



**POWDER MOUNTAIN WATER AND  
SEWER IMPROVEMENT DISTRICT**

# ***Culinary Water System Impact Fee Facility Plan***

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Powder Mountain, Utah

Revision 0

PWM.015.20

September 13, 2021

Gilson Engineering, Inc.



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# Section 1 - Introduction

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## Impact Fee Certification

Gilson Engineering certifies that this Impact Fee Facilities Plan (IFFP) has been prepared in compliance with Utah Code Title 11 Chapter 36a-306 as follows:

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

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## Project Overview

As development continues within the Powder Mountain Water and Sewer Improvement District (PMWSID), demand on water resources becomes a substantial concern. Development of a long-term plan for the water system is critical in order for PMWSID to optimize precious water resources. Recommendations presented in this impact fee plan will ensure quality water at reasonable rates for current and future residents.

Culinary water facilities outlined in this impact fee plan will provide required water supply for *indoor use only*.

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## Project Objectives

In order to develop an Impact Fee Facility Plan (IFFP), this report addresses the following:

- Culinary Water System Operation
- Existing Culinary Water Facilities
- Existing Culinary Water Deficiencies
- Future Culinary Water Infrastructure

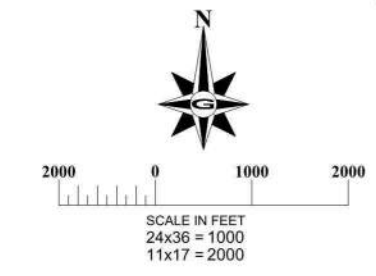
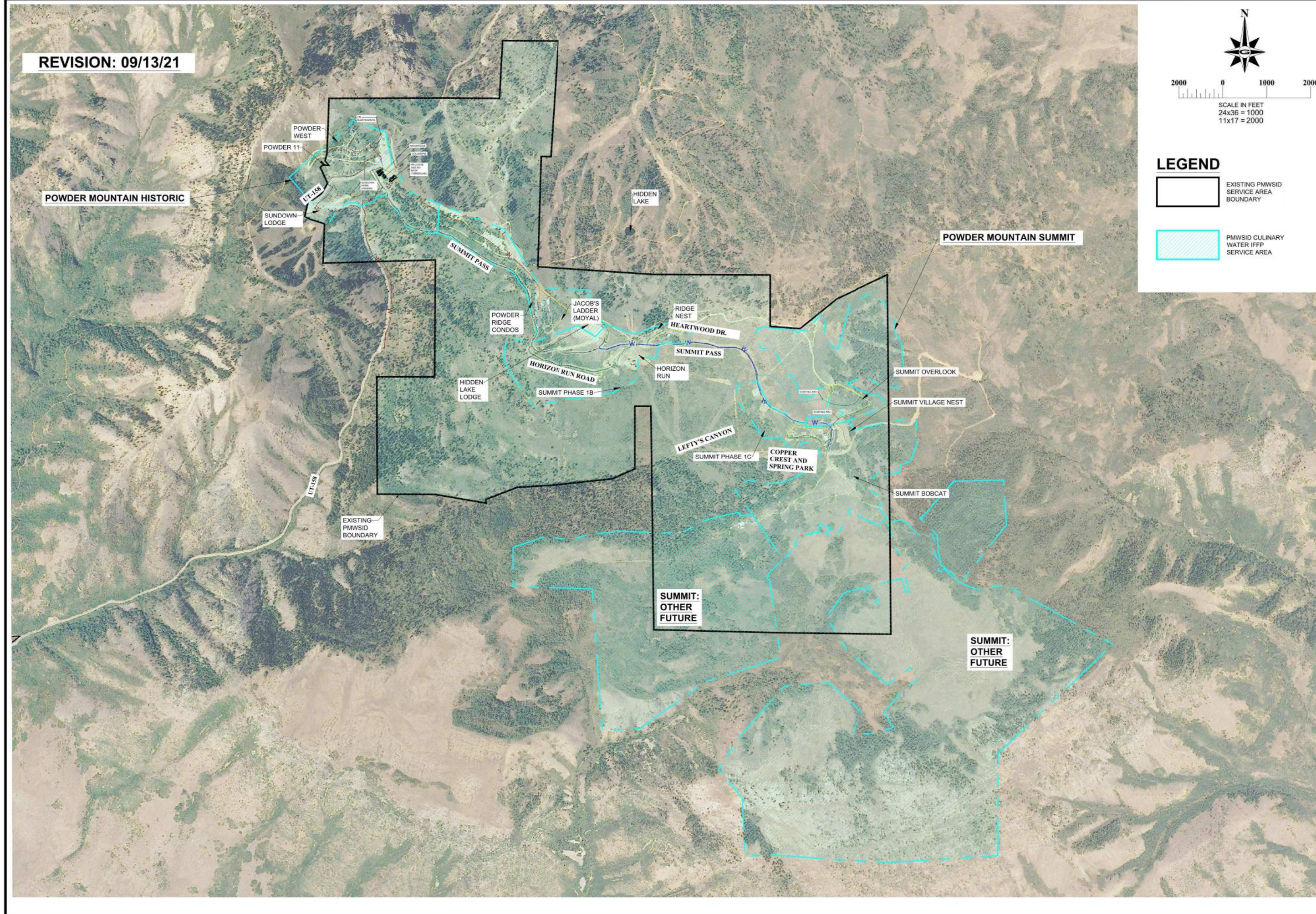
This IFFP is the basis for the PMWSID Impact Fee Analysis.

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## Study Area / Service Area

PMWSID provides public water system service to the Powder Mountain Ski Resort and other public developments located within PMWSID boundaries. PMWSID boundaries are located along the Cache County and Weber County line with a peak elevation of 8,900 feet. Current PMWSID boundaries are illustrated on Figure 1-1.

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**LEGEND**

-  EXISTING PMWSID SERVICE AREA BOUNDARY
-  PMWSID CULINARY WATER IFFP SERVICE AREA

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**POWDER MOUNTAIN SEWER IMPROVEMENT DISTRICT**

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DATE	DECEMBER 2020
DRAWING NAME	OVERALL SITE
DESIGNED/DRAWN BY	JMBP
CHECKED	APPROVED

**CULINARY WATER IFFP SERVICE AREA**  
 PIZZEL SPRING #3 & BOOSTER PUMP STATIONS #1, #2 & #3 REHABILITATION PROJECT  
 POWDER MOUNTAIN WATER & SEWER IMPROVEMENT DISTRICT  
 WEBER COUNTY, UTAH

REVISION:  
 PROJ. # **PMW.015**  
**WATER 1-1**

For this culinary water IFFP the entire PMWSID service area, referred to as Powder Mountain is considered as one service area as shown in Table 1-1 and shown on Figure 1-1.

**Table 1-1 Service Areas**

<b>Service Area</b>
Powder Mountain

## PMWSID Connections

### Equivalent Residential Connections (ERC)

For the purpose of calculating water demands for the Study Area an Equivalent Residential Connection (ERC) has been assigned to each existing and future connection to the water system. One ERC is equivalent to 2.3 people per connection. PMWSID maintains a database of connections to the water system as; **Connected**, **Reserved**, or **Future**.

The term “Connected” refers to an active connection to which PMWSID provides water. The term “Reserved” refers to a connection which has not physically occurred but the property owner has paid a fee to reserve a connection for PMWSID to provide water. “Reserved” connections have not yet paid an Impact Fee since Impact Fees are not collected until the time a building permit is given. “Future” connections represent a planned future connection to the PMWSID water system. Each Connection represents one (1) ERC. The ERC status for each service area is shown on Table 1-2 and on Figure 1-1.

**Table 1-2 Service Area ERC Summary**

<b>Service Area</b>	<b>Connected (ERC)</b>	<b>Reserved (ERC)</b>	<b>Future (ERC)</b>	<b>TOTAL (ERC)</b>
Powder Mountain	132	255	357	744

### Residential vs. Non-Residential ERCs

Residential and non-residential ERCs are divided into four main categories as shown on Table 1-3 as follows:

**Table 1-3 Residential Vs. Non- Residential ERC Summary**

<b>Service Area</b>	<b>Connected (ERC)</b>	<b>Reserved (ERC)</b>	<b>Future (ERC)</b>	<b>TOTAL (ERC)</b>
Residential	64	225	261	<b>550</b>
Commercial/Condo	68	30	96	<b>194</b>
<b>TOTAL</b>	<b>132</b>	<b>255</b>	<b>357</b>	<b>744</b>

## **Buildout Condition**

The condition where all ERCs are developed is referred to as the “buildout” condition in this report. Buildout is assumed to occur at approximately 2055.

As shown in Table 1-2 and Table 1-3 the TOTAL ERC projection for PMWSID is 744 ERC.

***Impact Fee Facility Plan ERC = 744 ERC***

## **Projected ERC Connection Schedule**

A projected ERC connection schedule has been developed to provide a recommended schedule of Impact Fee Facility Improvements identified in this report. The projected ERC connection schedule presented in this section is based on historical growth rates.

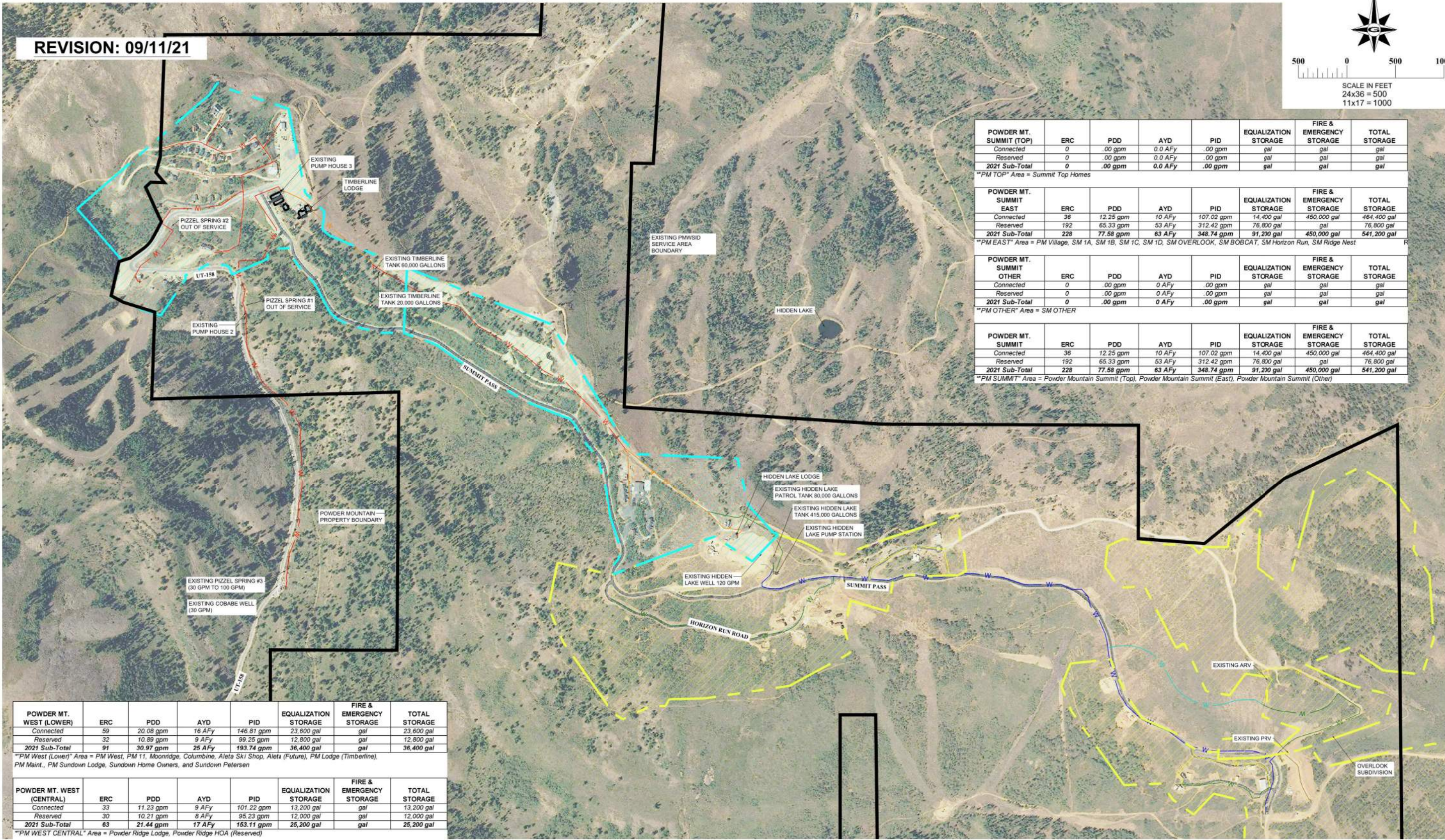
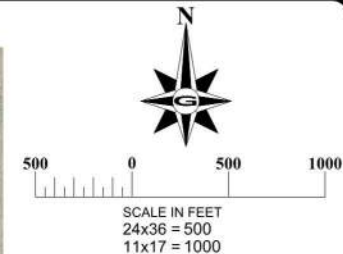
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## **Consideration of Revenues to Fund Water System Improvements**

The Impact Fee Facility Plan (IFFP) and Impact Fee Analysis (IFA) separate capital project costs between those that provide new capacity for growth or expansion and projects required for regulatory, maintenance, or for existing users. The future value, considering 3% cost inflation, of all water capital improvements total \$35.37M but impact fees will only cover \$16.44M (46%) of this total amount. The remainder will be funded through a combination of District revenue sources including monthly water rates, water reservation fees, and other non-operational District revenues.

There are also some projects that are very specific to one development and to receive development approval the District may require these developments to fund and construct dedicated improvements. These projects are not included in the proposed impact fees. The District will require additional bond issuance to amortize costs over 20 years or more. The District’s financial plans will be updated regularly as projects are constructed, bonds are issued, and development occurs.

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POWDER MT. SUMMIT (TOP)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	0	.00 gpm	0.0 AFy	.00 gpm	gal	gal	gal
Reserved	0	.00 gpm	0.0 AFy	.00 gpm	gal	gal	gal
<b>2021 Sub-Total</b>	<b>0</b>	<b>.00 gpm</b>	<b>0.0 AFy</b>	<b>.00 gpm</b>	<b>gal</b>	<b>gal</b>	<b>gal</b>

POWDER MT. SUMMIT EAST	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	36	12.25 gpm	10 AFy	107.02 gpm	14,400 gal	450,000 gal	464,400 gal
Reserved	192	65.33 gpm	53 AFy	312.42 gpm	76,800 gal	gal	76,800 gal
<b>2021 Sub-Total</b>	<b>228</b>	<b>77.58 gpm</b>	<b>63 AFy</b>	<b>348.74 gpm</b>	<b>91,200 gal</b>	<b>450,000 gal</b>	<b>541,200 gal</b>

POWDER MT. SUMMIT OTHER	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	0	.00 gpm	0 AFy	.00 gpm	gal	gal	gal
Reserved	0	.00 gpm	0 AFy	.00 gpm	gal	gal	gal
<b>2021 Sub-Total</b>	<b>0</b>	<b>.00 gpm</b>	<b>0 AFy</b>	<b>.00 gpm</b>	<b>gal</b>	<b>gal</b>	<b>gal</b>

POWDER MT. SUMMIT	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	36	12.25 gpm	10 AFy	107.02 gpm	14,400 gal	450,000 gal	464,400 gal
Reserved	192	65.33 gpm	53 AFy	312.42 gpm	76,800 gal	gal	76,800 gal
<b>2021 Sub-Total</b>	<b>228</b>	<b>77.58 gpm</b>	<b>63 AFy</b>	<b>348.74 gpm</b>	<b>91,200 gal</b>	<b>450,000 gal</b>	<b>541,200 gal</b>

POWDER MT. WEST (LOWER)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	59	20.08 gpm	16 AFy	146.81 gpm	23,600 gal	gal	23,600 gal
Reserved	32	10.89 gpm	9 AFy	99.25 gpm	12,800 gal	gal	12,800 gal
<b>2021 Sub-Total</b>	<b>91</b>	<b>30.97 gpm</b>	<b>25 AFy</b>	<b>193.74 gpm</b>	<b>36,400 gal</b>	<b>gal</b>	<b>36,400 gal</b>

\*\*PM West (Lower) Area = PM West, PM 11, Moonridge, Columbine, Aleta Ski Shop, Aleta (Future), PM Lodge (Timberline), PM Maint., PM Sundown Lodge, Sundown Home Owners, and Sundown Petersen

POWDER MT. WEST (CENTRAL)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	33	11.23 gpm	9 AFy	101.22 gpm	13,200 gal	gal	13,200 gal
Reserved	30	10.21 gpm	8 AFy	95.23 gpm	12,000 gal	gal	12,000 gal
<b>2021 Sub-Total</b>	<b>63</b>	<b>21.44 gpm</b>	<b>17 AFy</b>	<b>153.11 gpm</b>	<b>25,200 gal</b>	<b>gal</b>	<b>25,200 gal</b>

\*\*PM WEST CENTRAL Area = Powder Ridge Lodge, Powder Ridge HOA (Reserved)

POWDER MT. WEST (TOP)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	4	1.36 gpm	1.1 AFy	26.23 gpm	1,600 gal	gal	1,600 gal
Reserved	1	.34 gpm	0.3 AFy	10.80 gpm	400 gal	gal	400 gal
<b>2021 Sub-Total</b>	<b>5</b>	<b>1.70 gpm</b>	<b>1.4 AFy</b>	<b>30.25 gpm</b>	<b>2,000 gal</b>	<b>gal</b>	<b>2,000 gal</b>

\*\*PM WEST TOP Area = Moyal, Hidden Lake Lodge, Summit Sky Lodge

POWDER MT. HISTORIC	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	96	32.67 gpm	26.3 AFy	200.48 gpm	36,400 gal	gal	36,400 gal
Reserved	63	21.44 gpm	17.3 AFy	153.11 gpm	25,200 gal	gal	25,200 gal
<b>2021 Sub-Total</b>	<b>159</b>	<b>54.10 gpm</b>	<b>43.6 AFy</b>	<b>276.90 gpm</b>	<b>63,600 gal</b>	<b>gal</b>	<b>63,600 gal</b>

\*\*PM HISTORIC Area = Powder Mountain West (Lower), Powder Mountain West (Central), Powder Mountain West (Top)

PMWSID ALL	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	132	44.92 gpm	36 AFy	245.81 gpm	52,800 gal	450,000 gal	502,800 gal
Reserved	255	86.77 gpm	70 AFy	374.64 gpm	102,000 gal	gal	102,000 gal
<b>2021 Sub-Total</b>	<b>387</b>	<b>131.69 gpm</b>	<b>106 AFy</b>	<b>489.28 gpm</b>	<b>154,800 gal</b>	<b>450,000 gal</b>	<b>604,800 gal</b>

- LEGEND**
- EXISTING WATER 4" LINE
  - EXISTING WATER 6" LINE
  - EXISTING WATER 8" LINE
  - EXISTING WATER 10" LINE
  - EXISTING WATER 12" LINE
  - EXISTING WATER 16" LINE
  - EXISTING WATER 18" LINE
  - POWDER MOUNTAIN (HISTORIC)
  - POWDER MOUNTAIN (SUMMIT)

**DISCLAIMER NOTE**  
 UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

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 208-2100  
(SALT LAKE METRO) 100 WEST THE BRADEN, SUITE 101 SALT LAKE CITY, UTAH 84103

**PMWSID EXISTING CULINARY WATER SYSTEM**  
 APPURTENANCE & EASEMENT  
 POWDER MOUNTAIN WATER & SEWER IMPROVEMENT DISTRICT  
 WEBER COUNTY, UTAH

DATE: APRIL 2021  
 DRAWING NAME: PRIMARY WATER SYSTEM  
 DESIGNED/DRAWN BY: JMBP  
 CHECKED: APPROVED

REVISIONS  
 REV. DATE BY COMMENTS

1" SCALE MEASURES 1" ON FULL SIZE SHEET  
 1/2" SCALE MEASURES 1" ON HALF SIZE SHEETS

PROJECT # **POW.010**  
**WATER 1-2**

**GILSON ENGINEERING**  
 Consulting Engineers & Surveyors  
 13401 SOUTH 490 EAST BUILDING C, DIRT 2, DORSET, UT 84020  
 PHONE: (801) 871-9414 FAX: (801) 871-4449

# Section 2 - Culinary Water System Operation

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## Water System Summary

The culinary water system of PMWSID is composed of springs, wells, tanks, and pipe networking systems (see Figure 1-2). This section discusses both existing and proposed conditions for the system. The required infrastructure to supply culinary water to new development was determined by merging existing development and infrastructure conditions with future development. Data for the existing culinary water system and improvements to accommodate future development are described in this section including:

- Water Sources (Springs and Deep Wells)
- Water Storage Facilities
- Water Distribution System
- Pump Stations
- Pressure Zones

### Existing Facilities

Since existing conditions are constantly changing current conditions must be verified upon design of any particular component of the culinary water system. Existing facilities for each of the items listed above are discussed at the beginning of each of the following sub-sections. Existing culinary water facilities are shown on Figure 1-2.

## Proposed Facilities

Proposed facilities defined in this section will be required to provide, store, and deliver culinary water for future and existing development. The proposed construction schedule is identified for each project in this section. An estimated cost for each project is included in the Appendix. All proposed facilities are shown on Figure 2-2.

---

## Culinary Water System

Existing development throughout the District is serviced by PMWSID. A map showing some of the major facilities in the existing culinary water system are shown on Figure 1-2.

### Culinary Water Source

PMWSID currently provides drinking water source demands from one existing deep water well (Hidden Lake Well). Drinking water from the well is delivered via a well pump to the existing Hidden Lake Storage Tank and then distributed to connections.

According to the Utah State Administrative Rule R309-510-7 a public drinking water system must be served with a minimum of two water sources which each have the capacity to deliver the required Peak Day Demand (PDD) to the system. Construction is currently underway to provide the required second source of water with the proposed “Pizzel” water system improvement projects. The Pizzel water system improvement project will deliver water from one deep well (Cobabe Well) and Pizzel Spring #3.

