



BENCHLAND WATER DISTRICT

IMPACT FEE ANALYSIS

FEBRUARY 22, 2019

DRAFT



Benchland Water District
Farmington Utah

IMPACT FEE FACILITY PLAN (IFFP) CERTIFICATION

JUB Engineers (JUB) and EFG Consulting (EFG) certify that the attached impact fee facilities plan:

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

IMPACT FEE ANALYSIS (IFA) CERTIFICATION

JUB and EFG certify that the attached impact fee analysis:

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

JUB and EFG Consulting make this certification with the following caveats:

1. All of the recommendations for implementations of the IFFP made in the IFFP documents or in the IFA documents are followed by District staff and elected officials.
2. If all or a substantial portion of the IFFP or IFA are modified or amended by the District, this certification is no longer valid.
3. All information provided to our team is assumed to be correct, complete, and accurate. This includes information provided by the District as well as outside sources.

JUB Engineers

EFG Consulting

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SECTION I: EXECUTIVE SUMMARY

The purpose of this Impact Fee Facility Plan (IFFP) and Impact Fee Analysis (IFA) is to fulfill the requirements of the Utah Code Title 11 Chapter 36a (Impact Fee Act) to enable Benchland Water District (District) to enact a secondary water impact fee for the District. The following is a summary of the IFFP inputs.

SERVICE AREA:

The service area for this IFFP will include the entire District.

DEMAND ANALYSIS:

The demand unit utilized in this analysis was irrigable acres (IA). The District has been growing at 1.6% average annual growth rate or between 22 and 29 irrigated acres per year. It is anticipated that this growth rate will continue until build-out. Over the next 10 years, it is anticipated that the District will see an additional 220 to 290 irrigable acres added to the system.

LEVEL OF SERVICE:

The Level of Service (LOS) for distribution is 3.7 gallons per minute per irrigable acre. The LOS for storage is 1.75 days of storage at 3.7 gallons per minute of flow per irrigable acre.

EXCESS CAPACITY:

The Service Area currently has excess distribution capacity of 811 irrigable acres. The District constructed a project in 2017 and will complete projects in 2018 and 2019 to create this excess capacity. See the following chart. The District has 340 irrigable acres in storage. These system capacities were developed to accommodate future growth. These projects are system improvements as defined in the Impact Fee Act.

Project	Year	Actual Diameter (in)	Length (ft)	Cost	Cost/LF	*Required Diameter (in)	Estimated Cost/LF	Cost
1800 North Pipeline Replacement	2017	24	1,190	\$312,605.88	\$ 262.69	14	\$ 186.75	\$222,237.28
1500 West Pipeline Replacement - Phase I	2018	24	2,110	\$443,525.75	\$ 210.20	14	\$ 148.35	\$313,022.25
1500 West Pipeline Replacement - Phase 2	2019	24	2,300	\$513,850.00	\$ 223.41	12	\$ 138.41	\$318,350.00
Total				\$1,269,981.63				\$853,609.53

Storage	Total Cost	Current Users	New Growth	Current Users	New Growth
Reservoir A	\$ 1,466,859	0%	100%	\$ -	\$ 1,466,859
Interest Expense	\$ 8,326	0%	100%	\$ -	\$ 8,326
Total	\$ 1,475,185			-	\$ 1,475,185

CAPITAL FACILITIES ANALYSIS:

Aside from the distribution projects described above, the District is not planning additional projects at this time to meet demand.

FUNDING OF FACILITIES:

The District issued refunding bonds in 2012 to refinance the debt for Reservoir A (Shephard Creek) Project. The proportionate share of interest expense of that debt has been included in the impact fee as depicted above. The distribution projects are being funded with cash on hand.

PROPOSED IMPACT FEE

Based upon the inputs above, the maximum allowable impact fee for the District is \$4,813 per irrigable acre. A full summary of the impact fee calculation can be found in the body of the document and the appendix. For connections that require a flow rate larger than one 3.7 GPM per irrigable acre, the District reserves the right under the Impact Fee Act to use a multiplier to calculate the multiple ERC rate and adjust the impact fee accordingly.

