

FEASIBILITY STUDY TO INCREASE RAW WATER STORAGE FOR THE GENESEE WATER & SANITATION DISTRICT

Prepared for
The Genesee Water & Sanitation District
and
The Colorado Water Conservation Board

July 2020





Water Project Loan Program

Projects financed by the Water Project Loan Program must align with the goals identified in Colorado's Water Plan and its measurable objectives.

Application Type		10 × 00 × 00 ×	
Prequalification (Attach 3 years of finance	cial statements) 🗸 L	oan Approval (Attach Loan F	easibility Study)
Agency/Company Information			
Company / Borrower Name: Genesee	Water and Sanita	tion District	
Authorized Agent & Title: S. Scott Jone	es, District Manaç	ger	
Address: 2310 Bitterroot Lane, Golde	en, CO 80401		
Phone: (303) 278-9780	Email: sjones@ge	eneseewater.com	
Organization Type: ☐ Ditch Co, ✓ Dist☐ other:	rict, Municipality	y	Incorporated? ☐ YES ✓ NO
County: Jefferson		Number of Shares/Taps:	1,334 taps - 1,604 SFE's
Water District: District 1 - Genesee W	/&SD	Avg. Water Diverted/Yr	411 acre-feet
Number of Shareholders/Customers Ser	ved: 1,334	Current Assessment per	Share \$_N/A (Ditch Co)
Federal ID Number: 84-0748170		Average monthly water	bill \$ 58.00 (Municipality)
Contact Information			THE PERSON NAMED IN
Project Representative: Scott Jones			
Phone: ()303-278-9780	Email: sjones@ge	eneseewater.com	
Engineer: W.W. Wheeler & Associate	es Inc. c/o Steve	Jamieson	
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Phone: ()303-443-8782 Ext.111	Email: rmehren@	mwhw.com & csteffl@r	mwhw.com
Project Information			
Project Name: Genesee Reservoir No. 1	Enlargement		
Brief Description of Project: (Attach se	parate sheets if nee	eded)	
The Genesee Water and Sanitalian District (District) has completed a feasibility evaluation for increase.	easing raw water storage for the District in order	to better utilize their full water rights portfolio and entitlement i	and to further solidify protection from years of drought. In 2007 the District completed
construction of a 101 of dam/reservoir to provide for raw water storage (Geneses Dam/Res. #	2), however it was always anticipated to purs	ue additional storage space at some point in the future. Th	e resulting feasibility analysis Indicated the District would receive the best overall
value for increased storage by increasing the capacity of its existing 16 af Dam &	Reservoir No. 1 by raising the dam, so	me additional material excavation and incorporatio	n into the existing transmission system along with other modifications.
Project Start Date(s) Design: Pre-Eng. & Ge	eotech Apr. 29, 2020	struction, TBD	
General Location: (Attach Map of Area)		struction.	
Table of the state			
Project Costs - Round to the nearest t	housand		
Estimated Engineering Costs: \$500,000		Estimated Construction	Costs: \$3,540,000
Other Costs (Describe Above): \$160,000	(Includes Permitting)	Estimated Total Project	IN CONTRACTOR OF THE CONTRACTOR
Requested Loan Amount: \$4,200	0,000	Requested Loan Term (19 40 (Forty) Y	0, 20, or 30 years): 'ears
Signature		10000	
Signature Witle	July 29, 2020 Date	1313 Sherman S Denver, CO 802 Ph. 303/866.34	203

EXECUTIVE SUMMARY

This feasibility report was prepared by W. W. Wheeler and Associates, Inc. (Wheeler) for the Genesee Water & Sanitation District (District) and the Colorado Water Conservation Board (CWCB). This report documents the feasibility and financing of increasing raw water storage for the District. The District is generally located south of Interstate 70 and north of Highway 74 generally north of the communities of Kittridge and Idledale. The District's water supply is pumped from Bear Creek near Mile Marker 12 along Highway 74, supplying water to about 1,430 taps serving 3,900 people in Genesee.

This feasibility study focused on enlarging the District's two water supply reservoirs. Genesee Dam No. 1 is a 23-foot-high embankment dam that can store about 16 acre-feet of water. Genesee Dam No. 1 can be raised to store up to 46 acre-feet of water. Genesee Dam No. 2 is a 111-foot-high, roller compacted concrete, gravity dam that can store 101 acre-feet of water. Genesee Dam No. 2 could be raised to store up to 131 acre-feet of water. A summary of the alternatives evaluated in this report is provided below.

Alternative	Description	Additional Storage (acre-feet)	Opinion of Probable Cost ¹	Unit Cost per acre-foot of Storage
Alternative No. 1	No Action Alternative	0	Not Applicable	Not Applicable
Alternative No. 2	Intermediate Raise of Genesee Dam No. 1	27	\$2.12 M	\$78,400
Alternative No. 3	Significant Raise of Genesee Dam No. 1	46	\$4.20 M	\$91,390
Alternative No. 4	Intermediate Raise of Genesee Dam No. 2	15	\$2.66 M	\$177,300
Alternative No. 5	Significant Raise of Genesee Dam No. 2	30	\$4.13 M	\$137,600

¹ Cost opinion in 2021 dollars

The District Board of Directors determined that it would pursue the financing, design and permitting of additional storage and has selected Alternative No. 3, which would maximize the raw water storage in the District by almost 50 percent. Alternative No. 3 would provide greater drought protection to the District and would increase the operational flexibility of the District's raw water supply. This report documents that the District has the financial ability to finance the project with a 30-year or 40-year loan from the CWCB for an annual increase of approximately \$80 to \$140 per water tap. The District will pursue a finance packaged that includes a combination of a CWCB Construction Fund Loan and a Colorado Water Plan Grant. Pending approval of the CWCB financing and Colorado Dam Safety approval of the enlargement design, the District would like to construct the enlargement of Genesee Dam No. 1 in 2021.



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PROJECT TEAM

Board of Directors of the Genesee Water & Sanitation District

David Pezzutti, President/Chair Branch Russell, 1st Vice President Frank DeFilippo, Secretary/Treasurer Cynthia Dean-Corbett, Vice President Roger Howell, Vice President

District Manager of the Genesee Water & Sanitation District

S. Scott Jones 2310 Bitterroot Lane Golden, Colorado 80401

Attorney for the Genesee Water & Sanitation District

Richard J. Meheren & Carolyn Steffl Moses, Wittemyer, Harrison, and Woodruff, P.C. 2595 Canyon Blvd., Suite 300 Boulder, Colorado 80302

Design & Feasibility Study Engineer

Stephen L. Jamieson, P.E., Project Manager W. W. Wheeler & Associates, Inc. (Wheeler) 3700 South Inca Street Englewood, Colorado 80110



1.0 INTRODUCTION

1.1 STUDY OBJECTIVE

The Board of Directors (Board) of the Genesee Water & Sanitation District (District) has commissioned this study to evaluate the feasibility of increasing its raw water storage capacity to provide additional drought protection, increase its operational reliability, and protect its existing water rights. Based on its water rights portfolio, the District has targeted an additional 30 acre-feet of water storage by enlarging one or both of its existing reservoirs. The District's existing reservoirs include: Genesee Dam No. 1, a 23-foot-high embankment dam constructed in in 1975 with a reported normal storage capacity of about 16 acre-feet and Genesee Dam No. 2, an 111-foot-high, roller compacted concrete (RCC) gravity dam constructed in 2007 with a normal storage capacity of 101 acre-feet. The District diverts its water from Bear Creek using a pump station located near Mile Marker 12 on Highway 74 between the communities of Kittredge and Idledale as shown on Figure No. 1.

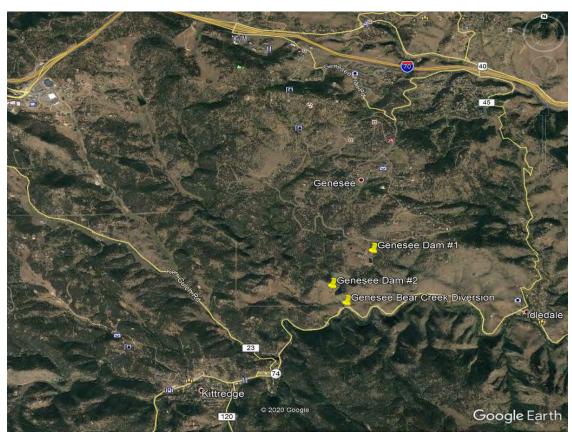


Figure 1 - Genesee Water & Sanitation District Location Map



1.2 STUDY AREA DESCRIPTION

The District was created in 1973 and provides treated water to about 1,430 residential and commercial water taps within its service area. The health and safety of more than 3,900¹ people who live within the District's boundaries are dependent on a reliable, high-quality water supply from the District. Water diverted from Bear Creek is pumped to one of three destinations: Genesee Reservoir No. 1, Genesee Reservoir No. 2, or pumped directly to the District's water treatment plant as shown on Figure No. 2.

Based on U.S. Census Data, the population within Genesee is currently growing. As shown in Table No. 1, the population of this area in 2017 was about 3,670 people. Median annual household income is approximately \$150,000 and the percentage of the population that is considered in poverty is less than 5 percent (U.S. Census, 2017).

Table 1 - Summary of 2017 Genesee U.S. Census Data

Census Item	Genesee CDP ¹
2017 Population	3,670
Population Change (2010 to 2017)	+1.7%
Land Area (square miles)	6.7
Population Per Square Mile	548
Median Household Income	\$150,284
Persons in Poverty	4.5%

¹ Census Designated Place (CDP)

1.3 PREVIOUS STUDIES

Like many small water districts in Colorado, the Genesee Water and Sanitation District was originally established by a developer who needed to provide water service to a new housing development in the 1970s. The District was established in 1973, but the original developer did not invest in water storage for drought protection.

¹ Genesee District population in 2020 as projected using U.S. Census Data from Table No.1.



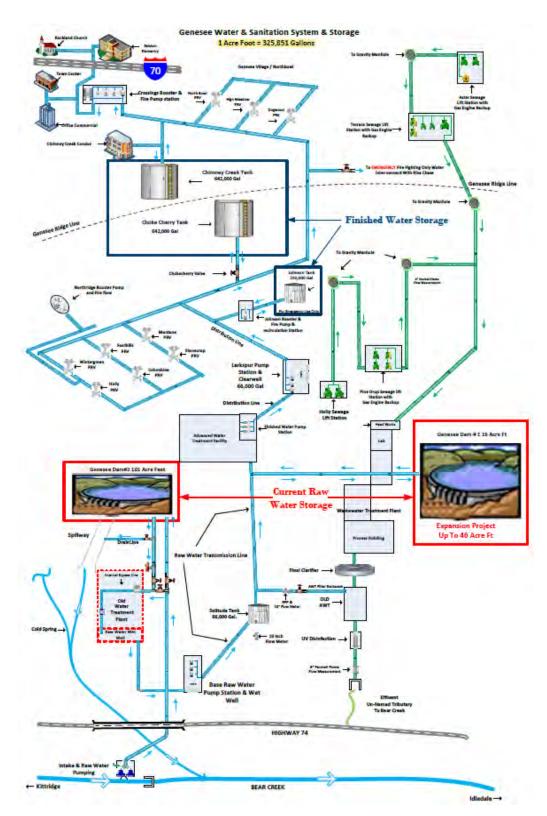


Figure 2 – Genesee Water & Sanitation District Service Schematic



Instead, the water supply of the Genesee development was based solely on pumping water from Bear Creek. During the drought of 2002, water flow in Bear Creek nearly dried up, which drastically reduced the water supply available to the District. District customers suffered through the summer of 2002 using emergency conservation measures that had to be imposed by the District. In 2003, the District selected W. W. Wheeler & Associates, Inc. (Wheeler) to perform a feasibility study to identify potential raw water storage locations in the vicinity of the District. Fourteen different reservoir sites were identified in this feasibility study (Wheeler, 2003). After completing subsequent evaluations and responding to public comments, the Board selected the Genesee Dam No. 2 site for development, which is in a small drainage a few hundred feet above the District's water diversion structure on Bear Creek. Construction of Genesee Dam No. 2 was competed in 2007; water storage in this reservoir has provided limited drought protection for the District's customers since. In 2017, the District completed the construction of a new secondary water treatment plant that was designed to comply with modern drinking water standards. The new water treatment plant and a new administration building was constructed immediately west of Genesee Dam No. 1. The Board understands that with additional growth in the Denver Metro area, there will be more pressure to protect the District's existing conditional water rights. This study was commissioned in 2019 to evaluate locations where an additional 30 acre-feet of water storage could be constructed. Although other locations were initially considered during the August 27, 2020 kick-off meeting, the participants determined that the most economical locations for providing additional raw water storage for the District would be to enlarge one or both the District's existing raw water storage reservoirs.



2.0 PROJECT SPONSOR

2.1 CORPORATE STRUCTURE

The District is a special district organized under the laws of the State of Colorado. Formation of the District was decreed in 1973 following approval of its creation by the electors of the proposed District. The District is considered a governmental subdivision of the State of Colorado and as a corporate body has all the powers of a public or quasi-municipal corporation, with facilities, services and financial arrangements that conform as far as practicable to the approved Service Plan and Resolution of Approval of the Board of Commissioners of Jefferson County, Colorado. As required by Chapter 89, Article 18 of the Colorado Revised Statutes 1963 and the 1965 Supplement, this approved Service Plan was incorporated into the Order which formed the District: Civil Action No. 42093-3 dated July 3, 1973. Additional information about the corporate structure of the District is contained in the Rules and Regulations of the District, provided in Appendix A.

2.2 BOARD OF DIRECTORS

There are five Directors of the Genesee Water & Sanitation District. All Directors are elected to serve for staggered four-year terms of office at successive biennial elections. Vacancies on the Board of Directors are filled by appointment by the remaining Directors. The appointee serves until the next regular election; at which time, the vacancy is filled by election for any remaining unexpired portion of the term.

2.3 HISTORY OF ORGANIZATION

Several milestones have marked the growth and development of the District. Some of these milestones are summarized as follows:

- Genesee Dam No. 1 was completed in 1975 to serve as a raw sewage lagoon. Its
 use was later changed to be a water augmentation supply;
- The primary (original) Water Treatment Plant was completed in 1982;
- Genesee Dam No. 2 was completed in 2007; and
- The Secondary Advanced Water Treatment Plant was completed in 2017.



2.4 FINANCIAL STATUS

The District has historically derived most of its revenue from its commercial and residential customers. Other minor revenue sources include interest on savings accounts and other miscellaneous sources. A summary of the District's financial reports for fiscal years 2015 through 2018 is provided in Table No. 2. The 2019 financial report was not scheduled to be finalized until August 2020, so it was not included in this report. Complete financial statements are provided in Appendix B. The District has typically operated in a cash neutral mode over the years, balancing income with expenses. In any particular year, however, income may not necessarily match expenses. The District maintains an operating reserve to fund capital projects and meet unanticipated expenses. Excess annual operating revenues are temporarily held in reserves until the next year when they are used to reduce anticipated expenditures, and thereby, reduce operating assessments required. In years where annual operating expenses exceed revenues, operating reserves are used until the next year's operating assessments are increased to fund the prior year's shortfall.

Table 2 - Summary of District Financial Reports

Financial Category	2015	2016	2017	2018

- 1 Total Net Position (6) = Total Assets (1 + 2) Total Liabilities (3 + 4 + 5)
- 2 Net Income (9) = Total Revenue (7) Total Expenses (8)



2.5 REVENUE SOURCES

The District derives its revenue from service charges, property taxes, specific ownership taxes and bond proceeds. Other minor revenue sources include interest on savings accounts, related investment earnings, occasional tap fees and other miscellaneous sources.

2.6 PHYSICAL ASSETS

The District owns two dams, two water treatment plants, two pump stations, various water and sanitation operating systems, multiple buildings and a variety of equipment and vehicles.



3.0 WATER RIGHTS

3.1 WATER RIGHTS

The District's decreed water rights are summarized in Table No. 3.

Table 3 – Summary of District Water Rights

Water Right ID	Water Right Name	Туре	Appropriation Date	Value
090752	Hodgson (No. 3)	Direct Flow	06/01/1861	0.3094 cfs
090963	Warrior (No. 4)	Direct Flow	12/01/1861	0.7629 cfs
090862	Pioneer-Union (No. 5)	Direct Flow	12/10/1861	0.6793 cfs
090862	Pioneer-Union (No. 11)	Direct Flow	09/01/1862	0.4450 cfs
0909963	Warrior (No. 14)	Direct Flow	10/31/1864	1.5759 cfs
090862	Pioneer-Union (No. 15)	Direct Flow	03/15/1865	1.3757 cfs
090963	Warrior (No. 16)	Direct Flow	04/01/1865	0.7110 cfs
091014	Genesee Mtn Pipeline	Direct Flow	09/18/1964	8.750 cfs
-NA-	Genesee Irrigation and Storage System	Storage	03/30/1965	125 acre-feet
093705	Cold Spring Gulch Reservoir	Storage	10/02/1971	225 acre-feet
094301	Aug. Reservoir No. 1 (1990)	Storage	07/09/1986	10 acre-feet
094301	Aug. Reservoir No. 1 (1991)	Storage	07/09/1986	5 acre-feet
094330	Aug. Reservoir No. 2	Storage	04/26/2005	101 acre-feet
0905207	Dakota Well No. 1	Non-Tributary	03/08/1972	55 acre-feet
0905211	Dakota Well No. 2	Non-Tributary	02/02/1973	45 acre-feet
0905207	Dakota Well No. 1	Exchange	03/08/1972	55 acre-feet
0905211	Dakota Well No. 2	Exchange	03/08/1972	45 acre-feet



3.2 WATER DIVERSIONS

District water diversion records to and from Bear Creek are provided in Table No. 4 for 2019.

Table 4 – District 2019 Diversion Records

Month	Total Diversions from Bear Creek (acre-feet)	Total Returns to Bear Creek (acre-feet)	Consumptive Use (acre-feet)	Non-Tributary Withdrawals from Bandimere Speedway (acre-feet)
Jan	27.227	23.324	0.817	0.000
Feb	23.345	25.803	0.700	0.000
Mar	25.923	29.912	0.778	0.000
Apr	26.135	24.050	0.784	0.021
Мау	28.329	26.770	0.850	0.000
Jun	32.966	25.220	0.989	0.017
Jul	39.454	23.241	1.184	0.007
Aug	42.044	24.045	1.261	0.025
Sep	38.091	22.842	1.143	0.016
Oct	26.000	23.713	0.780	0.000
Nov	22.974	23.007	0.000	0.000
Dec	24.548	24.790	0.000	0.000
Minimum	22.974	22.842	0.000	0.000
Maximum	42.044	29.912	1.261	0.025
Average	29.753	24.726	0.774	0.007



4.0 ALTERNATIVES ANALYSIS

4.1 ALTERNATIVES EVALUATION APPROACH

Based on discussions with the Genesee District Board during the August 27, 2019 feasibility study kick-off meeting, Wheeler developed feasibility designs for significant, 30 acre-foot, enlargements of both Genesee Dam Nos. 1 and 2. For comparison purposes, Wheeler also evaluated smaller, intermediate enlargement, alternatives at both dams that could be considered as a phased or combination project. For each alternative, a preliminary Inflow Design Flood (IDF) was developed based on an initial estimate of the Probable Maximum Flood (PMF) using the State of Colorado's updated Regional Extreme Precipitation Study (REPS) (REPS, 2018). The IDF was routed through the reservoir with the appropriate enlarged Normal High-Water Line (NHWL) established by a higher service spillway crest. A feasibility-level spillway design was developed for each reservoir to establish the revised maximum water surface and dam crest in each alternative reservoir. Then, for each alternative, a feasibility plan view and representative cross-sections were developed so that approximate construction quantities could be estimated for each alternative. The feasibility drawings are provided in Appendix C.

Wheeler developed a Class 4 Opinion of Probable Project Cost (OPPC) for each alternative. A Class 4 cost opinion is based on a one percent to 15 percent level of design and is expected to range from about 30 percent below to 50 percent above the actual project cost (USSD, 2012). Cost opinions were developed based on 2019 dollars, information from the 2019 RS Means estimating guide (Means, 2019), and Wheeler's database of recent construction bid tabs. For each alternative, Wheeler developed an estimate of direct construction costs in a construction bid tab format. Direct construction costs included a 15 percent contractor mobilization fee and a 5 percent contingency for unscheduled items that are typically added to any project as the design develops. In addition, a contingency for indirect project development project costs was included. The additional contingency included the following items:

- A design engineering fee of 8 percent of the direct construction cost;
- A \$30,000 design review fee for the Colorado Office of the State Engineer (SEO);
- A \$10,000 contingency for final design subsurface investigations and mapping;



- A project permitting contingency fee of 5 percent of the direct construction cost;
- A construction administration contingency fee of 12 percent of the direct construction cost; and
- A bidding and change order contingency of 15 percent of the direct construction cost.

In addition, a four percent annual construction escalation per year was applied to the 2019 cost opinions to provide an estimate of the project capital costs in the year 2021. Detailed opinions of alternative project costs are documented in Appendix D.

4.2 ALTERNATIVES EVALUATED

Five alternatives were considered and are summarized below.

- 1. Alternative No. 1: No Action Alternative;
- 2. Alternative No. 2: Intermediate Enlargement of Dam No. 1 of about 27 acre-feet;
- 3. Alternative No. 3: Significant Enlargement of Dam No. 1 of 46 acre-feet;
- 4. Alternative No. 4: Intermediate Enlargement of Dam No. 2 of about 15 acre-feet; and
- 5. Alternative No. 5: Significant Enlargement of Dam No. 2 of 30 acre-feet.

Additional information associated with each alternative is provided in the paragraphs below.

Alternative No. 1 – No Action

Taking no action at this time would put the District's existing conditional water rights at risk to be targeted for abandonment by the SEO in the near future. With increasing front range population and demands on existing water supplies, this risk is expected to increase each year. Although the District took a much-needed step to provide water storage to protect against future droughts when Genesee Dam No. 2 was constructed about 13 years ago, continued climate change and increased water demands in the District since then have reduced the reliability of the District's drought protection. Without providing additional raw water storage, the District's drought protection and operational reliability will continue to be reduced.



Alternative No. 2 – Intermediate Enlargement of Dam No. 1

The intermediate enlargement of Dam No. 1 is shown on Drawing Sheets 8 through 10 in the feasibility drawings provided in Appendix C. This alternative was developed to maximize dam enlargement construction with less expensive, on-site earth fill rather than using more expensive concrete construction. This alternative would include raising the existing side channel spillway dam crest by about nine feet from Elevation 7063 to 7072.3, which would increase storage in Genesee Dam No. 1 by about 11 acre-feet. This alternative would involve raising the dam crest to about Elevation 7076 and reducing the dam crest to about 20 feet in width. This concept was developed so that it would not cause a significant change in the downstream toe of the existing dam. If the downstream dam toe was moved further downstream, it would impact downstream infrastructure such as the clarifier tank and the wastewater filter building. This alternative would require complete draining of Genesee Reservoir No. 1 so that the existing 23-year-old synthetic liner could be replaced with a new 45 mill low density polyethylene liner system.

Modification of Dam No.1 also provides an opportunity to construct a new tie-in between Genesee Reservoir No. 1 and the District's main raw water transmission line. This would consist of a new pump station constructed in the existing Bitterroot pump building along with associated piping and controls. This new tie-in to the existing water line would allow for the conversion of 16 acre-feet of dead storage in Genesee Reservoir No. 1 to active storage by placing the new pipeline intake at a lower elevation in Genesee Reservoir No. 1, effectively increasing the storage gain for Alternative No. 2 from 11 acre-feet to 27 acre-feet.

Wheeler's opinion of the total project budget required to implement Alternative No. 2 is about \$2.12 million in 2021 dollars as detailed in Appendix D. The unit cost per acre-foot of storage for Alternative No. 2 is about \$78,400.

Alternative No. 3 – Significant Enlargement of Dam No. 1

The significant enlargement of Dam No. 1 is shown on Drawing Sheets 4 through 7 in the feasibility drawings provided in Appendix C. This alternative was developed to increase water storage by 30 acre-feet over the reported capacity of 16 acre-feet. This alternative would include raising the existing side channel spillway dam crest by about 20 feet from Elevation 7063 to 7083.5. The crest of the new dam embankment would need to be



constructed at elevation 7080.3. The upstream slope of the raised dam embankment would need to be constructed at a slope of 3H:1V to accommodate a new 45 mill low density polyethylene liner system. A downstream slope raise of the dam embankment with earth fill would significantly impact the infrastructure downstream of the dam. In order to accommodate the higher maximum water surface associated with the raised spillway, additional water storage, and routing the IDF through the new spillway, a feasibility design for a reinforced concrete parapet wall was developed with a top of wall elevation of 7088. This design would allow a 20-foot wide dam crest to be constructed immediately downstream of the parapet wall at Elevation 7083.5 so that the downstream slope of the existing dam would remain essentially the same as the existing configuration and minimize impacts to downstream infrastructure. The parapet wall would run along the entire slope of the existing dam and an additional 300 feet in length on the west (downstream right, looking downstream) side of the reservoir. The parapet wall would range in height from about eight feet on the west end to about 24 feet in height near the existing side channel spillway. As with Alternative No. 2, Alternative No. 3, would require complete draining of Genesee Reservoir No. 1 so that the existing 23-year-old synthetic liner could be replaced with a new 45 mill low density polyethylene liner system.

As with Alternative No. 2, Alternative No. 3 would also provide an opportunity to construct a new tie-in between Genesee Reservoir No. 1 and the District's main raw water transmission line at the existing Bitterroot pump building. Implementation of this option would effectively increase the storage gain for Alternative No. 3 from 30 acre-feet to 46 acre-feet.

Wheeler's opinion of the total project budget required to implement Alternative No. 3 is about \$4.20 million in 2021 dollars as detailed in Appendix D. The unit cost per acre-foot of additional storage for Alternative No. 3 is about \$91,380.

Alternative No. 4 – Intermediate Enlargement of Dam No. 2

The intermediate enlargement of Dam No. 2 is shown on Drawing Sheets 13 and 14 in the feasibility drawings provided in Appendix C. This alternative was developed to increase the storage in Genesee Reservoir No. 2 by about 15 acre-feet. Alternative No. 4 would require raising the existing drop-inlet service spillway tower by about five feet from Elevation 6788.25 to Elevation 6793.4. Structural evaluations of the existing service spillway



tower indicate that the bottom of the tower would need to be reinforced due to the additional water loads on the structure for both Alternative Nos. 4 and 5 (SM&RC, 2019). A feasibility design to reinforce the bottom of the tower was developed that involved inserting a 90-inch-diameter steel pipe inside the bottom half of the tower and grouting the annular space between the steel pipe and the service spillway tower walls. The existing emergency spillway section in the center of the existing dam would be replaced by a 50-foot-wide, new emergency spillway that was designed to safely pass the majority of the IDF through the right abutment and into Cold Springs Gulch. The existing 20-foot-wide dam crest would be raised by 3.5 feet with reinforced concrete to Elevation 6795.5 to provide adequate weight to stabilize the dam for the increased water loads. A new parapet wall would be constructed along the upstream crest of the dam to an elevation of 6880.4 to contain the maximum water surface associated with routing the IDF through the new service and emergency spillway. Our cost estimate also included approximately \$130,000 to purchase a flood easement on private property and to protect existing Xcel Energy power poles that could suffer minor damage during discharges through the new emergency spillway into Cold Springs Gulch. The Highway 74 bridge over the confluence of Cold Springs Gulch has more than adequate hydraulic capacity to pass spillway flows under this bridge

Wheeler's opinion of the total project budget required to implement Alternative No. 4 is about \$2.66 million in 2021 dollars as detailed Appendix D. The unit cost per acre-foot of storage for Alternative No. 4 was estimated to be about is \$177,300.

