BEAR RIVER WATER CONSERVANCY DISTRICT

DRAFT BEAVER DAM WATER SYSTEM IMPACT FEE FACILITY PLAN AND IMPACT FEE ANALYSIS

October 2021
(Revised)

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IMPACT FEE FACILITY PLAN
AND IMPACT FEE ANALYSIS

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CERTIFICATION OF IMPACT FEE FACILITY PLAN

I certify that, to the best of my knowledge, 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.

Prepared by: _____
Carl W. Mackley, P.E.

CERTIFICATION OF IMPACT FEE ANALYSIS

I certify that, to the best of my knowledge, 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;
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    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. offsets costs with grants or other alternate sources of payment; and
4. complies in each and every relevant respect with the Impact Fees Act.

Prepared by: _____
Carl W. Mackley, P.E.

EXECUTIVE SUMMARY

In 2011, The Beaver Dam Water Company transferred ownership of a small water system serving 22 existing connections in the Beaver Dam community to Bear River Water Conservancy District (District). At the time, the existing system had extensive deficiencies that prevented the system from meeting minimum Utah Division of Drinking Water requirements for a public drinking water system. Funding was obtained from the Utah Drinking Water Board ($685,000 loan with principal forgiveness of $445,000) and the U.S. Army Corps of Engineers ($1,000,000 grant) to pay for the construction of a new drinking water system that would correct all of the deficiencies in the existing system and provide capacity for an estimated 30 additional connections.

In 2012, improvements were made to the water system including re-development of two existing springs, construction of a new pump station, a new water treatment building, a new water storage tank, new pipelines, new fire hydrants, and a new pressure reducing valve station. The total cost of the project was determined to be $1,690,000. It was determined that about 43% of this cost was attributable to the 22 original connections with the remaining 57% of the cost for an estimated 30 future connections.

A significant portion of the 2012 project ($1,445,000) was paid for through funding that does not have to be repaid by either existing or future connections. Therefore, impact fees in 2012 were calculated based on the remaining $245,000 of the project that will be paid for by existing and future connections. The portion of this amount that is attributable to future connections is $139,650 (57% of $245,000). Dividing this by the number of estimated future connections in 2012 (30) resulted in a final recommended impact fee of $4,655 per equivalent residential connection (ERC). This was the adopted impact fee rate from 2012 through July 2021.

This impact fee study has been updated October 2021 to reflect new information and to examine the appropriate number of applicable connections that can be made and the corresponding appropriate impact fee amount. At this time, it has been determined that a total of 65 connections can be made to the system. There are currently 32 active connections with 8 additional dry taps sold. This allows for 25 more connections to be sold.

At this time, there is $55,860 of the original $245,000 that impact fees have not been collected for. It is estimated that there will be $160,000 of additional improvements required (development of additional springs and a new 3-inch 2600-foot-long pipeline). The total project improvements allowed to be covered by impact fees is $215,860. Dividing this amount ($215,860) by the number of additional connections available to be sold (25) creates an impact fee of $8,635 per connection.