The Cobabe Well has been drilled but has not been equipped. Construction to re-develop Pizzel Spring #3 for use as a drinking water source is currently underway. Drinking water from Pizzel Spring #3 will be delivered via a gravity fed spring collection system to Pumphouse #1. Drinking water will also be pumped from the Cobabe well pump to Pumphouse #1. Drinking water will then be pumped from Pumphouse #1 to Pumphouse #2 then to Pumphouse #3 then to Pumphouse #4 then to existing Hidden Lake Tank (415,000 gallons) at the top of the mountain. Water will then be delivered by gravity to most connections.

A pressurized system will be required to deliver pressurized water to connections at the top of the mountain that the storage tank cannot provide adequate pressure via gravity. This system will be further described later as the “Top of Mountain Pressurized Water System”.

Existing and proposed culinary water sources are listed on Table 2-1 and shown on Figure 1-2 and Figure 2-2.

### **Source Sizing**

According to the Utah State Administrative Rule R309-510-7, sources for a water system must meet the anticipated demand for two conditions. First, on the day of highest water consumption, Peak Day Demand (PDD). Second, one year's supply of water must be provided, Average Yearly Demand (AYD). PDD is determined by assuming an indoor usage of 800 gpd/ERC (0.55 gpm/ERC). The State of Utah Division of Drinking Water (DDW) approved a source sizing reduction based on a report dated May 2019 (See Appendix). The approved PMWSID PDD reduced source sizing criteria is 490 gpd/ERC. AYD is determined by assuming an indoor usage of 146,000 gpy/ERC. The approved PMWSID AYD reduced source sizing criteria is 89,425 gpy/ERC. The reduced AYD is equal to the State AYD divided by 1.63 ( $800/490=1.63$ ). The indoor demands where sizing reduction is applicable are referenced as "Indoor "A".

The full Utah DDW PDD and AYD are applicable to future development until shown otherwise. The indoor demands for future development areas are referenced as "Indoor "B". For this IFFP there are no "Indoor "B"" areas included. Similarly, no outdoor demands are included with this IFFP but may need to be included for future development. A demand assessment described in Section 3 - Water Demands (page 3-25) was performed to ensure that these requirements are met. A list of proposed source development required to meet future demands is shown on Table 2-1.

$$PDD \text{ (Indoor "A")} = 490 \text{ gpd/ERC} = 0.34 \text{ gpm/ERC}$$

$$PDD \text{ (Indoor "A")} = 490 \text{ gpd} \times 744 \text{ ERC} = 364,560 \text{ gpd} = 253 \text{ gpm}$$

$$PDD \text{ (Indoor "B")} = 800 \text{ gpd/ERC} = 0.55 \text{ gpm/ERC (None)}$$

$$PDD \text{ (Outdoor)} = 2.8 \text{ gpm/Irrigated Acre (None)}$$

$$\textbf{TOTAL SOURCE PDD} = \textbf{253 GPM}$$

$$AYD \text{ (Indoor "A")} = 89,425 \text{ gpy/ERC}$$

$$AYD \text{ (Indoor "A")} = 89,425 \text{ gpy} \times 744 \text{ ERC} = 204 \text{ Acre-ft per year}$$

$$AYD \text{ (Indoor "B")} = 146,000 \text{ gpy/ERC (None)}$$

$$AYD \text{ (Outdoor)} = 1.23 \text{ Acre-ft/year/Irrigated Acre (None)}$$

$$\textbf{TOTAL SOURCE AYD} = \textbf{204 Acre-ft per year}$$

### Source Capacity: Flow (gpm) to Connections (ERC)

WELLS: According to the Utah State Administrative Rule R309-515-6(10)(c) the capacity of a well to service a given number of ERCs is typically set as 2/3 of the pumping rate used in the constant-rate test during well evaluation. Estimated well source capacity is listed in Table 2-1.

SPRINGS: According to the Utah State Administrative Rule R309-515-7(5)(b) the capacity of a spring to service a given number of ERCs is based on spring flow data collected monthly during operating seasons over a three-year evaluation period. The spring flow data is to be submitted to the Utah Division of Drinking Water Director who will review seasonal and annual variations. Spring yield is typically set at the 25<sup>th</sup> percentile of spring flow data. Estimated spring source capacity is listed in Table 2-1.

**Table 2-1 Culinary Production Capacities**

Existing Source	Capacity	
	Flow	ERC
Hidden Lake Well	120 gpm	353
*Cobabe Well ( <i>To Be Equipped</i> )	30 gpm	88
* Pizzel Spring #1 ( <i>To Be Re-Developed</i> )	10 gpm	29
*Pizzel Spring #3 ( <i>To Be Equipped</i> )	30 to 100 gpm	88 to 294
<b><i>Existing Source Total Capacity:</i></b>	<b><i>120 gpm</i></b>	<b><i>353</i></b>
<b>Future Supply</b>		
*Equip Cobabe Well	30 gpm	88
*Re-Develop Pizzel #1 & #2 Spring	10 gpm	29
*Equip Pizzel #3 Spring	30 gpm	88
*Bloomington Well	40 gpm	118
*Cache Side Well	23 gpm	68
<b><i>Proposed Source Future Supply:</i></b>	<b><i>133 gpm</i></b>	<b><i>391</i></b>
<b>Total Future Capacity:</b>	<b>253 gpm</b>	<b>744</b>

\* Source must be upgraded and/or equipped for this capacity

### Next Culinary Water Source (by 2044)

The existing Hidden Lake well has capacity to supply 353 ERC. Construction is underway to deliver water from Pizzel Spring #3 by end of 2021 for an additional 88 ERC. It is anticipated that construction to fully equip the Cobabe well for an additional 88 ERC will be completed shortly thereafter. The sum of these three sources supplies 529 ERC. Based on an estimated ERC development projection the PMWSID service area will exceed 529 ERC by 2044 (542 ERC). An additional source should be developed and equipped prior to 2044.

## ***Proposed Source Development***

Development of an additional **133 gpm** of culinary source will be required at buildout. In order to develop the required source for future development new source locations will need to be developed, using treatment facilities, if required, to meet drinking water standards.

Following completion of the “On the Mountain” water projects, the next most desirable source development is located on the Cache County side. A well siting study completed by Loughlin Water Associates, LLC dated December 18, 2015 (See Appendix) states “groundwater development potential is greater in the northern part of Powder Mountain (Bear River Drainage) than in the southern part (Ogden River drainage)”. The referenced report identified and ranked five alternative locations for future wells on the Cache County side with estimated source yield in the range of 100 to 600 gpm.

Any future development in the lower valley area (Ogden River drainage) will require another separate source. Due to the uncertainty of possible future development in the lower valley area this area is not included in the IFFP. It is worth noting that preliminary studies have shown that the next most desirable source development location (should there be a future development in the lower valley) is at the north east corner of the Pineview Reservoir in Weber County.

Estimated IFFP projects to develop and deliver water from these sources as indicated are included in this IFFP. Please note that further study and work to develop sources required for future development will be the responsibility of each proposed development.

### Source Proportionate Share

A proportionate share of connected and future ERCs served by each proposed source is defined in this section.

**Table 2-2 Culinary Source Proportionate Share**

AREA	<sup>1</sup> A. Pizzel System		D. Cache Side Well		<sup>2</sup> Bloomington Well	
	ERC	Share (%)	ERC	Share (%)	ERC	Share (%)
Powder Mountain (Connected)	132	18%	0	0%	0	0%
Powder Mountain (Res/Future)	612	82%	612	100%	612	100%
<b>TOTAL</b>	<b>744</b>	<b>100%</b>	<b>612</b>	<b>100%</b>	<b>612</b>	<b>612</b>

Notes:

1. Pizzel System includes; Cobabe Well and Pizzel Spring #1, #2, & #3
2. Bloomington Well cost estimate is not included in this IFFP. It is assumed that cost for this well will be 100% by the developer.

A proportionate share analysis for proposed project is included in the Appendix with the cost estimates.

## Water Rights

Water rights that supply water to the PMWSID service area include water rights owned by PMWSID and water rights owned by Summit Development group.

PMWSID owns six water rights (147.55 acre-feet) which allow diversion and use from Pizzel #3 spring. Three rights were previously stock watering rights that have been combined under change application (a33723) for municipal use. The other three rights are exchange applications based on a contract with Weber Basin Water Conservancy District:

**Table 2-3 PMWSID Owned Water Rights**

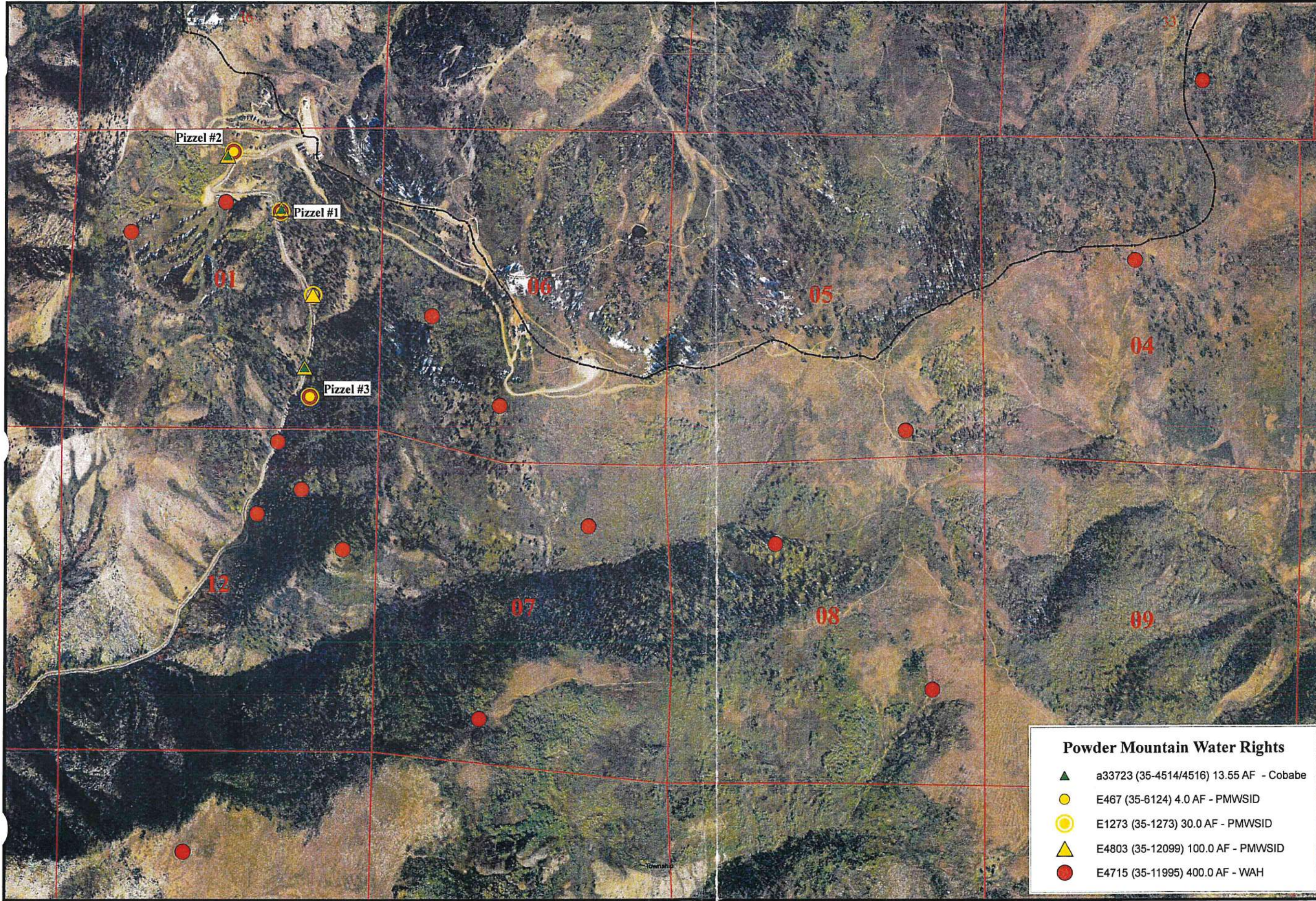
Change Application	Base Right(s)			QUANTITY (acre-feet)
a33723	35-4514	35-515	35-516	13.55
Exchange Application	Base Right(s)			(acre-feet)
E467	35-6124			4
E1273	35-6712			30
E4803	35-12099			100
<b>TOTAL</b>				<b>147.55</b>

Water rights owned by the Summit Development group, which will be deeded to PMWSID, have mitigation requirements because they are located upstream from Water Rights owned by Wolf Creek. Therefore water rights pumped from Hidden Lake Well and Bloomington Well (Future) will require mitigation. Water rights that require mitigation are not included in this report.

Total required AYD = 204 acre-feet per year

An additional 56.45 acre-feet (204-147.55) will be required at buildout.

## Figure 2-1 Water Rights



1:18,000

**Powder Mountain Water Right Applications**



Powder Mountain Water Rights	
▲	a33723 (35-4514/4516) 13.55 AF - Cobabe
●	E467 (35-6124) 4.0 AF - PMWSID
●	E1273 (35-1273) 30.0 AF - PMWSID
▲	E4803 (35-12099) 100.0 AF - PMWSID
●	E4715 (35-11995) 400.0 AF - WAH

Barnett Intermountain Water Consulting  
106 West 500 South, Suite 101  
Bountiful, UT 84010  
801-293-4662

### **Cobabe Well**

Upgrade/equip the Cobabe Well in the 2022-23 fiscal year in order to provide an estimated 30 gpm of source supply. Source production from the Cobabe Well will be delivered to upper pressure zones via existing distribution pipeline, a new Pumphouse #1, rehabilitated Pumphouse #2, and #3, and a new Pumphouse #4.

#### ***Cobabe Well Summary:***

- 30 gpm to supply upper zones
- 2022-23
- Upgrade/Equip Existing Well

### **Pizzel Spring #1**

Re-develop Pizzel Spring #1 in the 2023-24 fiscal year in order to provide an estimated 10 gpm of source supply. Source production from Pizzel Spring #1 will be delivered to treatment facilities at Pumphouse #1 via a new small diameter delivery pipeline or to additional treatment facilities at pumphouse #2. Source water will then be delivered to upper pressure zones via existing distribution pipeline, a new Pumphouse #1 and rehabilitated Pumphouse #2, and #3.

#### ***Pizzel Spring #1 Summary:***

- 10 gpm to supply upper zones
- New 2" poly-pipe to Pumphouse #1 = 4,440 L.F.
- 2023-24

### **Pizzel Spring #2**

Explore feasibility to Re-Develop Pizzel Spring #2 in the 2026-27 fiscal year in order to provide additional source supply. Pizzel #2 Spring is a historic Spring with an unknow yield. This Spring could provide additional source capacity in the future.

### **Pizzel Spring #3**

Equip Pizzel Spring #3 in the 2021-22 fiscal year in order to provide an estimated 30 gpm to 100 gpm of source supply. Source production from Pizzel Spring #3 will be delivered to upper pressure zones via new and existing distribution pipeline, a new Pumphouse #1, rehabilitated Pumphouse #2, and #3, and new Pumphouse #4.

#### ***Pizzel Spring #3 Summary:***

- 30 gpm to 100 gpm to supply upper zones
- 2021-22
- Equip Existing Spring

### **Bloomington Well**

Proposed Bloomington Well is a culinary water source that should be constructed in the 2022-23 fiscal year in order to provide additional source supply. Source production from Bloomington Well, located at the top of the mountain, will be pumped directly to the existing Hidden Lake storage tank.

#### ***Bloomington Well Summary:***

- 40 gpm to supply upper zones
- 2022-2023
- Site to be at top of the mountain
- This well has been drilled but must be equipped and mitigated prior to use
- Not included in IFFP cost estimate, 100% funded by developer

### **Cache Side Well**

Proposed Cache Side Well is a culinary water source that should be constructed in the 2032-33 fiscal year in order to provide required source supply to support new connections for upper mountain development. Source production from Cache Side Well will be delivered to the upper pressure zones via new distribution pipeline proposed in this plan. See Well siting study in Appendix for additional information.

#### ***Cache Side Well Summary:***

- 38 gpm to supply Upper pressure zones
- 2032-2033
- Site to be selected (See Siting Study in Appendix)

## **Culinary Water Storage Facilities**

Four main culinary water storage tanks are currently used for the culinary water system (see Figure 1-2). The Timberline Tank (60,000 gallons), the Timberline Tank #2 (20,000 gallons), and the Hidden Lake Tank (415,000 gallons). There is also one additional existing storage tank; Ski Patrol Tank (80,000 gallons) and a Ski Patrol Pressure Tank (7,500 gallons). Hidden Lake Tank is located at the Top of the Mountain and is used to supply all pressure zones below including; Powder Mountain Historic and Powder Mountain Summit. The Timberline tanks are located mid-mountain and are used to supply the Powder Mountain West area of Powder Mountain Historic and are currently filled via PRV through the Hidden Lake tank. The Ski Patrol tanks are currently offline.

## **Storage Sizing**

The storage facilities provide water for; equalization, fire suppression, and emergencies. System wide storage standards were developed along with the demand assessment in Section 3 and are shown on Table 2-4.

According to the Utah State Administrative Rule R309-510-8, adequate water storage must be provided in order to satisfy three conditions:

1. Equalization storage to meet Peak Day Demand (400 gal / ERC)
2. \*Fire suppression storage (MOUNTAIN) (1,500\* gpm for 300 min)
3. \*Fire suppression storage (VALLEY) (1,500\* gpm for 180 min)
4. \*Emergency Storage volume (MOUNTAIN) (1,500\* gpm for 300 min)
5. \*Emergency Storage volume (VALLEY) (1,500\* gpm for 180 min)

\*Note: Fire suppression storage and emergency storage sizing criteria are described below

Existing and proposed storage facilities are shown on Figure 2-2 and listed in Table 2-4.

### **Equalization Storage**

Equalization storage allows the system to meet sudden peak demands without requiring excessively large sources.

$$\text{Equalization Storage (Indoor)} = 400 \text{ gal per ERC} = 400 \times 744 = \mathbf{296,600 \text{ gal}}$$

$$\text{Equalization Storage (Outdoor)} = 1,873 \text{ gal per Irr.ac} = 1873 \times 0 = \mathbf{0 \text{ gal}}$$

$$\text{TOTAL Equalization Storage} = \text{Indoor} + \text{Outdoor} = \mathbf{296,600 \text{ gal}}$$

### **Fire Suppression Storage**

Fire suppression has been calculated based on a maximum anticipated fire demand of 1500 gpm for 5 hours in the MOUNTAIN area (450,000 gallons) and 1500 gpm for 3 hours in the VALLEY area (270,000 gallons (none used for this IFFP)). Because the PMWSID service area is located in high mountain terrain that experiences extreme weather and potential wildfire conditions that limit accessibility Fire Suppression Storage must be included in tanks that are separated by distance and/or geographically which limit accessibility. Additionally, there is currently only one primary access to Powder Mountain and no Fire Station. Due limited source capacity the time to fill a tank is substantial. These limiting factors warrant additional storage requirements as noted. The separated areas are referenced as Fire Suppression and Emergency (FS-E) Zones. PMWSID service area should be divided into a minimum of two (2) FS-E Zones as follows:

FS-E Zones:

1. Top of Mountain (MT) (T.3 & PT.6)
2. Summit Other (MT) (PT.7)

Fire suppression is stored in the highest tank(s) in each FS-E Zone. Fire suppression water storage can then be delivered to lower pressure zones through PRV stations.

$$\text{Fire Suppression Storage (MT)} = 1,500 \text{ gpm for 5-hours} = \mathbf{450,000 \text{ gallons}}$$

$$\text{Total Fire Suppression Storage (MT)} = \text{FSS} \times (2) \text{ FS-E Zones} = \mathbf{900,000 \text{ gal}}$$

## **Emergency Storage**

Emergency storage is based upon a generalized risk assessment of the water system. This excess storage capacity provides water in unexpected situations such as source failures or line breaks. Emergency storage is based roughly on a maximum anticipated demand of 1500 gpm for 5 hours in the MOUNTAIN area (450,000 gallons) and 1500 gpm for 3 hours in the VALLEY area (270,000 gallons (none used in this IFFP)). Using the same methodology described for FS-E Zones as Fire Suppression Storage, Emergency Storage must be included in highest tank(s) in each of the FS-E Zones. Emergency water storage can then be delivered to lower pressure zones through PRV stations.

*Emergency Storage (MT) = 1,500 gpm for 5-hours = 450,000 gallons*

**Total Emergency Storage (MT) = FSS X (2) FS-E Zones = 900,000 gal**

Total storage requirements are equal to the sum of; equalization storage, emergency storage, and fire suppression storage. Proposed storage facilities are rounded up from the calculated storage requirements.

*Total Req'd Storage = Equalization + Fire + Emergency = 2,097,600 gal*

*Total Proposed Storage = 2,182,500 gallons*

## **Storage Facility Base Elevation**

Storage tanks are shown generally on the impact fee plan exhibit to service each development. Tanks must be placed at appropriate base elevations to supply the appropriate service pressure zone served by the tank.

Storage facility pressure zones serviced will need to be evaluated based on a system-wide hydraulic model study and base elevations will need to be determined prior to design and construction of storage facilities.

**Table 2-4 Culinary Water Storage Facility Capacity**

Storage Facility Name	I.D.	High Water Elevation (ft)	Zone Served	Capacity (Gallons)
Timberline Tank 1	T.1	TBD	Powder Mt. West	60,000
Timberline Tank 2	T.2	TBD	Powder Mt. West	20,000
Hidden Lake Tank	T.3	8900	Upper Mt.	415,000
*Ski Patrol Tank	T.4	TBD	Upper Mt.*Offline	80,000
*Ski Patrol Pressure Tank	T.5	TBD	*Offline	7,500
<i>Sub-Total Existing</i>				<b>582,500</b>
Top Tank	PT.6	8900	Upper Mt.	600,000
Summit Other	PT.8	TBD	Summit Other 1	1,000,000
<i>Sub-Total Proposed</i>				<i>1,600,000</i>
<b>Total</b>				<b>2,182,500 gallons</b>

**Storage Proportionate Share**

A proportionate share of connected and future ERCs served by each proposed storage facility is defined in this section.