Alternative No. 5 – Significant Enlargement of Dam No. 2

The significant enlargement of Dam No. 2 is shown on Drawing Sheets 11 and 12 in the feasibility drawings provided in Appendix C. This alternative is like Alternative No. 4 but was developed to increase the storage in Genesee Reservoir No. 2 by the full 30 acre-feet. Alternative No. 5 would require raising the existing drop-inlet service spillway tower by about 10 feet from Elevation 6788.25 to Elevation 6798.2 and would require reinforcement of the bottom of the tower with a grouted-in-place 90-inch-diameter steel pipe. The existing 20-foot-wide dam crest would be raised by six feet with reinforced concrete to Elevation 6798.0. A new parapet wall would be constructed along the upstream crest of the dam to an elevation of 6803 to contain the maximum water surface that would result from routing the IDF through the new service and emergency spillway. A new 100-foot-wide



reinforced emergency spillway would also need to be constructed in the right abutment to convey the IDF to Cold Springs Gulch. The crest of the new emergency spillway was set at Elevation 6798.2. An indirect cost of approximately \$130,000 was also included in the cost opinion for this alternative to purchase flood easement on the adjacent private property and protect the existing Xcel Energy power poles.

Wheeler's opinion of the total project budget required to implement Alternative No. 5 is about \$4.13 million in 2021 dollars as detailed in Appendix D. The unit cost per acre-foot of additional storage for Alternative 5 is about \$137,600.

Other Alternatives Considered

One of the key alternatives to Genesee Dam No. 2 that was evaluated during the planning work that occurred in 2003 and 2003 was the use of the Ralston Dam site that is located on Cold Spring Gulch about two miles upstream of its confluence with Bear Creek. This project would require a pump station and about two miles of fill and drain pipeline to pump water to the Genesee No. 2 Reservoir and then deliver it back to the District's Bear Creek diversion. facility. The estimated cost of this other alternative in 2003 dollars was about \$8.2 million and was estimated to provide an additional 125 acre-feet of storage. Based on an escalation of construction costs since 2003, this alternative raw water storage expansion project is estimated to cost about \$16 million in 2021 construction dollars, which would equate to a unit water storage development cost of about \$128,000 per acre-foot. For comparison, the approximately \$10 million in 2007 capital cost to develop Genesee Dam No. 2 would be about \$14.5 million in 2021 dollars, which represents a unit cost of storage of about \$143,000 per acre-foot for the 101 acre-feet of storage in that reservoir. The key advantage of constructing Genesee Dam No. 2 in its current location was that there were no impacts to wetlands and the waters of the United States and minimal private property easement and/or purchase issues. Assessing wetlands impacts and required associated federal permitting required with the other alternatives evaluated in 2003 could have significantly delayed or prohibited development of these other alternate reservoirs.

4.3 ALTERNATIVE COMPARISON

A comparison of some of the key decision criteria associated with the primary alternatives developed for this feasibility study is provided in Table No. 5.



Table 5 – Alternative Comparison Summary

Alternative	Opinion of Probable Cost (2021 dollars)	Unit Cost of Storage Increase (\$ per acre-foot)	Comments
Alternative No. 1 (No Action)	Not Applicable	Not Applicable	Likely loss of future water rights; Reduced future drought protection
Alternative No. 2 (Genesee Dam No. 1 + 27 acre-feet)	\$2.12 M	\$78,400	Minimized use of concrete; Allows for existing liner replacement; Increases operational flexibility; Recaptures dead storage
Alternative No. 3 (Genesee Dam No. 1 + 46 acre-feet)	\$4.20 M	\$91,380	Maximizes District water rights; Allows for existing liner replacement; Increases operational flexibility; Recaptures dead storage
Alternative No. 4 (Genesee Dam No. 2 +15 acre-feet)	\$2.66 M	\$177,300	Future Dam #1 Liner replacement would still be a required future District investment
Alternative No. 5 (Genesee Dam No. 2 + 30 acre-feet)	\$4.13 M	\$137,600	Maximizes District water rights; Future Dam #1 Liner replacement would still be a required future District investment

4.4 SELECTED ALTERNATIVE

During a meeting of the District Board of Directors on March 24, 2020 with representatives of Wheeler and CWCB, the pros and cons of each alternative were discussed along with various financing options. After this discussion, the District selected Alternative No. 3 for development. Some of the key reasons for the District's selection include:

- 1. Alternative No. 3 maximizes additional storage within the District.
- 2. Alternative No. 3 would provide significant additional protection to District residents from future droughts.
- 3. Development of Alternative No. 3 would protect the District from the potential future loss of the 46 acre-feet of water rights.
- 4. The existing, 23-year-old, synthetic liner in Genesee Reservoir No. 1 is nearing the end of its design life. Replacing this liner is expected to cost about \$500,000 in the near future. Replacement of the liner is included as a part of the work associated with Alternative No. 3.



4.5 IMPLEMENTATION SCHEDULE

The District Board decided to adopt an aggressive implementation schedule, so that project financing and design can be completed by early 2021 and bidding, permitting and construction could be performed in 2021. Some of the key project milestones are summarized in Table No. 6.

Table 6 - Estimated Project Milestone Schedule

Task	Date
CWCB Loan Application	August 1, 2020
CWCB Loan Approval	September 30, 2020
CWCB Water Plan Grant Application	December 1, 2020
CWCB Water Plan Grant Approval	March 31, 2021
Final Design Complete	October 1, 2020 – December 31, 2020
Bidding	March 1, 2021 – April 15, 2021
Permitting Complete (Jefferson County / State Engineer / 404 Permit)	June 1, 2021
Construction	July 1, 2021 – December 1, 2021
Start CWCB Loan Payments	January 2022

5.0 SOCIAL, ECONOMIC AND PHYSICAL IMPACTS

Construction of Alternative No. 3 is not expected to have significant adverse social impacts. Minor economic and physical impacts are expected:

- An annual rate increase ranging between \$80 to \$140 will be assessed to each of the District's water taps in service. However, those increased fees will provide considerable value to District residents in terms of additional security from future droughts.
- The construction work can be completed with local contractors, so no significant increase in local traffic or housing is expected during construction.
- Some minor physical disturbance to the area surrounding and including Genesee
 Dam and Reservoir No. 1 will occur during construction, but these impacts will be
 mitigated by reseeding and site reclamation as required after construction efforts are
 complete.

Alternative No. 3 is an enlargement of an existing water storage reservoir, which is expected to minimize the potential environmental impacts associated with developing an additional 46 acre-feet of raw water storage.



6.0 INSTITUTIONAL FEASIBILITY

6.1 PERMITTING

The key permit required for most water resources projects in the United States is a 404 permit for impacts to wetlands or waters that is issued by the U.S. Army Corps of Engineers. In this case, the work will consist of an expansion to an existing raw water storage facility, so issuance of a Nationwide 404 maintenance permit is anticipated, which would minimize federal permitting requirements. Other potential project permits are listed below.

- 1. A Jefferson County Grading Permit will be a requirement for this project. Other Jefferson County permits may also be required.
- 2. The plans, specifications, and design of Alternative No. 3 will need to be approved by the SEO.
- 3. No new water rights will be required for the construction of Alternative No. 3.

The construction work required for this project will occur on lands already owned by the District or within existing District easements for operation and maintenance. As a result, no additional construction easements or land acquisition will be needed to complete the construction of Alternative No. 3. As this project directly addresses standing water storage needs, the District does not anticipate any difficulty in obtaining approval for a fee only increase to partially fund CWCB loan payments that will be required with Alternative No. 3.



7.0 FINANCIAL FEASIBILITY ANALYSIS

7.1 LOAN AMOUNT AND FINANCING SOURCES

As documented in Appendix D, the total cost opinion for the preferred alternative, Alternative No. 3, is \$4.20 million in 2021 dollars. The District is planning on financing the project through a combination of a CWCB Water Project Loan, a Colorado Water Plan Grant, and a modest fee increase. The District Board was planning to apply for both the CWCB loan and grant by August 1, 2020, so that both could be considered together at the September CWCB Board meeting. However, at the July 2020 CWCB meeting the CWCB decided to defer Colorado Water Plan Grant applications to be due by December 21, 2020 so that the Grants could be approved at the March 2021 CWCB meeting. At the July District Board meeting, the District Board decided to consider either a 30-year or 40-year Water Project Loan from the CWCB. Current interest rates at the time this report was prepared were 2.35 percent for a 30-year loan and 2.60 percent for a 40-year loan. Colorado Water Plan Grants are considered by the CWCB twice per year. The grant program is competitive based on all viable grant applications from other water providers in Colorado. Colorado Water Plan Grants can be approved for up to \$1.5 million per project. Projects that provide the most amount of additional, implementable storage are generally given a preference by the CWCB.

7.2 FINANCIAL PROJECTIONS

Alternative financing plans and loan repayment schedules for a \$4.2 million enlargement of Genesee Dam No. 1, based on the current CWCB guidelines, are provided in Appendix E. Four potential financing scenarios are documented in Appendix E and are summarized in Table No. 7. The key unknown variable at this time is the amount of CWCB Colorado Water Plan Grants that would be available to the District for this project. Another key unknown is the interest rate that will be available from the CWCB at the time of the loan approval. For both the 30-year and 40-year loans, we evaluated the effects on loan payment and increased annual fees per existing tap without a Colorado Water Plan Grant and with a maximum available grant of \$1,500,000. Regardless of the assumed financial repayment



scenario, the financing plans show that the District would have an annual loan payment that would range from about \$128,000 to \$199,000 and that these loan payments can be covered by an annual fee increase per tap in the range: \$78 to \$141.

Table 7 – Summary of Alternative Financing Scenarios

Finance Scenario	Annual Loan Payment	Annual Increase Per Tap

7.3 COLLATERAL

The CWCB would require collateral for a loan, which is typically the reservoir itself. As the application and loan agreement is finalized with the CWCB staff, specific loan collateral requirements will be finalized.

7.4 CREDITWORTHINESS

The District does have some outstanding debt, but these loan payments are included in the financial data and these loans are expected to be paid off during the financing period for this project. As shown in the financial information provided in Appendix B and the financial plans documented in Appendix E, the District is considered to be in a strong financial condition for this project.



8.0 CONCLUSIONS AND RECOMMENDATIONS

Some of the key conclusions and recommendations from this feasibility study are summarized below.

- 1. During the March 24, 2020 Board meeting, the District Board unanimously voted to proceed with completing Alternative No. 3, significantly enlarging the raw water storage in Genesee Dam No. 1. The Board elected to evaluate either a 30-year or 40-year CWCB loan and to apply for a Colorado Water Plan Grant to fund part of the project. Some of the key reasons noted for taking this action are summarized as follows:
 - a. The Project would increase the District's raw water storage by nearly 50 percent, from 101 to 147 acre-feet, which provides increased drought protection to the District's customers.
 - b. The Project would provide protection for a portion of the District's currently unused water rights, by putting these rights to beneficial use.
 - c. Increasing storage at Genesee Dam No. 1 provides an alternate water supply for the Advanced Water Treatment Plant that could be used during downtime associated with the maintenance or failure of the existing diversion infrastructure between Bear Creek and the water treatment plant, thereby increasing the overall reliability of the water system.
 - d. Additional storage in Genesee Dam No. 1 would provide a realistic capacity to recycle treated effluent if this became necessary in the case of a severe drought.
 - e. The project improves raw water operational flexibility and reliability. It also provides a uniform enhancement of the long-term value to each of the District's customers.
 - f. This Project provides an opportunity to improve the aesthetics of the area in proximity to Genesee Dam No. 1.
 - g. The existing 23-year-old pond liner in Genesee Dam No. 1 will need to be replaced in the next few years anyway. The cost to replace the liner could cost as much as \$500,000 or more depending on future construction escalation.
 - h. CWCB loan rates are favorably low at this time, generally less than 2.5 percent, while annual construction escalation costs are increasing at as much as four percent per year or more.



- 2. As summarized in Section No. 7 of this report, the District has the financial capability to pay off either a 30-year or 40-year loan, even if they do not receive an additional Colorado Water Plan Grant.
- 3. Increasing raw water supply storage by increasing storage capacity within existing facilities is consistent with the Colorado Water Plan.



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10.0 LIMITATIONS

This feasibility study report was prepared based on our best knowledge and judgment and, in part, from information provided by others. This study was conducted in accordance with generally accepted engineering practices in the State of Colorado. Water supply projects and their associated implemented budgets and schedules can be influenced by a variety of factors that are outside the control of the Genesee Water and Sanitation District and W. W. Wheeler & Associates, Inc. As a result, there is no expressed or implied warranty or guarantee of the work described in this study. W. W. Wheeler & Associates, Inc. is also not responsible for the liability associated with the interpretation of the information presented in this report by others.



Appendix A

Rules and Regulations (Genesee Water & Sanitation District)



RULES AND REGULATIONS

Updated 2019

Genesee Water & Sanitation District 2310 Bitterroot Lane Golden, CO 80401

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www.geneseewater.com

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- Past Due Letters Water and Sewer Service Billing:
- Final Notice Notice of Suspension
- Inclusion Guidelines
- Drought Management Plan

GENESEE WATER AND SANITATION DISTRICT

RULES AND REGULATIONS

Section One

1. GENERAL INFORMATION

- Authority: These Rules and Regulations are adopted in accordance with the authority conferred in Title 32, Article 1 of the Colorado Revised Statutes, by the Genesee Water and Sanitation District Board of Directors, a political subdivision of the State of Colorado and a quasi-municipal corporation with all the powers thereof which are specifically granted to the District, or are necessary or incidental to or implied from powers specifically granted by statute, constitution or other law, for carrying out the objectives and purposes of the District.
- 1.2 <u>Policy</u>: It is hereby declared that the following Rules and Regulations will serve a public purpose and will promote the health, safety, and general welfare of the inhabitants and visitors of the Genesee Water and Sanitation District.
- 1.3 <u>Purpose</u>: The purpose of these Rules and Regulations is to provide for the control, management and operation of the water and sewer systems of the Genesee Water and Sanitation District, including additions, extensions and connections thereto, and to provide for the administration and enforcement of such standards. All service by the District will be available in accordance with these Rules and Regulations and the charges established therefore, and subject to all penalties and charges for violation thereof, or any statutes applicable to the District, subject to availability and capacity of facilities.
- 1.4 <u>Scope</u>: These Rules and Regulations shall be considered a comprehensive set of Rules and Regulations governing certain aspects of the control, management and operation of the Genesee Water and Sanitation District. It should be noted, however, that not every conceivable aspect of the control, management and operation of the District and its systems is covered in these Rules and Regulations, and that the Board of Directors of the District reserves the right to make rulings concerning matters not covered herein as and when appropriate, in the opinion of the Board.
- 1.5 <u>Regulations By Other Governmental Entities</u>: Any limitation, restriction, or prohibition validly placed upon the District by any governmental entity or by any agreement between the District and any other governmental entity is hereby incorporated into these Rules and Regulations by this reference and shall constitute a limitation, restriction and/or prohibition on each customer of the District.
- 1.6 <u>Effective Date</u>: These Rules and Regulations shall be effective immediately upon adoption by a majority of the District's Board of Directors at a public meeting.
- 1.7 <u>Construction</u>: It is the intent of the Board that these Rules and Regulations shall be liberally construed to effect the general purposes and policies set forth herein. Nothing set forth herein shall be construed as an alteration, waiver or deviation from any grant of power, or any limitation or restriction thereof, conferred or imposed upon the District by the statutes, constitutional provisions, or other laws of Colorado as they currently exist and as they may exist in the future.
- 1.8 <u>Amendments</u>: These Rules and Regulations may be amended from time to time by the Board in the same manner as provided in Section 1.6 herein.

- 1.9 <u>Saving Provision</u>: The enactment of these Rules and Regulations, any amendment thereof, or the repeal of any prior existing Rules and Regulations or Resolutions shall not deny or limit any right, action, cause of action, penalty charge or fee which arose under such provision.
- 1.10 <u>Repeal of Conflicting Resolutions</u>: All Resolutions or parts of resolutions in conflict herewith are hereby repealed, except as may be as expressly provided herein.
- 1.11 <u>Severability</u>: The invalidity of any section, clause, sentence, or provision of these Rules and Regulations shall not affect the validity of any other part of these Rules and Regulations which can be given effect without such invalid part or parts, and to this end the provisions of these Rules and Regulations are hereby declared to be severable.
- 1.12 <u>Variances</u>: The District reserves the right to waive or modify the provisions of these Rules and Regulations at its sole discretion. Any person seeking a variance of a provision of the Rules and Regulations shall have the burden of proving that the operation of such a provision as it is applied would cause undue hardship or should not be applied to the person for another justifiable reason and such variance shall not endanger the health, safety and welfare of the residents and inhabitants of the District. The Board's decision to grant or to deny the variance shall be final and conclusive.
- 1.13 Governing Board and District Management: The District is governed by a Board of Directors (the "Board") consisting of five members (the "Directors"). The Directors must be qualified electors of the District and are elected to staggered four-year terms of office at successive biennial elections. Vacancies on the Board of Directors are filled by appointment of the remaining Directors. The appointee serves until the next regular election; at which time, the vacancy is filled by election for any remaining un-expired portion of the term.

The Directors hold regular monthly meetings and special meetings as needed. Each Director is entitled to one vote on all questions before the Board when a quorum is present.

Any person(s) and/or representative(s) wishing to be placed on the upcoming Board of Directors meeting agenda or have material submitted for consideration at said meeting shall do so not later than 12:00 noon the Wednesday prior to the next regularly scheduled meeting, or at a minimum, three and one half business days prior to said meeting day.

Section Two

2. **DEFINITIONS**

Unless the context requires otherwise, the meaning of terms used herein shall be as follows:

- 2.1 <u>Board or Board of Directors</u>: The duly elected Board of Directors of the Genesee Water and Sanitation District, which acts as the governing body of the District.
- 2.2 <u>Building</u>: Shall mean any structure used or intended for supporting or sheltering any use or occupancy.
- 2.3 <u>Building Drain</u>: That part of the lowest horizontal piping of a building drainage system from the stack or horizontal branch, exclusive of storm sewer, extending to a point not less than five feet (5') outside of the building wall.
- 2.4 <u>Business Day</u>: Normal administrative business hours are from 8:00 AM to 4:30 PM, Monday through Friday, legal holidays excepted. Normal field operator hours for District jobs are from 8:30 AM to 3:30 PM, Monday through Friday, legal holidays excepted.
- 2.5 <u>Connection</u>: The connection of water and/or sewer service lines to District lines for either a permanent or temporary purpose.
- 2.6 <u>Contractor</u>: Shall mean any person, corporation or other entity acting as an independent contractor, authorized by the District to perform work or furnish materials within the District, and hired by either the District or other persons or entities.
- 2.7 <u>Cost or Costs</u>: All costs associated with the new construction, reconstruction, enlargement or dedication of any water or sewer system, including, but not limited to, all costs of associated planning, engineering, inspection, administration, acquisition of facilities, right-of-ways or water rights, attorney fees and other fees which are necessary to provide new, different or additional services within the District's service area or proposed service area.
- 2.8 <u>Customer</u>: Shall mean any person, as defined herein, developer, or property owner together with any lessee or tenant of such property owner, or occupant of such property owner's property, who is supplied with service by the District or authorized to use water or connect to the public water or sewer under a permit issued by the Board of Directors.
- 2.9 <u>Deleterious Wastes</u>: Any wastes contained in special sewage that would be harmful to the District's sewer mains or to the sewage treatment works, or which, without pretreatment, 0would violate federal, state or local pretreatment standards.
- 2.10 <u>Developer</u>: Any person who owns land and is subdividing the land for resale and seeks to have the land served by the District.
- 2.11 District: The Genesee Water and Sanitation District.
- 2.12 <u>District Engineer</u>: Person or firm that is appointed by the Board and employed or contracted to do engineering work for the District.
- 2.13 <u>EQR</u>: An approximate measure of the level of service necessary to serve a single family dwelling, or in the case of multi-family dwellings, the measure of the level of service necessary to serve each individual single family unit within the multi-family structure, used to calculate the cost of tap fees and service charges in Appendix A.

- 2.14 <u>Industrial Wastes</u>: The liquid wastes from industrial processes, trade, or business, as distinct from sanitary sewage.
- 2.15 <u>Licensed Plumber or Pipe Layer</u>: A person who has been bonded and provided a license to perform such work by the County of Jefferson, State of Colorado.
- 2.16 <u>Manager or District Manager</u>: The person retained by the Board to administer and supervise the affairs of the District and its employees, including enforcement of the District's Rules and Regulations.
- 2.17 May: Meaning "is permissive."
- 2.18 <u>Permit</u>: Written permission of the Board of Directors given pursuant to these Rules and Regulations, subject to the specific terms and conditions contained therein.
- 2.19 <u>Pre-Treatment Facilities</u>: Structures, devices, equipment or processes for the purpose of reducing or removing the deleterious wastes or altering the nature of the deleterious wastes in special sewage prior to discharging such sewage into the District's sewer system.
- 2.20 <u>Proposed Customer</u>: Any person whose property is capable of being served by District facilities or who has applied for a tap permit, connection permit, main line extension permit, or inclusion and who has not yet received the service which is the object of the permit application, regardless of whether such person or governmental authority or agency is already receiving other service from the District and regardless of whether they are the property owner, developer, sub-divider or user.
- 2.21 Remote Register/Readout: The component part of the customer owned water meter assembly used to receive and record a signal transmitted to it by the water meter. (See definition for Water Meter). The remote register is located on the exterior of the building or dwelling for which service is being metered. Its purpose is for facilitation of the meter reading process.
- 2.22 <u>Responsible Person</u>: Any person who proximately causes an action or event and any person who directs another to cause an action or event, and any customer whose property or facility was intended to be benefited by such actions.
- 2.23 Sampling: The periodic collection of water or sewage samples for testing.
- 2.24 <u>Sewage</u>: A combination of liquid wastes originating from any residential, commercial, or industrial buildings or other establishments, which may include household wastes, human excreta, animal or vegetable matter, organic or inorganic material in suspension or solution, and other solids in suspension or solution.
- 2.25 <u>Sewer Main</u>: (also referred as <u>Main Line</u> in the context of the District's sewer system): Any pipe, system of piping and appurtenances used as a conduit for sewage in the District's sewer system and owned by the District. Unless otherwise designated by the Board, a main shall be any line eight inches (8") or more in diameter.
- 2.26 <u>Sewer Service Lines</u>: (also referred to as <u>Service Line</u> in the context of the District's sewer system): Any pipe, system of piping and appurtenances used as conduit for sewage from a customer's facility where sewer service is provided, to the sewer main.
- 2.27 <u>Sewer System</u>: All structures, facilities equipment and processes used for collecting, pumping, treating, and disposition of sewage.
- 2.28 <u>Sewage Treatment Works</u>: Those devices, facilities, structures or locations to, which sewage is conveyed by sewer mains for the purpose of treatment.

- 2.29 Shall: Meaning "is mandatory."
- 2.30 <u>Stub-In</u>: In the context of water service line, the curb stop; in the context of sewer services lines, the point where 4-inch PVC lines are brought to within 100 feet of the property line.
- 2.31 <u>Superintendent or District Superintendent</u>: The person employed by the Board, or, in their absence, their duly authorized deputy, who shall supervise operation and maintenance of District facilities, and who shall, among other things, operate, inspect and approve all connections, excavations, and installations, systems and facilities.
- 2.32 <u>Testing</u>: In the context of water or sewage, the analysis of samples for composition, and other characteristics; in the context of construction or connection of water or sewer system facilities, the inspection and trial operation of the construction.
- 2.33 <u>Unit</u>: A building or portion thereof used for a single family residence, an individual commercial use or which is provided separate service.
- 2.34 <u>Water Mains</u>: (also referred to as <u>Main Line</u> in the context of the District's water system): Any pipe, system of piping and appurtenances used as a conduit for water in the District's water system and owned by the District. Unless otherwise designated by the Board, a main shall be any line four inches (4") or more in diameter.
- 2.35 <u>Water Meter</u>: The component part of the customer owned water meter assembly which is used for the measurement and totalizing of the gallons of water that pass through it. (See remote register).
- 2.36 <u>Water Service Line</u>: (also referred to as <u>Service Line</u> in the context of the District's water system): Any pipe, line, or conduit used to provide water service from the main to the facility where the water service is provided to the customer.
- 2.37 <u>Water System</u>: All facilities and processes for diverting, transporting, distributing, storing, pumping, treating, measuring, etc. of the water.
- 2.38 <u>Any Other Term</u>: Not herein defined shall be defined as presented in the "Glossary Water and Sewage Control Engineering", A.P.H.A, A.S.C.E., F.W.A.A., and U.P.C. latest editions.

Section Three

3. OPERATING PRINCIPLES AND LIMITATIONS

- 3.1 <u>Policy</u>: The District is responsible for providing water and sewer services in an economical manner within the District, and providing for the operation, maintenance, repair and replacement of all mains, hydrants, valves, and facilities owned by the District, in accordance with these Rules and Regulations. The right to use any of the District's water or sewage system is only by permission of the District. The District reserves full right to determine all matters related to the control and use of its water and sewage system, with the right to use the District's water and sewer systems being subject to suspension or revocation.
- 3.2 <u>Facilities Construction Costs</u>: Notwithstanding any other provision of these Rules and Regulations to the contrary, all costs of new construction, reconstruction or enlargement of any water or sewer system facilities, including all associated planning, engineering, administration and attorney's fees, which are necessary to provide new, different or additional water or sewer service within the District's service area (including but not limited to service lines, main lines, and water or sewage treatment works), shall be paid by the owner(s) of the property or building to be provided service. The other provisions of this section apply regardless of whether the District or some other person contracts for, or initially pays for, such construction, reconstruction or enlargement, or such service is compelled by the District. The District Board may act other than as required in this section when it determines, in its sole discretion that such action is in the best interest of the District, or is necessary to provide for the health, safety and welfare of the inhabitants and visitors of the District.

3.3 Liability:

3.3.1 District Not Liable: No claim for damage shall be made against the District, and the District and its officials and employees shall not be liable by reason of damage resulting from any of the following, which list is not exhaustive: breaking of any service or supply line, pipe, cock, or water meter by any employee of the District; failure of the water supply; inadequacy of the water supply as it relates to flows and pressures whether permanent or temporary in nature; shutting off or turning on water in the water mains; the making of connections or extensions; damage caused by water running or escaping from open or defective faucets; burst service pipes or other facilities not owned by the District; damage to water heaters, boilers, or other appliances resulting from shutting water off, or for turning it on, or from inadequate, sporadic, and excessive pressures; blockage in the system causing the backup of effluent; breakage of main lines by District personnel; interruption of water or sewer service and the conditions resulting wherefrom said interruption of service is brought about by request of claimant, or by circumstances beyond the District's control; failure of water and sewer facilities to be located where District's map indicates they should be; the shutting off of a sewer lift station and possible backflow resulting there from; failure to obtain access to isolation valve; or for taking certain actions with respect to the water or sewer system of the District deemed necessary by the Board of Directors or its agents. This paragraph shall not relieve the District from liability for negligence of its employees, if such liability would otherwise have existed.

These Rules and Regulations shall not be construed to hold the District in any manner responsible for any damages to persons property resulting from any inspections as herein authorized or resulting from the issuance or denial of any permit as herein provided, or resulting from the institution of court action as allowed by law, or the forbearance by the District to so proceed.

3.3.2 Officials Not Liable: Any District official or employee, charged with the enforcement of these Rules and Regulations, acting in good faith and without malice on behalf of the District in the discharge of his or her official duties, shall not thereby render himself or herself personally liable for any damages which may accrue to persons or property resulting from any such act or omission committed in the discharge of such duties. Any

suit or proceeding instituted against such official or employee, stemming from any act or omission performed by him or her in the enforcement or attempted enforcement of any provision of these Rules and Regulations, shall be defended by the District until final termination of the proceedings, in such a manner as to be consistent with the District's resolution indemnifying such officials and employees.

