\$ 29,092,707

East Culinary

Project Name	Year to be Constructed	Cost (PV)	Cost (FV)	% Impact Fee Qualifying	Impact Fee Qualifying Cost	Non Impact Fee Qualifying
East Culinary Growth Related Improvement	2017	225,921	285,862	100%	285,862	-
East Culinary Growth Related Improvement	2018	175,717	231,232	100%	231,232	-
East Culinary Growth Related Improvement	2019	150,614	206,126	100%	206,126	-
East Culinary Growth Related Improvement	2020	170,696	242,954	100%	242,954	-
East Culinary Growth Related Improvement	2023	9,740,031	15,594,103	100%	15,594,103	-
Beyond Six Year East Culinary Total		\$ 10,462,979	\$ 16,560,276	100%	\$ 16,560,276	\$ -

East Secondary

Project Name	Year to be Constructed	Cost (PV)	Cost (FV)	% Impact Fee Qualifying	Impact Fee Qualifying Cost	Non Impact Fee Qualifying
East Secondary Growth Related Improvement	2017	177,615	224,740	100%	224,740	-
East Secondary Growth Related Improvement	2018	138,145	181,789	100%	181,789	-
East Secondary Growth Related Improvement	2019	118,410	162,052	100%	162,052	-
East Secondary Growth Related Improvement	2020	134,198	191,006	100%	191,006	-
East Secondary Growth Related Improvement	2025	7,657,441	13,260,210	100%	13,260,210	-
Beyond Six Year East Secondary Total		\$ 8,225,809	\$ 14,019,797	100%	\$ 14,019,797	\$ -

*Based on 20 years average cost of inflation using ENR and net of interest earnings



Appendix 4:

Inflation Rate 3%

ASSETS

West Culinary Assets:

Distribution Lines

Asset**	Date Acquired	Original Cost	Age	Current Value*
13655 S 7020 W	2003	16,900	8	21,408
15582 S Arnold Hollow	2004	1,200,000	7	1,475,849
Line Repair	2003	83,281	8	105,498
Water Conveyance	2003	53,875	8	68,247
10" Water Lines	2003	4,269,000	8	5,407,841
12" Water Lines	2003	264,200	8	334,681
16" Water Lines	2003	509,600	8	645,546
18" Water Lines	2003	108,800	8	137,825
20" Water Lines	2003	129,600	8	164,173
4" Water Lines	2003	40,900	8	51,811
6" Water Lines	2003	1,119,000	8	1,417,516
8" Water Lines	2003	2,338,100	8	2,961,835
4" Water Lines	2003	79,118	8	100,224
6" Water Lines	2003	416,706	8	527,871
8" Water Lines	2003	1,929,525	8	2,444,265
10" Water Lines	2003	210,493	8	266,646
12" Water Lines	2003	28,153	8	35,663
16" Water Lines	2003	428,015	8	542,197
20" and 24" Water Lines	2003	248,274	8	314,506
Hamilton Well Line	2004	175,320	7	215,621
Water Lines - JWCD Infrastructure	2004	440,010	7	541,157
20" Transfer Line	2004	395,632	7	486,577
Booster Pump Station	2004	664,557	7	817,321
Engineering - Water System Organization	2004	994,039	7	1,222,543
Meter Vaults	2004	125,913	7	154,857
5600 West Disconnects	2004	13,092	7	16,102
Aero graphics for Water System	2004	16,703	7	20,543
Rockwall (Deluca)	2004	26,618	7	32,737
5600 W Transfer Line Costs	2004	72,081	7	88,651
PRV Station Costs	2004	38,315	7	47,123
5600 W Transfer Line Costs	2004	16,726	7	20,571
5600 W Transfer Line Costs	2004	74,748	7	91,931
PRV Station Costs	2004	38,236	7	47,025
New Main Line	2004	129,796	7	159,633
Line Replacement	2004	34,530	7	42,468
Booster Pump Improvements	2004	31,605	7	38,870
HP Distribution System Upgrades	2005	35,309	6	42,161
Chlorination Projects	2004	90,637	7	111,472
Spring Development	2005	10,498	6	12,535
Booster Pump Station Improvement	2004	22,405	7	27,555
Water Distribution System Plat	2004	55,943	7	68,803
Fluoridation Project	2006	75,454	5	87,472
Scada Security and Monitoring System	2006	41,988	5	48,676
Collections Lines - Spring Development	2005	68,936	6	82,313
Additional Line Main Tank	2006	14,013	5	16,245
Main Street 16" Waterline	2007	55,345	4	62,291
12900 S 16" Waterline	2007	541,740	4	609,733
7530 W 12" & 16" Waterline	2007	401,899	4	452,341
Total/Average Age		\$ 18,175,628	7	\$ 22,688,927

*Used only in proportionate share analysis and not in final fee calculation

**Provided by Heritman City

West Culinary Assets:

Source

Asset*	Date Acquired	Original Cost	Age	Current Value*
Landscape Imp. Hamilton Well	2005	62,589	6	74,735
Well Drilling - Wide Hollow Well	2004	308,547	7	379,474
Well Line (Newman) Hamilton Well	2004	220,231	7	270,856
Well House (Newman)	2004	261,195	7	321,237
Well Development Costs	2004	11,933	7	14,676
Well Exploration	2005	409,993	6	489,553
Well Property Purchase	2004	125,037	7	153,780
Stokes Well	2007	396,661	4	446,445
Total/Average Age		\$ 1,796,186	6	\$ 2,150,756

*Provided by Heritman City

West Culinary Assets:

Storage

Asset*	Date Acquired	Original Cost	Age	Current Value*
Tank and Infrastructure	2004	588,810	7	724,162
3 MG Tank	2004	1,021,317	7	1,256,091
1 MG Tank	2004	399,837	7	491,749
3 MG Tank Transmission Costs	2004	216,092	7	265,766
North Water Tank Land @ 144000 South	2003	84,825	8	107,454
Water Tank Land @ 14800 S and 5600 W	2003	22,000	8	27,869
3 MG Tank and Transmission	2005	216,092	6	258,025
3 MG Tank	2007	396,661	4	446,445
Cove	2006	775,000	5	898,437
Lookout Ridge	2007	651,600	4	733,382
Total/Average Age		\$ 4,372,234	6	\$ 5,209,380

*Provided by Heritman City

West Secondary Assets:

Storage

Asset*	Date Acquired	Original Cost	Age	Current Value*
Blackridge Reservoir	2007	4,889,000	4	5,502,613
Total/Average Age		\$ 4,889,000	4	\$ 5,502,613

*Provided by Heritman City

Only West Secondary asset owned at the time of analysis. Relates only to Heritman's share - project is shared 50/50 with Riverton

The assets are brought to the current replacement value, using a 3% inflation rate in order to create a fair cost comparison of costs borne in the past to the costs to be borne in the future. Using all present values, the total build-out cost of each component of the water systems is determined. Using the same percentages, the amount of capacity is measured for the existing system, the future six year and beyond six year projects. This is demonstrated in Appendices 8, 9, & 10: ANALYSIS OF CAPACITY OF EXISTING SYSTEM AND CAPACITY OF THE FUTURE 6 YEAR PROJECTS. The costs are then converted to future value and original costs for future capital and existing infrastructure respectively to calculate the fee per ERC.