CHAPTER I

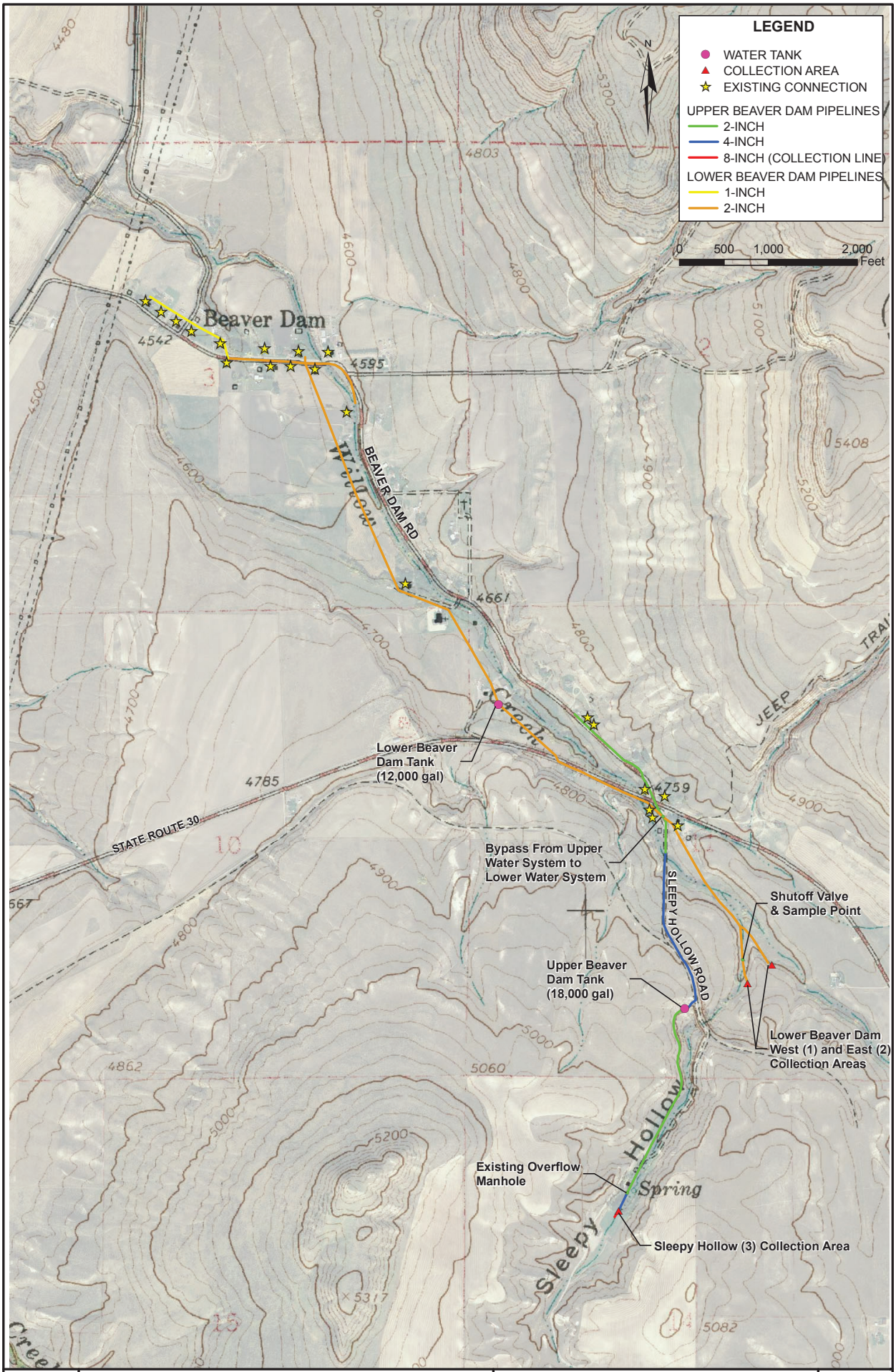
INTRODUCTION

In 1998, two private water systems joined to form the Beaver Dam Water Company (Company) in the Beaver Dam area of Box Elder County. The Company serves 22 existing shareholders with 21 existing connections along Beaver Dam Road and near the intersection of this road with Highway 30 (Hwy 30). Figure 1 shows the locations of the homes served by the Company along with the existing water system infrastructure.

In 2008, a Preliminary Engineering Report was completed to address alternatives for correcting extensive deficiencies in the water system to meet Utah Division of Drinking Water (DDW) standards. It was determined that the existing water systems are inadequate and that replacement of almost all the existing infrastructure was necessary. Subsequent to the 2008 report, the water system refined the selected alternatives and applied for funding from the Drinking Water Board (DWB) and the Army Corps of Engineers (ACE) to help pay for the identified improvements.

In 2010, the Company was awarded $1,000,000 in grant money from ACE and a $685,000 loan from DWB ($445,000 of this amount with principal forgiveness). However, due to federal requirements for the grant money awarded to the project, a public entity had to take financial responsibility for the project. Since the Company was privately owned, they asked Bear River Water Conservancy District (BRWCD) to take ownership of the water system in order to get the necessary funds to build the project.

The Company completed the transfer of ownership of the water system and BRWCD completed the design of the new water system in 2012. The impact fee facility plan was updated in October of 2021 to reflect new information regarding water supply conditions available at the system sources resulting from severe drought, an updated equivalent residential connection (ERC) value based on actual water use since 2012 and additional system improvements required to be made. The purpose of this report is to formally document the needed capital facilities for the project including the costs of these facilities, establish an impact fee for new connections to the water system after the project is completed, and establish the number of connections that can be supported by the system sources and facilities.