- 3.3.3 <u>Non-Liability for Work of Others</u>: The District does not assume any liability for any work performed by others. No claim shall be made against the District or any of its officers or employees on account of errors of omission or commission made by the District's licensees or independent contractors.
- 3.3.4 <u>Indemnity</u>: The owner(s) shall indemnify the District from any loss or damage that may directly or indirectly be occasioned by the installation, repair or other interference with District water or sewer facilities and shall obtain any guarantee required by Section 10.9.
- 3.3.5 <u>Non-Waiver</u>: The foregoing shall not constitute a waiver by the District of the defense of sovereign immunity or the Colorado Governmental Immunity Act, or any other defenses it may have to an action against the District, its officials or employees, nor a waiver of its insurance coverage.
- 3.4 <u>District Ownership and Maintenance</u>: Except as otherwise provided in these Rules and Regulations, all existing and future water and/or sewer system facilities connected with and forming an integral part of the District's water and sewage system shall become and are the property of the District. The District shall be responsible for maintenance, repair and reconstruction of such property, including water or sewer mains, at the cost of the District unless the situation necessitating such repair or reconstruction is the result of a change or enlargement of use, use or damage to such facilities, in which case such repair or reconstruction will be done at the expense of the person responsible for such abnormal use or damage. Said ownership will remain valid regardless of whether such property is constructed, financed, paid for, or otherwise acquired by the District, or by other persons. No other persons, except those authorized by the District shall have any right to enter upon, inspect, operate, adjust, change, alter, move or relocate any portion of the foregoing or any of the District's facilities.
- Ownership and Maintenance of Water and Sewer Service Lines: Water Service Lines including the tap and corporation stop extending from the District owned main to each building or unit are the property and maintenance responsibility of the owner of said building or unit. In the case of commercial customers where line size is greater for combination fire flow and domestic requirements, ownership and maintenance responsibility will begin at the inlet side of the valve closest to the District owned main extending to each building or unit. All appurtenances associated with water service lines including taps, corporation stops, curb boxes; curb stops, valves, valve boxes, meter pits, meter assemblies and meters are owned and shall be maintained by the owner of the building or unit they are servicing, unless maintenance is provided for otherwise under Section 3.6. The District however maintains the rights to enter upon, inspect, and operate the curb stop and curb box, valve and valve box, if it is deemed necessary to do so for any reason. An illustration depicting the above is contained in, and attached hereto as Appendix B, Drawing F.

Sewer Service Lines including the tap, tapping saddle, tee, wye or manhole bore extending from the District owned main to each building or unit are the property and maintenance responsibility of the owner of said building or unit. All appurtenances associated with sewer service lines including cleanouts, grease traps, and sand/oil separators shall be maintained by the owner for which building or unit they are servicing.

Leaks, stoppages or breaks in such portions of such service lines shall be repaired by the property owner within a reasonable period of time after discovery or notification of such condition by the District. If satisfactory progress toward repairing the said leak, stoppage or break has not been accomplished within such time period, the Superintendent shall shut off the water service until the leaks, stoppage or breaks have been repaired, or take actions necessary to make all required

repairs at the full expense of the owner. The District reserves the right to make the repair at the expense of the owner when, in the opinion of the Superintendent, such repair is necessary to protect the health, safety and welfare of the inhabitants and visitors of the District. Said ownership and responsibility for maintenance shall remain valid whether the service lines are constructed, financed, or paid for by the District or by other persons.

3.6 Ownership and Maintenance of Water Meters, Related Assembly & Remote Register:

It shall be the duty of all customers to notify the District office if a water meter and/or remote register are operating defectively. It shall also be the duty of all owners to maintain free and clear access to the water meter, all component parts making up the water meter assembly and the remote register.

The District shall be responsible for the maintenance and repair of all water meters, unless it determines that said water meter has been willfully damaged, is inaccessible, or is unrepairable by District personnel, in which case, the District will have the water meter repaired or replaced, and shall charge the owner.

The property owner shall be responsible for the maintenance and repair of the remote register, the wire or cable connecting the remote register to the water meter, and all other component parts making up the water meter assembly.

If the District determines a water meter or its related remote register is not functioning properly an appointment will be scheduled with the property owner during normal business hours for District staff to assess and if possible repair the problem. District staff in their sole discretion will determine if the problem is repairable by the District.

If the District is able to make necessary repairs the owner may be charged for said repairs. If the District determines a damaged or defective water meter, its component parts making up the water meter assembly including the connecting wire/cable and remote register are not repairable by District staff, it shall notify the owner in writing by certified mail or hand delivered, to the property of its findings. Such notice shall state that if repairs have not been completed, or if the District paid for repairs previously made and payment to the District for said repairs is thirty (30) days outstanding, a ten-day shut off notice shall be issued. The District may designate by whom repairs to water meters may be made, and will provide assistance where deemed necessary.

If any water service meter and or its related remote register shall fail to register in any billing period, the owner shall be charged the average period consumption as determined by the District Manager.

3.7 <u>Service Outside the District</u>: At the present time, no service is available outside the District.

3.8 Use of the District's Easements:

Landowners or any other persons shall not construct any permanent building or other similar structure on one of the District's easements, though such persons may install temporary or removable and replaceable objects such as yard lights, mail boxes signs, fences, shrubs, flowers, or plants within the easement. If the District in the process of exercising one or more of the rights to the use of an easement, finds it necessary to remove any of the described items, which have been placed or planted within the easement, the District shall not be responsible to replace such items after it has exercised such rights. If a Landowner or other person seeks to construct a permanent building or other structure on one of the District's easements, the owner or other person shall apply to the District for approval on the construction of the encroaching structure. The District approval shall be in the form of an Encroachment Agreement.

Section Four

4. USE OF PUBLIC WATER AND SEWER SYSTEMS REQUIRED

- 4.1 <u>Unlawful to Deposit Waste in Unsanitary Manner</u>: It is unlawful for any person to place, deposit or permit to be deposited in any unsanitary manner on public or private property within the District, any human excrement, garbage, or other objectionable waste.
- 4.2 <u>Sewage Must be Treated</u>: It is unlawful to discharge to any natural outlet or surface or subsurface system within the District, any sewage or other polluted waters, except when suitable treatment has been provided for in accordance with these Rules and Regulations.
- 4.3 <u>Sumps and Water Wells Prohibited</u>: Unless otherwise approved by the Board, after the effective date of these revised rules the construction of any water well or sump within the District is prohibited. Upon connection of premises to the District's public water and sewer system, the owner shall dedicate and convey any existing water rights to the subject property to the District at no cost, with the owner being required to abandon any wells or related water structures according to the State Engineer's Standards for plugging, sealing, and abandoning wells.
- 4.4 <u>Individual Sewage Disposal Systems (ISDS Prohibited)</u>: Unless otherwise approved by the Board, after the effective date of these revised Rules the construction of any ISDS within the District is prohibited. Upon connection of premises to the District's public water and sewer system, the owner shall at their cost terminate the use of and abandon any existing ISDS structures according to the standards of Jefferson County Health and Environment and/or Colorado Department of Public Health and Environment as they may apply.
- 4.5 <u>Use of District Water and Sewer Systems Required</u>: No water system or sewage disposal system shall be constructed within the District, unless such system is connected with the District's sewer or water systems, unless otherwise specifically authorized by the Board. The owner(s) of any parcel of land within the boundaries of the District which is subdivided subsequent to the effective date hereof, shall make application to the District for extension of its water and sewer facilities to serve said subdivision. The District shall require said owner(s) to construct or pay for the construction of the extension or enlargement of all facilities necessary to serve said subdivision. If the District elects to extend such service, the District and the property owner(s) shall enter into an extension agreement therefore.
- 4.6 <u>District's Power to Compel Connection</u>: Unless otherwise agreed to by the Board, the owner(s) of all dwellings, businesses or other premises situated within the District where a water supply shall be used or domestic or industrial wastes or sewage are generated, stored, or treated shall be required at the owner(s) expense to install suitable water and sewer facilities therein and to make application for and to connect such facilities directly with the District's public water and sewer system for the protection of the health, safety and welfare of the inhabitants and visitors of the District in accordance with the provisions of these Rules and Regulations, within 20 days after written notice is sent by registered mail to do so, provided that the public water or sewer main is within 400 feet of the owner's property line.

If such connection is not commenced within such period and completed with reasonable diligence by the owner, the District may thereupon make such connection, and the owner shall be liable for all expenses incurred by the District for the completion of the connection, including any unpaid tap fees. The District shall also have a first and prior lien on the premises for such cost and fees, and such shall be enforceable in accordance with the provisions of Section 32-1-1006(1)(a), C.R.S.

If an owner's service line must cross another person's property in order to connect to the District's water and sewer system at the point designated by the District, and the owner is unable to obtain the easement(s) required for such service line, the District may in its discretion initiate proceedings

to acquire such easement(s). All costs incurred by the District in the prosecution of such proceedings, including without limitation, the amount determined to be payable as just compensation, legal fees, engineering and survey fees, appraisal fees and expert witness fees, shall be paid by the owner of the premises to be connected. The amount required to be deposited with the court in order for the District to obtain possession of the property included within the easement(s) shall be paid at that time by the owner of the premises to be connected. The District shall have a first and prior lien on the premises to be connected and the land on which they are located for all such costs, and such lien shall be enforceable in accordance with the provisions of Section 32-1-1006(1)(a), C.R.S.

Section Five

5. APPLICATION FOR SERVICE

- 5.1 <u>Policy</u>: Service shall be furnished only to persons whose property is included within the District and is subject to these Rules and Regulations and taxation. An applicant for service must furnish satisfactory evidence of inclusion whenever, such evidence is requested by the District. Any property included within the District, or to be provided service, must be self-supporting. Any person or entity seeking inclusion of property within the District shall comply with the terms of this section.
- Adequate Water Rights and Facilities Required: No new property shall be included, nor additional service be provided within the District, unless the owner of said property or subdivision shall dedicate senior water rights, water storage rights, and related water facilities to the District in an amount and of a quality adequate, in the judgment of the District's Board, to serve said property or subdivision; or, in the discretion of the Board, monetary compensation, as provided in the Schedule of Fees and Charges attached hereto as Appendix A, defined as a water resources fee, adequate to purchase or compensate for water rights, water storage rights, and related water facilities to provide such service. The owner of said property shall convey these rights or monies to the District free and clear of all liens and encumbrances prior to inclusion of the property into the District or approval of service to the property, whichever the case may be. In no event shall the District be obligated to reimburse the applicant for funds expended by the applicant for any such water rights, water storage rights and water related facilities. In no event shall the District be liable or responsible for abandonment of existing water wells or related structures as required by the State Engineering Standards and as set forth by Section 4.3 of these Rules and Regulations.
- 5.3 <u>Application for Tap Permit</u>: A proposed customer seeking service from the District, shall, as provided for in Section 10.4, submit an Application for Water and Sewer Tap Permit, on the District's standard form, accompanied by the appropriate tap fee and if applicable, water resources fee from the Fee Schedule contained in Appendix A.
- 5.4 <u>Connection Permit</u>: A proposed customer seeking service from the District, shall, as provided for in Section 10.6, make separate application for a connection permit, accompanied by the appropriate fees, prior to connection to the District's lines. No work on a proposed connection shall commence prior to payment of all fees and the issuance of a connection permit. Payment of a tap fee and issuance of a tap permit does not constitute a connection permit.
- Limitations of Tap Permits and Connection Permits: The tap and connection permits issued to an applicant are applicable only to the real property and building or portion thereof specified on the permit, and all rights under the permit shall be deemed to be automatically conveyed with title to such property. The permit shall not be transferable for use on other property, or for use on other buildings on this same property; except that upon written application transfer of the permit may be approved by the District in its sole discretion upon payment of a transfer fee and a determination that such transfer will not impair the health, safety and welfare of the residents and visitors of the District. Each connection or tap permit shall allow only one service line connection.
- Main Line Extension Permit: A proposed customer seeking service requiring the construction or extension of a water or sewer main line shall, as provided for in Section 10.7, submit a separate application for a main line extension permit, accompanied by the appropriate fees, prior to any construction of the main line or any service lines to be connected thereto. Payment of a tap fee and issuance of a tap permit and issuance of a connection permit does not constitute a main line extension permit. No work on a proposed extension shall commence prior to payment of all fees and the issuance of a main line extension permit.

- 5.7 <u>Road Cuts</u>: Issuance of a connection permit or any other District permit does not authorize the holder thereof to make any cut in a public road or street or to do anything for which separate permission is required of another governmental entity.
- 5.8 <u>Permits Subject to Rules and Regulations</u>: Each tap and connection permit and inclusion or other agreement issued or entered into by the District shall be subject to each of the provisions of these Rules and Regulations as they may be amended from time to time, and shall be subject to each of the conditions and limitations set forth herein.
- Denial of Application for Service: The District's Board retains, in its sole discretion and judgment, the right to deny an application for a tap permit, when the granting of application would not be in the best interest of the District or its residents and property owners. The factors that the District's Board may consider, not by way of limitation, include: whether adequate water rights, water storage rights, and related water facilities are available and will be available in the future to serve the development proposed for the property; the impact of the proposed service on the District's existing water and sewer service treatment, transmission, and storage facilities; the economic effect that the approval of the application would have on the District or its residents and property owners; whether the granting of the application would adversely affect the public health, welfare and safety of the District's residents and property owners; and other factors related to the request to provide such service. There may be factors and aspects of an application which are unique to that application and are not contained in the above list, and the District's Board retains the right to consider all factors related to an application and make a decision based thereon.
- 5.10 <u>Cancellation of Permits and Refund of Fees</u>: The District reserves the right, in its sole discretion, for cost-related, lack of capacity, or other reasons, to cancel a permit, including tap, connection, or main line extension permits at any time prior to connection to the District's water or sewer system. The District shall then refund all fees previously paid which have not been expended for evaluation of the permit application.
- 5.11 <u>Inclusion</u>: A person or entity owning land outside of the boundaries of the District which desires service from the District shall include in the petition for inclusion all of the land which applicant owns that is contiguous to the parcel upon which service is desired, unless the District permits otherwise.

The District's policy concerning inclusions into the District is that any property brought into the District must be self-supporting in all areas – water, sewer, financial, etc. The property must come complete with senior water rights, water storage rights, and water related facilities which are, in the judgment of the District, adequate to serve the anticipated development of the property, or provide funds adequate to purchase or compensate for such rights; defined as a water resources fee. All facilities to be constructed by the District in order to serve the property must be financed solely by the owner of the property, and payment of inclusion petition fees, inclusion fees, tap fees, water resources fees and any other necessary charges shall be made for the use of existing District facilities and rights with said fees as defined, provided in the schedule of fees and charges attached hereto as Appendix A. Neither the District nor its existing residents shall be required to subsidize the development of any newly included property.

- 5.11.1 <u>Inclusion Petition</u>: The inclusion petition shall be submitted, together with a petition for inclusion fee for each SFE, (single family equivalent) proposed to be served, as such fee is provided for in the schedule of fees and charges attached hereto as Appendix A. The inclusion petition shall contain the following information:
 - (a) A legal description of the property to be included, setting forth the total acreage, together with proof of title.
 - (b) A survey of the property, showing its location with respect to the District's existing boundaries.

- (c) The existing zoning for the property together with any proposed changes, including all documents submitted to Jefferson County pertaining to such rezoning request.
- (d) A description of the proposed uses of the property, including:
 - 1. The proposed total population for the property, including a breakdown into types of uses such as single family residences, condominiums, commercial development, recreational uses, etc.
 - 2. The proposed maximum population density for each area of the property, including the number of acres to be used for various types of uses, together with an indication of lot sizes, irrigated acreage, and water and sewer requirements, and any limitations proposed on water usage.
 - 3. The number of acres to be dedicated to open space, green belts, and parks and the anticipated location of each such area, a description of the proposed ground cover and the irrigation water requirements for each such area.
 - 4. Detailed engineering plans on how the petitioners' propose that water and sewer service be provided, including cost estimates of all facilities.
 - 5. Any other pertinent facts that will assist the District in considering the request for inclusion.
- (e) The proposed development schedule.
- (f) A complete description of all water rights, water storage rights, and water related facilities associated with or acquired for the property, including proof of ownership, copies of all court decrees and well permits, etc.
- (g) Upon request by the District, a full financial statement and balance sheet of the petitioner, and an ownership and encumbrance report for the property.
- 5.11.2 Petition Evaluation Reimbursement: A petitioner for inclusion shall reimburse the District for all costs, including engineering and legal fees and expenses, incurred on behalf of the District in evaluating the petition, together with 100% of any amounts paid by the District to any other governmental entity, which is required to review the proposal. These costs shall be assessed regardless of whether a petition for inclusion of the property into the District is finally granted, and petitioner shall be required to deposit the inclusion petition fee at the time of filing the petition with additional deposits to be made if necessary. If the Board denies the petition for inclusion, the remaining monies associated with the petition for inclusion fee (less all costs and expenses incurred by the District) shall be returned to the petitioner(s).
- 5.11.3 Hearing on Petition for Inclusion: The District's Board of Directors shall conduct a hearing as provided by the Colorado Statutes on whether the petition for inclusion should be granted or denied, in whole or in part. The District's Board shall decide, in its sole discretion and judgment, whether the granting of the petition is in the best interest of the District and its existing residents and property owners. The District's Board shall withhold entry of any final order approving inclusion until the petitioner has entered into an agreement which details the terms and conditions of inclusion and provides for payment of all fees and costs and sufficient security therefore. The District Board's action granting or denying the petition for inclusion shall be final and conclusive.

Section Six

6. SERVICE LINE CONSTRUCTION AND CONNECTION

- 6.1 <u>Required Permits and Fees</u>: No service line shall be constructed within the District nor connected to the District's water or sewer system until all fees have been paid, and applicable permits have been issued by the District as provided in Sections 10.4 and 10.6.
- 6.2 <u>Separate Service Lines</u>: A separate and independent service line shall be provided for every building, except out buildings, and except as otherwise provided herein, shall be installed at the expense of the property owner.
 - 6.2.1 <u>Commercial Structures</u>: Each commercial structure hereafter constructed shall have an individual service line and connection for each commercial unit in the commercial structure or if not divided into units then it shall have a separate service line and connection for each building.
 - 6.2.2 Interior Lots: A single service line may be allowed where one building stands at the rear of another on an interior lot and no separate service line is available or can be constructed to the rear building through an adjoining alley, court, yard, or driveway. The service line from the front building may be extended to the rear building and the whole considered as one service line, but the District does not assume any obligation or responsibility for damage caused by or resulting from any such single connection. The owner of the interior lot is responsible for obtaining the necessary permission or easement in order to connect to the service line located on the exterior lot.
- 6.3 <u>Inspections</u>: The applicant for the water or sewer service line connection permit shall notify the District when the service line is ready for inspection and connection to the public system. The connection and testing shall be made under the supervision of the District Superintendent or a representative of the District. The entire length of the trench containing the service line, from the building to the public system, or a main line extension shall not be backfilled until; inspection has been made by the District Superintendent or a representative of the District. If the District has not conducted such inspection within 48 hours, Saturdays, Sundays, and legal holidays excepted, after receipt of notification that the line is ready for inspection and connection to the public system, the line may be backfilled by the owner; however, the owner will be responsible for costs, expenses or damages resulting from improper connection or construction.
- 6.4 <u>Design and Construction Specifications</u>: Service lines shall be installed in accordance with the specifications set forth in Appendix B attached hereto and incorporated herein by this reference. All contractors, licensed plumbers and others doing work within the District shall comply with these requirements.
- 6.5 <u>Contractor Qualifications</u>: All contractors and subcontractors shall be approved by the District Manager or the Superintendent prior to commencing work. Connection shall be made by bonded, licensed plumbers or pipe layers, but plumbing contracted by a licensed master plumber may be performed through journeymen plumbers or apprentices under their direction. The District assumes no responsibility for work performed by general or subcontractors or their agents.

Section Seven

7. MAIN LINE EXTENSIONS

- 7.1 Required Permits and Fees: No main line shall be constructed within the District until a main line construction permit has been issued by the District as provided by Section 10.7.
- 7.2 <u>Design and Construction Specifications</u>: All line extensions, including special structures required to insure proper operation of the line extension, shall be designed and constructed according to the District Manager's or Superintendent's specification, and under the District supervision. Said specifications shall comply with the District's construction specifications, unless provided otherwise. Prior to the District's acceptance of the lines, reproducible as-built drawings shall be provided, or reasonable provision made therefore.
- 7.3 <u>Location of Line Extensions and Additions</u>: When possible, line extension shall be installed in roads or streets which the County or State Highway Department or other public agency has accepted as public right-of-way or in easements granted to the District. Where water and sewer mains cannot be installed in a street, private drive or common area, and must be installed in easements between adjacent pieces of property, the line will terminate at the point determined by the District.
- 7.4 <u>Conveyance of Title and Easements</u>: Proposed customers who have completed construction of main line extensions shall deed these lines, associated easements and all appurtenances to the District free and clear of all liens and encumbrances. Prior to construction of a main line extension the proposed customer shall plat and grant to the District appropriate easements and rights-of-way necessary to construct, operate and maintain the same. All easements shall be recorded at the proposed customer's expense.
- 7.5 <u>Line Extension Construction by the District</u>: All line extensions which are, by the terms and conditions of a line extension permit, to be constructed by the District shall be contracted for by the District with the contractor and/or proposed customer and/or developer installing the lines being responsible to the District as provided by Section 10.9. All associated construction costs shall be paid by the District out of a deposit made by the proposed customer and/or developer. In the event the original deposit is insufficient, the proposed customer and/or developer shall, upon notification, immediately deposit the balance due with the District in order to pay for completion of the work. Upon completion of the work the final cost shall be certified by the District's Engineer and Manager and any surplus refunded or deficiency made up by the developer or proposed customer. All inspection fees required by any governmental authority shall be paid by the licensed plumber, contractor or others doing work within the District.
- Line Extension Construction by the Proposed Customer and/or Developer: All line extensions which are, by the terms and conditions of a line extension permit, to be constructed by the proposed customer and/or developer with the contractor installing the lines being responsible to the proposed customer and/or developer. All associated extension cost not incurred by the District shall be paid directly by the proposed customer and/or developer. Nothing in this section shall be construed to negate the requirements that the proposed customer and/or developer comply with the District's Rules and Regulations in their entirety and construction shall be under the District's supervision. Upon completion of the work, the final cost to the proposed customer and/or developer associated with the line extension shall be certified to the District's Manager or Superintendent.
- 7.7 <u>Inspection</u>: During construction or extension of main lines, the District's Superintendent shall be notified, prior to back filling, when the main line is ready for inspection and approval. Inspection of construction of main line extensions shall be governed by the provisions of Section 6.3.

7.8 <u>Board Discretion Concerning Extensions</u>: Notwithstanding any provision of the Section 10.7, the District may, in its discretion, extend lines or approve extension under such conditions as the Board deems appropriate and may be carried out in the form of a line extension and/or construction agreement by and between the District and the proposed customer and/or developer.

Section Eight

8. USE OF PUBLIC WATER SYSTEM

- 8.1 <u>Policy</u>: The District, by the authority granted it through the most current version of the Colorado Primary Drinking Water Regulations has the responsibility to provide safe drinking water to its customers. This water quality must meet or exceed standards established by said regulations as promulgated by the Colorado Department of Public Health and Environment. The District's responsibility for water quality ends at the water main line or influent side of the Customer's tap. Any use of the water beyond this point that impacts the water quality is the responsibility of the Customer.
- 8.2 <u>Residential or Commercial Rooftop Sprinkler Systems</u>: The use of water through the District's water system to use for residential and/or commercial rooftop fire sprinkler systems is prohibited, unless required by applicable fire or building code.
- 8.3. <u>Water Conservation</u>: Water supplied by the District shall be used only for beneficial uses. Waste of water shall not be permitted.
- 8.4 <u>Conservation Orders</u>: Upon a determination by the Board or the District Manager that the District is facing an immediate shortage in its supply of water which threatens the health, welfare, and safety of the inhabitants and visitors of the District and which requires immediate action, the Board or the District Manager is empowered to institute orders regulating or curtailing uses of water by those served by the District's water system. If necessary, the Board or the District Manager may order immediate complete curtailment of non-domestic use, and limit in-house use, of water from the District's facilities. Any conservation orders shall be uniformly applied to all similarly situated water customers within the District's service area. Nothing herein shall be construed to prevent the District from regulating different categories of water users differently. These conservation orders may be modified as the conditions causing the water shortage change.
 - 8.4.1 <u>Effective Date of Conservation Orders</u>: The conservation orders shall be effective immediately upon being signed or as otherwise provided. Copies of the orders adopted pursuant to this section shall be delivered or mailed to all residences, businesses, and other premises served by the District's water delivery system.
 - Public Meeting to Discuss Conservation Orders: The Board shall conduct a public meeting on the water conservation orders as soon as possible, but in no event later than two weeks from the date of the adoption of such orders. Notice of this public meeting shall be posted at the District's office at least three days in advance of the meeting. At the public meeting, the Board shall receive public comments and staff recommendations with respect to the water conservation orders, and shall determine what modifications, if any, need to be made to the orders. If any material modifications are made to such orders, the revised orders shall be mailed or delivered to all of the District's water users. All such orders or revised orders shall remain in effect until such time as the water shortage problem is determined by the Board to have ended and notice thereof is given as provided in Section 8.4.1. See Miscellaneous Section under "Drought Management Plan."
- 8.5 <u>Use of Water Conservation Devices Encouraged</u>: The District encourages the use of water conservation devices for all properties served by the District's water supply after the date of enactment of these Rules and Regulations.
- 8.6 <u>Enforcement</u>: The person or entity billed for water service to any given premises, whether owner or occupant, and any person using water supplied or delivered by the District's system, shall be responsible for compliance with the above-mentioned conservation orders, and proscription against waste. Violations, as determined by the District Manager, will subject such persons to the following actions and penalties in addition to those actions authorized in Section 12:

- 8.6.1 First Violation: Written notice of said violation and a \$100 charge.
- 8.6.2 Second Violation: Violation at the same premises or by the same user, written notice of said violation and a \$250 charge.
- 8.6.3 Third or Any Subsequent Violation: Violation at the same premises or by the same user, the District Manager shall suspend further service to the premises or assess a \$500 charge, or both.
- 8.6.4 Appeals: Appeals of such penalties and charges may be made to the Board.
- 8.7 Backflow Prevention and Cross Connection Control Policy aka (BPCCC) Program:
 - 8.7.1 Purpose: The purpose of this program is to protect the District's public water system from contaminants or pollutants that could enter the distribution system by backflow from a customer's water supply system through the service connection.
 - 8.7.2 Authority: The authority to implement this program is contained in the following statute, legislation and regulations and acts:
 - a) Article 1-114 and Article 1-114.1 of Title 25 of the Colorado Revised Statutes (CRS)
 - b) Section 39 of 5 CCR 1002-11, Colorado Primary Drinking Water Regulations
 - c) Colorado Plumbing Code

The District shall have the authority to survey and inspect all service connections within the distribution system to determine if the connection is a cross-connection.

The District shall have the authority to control all service connections within the distribution system if the connection is a cross-connection.

The District may control any service connection(s) within the distribution system in lieu of a survey as long as the service connection is controlled with an air gap or reduced pressure zone (RPZ) backflow prevention assembly.

The District shall maintain records of cross-connection surveys and the installation, testing and repair of all backflow prevention assemblies installed for containment and containment by isolation purposes.

The District shall implement, administer and enforce the provisions of the BPCCC program.

The District may collect fees for the administration of this program.

- 8.7.3 Applicability: This program applies to all non-single-family-residential service connections including, but not limited to, irrigation, commercial, industrial and multi-family residential service connections within the District. The program does not apply to single-family residential service connections unless the District becomes aware of a cross-connection at the single-family connection. Additionally, this program applies to all contract potable water haulers and/or haulers of other nature where the District's water supply is used to fill tankage of any and all types.
- 8.7.4 Requirements: All non-single-family-residential service connections shall be protected by appropriate backflow prevention assemblies unless a documented survey performed by the District determines there is no cross-connection risk. If an uncontrolled cross-connection has been identified, the customer shall be required to install an appropriate backflow prevention assembly on the water service connection within 120 days of its discovery. If the District Manager or Superintendent determines that an emergency exists, the customer may be

required to correct the cross-connection or install an appropriate backflow prevention assembly in less than 120 days, as deemed necessary to protect the health, safety and welfare of the inhabitants and visitors of the District in the discretion of the District Manager or Superintendent. If the assembly cannot be installed within 120 days, or such lesser time as is provided by the District, the District must take action to control or remove the cross-connection or suspend service to the cross-connection. The District's and/or third party contractor costs of controlling or removing the cross-connection, including costs of installing a backflow prevention assembly, shall be billed to and paid by the property owner.