Appendix 5:
DEBT

Outstanding Debt: Series 2007 Water Bond

Date	Principal	Interest	Outstanding Parity Bonds	Fiscal Total
12/1/2007			70,000	
1/1/2008		111,514	217,423	398,937
7/1/2008		213,538		
12/1/2008			71,000	
1/1/2009	120,000	213,538	217,465	835,540
7/1/2009		211,138	73,000	
12/1/2009			217,452	
1/1/2010	125,000	211,138		837,727
7/1/2010		208,638	73,000	
12/1/2010				
1/1/2011	135,000	208,638	217,383	842,658
7/1/2011		205,938		
12/1/2011			73,000	
1/1/2012	140,000	205,938	217,258	842,133
7/1/2012		203,138	73,000	
12/1/2012			217,078	
1/1/2013	145,000	203,138		841,353
7/1/2013		200,238	216,841	
1/1/2014	225,000	200,238		842,316
7/1/2014		195,738	217,549	
1/1/2015	230,000	195,738		836,024
7/1/2015		191,138	217,182	
1/1/2016	240,000	191,138		839,457
7/1/2016		186,338	216,760	
1/1/2017	250,000	186,338		83,943
7/1/2017		181,338	217,282	839,957
1/1/2018	260,000	181,338	216,729	
7/1/2018		176,138	217,121	839,004
1/1/2019	270,000	176,138	217,438	
7/1/2019		170,400	216,681	837,921
1/1/2020	280,000	170,400	217,868	
7/1/2020		164,450	216,962	841,338
1/1/2021	295,000	164,450		
7/1/2021		158,181		838,043
1/1/2022	305,000	158,181		
7/1/2022		151,700		841,268
1/1/2023	320,000	151,700		
7/1/2023		144,900		841,762
1/1/2024	335,000	144,900		
7/1/2024		137,363		839,725
1/1/2025	565,000	137,363		
7/1/2025		124,650		839,300
1/1/2026	590,000	124,650		
7/1/2026		111,375		837,750
1/1/2027	615,000	111,375		
7/1/2027		97,538		840,075
1/1/2028	645,000	97,538		
7/1/2028		83,025		841,050
1/1/2029	675,000	83,025		
7/1/2029		67,838		840,675
1/1/2030	705,000	67,838		
7/1/2030		51,975		838,950
1/1/2031	735,000	51,975		
7/1/2031		35,438		840,875
1/1/2032	770,000	35,438		
7/1/2032		18,113		841,225
1/1/2033	805,000	18,113		
Total	\$ 9,780,000	\$ 7,492,042	\$ 4,125,472	\$ 20,639,006

Source Herriman City

Outstanding Debt: Series 2011 Water Bond

2011

Date	Principal	Coupon	Interest	Total P&I	Fiscal Total
03/23/2011					
07/01/2011			67,651	67,651	
01/01/2012	255,000	3.00%	124,258	379,258	446,909
07/01/2012			120,433	120,433	
01/01/2013	245,000	3.00%	120,433	365,433	485,865
07/01/2013			116,758	116,758	
01/01/2014	250,000	3.00%	116,758	366,758	483,515
07/01/2014			113,008	113,008	
01/01/2015	255,000	4.00%	113,008	368,008	481,015
07/01/2015			107,908	107,908	
01/01/2016	270,000	3.00%	107,908	377,908	485,815
07/01/2016			103,858	103,858	
01/01/2017	275,000	3.00%	103,858	378,858	482,715
07/01/2017			99,733	99,733	
01/01/2018	285,000	3.00%	99,733	384,733	484,465
07/01/2018			95,458	95,458	
01/01/2019	295,000	3.00%	95,458	390,458	485,915
07/01/2019			91,033	91,033	
01/01/2020	300,000	3.00%	91,033	391,033	482,065
07/01/2020			86,533	86,533	
01/01/2021	310,000	3.25%	86,533	396,533	483,065
07/01/2021			81,495	81,495	
01/01/2022	320,000	3.50%	81,495	401,495	482,990
07/01/2022			75,895	75,895	
01/01/2023	330,000	3.63%	75,895	405,895	481,790
07/01/2023			69,914	69,914	
01/01/2024	345,000	4.00%	69,914	414,914	484,828
07/01/2024			63,014	63,014	
01/01/2025	360,000	4.00%	63,014	423,014	486,028
07/01/2025			55,814	55,814	
01/01/2026	370,000	4.35%	55,814	425,814	481,628
07/01/2026			47,766	47,766	
01/01/2027	390,000	4.35%	47,766	437,766	485,533
07/01/2027			39,284	39,284	
01/01/2028	405,000	4.35%	39,284	444,284	483,568
07/01/2028			30,475	30,475	
01/01/2029	425,000	4.60%	30,475	455,475	485,950
07/01/2029			20,700	20,700	
01/01/2030	440,000	4.60%	20,700	460,700	481,400
07/01/2030			10,580	10,580	
01/01/2031	460,000	4.60%	10,580	470,580	481,160
Total	\$ 6,585,000		\$ 3,051,216	\$ 9,636,216	

Future Debt

Proposed Series 2015 Water Bond Construction Proceeds

\$ 11,768,294

Year	Principal	Coupon	Interest	DSRF	Net DS
2016	443,272	4.00%	325,762	(46,544)	722,491
2017	443,272	4.00%	325,762	(46,544)	722,491
2018	443,272	4.00%	325,762	(46,544)	722,491
2019	443,272	4.00%	325,762	(46,544)	722,491
2020	443,272	4.00%	325,762	(46,544)	722,491
2021	443,272	4.00%	325,762	(46,544)	722,491
2022	443,272	4.00%	325,762	(46,544)	722,491
2023	443,272	4.00%	325,762	(46,544)	722,491
2024	443,272	4.00%	325,762	(46,544)	722,491
2025	443,272	4.00%	325,762	(46,544)	722,491
2026	443,272	4.00%	325,762	(46,544)	722,491
2027	443,272	4.00%	325,762	(46,544)	722,491
2028	443,272	4.00%	325,762	(46,544)	722,491
2029	443,272	4.00%	325,762	(46,544)	722,491
2030	443,272	4.00%	325,762	(46,544)	722,491
2031	443,272	4.00%	325,762	(46,544)	722,491
2032	443,272	4.00%	325,762	(46,544)	722,491
2033	443,272	4.00%	325,762	(46,544)	722,491
2034	443,272	4.00%	325,762	(46,544)	722,491
2035	443,272	4.00%	325,762	(46,544)	722,491
2036	443,272	4.00%	325,762	(46,544)	722,491
2037	443,272	4.00%	325,762	(46,544)	722,491
2038	443,272	4.00%	325,762	(46,544)	722,491
2039	443,272	4.00%	325,762	(46,544)	722,491
2040	443,272	4.00%	325,762	(46,544)	722,491
2041	443,272	4.00%	325,762	(46,544)	722,491
2042	443,272	4.00%	325,762	(46,544)	722,491
2043	443,272	4.00%	325,762	(46,544)	722,491
2044	443,272	4.00%	325,762	(46,544)	722,491
2045	443,272	4.00%	325,762	(46,544)	722,491
Total	\$ 13,298,172		\$ 9,772,866	\$ (1,396,308)	\$ 21,674,731

Assumptions	
Cost of Issuance	2%
DSRF	10%
Bond Insurance	1%
Total	13%
Par Amount	\$ 13,298,172
DSRF	1,329,817
DSRF Earnings	3.50%
Annual Earnings	46,544



Appendix 6:
PROPORTIONATE SHARE: OUTSTANDING DEBT EXPENSES

Outstanding Debt
Series 2007 Water Bond

Projects	Cost	Service Area	Percent Benefit
Blackridge Reservoir*	4,889,000	West Secondary	61%
Main Street 16" Waterline	55,345	West Culinary	1%
3 MG Tank	1,672,415	West Culinary	21%
12900 S 16" Waterline	541,740	West Culinary	7%
7530 W 12" and 16" Waterline	401,899	West Culinary	5%
Stoke Well	396,661	West Culinary	5%
Construction Total	\$ 7,957,060		100%