Impact Fee Eligible	Total Cost	Capacity (Acres)	Cost/Acre
Distribution	\$ 416,372	811.57	\$ 513
Storage	1,475,185	328.89	4,485
Source	-	-	-
Eligible Costs	\$ 1,891,557	378	\$ 4,998
Impact Fee Fund Balance	(70,167)	378	(185)
Total Impact Fee	\$ 1,821,390	378	\$ 4,813

The following schedule will be used by the District to calculate impact fees based upon irrigated acres.

Impact Fee Schedule				
.00	to	0.25	acres	\$ 1,203
0.251	to	0.50	acres	2,406
0.501	to	0.75	acres	3,610
0.751	to	1.00	acres	4,813
1.001	to	1.25	acres	6,016
1.251	to	1.50	acres	7,219
1.501	to	1.75	acres	8,423
1.751	to	2.00	acres	9,626

* Anything above 2.00 acres will be calculated as follows: Number of irrigated acres X \$4,813.

SECTION 3: DEMAND ANALYSIS

The purpose of this section is to establish the LOS in the Service Area.

DEMAND UNITS & FUTURE DEMAND

Demand units are measured in irrigable acres. The District has been growing at 1.6% average annual growth rate or between 22 and 29 irrigated acres per year. It is anticipated that this growth rate will continue until build-out. Over the next 10 years, it is anticipated that the District will see an additional 220 to 290 irrigable acres added to the system. The following provides a summary of the historical growth based upon impact fee collections.

	Impact Fee Collection	Low - Acres Added	High - Acres Added	Growth
2011	\$ 1,172.00	0.38	0.50	0.03%
2012	67,116.78	21.48	28.63	1.55%
2013	68,562.00	21.94	29.25	1.58%
2014	91,402.00	29.25	38.99	2.11%
2015	65,046.00	20.81	27.75	1.50%
2016	95,518.00	30.56	40.75	2.20%
2017	96,104.00	30.75	41.00	2.22%
	Average	22.17	29.55	1.60%

Impact Fee	\$2,344.00
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Current Irrigated Acres	1,850.00
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LEVEL OF SERVICE

The Level of Service (LOS) for distribution is 3.7 gallons per minute per irrigable acre. The LOS for storage is 1.75 days of storage at 3.7 gallons per minute of flow per irrigable acre.

SECTION 4: CAPITAL FACILITY AND FUNDING ANALYSIS

CAPITAL FACILITIES & EXCESS CAPACITY ANALYSIS:

STORAGE

In 2010, the District constructed Reservoir A (Shepard Creek) to add 9.6 acre feet (AF) of storage capacity to the system as the current 2 reservoirs were reaching capacity. Currently, the total reservoir capacity is 63.6 AF. At the LOS, there is 54 AF of storage being utilized leaving 9.6 AF of excess capacity all of which is allocated to Reservoir A. At 9.6 AF, there is 100% capacity remaining in Reservoir A. With 1,850 irrigable acres in the system, that excess capacity equates to 34.26 irrigable acres per AF. The excess of 9.6 AF thus translates into 329 AF of excess capacity.

Level of service	1.75	Days
Existing needed storage	54	AF
Existing Excess Storage	9.6	AF
Reservoir A % to Excess	100.0%	
Existing Irrigated Acres	1,850	
Irrigated Acres/AF Storage	34.26	
Excess Storage (Acres)	328.89	

The value of that excess capacity was calculated as a percentage of the original project cost of \$1,466,859 plus the remaining portion of outstanding interest on the bonds which is \$8,326. At 100% of excess capacity, the impact fee eligible costs are \$1,475,185 as described in the following table.

Storage	Total Cost	Current Users	New Growth	Current Users	New Growth
Reservoir A	\$ 1,466,859	0%	100%	\$ -	\$ 1,466,859
Interest Expense	\$ 8,326	0%	100%	\$ -	\$ 8,326
Total	\$ 1,475,185			-	\$ 1,475,185

DISTRIBUTION

Based upon the demand and LOS, the District has planned and begun construction on three distribution projects. The primary purpose of these projects is replacing old lines, but the lines are also oversized to meet future demand. The following is a summary of the three projects. The orange represents the actual installation with upsizing. The green represents the portion of the project allocated to existing users.