8.7.5 Inspection, Testing and Repair: Backflow prevention assemblies shall be tested by a Certified Cross-Connection Control Technician upon installation and on an annual schedule thereafter. The testing shall be scheduled by and done at the expense of the customer.

As necessary, backflow prevention assemblies shall be repaired and retested or replaced and tested at the expense of the customer whenever the assemblies are found to be defective.

Testing gauges used by Certified Cross-Connection Control Technicians shall be calibrated for accuracy at least annually.

If a customer fails to perform required inspection, testing or repair, such actions may be performed by the District and/or third party contractor, and the District's costs billed to and paid by the property owner.

8.7.6 Reporting and Recordkeeping:

- a) Copies of test reports, records of repairs and retests, or replacements shall be kept by the customer for a minimum of three (3) years.
- b) Copies of test reports, records of repairs and retests, or replacements shall be submitted to the District by mail, facsimile or e-mail by the testing company or technician within 5 (five) days of completion of the repair or testing.
- c) Information on test reports shall include, but may not be limited to,
 - i. Assembly type, location, make, model, size and serial number.
 - ii. Test date, test result (Pass/Fail) and all results that would justify a pass or fail outcome.
 - iii. Certified Cross-Connection Control Technician's name, certification number and certification expiration date.
- iv. Test kit manufacturer, model, serial number and calibration date.

8.7.7 Compliance:

- a) Customers shall cooperate with the installation, inspection, testing, maintenance, and as needed repair and replacement of backflow prevention assemblies and with the survey process. For any identified uncontrolled cross-connection, and per Section 8.7.4 of these Rules, the customer shall within 120 days or less, of its discovery, control or remove the cross-connection, or the District shall take action to control or remove the cross-connection, at the expense of the property owner, or suspend service to the cross-connection.
- b) Customers shall ensure that all backflow prevention assemblies are tested each year, by the anniversary date of installation, or as otherwise directed by the District Superintendent, and in the case of irrigation assemblies, at the time the system is activated but no later than 10 (ten) days from the time of annual activation. All testing of backflow prevention assemblies shall be performed by a Certified Cross-Connection Control Technician. All test reports are to be sent to the District Superintendent at the time said testing is completed.

8.7.8 Violations and Penalties:

a) Any violation of the provisions of this program, shall, upon conviction be punishable as provided in all applicable statutes, laws, and regulations, in addition to the penalties set forth in Section Twelve of these Rules.

Section Nine

9. USE OF PUBLIC SEWER SYSTEM

- 9.1 <u>Policy</u>: Except as hereinafter provided, no person shall discharge, or cause to be discharged, to any sewer main, any special or prohibited sewage (as hereinafter defined) or any harmful, injurious or deleterious waters or wastes, whether liquid, solid, or gas capable of causing obstruction to the flow in sewer, damage or hazard to structures, equipment and personnel of the sewage works, or other interference with the proper operation of the sewage works.
- 9.2 <u>Classification of Sewage</u>: This section of the Rules and Regulations shall provide the basic policies of the District for classification of sewage and for control of discharge of sewage into the sanitary sewer system. It shall be the policy of the District to classify sewage into three main categories termed "normal sewage," "special sewage," and "prohibited sewage" as hereafter defined. The classification of sewage shall be the responsibility of the Manager and shall follow recommended procedures of the State Department of Health and, subject to approval of the Board, shall be final and binding.
 - 9.2.1 Normal Sewage: Normal sewage shall mean sewage which can be treated at the District's sewage treatment works without pre-treatment and within normal operating procedures, and which, when analyzed, shows by weight a daily average of not more than 300 parts per million of suspended solids and not more than 250 parts per million B.O.D. (Biochemical Oxygen Demand).
 - 9.2.2 <u>Special Sewage</u>: Special sewage shall mean sewage which does not conform to the definition for normal sewage, but which can be treated by the District after pre-treatment by the customer or by utilization of special operating procedures by the District at the sewage treatment works. Special sewage is further defined in Section 9.3.
 - 9.2.3 <u>Prohibited Sewage</u>: Prohibited sewage shall mean any sewage, which may be reasonably anticipated to have a deleterious and/or injurious effect upon the sanitary sewage system, or any persons or property and therefore, in the opinion of the District, cannot be serviced by the District. Prohibited sewage is further defined in Section 9.4.
- 9.3 <u>Special Sewage</u>: The discharge or introduction into the public sewers of any special sewage shall be subject to the review and prior approval of the Board, which may prescribe limits on the strength and character of such sewage. Special sewage may include but is not limited to wastewater such as that from swimming pools and jacuzzis (spas) in addition to sewage from restaurants and food handling facilities.
 - 9.3.1 Pre-treatment: Where necessary, in the opinion of the Board, the owner shall provide, at his expense, such pre-treatment facilities as may be necessary to treat such special sewage prior to discharge to the sewer mains. Plans, specifications, and any other pertinent information relating to proposed pre-treatment facilities shall be submitted for the approval of the District and of the State Board of Health, and no construction of such facilities shall be commenced until such approval is obtained in writing. Where pre-treatment facilities are provided for any special sewage, they shall be maintained continuously in satisfactory and effective operation by the owner, at the owners expense.
 - 9.3.2 Grease, Oil and Sand Interceptors: Grease, oil and sand interceptors of a design recommended by the Colorado State Board of Health, Uniform Plumbing Code, or the District Manger and/or Superintendent shall be provided when, in the opinion of the Manager and/or Superintendent, are necessary for the proper handling of special sewage or liquid wastes containing grease in excessive amounts, generally greater than 100 mg/l or sand and other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. Where installed, they shall be maintained by the owner(s) at their sole expense, with continuously efficient operation at all times. The use of emulsifiers for the purpose of dissolving grease and oils is prohibited.
 - 9.3.3 <u>Control Manhole</u>: When required by the District, the owner of any property served by a service line carrying special sewage shall install and maintain, at the owners' expense, a

suitable control manhole in the service line to facilitate observation, sampling and measurement of the wastes. All measurements, tests, and analysis of the characteristics of waters and wastes shall be at the owners' expense and determined in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater" and shall be determined at the control manhole, or upon suitable samples taken at said control manhole. In the event that no special manhole has been required, the control manhole shall be considered to be the nearest down stream manhole in the sewer main to the point at which the service line is connected.

Prohibited Sewage: The admission into the public sewers of any prohibited sewage is prohibited. Prohibited sewage shall include sewage from foreign sources brought in by septic pumping contractors, any sewage originating from sources outside of the District boundary and clear water injected into the sewage system by means of a drainage collection and/or pumping system. Said drainage water is detrimental to the sewage system since it interferes with the District's volume capacity and with the biological process necessary for proper treatment, unless specifically authorized by the District.

No person(s) shall discharge or cause to be discharged any of the following described water or wastes to any public sewers. Prohibited sewage includes but is not limited to:

- 9.4.1 Any storm water, ground water, roof runoff, sub-surface drainage, cooling water, unpolluted industrial process waters or any other unpolluted water may not be introduced to any sanitary sewer.
- 9.4.2 Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid, gas, fertilizers, pesticides, herbicides, lubricating oil, diesel fuel, other hydrocarbon fuels, antifreeze, paint or organic solvents.
- 9.4.3 Any waters containing toxic or poisonous solids, liquids, or gases in sufficient quantity, either singly or by interaction with other wastes, to contaminate the sludge of any municipal system, to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals, create a public nuisance, or create any hazard in or have an adverse effect on the waters receiving any discharge from the treatment works.
- 9.4.4 Any waters or wastes having a pH lower than 5.5, or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel of the sewage treatment works.
- 9.4.5 Solid or viscous substances in quantities or of such size capable of causing obstructions to the flow in sewers or other deleterious effects on the sewer system and interference with the proper operation of the wastewater facilities such as, but not limited to, normal sink garbage, which has been ground, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, whole blood, paunch manure, hair and fleshing, entrails and paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders.
- 9.5 <u>Analysis of Sewage</u>: The Manager and/or Superintendent or their designee shall be responsible for all sampling, testing, analysis and classifying of sewage. Testing and analysis shall be determined in accordance with "Standard Methods for the Examination of Water and Waste water" latest edition. Results of tests shall be made available to the customer at the District office.

Section Ten

10. PERMITS, FEES AND CHARGES

- 10.1 <u>Policy</u>: The rates, charges and other information shown herein shall apply only to customers inside the District and shall in no way control the rates, charges, and other requirements applied to service which the District may choose to provide outside the District in the future. Said rates and charges as herein established shall remain in effect until modified by the Board under the provisions of these Rules and Regulations and under the applicable statutes of the State of Colorado. Nothing contained herein shall limit the Board from partially modifying rates and charges or from modifying any classification.
- 10.2 <u>Type of Service Rates</u>: Water service shall be metered by the District. Charges and fees for sewer service shall be at a flat rate except for commercial service of unusual characteristics, which shall be metered. The cost of all such metering equipment shall be paid by the applicant for the service.
- 10.3 <u>Classification of Customers</u>: For the purpose of levying fair, reasonable, uniform and equitable charges, the following classifications and appropriate definitions are provided:
 - 10.3.1 <u>Single Family Dwelling</u>: A single family dwelling shall be construed as a living unit suitable for occupancy of one or more individuals of a family, comprising either a separate and unattached structure from any other dwelling unit, or a dwelling unit joined to another by an architectural feature, for example, a patio home.
 - 10.3.2 <u>Multiple Family Dwelling</u>: A multiple family dwelling shall consist of a single structure or structures otherwise unattached to any other dwelling unit and wherein more than one family unit exists, as for example, townhomes, condominiums and apartments.
 - 10.3.3 <u>All Other Categories</u>: All other categories of use shown on the rate schedule attached hereto as Appendix A shall be given their customary meanings. Any controversy concerning definition of categories shall be resolved by the Board of the District in its sole discretion.
 - 10.3.4 <u>Unclassified Service</u>: Whenever a structure represents a classification not contemplated by these Rules and Regulations, the Board, at its sole discretion, shall establish fair, reasonable and equitable fees and charges for said structure.
- 10.4 <u>Tap Permit</u>: Any person requesting service shall file a tap permit application and pay the appropriate tap permit fee no later than the date set forth in Paragraph 10.4.3 below. For all structures other than single-family residences, building plans shall be submitted which contain the requirements for potable water, fire protection and sewer. Upon approval by the District, a tap permit number will then be issued to the owner. In every case, no service shall be allowed until a tap fee has been paid.
 - 10.4.1 Temporary Tap Permit: The Board may allow, in its sole discretion, connections to provide temporary water and/or sewer service if it determines that good cause for such connection has been shown. Persons seeking temporary service from the District for property within the District shall submit an application for a temporary tap accompanied by the appropriate fee. Upon approval by the District, a temporary tap permit will be issued. A service charge fee for a temporary connection will be calculated in the same manner as it would, had the connection been permanent, however, the Board may determine equitable fees or rates for temporary service on a case-by-case basis when necessary to consider the impact on the District of providing temporary service. A temporary connection privilege shall terminate no later than a period of one (1) year, unless good cause is shown to the District for extending it another year, except that the temporary connection privilege shall terminate immediately upon the conveyance, modification or enlargement of the property or structure connected, unless District approval is obtained. The granting of a temporary connection confers no permanent right to be connected to the District's facilities. Unless the Board determines otherwise, all requests for service for a period exceeding one (1) year shall be deemed as being for a permanent purpose.

- 10.4.2 <u>Tap Permit Fee</u>: A water and sewer tap permit fee shall be charged to all customers of the District and shall be paid before a tap permit is issued, whether for a permanent or temporary tap. Tap fees for both permanent and temporary purposes, as calculated to recover all expenses and costs associated with providing water or sewer service, shall be assessed as provided for in the Schedule of Fees and Charges attached hereto as Appendix A. Tap fees for temporary and permanent purposes shall be non-refundable.
- 10.4.3 Payment of Tap Fee: Subject to individual agreements with the District to the contrary, all tap fees due to the District shall be paid no later than the date on which: the lot is sold by the developer; a building permit is issued; or new property is included within the District, whichever comes first; except for the following:
 - (a) When developers or proposed customers pre-install service lines prior to road paving, no tap fee shall be required to be paid until such time as application is made as required above.
- 10.4.4 <u>Amended Tap Permit</u>: Anytime a tap permit has been issued, and subsequent thereto the meter size is changed, or the classification of the property or level of service needed under said permit is changed so as to increase the level of service necessary, the quantity of water or sewage, or the amount of water or sewer treatment necessary, the owner shall apply for an amended tap permit and pay such additional fees as applicable.
- 10.5 <u>Irrigation Tap Permit and Fee</u>: Prior to installing a separate water connection to the public main for an irrigation area, the owner shall apply for an irrigation tap permit and pay the required tap fee. The District's Board shall then consider, in its sole discretion, whether to grant each irrigation tap permit.

10.6 Connection Permits:

- 10.6.1 Fees to be Paid: No connection permit shall be issued to the customer until the appropriate tap fees, inspection fees, performance bonds and guarantees, fees for water meter installation and initial meter reading, if applicable, have been paid, and funds estimated to cover the cost to the District associated with the connection deposited with the District, and a tap permit issued for the property or building to be served by the connection. No new services shall be furnished to the customer until all outstanding fees and charges as herein provided, have been paid to the District. A developer shall pay all tap fees for their development at the prevailing rate, subject to any contractual agreements.
- 10.6.2 Connection Permit Application: No connection permit will be issued until an application form, properly completed, and signed has been filed with the District by the owner(s) or its agent. Prior to approval of the application, the applicant shall submit and have approved by the District the engineering design and construction plans for the proposed service line and connection.
- 10.6.3 Expiration: Connection permits shall expire one (1) year from the date of issuance where the authorized connection has not been made during such time, unless extended by the Board upon written request.

10.7 Main Line Extension Permits:

10.7.1 <u>Fees to be Paid</u>: No main line extension permit shall be issued to the owner until a main line extension permit fee, performance bonds and guarantees have been paid, and funds estimated to cover the cost to the District associated with the main line extension deposited with the District.

- 10.7.2 Main Line Extension Permit Application: No main line extension permit will be issued until; an application form properly completed and signed has been filed with the District by the owner(s) or its agent. Prior to approval of the application, the applicant shall submit and have approved by the District the engineering design and construction plans for the proposed service line and connection. The Board may give preliminary approval of an application, based upon terms and conditions which may allow design and construction specifications to be agreed upon by the District Superintendent. The Board shall specify whether approval of an application is conditional on construction of the main line extension by the District, or by the proposed customer, and any other terms and conditions of such approval.
- 10.8 <u>Inspection Fee</u>: At the time of applying for a connection permit, an applicant shall pay an inspection fee as provided for in Appendix A, which fee shall approximate the cost to the District to conduct such inspection.
- Associated District Construction Costs: All cost of new construction, reconstruction or enlargement of any water or sewer system facilities, including all associated planning, engineering, administration and attorney's fees, which are necessary to provide new, different or additional water or sewer service within the District's service area (including but not limited to service lines, main lines and water or sewage treatment works), shall be paid by the owner(s) of the property or building to be served. After approval of an application, but prior to the issuance of any necessary permits or commencement of any such work, the applicant shall deposit with the District sufficient funds to cover all of the District's estimated cost associated with such work.
 - 10.9.1 <u>Performance Bonds</u>: Any person constructing water or sewer system facilities to be conveyed to the District, within the public right-of-way, or within any public or private easement granted to the District for such purpose, shall furnish to the District a performance bond equal to one hundred percent (100%) of the construction cost. When the owner is to be responsible for such construction, such performance bond shall hold the District harmless for payment to the contractor. The property owner shall indemnify the Board for any loss or damage that may directly or indirectly be occasioned by the installation of the water or sewer service.
 - 10.9.2 <u>Guarantee</u>: Prior to acceptance by the District, any person constructing water or sewer system facilities to be conveyed to the District, within the public right-of-way, or within any public or private easement granted to the District for such purpose, shall guarantee or cause its contractor to guarantee to the District the construction against faulty workmanship and materials associated with such construction for a period of two years after acceptance by the District. A guarantee of all maintenance for two years from the date of acceptance by the District of the lines shall also be provided. A performance and maintenance bond or other security acceptable to the District shall be furnished as such a guarantee. Inspection and approval by the District of any such facilities shall not relieve the guarantor from compliance with these provisions.
- 10.10 <u>Unauthorized Tap Connection Fee</u>: An unauthorized tap connection penalty shall be payable by persons connecting to a District line without prior payment of tap fees or other fees, approval of connection permit or adequate inspection of lines. Should the District determine that disconnection, or turning off of service, is necessary because of the unauthorized connection, prior to reconnection or turning on service, all unauthorized connection fees, any other outstanding fees or charges, a reconnection fee, and all costs associated with such disconnection and reconnection must be paid.
- 10.11 <u>Service Charges</u>: Upon the securing of a connection permit for service and upon payment of the tap fee, water and sewer service charges shall commence at the time of meter installation. Whenever possible, service charges will be directed to the owner of the property rather than the occupant, with the owner ultimately being responsible for such charges in any event. When a

condominium association exists for a number of units receiving service from the District through one or more common meter(s), said condominium association shall receive a water bill for each metered account and a sewer service bill for each dwelling unit served by the condominium association. In no event shall the District bill the owners of individual units within a condominium unless service to each unit is metered separately.

- 10.11.1 <u>Calculation of Service Charges</u>: Service charges shall be paid by all customers as provided in the schedule of fees and charges attached hereto as Appendix A.
- 10.11.2 <u>Surcharge for Special Sewage</u>: A surcharge fee may be assessed on the discharge of special sewage as defined in Section 9.3, as determined by the Board.
- 10.11.3 <u>Amended Service Charge</u>: In those situations where, in the Board's sole discretion, the service charges shown in Appendix A do not represent a fair, reasonable and equitable charge for the intended use, the Board may adjust said rates.
- 10.11.4 Payment of Service Charges: Statements for service charges shall be rendered by the last day of billing (even) months on a bi-monthly basis. Charges for late payments, turn-on, turn-off, etc., shall be added to such statements. Statements are due at the office of the Genesee Water & Sanitation District by the close of business on the 25th day of the month after billing and are considered past due and delinquent after this.

10.11.5 Methods of Payment:

- In Person District Office, 2310 Bitterroot Lane, Golden, CO 80401
- By Mail Genesee Water & Sanitation District, 2310 Bitterroot Lane, Golden, CO 80401
- ACH (Automated Clearing House), aka Electronic Withdrawal. The payment is drafted from the customer's bank account on the due date.
- 10.12 <u>Turn-Off-Service Fee</u>: Whenever service is turned off, for any reason including vacation or vacancy of rental property, or delinquency of payment or violation of the District Rules and Regulations, a turn-off-service fee shall be charged as provided in the schedule of fees and charges attached hereto as Appendix A.
- 10.13 Readiness-To-Serve Fee: A readiness-to-serve fee shall be charged for all properties which have had service installed, but for which service is turned off, whether such turn-off is voluntary or involuntary with a minimum duration of two (2) months coincidence with one billing cycle, with such fee provided in the schedule of fees and charges attached hereto as Appendix A.
- 10.14 <u>Turn-On-Service Fee</u>: When service has previously been involuntarily turned off by the District, a turn-on-service fee shall be charged prior to the District's turning on service, with such fee provided in the schedule of fees and charges attached hereto as Appendix A. A turn-on-service fee shall not be charged when service has been voluntarily turned off at the request of the customer; the payment of the voluntary turn-off-service fee being deemed as covering the subsequent turn on request.
- 10.15 Account Transfer Fee: When a property with metered service is sold to a new owner a transfer fee is assessed to the seller for the costs associated with reading the meter and required administrative time, with such fee provided in the schedule of fees and charges attached hereto as Appendix A.
- 10.16 <u>Service Availability Fee</u>: As determined to be necessary by the Board, the District may assess availability of service or facilities fees upon providing notice of the meeting to consider such fees. Availability of service or facilities fees shall be assessed solely for the purpose of paying principal and interest on any outstanding indebtedness or bonds to mature and accrue during the annual period within which such fees are payable. Property shall be considered as having water or sewer

available for the purpose of assessing the service availability fee when District water and sewer mains are installed in public right-of-way, easement, private drive, or common area, at an elevation capable of serving the property, and when water or sewer lines are installed within one hundred (100) feet of a property line.

10.17 Billing Procedure:

- 10.17.1 <u>Service Charges, Readiness-To-Serve and Service Availability Fee</u>: Statements for service charges shall be rendered by the last day of billing (even) months on a bi-monthly basis. Payments not received at the office of the Genesee Water & Sanitation District by the close of business on the twenty-fifth (25th) day of the month after billing, are past due and delinquent.
- 10.17.2 All Other Charges and Fees: Except as specifically provided by written agreement between the District and an owner, tap permit fees, inspection fees, turn-off and turn-on service fees, fees for water meter installation and initial meter reading, performance bonds and guarantees, funds estimated to cover the cost to the District associated with any construction, and all other fees and charges are due when application for such permit or approval is made, or the task requiring the fee or charge is initiated, whichever occurs first. All such charges and fees not paid when due are delinquent.
- 10.17.3 <u>Delinquent Charges and Fees</u>: All delinquent fees and charges will be assessed a three and one half percent (3.5%) penalty charge per month, not to exceed the limitations set forth in Section 29.1.1102, Colorado Revised Statutes. Penalty charges are only charged on water and sewer past due balances and are not charged on previous penalty charges. Penalty charges may be waived on the past due and delinquent account if the total balance due is paid in full within five days of the initial due date. If such fees or charges become thirty (30) days delinquent, the District will prepare and mail a notice of suspension of service to each the owner and customer if customer is different than the owner. The owner or customer will have ten (10) days from the date of notice of suspension to pay all charges and fees before services are suspended. In addition, the District may either certify the delinquency to the Jefferson County Treasurer in accordance with the Jefferson County guidelines or file a lien for placement on the property. Any and all related charges including legal fees incurred by the District related to collection of delinquent charges are the responsibility of the owner as well and until paid also constitute a perpetual lien against the property.
- 10.17.4 <u>Liens for Unpaid Charges and Fees</u>: All charges and fees ultimately are the responsibility of the owner of the property served, and shall be a lien upon the property to which said service is provided and shall be a perpetual charge against such property until paid.
- 10.17.5 Returned Check Fee: Any check or other negotiable instrument tendered to the District for payment which is returned to the District and dishonored for any reason whatsoever shall be subject to a return check fee, with such fee provided in the schedule of fees and charges attached hereto as Appendix A.
- 10.18 <u>Fire Hydrant Use Permit</u>: District approval must be obtained prior to any individual, company, corporation or entity using a District fire hydrant for the purpose of taking water from the District's water system. A copy of the permit executed by an appropriate District official must be onsite anytime a fire hydrant is being used. The District's policy and procedure for the proper use of District fire hydrants is incorporated within the Fire Hydrant Use Permit and is attached under the Form Section of these Rules and Regulations. The Genesee Water District and the Genesee Fire Protection District are exempt from this permit requirement.

10.19 Construction Water Use: Any individual, company, corporation or entity wanting to use water from the District's water system for the purpose of construction must make appropriate application with the District office. If a fire hydrant is being used, please see Section 10.18 for permit requirement and procedure for proper use.

Section Eleven

11. INSPECTIONS

- 11.1 Powers and Authority of Inspectors: The District Manager and Superintendent, the Director of the Colorado Water Quality Control Division, the United States Environmental Protection Agency Regional Administrator, and their authorized representatives bearing proper credentials and identification shall be permitted to enter all private and public properties within the District for the purposes of testing related to discharge to the public system, inspection, observation, measurement, sampling, repair, maintenance of any portion of the water or sewer facilities lying within said properties, and related matters.
- 11.2 <u>Construction Inspections</u>: The District Manager, the District Superintendent, or their designee shall have the right to inspect any and all work during construction to insure installation in accordance with District standards. After completion of construction of water or sewer lines, the District Manager and/or Superintendent or their designee shall make a final inspection of construction as provided in Sections 5.4 and 6.3.

Section Twelve

12. ENFORCEMENT

- Prohibitions: No unauthorized person shall turn on service from, uncover, make any connection or reconnection with opening into, extend, use, alter, or disturb any public water or sewer mains or appurtenances. Throughout the content of these Rules and Regulations various prohibitions are listed and described under their appropriate section.
- Violations: In case of violation of these Rules & Regulations, the District may revoke service, disconnect, turn off service, require the responsible person to disconnect, or require the responsible person to return the District's system to its original condition, and shall require payment of all applicable fees and charges provided by these Rules and Regulations and all costs associated with the violation, including any expenses, losses, damages or attorneys fees occasioned by such violation by the responsible person. Such payment should be provided to the District prior to the District providing any service to any property or facilities owned, leased or occupied by the responsible party, whether or not such property or facilities are directly involved in the violation of this section. This section shall not be construed to limit the rights of the District to pursue other fees, charges, remedies or forms of relief provided in these Rules and Regulations and by other applicable law.
- 12.3 <u>Misdemeanor Offenses</u>: Any person that maliciously, willfully, or negligently breaks, damages, destroys, uncovers, defaces or tampers with any portion of the District's water or sewer system, or takes water from the District's system, including fire hydrants, without written authorization, shall be charged with a misdemeanor, and upon conviction thereof, shall be fined in an amount as established by the court for each violation, along with whatever additional penalties as may be appropriate.
- 12.4 <u>Revocation of Service</u>: Service shall be revocable by the District upon non-payment of valid fees or charges owing to the District, upon failure to comply with the Rules and Regulations of the District (10.11.4), (10.17.3), or when the District Manager or Superintendent determines that an emergency exists and such revocation is necessary to protect the health, safety and welfare of the inhabitants and visitors of the District.
 - 12.4.1 Notice and Hearing: In all cases except those involving an imminent hazard to the health, safety and welfare of the inhabitants and visitors of the District, or to the District's water or sewer systems, an owner and/or customer shall be given due notice through the notice of suspension described in Section 10.17.3 of the opportunity to request a hearing prior to involuntary disconnection or termination of service. Any request for a hearing concerning the District's intent to revoke service shall be given in writing to the District Manager prior to the District's act of disconnection or termination of service. Said hearing shall be held by the District at a regular meeting or special meeting of the Board of Directors at which time the owner or customer shall have an opportunity to present testimony and evidence to the Board. Following said hearing, the Board's decision shall be final. If it is the decision of the Board to revoke service to the property it may be accomplished by disconnecting or blocking, either or both the water and sewer lines serving the property.

APPENDIX A SCHEDULE OF FEES AND CHARGES

- 1. <u>APPLICATIONS</u>: The appropriate applications must be filed with the Manager and be accompanied by appropriate fees.
- 2. <u>FEES</u>: The Fee Schedule can be changed by the Board at any time without notice.
- 3. <u>WATER TAP FEE</u>: Water tap equivalent unit factors and the corresponding water tap fees are as follows:
 - 3.1 <u>Single-Family Dwelling</u>: = 1.0 EQR (Equivalent Residential Unit) with ³/₄" Tap/Meter Size. \$25,000.00

If a request is made to the District for a proposed increase in the physical tap size of an existing single-family dwelling, and upon review and approval by the District of such increase in size, an amount equal to the difference between the current 3/4" tap fee amount and the proposed tap size increase from the Chart in 3.4 will determine the additional tap fee assessment.