*Only Herriman City's Portion of the project included

Total Benefit Per Service Area	
West Culinary	39%
West Secondary	61%
Total	100%

Percent to Component			
West Culinary	Total	% to Component	% to Growth
Distribution	998,984	13%	0%
Storage	1,672,415	21%	0%
Source	396,661	5%	0%
Total	\$ 3,068,060		
West Secondary	Total	% to Component	% to Growth
Distribution	-	0%	0%
Storage	4,889,000	100%	100%
Source	-	0%	100%
Total	\$ 4,889,000		

Series 2011 Water Bond

Project	FV	% to Service Area
West Culinary		
5600 West	700,000	30%
Remodel of Pump Station	100,000	
Town Center Well and 14" Waterline	950,000	
Mountain View Corridor	172,979	
Subtotal	\$ 1,922,979	
West Secondary		
5600 West	700,000	50%
Blackridge Secondary Infrastructure	2,400,000	
Mountain View Corridor	129,010	
Subtotal	\$ 3,229,010	
East Culinary		
JVVCD 3200 W. Connection	900,000	19%
Mountain View Corridor	292,059	
Subtotal	\$ 1,192,059	
East Secondary		
Mountain View Corridor	90,449	1%
Subtotal	90,449	
Total Construction Costs	\$ 6,434,497	

Percent to Component			
West Culinary	Total	% to Component	% to Growth
Distribution	972,979	15%	100%
Storage	-	0%	0%
Source	950,000	15%	100%
Total	\$ 1,922,979		
West Secondary	Total	% to Component	% to Growth
Distribution	829,010	13%	100%
Storage	2,400,000	37%	100%
Source	-	0%	0%
Total	\$ 3,229,010		
East Culinary	Total	% to Component	% to Growth
Distribution	292,059	5%	100%
Storage	-	0%	0%
Source	900,000	14%	0%
Total	\$ 1,192,059		
East Secondary	Total	% to Component	% to Growth
Distribution	90,449	1%	100%
Storage	-	0%	0%
Source	-	0%	0%
Total	\$ 90,449		



Appendix 6.A:
PROPORTIONATE SHARE: FUTURE DEBT EXPENSES

Future Series 2015 Water Bond

Projects 2015 Water Debt	FV	FV Growth Related Portion	% to Growth	% to Service Area	
West Culinary					
Construct New 8" 13270 S (Connect 5800 W with 5700 W)	98,121	19,624	20%	38%	
Replace 6" with 8" and connect to 10" main instead (13360 S from Pioneer St to end of cul-de-sac)	148,395	29,679	20%		
West Culinary Growth Related Improvement - 3MG Tank	2,953,191	2,953,191	100%		
West Culinary Growth Related Improvement - Distribution Improvements	1,051,334	1,051,334	100%		
Construct New 8" (Long Ridge Dr to Ensenada Ct to loop)	81,831	16,366	20%		
Replace 6" with 8" (Tick Lane)	94,270	18,854	20%		
West Culinary Growth Related Improvements - Distribution	90,048	90,048	100%		
Subtotal	\$ 4,517,190	\$ 4,179,097			
West Secondary					
West Secondary Growth Related Improvement - Well	1,542,552	1,542,552	100%		59%
West Secondary Growth Related Improvement - Distribution Improvements	385,230	385,230	100%		
West Secondary Parallel to Culinary - Distribution Improvement	1,764,046	799,113	45%		
West Secondary Growth Related Improvements - 5 MG Reservoir	2,039,110	2,039,110	100%		
West Secondary Growth Related Improvements - Distribution Projects	466,164	466,164	100%		
West Secondary Parallel to Culinary - Distribution Improvement	767,976	347,893	45%		
Subtotal	\$ 6,965,078	\$ 5,580,062			
East Culinary					
East Culinary Growth Related Improvement - Distribution Improvement	186,332	186,332	100%	2%	
Subtotal	186,332	186,332			
East Secondary					
East Secondary Growth Related Improvement - Distribution Improvements	43,454	43,454	100%	1%	
East Secondary Growth Related Improvement - Distribution Improvements	56,240	56,240	100%		
Subtotal	99,694	99,694			
Total Bond Proceeds	\$ 11,768,294	\$ 10,045,185			

Percent to Component			
West Culinary	Total	% to Component	% to Growth
Distribution	1,563,999	13%	78%
Storage	2,953,191	25%	100%
Source	-	0%	0%
Total	\$ 4,517,190		
West Secondary			
Total	% to Component	% to Growth	
Distribution	3,383,416	29%	59%
Storage	2,039,110	17%	100%
Source	1,542,552	13%	100%
Total	\$ 6,965,078		
East Culinary			
Total	% to Component		
Distribution	186,332	2%	100%
Storage	-	0%	0%
Source	-	0%	0%
Total	\$ 186,332		
East Secondary			
Total	% to Component		
Distribution	99,694	1%	100%
Storage	-	0%	0%
Source	-	0%	0%
Total	\$ 99,694		



Appendix 7:

ERC CALCULATION FOR STORAGE COMPONENT OF IMPACT FEE

East and West Herriman Culinary Water	
Build-out Storage with Fire flow	19,709,545
East/West Build-out ERC	43,003
Adjusted Gallons per ERC	458

In order to reflect the true ERCs for the storage component of the Impact Fee, a calculation has been done to incorporate the fire flow needs of storage. The ERC is defined as 400 gpd of storage capacity. We have included the fire flow capacity needs as well and come up with a true storage ERC. The build-out storage requirements (including fire flow) can be found in Table 6-3 of the Impact Fee Facilities Plan.



Appendix 8:

STORAGE: ANALYSIS OF CAPACITY OF EXISTING SYSTEM AND CAPACITY OF THE FUTURE 6 YEAR PROJECTS

	Total Construction Costs	Capacity	% Existing	% Future	ERCs to be Served
West Culinary Storage Projects					
		MGD*			
IFFP Projects	2,953,191	3,000,000	0%	100%	6,546
Existing Facilities	4,372,234	11,384,600	60%	40%	10,014
Total	7,325,425				16,559

**Horrock Engineers Herriman City IFFP*

	ERC	MG
Build-out ERCs	24,919	11,421,114
Future ERCs	16,855	7,725,144
Current ERCs	8,064	3,695,969
GPD Storage**	458	

	Construction/Original Cost	% to Growth	Cost to Growth
Future Project	2,953,191	100%	2,953,191
Existing Facilities	4,372,234	40%	1,762,634
Total			4,715,825
ERCs			16,559
Fee per ERC			\$ 285

Future Value (Construction Cost) is used for future projects and Original Cost is used to calculate the existing facility buy in fee.

**Appendix 7

	Total Construction Costs	Capacity	% Existing	% Future	ERCs to be Served
West Secondary Storage Projects					
		MGD			
IFFP Projects	2,039,110	5,551,809	0%	100%	4,870
Existing Facilities	4,889,000	10,510,000	0%	100%	9,219
Total	6,928,110				14,089

	ERC	MG
Build-out ERCs	17,012	19,393,680
Future ERCs	17,012	19,393,680
Current ERCs	-	-
GPD Storage*	1,140	

	Construction/Original Cost	% to Growth	Cost to Growth
Future Project	2,039,110	100%	2,039,110
Existing Facilities	4,889,000	100%	4,889,000
Total			6,928,110
ERCs			14,089
Fee per ERC			\$ 492

Future Value (Construction Cost) is used for future projects and Original Cost is used to calculate the existing facility buy in fee.