**Table 2-5 Culinary Storage Proportionate Share**

AREA	Top Tank (PT.6)		Summit Other Tank (PT.8)	
	ERC	Share (%)	ERC	Share (%)
Powder Mountain (Connected)	132	18%	0	0%
Powder Mountain (Res/Future)	612	82%	612	100%
<b>TOTAL</b>	<b>744</b>	<b>100%</b>	<b>612</b>	<b>100%</b>

A proportionate share analysis for proposed project is included in the Appendix with the cost estimates.

## **Proposed Storage Construction**

Construction of an additional 1.6 million gallons of culinary storage facilities will be required by buildout. The storage capacity for each existing and proposed tank is listed in Table 2-4.

### **PT.6**

Proposed Tank PT.6 is a 600,000 gallon culinary water storage tank that should be constructed in the 2025-26 fiscal year. Storage from PT.6 will supply upper Mountain Pressure Zones and will supply additional emergency and fire suppression requirements and as a redundant storage facility in case maintenance is required on the existing Hidden Lake tank. Culinary water storage elevations for top of water should match the existing Hidden Lake Tank.

#### ***PT.6 Summary:***

- Emergency/Fire Suppression/Redundant Storage
- Total Storage = 600,000 gallons
- 2025-26
- Upper Mountain Zone
- High Water Elevation = 8900

### **PT.8**

Proposed Tank PT.8 is a 1,000,000 gallon culinary water storage tank that should be constructed with the Summit “Other” development. Estimated construction time is in the 2035-36 fiscal year. Storage from PT.8 will supply the Summit “Other” Pressure Zone. Culinary water storage elevations for top of water will be determined at time of development.

#### ***PT.8 Summary:***

- Equalization Storage = 80,000 gallons
- Fire Suppression + Emergency Storage = 900,000 gallons
- 2035-36
- Summit “Other” Zone
- High Water Elevation = TBD

## **Culinary Water Distribution Pipe**

The culinary water delivery system includes various sizes and types of piping throughout the District. Existing distribution pipes are shown in Figure 2-2. The existing PWMSID Mountain distribution system consists of the; Pizzel system, the Upper Mountain system, and the Lower Valley system.

The **Pizzel** drinking water source delivery system consists of approximately 6,000 L.F. of 4-inch water supply pipeline. With approximately 1,060 feet of elevation head from Pumphouse #1 (Elevation=7510 ft) to the existing Timberline Tank (Elevation=8570 ft). The 4-inch water supply pipeline runs parallel to a 16% grade two lane highway and then up the slope of the Powder Mountain Ski resort. From the Timberline tank an existing 4-inch water line (4,700 L.F. (approximately) continues to connect to the existing water distribution pipe at the top of the mountain. There are also various valve vaults, Pressure Reducing Valve (PRV) vaults, and Air Relief Valve (ARV) vaults. In order to deliver adequate fire flow capacity a new 8" HDPE water pipeline is to be constructed from Pumphouse #3 to connect at the Timberline Tank and then continue to connect to the Upper Mountain system. The existing 4" water supply pipe will eventually need to be replaced with a new line (4" to match existing, pending System Wide hydraulic model study).

The **Upper Mountain** drinking water source delivery system consists of water supply pipeline which includes; 18", 16", 12", 10", and 8" diameter pipelines. There are also various valve vaults, Pressure Reducing Valve (PRV) vaults, and Air Relief Valve (ARV) vaults.

Proposed pipes, pump stations, valves, PRV, and ARV vaults are to be laid out to deliver water to existing and future connections throughout the District.

## **Distribution System Sizing**

The PMWSID distribution system must maintain a minimum of 20 psi (the state minimum R317-51-9 at any point in the system when either required fire flows (FF) are added to the PDD (FF+PDD) or for peak instantaneous demand (PID), whichever is larger. PID is to be used for distribution system sizing. PID is defined as follows:

$$PID(Indoor) = 10.8 \times ERC^{0.64} = \text{Varies for Each Service Area}$$

$$PID(Outdoor) = 5.6 \times \text{gpm/irrigated acre} = (\text{None in this IFFP})$$

### ***Proposed Distribution Pipeline***

In order to distribute adequate source throughout the culinary water system at buildout the projects listed in Table 2-6 will need to be constructed. Pipe must be evaluated and sized to pass anticipated PID while maintaining a maximum pipe velocity of 6 ft/second.

**Table 2-6 Proposed Distribution Pipeline**

Number	Year	Zone	Description	Length (ft)
A.4	21-22	Mountain	8" From existing Pumphouse #3 to Upper Mountain	6,200
A.5	21-22	Mountain	4" From existing Pumphouse #3 to Upper Mountain	6,200
A.5	21-22	Mountain	2" From Pizzel #1 to Pumphouse #1	4,500
B.3	22-23	Top	10" Top Mountain Pressurized Delivery Line (All)	800
B.4	24-25	Top	8" Top Mountain Pressurized Delivery line (Heartwood)	1,140
B.5	22-23	Top	8" Top Mountain Pressurized Delivery Line (Lodges)	300
B.5	22-23	Top	10" Top Mountain Pressurized Delivery Line (Jacob's)	470
D.4	32-33	Mountain	From Cache Side Well to Upper Mountain	15,400
D.5	32-33	S	Horizon Run Road Loop	4,120
D.6	32-33	S	Southeast Summit Loop	22,600
E.4	23-24	PW	Replace 4" with 8" at Powder Mountain West	5,300
F.3	25-26	S	Re-lay Line at 9-feet deep for Ridge Nest Subdivision	500
<b>TOTAL</b>				<b>67,530</b>

### **Culinary Water Pump Stations**

Booster pump stations are required where water is delivered from the source to pressure zones up-gradient from the source. A booster pump is required to deliver water from lower zones to the upper zones. A summary of pump stations is shown on Table 2-7. Proposed booster pump locations are shown on Figure 2-2. Individual booster pump station projects are discussed in this section. Pump design flow is shown for guidance and must be verified at the time of design for the specific project.

A backup power source (i.e. generator) is required for each culinary water pump station that provides primary water source.

**Table 2-7 Pump Station Information**

<b>Pump Name</b>	<b>Tanks Served</b>	<b>Pump Capacity</b>	<b>Notes</b>
		<b>(gpm)</b>	
Pumphouse #1 (2021)	Timberline	30 to 160	Pumps from #1 to #2
Pumphouse #2 (2021)	Timberline	30 to 160	Pumps from #2 to #3
Pumphouse #3 (2021)	Timberline	30 to 160	Pumps from #3 to #4 & Timberline Tank
Pumphouse #4 (2021)	Hidden Lake	160	Pumps from #4 to Top of Mountain
Pumphouse #5 (2022)	Top	1500	Pumps from Top of Mountain to Top Pressure System
Cache Side (Future)	Upper	40	Multiple Pumps from Cache Side to Top of Mountain

### ***Distribution System Proportionate Share***

A proportionate share of connected and future ERCs served by each proposed distribution system facility is included in the Appendix with the cost estimates.

### ***Culinary Water Pressure Zones***

Pressure zones are to be established in order to maintain desirable pressures throughout the culinary water system. Pressure zones are maintained with Pressure Regulating Valves (PRV) placed throughout the system and by placing zone tanks at similar elevations.

New PRV stations are to be included at new pumphouse locations. Existing PRV stations and proposed pumphouses are shown on Figure 2-2.

### ***Top of Mountain Pressure System***

Buildings located at the “Top of the Mountain” (i.e. Hidden Lake Lodge area) are located at a high enough elevation that the existing Hidden Lake water storage tank will not provide adequate working pressure. A separate pressurized system is required to service this area.

The Top of the Mountain Pressure system consists of the following:

1. Dedicated Booster Pump Station with Capacity to supply PID and Fire Flow (1,500 gpm)
2. A Water Storage Tank.
3. Distribution Pipe (including; fire hydrants, PRV, etc.).

Sizing requirements, required infrastructure, estimated costs are included in this report.

### ***System-Wide Culinary Water Hydraulic Model Study***

To date hydraulic analysis has been performed separately for historic Powder Mountain and new development for Powder Mountain Summit. A system-wide (merge of the two areas) culinary water hydraulic model study is required within the next year (2022) to evaluate placement of storage tank base elevation, PRV vaults to establish acceptable pressure zones throughout the system.

**Figure 2-2 Proposed Culinary Water System**

# Section 3 - Water Demands

## Demand Assessment

### Demands Assessment Results and Methods

A demands assessment was performed in order to plan proposed infrastructure for the PMWSID culinary water system.

The following results are based on acceptable practices by the Utah State Department of Drinking Water (DDW). Sizing criteria for source, storage, and transmission facilities are discussed in Section 2 - Culinary Water System Operation (page 2-10).

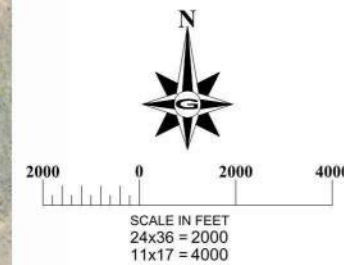
### System Wide Supply Demand Analysis

Table 3-1 shows a summary of Demand information for the complete system. Demand information for individual service areas are shown in the Appendix.

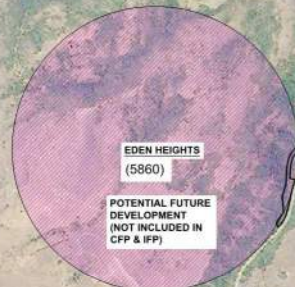
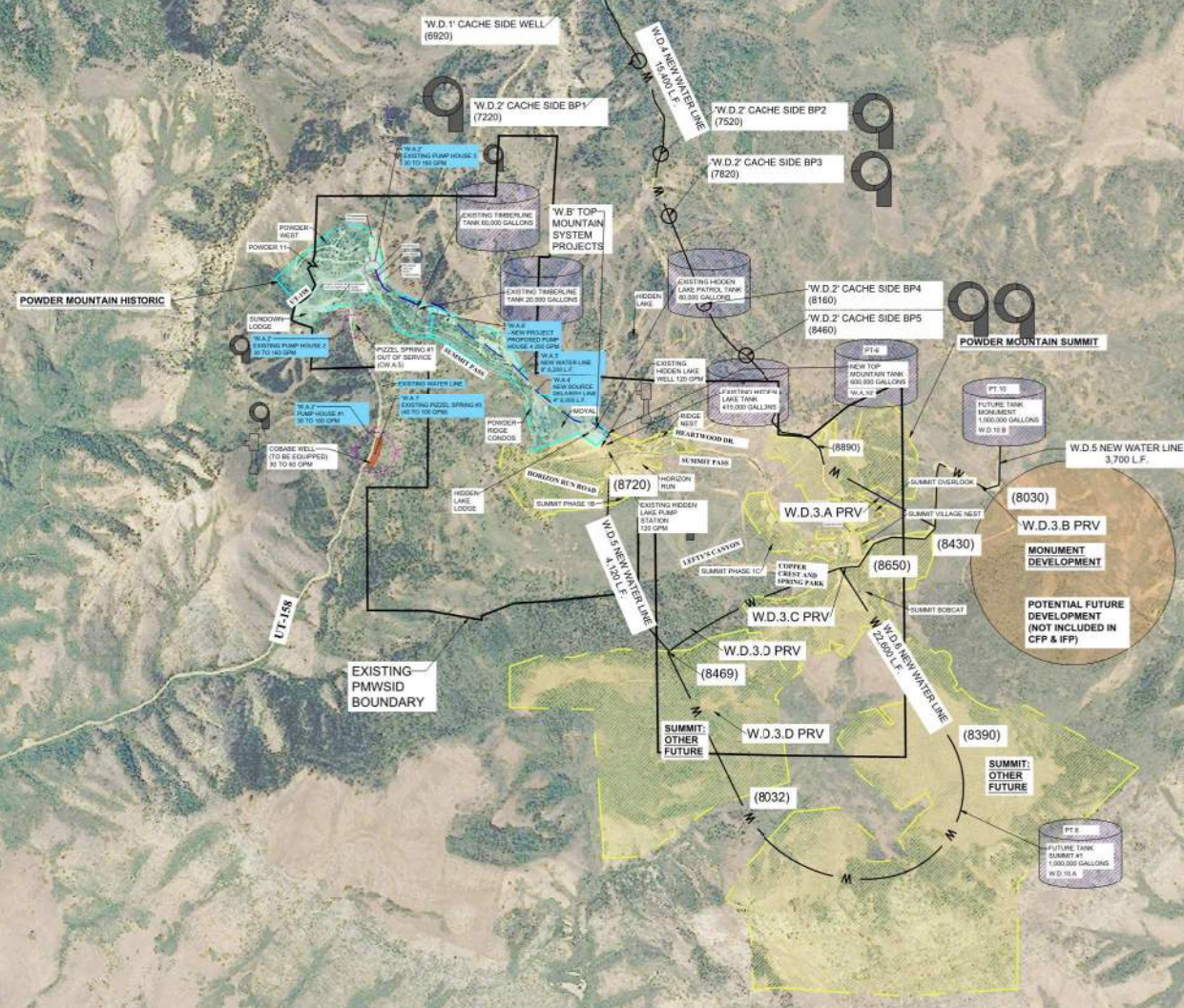
**Table 3-1 System Wide Water Demand Information**

<b>PMWSID ALL</b>	<b>ERC</b>	<b>PDD</b>	<b>AYD</b>	<b>PID</b>	<b>EQUALIZATION STORAGE</b>
<i>Connected</i>	132	44.92 gpm	36 AFy	245.81 gpm	52,800 gal
<i>Reserved</i>	255	86.77 gpm	70 AFy	374.64 gpm	102,000 gal
<b>2021 Sub-Total</b>	<b>387</b>	<b>131.69 gpm</b>	<b>106 AFy</b>	<b>489.28 gpm</b>	<b>154,800 gal</b>
<b>FUTURE</b>	<b>357</b>	<b>121.48 gpm</b>	<b>98 AFy</b>	<b>464.66 gpm</b>	<b>142,800 gal</b>
<b>GRAND TOTAL</b>	<b>744</b>	<b>253.17 gpm</b>	<b>204 AFy</b>	<b>743.41 gpm</b>	<b>297,600 gal</b>

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PMWSID ALL	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	132	44.92 gpm	36 AFy	245.81 gpm	52,800 gal	450,000 gal	502,800 gal
Reserved	255	86.77 gpm	70 AFy	374.64 gpm	102,000 gal	gal	102,000 gal
<b>2021 Sub-Total</b>	<b>387</b>	<b>131.69 gpm</b>	<b>106 AFy</b>	<b>489.28 gpm</b>	<b>154,800 gal</b>	<b>450,000 gal</b>	<b>604,800 gal</b>
FUTURE	357	121.48 gpm	98 AFy	464.66 gpm	142,800 gal	2,790,000 gal	2,932,800 gal
<b>GRAND TOTAL</b>	<b>744</b>	<b>253.17 gpm</b>	<b>204 AFy</b>	<b>743.41 gpm</b>	<b>297,600 gal</b>	<b>3,240,000 gal</b>	<b>3,537,600 gal</b>



POWDER MT. WEST (LOWER)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	59	20.08 gpm	16 AFy	146.81 gpm	23,600 gal	gal	23,600 gal
Reserved	32	10.89 gpm	9 AFy	99.25 gpm	12,800 gal	gal	12,800 gal
<b>2021 Sub-Total</b>	<b>91</b>	<b>30.97 gpm</b>	<b>25 AFy</b>	<b>193.74 gpm</b>	<b>36,400 gal</b>	<b>gal</b>	<b>36,400 gal</b>
FUTURE	96	32.67 gpm	26 AFy	200.48 gpm	38,400 gal	gal	38,400 gal
<b>TOTAL</b>	<b>187</b>	<b>63.63 gpm</b>	<b>51 AFy</b>	<b>307.19 gpm</b>	<b>74,800 gal</b>	<b>gal</b>	<b>74,800 gal</b>

\*\*\*PM West (Lower) Area = PM West, PM 11, Moonridge, Columbine, Aleta Ski Shop, Aleta (Future), PM Lodge (Timberline), PM Maint., PM Sundown Lodge, Sundown Home Owners, and Sundown Petersen

POWDER MT. WEST (CENTRAL)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	33	11.23 gpm	9 AFy	101.22 gpm	13,200 gal	gal	13,200 gal
Reserved	30	10.21 gpm	8 AFy	95.23 gpm	12,000 gal	gal	12,000 gal
<b>2021 Sub-Total</b>	<b>63</b>	<b>21.44 gpm</b>	<b>17 AFy</b>	<b>153.11 gpm</b>	<b>25,200 gal</b>	<b>gal</b>	<b>25,200 gal</b>
FUTURE	0	.00 gpm	0 AFy	.00 gpm	gal	gal	gal
<b>TOTAL</b>	<b>63</b>	<b>21.44 gpm</b>	<b>17 AFy</b>	<b>153.11 gpm</b>	<b>25,200 gal</b>	<b>gal</b>	<b>25,200 gal</b>

\*\*\*PM WEST CENTRAL Area = Powder Ridge Lodge, Powder Ridge HOA (Reserved)

POWDER MT. WEST (TOP)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	4	1.36 gpm	1.1 AFy	26.23 gpm	1,600 gal	gal	1,600 gal
Reserved	1	.34 gpm	0.3 AFy	10.80 gpm	400 gal	gal	400 gal
<b>2021 Sub-Total</b>	<b>5</b>	<b>1.70 gpm</b>	<b>1.4 AFy</b>	<b>30.25 gpm</b>	<b>2,000 gal</b>	<b>gal</b>	<b>2,000 gal</b>
FUTURE	10	3.40 gpm	2.7 AFy	47.14 gpm	4,000 gal	gal	4,000 gal
<b>TOTAL</b>	<b>15</b>	<b>5.10 gpm</b>	<b>4.1 AFy</b>	<b>67.11 gpm</b>	<b>6,000 gal</b>	<b>gal</b>	<b>6,000 gal</b>

\*\*\*PM WEST TOP Area = Moyal, Hidden Lake Lodge, Summit Sky Lodge

POWDER MT. HISTORIC	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	96	32.67 gpm	26.3 AFy	200.48 gpm	38,400 gal	gal	38,400 gal
Reserved	63	21.44 gpm	17.3 AFy	153.11 gpm	25,200 gal	gal	25,200 gal
<b>2021 Sub-Total</b>	<b>159</b>	<b>54.10 gpm</b>	<b>43.6 AFy</b>	<b>276.90 gpm</b>	<b>63,600 gal</b>	<b>gal</b>	<b>63,600 gal</b>
FUTURE	106	36.07 gpm	29.1 AFy	213.61 gpm	42,400 gal	gal	42,400 gal
<b>TOTAL</b>	<b>265</b>	<b>90.17 gpm</b>	<b>72.7 AFy</b>	<b>383.97 gpm</b>	<b>106,000 gal</b>	<b>gal</b>	<b>106,000 gal</b>

\*\*\*PM HISTORIC Area = Powder Mountain West (Lower), Powder Mountain West (Central), Powder Mountain West (Top)

POWDER MT. SUMMIT (TOP)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	0	.00 gpm	0.0 AFy	.00 gpm	gal	gal	gal
Reserved	0	.00 gpm	0.0 AFy	.00 gpm	gal	gal	gal
<b>2021 Sub-Total</b>	<b>0</b>	<b>.00 gpm</b>	<b>0.0 AFy</b>	<b>.00 gpm</b>	<b>gal</b>	<b>gal</b>	<b>gal</b>
FUTURE	3	1.02 gpm	0.8 AFy	21.82 gpm	1,200 gal	gal	1,200 gal
<b>TOTAL</b>	<b>3</b>	<b>1.02 gpm</b>	<b>0.8 AFy</b>	<b>21.82 gpm</b>	<b>1,200 gal</b>	<b>gal</b>	<b>1,200 gal</b>

\*\*\*PM TOP Area = Summit Top Homes

POWDER MT. SUMMIT (EAST)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	36	12.25 gpm	10 AFy	107.02 gpm	14,400 gal	450,000 gal	464,400 gal
Reserved	192	65.33 gpm	53 AFy	312.42 gpm	78,800 gal	gal	76,800 gal
<b>2021 Sub-Total</b>	<b>228</b>	<b>77.58 gpm</b>	<b>63 AFy</b>	<b>348.74 gpm</b>	<b>91,200 gal</b>	<b>450,000 gal</b>	<b>541,200 gal</b>
FUTURE	48	16.33 gpm	13 AFy	128.65 gpm	19,200 gal	450,000 gal	469,200 gal
<b>TOTAL</b>	<b>276</b>	<b>93.92 gpm</b>	<b>76 AFy</b>	<b>394.10 gpm</b>	<b>110,400 gal</b>	<b>900,000 gal</b>	<b>1,010,400 gal</b>

\*\*\*PM EAST Area = PM Village, SM 1A, SM 1B, SM 1C, SM 1D, SM OVERLOOK, SM BOBCAT, SM Horizon Run, SM Ridge Nest

POWDER MT. SUMMIT (OTHER)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	0	.00 gpm	0 AFy	.00 gpm	gal	gal	gal
Reserved	0	.00 gpm	0 AFy	.00 gpm	gal	gal	gal
<b>2021 Sub-Total</b>	<b>0</b>	<b>.00 gpm</b>	<b>0 AFy</b>	<b>.00 gpm</b>	<b>gal</b>	<b>gal</b>	<b>gal</b>
FUTURE	200	68.06 gpm	55 AFy	320.69 gpm	80,000 gal	900,000 gal	980,000 gal
<b>TOTAL</b>	<b>200</b>	<b>68.06 gpm</b>	<b>55 AFy</b>	<b>320.69 gpm</b>	<b>80,000 gal</b>	<b>900,000 gal</b>	<b>980,000 gal</b>