Project	Year	Existing Diameter (in)	Length (ft)	Cost	Cost/LF	*Required Diameter (in)	Estimated Cost/LF	Cost
1800 North Pipeline Replacement	2017	24	1,190	\$312,605.88	\$ 262.69	14	\$ 186.75	\$222,237.28
1500 West Pipeline Replacement - Phase I	2018	24	2,110	\$443,525.75	\$ 210.20	14	\$ 148.35	\$313,022.25
1500 West Pipeline Replacement - Phase 2	2019	24	2,300	\$513,850.00	\$ 223.41	12	\$ 138.41	\$318,350.00
Total				\$1,269,981.63				\$853,609.53

Based upon the LOS of 3.7 gallons per minute, this set of projects provides additional capacity of 811 irrigated acres. These projects were paid out of fund balance.

Distribution	Total Cost	Current Users	New Growth	Current Users	New Growth
1800 North	\$ 312,606	71%	29%	\$ 222,237	\$ 90,369
1500 West Phase 1	443,526	71%	29%	313,022	130,504
1500 West Phase 2	513,850	62%	38%	318,350	195,500
Subtotal	\$ 1,269,982			\$ 853,610	\$ 416,372

SUMMARY

Total Project	Total Cost	Current Users	New Growth	Current Users	New Growth
Distribution					
1800 North	\$ 312,606	71%	29%	\$ 222,237	\$ 90,369
1500 West Phase 1	443,526	71%	29%	313,022	130,504
1500 West Phase 2	513,850	62%	38%	318,350	195,500
Subtotal	\$ 1,269,982			\$ 853,610	\$ 416,372
Storage					
Reservoir A	\$ 1,466,859	0.0%	100.0%	\$ -	\$ 1,466,859
Interest Expense	\$ 8,326	0.0%	100.0%	\$ -	\$ 8,326
Subtotal	\$ 1,475,185			-	\$ 1,475,185
Source	-				
Subtotal	\$ -			-	\$ -
Total	\$ 2,745,167			\$ 853,610	\$ 1,891,557

The projects in this section are system improvements as defined in the Impact Fee Act.

SECTION 5: IMPACT FEE CALCULATION

The maximum supportable impact fee for the District is \$4,813. The total eligible costs described in the previous section were split into the remaining capacity for each component of the system. A credit for impact fee fund balance was also included in the final calculation. The summary is provided in the following table.

Impact Fee Eligible	Total Cost	Capacity (Acres)	Cost/Acre
Distribution	\$ 416,372	811.57	\$ 513
Storage	1,475,185	328.89	4,485
Source	-	-	-
Eligible Costs	\$ 1,891,557	378	\$ 4,998
Impact Fee Fund Balance	(70,167)	378	(185)
Total Impact Fee	\$ 1,821,390	378	\$ 4,813

The following is the impact fee schedule based upon irrigable acres.

Impact Fee Schedule				
.00	to	0.25	acres	\$ 1,203
0.251	to	0.50	acres	2,406
0.501	to	0.75	acres	3,610
0.751	to	1.00	acres	4,813
1.001	to	1.25	acres	6,016
1.251	to	1.50	acres	7,219
1.501	to	1.75	acres	8,423
1.751	to	2.00	acres	9,626

* Anything above 2.00 acres will be calculated as follows: Number of irrigated acres X \$4,813.

NON-STANDARD IMPACT FEES

For connections that require a flow rate larger than 3.7 acres feet per irrigable acres, the District reserves the right under the Impact Fee Act to use a multiplier to calculate the rate and adjust the impact fee accordingly.

APPENDIX A – DRAFT IMPACT FEE ENACTMENT

Impact Fee Resolution

Benchland Water District, Utah

Resolution Number:

RESOLUTION ADOPTING AN IMPACT FEE FACILITIES PLAN AND IMPACT FEE ANALYSIS AND IMPOSING CERTAIN IMPACT FEES FOR WATER; PROVIDING FOR THE CALCULATION AND COLLECTION OF SUCH FEES; PROVIDING FOR APPEAL, ACCOUNTING AND SEVERABILITY OF THE SAME, AND OTHER RELATED MATTERS

WHEREAS, On August 9, 2018 Benchland Water District, Utah (the “District”) posted notice as to its intention to prepare an impact fee facilities plan (“IFFP”) and impact fee analyses (“IFA”) for secondary water impact fees and invited all interested parties to participate in the impact fee preparation process, consistent with UCA Section 11-36a-501;