**Horrocks Engineers Herriman City IFFP*



Appendix 9:

DISTRIBUTION: ANALYSIS OF CAPACITY OF EXISTING SYSTEM AND CAPACITY OF THE FUTURE 6 YEAR PROJECTS

	PV Cost	% of System	Capacity	Existing Demand	% Existing	% Future	ERCs to be Served															
West Culinary Distribution Projects																						
			MGD																			
Beyond 6 Year Projects	1,389,637	5%	0.98	NA	NA	NA	NA															
IFFP Projects	4,133,283	15%	2.92	-	0%	100%	3,651															
Existing Facilities	22,688,927	80%	16.03	6.45	40%	60%	11,977															
Total	28,211,847	100%					15,628															
<table border="1"> <thead> <tr> <th></th> <th>ERC</th> <th>MGD</th> </tr> </thead> <tbody> <tr> <td>Build-out ERCs</td> <td>24,919</td> <td>19.94</td> </tr> <tr> <td>Future ERCs</td> <td>16,855</td> <td>13.48</td> </tr> <tr> <td>Current ERCs</td> <td>8,064</td> <td>6.45</td> </tr> <tr> <td>MGD per ERC</td> <td>0.0008</td> <td></td> </tr> </tbody> </table>									ERC	MGD	Build-out ERCs	24,919	19.94	Future ERCs	16,855	13.48	Current ERCs	8,064	6.45	MGD per ERC	0.0008	
	ERC	MGD																				
Build-out ERCs	24,919	19.94																				
Future ERCs	16,855	13.48																				
Current ERCs	8,064	6.45																				
MGD per ERC	0.0008																					
<p>This calculation uses the Present Value (PV) of the existing infrastructure, IFFP Projects and Beyond Six Year Horizon Projects to determine how much of the total system is made up of each component. The percentage is then applied to demand to determine a proportionate share. To calculate the final fee per ERC, the values are calculated as Future Value (FV) and Original Cost for future projects and existing facilities listed under Impact Fee Qualifying Costs.</p>																						
	FV	Impact Fee Qualifying Costs	% to Growth	Cost to Growth																		
IFFP Projects	4,476,267	3,286,653	100%	3,286,653																		
Existing Facilities		18,175,628	60%	10,862,101																		
Total				14,148,754																		
ERCs				15,628																		
Fee per ERC				\$ 905																		

	PV Cost	% of System	Capacity	Existing Demand	% Existing	% Future	ERCs to be Served															
West Secondary Distribution Projects																						
			MGD																			
Beyond 6 Year Projects	12,398,274	67%	12.99	NA	NA	NA	NA															
IFFP Projects	6,105,746	33%	6.40	-	0%	100%	5,613															
Existing Facilities	-	0%	-	-	0%	100%	-															
Total	18,504,020	100%					5,613															
<table border="1"> <thead> <tr> <th></th> <th>ERC</th> <th>MGD</th> </tr> </thead> <tbody> <tr> <td>Build-out ERCs</td> <td>17,012</td> <td>19.39</td> </tr> <tr> <td>Future ERCs</td> <td>17,012</td> <td>19.39</td> </tr> <tr> <td>Current ERCs</td> <td>-</td> <td>-</td> </tr> <tr> <td>MGD per ERC</td> <td>0.00114</td> <td></td> </tr> </tbody> </table>									ERC	MGD	Build-out ERCs	17,012	19.39	Future ERCs	17,012	19.39	Current ERCs	-	-	MGD per ERC	0.00114	
	ERC	MGD																				
Build-out ERCs	17,012	19.39																				
Future ERCs	17,012	19.39																				
Current ERCs	-	-																				
MGD per ERC	0.00114																					
<p>This calculation uses the Present Value (PV) of the existing infrastructure, IFFP Projects and Beyond Six Year Horizon Projects to determine how much of the total system is made up of each component. The percentage is then applied to demand to determine a proportionate share. To calculate the final fee per ERC, the values are calculated as Future Value (FV) and Original Cost for future projects and existing facilities listed under Impact Fee Qualifying Costs.</p>																						
	FV	Impact Fee Qualifying Costs	% to Growth	Cost to Growth																		
IFFP Projects	6,674,930	4,258,632	100%	4,258,632																		
Existing Facilities		-	100%	-																		
Total				4,258,632																		
ERCs				5,613																		
Fee per ERC				\$ 759																		



Appendix 10:

SOURCE/SUPPLY: ANALYSIS OF CAPACITY OF EXISTING SYSTEM AND CAPACITY OF THE FUTURE 6 YEAR PROJECTS

	Total Construction Costs	Capacity	% Existing	% Future	ERCs to be Served
West Culinary Source Projects					
		MGD			
IFFP Projects	1,621,549	2.59	0%	100%	3,240
Existing Facilities	1,796,186	27.57	68%	32%	11,113
Total	3,417,735	30.16			14,353

<i>*Horrock Engineers Herriman City IFFP</i>		
	ERC	MGD
Build-out ERCs	24,919	19.94
Future ERCs	16,855	13.48
Current ERCs	8,064	6.45
	0.0008	

	Construction/Original Cost	% to Growth	Cost to Growth
Future Project	1,621,549	100%	1,621,549
Existing Facilities	1,796,186	32%	579,247
Total			2,200,796
ERCs			14,353
Fee per ERC			\$ 153

The IFFP reports that the City has 6,118 gpm (8.89 MGD) excess capacity. The percent related to growth is calculated from the 8.89 MGD/27.57 existing total capacity = 32%

Future Value (Construction Cost) is used for future projects and Original Cost is used to calculate the existing facility buy in fee.

	Total Construction Costs	Capacity	% Existing	% Future	ERCs to be Served
West Secondary Source Projects					
		MGD			
IFFP Projects	1,542,552	2.88	0%	100%	2,526
Existing Facilities	-	-	0%	100%	-
Total	1,542,552				2,526

<i>*Horrocks Engineers Herriman City IFFP</i>		
	ERC	MGD
Build-out ERCs	17,012	19.39
Future ERCs	17,012	19.39
Current ERCs	-	-
GPM Source*	0.001140	

	Construction/Original Cost	% to Growth	Cost to Growth
Future Project	1,542,552	100%	1,542,552
Existing Facilities	-	100%	-
Total			1,542,552
ERCs			2,526
Fee per ERC			\$ 611

Future Value (Construction Cost) is used for future projects and Original Cost is used to calculate the existing facility buy in fee.