\*\*\*PM OTHER Area = SM OTHER

POWDER MT. SUMMIT (TOTAL)	ERC	PDD	AYD	PID	EQUALIZATION STORAGE	FIRE & EMERGENCY STORAGE	TOTAL STORAGE
Connected	36	12.25 gpm	10 AFy	107.02 gpm	14,400 gal	450,000 gal	464,400 gal
Reserved	192	65.33 gpm	53 AFy	312.42 gpm	78,800 gal	gal	76,800 gal
<b>2021 Sub-Total</b>	<b>228</b>	<b>77.58 gpm</b>	<b>63 AFy</b>	<b>348.74 gpm</b>	<b>91,200 gal</b>	<b>450,000 gal</b>	<b>541,200 gal</b>
FUTURE	251	85.41 gpm	69 AFy	370.86 gpm	100,400 gal	1,350,000 gal	1,450,400 gal
<b>TOTAL</b>	<b>479</b>	<b>162.99 gpm</b>	<b>131 AFy</b>	<b>560.84 gpm</b>	<b>191,600 gal</b>	<b>1,800,000 gal</b>	<b>1,991,600 gal</b>

\*\*\*PM SUMMIT Area = Powder Mountain Summit (Top), Powder Mountain Summit (East), Powder Mountain Summit (Other)

**GILSON ENGINEERING**  
 Consulting Engineers & Surveyors  
 18401 SOUTH 890 EAST BUILDING C, UNIT 2, DORSET, UT 84020  
 PHONE: (801) 871-9414 FAX: (801) 871-8449

**SEWER IMPROVEMENT DISTRICT**

DATE: NOVEMBER 2020  
 DRAWING NAME: OVERALL SITE  
 DESIGNED/DRAWN BY: JMBP  
 CHECKED: APPROVED

REVISIONS  
 REV. DATE BY COMMENTS  
 1" SCALE MEASURES 1" ON FULL SIZE SHEET  
 ADJUST FOR HALF SIZE SHEETS

DATE: NOVEMBER 2020  
 DRAWING NAME: OVERALL SITE  
 DESIGNED/DRAWN BY: JMBP  
 CHECKED: APPROVED

**PROPOSED CULINARY WATER MAP**  
 IMPACT FEE FACILITY PLAN  
 POWDER MOUNTAIN WATER & SEWER IMPROVEMENT DISTRICT  
 WEBER COUNTY, UTAH

REVISION:  
 PROJ. # **POW.010**

**WATER 2-1**



**Powder Mountain Water and Sewer Improvement District: Culinary Water System**

Proj: PWM.015.20  
 Prepared for: PMWSID WATER IFFP  
 Description: **Water Demand Analysis**  
 Date: 9/8/2021  
 By: JJM



11000  
1100000

**Design Parameters:**

Minimum Sizing Requirements	<sup>1</sup> PDD			<sup>2</sup> AYD			<sup>3</sup> PID			STORAGE						TOTAL			
	Indoor "A"	Indoor "B"	Outdoor	Indoor "A"	Indoor "B"	Outdoor	Indoor	Outdoor	TOTAL	Indoor	Outdoor	Fire Suppression		Emergency					
	490 gpd/ERC	800 gpd/ERC	2.80 gpm/Irr-Ac	89,425 gpy/ERC	146,000 gpy/ERC	1.23 AFy/Irr-Ac	10.8 X ERU*0.64	5.60 gpm/Irr-Ac		400 gal/conn	1,873.00 gal/Irr-Ac	# FS Zones= 2		0	# E Zones= 2	0			
<b>Design Summary:</b>	744 ERC	0 ERC	0.00 Irr-Ac	744 ERC	0 ERC	0 Irr-Ac	∇ Junction PID	0 Irr-Ac		744 ERC	0 Irr-Ac	180 min	∇ FS Zones	180 min	180 min	All E Zones	180 min		
Units	253 gpm	0 gpm	0.00 gpm	204 AFy	0 AFy	0 AFy	204 AFy	743 gpm	0 gpm	743 gpm	297,600 gal	gal	450,000 gal	900,000 gal	gal	450,000 gal	900,000 gal	gal	2,097,600 gal

1. Peak Day Demand -used for source water requirements and pump sizing
2. Average Year Demand used for annual source water requirements
3. Indoor "A" Demands reflect source sizing (PDD) reduction for all future ERC shown separately as Indoor "B" (none included with this CFP).
4. Peak Instantaneous Demand -used for distribution pipe sizing
5. Outdoor Water Use Numbers Shown are for; Map Zone 2 - Low Use: NO OUTDOOR WATER USE FOR UPPER MOUNTAIN
6. Outdoor Water Use Numbers Shown are for; future ERC not included with this CFP with an Irrigable Area Factor of 0.5.

**Calculations:**

Area	Service Area			Irrigable Area Factor	PDD			AYD			PID			EQUALIZATION STORAGE					
	Connections (ERC)	Lot Area (sf)	Lot Area (Acres)		Open Space (sf)	Irrigated Area (Acres)	Sub-Total Irrigated Area (Acres)	Indoor (gpd)	Outdoor (gpm)	Total (gpm)	Indoor (gpy)	Outdoor (AFy)	Total (AFy)	Indoor (gpm)	Outdoor (gpm)	Total (gpm)	Indoor (gal)	Outdoor (gal)	Total (gal)
RESIDENTIAL																			
PMWest (Connected)	24	0	0	0	0	0	11,760	8.17	0.00	8.17	2,146,200	0	7	82.56	0.00	82.56	9,600	0	9,600
PMWest (Reserved)	29	0	0	0	0	0	14,210	9.87	0.00	9.87	2,593,325	0	8	93.19	0.00	93.19	11,600	0	11,600
PMWest (Future)	0	0	0	0	0	0	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
PM11 (Connected)	4	0	0	0	0	0	1,960	1.36	0.00	1.36	357,700	0	1	26.23	0.00	26.23	1,600	0	1,600
PM11 (Reserved)	3	0	0	0	0	0	1,470	1.02	0.00	1.02	268,275	0	1	21.82	0.00	21.82	1,200	0	1,200
PM11 (Future)	0	0	0	0	0	0	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
PM Village (Reserved)	15	0	0	0	0	0	7,350	5.10	0.00	5.10	1,341,375	0	4	61.11	0.00	61.11	6,000	0	6,000
PM Village (Future)	0	0	0	0	0	0	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
Moyal (Reserved)	1	0	0	0	0	0	490	0.34	0.00	0.34	89,425	0	0	10.80	0.00	10.80	400	0	400
Moyal (Future)	10	0	0	0	0	0	4,900	3.40	0.00	3.40	894,250	0	3	47.14	0.00	47.14	4,000	0	4,000
SM Horizon Run (Connected)	10	0	0	0	0	0	4,900	3.40	0.00	3.40	894,250	0	3	47.14	0.00	47.14	4,000	0	4,000
SM Horizon Run (Reserved)	0	0	0	0	0	0	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
SM Horizon Run (Future)	21	0	0	0	0	0	10,290	7.15	0.00	7.15	1,877,925	0	6	75.80	0.00	75.80	8,400	0	8,400
SM Ridge Nest (Connected)	6	0	0	0	0	0	2,940	2.04	0.00	2.04	536,550	0	2	34.00	0.00	34.00	2,400	0	2,400
SM Ridge Nest (Reserved)	8	0	0	0	0	0	3,920	2.72	0.00	2.72	715,400	0	2	40.87	0.00	40.87	3,200	0	3,200
SM Ridge Nest (Future)	2	0	0	0	0	0	980	0.68	0.00	0.68	178,850	0	1	16.83	0.00	16.83	800	0	800
SM Phase 1A (Reserved)	23	0	0	0	0	0	11,270	7.83	0.00	7.83	2,056,775	0	6	80.34	0.00	80.34	9,200	0	9,200
SM Phase 1A (Future)	0	0	0	0	0	0	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
SM Phase 1B (Connected)	4	0	0	0	0	0	1,960	1.36	0.00	1.36	357,700	0	1	26.23	0.00	26.23	1,600	0	1,600
SM Phase 1B (Reserved)	6	0	0	0	0	0	2,940	2.04	0.00	2.04	536,550	0	2	34.00	0.00	34.00	2,400	0	2,400
SM Phase 1B (Future)	3	0	0	0	0	0	1,470	1.02	0.00	1.02	268,275	0	1	21.82	0.00	21.82	1,200	0	1,200
SM Phase 1C (Connected)	16	0	0	0	0	0	7,840	5.44	0.00	5.44	1,430,800	0	4	63.69	0.00	63.69	6,400	0	6,400
SM Phase 1C (Reserved)	23	0	0	0	0	0	11,270	7.83	0.00	7.83	2,056,775	0	6	80.34	0.00	80.34	9,200	0	9,200
SM Phase 1C (Future)	22	0	0	0	0	0	10,780	7.49	0.00	7.49	1,967,350	0	6	78.09	0.00	78.09	8,800	0	8,800
SM Phase 1D (Reserved)	16	0	0	0	0	0	7,840	5.44	0.00	5.44	1,430,800	0	4	63.69	0.00	63.69	6,400	0	6,400
SM Phase 1D (Future)	0	0	0	0	0	0	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
SM Overlook (Reserved)	53	0	0	0	0	0	25,970	18.03	0.00	18.03	4,739,525	0	15	137.08	0.00	137.08	21,200	0	21,200
SM Overlook (Future)	0	0	0	0	0	0	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
SM Bobcat (Reserved)	48	0	0	0	0	0	23,520	16.33	0.00	16.33	4,292,400	0	13	128.65	0.00	128.65	19,200	0	19,200
SM Bobcat (Future)	0	0	0	0	0	0	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
Summit Top Homes (Future)	3	0	0	0	0	0	1,470	1.02	0.00	1.02	268,275	0	1	21.82	0.00	21.82	1,200	0	1,200
SM Other (Future)	200	0	0	0	0	0	98,000	68.06	0.00	68.06	17,885,000	0	55	320.69	0.00	320.69	80,000	0	80,000
Monument Development (Future)	0	0	0	0	0	0	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
Eden Heights (Future)	0	0	0.00	0.50	0	0.00	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
Lower Valley (Future)	0	0	0.00	0.00	0	0.00	0	0.00	0.00	0.00	0	0	0	0.00	0.00	0.00	0	0	0
Commercial/Condo																			
Hidden Lake Lodge	2	0	0	0	0	0	980	0.68	0.00	0.68	178,850	0	1	16.83	0.00	16.83	800	0	800
Powder Ridge Lodge	33	0	0	0	0	0	16,170	11.23	0.00	11.23	2,951,025	0	9	101.22	0.00	101.22	13,200	0	13,200
Moonridge	8	0	0	0	0	0	3,920	2.72	0.00	2.72	715,400	0	2	40.87	0.00	40.87	3,200	0	3,200
Columbine Inn (Elkhorn)	7	0	0	0	0	0	3,430	2.38	0.00	2.38	625,975	0	2	37.52	0.00	37.52	2,800	0	2,800
Aleta Ski Shop	2	0	0	0	0	0	980	0.68	0.00	0.68	178,850	0	1	16.83	0.00	16.83	800	0	800
Aleta (Future)	24	0	0	0	0	0	11,760	8.17	0.00	8.17	2,146,200	0	7	82.56	0.00	82.56	9,600	0	9,600
PM Lodge	3	0	0	0	0	0	1,470	1.02	0.00	1.02	268,275	0	1	21.82	0.00	21.82	1,200	0	1,200
Summit Sky Lodge	2	0	0	0	0	0	980	0.68	0.00	0.68	178,850	0	1	16.83	0.00	16.83	800	0	800
PM Sundown Lodge	2	0	0	0	0	0	980	0.68	0.00	0.68	178,850	0	1	16.83	0.00	16.83	800	0	800
PM Maintenance	1	0	0	0	0	0	490	0.34	0.00	0.34	89,425	0	0	10.80	0.00	10.80	400	0	400
Sundown Home Owners	8	0	0	0	0	0	3,920	2.72	0.00	2.72	715,400	0	2	40.87	0.00	40.87	3,200	0	3,200
Sundown Petersen (Future)	72	0	0	0	0	0	35,280	24.50	0.00	24.50	6,438,600	0	20	166.77	0.00	166.77	28,800	0	28,800
Powder Ridge HOA (Reserved)	30	0	0	0	0	0	14,700	10.21	0.00	10.21	2,682,750	0	8	95.23	0.00	95.23	12,000	0	12,000
<b>Total</b>	<b>744</b>	<b>0.00</b>	<b>. acres</b>	<b>0</b>	<b>0 Irr-Ac</b>	<b>0 Irr-Ac</b>	<b>364,560 gpd</b>	<b>253.17 gpm</b>	<b>.00 gpm</b>	<b>253.17 gpm</b>	<b>66,532,200 gpy</b>	<b>0 AFy</b>	<b>204 AFy</b>	<b>743.41 gpm</b>	<b>.00 gpm</b>	<b>743.41 gpm</b>	<b>297,600 gal</b>	<b>gal</b>	<b>297,600 gal</b>

**Section 5 -**

**Appendix B – PMWSID  
ERC Schedule**

# Powder Mountain Water and Sewer Improvement District

Proj: PWM.015.20  
 Prepared for: PMWSID WATER IFFP  
 Description: Water Demand Analysis: ERC Development Projection to Buildout  
 Date: 9/8/2021  
 By: JJM



	ERC		IRRIGATED ACRES		PDD (gpm)				AYD (Afy)				STORAGE (gal)				
	Annual	Cummulative	Annual	Cummulative	INDOOR "A"	INDOOR "B"	OUTDOOR	TOTAL	INDOOR "A"	INDOOR "B"	OUTDOOR	TOTAL	INDOOR	OUTDOOR	FIRE SUPPRESSION	EMERGENCY	TOTAL
2020	---	132	---	0	45	0	0	45	36	0	0	36	52800	0	450000	450000	952800
2021	10	142	0	0	48	0	0	48	39	0	0	39	56800	0	450000	450000	956800
2022	10	152	0	0	52	0	0	52	42	0	0	42	60800	0	450000	450000	960800
2023	10	162	0	0	55	0	0	55	44	0	0	44	64800	0	450000	450000	964800
2024	10	172	0	0	59	0	0	59	47	0	0	47	68800	0	450000	450000	968800
2025	15	187	0	0	64	3	0	66	51	0	0	51	74800	0	900000	900000	1874800
2026	15	202	0	0	69	3	0	72	55	0	0	55	80800	0	900000	900000	1880800
2027	15	217	0	0	74	3	0	77	60	0	0	60	86800	0	900000	900000	1886800
2028	15	232	0	0	79	3	0	82	64	0	0	64	92800	0	900000	900000	1892800
2029	15	247	0	0	84	3	0	87	68	0	0	68	98800	0	900000	900000	1898800
2030	15	262	0	0	89	0	0	89	72	0	0	72	104800	0	900000	900000	1904800
2031	20	282	0	0	94	3	0	97	76	0	0	76	112800	0	900000	900000	1912800
2032	20	302	0	0	99	6	0	105	80	0	0	80	120800	0	900000	900000	1920800
2033	20	322	0	0	104	8	0	113	84	0	0	84	128800	0	900000	900000	1928800
2034	20	342	0	0	110	11	0	121	88	0	0	88	136800	0	900000	900000	1936800
2035	20	362	0	0	115	13	0	128	93	0	0	93	144800	0	900000	900000	1944800
2036	20	382	0	0	130	0	0	130	105	0	0	105	152800	0	900000	900000	1952800
2037	20	402	0	0	137	0	0	137	110	0	0	110	160800	0	900000	900000	1960800
2038	20	422	0	0	144	0	0	144	116	0	0	116	168800	0	900000	900000	1968800
2039	20	442	0	0	150	0	0	150	121	0	0	121	176800	0	900000	900000	1976800
2040	20	462	0	0	157	0	0	157	127	0	0	127	184800	0	900000	900000	1984800
2041	20	482	0	0	164	0	0	164	132	0	0	132	192800	0	900000	900000	1992800
2042	20	502	0	0	171	0	0	171	138	0	0	138	200800	0	900000	900000	2000800
2043	20	522	0	0	178	0	0	178	143	0	0	143	208800	0	900000	900000	2008800
2044	20	542	0	0	184	0	0	184	149	0	0	149	216800	0	900000	900000	2016800
2045	20	562	0	0	191	0	0	191	154	0	0	154	224800	0	900000	900000	2024800
2046	20	582	0	0	198	0	0	198	160	0	0	160	232800	0	900000	900000	2032800
2047	20	602	0	0	205	0	0	205	165	0	0	165	240800	0	900000	900000	2040800
2048	20	622	0	0	212	0	0	212	171	0	0	171	248800	0	900000	900000	2048800
2049	20	642	0	0	218	0	0	218	176	0	0	176	256800	0	900000	900000	2056800
2050	20	662	0	0	225	0	0	225	182	0	0	182	264800	0	900000	900000	2064800
2051	20	682	0	0	232	0	0	232	187	0	0	187	272800	0	900000	900000	2072800
2052	20	702	0	0	239	0	0	239	193	0	0	193	280800	0	900000	900000	2080800
2053	20	722	0	0	246	0	0	246	198	0	0	198	288800	0	900000	900000	2088800
2054	20	742	0	0	252	0	0	252	204	0	0	204	296800	0	900000	900000	2096800
2055	2	744	0	0	253	0	0	253	204	0	0	204	297600	0	900000	900000	2097600

Notes:

- 1) 2021 Connected = 132 ERC
- 2) "Reserved" = 255 ERC: estimated connection of all "Reserved" ERC in next 10 years

**Section 6 -**

**Appendix C – PMWSID  
IFFP Cost Estimates**

# *Engineers Opinion of Cost*

**Culinary Water Capital Facility Improvements**

**PROJECT SUMMARY**

**Powder Mountain Utah**

**PROJECT # POW.015**

**By: JJM**

**Date: 9/8/21**



PROJECTS	DESCRIPTION	Total Cost
A	PIZZEL WATER IMPROVEMENTS	\$5,355,848.90
B	TOP MOUNTAIN WATER IMPROVEMENTS	\$1,603,215.00
C	LOWER VALLEY WATER IMPROVEMENTS	\$8,003,413.00
D	UPPER ZONES WATER IMPROVEMENTS	\$14,047,343.00
E	WATER IMPROVEMENTS (UPSIZING)	\$1,111,567.50
F	WATER IMPROVEMENTS (MAINTENANCE)	\$1,457,325.00
<b>TOTAL</b>		<b>\$31,578,712.40</b>

# Engineers Opinion of Cost

**Culinary Water CFP Improvements  
Project A: Pizzel Water Improvements  
Powder Mountain Utah**



**By: JJM  
Date: 08/16/21**

No.	DESCRIPTION	Unit	Quantity	Cost per Unit	Total Cost	10%	15%	2%	Total
						Construction Contingency	Engineering	Legal/Admin	
A.1	Pizzel #3 Development	L.S.	1	\$182,589.20	\$182,589.20	\$18,258.92	\$27,388.38	\$3,651.78	<b>\$231,888.28</b>
A.2	Booster Pump Station Improvements #1, #2, and #3	L.S.	1	\$1,745,031.18	\$1,745,031.18	\$174,503.12	\$261,754.68	\$34,900.62	<b>\$2,216,189.60</b>
A.3	Equip Cobabe Well	L.S.	1	\$50,000.00	\$50,000.00	\$5,000.00	\$7,500.00	\$1,000.00	<b>\$63,500.00</b>
A.4	New 8" Waterline (Pumphouse #3 to Top of Mountain)	L.S.	1	\$310,616.48	\$310,616.48	\$31,061.65	\$46,592.47	\$6,212.33	<b>\$394,482.93</b>
A.5	New source delivery pipeline (4" Pending Study A.10)	L.S.	1	\$250,000.00	\$250,000.00	\$25,000.00	\$37,500.00	\$5,000.00	<b>\$317,500.00</b>
A.6	Pizzel #1 and #2 Development (W/4K' 2" to Treatment)	L.S.	1	\$450,000.00	\$450,000.00	\$45,000.00	\$67,500.00	\$9,000.00	<b>\$571,500.00</b>
A.7	New Booster Pump Station #4 @ Timberline Tank	L.S.	1	\$538,967.00	\$538,967.00	\$53,896.70	\$80,845.05	\$10,779.34	<b>\$684,488.09</b>
A.8	New Air Relief Valve (ARV) and Drain/Sampling Station	EA.	4	\$10,000.00	\$40,000.00	\$4,000.00	\$6,000.00	\$800.00	<b>\$50,800.00</b>
A.9	Pressure Relief Valve (PRV) Station Connection	EA.	1	\$20,000.00	\$20,000.00	\$2,000.00	\$3,000.00	\$400.00	<b>\$25,400.00</b>
A.10	New Top of Mountain Water Storage (PT.6)	EA.	1	\$600,000.00	\$600,000.00	\$60,000.00	\$90,000.00	\$12,000.00	<b>\$762,000.00</b>
A.11	System Wide Hydraulic Model Study	EA.	1	\$30,000.00	\$30,000.00	\$3,000.00	\$4,500.00	\$600.00	<b>\$38,100.00</b>
<b>TOTAL ESTIMATED BUDGET CONSTRUCTION COST</b>					<b>\$4,217,203.86</b>	<b>\$421,720.39</b>	<b>\$632,580.58</b>	<b>\$84,344.08</b>	<b>\$5,355,848.90</b>

# Engineers Opinion of Cost

Culinary Water CFP Improvements  
 Project A: Pizzel Water Improvements  
 Powder Mountain Utah