WHEREAS, the District is a [local district] in the State of Utah, authorized and organized under the provisions of Utah law and is authorized pursuant to the Impact Fees Act, Utah Code Ann. 11-36a-101 et seq. to adopt impact fees; and

WHEREAS, on [March 6, 2019], the District posted notice of a public hearing on Utah’s Public Notice Website, the District’s Website, and at the District’s administrative building and the [Davis Clipper] in accordance with 17B-1-111 to consider the assumptions and conclusions of the Impact Fee Facilities Plans and the Impact Fee Analyses;

WHEREAS, the District Board (the “Board”) met in regular session on [March 21, 2019], to convene a public hearing and to consider adopting the IFFP and IFA, imposing secondary water impact fees, providing for the calculation and collection of such fees, and providing for an appeal process, accounting and reporting method and other related matters; and

WHEREAS, on [March 6, 2019], JUB Engineers Inc. and EFG-Consulting LLC (the “Consultants”) certified their work under UCA section 11-36a-306(1) and (2);

WHEREAS, on [March 21, 2019], after considering the input of the public and stakeholders and relying on the professional advice and certification of the Consultants, the District adopted the findings, conclusions, and recommendations of the secondary water IFFP prepared by the Consultants, a copy of which is attached hereto as Exhibit “A” and incorporated herein by reference; and

WHEREAS, based on the input of the public and stakeholders and relying on the professional advice and certification of Consultants; and

WHEREAS, on [March 6, 2019], a copy of the IFFP and IFA and the proposed Impact Fee Resolution, along with a summary of the analyses that was designated to be

understood by a lay person, were made available to the public and deposited at the District administrative office, the Davis County Library, on the Utah public notice website, and on the District Website; and

WHEREAS, on [March 18, 2019], the District posted notice of the date, time and place of the public hearing to consider the IFA in three public places and on the public notices website, and on the District Website; and

WHEREAS, on [March 21, 2018], the Board held a public hearing regarding the IFA and the Impact Fee Resolution; and

WHEREAS, the Consultants in connection with the District prepared a schedule of impact fees for each type of development activity that specifies the amount of the impact fee to be imposed for each type of system improvement. A copy of such Schedule of Fees is attached hereto as Exhibit “B” and incorporated herein by reference; and

WHEREAS, after careful consideration and review of the comments at the public hearing, the Board has determined that it is in the best interest of the health, safety and welfare of the inhabitants of the District to adopt the findings and recommendations of the IFFP and IFA to address the impacts of development upon the secondary water system, to adopt the IFFP as proposed, to approve the IFA as proposed, to adopt secondary water impact fees, to provide for the calculation and collection of such fees, and to provide for an appeal process, and an accounting and reporting method of the same.

NOW, THEREFORE, BE IT RESOLVED by the Board as follows:

Section 1. Findings. The Board finds and determines as follows:

1.1. All required notices have been given and made and public hearings conducted as requested by the Impact Fees Act with respect to the IFFP, the IFA, and this Impact Fee Resolution (this “Resolution”).

1.2. Growth and development activities in the District will create additional demands on its infrastructure. The facility improvement requirements that are analyzed in the IFFP and the IFA are the direct result of the additional facility needs caused by future development activities. The persons responsible for growth and development activities should pay a proportionate share of the costs of the facilities needed to serve the growth and development activity.

1.3. Impact fees are necessary to achieve an equitable allocation to the costs borne in the past and to be borne in the future, in comparison with the benefits already received and yet to be received.

1.4. In enacting and approving the IFA including the impact fees recommended and this Resolution, the District has taken into consideration, and may consider on a case-by-case basis in the future, the future capital facilities and needs of the District, the capital financial needs

of the District that are the result of the District's future facilities' needs, the distribution of the burden of costs to different properties within the District based on the use of secondary water of the District by such properties, the financial contribution of those properties and other properties similarly situated in the District at the time of computation of the required fee and prior to the enactment of this Resolution, all revenue sources available to the District, and the impact on future facilities that will be required by growth and new development activities in the District.

1.5. The provisions of this Resolution shall be liberally construed in order to carry out the purpose and intent of the Board in establishing the impact fee program.