**Horrocks Engineers Herriman City IFFP*

Appendix 11:
BASE FEE PER ERC
West Herriman Impact Fees

West Herriman Culinary Water	Cost	% to Service Area	% to Component	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
Distribution Impact Fee							
IFFP Projects	4,476,267	100%	100%	73%	3,286,653	15,628	210
Series 2011 Bond Proceeds	(6,585,000)	30%	15%	0%	-	15,628	-
Series 2011 Debt Service	9,636,216	30%	15%	0%	-	15,628	-
Series 2015 Bond Proceeds	(13,298,172)	38%	13%	78%	(531,729)	15,628	(34)
Series 2015 Debt Service	21,674,731	38%	13%	78%	866,667	15,628	55
Buy In - Existing Assets	18,175,628	100%	100%	60%	10,862,101	15,628	695
Buy In - 2007 Water Bond Interest Only*	7,492,042	39%	13%	0%	-	15,628	-
Subtotal	41,571,711			35%	14,483,692		927
Storage Impact Fee							
IFFP Projects	2,953,191	100%	100%	100%	2,953,191	16,559	178
Series 2011 Bond Proceeds	(6,585,000)	30%	0%	100%	-	16,559	-
Series 2011 Debt Service	9,636,216	30%	0%	100%	-	16,559	-
Series 2015 Bond Proceeds	(13,298,172)	38%	25%	100%	(1,280,928)	16,559	(77)
Series 2015 Debt Service	21,674,731	38%	25%	100%	2,087,789	16,559	126
Buy In - Existing Assets	4,372,234	100%	100%	40%	1,762,634	16,559	106
Buy In - 2007 Water Bond Interest Only*	7,492,042	39%	21%	0%	-	16,559	-
Subtotal	26,245,242				5,522,685		334
Source Impact Fee							
IFFP Projects	1,621,549	100%	100%	100%	1,621,549	14,353	113
Series 2011 Bond Proceeds	(6,585,000)	30%	15%	100%	(290,552.57)	14,353	(20)
Series 2011 Debt Service	9,636,216	30%	15%	100%	425,182.60	14,353	30
Series 2015 Bond Proceeds	(13,298,172)	38%	0%	0%	-	14,353	-
Series 2015 Debt Service	21,674,731	38%	0%	0%	-	14,353	-
Buy In - Existing Assets	1,796,186	100%	100%	32%	579,247	14,353	40
Buy In - 2007 Water Bond Interest Only*	7,492,042	39%	5%	0%	-	14,353	-
Subtotal							163
Impact Fee Fund Balance Credit							
Impact Fee Fund Balance Credit	645,018	28%	100%	100%	177,380	15,628	11
Total Impact Fee Per ERC							\$ 1,434

*The base fees per ERC are not a final fee, the maximum legal fee schedule by meter and lot size is found in Appendices 12 and 12.B.

Appendix 11-A
BASE FEE PER ERC
East Herriman Impact Fees

East Herriman Culinary Water	Cost	% to Service Area	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
IFFP Projects	7,717,578	100%	100%	7,717,578	5,749	1,343
Series 2011 Bond Proceeds	(6,585,000)	19%	100%	(1,219,941)	5,749	(212)
Series 2011 Debt Service	9,636,216	19%	100%	1,785,212	5,749	311
Series 2015 Bond Proceeds	(13,298,172)	2%	100%	(210,555)	5,749	(37)
Series 2015 Debt Service	21,674,731	2%	100%	343,184	5,749	60
Buy In - Existing Assets	-	0%	0%	-	5,749	-
Buy In - 2007 Water Bond Interest Only*	7,492,042	0%	0%	-	5,749	-
Total Impact Fee Per ERC	26,637,395		32%	8,415,478		\$ 1,464

*The base fees per ERC are not a final fee, the maximum legal fee schedule by meter and lot size is found in Appendices 12 and 12.B.

East Culinary	Project Expenses	% of Total	Buildout ERCs=	18,084
Six Years	7,717,578	32%	5,749	
Beyond Six Years	16,560,276	68%	12,335	
Total	24,277,855	100%	18,084	

West Herriman Secondary Water	Cost	% to Service Area	% to Component	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
Distribution Impact Fee							
IFFP Projects	6,674,930	100%	100%	64%	4,258,632	5,613	759
Series 2011 Bond Proceeds	(6,585,000)	50%	13%	100%	(425,751)	5,613	(76)
Series 2011 Debt Service	9,636,216	50%	13%	100%	623,026	5,613	111
Series 2015 Bond Proceeds	(13,298,172)	59%	29%	59%	(1,336,513)	5,613	(238)
Series 2015 Debt Service	21,674,731	59%	29%	59%	2,178,387	5,613	388
Buy In - Existing Assets	-	100%	100%	0%	-	5,613	-
Buy In - 2007 Water Bond Interest Only*	7,492,042	61%	0%	0%	-	5,613	-
Subtotal	25,594,747			21%	5,297,781		944
Storage Impact Fee							
IFFP Projects	2,039,110	100%	100%	100%	2,039,110	14,089	145
Series 2011 Bond Proceeds	(6,585,000)	50%	37%	100%	(1,232,558)	14,089	(87)
Series 2011 Debt Service	9,636,216	50%	37%	100%	1,803,674	14,089	128
Series 2015 Bond Proceeds	(13,298,172)	59%	17%	100%	(1,363,740)	14,089	(97)
Series 2015 Debt Service	21,674,731	59%	17%	100%	2,222,764	14,089	158
Buy In - Existing Assets	4,889,000	100%	100%	100%	4,889,000	14,089	347
Buy In - 2007 Water Bond Interest Only*	7,492,042	61%	100%	100%	4,603,282	14,089	327
Subtotal	25,847,927				12,961,533		920
Source Impact Fee							
IFFP Projects	1,542,552	100%	100%	100%	1,542,552	2,526	611
Series 2011 Bond Proceeds	(6,585,000)	50%	0%	0%	-	2,526	-
Series 2011 Debt Service	9,636,216	50%	0%	0%	-	2,526	-
Series 2015 Bond Proceeds	(13,298,172)	59%	13%	100%	(1,031,646.14)	2,526	(408)
Series 2015 Debt Service	21,674,731	59%	13%	100%	1,681,483.11	2,526	666
Buy In - Existing Assets	-	100%	100%	0%	-	2,526	-
Buy In - 2007 Water Bond Interest Only*	7,492,042	61%	0%	0%	-	2,526	-
Subtotal							868
Impact Fee Fund Balance Credit							
Impact Fee Fund Balance Credit	645,018	73%	100%	100%	467,638	5,613	83
Total Impact Fee Per ERC							\$ 2,815

East Herriman Secondary Water	Cost	% to Service Area	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
IFFP Projects	1,324,903	100%	100%	1,324,903	1,149	1,153
Series 2011 Bond Proceeds	(6,585,000)	1%	100%	(92,565)	1,149	(81)
Series 2011 Debt Service	9,636,216	1%	100%	135,455	1,149	118
Series 2015 Bond Proceeds	(13,298,172)	1%	100%	(112,654)	1,149	(98)
Series 2015 Debt Service	21,674,731	1%	100%	183,616	1,149	160
Buy In - Existing Assets	-	0%	0%	-	1,149	-
Buy In - 2007 Water Bond Interest Only*	7,492,042	0%	0%	-	1,149	-
Total Impact Fee Per ERC	20,244,720		7%	1,438,755		\$ 1,252

East Secondary	Project Expenses	% of Total	Buildout ERCs=	13,309
Six Years	1,324,903	9%	1,149	
Beyond Six Years	14,019,797	91%	12,160	
Total	15,344,701	100%	13,309	



Appendix 12:
 MAXIMUM LEGAL FEE: CULINARY WATER ONLY

Culinary Water Impact Fee Schedules				
West Herriman Culinary Only				
Meter Size	ERC Conversion ¹	Indoor Impact Fee	Outdoor Impact Fee	Total Fee
3/4"	1	\$ 1,434	\$ 1,434	\$ 2,869
1"	1.67	\$ 2,395	\$ 2,395	\$ 4,791
1.5"	3.33	\$ 4,776	\$ 4,776	\$ 9,553
2"	5.33	\$ 7,645	\$ 7,645	\$ 15,291
3"	10.67	\$ 15,305	\$ 15,305	\$ 30,610
4"	16.67	\$ 23,911	\$ 23,911	\$ 47,822
6"	33.33	\$ 47,808	\$ 47,808	\$ 95,616
8"	53.33	\$ 76,496	\$ 76,496	\$ 152,991
*Plus Water Rights Fee Determined by City at the time of building permit				