3.2 <u>Multi-Family Dwelling</u>: Each Single-Family Unit = 1.0 EQR (Equivalent Residential Unit) If a request is made to the District for a proposed increase in the physical tap size of an existing multi-family dwelling, a proportional tap fee assessment may be required; however each situation and/or request shall be reviewed individually and on its own merits. If upon review and approval by the District, it is determined an additional tap fee assessment is required, the current tap fee schedule for single-family dwellings from the Chart in 3.4 shall act as the basis in determining the additional tap fee assessment.

3.3 Office and Commercial:

Office and Commercial tap fees are determined on actual service requirements and based on the domestic meter size as determined from the following chart. If a request is made to the District for a proposed increase in the physical tap and/or domestic meter size of an existing service, and upon review and approval by the District of such increase in size, an amount equal to the difference between the original meter size and/or tap size purchased and the proposed meter/tap size increase from the Chart in Section 3.4 will determine the additional assessment.

3.4

Tap/Meter Size	Multiplier (EQR)	Tap Fee
3/4"	1.0	\$25,000.00
1"	1.7	\$42,500.00
1 1/2"	3.3	\$82,500.00
2"	5.3	\$132,500.00
3"	10.0	\$250,000.00
4"	16.7	\$417,500.00
6"	33.3	\$832,500.00

^{**} Plus equivalent Water Resource Fees

3.5 Tap Fee for Temporary Structures:

\$1,750.00

4. SEWER TAP FEES:

4.1 <u>Single-Family Dwelling</u>: = 1.0 EQR (Equivalent Residential Unit) \$25,000.00

4.2 <u>Multi-Family Dwelling</u>:

Each Single –Family Unit = 1.0 EQR (Equivalent Residential Unit). The number of Single-Family Units (1.0 EQR) within the Multi-Family Dwelling multiplied by the current Single-Family Dwelling (1.0 EQR) Sewer Tap Fee – TOTAL SEWER TAP FEE.

4.3 Office and Commercial:

Office and Commercial tap fees are determined by and based on a comparison with the average level of service provided to single-family dwellings within the District. A sewer tap equivalent unit factorization method using "Plumbing Fixture Units" as defined by the Uniform Plumbing Code (UPC) is used to determine the level of service proposed and estimate loadings to the sewer system. By determining the number of "Plumbing Fixture Units" within the proposed structure to be served and quantifying the total corresponding unit value and comparing to a known Single-Family Dwelling average unit value, an equitable tap fee can be established. The tap fee is calculated and based on the total value of "Plumbing Fixture Units" divided by thirty (30), multiplied by the current single-family dwelling (1.0 EQR) Sewer tap fee = Sewer tap fee. (See Worksheet Schedule).

4.4 Tap Fee for Temporary Structures: \$1,750.00

APPENDIX A SECTIONS 1-4

REVISED AND APPROVED ON SEPTEMBER 27, 1994 BY: GENESEE WATER AND SANITATION DISTRICT BOARD OF DIRECTORS

5. INSPECTION FEE FOR CONNECTION (WATER & SEWER):

5.1 Residential \$15.00/Service

5.2 Office Commercial \$15.00/Service

5.3 Re-inspection \$15.00/Service

6. <u>INSPECTION FEE FOR WATER METER INSTALLATION AND INITIAL METER READING OR INSPECTION</u>:

6.1 Residential \$20.00/Service

6.2 Office Commercial \$20.00/Service

6.3 Re-inspection \$20.00/Service

7. BI-MONTHLY SERVICE CHARGE FOR WATER:

See current Schedule of Fees and Charges.

8. BI-MONTHLY SERVICE CHARGE FOR SEWER:

See current Schedule of Fees and Charges.

9. SERVICE AVAILABILITY FEES:

At the present time, the District does not assess availability of service or facilities charge as defined in Section 10.16.

10. TURN-OFF SERVICE FEE:

10.1 Turn-Off Charge (Including Turn-On Charge) \$20.00

10.2 Readiness-to-Serve Fee for duration of turn-off:

Bi-monthly Rate - Water - Base charge provided in the current Schedule of Fees and Charges. Bi-monthly Rate - Sewer - 50% of flat rate provided in the current Schedule of Fees and Charges.

GENESEE WATER AND SANITATION DISTRICT 2310 BITTERROOT LANE

GOLDEN, COLORADO 80401 SCHEDULE OF FEES AND CHARGES EFFECTIVE DECEMBER 26, 2019

Base Charge		\$57.00
Plus usage per the following schedule:		
1,000 Gallons Thru 5,000 Gallons	Cost Per 1,000 Gallons	\$4.35
6,000 Gallons Thru 10,000 Gallons	Cost Per 1,000 Gallons	\$5.10
11,000 Gallons Thru 15,000 Gallons	Cost Per 1,000 Gallons	\$5.90
16,000 Gallons Thru 20,000 Gallons	Cost Per 1,000 Gallons	\$6.80
21,000 Gallons & Above	Cost Per 1,000 Gallons	\$8.05
CONSTRUCTION USAGE		
Usage Within the District	Cost Per 1,000 Gallons	\$8.50
Usage Outside the District	Cost Per 1,000 Gallons	\$17.00
Service Charge for Construction Water		\$100.00
SEWER		
SINGLE & MULTI-FAMILY DWELLINGS (Ea	ch Single Family Unit) [BI-MONTHLY]	
Charge - Flat Rate		\$99.50
COMMERCIAL [BI-MONTHLY]		
Base Charge		\$99.50
Plus usage over 8,000 Gallons	Cost Per 1,000 Gallons	\$12.44
FEBRUARY, APRIL, DECEMBER Billings	Based on Usage	
JUNE, AUGUST, OCTOBER Billings	Based on Average of Most Recent Februa	ary & April Billir
CAPITAL REPLACEMENT FEE		
ALL METERED ACCOUNTS [BI-MONTHLY]		
Charge - Flat Rate		\$40.00

- 11. TURN-ON FEE: Turn-On Fee (Each Unit) \$20.00
- 12. ACCOUNT TRANSFER FEE: (Per Section 10.15) \$25.00
- 13. <u>PETITION FOR INCLUSION FEE</u>: (Per Section 5.11) \$500 for each Single Family Equivalent proposed to be served.
- 14. <u>INCLUSION FEE</u>: (Per Section 5.11) \$5,000 for each Single Family Equivalent proposed to be served. To be Split equally between water & sewer (\$2,500 water/\$2,500 sewer).
- 15. WATER RESOURCE FEE: \$10,000 per EQR
- 16. <u>CHARGE FOR UNAUTHORIZED TURN-ON</u>: \$100.00 or amount to be determined by Board on an individual basis.
- 17. CHARGE FOR UNAUTHORIZED TAP CONNECTION: Twice the Inspection Fees.
- 18. CHARGE FOR UNAUTHORIZED TAP: One and one-half times tap fee.
- 19. <u>CHARGE FOR UNAUTHORIZED WATER USE</u>: A charge of \$1,000 for the first offense, and \$5,000 for the second offense for anyone taking water without authorization from the District's water system.
- 20. <u>FIRE HYDRANT USE CHARGE</u>: \$100.00 30-Day Permit plus construction usage per Schedule of Fees and Charges.
- 21. <u>CHARGE FOR UNAUTHORIZED USE OF FIRE HYDRANTS</u>: A charge of \$1,000 for the first offense and \$5,000 for the second offense for anyone taking water out of a fire hydrant without a valid Fire Hydrant Use permit. These charges apply not only to the person(s) performing the act, but also to the employer and/or principal. The District administers a permitting process for individuals or companies wishing to use water from a fire hydrant as defined in Section 10.18.
- 22. RETURNED CHECK FEE: (Per Section 10.17.5) \$30.00.
- 23. <u>FEES FOR DISTRICT WORK ASSOCIATED WITH TAPS, SERVICE LINE CONNECTION OR MAIN LINE EXTENSION</u>: All District costs associated with application for inclusion, water and/or sewer taps, water and/or sewer main line extensions and necessary appurtenances, water and/or sewer service line connection and necessary appurtenances, and all plant, facility, water rights, storage and other system expansions necessary because of any requested main line extension or service line connection or taps.

THE FEES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING ITEMS OF WORK:

- 23.1 <u>Cost Estimates</u>: Preliminary report, general plan and cost estimate.
- 23.2 <u>District Approval</u>: Construction, plans, survey, specifications, construction proposals, advertisement for bids, contracts, and related documents, all having the approval of the District, and monthly progress estimates and final estimates.
- 23.3 <u>Required Right-of-Way and Easements</u>: Preparation of required right-of-way descriptions for the District, perform necessary survey for these right-of-way, but not procurement of the same from the owners.

- Supervision and Field Inspections: General resident supervision and field inspection of the work of contractors, all lie and grade surveys as construction progresses. The field inspection is not to be continuous, but daily inspection will include: 1) measurement for payment, 2) assistance in interpretation of plans and specifications, 3) accurate daily field records of work performed, difficulties encountered, etc., and 4) protection of the District's interests.
- 23.5 <u>Meetings with District Board of Directors</u>: All necessary meetings with the Board pertaining to the particular contracts.
- 23.6 <u>Meetings with Other Governmental Agencies</u>: All necessary meetings with other governmental regulatory agencies and bodies.
- 23.7 As-Built or As-Construction plans.
- 23.8 <u>Permanent District Maps and Manuals</u>: Revisions to permanent District maps and operating manuals.
- 23.9 <u>Legal and Contingency Cost</u>: Costs of contingencies including all costs of the District's attorney for reviewing plans and specifications, proposals to the District by landowner, sub-divider, or developer; checking contract agreements between sub-dividers and their easements, right-of-way descriptions, and possible amendment of District boundaries, etc., shall be paid for by the landowner, sub-dividers, or developers.
- 24. <u>LIEN FEES</u>: A minimum of one hundred dollars (\$100) to cover administrative and legal costs shall be charged for each lien filed because of unpaid bills. Said fee may be increased at the discretion of the Board of Directors.
- 25. <u>BI-MONTHLY CAPITAL REPLACEMENT FEE</u> See current Schedule of Fees and Charges

APPENDIX B

STANDARDS AND SPECIFICATIONS

1. <u>GENERAL</u>: All water and sewer service line construction and water meter installation shall be done in accordance with these specifications. Not all matters can be covered by this Appendix and the Builder/Contractor shall consult with the District's Manager and Superintendent as to new or revised standards prior to construction and installation. The scope of these Specifications shall include all new service line installation from the District mains to the associated plumbing of the building or any other facility requiring service.

It shall be the Builder's/Contractor's responsibility to protect the service line, water meter assembly including water meter and all home plumbing including appliances and fixtures from freezing or other physical damage during construction. After completion of the construction and acceptance by the Owner, it shall be the Owner's responsibility to protect the service line, water meter assembly including water meter and all home plumbing including appliances and fixtures from freezing or other physical damage.

2. <u>LICENSES AND PERMITS REQUIRED</u>: All water service installations shall be done by a Contractor who has an individual working for him that possesses a current master plumber's card associated with the Plumbing Trade and that such individual personally accomplishes or directly supervises the installation work.

A connection permit shall be secured from the District a minimum of 24 hours prior to construction at which time the Contractor(s) shall familiarize themselves with these Standards and Specifications; select and obtain approval of the appropriate standard water service installation for the building or facility; submit an appropriate set of mechanical plans; inform District personnel of the intended schedule for construction and present the appropriate trade card. See service line plan drawing requirements.

Where a street cut is required for a water service, the Contractor shall rebuild the road base in accord with Jefferson County Road and Street Specifications and provide a permanent hot mix asphalt patch and obtain the appropriate permit. If hot mix is not available due to the time of year, a temporary cold asphalt patch may be installed. The permanent patch shall be installed by the Contractor not later than the first of June following construction.

All work shall be inspected by the District's representative who shall have the authority to halt construction when, in their opinion these specifications or proper construction practices are not being adhered to. Whenever any portion of these specifications is violated, the District representative shall order further construction to cease until all deficiencies are corrected. No line shall be covered without the District representative's approval.

3. <u>SPECIFICATIONS</u>: All specifications or standards; i.e., ASA, AWWA, ASTM, etc., made a portion of these specifications by reference shall be the latest edition and revision thereof.

4. WATER SERVICE LINE INSPECTIONS AND SPECIFICATIONS:

4.1 <u>Minimum Sizing Criteria for Service Lines and Meters in Residential Areas</u>: Note: The table below gives minimum size permitted by District only. Lines may have to be oversized for low-pressure areas or for other specific reasons.

Step 1 - Find the required flow from the following table:

Number of Units	Flow Per Unit	<u>Total Flow</u>
<u>Served</u>	In GPM	<u>In GPM</u>
1	15.00	15.00
2	8.75	17.50
3	6.67	20.00
4	5.63	22.55
5	5.00	25.00
6	4.58	27.50
8	4.06	32.50
10	3.75	37.50
11	3.64	40.00
12	3.54	42.50

Step 2 - Determine the distance from the main to the structure.

Step 3 - With the GPM and length of service line, enter the following table and determine the minimum size of service line and meter size.

Flow Required	Length of Service Line Feet							
GPM	25	50	75	100	150	200		
	Line/Meter	Line/Meter	Line/Meter	Line/Meter	Line/Meter	Line/Meter		
15	3/4 - 3/4	3/4* - 3/4	$1 - \frac{3}{4}$	1 - 3/4	1½ - ¾	11/2 - 3/4		
20	3/4 - 3/4	1 – 3/4	$1 - \frac{3}{4}$	1½ - ¾	1½ - ¾	11/2 - 3/4		
25	1 – 3/4	1½ - ¾	11/2- 3/4	1½ - ¾	1½ - ¾	11/2 - 3/4		
30	1 – 1	1½ - 1	1½ - 1	1½ – 1	1½ - 1	1½ - 1		
35	1 – 1	1½ - 1	1½ - 1	1½ – 1	1½ - 1	1½ - 1		
40	1½ - 1	1½ - 1	1½ - 1	1½ – 1	1½ - 1	2 - 1		
45	1½ - 1	1½ - 1	1½ - 1	1½ – 1	2 - 1	2 - 1		
50	1½ - 1½	1½ - 1½	1½ - 1½	1½ - 1½	2 – 1½	1 – 1½		
75	2 - 1½	2 – 1½	2 – 1½	2 – 1½	3 – 1½	3 – 1½		
100	2 - 2	2 – 2	2 – 2	3 – 2	3 – 2	3 – 2		

^{* -} Use 1 inch line where static pressure is less than 50 psi.

NOTE: Builder should review all sizing over 1" to determine if adequate for specific use proposed.

- 4.2 <u>Materials</u>: Following are the materials approved for water service lines in the District, subject to the minimum standards thereinafter referred to:
 - 4.2.1 <u>Corporation Stops</u>: Mueller #H-15000, or Ford #F-600, or equivalent.

- 4.2.2 Curb Stops: 3/4" and 1" Mueller #H-15200 or Ford Type #300, or equivalent.
- 4.2.3 Curb Boxes: Mueller #H-10350 1½" shaft 4' x 5'6" extended, or equivalent.

4.2.4 Meter Settings:

- 4.2.4.1 Exterior pit type installation: ¾" x 1"

 See District Manager for current specifications.
- 4.2.4.2 Interior installation: 3/4" x 1"

 Meters: See Meter Assembly drawing for 3/4" and 1" meter installations.

4.2.5 Meters:

- 4.2.5.1 Full ¾" to 1½" "BADGER" Read-O-Matic self-generating remote readout and frost protection base, or equivalent. Mounted between 1 foot and 5 feet off floor elevation.

 Maximum remote readout distance 125 feet.
- 4.2.5.2 2" meters and larger compound as approved by the District Manager.

4.2.6 Meter Pits:

- 4.2.6.1 Standard for ¾" and 1" meters without pressure reducing valve: Pits: 20" I.D. x 5' (5 cement rings).

 Covers: Cast Iron 24" Double lids (Comco Inc. or equivalent).
- 4.2.6.2 Standard for ¾" and 1" meters with pressure reducing valve: Pits: 30" I.D. x 6' (3 cement rings). Covers: Cast Iron 24" Double lids (Comco Inc. or equivalent).
- 4.2.6.3 For 1½" meters with and without pressure reducing valve: (See Standard Drawings).
- 4.2.7 <u>Service Saddles</u>: Smith Blair #323 Double Strap (cc thread), bronze, or equivalent.
- 4.2.8 Backflow Protection Device: Watts No. 7 Double Check Valve.
- 4.2.9 <u>Pressure Regulating Valves</u>: Watts U5B, Watts 25AUB, or Wilkins #70 Series with thermal bypass.
- 4.2.10 <u>Service Lines</u>: Main to House: Type "K" copper (ASTM B251) with flared connections, tested to main line pressure before covering.
- 4.2.11 <u>Water Meters Purchased From District</u>: Water Meters and all required accessories purchased from the District.
 - 4.2.11.1 <u>Meters in Stock at District</u>: The District has in stock 3/4" required by the District.

Larger sized meters and assemblies for commercial, multi-family and special situations are available upon request. These assemblies are subject to the approval of the District Manager.

Plumbers, contractors, and property owners may purchase water meters from the District for use within the District's service area.

4.3 <u>Installation</u>:

- 4.3.1 Remote Register/Readouts: All water service installations shall have a remote register/readout located near the similar power and gas service installations. The readout unit shall be installed on the building at a height of five (5) feet above the ground. The maximum remote distance from the meter shall not be over 125 feet.
- 4.3.2 Location and Alignment of Service: Water service lines shall be located so as to take the shortest, most direct path (preferable perpendicular to the main) from the curb box, if existing or the water main to the house. If possible the water line shall not be located under any paved driveway or service road. If curb exists, the curb shall be marked with a chiseled "V" at the point where the line crosses under the curb. All water service lines shall have a minimum cover of 6½ feet and shall be insulated in rock formation with Armaflex or comparable insulation. Water service is not allowed across property other than that being served, without prior approval of the District. Water and sewer services shall have parallel path separation of at least ten (10) feet.
- 4.3.3 Service Stub-Ins: Curb stops and boxes are required in all service installations, with the curb box if possible located on public right-of-way or District easement. All lines shall extend from the curb box to the building/facility utility area and terminate with the standard meter mounting horn. Mounting horn to be installed not less than one (1) foot from floor and not higher than five (5) feet above floor. Meters must be installed in such a manner to allow accessibility to the meter and to shut-off valves on either side of the meter. Exterior pit type installations shall be allowed only when a meter would otherwise have to be mounted in an unheated and inaccessible crawl space, in which case the service line terminates at the meter pit and horn assembly. Commercial service stub-ins (1½ inch line or larger) shall terminate at a curb stop and box. Curb boxes shall be three (3) inches above grade if located in earth. If curb boxes are located in a driveway or any other area, they must be flush with the surface.
- 4.3.4 <u>Main to Curb Stop</u>: Service lines from the main to the curb stop and from curb stop to meter horn assembly shall be one continuous length of pipe without joints or connections.
- 4.3.5 <u>Meter Horn to House</u>: The service line (authorized pit installations) from the horn assembly to the house shall be continuous without joints.
- 4.3.6 Remote Signal Cable: Shall be installed by the Contractor. If an interior meter installation, the signal cable shall be roughed in the shortest path from the utility room (meter location) to the location where all other utilities are to be read, and daylight to the outside of the building at a height of five (5) feet above the ground surface. If an exterior installation, the cable shall be laid in a ¾" plastic conduit underground with twelve (12) inches of cover and in the shortest path from the meter pit to the location on the building where other utilities are to be read and at a height of five (5) feet above the ground surface.
- 4.3.7 <u>Water Meter and Remote Register/Readouts</u>: Shall be installed in the presence of the District representative. The operational testing of the meter and readout shall be demonstrated at this time.
- 4.3.8 Minimum Cover Requirement: 6½ feet over the pipe.

4.3.9 <u>Pressure Reduction Valves</u>: A pressure reducing valve shall be installed in the copper service line just ahead of the meter installation when the meter elevations are less than 7,739 feet above sea level.

5. SEWER SERVICE LINE INSTALLATION AND SPECIFICATIONS:

5.1 Gravity Sewer System Materials:

CIP - Class 22 ASA Specs 121.6 or A21.8 PVC - ASTM Specs D-30 34-73, SDR-35 and Schedule 40 No Clay Pipe permitted

Pressure Sewer Services Materials:

PVC - Schedule 40 and Schedule 80

- 5.2 <u>Minimum Cover Required</u>: Gravity services is thirty (30) inches and Pressure/Ejector services is sixty (60) inches.
- 5.3 <u>Clean Out Required at Foundation and Then for Each 100 Feet of Length</u>: Extended 3" above grade and cap as approved by the District.
- 5.4 <u>Saddle Tap Requires</u>: Two (2) stainless steel bands, 45 degree saddle with rubber gasket or PVC compatible adhesive ASTM #D-2564.
- 5.5 Size: 4" gravity, 2" pressure (pressure lines have different specs than those listed above).
- 5.6 <u>Backfill</u>: Exclude rocks, ice, and trash for a minimum of twelve (12) inches above each side of the pipe. Pipe should be bedded according to manufacturer's recommendations.
- 5.7 Grade: At a minimum uniform drop of ¼ inch per lineal foot.
- 5.8 <u>Cast Iron Pipe</u>: Must extend five (5) feet through foundation wall; minimum cover thirty (30) inches.
- 5.9 Inspection: Must be made by the District representative before back filling.
- 6. MAINTENANCE OF TRAFFIC: To avoid interference with traffic, the following conditions shall be met:
 - 6.1 Street service cuts shall be open only between 8:30 a.m. and 4:00 p.m. Only one side of a street in a block may be closed at any one time.
 - 6.2 Adequate barricades, signs and warning devices as required by the District shall be placed and maintained during the progress of the work.
 - 6.3 Permit to cut pavement must be obtained from the Jefferson County Highway Department prior to installation of lines. Permit must be shown to the District's Superintendent or Manager before commencing construction.
- 7. <u>EXCAVATION</u>: Excavation of the trench shall be done in a workmanlike manner providing a trench that is straight and true with a flat bottom containing no rock or other deleterious material that would damage the pipe, and providing for a minimum of 6 1/2 feet of cover over the pipe. All excavated material shall be stockpiled in a manner that will not endanger the work nor obstruct sidewalks, driveways or streets, and the work shall be carried on in such a manner as to cause the least possible interruption to traffic.

- 8. <u>TAPPING THE MAIN:</u> Tapping of all mains and installation of corporation stop, to and including two-inch diameter, shall be coordinated with District personnel. Notification shall be given to the District 24 hours prior to need to provide ample time for the District personnel to respond.
- 9. <u>BACKFILL:</u> Backfill material in streets shall be "<u>Special Backfill Material</u>" as required by the Jefferson County Engineering Department. Colorado Department of Highways, Class 5 or 6 base course may be used in lieu of "Special Backfill Material."
- 10. <u>SURFACE RESTORATION:</u> Paving, curb and gutters, sidewalk, improved surfaces, other street improvements removed, damaged or destroyed during construction shall be replaced to the same elevation and alignment, with the same type and dimensions of units removed, and shall be equal to and consistent with the undisturbed portions of the improvements existing prior to trench excavation. Sub-grade for all restored surfaces shall be thoroughly compacted by mechanical or hand tampers weighing not less than 20 pounds, by vibratory rollers, or by other proposed means of compaction acceptable to the District representative.

Debris shall be removed from the site of the work at the expense of the contractor.

11. MAINTENANCE OF BACKFILL AND SURFACE WARRANTY: All backfill shall be maintained in a satisfactory condition, and all places showing signs of settlement shall be filled and maintained during the life of the contract and for a period of one year following the date of final acceptance for all work performed under this contract, except the warranty period for settlement in asphalt surfaced streets shall be two (2) years. When the developer or contractor is notified by the District that any backfill is hazardous, he shall correct such hazardous condition at once.

12. PROHIBITED PRACTICES:

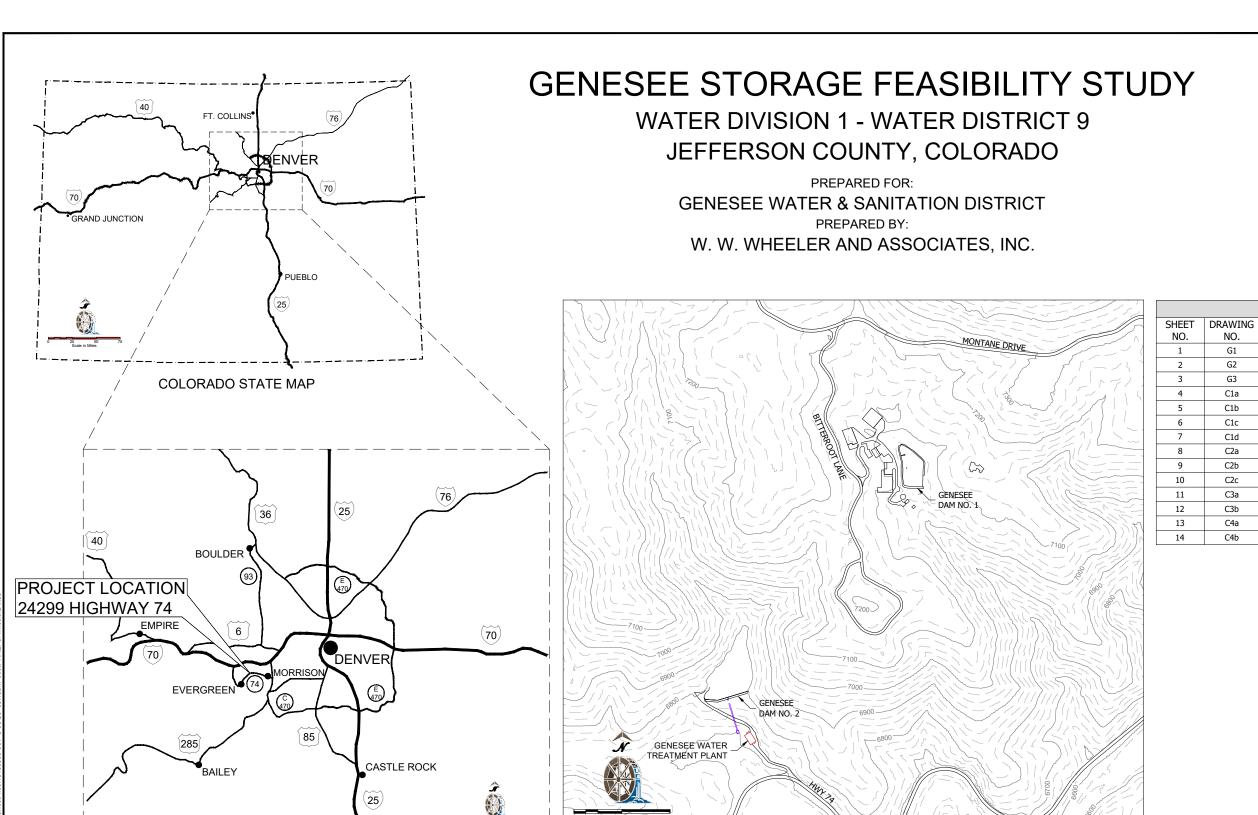
- 12.1 <u>Grounding electrical</u> system to the water service line.
- 12.2 Turning on the water service at the curb box by other than District personnel.
- 12.3 Connecting storm drains into sewer system.
- 12.4 <u>Crossing of water and sewer service lines</u>, unless approved by the District.
- 12.5 <u>Sweated or solder fittings</u> ahead of the pressure reducing valve.
- 12.6 Connecting to existing pig-tail at curb stop.
- 12.7 <u>Clay pipe</u> for sewer service lines.

13. SERVICE LINE DRAWING REQUIREMENTS:

13.1 The District's personnel shall prepare service line drawings showing the location of these lines and facilities, which shall be kept on file in the District's facilities.