Culinary Water CFP Improvements  
 Project A: Pizzel Water Improvements

By: JJM  
 Date: 08/16/21

AREA	ERC	Share (%)
Powder Mountain (Connected)	132	18%
Powder Mountain (Res/Future)	612	82%
<b>TOTAL</b>	<b>744</b>	<b>100%</b>

PROPORTIONATE SHARE ANALYSIS											
POWDER MOUNTAIN											
DESCRIPTION	Unit	Quantity	Cost per Unit	Total Cost	No.	%	Existing		Future		Total
							Proportionate Cost	%	Proportionate Cost	%	
Pizzel #3 Development	L.S.	1	\$182,589.20	\$182,589.20	A.1	18%	\$41,739.89	82%	\$190,148.39		<b>\$231,888.28</b>
Booster Pump Station Improvements #1, #2, and #3	L.S.	1	\$1,745,031.18	\$1,745,031.18	A.2	18%	\$398,914.13	82%	\$1,817,275.47		<b>\$2,216,189.60</b>
Equip Cobabe Well	L.S.	1	\$50,000.00	\$50,000.00	A.3	18%	\$11,430.00	82%	\$52,070.00		<b>\$63,500.00</b>
New 8" Waterline (Pumphouse #3 to Top of Mountain)	L.S.	1	\$310,616.48	\$310,616.48	A.4	18%	\$71,006.93	82%	\$323,476.00		<b>\$394,482.93</b>
New source delivery pipeline (4" Pending Study A.10)	L.S.	1	\$250,000.00	\$250,000.00	A.5	18%	\$57,150.00	82%	\$260,350.00		<b>\$317,500.00</b>
Pizzel #1 and #2 Development (W/4K' 2" to Treatment)	L.S.	1	\$450,000.00	\$450,000.00	A.6	18%	\$102,870.00	82%	\$468,630.00		<b>\$571,500.00</b>
New Booster Pump Station #4 @ Timberline Tank	L.S.	1	\$538,967.00	\$538,967.00	A.7	18%	\$123,207.86	82%	\$561,280.23		<b>\$684,488.09</b>
New Air Relief Valve (ARV) and Drain/Sampling Station	EA.	4	\$10,000.00	\$40,000.00	A.8	18%	\$9,144.00	82%	\$41,656.00		<b>\$50,800.00</b>
Pressure Relief Valve (PRV) Station Connection	EA.	1	\$20,000.00	\$20,000.00	A.9	18%	\$4,572.00	82%	\$20,828.00		<b>\$25,400.00</b>
New Top of Mountain Water Storage (PT.6)	EA.	1	\$600,000.00	\$600,000.00	A.10	18%	\$137,160.00	82%	\$624,840.00		<b>\$762,000.00</b>
System Wide Hydraulic Model Study	EA.	1	\$30,000.00	\$30,000.00	A.11	18%	\$6,858.00	82%	\$31,242.00		<b>\$38,100.00</b>
<b>TOTAL ESTIMATED BUDGET CONSTRUCTION COST</b>				<b>\$4,217,203.86</b>							<b>\$5,355,848.90</b>

# Engineers Opinion of Cost

Culinary Water CFP Improvements  
 Project B: Top Mountain Water System (OPTION B)  
 Powder Mountain Utah  
 PROJECT # POW.015

# DRAFT

By: JJM  
 Date: 09/7/21



No.	DESCRIPTION	Unit	Quantity	Cost per Unit	Total Cost	10%	15%	2%	Total
						Construction Contingency	Engineering	Legal/Admin	
B.1	New Booster Pump Building (Near Hidden Lake Pump)	L.S.	1	\$340,000.00	\$340,000.00	\$34,000.00	\$51,000.00	\$6,800.00	<b>\$431,800.00</b>
B.2	New Booster Pump Improvements (Near Hidden Lake Pump)	L.S.	1	\$400,000.00	\$400,000.00	\$40,000.00	\$60,000.00	\$8,000.00	<b>\$508,000.00</b>
B.3	New 10" Pressurized Delivery Waterline (ALL)	L.F.	800	\$80.00	\$64,000.00	\$6,400.00	\$9,600.00	\$1,280.00	<b>\$81,280.00</b>
B.4	New 8" Pressurized Delivery Waterline (HEARTWOOD)	L.F.	1,140	\$60.00	\$68,400.00	\$6,840.00	\$10,260.00	\$1,368.00	<b>\$86,868.00</b>
B.5	New 8" Pressurized Delivery Waterline (TOP LODGES)	L.F.	300	\$60.00	\$18,000.00	\$1,800.00	\$2,700.00	\$360.00	<b>\$22,860.00</b>
B.6	New 10" Pressurized Delivery Waterline (TO JACOB'S LADDER)	L.F.	470	\$80.00	\$37,600.00	\$3,760.00	\$5,640.00	\$752.00	<b>\$47,752.00</b>
B.7	New PRV Station	L.S.	3	\$60,000.00	\$180,000.00	\$18,000.00	\$27,000.00	\$3,600.00	<b>\$228,600.00</b>
B.8	New Generator Station (With Pumphouse Building)	L.S.	1	\$130,000.00	\$130,000.00	\$13,000.00	\$19,500.00	\$2,600.00	<b>\$165,100.00</b>
B.9	Fire Hydrant	EA.	3	\$2,500.00	\$7,500.00	\$750.00	\$1,125.00	\$150.00	<b>\$9,525.00</b>
B.10	Re-connection to Existing Buildings	EA.	2	\$4,500.00	\$9,000.00	\$900.00	\$1,350.00	\$180.00	<b>\$11,430.00</b>
B.11	Updated Water Model Analysis	L.S.	1	\$10,000.00	\$10,000.00	\$0.00	\$0.00	\$0.00	<b>\$10,000.00</b>
<b>TOTAL ESTIMATED BUDGET CONSTRUCTION COST</b>					<b>\$1,264,500.00</b>	<b>\$125,450.00</b>	<b>\$188,175.00</b>	<b>\$25,090.00</b>	<b>\$1,603,215.000</b>

Note: Items in blue text were included for bond update (including 1 of the 3 PRVs)

**Culinary Water CFP Improvements  
Project B: Top Mountain Water System (OPTION B)**

# DRAFT

AREA	ERC	Share (%)
Powder Mountain (Connected)	11	15%
Powder Mountain (Res/Future)	63	85%
<b>TOTAL</b>	74	100%

(Moyal (1), Lodges (4)  
(Moyal (10), Top Horr

PROPORTIONATE SHARE ANALYSIS					
POWDER MOUNTAIN					
No.	%	Existing	%	Future	Total
B.1	15%	\$64,770.00	85%	\$367,030.00	<b>\$431,800.00</b>
B.2	15%	\$76,200.00	85%	\$431,800.00	<b>\$508,000.00</b>
B.3	15%	\$12,192.00	85%	\$69,088.00	<b>\$81,280.00</b>
B.4	15%	\$13,030.20	85%	\$73,837.80	<b>\$86,868.00</b>
B.5	15%	\$3,429.00	85%	\$19,431.00	<b>\$22,860.00</b>
B.6	15%	\$7,162.80	85%	\$40,589.20	<b>\$47,752.00</b>
B.7	15%	\$34,290.00	85%	\$194,310.00	<b>\$228,600.00</b>
B.8	15%	\$24,765.00	85%	\$140,335.00	<b>\$165,100.00</b>
B.9	15%	\$1,428.75	85%	\$8,096.25	<b>\$9,525.00</b>
B.10	15%	\$1,714.50	85%	\$9,715.50	<b>\$11,430.00</b>
B.11	15%	\$1,500.00	85%	\$8,500.00	<b>\$10,000.00</b>

**\$1,603,215.00**

# Engineers Opinion of Cost

Culinary Water CFP Improvements  
 Project C: Lower Valley Water System  
 Powder Mountain Utah  
 PROJECT # POW.015

By: JJM  
 Date: 8/16/21



No.	DESCRIPTION	Unit	Quantity	Cost per Unit	Total Cost	10%	15%	2%	Total
<b>C.1</b>	<b>Lake Point Well</b>				<b>\$1,692,000.00</b>	<b>\$169,200.00</b>	<b>\$253,800.00</b>	<b>\$33,840.00</b>	<b>\$2,148,840.00</b>
	Water Rights	L.S.	1	\$96,000.00	\$96,000.00	\$9,600.00	\$14,400.00	\$1,920.00	\$121,920.00
	Well Siting and Design	L.S.	1	\$144,000.00	\$144,000.00	\$14,400.00	\$21,600.00	\$2,880.00	\$182,880.00
	Purchase Land for Well Site	L.S.	1	\$600,000.00	\$600,000.00	\$60,000.00	\$90,000.00	\$12,000.00	\$762,000.00
	Well Test Hole/Exploration	L.S.	1	\$120,000.00	\$120,000.00	\$12,000.00	\$18,000.00	\$2,400.00	\$152,400.00
	Well Final Hole	L.S.	1	\$300,000.00	\$300,000.00	\$30,000.00	\$45,000.00	\$6,000.00	\$381,000.00
	Well Development	L.S.	1	\$72,000.00	\$72,000.00	\$7,200.00	\$10,800.00	\$1,440.00	\$91,440.00
	Well Pumphouse	L.S.	1	\$360,000.00	\$360,000.00	\$36,000.00	\$54,000.00	\$7,200.00	\$457,200.00
<b>C.2</b>	<b>New Booster Pump Stations</b>				<b>\$900,000.00</b>	<b>\$90,000.00</b>	<b>\$135,000.00</b>	<b>\$18,000.00</b>	<b>\$1,143,000.00</b>
	Foothill Tee Pumphouse	EA.	1	\$450,000.00	\$450,000.00	\$45,000.00	\$67,500.00	\$9,000.00	\$571,500.00
	Intermediate to Eden Heights Pumphouse	EA.	1	\$450,000.00	\$450,000.00	\$45,000.00	\$67,500.00	\$9,000.00	\$571,500.00
<b>C.3</b>	<b>New Waterline (From Lake Point to Foothill Tee)</b>				<b>\$684,400.00</b>	<b>\$68,440.00</b>	<b>\$102,660.00</b>	<b>\$13,688.00</b>	<b>\$869,188.00</b>
	Pipe Construction	L.F.	6,600	\$75.00	\$495,000.00	\$49,500.00	\$74,250.00	\$9,900.00	\$628,650.00
	10' Wide Pipe Easement Acquisition	acre	1.52	\$125,000.00	\$189,400.00	\$18,940.00	\$28,410.00	\$3,788.00	\$240,538.00
<b>C.4</b>	<b>New Waterline (From Foothill Tee to Eden Heights)</b>				<b>\$2,032,500.00</b>	<b>\$203,250.00</b>	<b>\$304,875.00</b>	<b>\$40,650.00</b>	<b>\$2,581,275.00</b>
	Pipe Construction	L.F.	19,600	\$75.00	\$1,470,000.00	\$147,000.00	\$220,500.00	\$29,400.00	\$1,866,900.00
	10' Wide Pipe Easement Acquisition	acre	4.50	\$125,000.00	\$562,500.00	\$56,250.00	\$84,375.00	\$11,250.00	\$714,375.00
<b>C.5</b>	<b>Waterline Maint. Road/Trail</b>	L.F.	<b>26,200</b>	<b>\$15.00</b>	<b>\$393,000.00</b>	<b>\$39,300.00</b>	<b>\$58,950.00</b>	<b>\$7,860.00</b>	<b>\$499,110.00</b>
<b>C.6</b>	<b>New Water Tank</b>	EA.	<b>1</b>	<b>\$600,000.00</b>	<b>\$600,000.00</b>	<b>\$60,000.00</b>	<b>\$90,000.00</b>	<b>\$12,000.00</b>	<b>\$762,000.00</b>
	PT.7 At Future "Eden Heights" Development	EA.	1	\$600,000.00	\$600,000.00	\$60,000.00	\$90,000.00	\$12,000.00	\$762,000.00
<b>TOTAL ESTIMATED BUDGET CONSTRUCTION COST</b>					<b>\$6,301,900.00</b>	<b>\$630,190.00</b>	<b>\$945,285.00</b>	<b>\$126,038.00</b>	<b>\$8,003,413.00</b>

AREA	ERC	Share (%)
Powder Mountain (Connected)	0	0.0%
Powder Mountain (Res/Future)	0	0.0%
MONUMENT (Future)	0	0.0%
EDEN HEIGHTS (Future)	23	100.0%
<b>TOTAL</b>	<b>23</b>	<b>100.0%</b>

### PROPORTIONATE SHARE ANALYSIS

#### EDEN HEIGHTS (Future)

Cost	%
<b>\$2,148,840.00</b>	<b>100.0%</b>
\$121,920.00	100.0%
\$182,880.00	100.0%
\$762,000.00	100.0%
\$152,400.00	100.0%
\$381,000.00	100.0%
\$91,440.00	100.0%
\$457,200.00	100.0%

<b>\$1,143,000.00</b>	<b>100.0%</b>
\$571,500.00	100.0%
\$571,500.00	100.0%

<b>\$869,188.00</b>	<b>100.0%</b>
\$628,650.00	100.0%
\$240,538.00	100.0%
<b>\$2,581,275.00</b>	<b>100.0%</b>
\$1,866,900.00	100.0%
\$714,375.00	100.0%
<b>\$499,110.00</b>	<b>100.0%</b>

<b>\$762,000.00</b>	<b>100.0%</b>
\$762,000.00	100.0%

<b>\$8,003,413.00</b>	<b>100.0%</b>
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# Engineers Opinion of Cost

Culinary Water CFP Improvements  
 Project C: Upper Zones Water System  
 Powder Mountain Utah  
 PROJECT # POW.015



By: JJM  
 Date: 8/16/21

No.	DESCRIPTION	Unit	Quantity	Cost per Unit	Total Cost	10%	15%	2%	Total
						Construction Contingency	Engineering	Legal/Admin	
<b>D.1</b>	<b>Cache Side Well</b>				<b>\$1,692,000.00</b>	<b>\$169,200.00</b>	<b>\$253,800.00</b>	<b>\$33,840.00</b>	<b>\$2,148,840.00</b>
	<i>Water Rights</i>	L.S.	1	\$96,000.00	\$96,000.00	\$9,600.00	\$14,400.00	\$1,920.00	<b>\$121,920.00</b>
	<i>Well Siting and Design</i>	L.S.	1	\$144,000.00	\$144,000.00	\$14,400.00	\$21,600.00	\$2,880.00	<b>\$182,880.00</b>
	<i>Purchase Land for Well Site</i>	L.S.	1	\$600,000.00	\$600,000.00	\$60,000.00	\$90,000.00	\$12,000.00	<b>\$762,000.00</b>
	<i>Well Test Hole/Exploration</i>	L.S.	1	\$120,000.00	\$120,000.00	\$12,000.00	\$18,000.00	\$2,400.00	<b>\$152,400.00</b>
	<i>Well Final Hole</i>	L.S.	1	\$300,000.00	\$300,000.00	\$30,000.00	\$45,000.00	\$6,000.00	<b>\$381,000.00</b>
	<i>Well Development</i>	L.S.	1	\$72,000.00	\$72,000.00	\$7,200.00	\$10,800.00	\$1,440.00	<b>\$91,440.00</b>
	<i>Well Pumphouse</i>	L.S.	1	\$360,000.00	\$360,000.00	\$36,000.00	\$54,000.00	\$7,200.00	<b>\$457,200.00</b>
<b>D.2</b>	<b>New Booster Pump Stations</b>	EA.	5	<b>\$400,000.00</b>	<b>\$2,000,000.00</b>	<b>\$200,000.00</b>	<b>\$300,000.00</b>	<b>\$40,000.00</b>	<b>\$2,540,000.00</b>
<b>D.3</b>	<b>New PRV Stations</b>				<b>\$320,000.00</b>	<b>\$32,000.00</b>	<b>\$48,000.00</b>	<b>\$6,400.00</b>	<b>\$406,400.00</b>
	<i>Intermediate #1 from Top Mt.</i>	EA.	1	\$80,000.00	\$80,000.00	\$8,000.00	\$12,000.00	\$1,600.00	<b>\$101,600.00</b>
	<i>Intermediate #2 from Top Mt.</i>	EA.	1	\$80,000.00	\$80,000.00	\$8,000.00	\$12,000.00	\$1,600.00	<b>\$101,600.00</b>
	<i>Summit "Other" Loop</i>	EA.	2	\$80,000.00	\$160,000.00	\$16,000.00	\$24,000.00	\$3,200.00	<b>\$203,200.00</b>
<b>D.4</b>	<b>New Waterline (From Cache Side to Upper Mt.)</b>				<b>\$1,597,000.00</b>	<b>\$159,700.00</b>	<b>\$239,550.00</b>	<b>\$31,940.00</b>	<b>\$2,028,190.00</b>
	<i>Pipe Construction</i>	L.F.	15,400	\$75.00	\$1,155,000.00	\$115,500.00	\$173,250.00	\$23,100.00	<b>\$1,466,850.00</b>
	<i>10' Wide Pipe Easement Acquisition</i>	acre	3.54	\$125,000.00	\$442,000.00	\$44,200.00	\$66,300.00	\$8,840.00	<b>\$561,340.00</b>
<b>D.5</b>	<b>New Waterline (Horizon Run Road Loop)</b>				<b>\$427,300.00</b>	<b>\$42,730.00</b>	<b>\$64,095.00</b>	<b>\$8,546.00</b>	<b>\$542,671.00</b>
	<i>Pipe Construction</i>	L.F.	4,120	\$75.00	\$309,000.00	\$30,900.00	\$46,350.00	\$6,180.00	<b>\$392,430.00</b>
	<i>10' Wide Pipe Easement Acquisition</i>	acre	0.95	\$125,000.00	\$118,300.00	\$11,830.00	\$17,745.00	\$2,366.00	<b>\$150,241.00</b>
<b>D.6</b>	<b>New Waterline (Future Southeast Summit Loop)</b>				<b>\$2,343,600.00</b>	<b>\$234,360.00</b>	<b>\$351,540.00</b>	<b>\$46,872.00</b>	<b>\$2,976,372.00</b>
	<i>Pipe Construction</i>	L.F.	22,600	\$75.00	\$1,695,000.00	\$169,500.00	\$254,250.00	\$33,900.00	<b>\$2,152,650.00</b>
	<i>10' Wide Pipe Easement Acquisition</i>	acre	5.19	\$125,000.00	\$648,600.00	\$64,860.00	\$97,290.00	\$12,972.00	<b>\$823,722.00</b>
<b>D.7</b>	<b>Waterline Maint. Road/Trail</b>	L.F.	15,400	<b>\$15.00</b>	<b>\$231,000.00</b>	<b>\$23,100.00</b>	<b>\$34,650.00</b>	<b>\$4,620.00</b>	<b>\$293,370.00</b>
<b>D.8</b>	<b>New Water System Shop</b>	L.S.	1	<b>\$450,000.00</b>	<b>\$450,000.00</b>	<b>\$45,000.00</b>	<b>\$67,500.00</b>	<b>\$9,000.00</b>	<b>\$571,500.00</b>
<b>D.9</b>	<b>New Water Tank (PT.8 At Future "Summit Other" Loop)</b>	EA.	1	<b>\$1,000,000.00</b>	<b>\$1,000,000.00</b>	<b>\$100,000.00</b>	<b>\$150,000.00</b>	<b>\$20,000.00</b>	<b>\$1,270,000.00</b>
<b>D.10</b>	<b>New Water Tank (PT.9 At Future Monument)</b>	EA.	1	<b>\$1,000,000.00</b>	<b>\$1,000,000.00</b>	<b>\$100,000.00</b>	<b>\$150,000.00</b>	<b>\$20,000.00</b>	<b>\$1,270,000.00</b>
<b>TOTAL ESTIMATED BUDGET CONSTRUCTION COST</b>					<b>\$11,060,900.00</b>	<b>\$1,106,090.00</b>	<b>\$1,659,135.00</b>	<b>\$221,218.00</b>	<b>\$14,047,343.00</b>

# Engineers Opinion of Cost

Culinary Water CFP Improvements  
 Project C: Upper Zones Water System  
 Powder Mountain Utah  
 PROJECT # POW.015

By: JJM  
 Date: 8/16/21

Project D: Upper Zones Water System

AREA	D.1 To D.7, D.9, D.10		PROJECT D.8	
	ERC	Share (%)	ERC	Share (%)
Powder Mountain (Connected)	0	0.0%	132	17.7%
Powder Mountain (Res/Future)	612	100.0%	612	82.3%
<b>TOTAL</b>	<b>612</b>	<b>100.0%</b>	<b>744</b>	<b>100.0%</b>