HANSEN ALLEN & LUCE inc ENGINEERS	BEAR RIVER WATER CONSERVANCY DISTRICT BEAVER DAM WATER SYSTEM IMPACT FEE FACILITY PLAN AND ANALYSIS	EXISTING DRINKING WATER SYSTEM	FIGURE 1

CHAPTER II

IMPACT FEE FACILITY PLAN

ORIGINAL SYSTEM DEFICIENCIES

Inspections of the existing water system revealed deficiencies in the existing sources, storage tanks, and distribution system. Source concerns prior to 2012 included the lack of spring development drawings, deep rooted vegetation in the spring collection areas, ponding, lack of impervious soil cover, lack of spring boxes, and arsenic concentrations above the current maximum contaminant level (MCL) of 10 parts per billion (ppb) during most of the year. During spring runoff, the arsenic concentrations drop below 10 ppb. The original systems storage tanks were found to show signs of leakage and had insufficient volume for the number of connections. Distribution system piping was too small for the number of connections, was very old, and was located across private land with no easements. All previous system deficiencies were corrected in 2012. The arsenic treatment plant constructed in 2012 continues to effectively lower the contaminant level well below the MCL.

WATER SOURCES

Water rights for this system include the two Lower Beaver Dam Springs and four Sleepy Hollow Springs. Locations are shown on Figure 1. Only the Lower Beaver Dam Springs and the Upper Sleepy Hollow Spring are currently being used by the water system. The flow rates of the Lower Beaver Dam Springs were monitored monthly during 2007 and 2008. The combined flow in these springs stayed fairly consistent with a mean flow of 42 gpm and a range of 34 gpm to 46 gpm. The flow rates of the Lower Beaver Dam Springs were also monitored monthly from July 2020 to August 2021. The combined flow in these springs declined steadily from 30 gpm to 17 gpm.

Sleepy Hollow Springs consists of four spring locations within the LDS Church's Earley Park Camp. Currently, only the upper most spring location is connected to the water system. Flow in this spring was also monitored on a monthly basis during 2007 and 2008. The mean flow in this spring was 22 gpm with a range of 13 gpm to 36 gpm. The flow rate of the Upper Sleepy Hollow Spring was also monitored monthly from July 2020 to August 2021. The flow in this spring declined steadily from 22 gpm to 13 gpm.

Due to the ongoing 2020/2021 drought, an investigation was made into the potential of developing the additional three Sleepy Hollow Springs. Spring flow from 2 of the combined springs was both measured and estimated in August of 2021. The measured flow was 11 gpm with an estimated 3 gpm additional flow which was not measurable. Due to the current drought and development interest, the District desires to capture as much of that spring flow as possible. It is anticipated that the additional Sleepy Hollow Springs' flow production will vary similar to the Upper Sleepy Hollow Spring, adding a potential of 14 gpm to 38 gpm.

It is believed that current drought conditions represent the lowest recorded flows in the history of these springs. The combined divertible flow of all springs appears to be approximately 44 gpm under drought conditions. In better water years, these springs likely produce significantly higher flow rates. For the purposes of this report, the recommended safe yield of these springs is 40

gpm with peak flow rates exceeding 75 gpm.

WATER RIGHTS SUMMARY

Table II-1 summarizes the water rights for the Beaver Dam water system which have been transferred to Bear River Water Conservancy District. The listed water right uses represent the evaluated sole supplies assigned to the individual rights. The District has an approved change application (a37735) that converts the water rights listed in Table II-1 to municipal use with flow limitations of 0.654 cfs and 37.222 ac-ft/yr. Based on a typical municipal pattern of use, the peak day demand for an annual volume usage of 37.222 ac-ft/yr is between 50 and 60 gpm.