Appendix C

Feasibility Drawings



3	G3	DAM NO. 2 EXISTING PLAN
4	C1a	DAM NO. 1 - 46 AF INCREASE - PLAN
5	C1b	DAM NO. 1 - 46 AF INCREASE - EMBANKMENT PROFILE AND SECTIONS
6	C1c	DAM NO. 1 - 46 AF INCREASE - SPILLWAY PROFILE
7	C1d	DAM NO. 1 - 46 AF INCREASE - RESERVOIR DRAIN - PROFILE
8	C2a	DAM NO. 1 - 27 AF INCREASE - PLAN
9	C2b	DAM NO. 1 - 27 AF INCREASE - EMBANKMENT PROFILE AND SECTIONS
10	C2c	DAM NO. 1 - 27 AF INCREASE - SPILLWAY PROFILE
11	C3a	DAM NO. 2 - 30 AF INCREASE - PLAN
12	C3b	DAM NO. 2 - 30 AF INCREASE - PROFILE AND SECTIONS
13	C4a	DAM NO. 2 - 15 AF INCREASE - PLAN
14	C4b	DAM NO. 2 - 15 AF INCREASE - PROFILE AND SECTIONS

DRAWING INDEX

COVER SHEET

DRAWING TITLE

PROJECT AREA MAP

C-1144G

REMARKS

REM

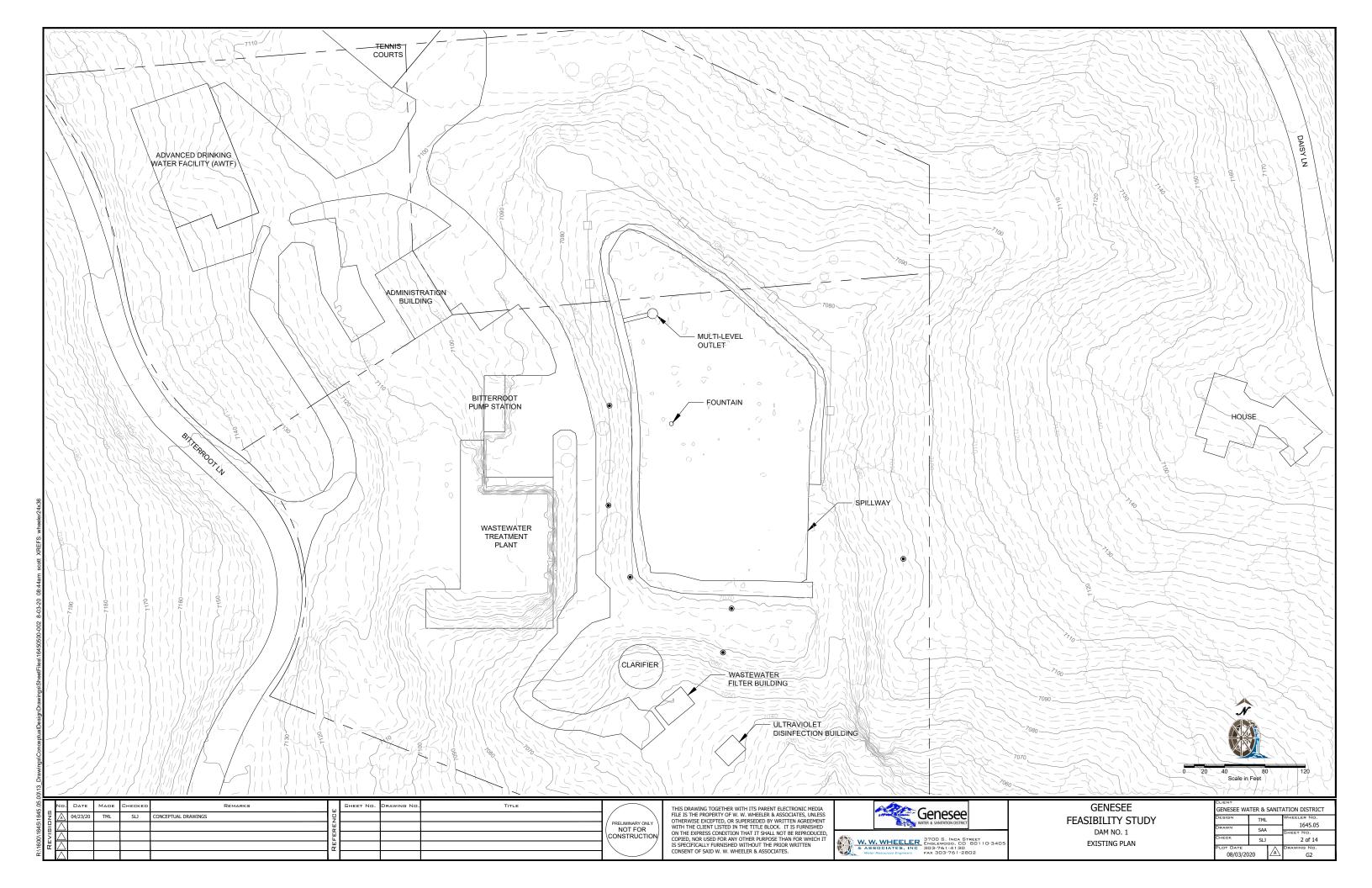
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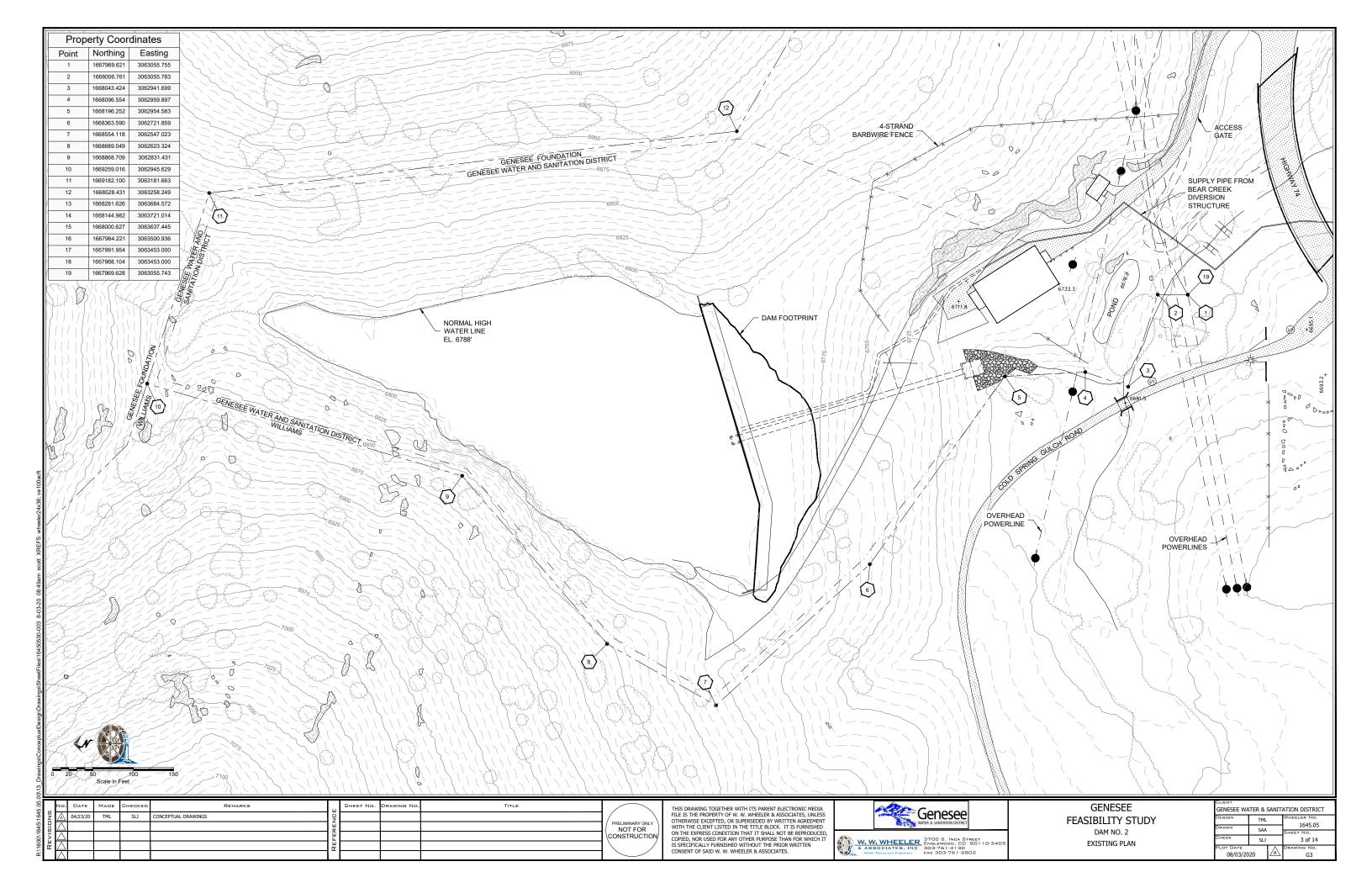
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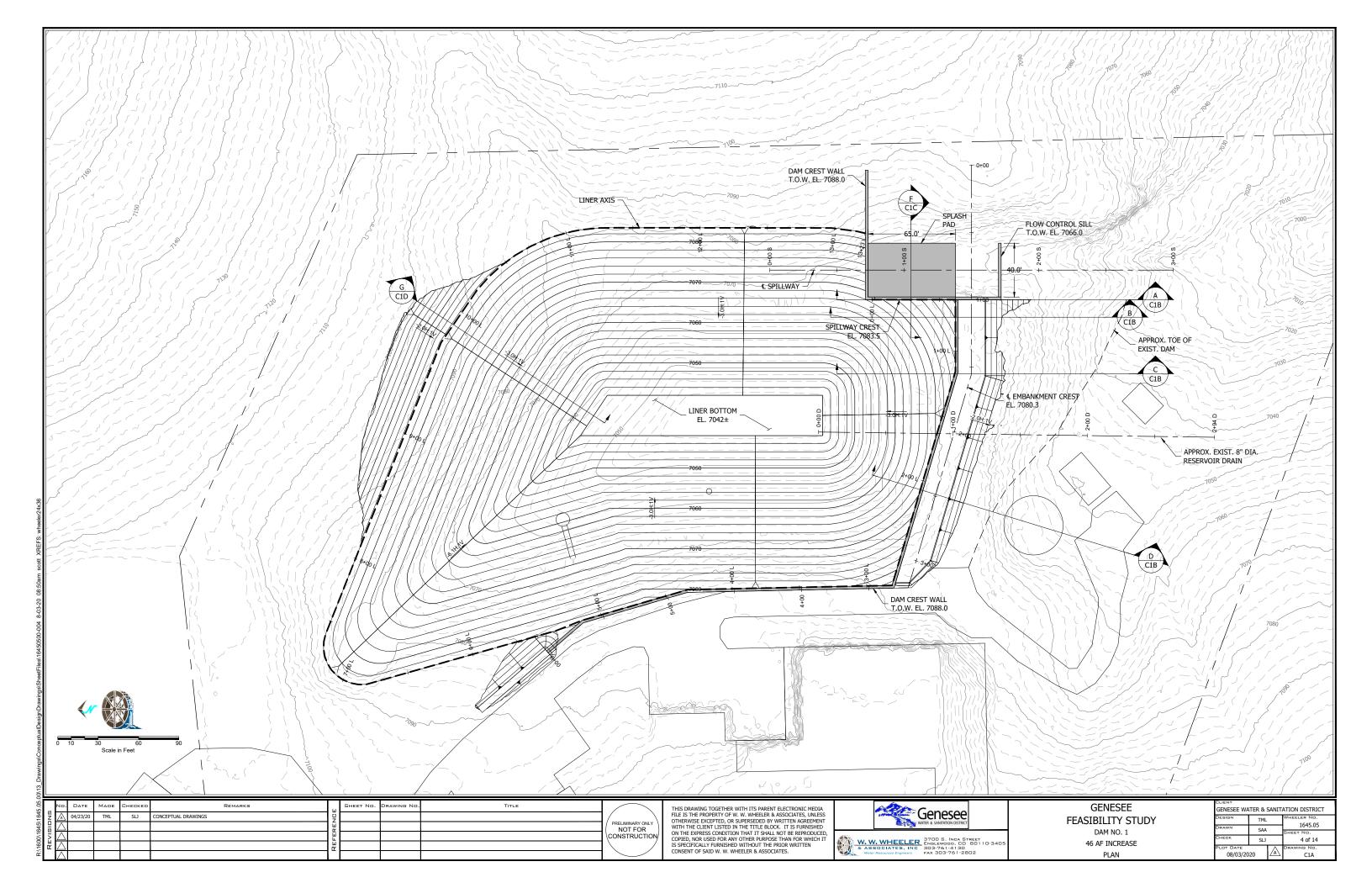


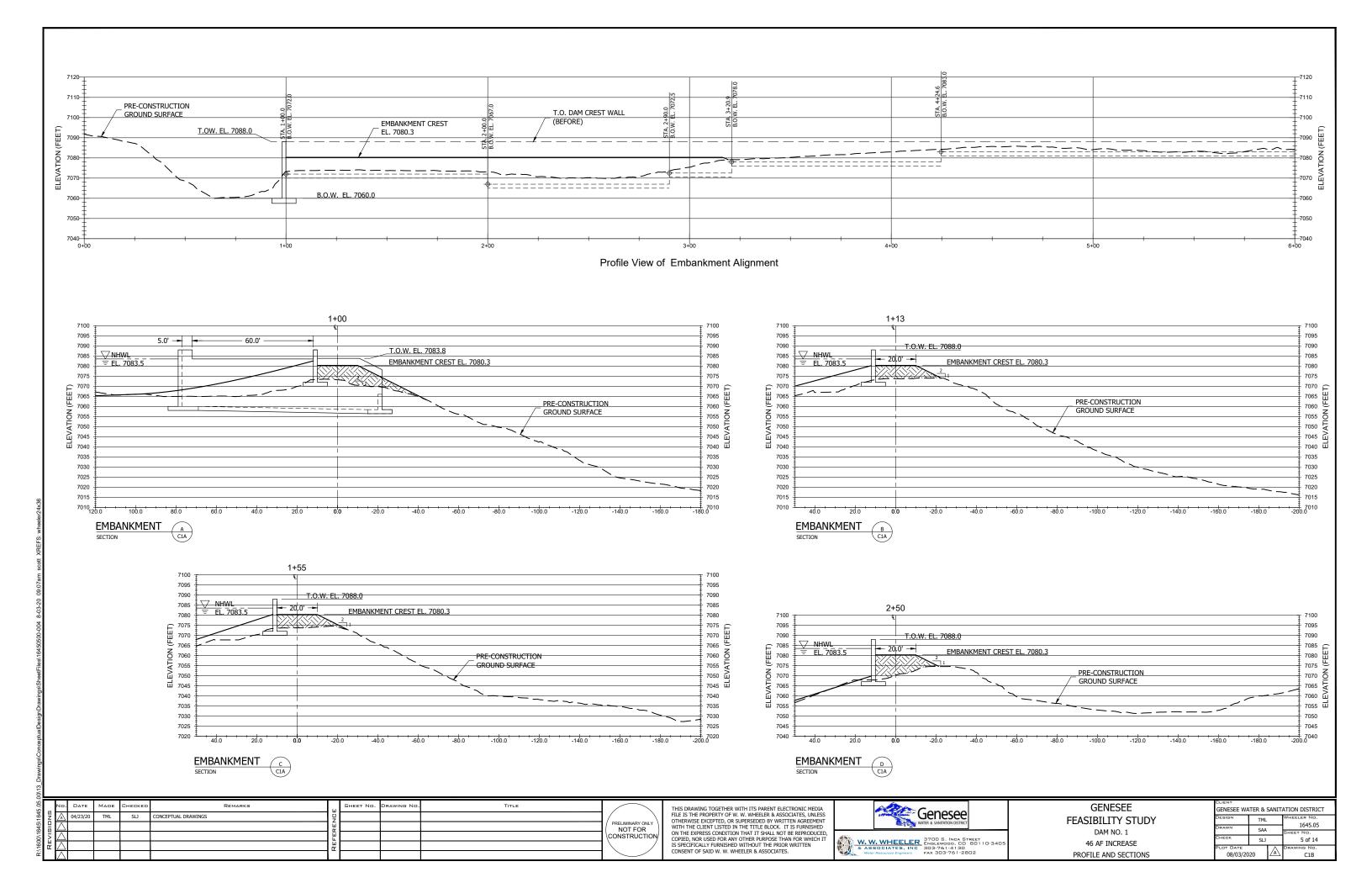
FEASIBILITY STUDY
COVER SHEET

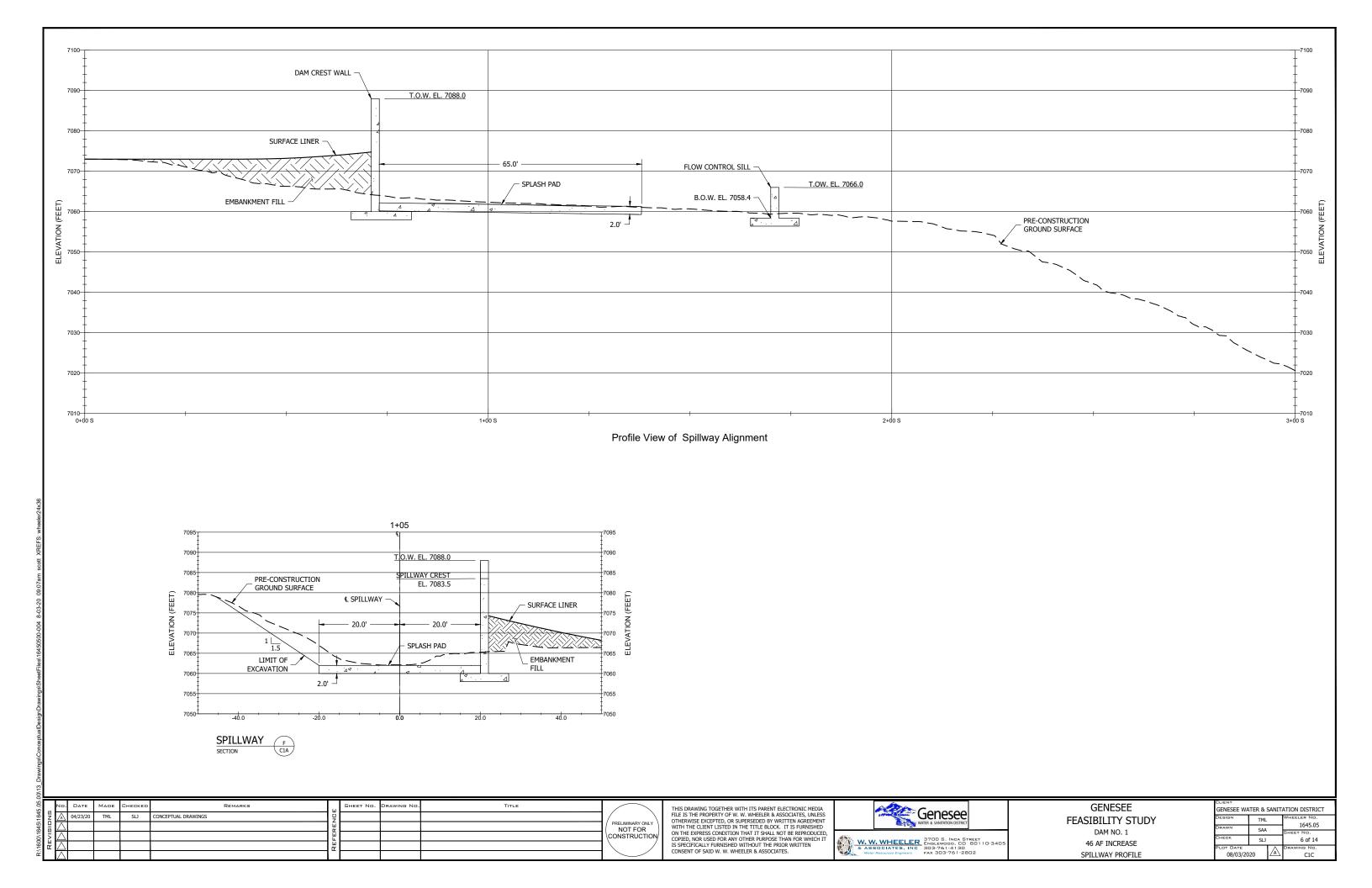
GLIENT GENESEE WATER & SANITATION DISTRIC						
DESIGN TML WHEELER NO.						
DRAWN	SAA		SHEET NO.			
CHECK	SLJ		1 of 14			
08/03/20	20	\langle	Drawing No. G1			