PROPORTIONATE SHARE ANALYSIS											
POWDER MOUNTAIN											
DESCRIPTION	Unit	Quantity	Cost per Unit	Total Cost	No.	%	Existing	%	Future	Total	
<b>Cache Side Well</b>				<b>\$1,692,000.00</b>	<b>D.1</b>	<b>0.0%</b>	<b>\$0.00</b>	<b>100%</b>	<b>\$2,148,840.00</b>	<b>\$2,148,840.00</b>	
<i>Water Rights</i>	L.S.	1	\$96,000.00	\$96,000.00		0.0%	\$0.00	100%	\$121,920.00	\$121,920.00	
<i>Well Siting and Design</i>	L.S.	1	\$144,000.00	\$144,000.00		0.0%	\$0.00	100%	\$182,880.00	\$182,880.00	
<i>Purchase Land for Well Site</i>	L.S.	1	\$600,000.00	\$600,000.00		0.0%	\$0.00	100%	\$762,000.00	\$762,000.00	
<i>Well Test Hole/Exploration</i>	L.S.	1	\$120,000.00	\$120,000.00		0.0%	\$0.00	100%	\$152,400.00	\$152,400.00	
<i>Well Final Hole</i>	L.S.	1	\$300,000.00	\$300,000.00		0.0%	\$0.00	100%	\$381,000.00	\$381,000.00	
<i>Well Development</i>	L.S.	1	\$72,000.00	\$72,000.00		0.0%	\$0.00	100%	\$91,440.00	\$91,440.00	
<i>Well Pumphouse</i>	L.S.	1	\$360,000.00	\$360,000.00		0.0%	\$0.00	100%	\$457,200.00	\$457,200.00	
<b>New Booster Pump Stations</b>	EA.	5	<b>\$400,000.00</b>	<b>\$2,000,000.00</b>	<b>D.2</b>	<b>0.0%</b>	<b>\$0.00</b>	<b>100%</b>	<b>\$2,540,000.00</b>	<b>\$2,540,000.00</b>	
<b>New PRV Stations</b>				<b>\$320,000.00</b>	<b>D.3</b>	<b>0.0%</b>	<b>\$0.00</b>	<b>100%</b>	<b>\$406,400.00</b>	<b>\$406,400.00</b>	
<i>Intermediate #1 from Top Mt.</i>	EA.	1	\$80,000.00	\$80,000.00		0.0%	\$0.00	100%	\$101,600.00	\$101,600.00	
<i>Intermediate #2 from Top Mt.</i>	EA.	1	\$80,000.00	\$80,000.00		0.0%	\$0.00	100%	\$101,600.00	\$101,600.00	
<i>Summit "Other" Loop</i>	EA.	2	\$80,000.00	\$160,000.00		0.0%	\$0.00	100%	\$203,200.00	\$203,200.00	
<b>New Waterline (From Cache Side to Upper Mt.)</b>				<b>\$1,597,000.00</b>	<b>D.4</b>	<b>0.0%</b>	<b>\$0.00</b>	<b>100%</b>	<b>\$2,028,190.00</b>	<b>\$2,028,190.00</b>	
<i>Pipe Construction</i>	L.F.	15,400	\$75.00	\$1,155,000.00		0.0%	\$0.00	100%	\$1,466,850.00	\$1,466,850.00	
<i>10' Wide Pipe Easement Acquisition</i>	acre	3.54	\$125,000.00	\$442,000.00		0.0%	\$0.00	100%	\$561,340.00	\$561,340.00	
<b>New Waterline (Horizon Run Road Loop)</b>				<b>\$427,300.00</b>	<b>D.5</b>	<b>0.0%</b>	<b>\$0.00</b>	<b>100%</b>	<b>\$542,671.00</b>	<b>\$542,671.00</b>	
<i>Pipe Construction</i>	L.F.	4,120	\$75.00	\$309,000.00		0.0%	\$0.00	100%	\$392,430.00	\$392,430.00	
<i>10' Wide Pipe Easement Acquisition</i>	acre	0.95	\$125,000.00	\$118,300.00		0.0%	\$0.00	100%	\$150,241.00	\$150,241.00	
<b>New Waterline (Future Southeast Summit Loop)</b>				<b>\$2,343,600.00</b>	<b>D.6</b>	<b>0.0%</b>	<b>\$0.00</b>	<b>100%</b>	<b>\$2,976,372.00</b>	<b>\$2,976,372.00</b>	
<i>Pipe Construction</i>	L.F.	22,600	\$75.00	\$1,695,000.00		0.0%	\$0.00	100%	\$2,152,650.00	\$2,152,650.00	
<i>10' Wide Pipe Easement Acquisition</i>	acre	5.19	\$125,000.00	\$648,600.00		0.0%	\$0.00	100%	\$823,722.00	\$823,722.00	
<b>Waterline Maint. Road/Trail</b>	L.F.	15,400	<b>\$15.00</b>	<b>\$231,000.00</b>	<b>D.7</b>	<b>0.0%</b>	<b>\$0.00</b>	<b>100%</b>	<b>\$293,370.00</b>	<b>\$293,370.00</b>	
<b>New Water System Shop</b>	L.S.	1	<b>\$450,000.00</b>	<b>\$450,000.00</b>	<b>D.8</b>	17.7%	<b>\$101,395.16</b>	<b>82%</b>	<b>\$470,104.84</b>	<b>\$571,500.00</b>	
<b>New Water Tank (PT.8 At Future "Summit Other" Loop)</b>	EA.	1	<b>\$1,000,000.00</b>	<b>\$1,000,000.00</b>	<b>D.9</b>	0.0%	<b>\$0.00</b>	<b>100%</b>	<b>\$1,270,000.00</b>	<b>\$1,270,000.00</b>	
<b>New Water Tank (PT.9 At Future Monument)</b>	EA.	1	<b>\$1,000,000.00</b>	<b>\$1,000,000.00</b>	<b>D.10</b>	0.0%	<b>\$0.00</b>	<b>100%</b>	<b>\$1,270,000.00</b>	<b>\$1,270,000.00</b>	
<b>TOTAL ESTIMATED BUDGET CONSTRUCTION COST</b>				<b>\$11,060,900.00</b>						<b>\$12,777,343.00</b>	

# Engineers Opinion of Cost

Culinary Water CFP Improvements  
 Project E: Water System Improvements (Upsizing)  
 Powder Mountain Utah  
 PROJECT # POW.015



By: JJM  
 Date: 08/16/21

No.	DESCRIPTION	Unit	Quantity	Cost per Unit	Total Cost	10%	15%	2%	Total
						Construction Contingency	Engineering	Legal/Admin	
E.1	GPS Capable Logging Equipment	LUMP	LUMP	\$7,750.00	\$7,750.00	\$775.00	\$1,162.50	\$155.00	<b>\$9,842.50</b>
E.2	Create Capital Infrastructure Database (GIS)	LUMP	LUMP	\$150,000.00	\$150,000.00	\$15,000.00	\$22,500.00	\$3,000.00	<b>\$190,500.00</b>
E.3	Add Mag-Meters To Existing Hidden Lake Tank ((1) @ PM Historic Side and (1) @ PM Summit Side)	EA.	2	\$85,000.00	\$170,000.00	\$17,000.00	\$25,500.00	\$3,400.00	<b>\$215,900.00</b>
E.4	Replace 4" with 8" at Powder Mountain West	LF	5,300	\$75.00	\$397,500.00	\$39,750.00	\$59,625.00	\$7,950.00	<b>\$504,825.00</b>
E.5	Install District Wide Radio Read Meter System	LUMP	LUMP	\$150,000.00	\$150,000.00	\$15,000.00	\$22,500.00	\$3,000.00	<b>\$190,500.00</b>
<b>TOTAL ESTIMATED BUDGET CONSTRUCTION COST</b>					<b>\$875,250.00</b>	<b>\$87,525.00</b>	<b>\$131,287.50</b>	<b>\$17,505.00</b>	<b>\$1,111,567.50</b>

# Engineers Opinion of Cost

**Culinary Water CFP Improvements  
Project E: Water System Improvements (Upsizing)  
Powder Mountain Utah  
PROJECT # POW.015**



**By: JJM  
Date: 08/16/21**

	E.1, E.2, E.5		PROJECT E.3
AREA	ERC	Share (%)	Share (%)
Powder Mountain (Connected)	132	17.7%	50.0%
Powder Mountain (Res/Future)	612	82.3%	50.0%
<b>TOTAL</b>	<b>744</b>	<b>100.0%</b>	<b>100.0%</b>

PROPORTIONATE SHARE ANALYSIS										
POWDER MOUNTAIN										
DESCRIPTION	Unit	Quantity	Cost per Unit	Total Cost	No.	%	Existing	%	Future	Total
GPS Capable Logging Equipment	LUMP	LUMP	\$7,750.00	\$7,750.00	E.1	17.7%	\$1,746.25	82.3%	\$8,096.25	<b>\$9,842.50</b>
Create Capital Infrastructure Database (GIS)	LUMP	LUMP	\$150,000.00	\$150,000.00	E.2	17.7%	\$33,798.39	82.3%	\$156,701.61	<b>\$190,500.00</b>
Add Mag-Meters To Existing Hidden Lake Tank ((1) @ PM Historic Side and (1) @ PM Summit Side)	EA.	2	\$85,000.00	\$170,000.00	E.3	50.0%	\$107,950.00	50.0%	\$107,950.00	<b>\$215,900.00</b>
Replace 4" with 8" at Powder Mountain West	LF	5,300	\$75.00	\$397,500.00	E.4	#####	\$504,825.00	0.0%	\$0.00	<b>\$504,825.00</b>
Install District Wide Radio Read Meter System	LUMP	LUMP	\$150,000.00	\$150,000.00	E.5	17.7%	\$33,798.39	82.3%	\$156,701.61	<b>\$190,500.00</b>
<b>TOTAL ESTIMATED BUDGET CONSTRUCTION COST</b>				<b>\$875,250.00</b>						<b>\$1,111,567.50</b>

# Engineers Opinion of Cost

Culinary Water CFP Improvements  
 Project F: Water System Improvements (Maint.)  
 Powder Mountain Utah  
 PROJECT # POW.015



By: JJM  
 Date: 08/16/21

No.	DESCRIPTION	Unit	Quantity	Cost per Unit	Total Cost	10%	15%	2%	Total
						Construction Contingency	Engineering	Legal/Admin	
F.1	Fire Hydrant Replacement	EA.	30	\$2,500.00	\$75,000.00	\$7,500.00	\$11,250.00	\$1,500.00	<b>\$95,250.00</b>
F.2	Install Double Insulated Lids and Heater at Vaults	EA.	3	\$10,000.00	\$30,000.00	\$3,000.00	\$4,500.00	\$600.00	<b>\$38,100.00</b>
F.3	Remove Shallow (Freezing) Waterline and Re-lay at 9-feet deep for Ridge Nest Subdivision	EA.	500	\$125.00	\$62,500.00	\$6,250.00	\$9,375.00	\$1,250.00	<b>\$79,375.00</b>
F.4	Replace Waterline Saddle	EA.	140	\$7,000.00	\$980,000.00	\$98,000.00	\$147,000.00	\$19,600.00	<b>\$1,244,600.00</b>
<b>PROJECT TOTAL ESTIMATED CONSTRUCTION COST</b>					<b>\$1,147,500.00</b>	<b>\$114,750.00</b>	<b>\$172,125.00</b>	<b>\$22,950.00</b>	<b>\$1,457,325.00</b>

**Section 7 -**

**Appendix D – PMWSID  
Source Reduction Info**



## Memorandum

**To:** Roy Watts, Manager  
Powder Mountain Water & Sewer Improvement District

**From:** John Bjerregaard, P.E.  
Wasatch Civil Consulting Engineering

**Date:** February 7, 2020

**Subject:** **ERC Estimate and Water Requirement Summary**

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We understand that the District is negotiating to purchase enough source capacity to meet the needs of the existing service connections that are outside of Summit's recent development. We have reviewed the available billing records and plat maps to estimate current demands.

Water demands can be expressed as equivalent residential connections (ERCs). An ERC is a water demand for a typical residential connection. The Utah Division of Drinking water approved a peak day demand of 490 gallons per day per ERC for the PMWSID water system. This is equivalent to 0.34 gallons per minute per ERC. The Division's approval was based upon a study of the District's water use for the past three ski seasons. The system-specific demand is subject to annual review and possible adjustment by the District and the Utah Division of Drinking Water.

Residential ERCs were calculated by counting each residential dwelling, including each condominium unit, regardless of building size. Commercial ERCs were estimated based upon water use. Annual water use at each commercial connection was divided by average residential annual water use to determine the ERC value for each commercial service. The results are presented below.

**ERC Summary:**

<b>Development/Site</b>	<b>Connection Type</b>	<b>ERCs</b>
Powder Mountain West	Residential	25
Powder Mountain 11	Residential	4
Aspen Ridge	Residential	1
Sundown Condos	Residential	8
Columbine Inn	Residential	7
Powder Ridge Condos	Residential	33
Moon Ridge Condos	Residential	8
Sundown Lodge	Commercial	4
Timberline Lodge	Commercial	14
Powder Ridge Pool	Commercial	8
Sky Lodge	Commercial	3
Hidden Lake Lodge	Commercial	13
Maintenance Shop	Commercial	1
	<b>Total</b>	<b>129</b>

**Water Source Demand Summary:**

Current Water Demand = 129 ERCs (0.34 gpm/ERC) = 44 gpm

As previously noted, the water source capacity requirement is subject to an annual review. The Division of Drinking Water can increase the requirement if peak day use per ERC increases. This requirement is for the entire system, so new development with higher water use could impact the source requirement value even if water demand for the existing connections is unchanged. Commercial ERCs can also increase if the water use at the commercial connections increases. We recommend mitigating these uncertainties by applying a 20% safety factor to the source capacity requirement. The resulting source capacity requirement with a safety factor is presented below.

**Source Capacity Requirement = 44 gpm (1.20) = 53 gpm**

Please call if you have any questions.

*Powder Mountain  
Water & Sewer Improvement District*

***Request for Source Sizing Reduction  
Peak Day Indoor Demand Report***

May 2019

**REQUEST FOR SOURCE SIZING REDUCTION  
PEAK DAY INDOOR DEMAND  
(Final Report - May 2019)**

**Powder Mountain  
Water and Sewer Improvement District  
298 24th Street, Suite 150  
Ogden, UT 84401  
(801) 218-5940**



**Prepared by**

Wasatch Civil Consulting Engineering  
1150 South Depot Drive, Suite 225  
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## ADDENDICES

- APPENDIX A – Water System Maps
- APPENDIX B – Daily and Monthly Water Demand
- APPENDIX C – Metered Water Use at Connections, ERC Calculations

## **INTENT OF REDUCTION REQUEST**

This report has been prepared at the direction of Powder Mountain Water & Sewer Improvement District (PMWSID) to request a reduction in the source capacity requirement for peak day indoor demand. *Utah Code R309-510-7, Source Sizing*, establishes the minimum source demand for indoor use at 800 gallons per day (gpd) per equivalent residential connection (ERC). PMWSID requests a reduction of this requirement to 450 gpd/ERC based upon calculated daily demand in the past three peak use periods. This reduction request is intended to conform with *Utah Code R309-510-5, Reduction of Sizing Requirements*.

The initial request for this reduction was made in a report prepared by CRS Engineering. This request uses some of the information presented in the CRS report but modifies the methodologies used to calculate peak day demand and to estimate ERCs. Modifications to the methodology are intended to comply with review comments and recommendations by the Utah Division of Drinking Water.

## **WATER SYSTEM DESCRIPTION**

The PMWSID water system currently provides culinary water service to the resort community in and around Powder Mountain Ski Resort. Connections to the system include ski lodges, single-family homes, vacation homes, condominiums, and a maintenance facility. The Division of Drinking Water has classified PMWSID water system as a non-community system. Additional information about water system service connections, water sources, and storage capacity are provided below. System maps are provided in Appendix A.

### **Existing Service Connections**

The original water system consisted of 4 commercial users (the Lodges) and 79 residential connections. Recent development activity by the Summit/Powder Mountain has recorded 154 additional lots. Of those 154 Lots, 12 units have connected to the system to date.

Metered water amounts show that only two or three of the single-family residences have a consistent monthly pattern of water use. It appears that most of the residences function as vacation or rental properties.

### **Water Sources**

Current and planned water sources are described in Table 1.

**Table 1 – Water Sources**

<b>Source</b>	<b>Status</b>	<b>Capacity</b>	<b>Comments</b>
Hidden Lake Well	Current	120 gpm	Approved and Operating
Bloomington Well	Future	200 gpm (estimated)	Constructed in 2017, developed in 2018, but not yet approved or equipped
Powder Mountain Well #1 (Cobabe Well)	Future	75 gpm (estimated)	Test Well

Production capacities are based upon test pumping results after construction or estimated from the pumping that occurred during drilling and development. The capacity listed for the Hidden Lake Well is the safe yield capacity. Under normal groundwater recharge conditions, a production rate that does not exceed the safe yield rate should allow nearly continuous pumping of the well. Minimal variation in future capacity of the existing well is expected. Capacities of future wells are less certain, but the estimates are believed to be conservatively low.

**Storage**

The District currently operates four active tanks with a combined storage capacity of 575,000 gallons. Storage capacities for each tank are listed below:

- Hidden Lake Large Tank (ST004) - 415,000 gallons
- Hidden Lake Small Tank (ST001) – 80,000 gallons
- Hidden Lake Fiberglass Tank (ST003) – 20,000 gallons
- Timberline Tank (ST002) – 60,000 gallons

Water is pumped from the Hidden Lake Well to the Hidden Lake Large and Small Tanks. These two tanks are relatively close to each other and operate at the same hydraulic grade. Water depths in the large and small tanks vary as the water pumped from the well fills the tanks and as water flows out of the tanks to meet system demands. Water volumes in the Timberline Tank and Fiberglass Tank remain relatively constant. The Fiberglass Tank is filled by pumping from distribution system piping which connects to the Hidden Lake gravity tanks. The Timberline Tank is at a lower elevation and is filled through a flow control valve. Both the Timberline Tank and the Hidden Lake Fiberglass Tank are operated at an essentially “full” condition.

**Indoor and Outdoor Demand**

PMWSID provides culinary water for indoor water use. District rules prohibit outdoor water use (irrigation). The District works with the Weber County Planning Department to limit allowable landscaping to native plants that do not require irrigation.

**METHODOLOGY FOR CALCULATING DAILY WATER DEMAND**

PMWSID operates a SCADA system that records, among other measurements, the pumping rate at the Hidden Lake Well and the water depth in the Hidden Lake Large Tank. The system typically records measurements every 5 minutes, but the data includes some periods when the measurement interval shortened to just over a minute. SCADA system measurements were downloaded into a spreadsheet and used to calculate system water demand. System demand

for each measurement interval was calculated as the difference between the water pumped at the source and the change in storage volume. Daily demand was calculated as the summation of the system demands for all measurement intervals in a day. Methodology for calculating the daily water demand can be represented with the following equation:

$$\text{Daily Demand} = \sum (\text{Pump Volume}) - \sum (\Delta \text{Storage Volume})$$

Where: Demand and Volumes are in gallons

### Well Pump Volume

Water pumped from the well was calculated by multiplying the pumping rate by the time interval between measurements.

$$\text{Pump Volume}_2 = [(\text{Pump Rate}_1 + \text{Pump Rate}_2)/2] * (\text{Time}_2 - \text{Time}_1) (1440 \text{ min/day})$$

Where: Pump Volume is in gallons  
Pump Rate is in gallons per minute (gpm)  
Time is in days

### Storage Volume Changes

Significant storage volume changes occur only in the Hidden Lake large and small tanks. The Timberline and fiberglass tanks are kept essentially full, so it was not necessary to include these tanks in the water demand calculation. Tank geometries for the Hidden Lake large and small tanks are as follows:

#### Hidden Lake Large Tank (415,000 gallons)

Inside Diameter = 68 feet  
Inside Height = 16 feet (bottom of tank to overflow)  
Bottom Elevation = 8884 feet MSL  
Overflow Elevation = 8900 feet MSL  
 $\Delta \text{Volume/ft} = 3631.7 \text{ ft}^3/\text{ft} = 27,165 \text{ gallons/ft}$

#### Hidden Lake Small Tank (80,000 gallons)

Inside Dimensions = 51.5 feet x 28.0 feet  
Inside Height = 7.5 feet (bottom of tank to overflow)  
Bottom Elevation = 8895 feet MSL  
Overflow Elevation = 8902.5 feet MSL  
 $\Delta \text{Volume/ft} = 1442 \text{ ff}^3/\text{ft} = 10,786 \text{ gallons/ft}$

The SCADA system measures water depth in the Hidden Lake large tank. The Hidden Lake small tank and Hidden Lake large tank are at the same hydraulic grade, which means the water surfaces are approximately the same elevation in both tanks. The depth of water in the Hidden Lake small tank can be calculated by subtracting 11 feet from the water depth in the large tank. When the water level in the large tank is at 11 feet, the small tank is empty. Measured water levels less than 11 feet change the storage volume in only the larger tank. Equations for the change in storage volume are given below:

$\Delta$  Storage Volume = Storage Volume<sub>2</sub> – Storage Volume<sub>1</sub>

Water Level  $\geq$  11.00 feet

Storage Vol. = (WL Small Tank) \* 10,786 gal/ft + (WL Large Tank) \* 27,165 gal/ft

Water Level < 11.00 feet

Storage Vol. = (WL Large Tank) \* 27,165 gal/ft

Where:           Water Level (WL) is in feet  
                  Storage Volume is in gallons

## **PEAK DAY DEMAND ANALYSIS**

PMWSID provided available SCADA system measurements for the Hidden Lake well flow meter and the and Hidden Lake large tank water depth. These measurements were evaluated and used to calculate daily and monthly system demand with the methodology previously outlined. Results are presented in Appendix B.

The available measurements covered the time from November 2016 through April 2019. The data was seven months short of a full three years. However, it did cover peak monthly demand periods for the 2016-2017, 2017-2018, and 2018-2019 ski seasons. As expected for a winter sports recreation and resort area, the highest water demand months correspond to the ski season, which typically begins in December and ends in April. High daily water demands outside the peak use season are associated with water rights mitigation and mainline water leaks.