TABLE II-1
WATER RIGHTS SUMMARY

WATER SYSTEM AND SOURCE	WATER RIGHT #	WATER RIGHT USES			ANNUAL VOLUME (AC-FT)	WATER RIGHT FLOW (CFS)
		DOMESTIC (EDUs)	IRRIGATION (ACRES)	STOCKWATERING (ELUs)		
Lower Beaver Dam Springs	29-693	13	3.7	30	21.49	0.5
Sleepy Hollow Springs	29-1518 29-1519 29-1520 29-1521 29-1522 29-1665 29-4491	6	2.6	94	15.732	0.154
TOTALS:		**19**	**6.3**	**124**	**37.222**	**0.654**

Note: EDU=equivalent domestic unit; ELU=equivalent livestock unit; AC-FT=acre-feet; CFS=cubic feet per second

WATER DEMANDS AND SOURCE CAPACITY

Based off meter reading data collected on all connections from 2012 to 2021, the ERC in Beaver Dam is very low, primarily because the outdoor use is so low. Outdoor use in Beaver Dam is heavily supplemented by individual wells and springs that the original customers had. Users have been averaging 0.30 AF/yr. of indoor use and 0.18 AF/yr. outdoor use totaling 0.48 AF/yr. of use per ERC on the current Beaver Dam system. The District is proposing an ERC of 0.572 AF/yr. per (0.35 AF/yr. indoor and 0.222 AF/yr. outdoor) going forward. The District also encourages new customers to file for their own application to drill a well for outdoor use beyond the 0.222 AF/yr. outdoor usage outlined above. 0.572 AF/yr. per ERC at 65 ERC's would fulfill the Districts 37.222 AF water right.

In the 2012 Impact Fee Facility Plan, Division of Drinking Water standards for design of culinary water systems were used to estimate the annual volume, peak day, peak instantaneous, and storage demands for the new water system. The annual volume is typically used to determine the necessary water rights. Peak day is used to determine the required flow from water sources. The peak instantaneous demand is used to determine the size of distribution system pipelines. For the 2021 Impact Fee Facility Plan, a combination of actual use history and Division of Drinking Water standards for design of culinary water systems were used to estimate the annual volume, peak day, peak instantaneous, and storage demands for the new water system. These requirements are summarized in Table II-2.

TABLE II-2
SUMMARY OF DEMAND REQUIREMENTS

CRITERIA	INDOOR USE REQUIREMENT	OUTDOOR USE REQUIREMENT
ANNUAL VOLUME	114,000 gal/ERC (0.35 ac-ft/ERC)	0.222 ac-ft/ERC
PEAK DAY SOURCE SUPPLY	625 gal/day/ERC	1696 gal/day/ERC
STORAGE	312 gal/ERC	1696 gal/ERC
PEAK INSTANTANEOUS DEMAND - DISTRIBUTION SYSTEM CAPACITY	$Q\ (gpm) = 10.8 * N^{0.64}$ where N = # of connections	7.07 gpm/ERC

Based on water use data, indoor demands for the Beaver Dam Community are somewhat lower than the traditional 400 gal/day (0.45 ac-ft/year) per connection. Indoor use in Beaver Dam has not exceeded 0.35 ac-ft/year (312 gal/day). Outdoor demands for the culinary water system in Beaver Dam have been very low in the last 10 years. Most customers have their own supplemental source of irrigation and as stated earlier, average outdoor use has been approximately 0.18 acre-feet per year. It is likely that in the future, all new connections will not have their own supplemental source of irrigation water. However, due to drought conditions and reduction of spring flow production in the peak irrigation months, the District is only confident that approximately 0.222 acre-feet per ERC per year will be available for outdoor use. It appears that the District must adopt a policy of very limited outdoor water availability so as to not overtax the springs. In addition, the additional Sleepy Hollow Springs should be added to the system to support full development potential.

Demands on the proposed new water system were calculated for the following conditions:

Current Connections (40 ERCs) – Existing number of ERCs sold.
Future Connections (65 ERCs) - Projected future number of ERCs in the 20-year planning period.

The calculated demands for these conditions are shown in Table II-3. This table also includes the existing source capacity and water rights flow for comparison.

TABLE II-3
ESTIMATED WATER SYSTEM DEMANDS

PARAMETER		FLOW CONDITION	
		CURRENT CONNECTIONS (40 ERCs)	FUTURE CONNECTIONS (65 ERCs)
Annual Volume	Demand (ac-ft/yr)	23	37
	Water Rights (ac-ft/yr)	37	
Peak Day	Demand (gpm)	64	105
	Physical Capacity (gpm)	44 to 120	
	Water Right Flow (gpm)	234	
Peak Instantaneous Demand (gpm)		397	615

Based on the information provided in Table II-3, the District will need to acquire additional water rights and an additional source of water to serve more than 65 connections. It appears that the existing water system can support instantaneous and peak day demands with the existing

storage and water distribution system. The following schedule of water use at full development is anticipated.