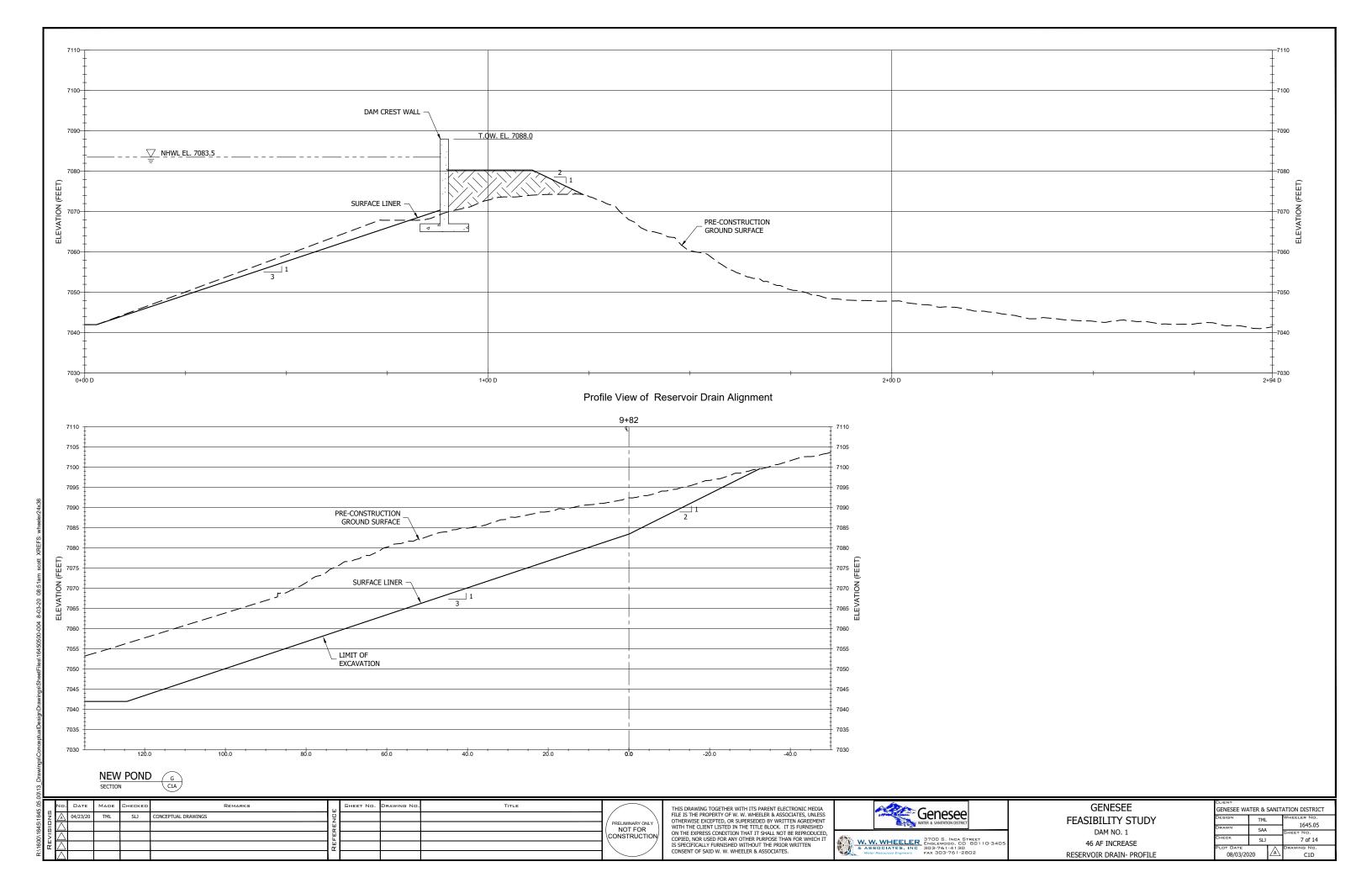


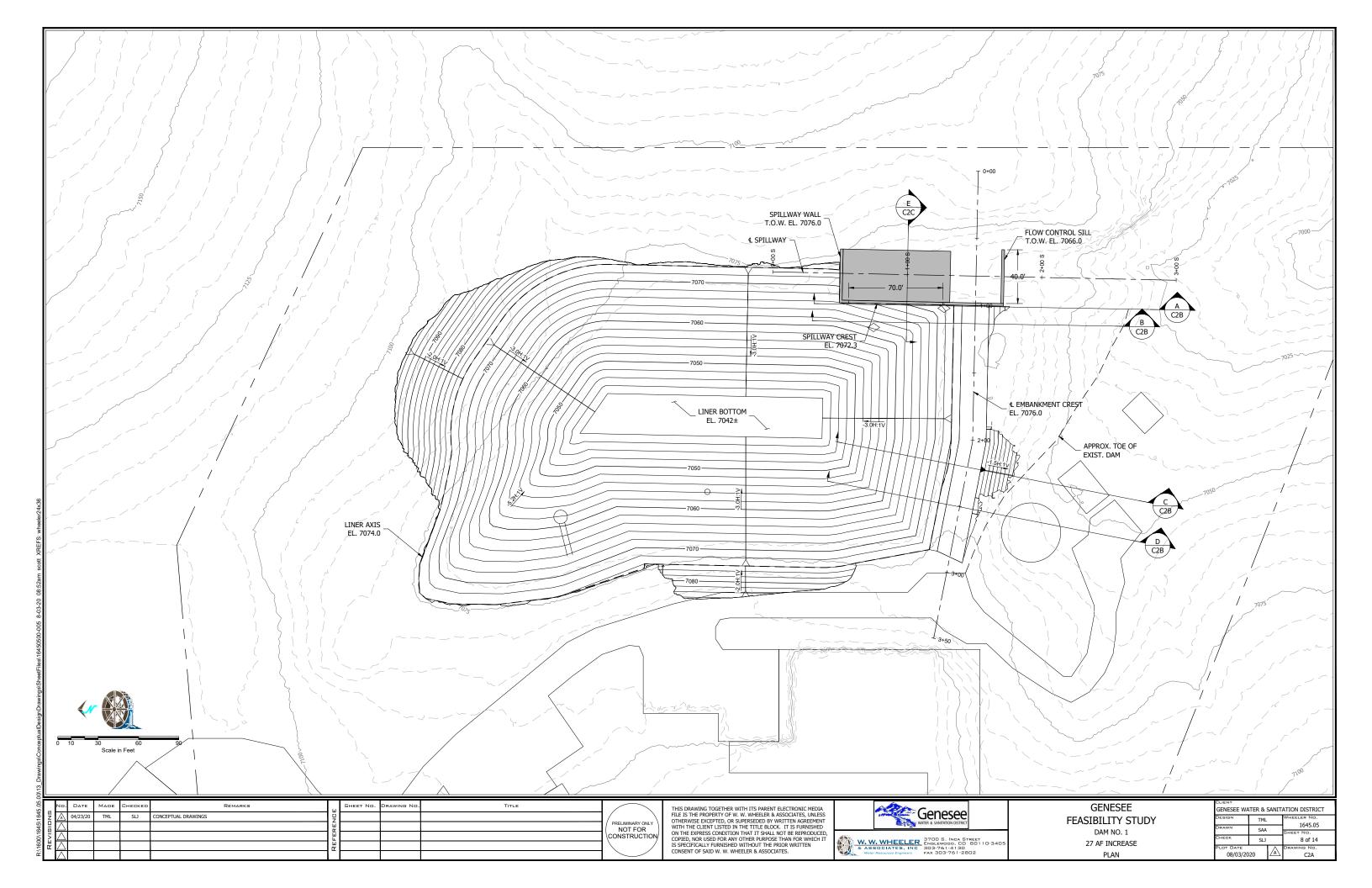


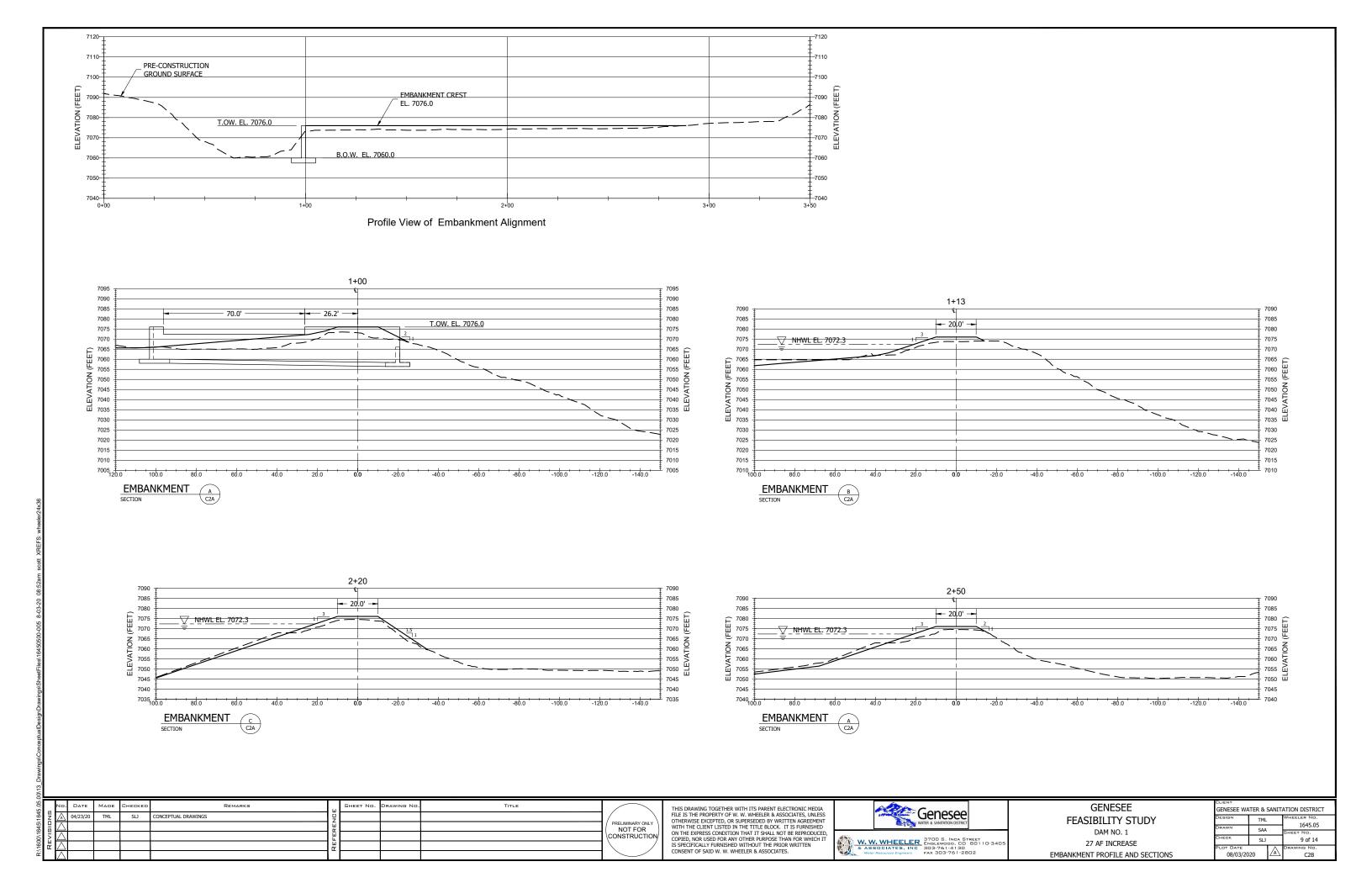


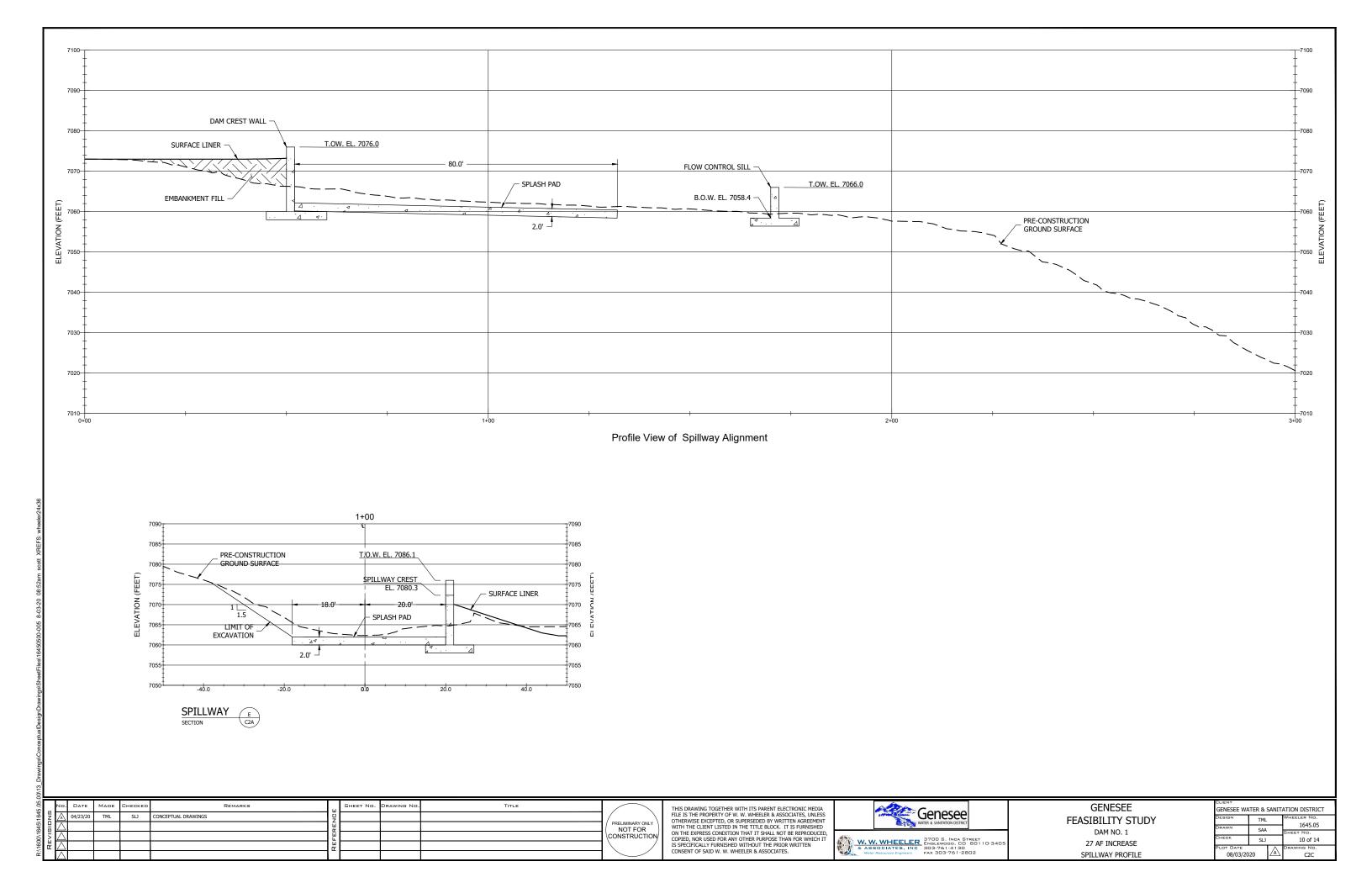


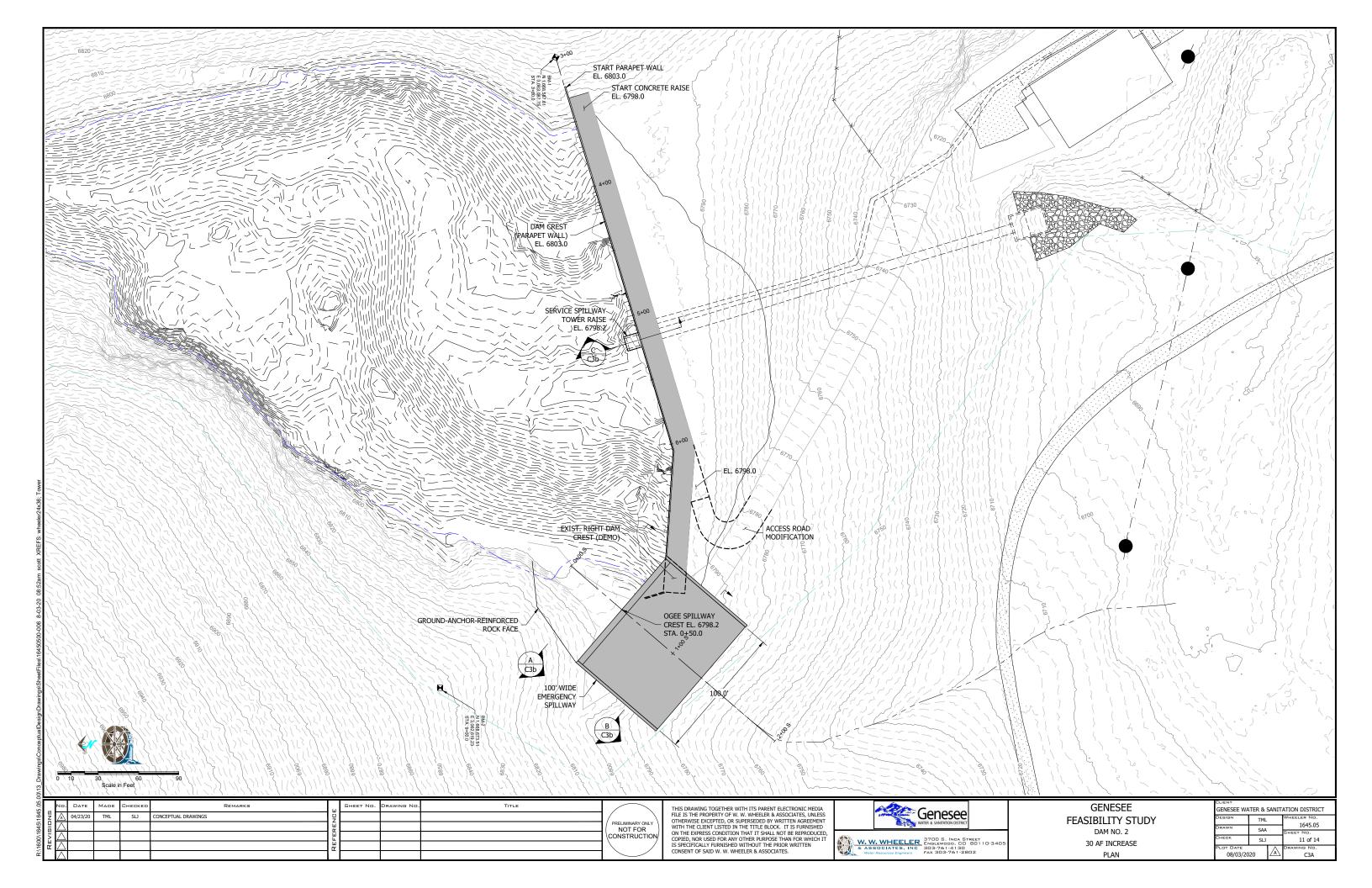


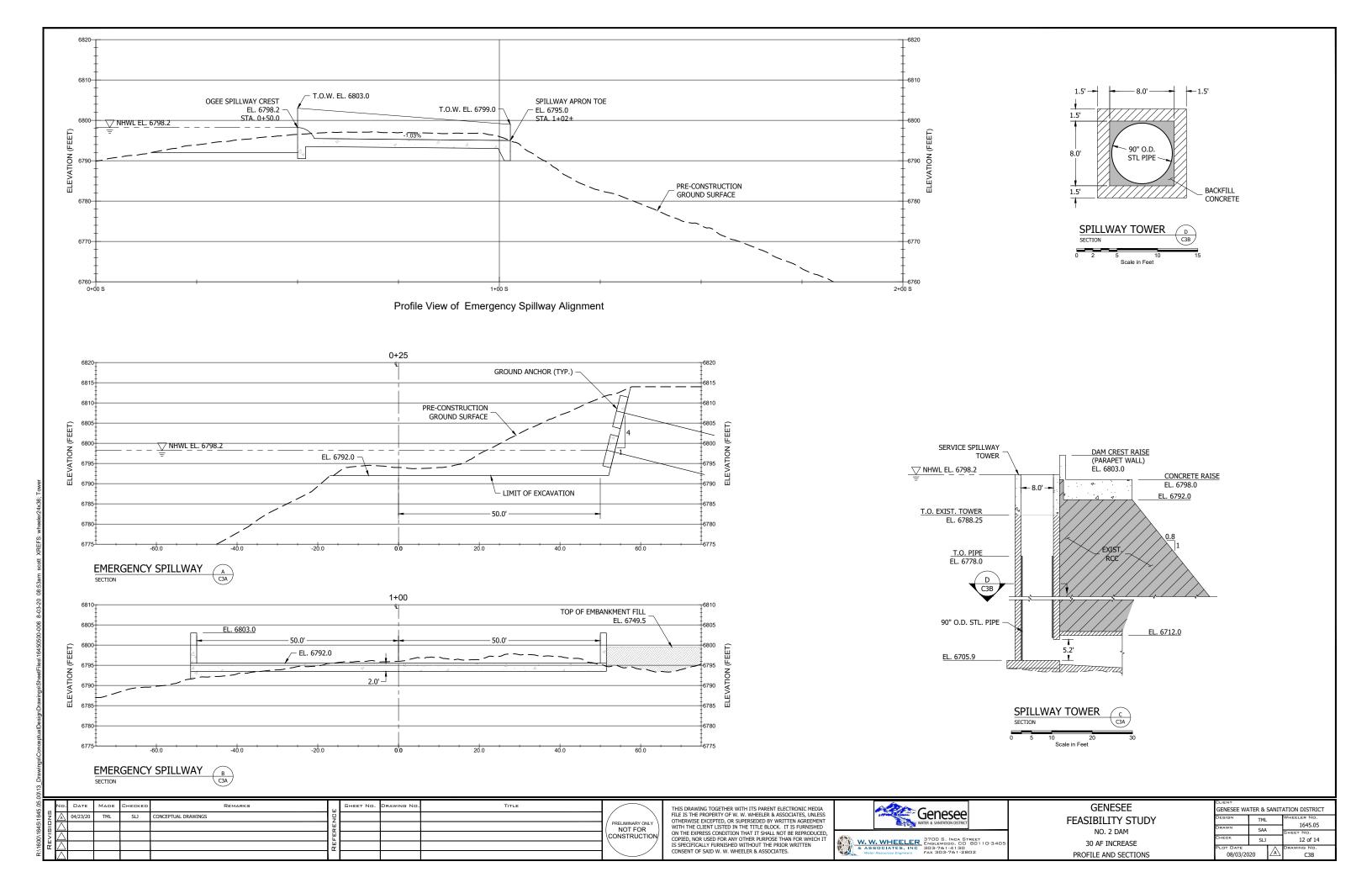


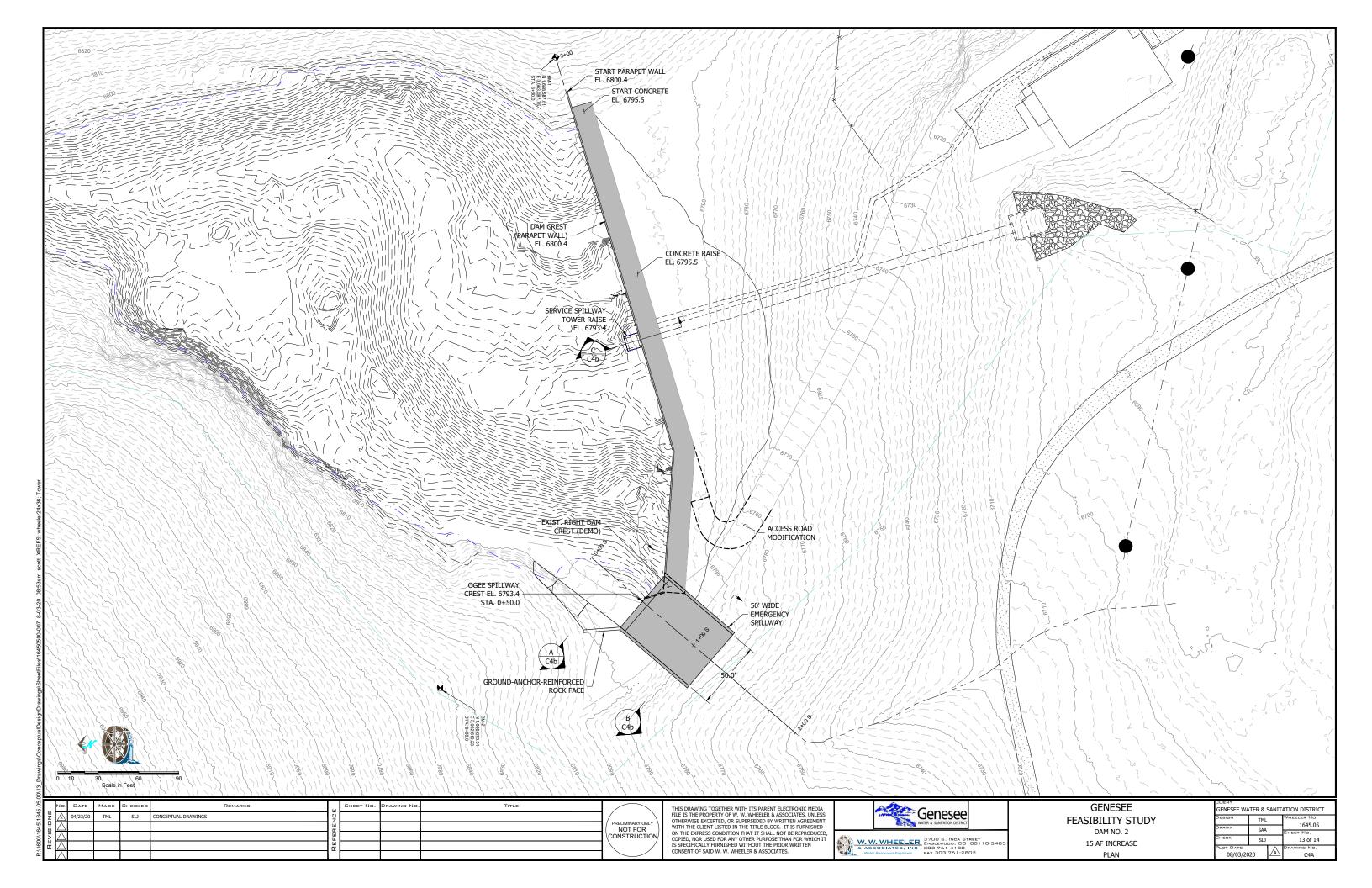


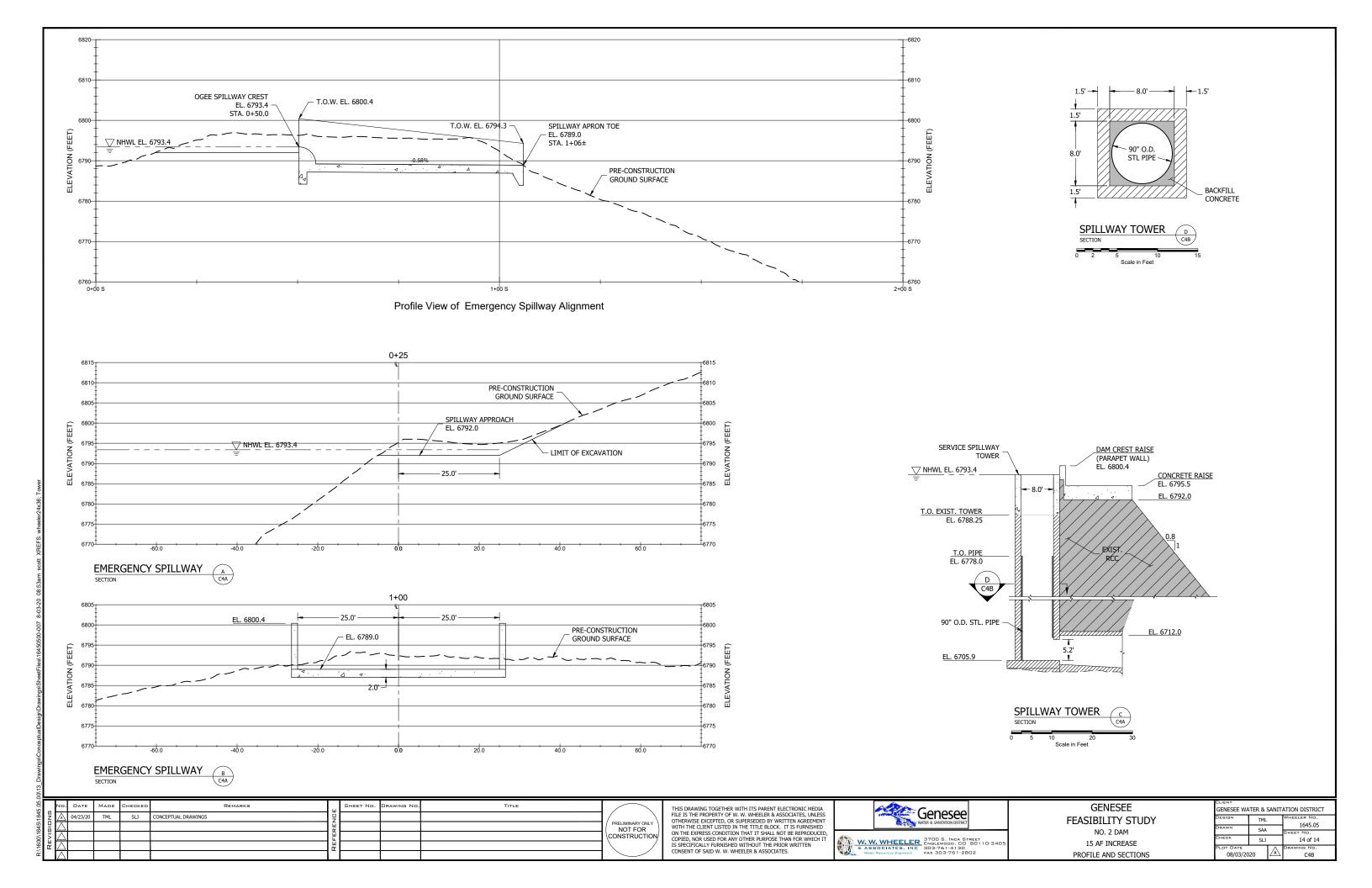












Appendix D

Opinions of Probable Project Costs

Alternative No. 2 - Intermediate Increase of Dam No. 1 (+27 acre-foot)

Item No.	Description	Quantity	Unit	Unit Price	2019 Cost
1	Mobilization & Site Preparation (15%)	1	LS	\$146,000	\$146,000
2	Demolition of Existing Liner	1	LS	\$52,000	\$52,000
3	Infrastructure Relocation	1	LS	\$15,000	\$15,000
4	Soil Excavation	10,900	CY	\$8.00	\$87,200
5	Rock Excavation	820	CY	\$15.00	\$12,300
6	Embankment Fill	400	CY	\$11.50	\$4,600
7	Wall Concrete	220	CY	\$1,100.0	\$242,000
8	Slab Concrete	285	CY	\$400.0	\$114,000
9	Liner Drainage Sand	200	CY	\$68	\$13,600
11	New Liner	90,000	SF	\$3	\$270,000
12	Riprap	120	CY	\$15	\$1,800
13	Reclamation	3	acres	\$2,500	\$6,250
14	New chain link fencing	900	LF	\$113	\$101,700
15	Unlisted Items (5%)	1	LS	\$53,000	\$53,000
16					
		Construction	n Cost		\$1,119,450
	Field Investigations & Mapping				\$10,000
	Existing Water Line Tie-in				\$350,000
	Design Engineering (8%)				\$89,556
					-

Construction Cost	\$1,119,450
Field Investigations & Mapping	\$10,000
Existing Water Line Tie-in	\$350,000
Design Engineering (8%)	\$89,556
SEO Design Review Fee	\$30,000
Permitting (5%)	\$55,973
Construction Administration (12%)	\$134,334
Bidding & Change Order Contingency (15%)	\$167,918
Total Project Cost	\$1,957,230
Additional Storage (acre-feet)	27
Storage Cost (\$/acre-feet)	\$72,490
Future Escalation @ 4% per year	
Total Project Cost (2019 Dollars)	\$1,957,230
Total Project Cost (2020 Dollars)	\$2,035,519
Total Project Cost (2021 Dollars)	\$2,116,940
Additional Storage Cost (\$/acre-foot in 2019 Dollars)	\$72,490
Additional Storage Cost (\$/acre-foot in 2020 Dollars)	\$75,390
Additional Storage Cost (\$/acre-foot in 2021 Dollars)	\$78,405

Alternative No. 3 - Significant Increase of Dam No. 1 (+46 acre-foot)

Item No.	Description	Quantity	Unit	Unit Price	2019 Cost
		_			
1	Mobilization & Site Preparation (15%)	1	LS	\$416,000.00	\$416,000
2	Demolition of Existing Liner	1	LS	\$52,000.00	\$52,000
3	Infrastructure Relocation	1	LS	\$15,000.00	\$15,000
4	Soil Excavation	12,800	CY	\$8.00	\$102,400
5	Rock Excavation	820	CY	\$15.00	\$12,300
6	Embankment Fill	1,500	CY	\$11.50	\$17,250
7	Wall Concrete	900	CY	\$1,100.00	\$990,000
8	Slab & Footer Concrete	600	CY	\$400.00	\$240,000
9	Liner Drainage Sand	200	CY	\$68.00	\$13,600
10	New Liner	125,000	SF	\$3.10	\$387,500
11	Riprap	120	CY	\$15.00	\$1,800
12	Reclamation	2.5	acres	\$2,500.00	\$6,250
13	New chain link fencing	1,100	LF	\$113.00	\$124,300
14	Unlisted Items (5%)	1	LS	\$119,000.00	\$119,000
		Constructio	n Cost		\$2,497,400
	Field Investigations & Mapping				\$10,000
	Existing Water Line Tie-in				\$350,000
	Design Engineering (8%)				\$199,792
	SEO Design Review Fee				\$30,000
	(-41)				4

Construction Cost	\$2,497,400
Field Investigations & Mapping	\$10,000
Existing Water Line Tie-in	\$350,000
Design Engineering (8%)	\$199,792
SEO Design Review Fee	\$30,000
Permitting (5%)	\$124,870
Construction Administration (12%)	\$299,688
Bidding & Change Order Contingency (15%)	\$374,610
Total Project Cost	\$3,886,360
Additional Storage (acre-feet)	46
Storage Cost (\$/acre-feet)	\$84,486
Future Escalation @ 4% per year	
Total Project Cost (2019 Dollars)	\$3,886,360
Total Project Cost (2020 Dollars)	\$4,041,814
Total Project Cost (2021 Dollars)	\$4,203,487
Additional Storage Cost (\$/acre-foot in 2019 Dollars)	\$84,486
Additional Storage Cost (\$/acre-foot in 2020 Dollars)	\$87,866
Additional Storage Cost (\$/acre-foot in 2021 Dollars)	\$91,380

Alternative No. 4 - Intermediate Raise of Dam No. 2 (+15 acre-foot)