### **Data Issues and Outliers**

While analyzing the data and calculating daily system demand, several issues with the data were encountered. These issues and their resolution are described below:

- A water rights settlement agreement approved by the State Engineer requires the District to discharge water from the Hidden Lake Well to the Bear River Drainage for mitigation of water rights impacts related to the exchange of Pineview Reservoir water rights to diversion points for the PMWSID wells. The specific mitigation pumping days are flexible, but mitigation must occur between June 15<sup>th</sup> and October 15<sup>th</sup>. Mitigation pumping can be scheduled during the non-peak periods. Consideration of only the peak water use months (December through April) eliminates the mitigation pumping days from the peak day demand determination.
- Both small and large water leaks have impacted water system demand. The smaller leaks are difficult to identify with the available data, but the major leak events are apparent. The following days within the ski season months were considered outliers due to large mainline water leaks:

December 20, 2016 – 128,406 gallons

April 15, 2019 – 90,998 gallons

April 16, 2019 – 249,021 gallons

- Tank water levels during pumping show large fluctuations while the well is pumping and filling the tanks. The fluctuations appear to be random measurement errors caused by turbulence in the water tank. Measurement errors cause calculated storage volume increases and decreases approaching 20,000 gallons in less than 5 minutes. Water level measurements stabilize quickly after pumping stops, so the water level measurement errors generally do not impact daily demand calculations unless the pumping time extends from one day into the next. If the well is pumping at midnight, measurement errors typically decreased water demand for the day the pump started and increased water demand for the day the pumping ended. Days identified as outliers due to the tank level errors include the dates listed below:

February 25, 2017 – 28,030 gal. (pumping started)

February 26, 2017 – 62,144 gal. (pumping ended)

December 8, 2017 - -2,853 gal. (pumping started)

December 9, 2017 – 35,071 gal. (pumping ended)

- Tank level readings for March 2 and 3, 2017 are unreasonable. The SCADA system recorded negative water depths in the Hidden Lake Large Tank for approximately one hour, beginning just before midnight on March 2<sup>nd</sup> and ending about 1 a.m. on March 3<sup>rd</sup>. The error in the water level resulted in an extremely high system demand calculated for March 2<sup>nd</sup> and a negative demand calculated for March 3<sup>rd</sup>. The calculated daily demands for these dates were discarded as outliers.

March 2, 2017 – 494,871 gal. (beginning of bad level measurements)

March 3, 2017 – -420,268 gal. (end of bad level measurements)

- The Hidden Lake Small Tank was taken off-line for maintenance on approximately October 6, 2018, and it has remained off-line to present. The storage volume calculations were adjusted to include only the Hidden Lake Large Tank after October 6<sup>th</sup> of last year.
- The SCADA system did not record pump flows for some brief periods. The most obvious occurrence was several weeks at the end of September 2017. The missing pump measurements can be identified by the “negative” demands on days when the pump was likely operating. The missing pump flows were during low demand periods and did not appear to impact the peak day demand analysis.
- Pump flow measurements included negative flows. Even if the meter can measure reverse flows, the negative flow readings are not reasonable because the pump discharge piping is equipped with a check valve. It appears that the SCADA system was not properly calibrated for the “zero flow” condition. All negative flow readings were adjusted to zero for the calculation of the pumping volumes.

## Results

Daily demands were calculated for November 2016 to April 2019. After eliminating outliers and resolving data issues as indicated in the previous section, the highest peak daily demands were identified. Tables 2, 3 and 4 show the ten highest daily demands for each of the past three winter seasons.

**Table 2 - 2016-2017 Winter Season PDD**

<b>Rank</b>	<b>Date</b>	<b>Gallons</b>
1	2/18/2017	49,147
2	3/8/2017	47,286
3	12/31/2016	44,517
4	2/19/2017	44,292
5	3/6/2017	43,579
6	3/14/2017	43,283
7	2/24/2017	42,283
8	12/28/2016	42,093
9	3/1/2017	41,283
10	3/26/2017	40,310
Average		43,807

**Table 3 - 2017-2018 Winter Season PDD**

<b>Rank</b>	<b>Date</b>	<b>Gallons</b>
1	3/18/2018	42,695
2	3/11/2018	41,784
3	2/18/2018	41,746
4	2/11/2018	41,720
5	2/17/2018	40,784
6	1/2/2018	39,999
7	2/15/2018	39,014
8	2/27/2018	38,447
9	12/29/2017	38,428
10	4/1/2018	38,065
Average		40,268

**Table 4 - 2018-2019 Winter Season PDD**

<b>Rank</b>	<b>Date</b>	<b>Gallons</b>
1	3/10/2019	39,872
2	12/31/2018	38,210
3	12/29/2018	35,784
4	12/30/2018	35,722
5	3/9/2019	35,341
6	12/28/2018	34,562
7	2/18/2019	33,938
8	12/26/2018	33,875
9	1/1/2019	33,210
10	2/17/2019	30,561
Average		35,108

The highest calculated peak day demand of 49,147 gallons occurred February 18, 2017, which was a Saturday on a holiday weekend. Most of the highest demand days correspond to weekends or holidays. The trend over the past three years has been a general decrease in peak day demand. This trend can be at least partially attributed to the elimination of numerous water system leaks. The District has experienced significant leaks due to sheared off HDPE service tap assemblies. The District is currently modifying construction standards to eliminate these leaks in the future.

#### **PEAK DAY DEMAND PER EQUIVALENT RESIDENTIAL CONNECTION**

Metered water use at individual metered connections was used to estimate equivalent residential connections (ERCs). Metered water amounts by connection and by year are presented in Appendix C.

Very few of the single-family homes appear to have the consistent month to month water use that would be expected for indoor water demand at a primary residence. Instead, most of the water use appears seasonal and representative of vacation homes or rentals. A similar water use pattern was observed for metered use at condominiums. Typical water use per condominium unit is higher than water use per single-family residence. Low water use amounts and the small number of traditional single-family residences made it difficult to justify basing water use per ERC on only the use at single-family homes. Instead, each single-family residence and each condominium unit were defined as a residential connection and therefore, by definition, an ERC. This methodology is consistent with current planning efforts for the District, and it is a conservative approach that will yield a higher water use amount per ERC.

The District's meter reading records show water service accounts for some residences that registered no water use for long periods. Metered accounts were not counted as an ERC until they registered a month with metered use. After registering a month of water use, the residential service was counted as an ERC even if there were subsequent months with no water use.

Water use per ERC was calculated for each month and year of available meter readings. Year 2017 had the highest metered water use and represented the highest water use per ERC. The non-residential ERCs were estimated based upon annual water use for this year. Spreadsheet calculations are provided in Appendix C. A summary is given below.

2017 Water Use

Average Annual Water Use by Residential Connections = 24,927 gallons/ERC

Total Water Use by Non-Residential Connections = 1,076,310 gallons

Non-Residential ERCs = 1,076,310 gallons/24,927 gallons/ERC = **43 ERCs**

The number of non-residential connections has remained constant for the last three years and water use has been reasonably consistent. Therefore, the calculated 43 non-residential ERCs for 2017 was applied to each of the past three years. Residential ERCs have increased from 83 in 2016 to 95 in 2019. A summary of estimated is ERCs is provided in Table 4.

**Table 4 – ERCs by Year**

Year	Residential ERCs	Non-Residential ERCs	Total ERCs
March - 2017	83	43	126
March - 2018	87	43	130
March - 2019	95	43	138

The highest peak day demand for the peak use season occurred on February 18, 2017, with a demand of 49,147 gallons or 390 gpd/ERC. Peak day demands decreased in 2017- 2018 and 2018 – 2019 winter season. The highest peak day demands for each of the past three winter seasons are presented in Table 5.

**Table 5 – Peak Day Water Use per ERC**

Peak Use Season	Date	ERCs	Source Water Use (gallons)	Peak Day Demand (gpd/ERC)
2016 - 2017	Feb. 18, 2017	126	49,147	390
2017 – 2018	Mar. 18, 2018	130	42,695	328
2018 - 2019	Mar. 10, 2019	138	39,872	289

Based upon water use calculated from metered flows at the source (Hidden Lake Well) and changes in the storage volume, the District is requesting a reduction in the peak day indoor supply requirement from 800 gpd/ERC to 450 gpd/ERC. A peak day source requirement of 450 gpd/ERC exceeds the highest 2017 peak day demand by 15%, the highest 2018 peak day demand by 37%, and the highest 2019 peak day demand by 56%.

## FUTURE GROWTH

Powder Mountain/Summit Group and other property owners have submitted plans for proposed developments. These plans have identified: medium and high-density residential land use; guest housing; and commercial land use. Construction of water system facilities to serve the proposed developments are planned for the near future.

### Development

Four residential and commercial developments have been proposed within the District's boundaries. These developments are expected to have similar water demands to the connections already served by the District. Construction will be phased over many years, although a significant portion could be completed within the next 1 to 3 years. Expected demands from these developments are shown in Table 6.

**Table 6 – Future Development**

<b>Proposed Development</b>	<b>Total ERCs</b>	<b>Initial ERCs (1 to 3 Years)</b>
Overlook	56	30
Bobcat Ridge	48	26
Moyle Property	17	11
Sundown Condominiums	8	-
Total	129	67

### Water System Facilities

The District is planning to add the Bloomington Well to the system during this year's construction season. Planned construction includes equipping the well and construction of a well house and a pipeline connecting the well to the existing distribution system. Project funding has been obtained by a low-interest loan through the Utah Board of Water Resources. Adding the Bloomington Well will provide the District with a second source and system redundancy.

## WATER LOSS ANALYSIS

All service connections to the distribution system are metered. Unmetered water losses from the system consist of leaks, water for construction, discharges from hydrants, and discharges that are required for mitigation of water rights. A 2016 water rights agreement that was approved by the State Engineer requires the District to make discharges to the Bear River Drainage (Cache County). Timing of mitigation discharges is flexible so they can be scheduled to avoid peak period demands. An analysis of water losses from the District's system is provided in Table 7.

**Table 7 – Water Loss Assessment**

<b>Year</b>	<b>System Demand<sup>1</sup> (gallons)</b>	<b>Connections Metered Use (gallons)</b>	<b>Un-Metered Discharges (gallons)</b>	<b>Percent Un-metered</b>
2017	7,749,933	3,163,983	4,585,950	59%
2018	7,708,476	2,097,612	5,610,864	73%

1. Calculated from metered flows at Hidden Lake Well and water storage volume changes.

The high unmetered amounts are primarily due to the water rights mitigation requirement. Leaks have also contributed significantly to unmetered water losses in the past several years. The District experienced numerous leaks due to sheared off HDPE service tap assemblies. The District is in the process of modifying their connection standards to reduce the potential for this problem at future connections. Fewer leaks are anticipated in the future.

No adjustments to the peak day demand are required due to water losses. Peak day demand was calculated with the metered data from the source, which includes the losses. Losses due to leaks should decrease as the District reduces leaks by improved service connection standards. Fewer leaks will decrease the future peak day source demand and provide an additional factor of safety between actual demand and the peak day demand source requirement.

**Section 8 -**

**Appendix E – PMWSID  
Well Siting Study**

**WELL SITING STUDY FOR NEW PWS WELL  
IN BEAR RIVER DRAINAGE OF POWDER MOUNTAIN  
CACHE COUNTY, UTAH  
FOR SUMMIT WATER HOLDING GROUP, LLC**

Prepared for:

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Date: December 18, 2015 DRAFT

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## EXECUTIVE SUMMARY

The purpose of this report is to help the Summit Mountain Holding Group, LLC (Summit Group) identify locations and depths for potential Public Water System (PWS) wells in the part of Powder Mountain Resort (Powder Mountain) located within the Bear River watershed in Cache County, Utah. The water supply needs from wells within the Bear River watershed have not been quantified.

We believe that groundwater development potential is greater in the northern part of Powder Mountain (Bear River drainage) than in the southern part (Ogden River drainage). We identified, assessed and ranked five alternative locations for wells as summarized on Table 2. Alternative locations are shown on Figures 3 and 4. We believe that a well at the alternative locations discussed herein could yield in the range of 100 to 600 gpm.

We recommend that the Summit Group clarify the quantity of water that will be needed from groundwater resources in the northern Powder Mountain area, and consult a water right attorney to help strategize on the best approach to filing for water rights. Should the Summit Group acquire water rights and file a change order prior to drilling, or conduct an exploration program first?

In order to provide data that can be used to help support a water right application and provide defense against claims of interference, we recommend installing surface water monitoring devices in 2016 and starting long-term stream flow monitoring.

We recommend an exploration well program and additional investigation because of the geologic and hydrologic uncertainty associated with the complex conditions in the Powder Mountain vicinity.

## INTRODUCTION

The purpose of this report is to help the Summit Group identify locations and depths for potential Public Water System (PWS) wells in the part of Powder Mountain located within the Bear River watershed in Cache County, Utah. We prepared this report in accordance with our proposal dated August 24, 2015.

In accomplishing this purpose, we (1) reviewed new and updated information such as recent mapping by the Utah Geological Survey (UGS), water right information from the Division of Water Rights (DWRi) internet-based files, and streamflow data from the U.S. Geological Survey (USGS) internet-based databases; (2) revised four geologic cross sections and constructed an addition cross section; (3) conducted two site reconnaissance field visits; (4) evaluated potential well locations considering depth, access conditions, DWRi permitting issues, potential for interference with other water right users, infrastructure, degree of disturbance necessary to build a well pad, property ownership, Utah Division of Drinking Water (DDW) permitting issues,

including drinking water source protection (DWSP), and other factors; and (5) prepared this report.

## **BACKGROUND**

Powder Mountain straddles (1) the surface water drainage divide between the Ogden River watershed to the south and the Bear River watershed to the north, and (2) the border between Weber County to the south and Cache County to the north. Although the Summit Group plans development in both counties and in both drainages, all of their drinking water sources and all of their DWRI-approved water right points of diversion (PODs) are located on the south (the Weber County/Ogden River drainage side of Powder Mountain).

The Summit Group seeks to identify potential well locations and depths of wells on the north, Cache County/Bear River drainage side of Powder Mountain (1) for future water right applications, (2) to support possible future development in Cache County, (3) help comply with the mitigation requirements of recently approved Exchange Application E5382 (35-12848), and (4) provide greater hydrogeologic diversity and increased opportunities for future groundwater development.

## **WATER SUPPLY NEEDS**

The water supply needs from wells within the Bear River watershed have not been quantified. Possible water uses include culinary supply for residences, hotels, restaurants and small commercial establishments (public drinking water supply), landscape irrigation, and snowmaking. We understand that water developed on the Bear River side of the divide could be used on the Ogden River side, if the water is assumed to be fully depleted for the purpose of the Bear River water rights.

## **SITE SETTING**

Figure 1 shows the location of Powder Mountain. Figure 2 is a topographic map that shows the approximate Powder Mountain development area and the stream system to the north of Powder Mountain, including Porcupine Reservoir and the village of Avon, Utah. Figure 3 is a topographic map that shows much of the Powder Mountain development area. Note that the development area extends west, into the main, or North Fork of Wolf Creek (beyond the area shown on Figure 3).

As shown on Figures 1, 2 and 3, major drainages south from the Powder Mountain vicinity are Wolf Creek, Geertsen Canyon, and tributaries of the Middle Fork of Ogden River. Wolf Creek flows into the North Fork of the Ogden River. These streams flow into Pineview Reservoir. From Pineview Reservoir, the Ogden River flows west into the Weber River.

The northern part of the Powder Mountain vicinity drains into Wellsville Creek, which flows into Davenport Creek, which flows into the Little Bear River (see Figure 2) and eventually to the Bear River. Porcupine Reservoir impounds water in East Fork, which

enters the Little Bear River near Avon. We understand that the Summit Group has acquired water rights in Porcupine Reservoir that could be used for mitigation of impact to downstream water rights and possibly the development of wells in the Bear River drainage.

Additional information concerning surface water flow and existing water rights are included in Appendix A and B.

## **HYDROGEOLOGY**

This section discusses the regional and local geology in the Powder Mountain area with emphasis on the hydrogeology of the north side of Powder Mountain.

### **REGIONAL GEOLOGY**

Figure 3 is a topographic map that shows much of the Powder Mountain development area. Figure 4 is a geologic map of the area that we modified from King (2004), with additional information from Coogan and King (2001), Crittenden (1972), Sorensen, and Crittenden (1979), and King (2015). Note that we have extended the trace of two thrust faults based on recent mapping by King (2015).

Figure 5 presents a stratigraphic column of geologic units in the area.

Figures 6 through 10 are revised or new geologic cross sections that we prepared from published and unpublished mapping, including recent work by King (2015).

Table 1 provides (1) a key to the geologic unit symbols used on Figures 4, 5, and 6A through 6D, and (2) descriptions and thicknesses of the geologic units.

Bedrock at Powder Mountain has been squeezed and bent into large folds and chopped up by low-angle thrust faults and high-angle normal faults. Regional compression formed folds and thrust faults during the Sevier Orogeny (about 65 to 100 million years ago) that (1) pushed older rocks eastward over younger rocks in regional- and local-scale, approximately north-to-south trending, thrust sheets and (2) created large-scale folds with north-to-south-trending axes. Powder Mountain is on the upper plate of the regional-scale Willard Thrust sheet.

The Sevier Orogeny folded and faulted the Paleozoic and Precambrian rocks (about 445 to 2,500 million years old) and created the north-plunging Powder Mountain syncline (down warp) and the unnamed low-angle thrust faults that are evident on Figures 4, and 6 through 10. The axis of the Powder Mountain syncline plunges (dives) to the north, toward Cache Valley, at about 10 to 30 degrees. Most of Powder Mountain is on the west, east-dipping (tilting) flank of the syncline. Relaxation of the compressional forces helped to create northwest- to northeast-trending high-angle normal faults present on the west side of Powder Mountain.

*Well Siting Study, Bear River Drainage, Powder Mountain Ski Area***Table 1 - Descriptions of Geologic Units <sup>a</sup>**

<b>Period (age)</b>	<b>Unit (symbol)</b>	<b>Thickness (feet)</b>	<b>Description</b>
Cenozoic /Quaternary	Alluvium and Colluvium ( <b>Qac</b> )	0 to 20	Stream and fan alluvium, colluvium, and, at some locations, mass-movement deposits.
	Colluvium ( <b>Qc</b> )	0 to 20	Slopewash and soil creep; composition depends on local bedrock.
	Mass- movement Deposits ( <b>Qm</b> )	0 to 40	Slides, slumps, and flows, as well as colluvium, talus, and alluvial fans.
	Landslide and Slump Deposits ( <b>Qms</b> )	Highly variable	Poorly sorted clay- to boulder-sized material derived from steep local source terrain; locally includes flow deposits; hummocky, head and internal scarps, and chaotic bedding in displaced blocks.
	Talus Deposits ( <b>Qmt</b> )	0 to 30	Angular debris at the base of and on steep slopes.
	Glacial Till and outwash ( <b>Qg</b> )	0 to 150	Non-stratified, poorly sorted clay, silt, sand and gravel, and boulder-size till.
Cenozoic /Tertiary	Wasatch Formation ( <b>Tw</b> )	0 to 1100+ feet <sup>b</sup>	Red sandstone, siltstone, mudstone, and conglomerate with minor gray limestone. Conglomerate may contain boulders and other hard rocks.
Paleozoic /Ordovician	Garden City Formation ( <b>Ogc</b> )	1200±	Gray- to tan-weathering, ridge forming silty limestone, locally argillaceous; interformational flat pebble-conglomerate in the lower half; black chert in upper part.
Paleozoic/Cambrian	St. Charles Formation ( <b>Csc</b> )	1000±	Gray to tan-weathering, mostly dark-gray, medium- to thick-bedded limestone and dolomite; light gray, tannish-gray weathering, thin-bedded silty limestone in lower part
	Csc – Worm Creek Quartzite Member ( <b>Csc, Csw</b> )	15 to 145	Thin-bedded limestone, shale, sandy dolomite, and siltstone, not always containing a quartzite.
	Nounan Formation ( <b>Cn</b> )	600 to 1145	Medium-gray, thick-bedded dolomite with subordinate dark-gray, medium-to thick-bedded dolomite that weathers very dark gray with medium-gray crude laminae.
	Calls Fort Shale Member of Bloomington Formation ( <b>Cbc</b> )	400±	Olive-gray to tan-gray, thin-bedded, micaceous shale and argillite with minor, thin-bedded, dark-gray, silty limestone.
	Middle Limestone Member of Bloomington Formation ( <b>Cbm</b> )	470 to 700	Dark-gray, thick- to thin-bedded dolomite and limestone with tan-yellow-, and red-weathering, wavy, silt layers; contains subordinate olive-gray and tan-gray, thin-bedded, micaceous shale and argillite.

*Well Siting Study, Bear River Drainage, Powder Mountain Ski Area*

Paleozoic/Cambrian	Hodges Shale Member of Bloomington Formation ( <b>Cbh</b> )	300 to 390	Olive-gray to tan-gray, thin bedded micaceous shale and argillite and thin- to thick-bedded, dark-gray limestone with tan-, yellow-, and red-weathering, wavy, silt layers.
	Blacksmith Dolomite ( <b>Cbl</b> )	250 to 800	Medium-gray, very thick- to thick-bedded, coarsely crystalline dolomite that weathers to a lighter gray.
	Ute Formation ( <b>Cu</b> )	620 to 1150	Gray, thick-bedded limestone and minor medium-bedded, gray to light-gray dolomite above and below interbedded, thin-bedded, gray to dark-gray limestone and olive-gray to tan-gray, thin-bedded, micaceous shale and argillite.
	Langston Dolomite ( <b>Cl</b> )	270 to 400	Brown-weathering, gray, dark-gray, and gray-brown thin- to thick-bedded sandy limestone and dolomite in upper part and green-gray, red-weathering shale and tan dolomitic sandstone in lower part.
	Geertsen Canyon Quartzite – Undivided ( <b>Cgc</b> )	4200±	Mostly buff quartzite, some brown-weathering argillite; weather quartzite darker than fresh surfaces.
	Geertsen Canyon Quartzite – Upper Member ( <b>Cgu</b> )	2400 to 2700	Coarse-grained thick-bedded quartzite.
Precambrian /Neoproterozoic	Geertsen Canyon Quartzite – Lower Member ( <b>Cgl</b> )	1600	White quartzite with interbeds of red and green argillite.
	Browns Hole Formation ( <b>Zb</b> )	160 to 745	Upper part quartzite ( <b>Zbq</b> ), lower part meta-volcanic ( <b>Zbv</b> ).
	Mutual Formation ( <b>Zm</b> )	2600±	Purple, thick- to very thick-bedded quartzite with conglomerate lenses, locally arkosic.
	Inkom Formation ( <b>Zi</b> )	200 to 300	Argillite to psammite (meta-sandstone over meta-siltstone) with basal meta-tuff lenses.
	Caddy Canyon Quartzite ( <b>Zcc</b> )	1000 to 2500	Mostly vitreous, almost white quartzite.