TABLE II-4
Proposed Schedule of Water Use at Full Development

Month	Acre-Feet	Gallons (x 1000)	GPM Required
January	1.9	619	13.9
February	1.9	619	15.4
March	1.9	619	13.9
April	2.5	815	18.9
May	4.2	1,369	30.7
June	4.2	1,369	31.7
July	4.8	1,564	35.0
August	4.8	1,564	35.0
September	4.2	1,369	31.7
October	3.0	978	21.9
November	1.9	619	14.3
December	1.9	619	13.9
Totals:	**37.2**	**12,123**	**35.0**

This table shows that a flowrate of at least 35 gpm will be required to support peak month demands in July and August at full development of the water rights.

EXISTING AND POTENTIAL FUTURE CONNECTIONS

An equivalent residential connection (ERC) is the amount of water used by a typical residential connection to the water system. For the Beaver Dam water system, all existing connections but one are considered residential. There is one institutional connection (LDS Church House), which is considered one ERC. If non-residential connections are added to the system in the future, each non-residential connection would be assigned a number of ERCs based on the quantity of water used compared to a typical residence. Currently, there are 32 active connections (ERCs) with 8 additional dry taps sold totaling 40 ERCs connected (or sold) to the water system.

Based on the available water rights, the maximum number of connections that can be served by the drinking water system is limited to about 65 connections. For the purposes of this study, unless additional water is acquired by the District, build-out is assumed to be 65 ERCs.

STORAGE REQUIREMENTS

The total required storage capacity for the water system consists of equalization storage for the indoor and outdoor use on the system during peak day, fire flow storage, and emergency storage. Equalization storage is calculated based on the requirements included in Table II-2. Fire storage was calculated based on a fire flow of 1,000 gpm and a duration of 1 hour for a total of 60,000 gallons. Emergency storage is typically about 10% to 20% of the total required storage. The calculated storage requirements for the three flow conditions described above are summarized in Table II-5. To serve the total future 65 connections, a new 200,000 gallon

storage tank was installed near the treatment facility in 2012. As can be seen, the tank meets the reasonable needs of the existing and likely needs. However, if a fire was to happen on peak day and a one hour fire was to occur, the tank would loose 210,000 gallons. At that point, there would be no emergency storage (the tank would empty at 200,000 gallons). But, accounting for a reasonable supply to the tank of 40 gallons per minute (gpm), an additional 57,000 gallons would be produced in that day, which would offset the loss of 210,000 gallons by 57,000 gallons, resulting in a net tank level of 47,000 gallons. Even if the emergency storage of 30,000 gallons was also used, there would still be 17,000 gallons in the tank. Therefore, the existing tank size of 200,000 gallons is sufficient to meet the future needs of the system, up to and beyond 65 ERCs.

TABLE II-5
ESTIMATED REQUIRED STORAGE

PARAMETER	FLOW CONDITION	
	CURRENT CONNECTIONS (40 ERCs)	**FUTURE CONNECTIONS (65 ERCs)**
Equalization Storage	93,000 gal	150,000 gal
Fire Storage	60,000 gal	
Emergency Storage	30,000 gal	
TOTALS:	**183,000 gal**	**240,000 gal**

ARSENIC REMOVAL

The water produced by the Upper Sleepy Hollow Spring and the two Lower Springs is fairly consistently over the EPA's maximum contaminant level (MCL) for arsenic. An arsenic removal plant was installed in 2012 in order to meet the MCL for arsenic. The Upper Sleepy Hollow Spring gravity feeds to treatment plant through a 2-inch line. A wet well and booster pump station was installed near the 2 Lower Springs and water from each spring flows into the wet well and is then boosted up to the pumphouse and treated accordingly. A chlorination system was also installed in the arsenic treatment building to assist with arsenic removal efficiency and provide the necessary disinfection for the water system. Between June of 2019 and July of 2021, 14 samples were taken on the 3 spring sources as well as the treated water from the treatment plant. The results are shown in Table II-6 below:

TABLE II-6
ARSENIC SAMPLE RESULTS

Beaver Dam Aresenic Test Results				
Date	Treated Water	Upper Sleepy Hollow Spring	Lower East Spring	Lower West Spring
6/4/2019	0.007	0.0115	0.0093	0.0094
7/11/2019	0.0068	0.0113	0.0096	0.0104
8/6/2019	0.0047	0.0108	0.0104	0.008
9/10/2019	0.0069	0.013	0.0105	0.0106
10/29/2019	0.0074	0.013	0.0105	0.0108
12/17/2019	0.0108	0.0125	0.0103	0.0106
1/7/2020	0.0084	0.0125	0.0095	0.0103
4/15/2020	0.005	0.013	0.0106	0.0102
7/29/2020	0.0049	0.013	0.0102	0.0107
8/25/2020	0.0057	0.0128	0.0102	0.0105
10/14/2020	0.0069	0.0129	0.0103	0.0101
1/26/2021	0.0081	0.0127	0.0099	0.0103
4/7/2021	0.0093	0.0128	0.0101	0.0105
7/14/2021	0.0056	0.0125	0.0106	0.0105

The MCL is .01 mg/L or 10 parts per billion (ppb). When maintained and operating properly, the treatment plant is very effective at removing enough arsenic to keep the arsenic levels below the MCL. Also, the plant is rated to treat up to 80 gpm inflow, which would easily exceed the proposed schedule of water use at full development shown in Table II-4 above.

PUMPING REQUIREMENTS

The Lower Beaver Dam Springs are lower in elevation than the tank location and need to be pumped to the tank in order to use the water in the system. A pumping station with a wet well was installed in 2012 to the north and west of the West and East Lower Beaver Dam Springs, which allows both springs to flow by gravity to the pumping station with pressures equalizing in the wet well. A new pumping line was also installed in 2012 from the pump station to the arsenic treatment building next to the tank.

DISTRIBUTION SYSTEM

The proposed distribution system was analyzed back in 2012 using EPANET 2.0, a computer program that models the hydraulic behavior of piping networks. The water system, as shown in Figure 2, was analyzed under low flow and peak flow conditions and is described in the following sections. Appendix A includes results from the computer model analysis.

In order to meet fire protection requirements, the distribution pipelines were designed to be 8 inches in diameter to provide the 1,000 gpm plus peak day flows while maintaining a minimum

of 20 psi throughout the system.

In order to maintain pressures in the system between 50 psi and 120 psi during normal operation, a pressure reducing valve (PRV) station was installed within the system. The location of the PRV station is shown on Figure 2.

Currently there are 32 residential meters on the system. A meter and meter box have been installed at each current connection. New connections to the system would be responsible for the cost of connecting to the system (approximately $2,000) and for an impact fee to cover the per-unit cost of system improvements.