East Herriman Culinary Only				
Meter Size	ERC Conversion	Indoor Impact Fee	Outdoor Impact Fee	Total Fee
3/4"	1	\$ 1,464	\$ 1,464	\$ 2,928
1"	1.67	\$ 2,445	\$ 2,445	\$ 4,889
1.5"	3.33	\$ 4,875	\$ 4,875	\$ 9,750
2"	5.33	\$ 7,803	\$ 7,803	\$ 15,605
3"	10.67	\$ 15,620	\$ 15,620	\$ 31,240
4"	16.67	\$ 24,403	\$ 24,403	\$ 48,807
6"	33.33	\$ 48,792	\$ 48,792	\$ 97,584
8"	53.33	\$ 78,070	\$ 78,070	\$ 156,140
*Plus Water Rights Fee Determined by City at the time of building permit				

¹Based on Master Plan ERC Conversion



Appendix 12.A

MAXIMUM LEGAL FEE: SECONDARY WATER

Secondary Water Fee Schedule			
Lot size assumptions: Used average sq. footage 1/4 Acre Lot = 7,000 sq. ft. 1/4 to 1/2 Acre Lot = 14,520 sq. ft. 1/2 to 3/4 Acre Lot = 29,040 sq. ft. 3/4 to 1 Acre Lot = 38,115 sq. ft. 1 Acre Lot=43,560 sq. ft.			
West Herriman Secondary Water Impact per ERC***		\$	2,815
Credit: Existing Culinary Only Users Converting to Secondary Water****			(689)
Net Fee per ERC		\$	2,126
Lot Size	% Pervious*	ERC Conversion	Secondary Water Impact Fee
<1/4 Acre Lot	47%	0.38	\$ 808
1/4 to 1/2 Acre Lot	46%	0.77	\$ 1,637
1/2 to 3/4 Acre Lot	49%	1.63	\$ 3,465
3/4 to 1 Acre Lot	71%	3.11	\$ 6,611
1 Acre**	78%	3.90	\$ 8,290
*Provided by City staff			
**Any lots larger will be charged by acre			
***ERC= 8,675 sq ft			
****Appendix 15 Details Credit Calculation			
East Herriman Secondary Water Impact per ERC***		\$	1,252
Lot Size	% Pervious*	ERC Conversion	Secondary Water Impact Fee
<1/4 Acre Lot	47%	0.38	\$ 476
1/4 to 1/2 Acre Lot	46%	0.77	\$ 964
1/2 to 3/4 Acre Lot	49%	1.63	\$ 2,041
3/4 to 1 Acre Lot	71%	3.11	\$ 3,894
1 Acre**	78%	3.90	\$ 4,883
*Provided by City staff			
**Any lots larger will be charged by acre			
***ERC= 8,675 sq ft			



Appendix 12:B
 MAXIMUM LEGAL FEE: CULINARY AND SECONDARY WATER COMBINED

Culinary and Secondary Impact Fee Schedule				Culinary and Secondary Impact Fee Schedule			
West Herriman Culinary and Secondary Water NON RESIDENTIAL USERS				East Herriman Culinary and Secondary Water NON RESIDENTIAL USERS			
Meter Size	ERC Conversion	Culinary Impact Fee	Secondary Impact Fee Per 1,000 sq. ft.	Meter Size	ERC Conversion	Indoor Impact Fee	Secondary Impact Fee Per 1,000 sq. ft.
3/4"	2	\$ 2,869	\$ 223	3/4"	2	\$ 2,928	\$ 146
1"	3.34	\$ 4,791	\$ 223	1"	3.34	\$ 4,889	\$ 146
1.5"	6.66	\$ 9,553	\$ 223	1.5"	6.66	\$ 9,750	\$ 146
2"	10.66	\$ 15,291	\$ 223	2"	10.66	\$ 15,605	\$ 146
3"	21.34	\$ 30,610	\$ 223	3"	21.34	\$ 31,240	\$ 146
4"	33.34	\$ 47,822	\$ 223	4"	33.34	\$ 48,807	\$ 146
6"	66.66	\$ 95,616	\$ 223	6"	66.66	\$ 97,584	\$ 146
8"	106.66	\$ 152,991	\$ 223	8"	106.66	\$ 156,140	\$ 146

*Plus Water Rights Fee Determined by City at the time of building permit

Culinary and Secondary Water Impact Fees			
Lot size assumptions: Used average sq. footage 1/4 Acre Lot = 7,000 sq. ft. 1/4 to 1/2 Acre Lot = 14,520 sq. ft. 1/2 to 3/4 Acre Lot = 29,040 sq. ft. 3/4 to 1 Acre Lot = 38,115 sq. ft. 1 Acre Lot=43,560 sq. ft.			
West Herriman Culinary and Secondary Fee			
Lot Size	Indoor Water Fee	Secondary Fee	Total Fee
<1/4 Acre Lot	\$ 1,434	\$ 808	\$ 2,242
1/4 to 1/2 Acre Lot	\$ 1,434	\$ 1,637	\$ 3,071
1/2 to 3/4 Acre Lot	\$ 1,434	\$ 3,465	\$ 4,899
3/4 to 1 Acre Lot	\$ 1,434	\$ 6,611	\$ 8,045
1 Acre*	\$ 1,434	\$ 8,290	\$ 9,725
*Any lots larger will be charged by acre			
East Herriman Culinary and Secondary Fee			
Lot Size	Indoor Water Fee	Secondary Fee	Total Fee
<1/4 Acre Lot	\$ 1,464	\$ 476	\$ 1,940
1/4 to 1/2 Acre Lot	\$ 1,464	\$ 964	\$ 2,428
1/2 to 3/4 Acre Lot	\$ 1,464	\$ 2,041	\$ 3,505
3/4 to 1 Acre Lot	\$ 1,464	\$ 3,894	\$ 5,358
1 Acre*	\$ 1,464	\$ 4,883	\$ 6,347
*Any lots larger will be charged by acre			



Appendix 13:

SOURCE AND STORAGE SUPPLEMENTAL INFORMATION

Sources	Capacity (gpm)	Comments
JVWCD Delivery Points		
134000 South 5600 W 12" and 6"	2,900	Max Capacity
129000 South 5600 West 6"	2,500	Max Capacity
118000 South 5000 West 8" and 4"	1,500	Max Capacity
118000 South 6000 West	5,000	Max Capacity
1MG JVWCD Tank Connection	3,000	Max Capacity
Subtotal	14,900	
City Wells		
H.P. Well #1 (6400 W. 131000 S.)	172	
H.P. Well #3 (7100 W. 140000 S.)	121	
H.P. Well #4 (7100 W. 142000 S.)	121	
Hamilton Well (5600 W. 134000 S.)	1,750	
Stokes Well	200	
Converted Agricultural Wells	1,800	
Subtotal	4,164	
City Springs		
Arnold Hollow Springs	80	
Total Capacity	19,144	

*Adapted from Horrocks Engineers Impact Fee Facilities Plan 2011

Projected Buildout Source Needs

System	Projected Need (gpm)	Existing Supply (gpm)	Difference
Culinary*	24,005	19,144	4,861
Secondary	22,333	9,500	12,833

**Culinary system will supply approximately 19.4% of total outdoor requirements (18619/722*.194=24005).
 Secondary system (27,722*(1-.194)=22,333)". Horrocks Engineers IFFP