Section 2. Definitions.

2.1. Except as provided below, words and phrases that are defined in the Impact Fees Act shall have the same meaning in this Resolution.

2.2. "Service Area" shall mean that the entire geographic area of the District's boundaries as exhibited in the appendix of the IFFP and IFA.

2.3. "Project Improvement" does not mean system improvement and includes, but is not limited to, those projects identified in the plans for the benefit of growth.

2.4. "Utah State Impact Fees Act" shall mean Title 11, Chapter 36a, Utah Code Annotated or its successor state statute if that title and chapter is renumbered, recodified, or amended.

Section 3. Adoption.

The Board hereby approves and adopts the IFA including the recommended impact fees attached and the analyses reflected therein. The IFFP and the IFA are incorporated herein by reference and adopted as though fully set forth herein.

Section 4. Impact Fee Calculations.

4.1. *Impact Fees.* The impact fees imposed by this Resolution shall have one component; an excess capacity facilities impact fee. The Impact Fee shall be calculated as set forth below.

4.2. *Developer Credits/Developer Reimbursements.* A developer, including a school district or charter school, may be allowed to receive a credit against or proportionate reimbursement of impact fees if the developer dedicates land for a system improvement, builds and dedicates some or all of a system improvement, or dedicates a public facility that the District and the developer agree will reduce the need for a system improvement. A credit against impact fees shall be granted for any dedication of land for, improvement to, or new construction of, any system improvements provided by the developer if the facilities are system improvements to the respective utilities, or are dedicated to the public and offset the need for an identified future improvement.

4.3. Adjustment of Fees. The Board may adjust either up (but not above the maximum allowable fee) or down the standard impact fees at the time the fee is charged in order to respond to an unusual circumstance in specific cases and to ensure that the fees are imposed fairly. The Board may adjust the amount of the fees to be imposed if the fee payer submits studies and data clearly showing that the payment of an adjusted impact fee is more consistent with the true impact being placed on the system.

4.4. Impact Fee Accounting. The District shall establish a separate interest-bearing ledger account for the cash impact fees collected pursuant to this Resolution. Interest earned on such account shall be allocated to that account.

(a) Reporting. At the end of each fiscal year, the District shall prepare a report generally showing the source and amount of all monies collected, earned and received by the fund or account and of each expenditure from the fund or account. The report shall also identify impact fee fund by the year in which they were received, the project from which the funds were collected, the capital projects from which the funds were budgeted, and the projected schedule for expenditure and be provided to the State Auditor on the appropriate form found on the State Auditor's Website.

(b) Impact Fee Expenditures. Funds collected pursuant to the impact fees shall be deposited in such account and only be used by the District to construct and upgrade the respective facilities to adequately service development activity or used as otherwise approved by law.

4.5. Refunds. The District shall refund any impact fee paid when:

(a) the fee payer has not proceeded with the development activity and has filed a written request with the Board for a refund within one (1) year after the impact fee was paid;

(b) the fees have not been spent or encumbered within six (6) years of the payment date; and

(c) no impact has resulted.

Section 5. Appeal.

5.1. Any person required to pay an impact fee who believes the fee does not meet the requirements of the law may file a written request for information with the Board.

5.2. Within two (2) weeks of the receipt of the request for information the Board shall provide the person or entity with a copy of the reports and with any other relevant information relating to the impact fee.

5.3. Any person or entity required to pay an impact fee imposed under this article, who believes the fee does not meet the requirements of law may request and be granted a

full administrative appeal of that grievance. An appeal shall be made to the Board within thirty (30) calendar days of the date of the action complained of, or the date when the complaining person reasonably should have become aware of the action.

5.4 The notice of the administrative appeal to the Board shall be filed and shall contain the following information:

- (a) the person's name, mailing address, and daytime telephone number;
- (b) a copy of the written request for information and a brief summary of the grounds for appeal; and
- (c) the relief sought.

5.5 The District shall schedule the appeal before the Board no sooner than five (5) days and no later than fifteen (15) days from the date of the filing of the appeal. The written decision of the Board shall be made no later than thirty (30) days after the date the challenge to the fee is filed with the Board and shall, when necessary, be forwarded to the appropriate officials for action.