IMPACT FEE FACILITIES

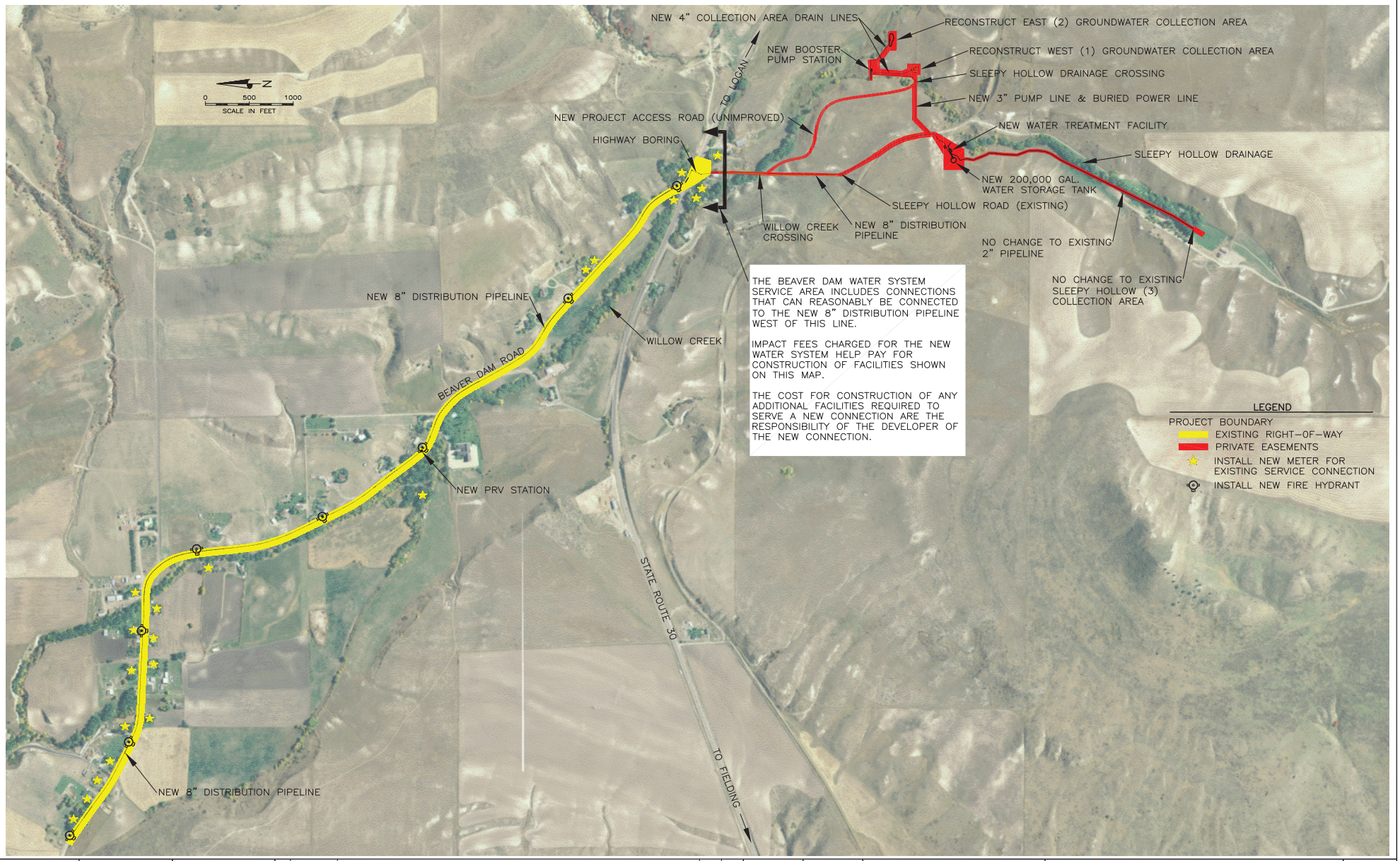
The facilities necessary to correct the deficiencies in the existing drinking water system and to meet the needs of future connections are shown on Figure 2. The existing Sleepy Hollow Spring and the 2-inch pipeline from the spring to the tank are not included as impact fee facilities. These facilities were constructed in the 1970's and essentially have no real monetary value. However, the improvements desired to be made post 2021, including a 3-inch pipeline to replace the 2-inch pipeline and additional spring box and system improvements required to incorporate the other Sleepy Hollow Springs into the system do have value and estimated costs for these proposed improvements are shown below in Table II-7. The costs for the new drinking water system and improvements installed in 2012 are summarized in Table II-8.

TABLE II-7
COST ESTIMATES FOR PROPOSED POST-2021 IMPROVEMENTS

ITEM	QUANTITY	UNIT	UNIT COST	COST
New Springbox Lid Meeting DDW Reqs.	1	ea	$10,000	$10,000
Remove Existing Springbox & Replace	1	ea	$30,000	$30,000
Install New 3-inch Pipeline	2650	ft	$40	$106,000
Engineering/Permitting				$10,000
Other/Contingencies				$4,000
			TOTAL	**$160,000**

TABLE II-8
2012 PROJECT COSTS

ITEM	QUANTITY	UNIT	UNIT COST	COST
Mobilization	1	ls	45,000	45,000
Redevelop Lower Beaver Dam Springs	2	ea	59,000	118,000
200,000 gallon Buried Concrete Storage Tank	1	ls	210,900	210,900
3-inch HDPE Pump Line (pump station to treatment)	1,090	ft	8	8,720
4-inch PVC Pipelines (springs to pump station)	764	ft	12.60	9,626
Pump Station	1	ls	107,000	107,000
8-inch PVC Pipeline	11,346	ft	18.50	209,901
PRV Station	1	ea	28,950	28,950
Fire Hydrants	8	ea	3,200	25,600
Service Connections	22	ea	1,000	22,000
Boring under Hwy 30	1	ls	23,000	23,000
Treatment Facility Equipment	1	ls	72,450	72,450
Treatment Building	1	ls	218,000	218,000
SCADA and Telemetry	1	ls	35,000	35,000
Off-site Power Lines	1	ls	15,000	15,000
SUBTOTAL (ROUNDED)				**$1,150,000**
Construction Contingency	5	%		50,000
Engineering				240,000
Legal, Administrative, Environmental, and Water Rights Services				250,000
TOTAL				**$1,690,000**