Storage Facilities	Capacity (gallons)	System
1 MG Zone 2 Tank	1,000,000	Culinary
3 MG Zone 4 Tank	3,000,000	Culinary
HP Zone 3 Tanks	1,450,000	Culinary
Arnold Hollow Spring Equivilant	9,600	Culinary
JVWCD (Operated on Behalf of Herriman City)	1,500,000	Culinary
3 MG Kennecott Tank	3,000,000	Culinary
Lookout Ridge	425,000	Culinary
Cove	1,000,000	Culinary
Black Ridge Reservoir	10,510,000	Secondary
Total Capacity	21,894,600	

*Adapted from Horrocks Engineers Impact Fee Facilities Plan 2011



Appendix 14:

CALCULATION OF COSTS RELATING TO PROJECTS OUTSIDE OF IMPACT FEE FACILITIES PLAN (6 YEAR HORIZON)

	Total Cost	Source	Storage	Distribution
Table A-2	1,866,400	-	-	1,866,400
Table A-3	7,978,000	1,797,080	2,524,400	3,656,520
Table A-4	17,274,000	-	8,600,800	8,673,200
Table A-5	9,950,000	-	4,436,600	5,513,400
Table A-6	9,596,000	1,797,080	3,352,000	4,446,920
Table A-7	16,841,000	2,114,000	669,900	14,057,100
	63,505,400	5,708,160	19,583,700	38,213,540

Deficiency

Source: John Scheiss: Horrocks Engineers

By Service Area and Component	Source	Storage	Distribution
Total			
West Culinary	1,797,080	2,524,400	5,522,920
West Secondary	3,911,080	4,021,900	18,504,020
East Culinary	-	8,600,800	8,673,200
East Secondary	-	4,436,600	5,513,400
6 Year Projects			
West Culinary	1,559,182	2,524,400	4,133,283
West Secondary	1,318,580	1,676,000	6,105,746
East Culinary	-	4,248,719	3,187,765
East Secondary	-	-	1,282,297
Beyond Six Years			
West Culinary	237,898	-	1,389,637
West Secondary	2,592,500	2,345,900	12,398,274
East Culinary	-	4,352,081	5,485,435
East Secondary	-	4,436,600	4,231,103



Appendix 15:
CALCULATION OF CREDIT FOR EXISTING CULINARY USERS CONVERTING TO SECONDARY WATER IN WEST HERRIMAN

Culinary and Secondary ERC's				West Secondary						Total		
Growth in ERCs				Storage			Distribution		Source			
Total ERCs in West Herriman	Year	No. of Existing ERC's to Convert to Secondary	7,980	2007 Bond (61% of Bond)	Credit per ERC	2011 Bond (37% of Bond)	Credit per ERC	Capital Projects and 2015 Bond (29% of Bond)	Credit per ERC	2015 Bond (17% of Bond)	Credit per ERC	
8,064	2011	8,064		242,878	30.12	-	-	853,914	105.89			136.01
8,387	2012	8,387		242,727	28.94	78,196	9.32	206,370	24.61			62.87
8,722	2013	8,722		242,502	27.80	85,012	9.75					37.55
9,071	2014	9,071		242,779	26.76	84,601	9.33					36.09
9,434	2015	9,434		240,966	25.54	84,164	8.92					34.46
9,811	2016	9,811		241,955	24.66	85,004	8.66	97,441	9.93	58,726	5.99	49.24
10,204	2017	10,204		266,294	26.10	84,461	8.28	97,441	9.55	58,726	5.76	49.68
10,612	2018	10,612		241,825	22.79	84,767	7.99	97,441	9.18	58,726	5.53	45.49
11,036	2019	11,036		241,513	21.88	85,021	7.70	97,441	8.83	58,726	5.32	43.74
11,478	2020	11,478		242,497	21.13	84,347	7.35	97,441	8.49	58,726	5.12	42.08
11,937	2021	11,937		241,548	20.24	84,522	7.08	97,441	8.16	58,726	4.92	40.40
12,414	2022	12,414		242,477	19.53	84,509	6.81	97,441	7.85	58,726	4.73	38.92
12,911	2023	12,911		242,620	18.79	84,299	6.53	97,441	7.55	58,726	4.55	37.42
13,427	2024	13,427		242,033	18.03	84,831	6.32	97,441	7.26	58,726	4.37	35.97
13,964	2025	13,964		241,910	17.32	85,041	6.09	97,441	6.98	58,726	4.21	34.60
14,523	2026	14,523		241,463	16.63	84,271	5.80	97,441	6.71	58,726	4.04	33.18
15,104	2027	15,104		242,133	16.03	84,954	5.62	97,441	6.45	58,726	3.89	32.00
15,708	2028	15,708		242,414	15.43	84,610	5.39	97,441	6.20	58,726	3.74	30.76
16,336	2029	16,336		242,306	14.83	85,027	5.20	97,441	5.96	58,726	3.59	29.60
16,990	2030	16,990		241,809	14.23	84,231	4.96	97,441	5.74	58,726	3.46	28.38
17,669	2031	17,669		242,364	13.72	84,189	4.76	97,441	5.51	58,726	3.32	27.32
18,376	2032	18,376		242,465	13.19			97,441	5.30	58,726	3.20	21.69
19,111	2033	19,111						97,441	5.10	58,726	3.07	8.17
19,875	2034	19,875						97,441	4.90	58,726	2.95	7.86
20,670	2035	20,670						97,441	4.71	58,726	2.84	7.56
21,497	2036	21,497						97,441	4.53	58,726	2.73	7.26
22,357	2037	22,357						97,441	4.36	58,726	2.63	6.99
23,251	2038	23,251						97,441	4.19	58,726	2.53	6.72
24,182	2039	24,182						97,441	4.03	58,726	2.43	6.46
25,149	2040	25,149						97,441	3.87	58,726	2.34	6.21
26,155	2041	26,155						97,441	3.73	58,726	2.25	5.97
27,201	2042	27,201						97,441	3.58	58,726	2.16	5.74
28,289	2043	28,289						97,441	3.44	58,726	2.08	5.52
29,421	2044	29,421						97,441	3.31	58,726	2.00	5.31
30,597	2045	30,597						97,441	3.18	58,726	1.92	5.10

Assumptions:
Growth rate of ERCs: 4%
Discount rate for PV calculation: 4%

Net Present Value Credit per ERC: **\$689.12**

Total Secondary ERCs	17,012
Existing Culinary ERCs to Convert to Secondary	7,980
Percent to Existing	47%

The notices found in this section were sent to the following parties on January 31, 2011:

- Utah Homebuilders Association
- Utah Association of Realtors
- Utah Tax Payers Association
- Other City Defined Affected Entities

City of Herriman

Notice of Public Hearing Regarding Water System Capital Facility Plan

NOTICE IS HEREBY GIVEN that the Herriman City Council will hold a public hearing on February 10, at 7:00 p.m., or as soon thereafter as practical, at 13011 South Pioneer Street, Herriman, Utah. The purpose of the public hearing is to receive comments on an amendment to the Water System Capital Facility Plan. All interested persons will be given the opportunity to be heard. Copies of the plan, together with a summary designed to be understood by a lay person, are available to the public at 13011 South Pioneer Street, Herriman, Utah, and in the public library located at 5147 W 12600 S, Herriman, Utah, during normal business hours. In compliance with the Americans with Disabilities Act, individuals needing special accommodations, including auxiliary communication, aids, and services during this hearing should notify Kristi Peterson at Herriman City offices, 13011 South Pioneer Street, Herriman, Utah, at least three days prior to the hearing.