Section 6. Recitals. The recitals set forth above are adopted and incorporated herein.

This Resolution shall be effective as of [June 19, 2019] (90 days after its adoption by the District as outlined in the Impact Fee Act).

District Chair

Attested By:

Exhibit A – IFFP & IFA

Exhibit B – Impact Fee Schedule

Impact Fee Schedule				
.00	to	0.25	acres	\$ 1,203
0.251	to	0.50	acres	2,406
0.501	to	0.75	acres	3,610
0.751	to	1.00	acres	4,813
1.001	to	1.25	acres	6,016
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* Anything above 2.00 acres will be calculated as follows: Number of irrigated acres X \$4,813.

For connections that require a flow rate larger than 3.7 acres feet per irrigable acres, the District reserves the right under the Impact Fee Act to use a multiplier to calculate the rate and adjust the impact fee accordingly.

APPENDIX C – IMPACT FEE CALCULATION

Benchland Water District

Water Impact Fee

Appendix C.1

Total Project	Total Cost	Current Users	New Growth	Current Users	New Growth
Distribution					
1800 North	\$ 312,606	71%	29%	\$ 222,237	\$ 90,369
1500 West Phase 1	443,526	71%	29%	313,022	130,504
1500 West Phase 2	513,850	62%	38%	318,350	195,500
Subtotal	\$ 1,269,982			\$ 853,610	\$ 416,372
Storage					
Reservoir A	\$ 1,466,859	0.0%	100.0%	\$ -	\$ 1,466,859
Interest Expense	\$ 8,326	0.0%	100.0%	\$ -	\$ 8,326
Subtotal	\$ 1,475,185			-	\$ 1,475,185
Source	-				
Subtotal	\$ -			-	\$ -
Total	\$ 2,745,167			\$ 853,610	\$ 1,891,557

Impact Fee Eligible	Total Cost	Capacity (Acres)	Cost/Acre
Distribution	\$ 416,372	811.57	\$ 513
Storage	1,475,185	328.89	4,485
Source	-	-	-
Eligible Costs	\$ 1,891,557	378	\$ 4,998
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Total Impact Fee	\$ 1,821,390	378	\$ 4,813

Impact Fee Schedule			
.00 to	0.25 acres	\$	1,203
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0.501 to	0.75 acres		3,610
0.751 to	1.00 acres		4,813
1.001 to	1.25 acres		6,016
1.251 to	1.50 acres		7,219
1.501 to	1.75 acres		8,423
1.751 to	2.00 acres		9,626

* Anything above 2.00 acres will be calculated as follows: Number of irrigated acres X \$5,091.

Benchland Water District

Water Impact Fee

Impact Fee Facilities

Appendix C.2

DISTRIBUTION PROJECTS

Project	Year	Existing Diameter	Length	Cost	Cost/LF	*Required Diameter	Estimated Cost/LF	Cost	Percent to New Growth
		(in)	(ft)			(in)			
1800 North Pipeline Replacement	2017	24	1,190	\$ 312,605.88	\$ 262.69	14	\$ 186.75	\$222,237.28	29%
1500 West Pipeline Replacement - Phase 1	2018	24	2,110	\$ 443,525.75	\$ 210.20	14	\$ 148.35	\$313,022.25	29%
1500 West Pipeline Replacement - Phase 2	2019	24	2,300	\$ 513,850.00	\$ 223.41	12	\$ 138.41	\$318,350.00	38%
Total				\$ 1,269,981.63				\$853,609.53	

*Minimum diameter to provide service to existing customers with 5 feet per second maximum velocity per AWWA Standards.

STORAGE PROJECTS

Reservoir	Year	Vol (AF)	Cost	Cost/AF
Shepard Creek	2010	9.6	\$1,466,859.36	\$ 152,797.85
Reservoir B		37		
Reservoir C		17		
**TOTAL		63.6		

**Storage Volume for existing customers is 2 Peak
Day Volume (AF)

Benchland Water District

Water Impact Fee

Storage Level of Service and Capacity

Appendix C.3

Reservoir	Volume (AF)
Shephard Creek	9.6
Res C	17
Res B	37
Total	63.6

From the Model	
Existing Peak Day Usage	6937 gpm
Future Peak Day Usage	8552 gpm
Existing Peak Day Demand	30.7 AF
Future Peak Day Demand	37.8 AF