Item No.	Description	Quantity	Unit	Unit Price	2019 Cost	
1	Mobilization & Site Preparation (15%)	1	LS	\$213,000	\$213,000	
2	Soil Excavation	1,250	CY	\$8	\$10,000	
3	Rock Excavation	420	CY	\$25	\$10,500	
4	Rock Anchor bolts	0	LS	\$0	\$0	
5	New Auxiliary Spillway	1	LS	\$169,000	\$169,000	
6	Inlet Tower Modifications	1	LS	\$192,000	\$192,000	
7	New Crest & Parapet Wall Concrete	860	CY	\$1,100	\$946,000	
8	Access Road Improvements	1	LS	\$5,000	\$5,000	
9	Power Pole Protection	1	LS	\$5,000	\$5,000	
10	Reclamation	3	acres	\$2,500	\$6,250	
11	Unlisted Items (5%)	1	LS	\$78,000	\$78,000	
	Construction Cost					
	Field Investigations & Mapping					
	Flood Easement					
	Design Engineering (8%)				\$130,000 \$130,780	
					-	
	SEO Design Review Fee				\$30,000	
	Permitting (5%)				\$81,738 \$196,170	
	Construction Administration (12%)					
	Bidding & Change Order Contingency (15%)					
	Total C	Construction	n Cost		\$2,458,650	
	Additional St	orage (acr	e-feet)		15	
	Storage C	Cost (\$/acr	e-feet)		\$163,910	
	Future Escalation @ 4% per year					
	Total Project Cost (2019 Dollars)				\$2,458,650	
	Total Project Cost (2020 Dollars)				\$2,556,996	
	Total Project Cost (2021 Dollars)					
	Additional Storage Cost (\$/acre-foot in 2019 Dollars)					
	Additional Storage Cost (\$/acre-foot in 2020 Dollars)					
	Additional Storage Cost (\$/acre-foot in 2021 Dollars)				\$170,466 \$177,285	

Alternative No. 5 - Significant Raise of Dam No. 2 (+30 acre-foot)

Soil Excavation	Item No.	Description	Quantity	Unit	Unit Price	2019 Cost
Soil Excavation						
3 Rock Excavation		Mobilization & Site Preparation (15%)			\$340,000	\$340,000
4 Rock Anchor bolts	2	Soil Excavation	67	CY	\$8	\$536
5 New Auxiliary Spillway 1 LS \$228,600 \$228,600 6 Inlet Tower Modifications 1 LS \$209,500 \$209,500 7 New Crest & Parapet Wall Concrete 1,400 CY \$1,100 \$1,540,000 8 Access Road Improvements 1 LS \$5,000 \$5,000 9 Power Pole Protection 1 LS \$5,000 \$5,000 10 Reclamation 3 acres \$2,500 \$6,250 11 Unlisted Items (5%) 1 LS \$124,000 \$124,000 Construction Cost \$2,603,886 Field Investigations & Mapping \$10,000 Field Investigations & Mapping \$10,000 Field Investigations & Mapping \$10,000 SEO Design Review Fee \$30,000 Design Engineering (8%) \$208,311 Permitting (5%) \$312,466 Construction Administration (12%) \$33,815,440 Bidding & Change Order Conting		Rock Excavation	4,200	CY		\$105,000
6			1			\$40,000
7 New Crest & Parapet Wall Concrete 1,400 CY \$1,100 \$1,540,000 8 Access Road Improvements 1 LS \$5,000 \$5,000 9 Power Pole Protection 1 LS \$5,000 \$5,000 10 Reclamation 3 acres \$2,500 \$6,250 11 Unlisted Items (5%) 1 LS \$124,000 Construction Cost \$2,603,886 Field Investigations & Mapping \$10,000 Flood Easement \$130,000 SEO Design Review Fee \$30,000 Design Engineering (8%) \$208,311 Permitting (5%) \$130,194 Construction Administration (12%) \$312,466 Bidding & Change Order Contingency (15%) \$390,583 Total Construction Cost \$3,815,440 Additional Storage Cost (\$/acre-feet) \$127,181 Future Escalation @ 4% per year Total Project Cost (2019 Dollars) \$3,815,440 Storage Cost (\$/acre-feet) \$3,815						\$228,600
8 Access Road Improvements 1 LS \$5,000 \$5,000 9 Power Pole Protection 1 LS \$5,000 \$5,000 10 Reclamation 3 acres \$2,500 \$6,250 11 Unlisted Items (5%) 1 LS \$124,000 \$124,000 Construction Cost \$2,603,886 Field Investigations & Mapping \$10,000 Flood Easement \$130,000 SEO Design Review Fee \$30,000 Design Engineering (8%) \$208,311 Permitting (5%) \$130,194 Construction Administration (12%) \$312,466 Bidding & Change Order Contingency (15%) \$390,583 Total Construction Cost \$3,815,440 Additional Storage (acre-feet) \$127,181 Future Escalation @ 4% per year Total Project Cost (2019 Dollars) \$3,815,440 Total Project Cost (2020 Dollars) \$3,968,058 Total Project Cost (2020 Dollars) \$3,968,058 Total P						\$209,500
9 Power Pole Protection 1 LS \$5,000 \$5,000 10 Reclamation 3 acres \$2,500 \$6,250 11 Unlisted Items (5%) 1 LS \$124,000 \$124,000 Construction Cost \$2,603,886 Field Investigations & Mapping \$10,000 Flood Easement \$130,000 SEO Design Review Fee \$30,000 Design Engineering (8%) \$208,311 Permitting (5%) \$130,194 Construction Administration (12%) \$312,466 Bidding & Change Order Contingency (15%) \$390,583 Total Construction Cost \$3,815,440 Additional Storage (acre-feet) 30 Storage Cost (\$/acre-feet) \$127,181 Future Escalation @ 4% per year Total Project Cost (2019 Dollars) \$3,815,440 Total Project Cost (2020 Dollars) \$3,968,058 Total Project Cost (2020 Dollars) \$3,968,058 Total Project Cost (2020 Dollars) \$4,126,780						\$1,540,000
10		·				\$5,000
11 Unlisted Items (5%)				LS		\$5,000
Construction Cost \$2,603,886			1			\$6,250
Field Investigations & Mapping \$10,000	11	Unlisted Items (5%)	1	LS	\$124,000	\$124,000
Field Investigations & Mapping \$10,000		<u> </u>	<u> </u>			4
Flood Easement			onstructio	n Cost		
SEO Design Review Fee \$30,000 Design Engineering (8%) \$208,311 Permitting (5%) \$130,194 Construction Administration (12%) \$312,466 Bidding & Change Order Contingency (15%) \$390,583 Total Construction Cost \$3,815,440 Additional Storage (acre-feet) 30 Storage Cost (\$/acre-feet) \$127,181 Future Escalation @ 4% per year Total Project Cost (2019 Dollars) \$3,815,440 Total Project Cost (2020 Dollars) \$3,968,058 Total Project Cost (2021 Dollars) \$4,126,780 Additional Storage Cost (\$/acre-foot in 2019 Dollars) \$127,181 Additional Storage Cost (\$/acre-foot in 2020 Dollars) \$132,269		Field Investigations & Mapping				\$10,000
Design Engineering (8%) \$208,311		Flood Easement				\$130,000
Permitting (5%) Construction Administration (12%) Bidding & Change Order Contingency (15%) Total Construction Cost Additional Storage (acre-feet) Storage Cost (\$/acre-feet) Total Project Cost (2019 Dollars) Total Project Cost (2021 Dollars) Total Project Cost (2021 Dollars) Additional Storage Cost (\$/acre-foot in 2019 Dollars) Additional Storage Cost (\$/acre-foot in 2020 Dollars) Additional Storage Cost (\$/acre-foot in 2020 Dollars) \$130,194 \$312,466 \$3390,583 \$127,181		SEO Design Review Fee				\$30,000
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Additional Storage (acre-feet) 30 Storage Cost (\$/acre-feet) \$127,181 Future Escalation @ 4% per year Total Project Cost (2019 Dollars) \$3,815,440 Total Project Cost (2020 Dollars) \$3,968,058 Total Project Cost (2021 Dollars) \$4,126,780 Additional Storage Cost (\$/acre-foot in 2019 Dollars) \$127,181 Additional Storage Cost (\$/acre-foot in 2020 Dollars) \$132,269		Bidding & Change Order Contingency (15%)				\$390,583
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· · · · · · · · · · · · · · · · · · ·		• • • • • • • • • • • • • • • • • • • •				\$132,269
		Additional Storage Cost (\$/acre-foot in 2021 Dollars)				\$137,559

District Court, Water Division 1, Colorado
901 9th Avenue
Greeley, Colorado 80631

DATE FILED Document - District Court
CASE NUMBER: 2009C W270

Case Number: 2009C W270

Case Number: 2009CW270

Courtroom: 5

FINDINGS OF FACT, CONCLUSIONS OF LAW, JUDGMENT, AND DECREE OF THE WATER COURT

THIS MATTER has come before the Court upon the Application for Change of Water Rights filed by Genesee Water & Sanitation District, and the Court having considered the pleadings and the evidence presented and being fully advised with respect to the subject matter of the application, hereby enters the following Findings of Fact, Conclusions of Law, Judgment and Decree of the Water Court.

FINDINGS OF FACT

- 1. <u>Applicant</u>. The applicant is Genesee Water & Sanitation District ("Genesee"), whose address is c/o S. Scott Jones, Manager, 17301 W. Colfax Ave., Suite 220, Golden, CO 80401-4800. (303) 278-9780.
- 2. <u>Notice and Jurisdiction</u>. The application in this case was filed with the Water Court for Water Division No. 1 on December 30, 2009. Timely and adequate notice of the application has been given in the manner presented by law. The Court has jurisdiction over the subject matter of this proceeding and over all persons who have standing to appear as parties whether they have appeared or not. The land and water right which are the subject of this Decree are not included within the boundaries of any designated ground water basin.
- 3. Parties. Statements of opposition to the application were timely filed by the Farmers Reservoir and Irrigation Company, City of Lakewood, Colorado Water Conservation Board, Evergreen Metropolitan District, and Town of Morrison. No other statements of opposition or motions to intervene were filed, and the time for filing statements of oppositions and to intervene has expired. By order entered February 8, 2011 the Court dismissed Farmers Reservoir and Irrigation Company's statement of opposition with prejudice. Genesee has entered into stipulations with Evergreen Metropolitan District, City of Lakewood, Town of Morrison and Colorado Water Conservation Board pursuant to which those parties consented to entry of a decree granting the application herein,

subject to the terms of those stipulations. All of the stipulations referred to above are hereby approved and are hereby incorporated by this reference.

- 4. <u>Landowners</u>. Genesee is the owner of the land on which Genesee Augmentation Reservoir No. 1 and Genesee Augmentation Reservoir No. 2 are located and within which water will be stored.
- 5. <u>Description of the Application</u>. The application in this case seeks to adjudicate a change in the place of storage for the Cold Spring Gulch Reservoir conditional storage water right originally decreed in Case No. W-1515, District Court, Water Division No. 1 to two alternate places of storage, Genesee Augmentation Reservoir No. 1 and Genesee Augmentation Reservoir No. 2, for subsequent use by Genesee. A map depicting the locations of the structures involved in this application is attached hereto as **Exhibit A**. Genesee owns and operates the Genesee Mountain Pipeline for the diversion of water from Bear Creek for use by Genesee. The Genesee Mountain Pipeline was decreed in Case No. W-157, District Court, Water Division No. 1, for the diversion of 8.75 cfs of water from Bear Creek. The decreed diversion point for the Genesee Mountain Pipeline is located on Bear Creek immediately upstream of the confluence of Cold Spring Gulch with Bear Creek and is the same point of diversion decreed for the diversion of water from Bear Creek by the Cold Spring Gulch Reservoir Pipeline to fill Cold Spring Gulch The Genesee Mountain Pipeline structure can deliver water directly to Genesee's water treatment plant and, by delivery through Genesee's municipal water system, the water can be delivered directly to Genesee Augmentation Reservoir No. 1 for storage and subsequent beneficial use by Genesee. The Genesee Mountain Pipeline structure can also deliver water directly to Genesee Augmentation Reservoir No. 2. Therefore, with respect to the diversion of water from Bear Creek, no change in point of diversion is required for the diversion and delivery of the subject Cold Spring Gulch Reservoir conditional water right to the alternate places of storage claimed herein. Genesee does not seek to store water decreed to the subject Cold Spring Gulch Reservoir conditional water right from Cold Spring Gulch in Genesee Augmentation Reservoir No. 1 or Genesee Augmentation Reservoir No. 2.
- 6. Report of the Division Engineer. A report of the Division Engineer, Summary of Consultation was issued on March 31, 2010 pursuant to C.R.S. § 37-92-302(4). That report has been considered by the Court in accordance with C.R.S. § 37-92-305(6).

CHANGE OF WATER RIGHT

- 7. Description of water right sought to be changed ("Subject Water Right").
 - A. Cold Spring Gulch Reservoir.

- (1) <u>Decree entered</u>: September 11, 1975, Case No. W-1515, District Court, Water Division No. 1.
- (2) <u>Decreed location of reservoir</u>: In Section 25, Township 4 South, Range 71 West of the 6th P.M., in Jefferson County, Colorado. The Cold Spring Gulch Reservoir Pipeline has its intake at a point on the left bank of Bear Creek at a point whence the NW corner of Section 31, Township 4 South, Range 70 West of the 6th P.M., bears North 15°15' West 350 feet, in Jefferson County, Colorado and may divert water from Bear Creek at a rate of up to 8.75 cfs.
- (3) <u>Source</u>: Cold Spring Gulch and Bear Creek.
- (4) <u>Appropriation date</u>: October 2, 1971.
- (5) <u>Amount of water</u>: 225 acre-feet, CONDITIONAL.
- (6) <u>Use</u>: Recreation, irrigation, domestic, municipal and other beneficial uses.
- 8. <u>Historical Use</u>. The historical use of the Subject Water Right is not applicable because the water right is conditional. The decree entered on June 30, 2009 in Case No. 2003CW145, District Court, Water Division No. 1, continued this conditional water right in full force and effect until the end of June, 2015.
- 9. <u>Proposed Changes</u>. Genesee seeks approval of the following described alternate places of storage for the Subject Water Right:
 - A. Genesee Augmentation Reservoir No. 1. Located in the NW¼ SW¼, Section 30, Township 4 South, Range 70 West of the 6th P.M. Genesee Augmentation Reservoir No. 1 was previously decreed: (i) a storage water right in the amount of 10 acre-feet per year in Case No. 90CW194, District Court, Water Division No. 1, entered October 6, 1993; and (ii) a storage water right in the amount of 5 acre-feet per year and to fill and refill the reservoir to its full capacity of 18 acre-feet in Case No. 91CW112, District Court, Water Division No. 1, entered April 18, 1994.
 - B. <u>Genesee Augmentation Reservoir No. 2</u>. The dam is located in the SE¼ of Section 25, Township 4 South, Range 71 West of the 6th P.M. The dam impounds the stream channel in the SE¼ SE¼ of Section 25, Township 4 South, Range 71 West of the 6th P.M. approximately 639 feet north of the South section line and 230 feet west of the East section line of said Section 25. Genesee has a pending application in Case No. 06CW278, District Court, Water Division No. 1 for a water storage right for Genesee Augmentation Reservoir No. 2.

- 10. <u>Terms and Conditions to Prevent Injury</u>. The following terms and conditions should be applied to Genesee's use of the Subject Water Right as changed herein.
 - A. <u>Diversion Rate</u>. Diversion of the Subject Water Right from Bear Creek for delivery to the alternate places of storage described in paragraphs 9.A. and B., above, shall be limited to a maximum rate of 8.75 cfs.
 - B. <u>Diversion to Storage</u>. All diversions under the Subject Water Right shall be placed in storage prior to subsequent beneficial use.
 - C. Maximum Annual Volumetric Limitation. Diversions of water under the Subject Water Right in any water year shall not exceed the lesser of: (a) 225 acre-feet less carryover of water diverted under the Subject Water Right from the previous water year; or (b) one annual fill of Genesee Augmentation Reservoir No. 1, one annual fill of Genesee Augmentation Reservoir No. 2 and one annual fill of Cold Spring Gulch Reservoir (when constructed and operational), less carryover of water diverted under the Subject Water Right from the previous water year. The term water year as used in this Decree shall mean November 1 of any year through October 31 of the next year. The current capacity of Genesee Augmentation Reservoir No. 1 is 18 acre-feet, and the current capacity of Genesee Augmentation Reservoir No. 2 is 101.25 acre-feet. Cold Spring Gulch Reservoir has not yet been constructed by Genesee but was decreed a capacity of 225 acre-feet in Case No. W-1515.
 - D. <u>Maximum Diversion Rate</u>. The maximum rate of diversion through the Genesee Mountain Pipeline shall not exceed 8.75 cfs, regardless of what water rights are being diverted at the Genesee Mountain Pipeline at any given time.
 - E. <u>Separate Accounting of Treated Water</u>. Genesee shall make a separate accounting of the treated water produced by the Genesee Water Treatment Plant that goes to either Genesee Augmentation Reservoir No. 1 or Genesee Augmentation Reservoir No. 2.
 - F. <u>Out-of-Priority Inflows</u>. Genesee Augmentation Reservoirs Nos. 1 and 2 are equipped with outlet works capable of bypassing any out-of-priority inflows. When constructed, Cold Spring Gulch Reservoir shall be equipped with outlet works capable of bypassing any out-of-priority inflows. Any out-of-priority inflows that accrue to Genesee Augmentation Reservoirs Nos. 1 and 2 and Cold Spring Gulch Reservoir (when constructed and operational) shall be returned to the nearest natural waterway at the point closest to the respective reservoirs.

- G. <u>Previous Terms and Conditions Shall Apply</u>. Except as to the alternate places of storage decreed herein, this Decree does not, and is not intended to amend or revise any provisions of the decree entered in Case No. W-1515.
- H. Type of Use of Subject Water Right. The decree entered in Case No. W-1515 determined that the Subject Water Right may be used for recreation, irrigation, domestic, municipal and other beneficial uses. The Court determines that the "other beneficial uses" decreed in Case No. W-1515 includes use for fire protection, commercial and industrial uses, fish and wildlife propagation within Genesee Augmentation Reservoirs Nos. 1 and 2 and Cold Spring Gulch Reservoir, stock watering, replacement, exchange and augmentation purposes. Accordingly, the Subject Water Right may be used for recreation, irrigation, domestic and all municipal purposes including, without limitation, fire protection, commercial and industrial use, fish and wildlife propagation within Genesee Augmentation Reservoirs Nos. 1 and 2 and Cold Spring Gulch Reservoir, stock watering, exchange, replacement, and augmentation purposes.
- I. <u>Place of Use of Subject Water Right</u>. The Subject Water Right may be used within Genesee's present and future service area. Any use of the Subject Water Right outside of Genesee's service area, as it currently exists or as it may be modified in the future, shall be limited to any area in which Genesee has augmentation or water replacement obligations pursuant to Genesee's current and future water court decrees.
- 11. Approval of Change of Water Right. The Court finds that the statements in the Application are true. The Court further finds that no injury will result to the vested or decreed conditional water rights of others from the change of water right proposed by Genesee so long as such change is administered in accordance with the terms and conditions contained in this Decree. Therefore, Genesee is entitled to a decree granting the Application.

CONCLUSIONS OF LAW

- 12. <u>Legal requirements fulfilled</u>. The application is complete, covering all applicable matters required pursuant to the Water Right Determination and Administration Act of 1969, C.R.S. §§ 37-92-101 through 602. The subject Application is in accordance with Colorado law. Genesee has fulfilled all legal requirements for a decree for the requested change of water right, including C.R.S. §§ 37-92-302 and 37-92-305.
- 13. <u>Notice and Jurisdiction</u>. The Water Court for Water Division No. 1 has jurisdiction over the subject matter of this proceeding and over all persons, owners of property and water rights that may be affected hereby, whether or not they have chosen to appear. The

Application in this matter and the resume publication of the Application placed such persons on notice of the relief requested by the Application and granted by this Decree.

14. <u>Change of Water Right</u>. The change of water right requested by Genesee is permissible and is contemplated by law and satisfies the requirements of C.R.S. § 37-92-101 et seq. and, therefore, should be granted. If implemented subject to the terms and conditions contained herein, this change of water right will not cause injury to the owner or owners of any vested water right or decreed conditional water right.

JUDGMENT AND DECREE OF THE WATER COURT

- 15. <u>Incorporation</u>. The foregoing Findings of Fact and Conclusions of Law are incorporated into this Judgment and Decree of the Court.
- 16. <u>Change of Water Right</u>. The application for change of water right is hereby granted and the requested alternate places of storage are hereby approved.
- 17. <u>No Injury</u>. The terms and conditions provided for in this Decree are adequate to assure that no injury to any water users from operation of the change of water right will result.
- 18. Exchange and Augmentation Uses. Although this Decree confirms Genesee's right to use the Subject Water Right for exchange and augmentation uses, no specific exchange or augmentation plan is approved by this Decree. The operation of any exchange or augmentation plan involving the Subject Water Right must be in compliance with Colorado law and, if a decree for such an exchange or augmentation plan has been entered by this Court, in compliance with the terms and conditions of said decree.
- 19. <u>Administration</u>. The State Engineer and Division Engineer shall administer this Decree in accordance with the terms and conditions set forth herein.
- 20. Accounting. Diversions under the change of water right decreed herein shall be accounted for on a daily basis and recorded on accounting forms acceptable to the Division Engineer, which shall be submitted to the Division Engineer monthly. The accounting forms for this Decree shall be integrated with the accounting of Genesee's operations under the decree entered in Case No. W-157, District Court, Water Division No. 1. The accounting forms used by Genesee shall include, at a minimum, the following information: (1) priority date of the calling water right; (2) all diversions at the Genesee Mountain Pipeline, identified by water right; (3) verification that total diversions at the Genesee Mountain Pipeline do not exceed 8.75 cfs; (4) identification of the direct flow water right diversions at the Genesee Mountain Pipeline for direct use in Genesee's municipal system; (5) identification of the storage water right diversions at the Genesee Mountain Pipeline and the place of storage of the water so diverted; (6) metered

deliveries of the Subject Water Right to Genesee Augmentation Reservoir No. 1; (7) amounts of water in storage (total and by water right) at Genesee Augmentation Reservoirs Nos. 1 and 2 and Cold Spring Gulch Reservoir (when constructed and operational); (8) running total of all volumetric limitations; (9) releases and use (total and by water right) from Genesee Augmentation Reservoirs Nos. 1 and 2 and Cold Spring Gulch Reservoir (when constructed and operational); (10) so long as the reservoir is onchannel, net evaporation loss after credit for historical water consumption by native vegetation (computed as 70 percent of average precipitation); and (11) any out-of-priority storage, and subsequent releases.

21. Retained jurisdiction. In consideration of the specific findings and conclusions made herein, and in conformance with C.R.S. § 37-92-304(6), the change of water right decreed herein shall be subject to reconsideration by the Water Judge on the question of injury to the vested water rights of others, commencing upon the entry of this Decree and continuing for a period of five years from the date Genesee first operates under this Decree and provides notice of such operation to the Court, the Division Engineer, and all parties to this case. In the event a party petitions the Court for reconsideration of the question of injury, the Court shall order that appropriate notice be given to all parties. The petition for reconsideration shall be made in good faith, under oath, and shall set forth with particularity the factual basis upon which the requested reconsideration is premised. The party filing the petition shall have the burden of going forward to establish the prima facie facts alleged in the petition. If the Court finds those facts to be established, Genesee shall thereupon bear the burden of proof to show (a) that any modification sought by opposers is not required to avoid injury to other water rights, (b) that any modification sought by the Applicant will avoid injury to other appropriators, or (c) that any term or condition proposed by Genesee in response to the opposers' petition does avoid injury to other water rights.

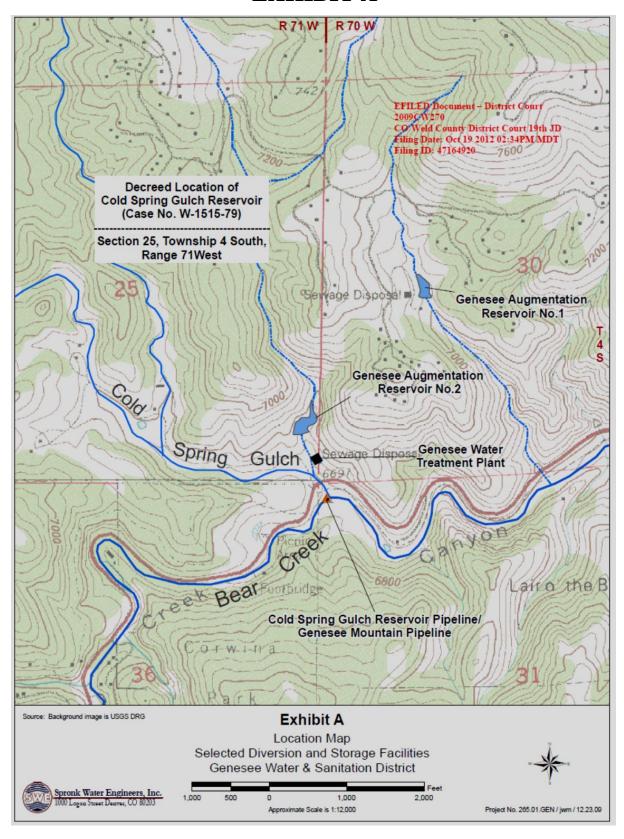
Dated: 22 October 2012

BY THE COURT:

Dinsmore Tuttle
Alternate Water Judge

Water Division 1

EXHIBIT A



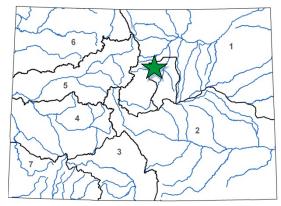


Genesee Reservoir No. 1 Enlargement

Genesee Water and Sanitation District September 2020 Board Meeting

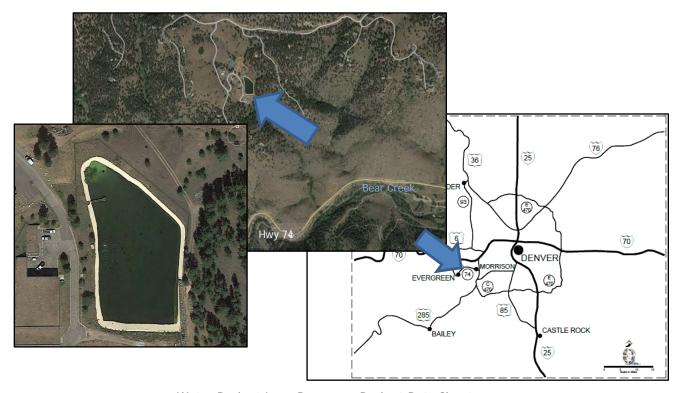
LOAN DET	AILS							
Project Cost:	\$4,200,000							
CWCB Loan (with Service Fee):	\$4,242,000							
Loan Term and Interest Rate:	40 Years @ 2.50%							
Funding Source:	Construction Fund							
BORROWER	TYPE							
Agriculture Municipal	Commercial							
0% 0% Low - 0% Mid - 100% High 0%								
PROJECT DE	ETAILS							
	_							
	ervoir Enlargement							

The Genesee Water and Sanitation District (District) was created in 1973 and currently services 1,442 taps and approximately 3,900 people in Genesee. Genesee Reservoir No. 1 was originally constructed in 1975 to provide a raw sewage lagoon for the District; however, it was later changed to a water augmentation reservoir for the District.



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The Genesee Reservoir No. 1 Enlargement (Project) includes final design, permitting, and construction of a 30 AF enlargement to the 16AF existing reservoir. The Project includes replacement of the synthetic liner, construction of a new tie-in to the District's raw water transmission line, a 20-foot raise of the spillway, and construction of a parapet wall ranging from 8-24 feet high on top of the existing earthen dam crest to minimize changes to the downstream dam slope. This construction will increase the raw water storage in the District by almost 50%, and provide greater operational flexibility and better drought protection. The District also intends to apply for Water Plan Grant in December 2020 and if approved, the funds will go toward Project costs. Final design is expected to occur during the fall of 2020 and final construction is anticipated by fall of 2021.



Water Project Loan Program - Project Data Sheet