/s/ Kristi Peterson, CMC

Published Date: January 31, 2011



Notice of Public Hearing Regarding Water Impact Fee Analysis and Enactment

NOTICE IS HEREBY GIVEN that the Herriman City Council will hold a public hearing on February 10, 2011, at 7:00 p.m., or as soon thereafter as practical, at 13011 South Pioneer Street, Herriman, Utah. The purpose of the public hearing is to receive comments on the Water Impact Fees analysis and enactment. All interested persons will be given the opportunity to be heard. Copies of the analysis and enactment, together with a summary designed to be understood by a lay person, are available to the public at 13011 South Pioneer Street, Herriman, Utah, and in the public library located at 5380 W Main St, Herriman, Utah, during normal business hours, and on the City's website at www.herriman.org. In compliance with the Americans with Disabilities Act, individuals needing special accommodations, including auxiliary communication, aids, and services during this hearing should notify Kristi Peterson at Herriman City offices, 13011 South Pioneer Street, Herriman, Utah, at least three days prior to the hearing.

HERRIMAN CITY
Posted January 31, 2011

Bryn McCarty

From: NAC Legal [naclegal@mediaoneutah.com]
Sent: Wednesday, January 26, 2011 9:14 AM
To: Bryn McCarty
Subject: RE: Water notices

Ads are scheduled to run January 31st in Salt Lake Tribune and Online utahlegals.com .

Costs are as following:
\$61.25 for Water System. Ad #658838.
\$62.50 for Water Impact Fee. Ad #658840.

Please check the ads in the paper.

Thank you,

Lynn Valdez
MediaOne of Utah,
a Newspaper Agency Company
4770 South 5600 West
West Valley City, Utah 84118
Ph.: 801-204-6245
Email: naclegal@mediaoneutah.com

From: Bryn McCarty [<mailto:bmccarty@herriman.org>]
Sent: Tuesday, January 25, 2011 4:59 PM
To: naclegal@mediaoneutah.com
Subject: Water notices

Please place these in the legal notice section of the Tribune by January 31, 2011 . If you have any questions on this notice request call Glenn or Bryn, 446-5323. Mail billing to the City of Herriman, 13011 S. Pioneer St., Herriman, Utah 84096. (Account No. H4465323L)

Thanks!

Bryn McCarty
Planner II

13011 S. Pioneer Street
Herriman, UT 84096
(801) 727-0938 Direct Line
(801) 446-5323 Office
(801) 446-5324 Fax
bmccarty@herriman.org
www.herriman.org



January 25, 2011

Re: Notice of Intent to Prepare a Comprehensive Amendment to the Water Capital Facility Plan

Dear Sir/Madame:

Herriman City ("Herriman"), a municipal corporation of the State of Utah, located in Salt Lake County, intends to commence the preparation of an independent and comprehensive amendment to its water capital facility plan. Pursuant to the requirements of Utah Code Ann. 11-36-201(2)(b), notice is hereby given of Herriman's intent to prepare or amend such capital facility plan. The geographical area where the proposed capital facilities will be located is the entire city. You are hereby invited to provide information for Herriman to consider in the process of preparing, adopting, and implementing or amending the referenced capital facility plan concerning (i) impacts that the facility proposed in the capital facility plan may have on the affected area and (ii) facilities or uses of land that the affected entity is planning or considering that may conflict with the facilities proposed in the capital facility plan.

Very truly yours,

HERRIMAN CITY



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Year	GOPB Projected Population	GOPB Projected Growth Rate	2011 Impact Fee Facilities Plan Population Projections	2011 Impact Fee Facilities Plan Projected Growth Rate	2002 Master Plan Projected Population	2002 Master Plan Projected Growth Rate	Population Based on Building Permits	Growth Rate Based on Building Permits	2006 Master Plan Projected Population	2006 Master Plan Projected Growth Rate
2000	1,523						2,572			
2001	3,717	144.05%			4,133		3,807	48.00%		
2002	5,911	59.02%			4,870	17.80%	5,223	37.20%		
2003	8,105	37.12%			5,642	15.90%	7,185	37.60%		
2004	10,299	27.07%			6,423	13.80%	9,856	37.20%		
2005	12,493	21.30%			7,183	11.80%	13,243	34.40%	13,243	
2006	14,686	17.56%			8,000	11.40%	17,500	32.15%	17,481	29.00%
2007	16,880	14.94%			8,872	10.90%	20,000	14.29%	22,201	25.00%
2008	19,074	13.00%			9,798	10.40%	21,020	5.10%	26,197	18.00%
2009	21,268	11.50%			10,775	10.00%	21,402	1.82%	29,602	15.00%
2010	23,462	10.32%	21,785		11,798	9.50%	21,785	1.79%	31,970	10.00%
2011	24,796	5.68%	24,062	10.45%	12,919	9.50%	24,062	10.45%	34,208	8.00%
2012	26,129	5.38%	26,091	8.43%	14,147	9.50%			36,261	6.20%
2013	27,463	5.10%	28,176	7.99%	15,490	9.50%			38,074	5.00%
2014	28,797	4.86%	30,148	7.00%	16,962	9.50%			39,749	4.40%
2015	30,131	4.63%	32,083	6.42%	18,573	9.50%			41,260	3.80%
2016	31,464	4.43%	34,035	6.08%	20,338	9.50%			42,200	3.10%
2017	32,798	4.24%	36,020	5.83%	22,270	9.50%			43,000	2.40%
2018	34,132	4.07%	38,109	5.80%	24,386	9.50%			43,600	2.00%
2019	35,465	3.91%	40,261	5.65%	26,702	9.50%			44,150	1.80%
2020	36,799	3.76%	42,506	5.58%	29,239	9.50%			44,600	1.60%
2021	38,133	3.62%	44,861	5.54%	31,900	9.10%			45,000	1.50%
2022	39,466	3.50%	47,347	5.54%					45,348	1.00%
2023	40,800	3.38%	49,974	5.55%						
2024	42,134	3.27%	52,777	5.61%						
2025	43,468	3.17%	55,607	5.36%						
2026	44,801	3.07%	58,560	5.31%						
2027	46,135	2.98%	61,631	5.24%						
2028	47,469	2.89%	64,773	5.10%						
2029	48,802	2.81%	68,030	5.03%						
2030	50,136	2.73%	71,361	4.90%						
2031	51,470	2.66%	74,720	4.71%						
2032	52,803	2.59%	77,964	4.34%						
2033	54,137	2.53%	81,003	3.90%						
2034	55,471	2.46%	83,751	3.39%						
2035	56,804	2.40%	86,515	3.30%						
2036	58,138	2.35%	89,322	3.24%						
2037	59,472	2.29%	92,128	3.14%						
2038	60,806	2.24%	94,898	3.01%						
2039	62,139	2.19%	97,569	2.81%						
2040	63,473	2.15%	100,004	2.50%						

	Total Cost	Source		Storage		Distribution	
Table A-2	\$ 1,866,400.00	\$		-	\$	-	\$ 1,866,400.00
Table A-3	\$ 7,978,000.00	\$	1,797,080.00	\$ 2,524,400.00	\$	3,656,520.00	\$ 3,656,520.00
Table A-4	\$ 17,274,000.00	\$		-	\$ 8,600,800.00	\$	8,673,200.00
Table A-5	\$ 9,950,000.00	\$		-	\$ 4,436,600.00	\$	5,513,400.00
Table A-6	\$ 9,596,000.00	\$	1,797,080.00	\$ 3,352,000.00	\$	4,446,920.00	\$ 4,446,920.00
Table A-7	\$ 16,841,000.00	\$	2,114,000.00	\$ 669,900.00	\$	14,057,100.00	\$ 14,057,100.00