Level of service	1.76 Days
Existing needed storage	54 AF
Existing Excess Storage	9.6 AF
Reservoir A % to Excess	100.0%
Existing Irrigated Acres	1,850
Irrigated Acres/AF Storage	34.26
Excess Storage (Acres)	328.89

Benchland Water District

Water Impact Fee

Distribution Level of Service and Capacity

Appendix C.4

ID	Diameter (Length (ft)	Flow (gpm	Flow (cfs)	Velocity (ft	Area	Test Veloci	Area @ 5 f	diam @ 5 ft/s	5 ft/s pipe	Q at 5 fps	Excess Q	gpm	irr acre excess				
P305	739	24	270.08	4,047.41	9.02	2.87	3.14	5	1.803534	1.515365	18.2	19	20	15.70796	6.690293	3002.811	811.5705	2017
	717	24	179.57	4,047.41	9.02	2.87	3.14	5	1.803534	1.515365	18.2	19	20	15.70796	6.690293	3002.811	811.5705	2017
		24	436.10	4,047.41	9.02	2.87	3.14	5	1.803534	1.515365	18.2	19	20	15.70796	6.690293	3002.811	811.5705	2017
	719	24	305.77	4,047.41	9.02	2.87	3.14	5	1.803534	1.515365	18.2	19	20	15.70796	6.690293	3002.811	811.5705	2017
	997	24	79.39	3,053.06	6.80	2.17	3.14	5	1.36045	1.316122	15.8	16	16	15.70796	8.905715	3997.161	1080.314	2018
	737	24	292.99	-2,767.56	6.17	1.96	3.14	5	1.23323	1.253075	15.0	16	16	15.70796	9.541812	4282.661	1157.476	2018
	745	24	1,740.52	-2,767.56	6.17	1.96	3.14	5	1.23323	1.253075	15.0	16	16	15.70796	9.541812	4282.661	1157.476	2018
	743	24	136.85	-2,674.18	5.96	1.9	3.14	5	1.19162	1.231754	14.8	15	16	15.70796	9.749863	4376.041	1182.714	2019
	747	24	162.38	-2,674.18	5.96	1.9	3.14	5	1.19162	1.231754	14.8	15	16	15.70796	9.749863	4376.041	1182.714	2019
	749	24	444.78	-2,674.18	5.96	1.9	3.14	5	1.19162	1.231754	14.8	15	16	15.70796	9.749863	4376.041	1182.714	2019
	753	24	722.60	-2,575.13	5.74	1.83	3.14	5	1.147483	1.208727	14.5	15	16	15.70796	9.970548	4475.091	1209.484	2019
	755	24	270.13	-2,501.28	5.57	1.77	3.14	5	1.114575	1.191269	14.3	15	16	15.70796	10.13509	4548.941	1229.443	2019
	751	24	563.84	2,117.74	4.72	1.5	3.14	5	0.943669	1.096137	13.2	14	14	15.70796	10.98962	4932.481	1333.103	2019

Minimum 811.6

Benchland Water District

Water Impact Fee

Debt Service Schedule for Reservoir A Project

Appendix C.5

Year	Principal	Rate/Coupon	Interest	Total Debt Service
2018	\$ 86,000.00	1.581%	\$ 4,140	\$ 90,140
2019	87,000.00	1.579%	\$ 2,780	\$ 89,780
2020	88,000.00	1.598%	\$ 1,406	\$ 89,406
Total	\$ 261,000.00		\$ 8,326	\$ 269,326

Benchland Water District

Water Impact Fee

Estimated Growth Rate

Appendix C.6

	Impact Fee Collection	Low - Acres Added	High - Acres Added	Growth
2011	\$ 1,172.00	0.38	0.50	0.03%
2012	67,116.78	21.48	28.63	1.55%
2013	68,562.00	21.94	29.25	1.58%
2014	91,402.00	29.25	38.99	2.11%
2015	65,046.00	20.81	27.75	1.50%
2016	95,518.00	30.56	40.75	2.20%
2017	96,104.00	30.75	41.00	2.22%
Average		22.17	29.55	1.60%

Impact Fee	\$2,344.00
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Irrigated Acres	1,850.00
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