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FILE DATE: 4/5/2012 09:23:30 (SDM)

10/07

HANSEN ALLEN & LUCE, INC. ENGINEERS

PROJECT ENGINEER

DESIGNED	JLN	3			
DRAFTED	JVH	2			
CHECKED	WSB	1			
DATE	MAY 2011	NO.	DATE	REVISIONS	BY / APVD.

SCALE: AS SHOWN

BRWCD
BRIGHAM CITY, UTAH

BEAVER DAM WATER SYSTEM
IMPACT FEE FACILITY PLAN AND ANALYSIS
PROPOSED NEW DRINKING WATER SYSTEM

FIGURE 2

91.34.100

CHAPTER III

IMPACT FEE ANALYSIS

The purpose of this chapter is to determine impact fees that Bear River Water Conservancy District may charge to new customers. An impact fee is a one-time charge on new development to pay for expansion of the public facilities required to meet the demands of new development.

Impact fees must be determined based on the State of Utah "Impact Fees Act" found in Title 11, Chapter 36a of the Utah Code. The Impact Fees Act mandates how impact fees may be established so that existing customers are not subsidizing infrastructure for new development, and vice versa. Impact fees can be charged to new connections for new and existing infrastructure that meets the demands of growth, but cannot be charged for improvements required to correct existing deficiencies based on the demands of existing customers. The Impact Fees Act requires that the impact fee analysis must:

1. Identify the impact that new development has on the existing system,
2. Identify the impact that new development has on system improvements to maintain the established level of service,
3. Demonstrate how anticipated impacts are reasonably related to the anticipated development activity,
4. Estimate the proportionate share of the costs attributable to new development, and
5. Identify how the impact fee is calculated.

Steps 1 through 4 were accomplished in the Impact Fee Facility Plan chapter of this report. Step 5 is accomplished below.

IMPACT FEE CALCULATION

The water system was updated in 2012 at a cost of $1,690,000. Grants or principal forgiveness loans were provided in the amount of $1,445,000 leaving only $245,000 to be eligibly covered under impact fees. Of that $245,000, the original 22 customers paid $105,350, leaving any subsequent customers to pay $139,650 in impact fees. In 2012, it was estimated that 52 customers could connect to the Beaver Dam System, or an additional 30 customers beyond the original. Dividing the $139,650 by 30 gave an impact fee of $4,655. Since 2012, an additional 18 connections have been sold at $4,655, reducing the $139,650 to $55,860. With the estimated $160,000 of additional improvements needed, a total of $215,860 would be attributable to future connections. An additional 25 connections can be sold at a cost of $8,635 to cover this amount. The new recommended impact fee will be $8,635.

It is recommended that large user impact fees should be increased proportionally to their connection capacity relative to a "typical" residential connection.

ADMINISTRATION OF IMPACT FEES

Funding for the capital improvements outlined in the Capital Improvements Plan will come from impact fees collected from new connections and water system revenues generated from existing and future connections. Impact fees may only be used to fund capital improvements for which the impact fee was collected and should, therefore, be accounted for separately. The Impact Fees Act (Act) requires that the District:

1. *"Establish a separate interest bearing ledger account for each type of public facility for which an impact fee is collected;*
2. *Deposit a receipt for an impact fee in the appropriate ledger account…;*
3. *Retain the interest earned on each fund or ledger account in the fund or ledger account; and*
4. *At the end of each fiscal year, prepare a report on each fund or ledger account showing:*
    - *A. The source and amount of all money collected, earned, and received by the fund or ledger account; and*
    - B. *Each expenditure from the fund or ledger account."*

The Impact Fees Act also requires that the District annually produce a report identifying impact fees collected and the plan for expenditure of the collected funds. The District must also expend or encumber "impact fees for a permissible use within six years of their receipt." If a developer constructs a facility identified in the Impact Fee Facility Plan, the District should compensate the developer for the impact fees applicable to that portion of the facility constructed. If the District cannot spend the impact fees within 6 years, there are provisions in the Act to extend this time legally.