<sup>a</sup> Descriptions and thicknesses are modified from Crittenden (1972), Sorensen and Crittenden (1979), Coogan and King (2001), King (2004), and Coogan (2005).

<sup>b</sup> According to Coogan and King (2001), the Wasatch Formation can be up to 4,500 feet thick in some areas of the region.

The Paleozoic and older bedrock consists primarily of limestone, dolomite, quartzite, shale, and argillite that were deposited in a mostly marine (salt water) environment. There are also some Precambrian meta-volcanic rocks. Rigo (1968), Crittenden (1972), Sorensen and Crittenden (1979), Coogan and King (2001), and Coogan (2005) have described these rocks. Figure 5 illustrates and Table 1 summarizes descriptions and thicknesses of the Paleozoic and older rocks. Note that the lithologic descriptions and thicknesses by Coogan and King (2001) and Coogan (2005), as modified by information collected during the 2013 exploration program at Powder Mountain, are the basis of Figure 4 and Table 1, and have superseded and replaced those of previous workers including Rigo (1968).

Regional uplift and erosion from about 60 to 30 million years ago, truncated the folded, faulted, and steeply dipping Paleozoic and older rocks and deposited the overlying Tertiary-age Wasatch Formation. Apparently, the topography upon which the Wasatch Formation was deposited was very rugged. The Wasatch Formation in the area consists of weakly-indurated (consolidated) clayey sandstone, siltstone, and conglomerate that were deposited in a continental (fresh water) environment. The conglomerate contains rounded cobble-to boulder-sized (about 2.5 to more than 10-inch diameter) clasts with a matrix (space between clasts) of fine-grained material. The Wasatch Formation unit dips about 5 to 6 degrees to the east.

Basin and Range extension (pulling apart of the earth's crust) began about 15 million years ago. Extension created numerous regional north-to-south trending high-angle normal faults, including the Wasatch Fault. Subsidence on the hanging wall side of normal faults created basins, such as the Salt Lake Valley. Uplift on the footwall side of faults created mountain ranges, such as the Wasatch Mountains. Ogden Valley, to the south of Powder Mountain, is bounded by north-to-south-trending normal faults along its east and west margins.

Continued regional uplift and erosion, including glaciation, during Pleistocene (about 2.6 million to 10,000 years ago) and Holocene (10,000 years ago to present) time created the highly-dissected terrain, including the steep canyons, that are present at Powder Mountain today. As indicated on Figure 5, relatively thin (generally less than 30 to 40 feet thick) unconsolidated alluvial, alluvial fan, mass movement (landslide), and glacial deposits overlie bedrock throughout much of Powder Mountain.

## **AQUIFERS AND AQUITARDS**

The Paleozoic and older limestone and dolomite (carbonate) rocks and quartzite rocks are the primary target aquifers and potential sources of groundwater for Powder Mountain. The Tertiary Wasatch Formation and Quaternary unconsolidated deposits are present at the ground surface over much of the area (see Figure 4) but are not significant aquifers. The Paleozoic and older shale and similar low-permeability rock are aquitards (confining layers). The aquitards divide the aquifers into separate stratigraphic groundwater compartments (King, 2004).

Doyuran (1972), Bjorklund and McGreevy (1974), Rice (1987), Avery (1994), Kariya and others (1994), Rice and Spangler (1999), and King (2004) have described the water-bearing properties of the bedrock units in the Powder Mountain region. Site-specific information on potential aquifers is limited, however, to what can be deduced from (1) lithologic descriptions of the geologic units (see Table 1), (2) the locations and flows of springs, (3) the locations and characteristics of the few existing wells, (4) the presence and properties of geologic features such as faults, folds, fractures, and dissolution features (caverns and sinkholes); and (5) the results of the 2013 exploration and production well drilling program conducted at Powder Mountain.

The primary porosity and permeability of the bedrock at Powder Mountain is low. The potential yield of a bedrock aquifer depends, for the most part, on the presence of

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secondary porosity and permeability associated with partings along bedding surfaces, fractures and dissolution features (Avery, 1994). A fracture is a physical break or separation in the rock. Physical characteristics of fractures that affect groundwater storage and flow include aperture (width of fracture opening), persistence (distance that individual fracture can be traced), density (number of fractures per unit volume of rock), connectedness (the degree to which individual fractures are connected), and openness (the presence or absence of minerals, clay, or other infilling material).

The physical stress that creates faults and folds can also create fractures. Limestone, dolomite, quartzite, and other rocks that deform in a relatively brittle manner (breaking versus bending) form aquifers because the resulting fractures are more likely to be wide, persistent, dense, and connected. Shale, mudstone, claystone, argillite and other rocks that deform in a relatively ductile manner (bending versus breaking) form aquitards because the fractures tend to be narrow, short, rare, and/or unconnected.

Depending on the type of rock and nature of the fault zone, faults can be both barriers to and/or conduits for groundwater flow. Zones of open, extensive, and interconnected fractures are commonly found near faults in competent rocks that break in a brittle manner. Fracture zones can increase groundwater flow near and roughly parallel to the fault plane. Faults can also be barriers to groundwater flow where a (1) fault offsets an aquifer against an aquitard, effectively severing the aquifer and/or (2) low-permeability gouge or breccia develops in the fault zone.

Limestone dissolves more readily than dolomite and tends to develop greater karst permeability. Coogan (2005) mapped sinkholes and SHC Consulting (2012) describes karst features in the area. Evan Miller of PMWSID (personal communication, 2012) reports that there are caves in the Powder Mountain area that have been explored by spelunkers (cavers). Because of the relative abundance of limestone and potential for the development of karst permeability, the Garden City Formation and Middle Limestone Member of the Bloomington Formation (Middle Limestone Member) are primary target aquifers. Although they consist dominantly of dolomite, the St. Charles Formation, Nounan Formation, Blacksmith Dolomite, and Langston Dolomite are also potential aquifers.

Where sufficiently fractured, units that are dominantly quartzite, such as the Geertsen Quartzite and Mutual Formation, can also yield water to wells and springs. We believe that potential yields from the quartzite units are likely less than those from the carbonate rocks exhibiting karst permeability but yield of fractured quartzite units may be similar or greater than carbonates without karst properties.

The Worm Creek Member of the St. Charles Formation (also called the Worm Creek Quartzite Member) is not a consistent unit. Quartzite may or may not be present in the unit everywhere in northern Utah. The Worm Creek Member may act as an aquitard (confining unit).

The Calls Fort Shale and Hodges Shale members of the Bloomington Formation and the Ute Formation consist mostly of shale and other low-permeability rocks and are

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considered to be aquitards. Note however, that all three of the low-permeability units have interbeds of limestone and/or dolomite that can yield water to wells and springs.

The Wasatch Formation has low to medium permeability but may contain zones of groundwater that are perched above the underlying Paleozoic and older rocks. In the vicinity, the Wasatch Formation has clayey units near the ground surface that may inhibit recharge and vertical groundwater flow. Overall this unit likely serves as a recharge medium allowing precipitation to infiltrate and percolate downward into the underlying Paleozoic and older bedrock (Avery, 1993).

Groundwater can also be found in the unconsolidated deposits. However, these units are generally too thin (less than 100 feet), disconnected, and/or too limited in extent and have saturated zones that are too shallow (less than 100 feet) to be a significant source of water for Powder Mountain. As with the Wasatch Formation, the unconsolidated deposits likely serve as a recharge medium allowing precipitation to infiltrate and percolate downward into underlying bedrock. In some areas, groundwater in the unconsolidated deposits may be perched above, and have different flow directions than, the underlying bedrock.

Groundwater at Powder Mountain originates as precipitation falling at higher elevations. Precipitation, mostly from melting snow, infiltrates the soils, shallow unconsolidated deposits, the Wasatch Formation, or weathered near-surface Paleozoic and older bedrock. Infiltration of precipitation in soils and the more permeable near-surface rock in canyon slopes tends to flow in the direction of the topographic slope and a portion eventually discharges to provide or supplement the base flow of streams. Groundwater percolates downward toward the zone of saturation through permeable near-surface layers and/or through fractures, bedding, and karst dissolution features in the bedrock. Within the zone of saturation, groundwater flows in the direction of the hydraulic gradient. Local groundwater flow paths often follow the orientation of connected fractures.

Groundwater discharge from Powder Mountain is to springs, gaining channels (creeks that increase in flow), bedrock underflow, groundwater evapotranspiration, and consumptive use for public water supply.

## **GEOLOGY IN NORTHERN POWDER MOUNTAIN SKI AREA**

We revised the geologic map (Figure 4), stratigraphic column (Figure 5) and cross sections (Figures 6 through 9; Figure 10, Cross Section E-E' is a new cross section) from previous versions based on recent geologic mapping by the UGS (King, 2015). The strata in the northern part of Powder Mountain were highly deformed by geologic forces in the distance geologic past.

The axis of the north-plunging Powder Mountain syncline (downwarp) is present in the eastern part of the property (trending approximately along Cross Section B-B'). Three thrust faults cross the property in a generally north-south direction and lie to the west of the Powder Mountain syncline, as shown on Figure 4.

Rock strata near the northern property boundary dip (tilt) steeply to the east on the west side of Powder Mountain syncline and dip less steeply to the west on the east side of the syncline. Strata near and between the two eastern thrust faults were twisted and bent such that they are now overturned (the younger strata lie below the older strata). The overturning starts near Cross Section A-A' and increases to the south.

## **SPRINGS**

Perennial stream flow in the east fork of Wellsville Creek begins at the Rosebud Spring (see Figure 3 for location). Rosebud Spring appears to issue from the Nounan Formation through very thin unconsolidated sediments in the stream channel. Flow increases about 900 feet downstream from Rosebud Spring in an area underlain by the Middle Member of the Bloomington Formation; we call this spring "Post Spring". Post Spring discharges in the bottom of the stream channel and is not obvious other than the increase in flow in the channel. Time-lapse photographs by Paul Strange (Executive Vice President, Summit Powder Mountain) show that discharge from Post Spring occasionally increases or pulses, as noted previously during monitoring of the North Boundary Weir in fall of 2014 (Loughlin Water, 2015).

A north-trending trace of a thrust fault (which dies out near the springs) appears to lie between Post Spring and Rosebud Spring. We believe the thrust fault lies within the Calls Fort Member (see Figure 4).

Hill Spring discharges on the slope about 100 feet in elevation above the valley bottom, from glacial deposits and the Garden City Formation (see Figures 3 and 4). Discharge was about 30 gpm on September 18, 2015; flow reaches the valley bottom and flows northwesterly several hundreds of feet before infiltrating into the valley bottom sediments.

Discharge from a number of small springs and seeps near the Hidden Lake Lift base create flow in the middle fork of Wellsville Creek. The Nounan Formation crops out or lies below unconsolidated deposits in the vicinity of the Hidden Lake Lift base.

Big Spring (located in Section 20 of T8N-R2E – see Figure B-1) in the Davenport Creek drainage issues from the St. Charles Formation. The UGS estimated discharge of Big Spring to be 1.3 cubic feet per second (cfs) on October 23, 2014. The Davenport Creek channel appeared to gain by subsurface flow; the UGS estimated a flow of 3.04 cfs near and downstream of Big Spring. The UGS estimated discharge of Davenport Creek just upstream of the confluence with Wellsville Creek to be 6.7 cfs on October 23, 2014 (UGS, 2015). The St. Charles Formation and Nounan Formation crop out along Davenport Canyon below Big Spring.

Many other small spring and seeps occur in the area.

## **SURFACE WATER FLOW**

Figure 2 is a map of Powder Mountain and the area north to the town of Avon in Cache County (Bear River drainage). Three forks of Wellsville Creek join near the north boundary of Powder Mountain; Wellsville Creek then flows north and is tributary to Davenport Creek. Davenport Creek flows north and is tributary to the South Fork of the Little Bear River. Near Avon, the South Fork joins with the East Fork to become the Little Bear River. Porcupine Reservoir lies on the East Fork as shown on Figure 2.

Figure 2 shows the locations of two streamflow gages. The USGS operated Gage #1 (“Little Bear River Below Davenport Creek, Near Avon, Utah”) from October 1960 through September 1992 (32-year record). The USGS operated Gage #2 (“South Fork of Little Bear River, Near Avon, Utah”) from July 1966 through September 1974 (8-year record). Gage #2 monitored a sub-drainage of the area monitored by Gage #1.

Tables and figures in Appendix A present detailed summaries of stream gaging data. Streamflow is generally greatest in May and lowest in late summer and fall. At Gage #1, average monthly discharge in the August through December period ranged from 1607 to 1854 acre-feet per month while the lowest recorded (32-year record) monthly discharges ranged from 660 to 918 acre-feet per month (see Table A-1a in Appendix A). A discharge of 1607 acre-feet at Gage #1 is an average of 26.1 acre-feet of water per square mile of drainage area (the drainage area above the weir is 61.6 square miles).

Based on monitoring in the fall of 2014, Wellsville Creek at the north boundary of Powder Mountain flowed at rates of about 1 to 2 cfs with short-term spikes up to 4.5 cfs (Loughlin Water, 2015). One cfs is equivalent to about 60.4 acre-feet per month, or about 13 acre-feet per square mile (drainage area above the north boundary weir was about 4.7 square miles). The east fork of Wellsville Creek contributes the majority (probably more than two-thirds) of base flow near the north boundary. The west fork contributes least to base flow at the north boundary.

## **EXISTING WELLS IN VICINITY**

The Summit Group completed a groundwater exploration program at Powder Mountain in 2013 that consisted of two exploration wells (Exploration Well 1 and Exploration Well 2) that were drilled and tested. Two aquifers occur at each location: an upper aquifer in the Nounan Formation and a lower aquifer in the Middle Member of the Bloomington Formation. The aquifers are separated by shale in the Calls Fort Member of the Bloomington Formation. Exploration Well 2 was completed with a standpipe piezometer and transducer to monitor groundwater levels in the upper aquifer (Nounan Formation).

The Hidden Lake PWS Well was drilled within about 25 feet of Exploration Well 2 and was completed in the upper aquifer (Nounan Formation). During the 24-hour pumping test of Hidden Lake Well, the well produced 181 gpm with a drawdown of 196 feet after 24 hours of pumping (specific capacity of 0.92 gpm per foot of drawdown [gpm/ft]). During the Powder Mountain Aquifer Test, the Hidden Lake Well produced 150 gpm with a drawdown of 160.9 feet (corrected for the pre-test water level trend) after 336

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hours (14 days) of pumping (specific capacity of 0.93 gpm/ft). Additional detailed information is provided in numerous reports prepared for the Summit Group (Loughlin Water, 2013a; 2013b; 2013c; 2014; 2015).

Few other bedrock wells have been drilled in the area. The Cobabe Well (near Pizzel Spring #3 – see Figure 3) was verbally reported to have been drilled to a depth of 130 feet and air-lifted at about 100 gpm. No logs or written data have been found concerning the drilling, well construction or initial testing. It appears that the Cobabe Well is completed in the Ute Formation. During limited testing by Loughlin Water and PMWSID staff on June 20, 2012, the well flowed under artesian pressure prior to pumping and was pumped at 22 gpm for 25 minutes. There was no access to measure the water level directly in the well, so drawdown during pumping is unknown.

Walton Street Capital (La Plata Ranch Holdings, LLC) drilled a “monitoring” well to a depth of 1550 feet through the Middle Member and Hodges Shale Member of the Bloomington Formation and into the top of the Blacksmith Dolomite in 2007. The La Plata Well is located in Section 15, T8N, R2E, about three miles to the north-northeast of Powder Mountain (see Figure 2). No test-pumping or yield information were included on the Well Driller’s Report.

Snowbasin Resort drilled three wells in 1999 (Stantec Consulting, Inc., 2000). Two wells (1670 feet and 2447 feet in depth) were completed in the Tintic Quartzite of Cambrian age and one well (1755 feet deep) was completed in the Maxfield Limestone, also of Cambrian age. The Tintic Quartzite is the same age and generally similar composition as Geertsen Canyon Quartzite. The Geertsen Quartzite was originally deposited tens of miles to the west of the Tintic Quartzite; the Geertsen Quartzite was later thrust eastward over younger rocks. Likewise, the Cambrian carbonate formations now at Powder Mountain were deposited to the west of the Maxfield Limestone and were thrust eastward over younger rocks. Thus, the formations are fairly similar in composition but have been assigned different names.

The Snowbasin wells achieved high test pumping rates although with large drawdowns. One Tintic well was pump-tested at rates that varied from 400 to 575 gpm for 4.2 days with 1077 feet of drawdown (at 495 gpm at end of test for a specific capacity of 0.46 gpm/ft). The other Tintic well was pump-tested at 1000 gpm with 828 feet of drawdown after 5.0 days (specific capacity of 1.2 gpm/ft). The well in the Maxfield Limestone was pump-tested at 450 gpm with 1044 feet of drawdown after 3.1 days (specific capacity of 0.43 gpm/ft).

## **EXISTING WATER RIGHTS IN VICINITY**

Appendix B summarizes water rights for PODs in the Bear River drainage of the Powder Mountain area and further north. The data were downloaded from the DWRi website. Note that some water rights have multiple PODs. Note also that PODs may or may not represent actual water development; for example, an applicant may file for multiple underground PODs with the intention of constructing a well at only one POD if sufficient water is obtained at that location.

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Figure B-1 shows PODs in northern Powder Mountain development area and about three miles to the north (the area of Figure B-1). As listed on Table B-1 and plotted on Figure B-1, there is one underground (well) POD (one of Summit Group's PODs under E4715). There is one surface water POD (an unapproved PMWSID POD).

There are numerous point-to-point PODs for stockwatering on surface water. Point-to-point rights usually list a starting point and an ending point along a stream or drainage upon which stock consume water, but sometimes the two points are at a single location and occasionally there is only one point listed. Most of the point-to-point water amounts are not quantified (see Table B-1). Most of the point-to-point water rights are diligence claims and are parts of supplemental groups with unevaluated group total equivalent livestock units (ELUs). Therefore, quantifying the amount of water for point-to-point water rights in the vicinity is difficult.

We also downloaded, tabulated and plotted PODs further north of those in Figure B-1 and have these in our files.

The Summit Group acquired, or has an option to acquire, water right shares of water discharged from Porcupine Reservoir, which could be used to mitigate potential impacts on water development at Powder Mountain. Porcupine Reservoir lies along the East Fork of the Little Bear River about eight miles north of Powder Mountain (see Figure 2).

## **WELL SITING ALTERNATIVES**

In this section we describe the characteristics of five alternative well locations. Locations are shown on Figures 3 and 4. Alternative well locations A, B, C and D are also shown on geologic cross section A-A' (Figure 6). Table 2 summarizes aspects of the alternative locations. When filing an application for water rights in the northern Powder Mountain area, we suggesting including all five locations as underground PODs, even though not all would ultimately be developed.

Although we believe a well capable of 200 to 600 gpm is possible at each alternative location, we ranked the locations in order of preference considering likely hydrogeologic uncertainty, well depth, access for well drilling and construction, infrastructure needs, costs (qualitative), DWRi and DDW permitting issues, potential water right interference and property ownership.

**Table 2  
Proposed Well Summary**

Location <sup>1</sup>	Formation at Surface <sup>2</sup>	Ground Surface Elevation (feet)	Target Aquifers <sup>2</sup>	Depth to Base of Formation (feet)	DWSP Protected ?	Access Road Distance (miles) <sup>3</sup>	Road Elevation Change (feet) <sup>4</sup>	Comments	Location Rating <sup>5</sup>
A	Q/ Ogc	7485	Ogc	800	No	3.0	1920	Near west-dipping, small displacement thrust fault.	1
			Csc	1700	No				
			Cn	2600	No				
			Cbm	3400	Yes				
B	Q/ Ogc	7440	Ogc	700	No	2.8	1875	West of a thrust fault; well could penetrate fault.	2
			Csc	1600	No				
			Cn	2500	No				
			Cbm	3300	Yes				
C	Q / Cl	6950	Cgc-above	2200	No	1.8	1120	Near-vertical beds near contact of Cl/Cgc.	3
D	Cgc	7140	Cgc-above	2900	No	1.6	930	Very difficult well pad location.	4
E	Q / Cn	7600	Cn	400	No	2.0	1080	Beds overturned. Subsurface conditions are more uncertain than other locations.	5
			Csc	1300	No				
			Ogc	2400	No				

Note: All elevations and depths are estimated.

<sup>1</sup> See Figures 3 and 4 for locations; see also Figure 6: geologic cross section A-A'.

<sup>2</sup> Formation symbols: Q=unconsolidated deposits (undivided), Ogc=Garden City Fm, Csc= St. Charles Fm, Cn= Nounan Fm, Cbm=Middle Member.

<sup>3</sup> Distance along unpaved access road from nearest paved road.

<sup>4</sup> Change in elevation along unpaved access road.

<sup>5</sup> Rating (1=best, 5=worst)

## **GENERAL**

### **DWRi Permitting Issues**

Water right policy in the Bear River drainage (Area 25) is complicated. DWRi states that the area is open to appropriation of both surface and ground water, except in certain areas. However, for practical purposes, for a new large diversion an existing water right would need to be acquired and the point of diversion changed to the new location. The State Engineer would consider whether the new diversion would impair prior water rights and if impairment would occur, mitigation would be required. In 1999, the State Engineer issued his Interim Cache Valley Ground-water Management Plan, which gives the conditions and limits under which further groundwater development may take place. The primary objective is to protect prior water rights while putting to beneficial use the greatest amount of available water.

Applications for more than 1 cubic feet per second of flow require a signed compensation agreement with Pacificorp as a condition of approval.

The potential for impairment and protests of a change application will depend on a number of factors, including the characteristics of the here-to-for water right, and the hereafter diversion amount, depletion amount, location and nature of use.

Although we do not know the particulars of an application by the Summit Group for groundwater development in the Bear River drainage, we believe a water right change application could be reasonably obtained.

Before drilling a well, an individual must have a start card issued by the DWRI. A start card will be issued by the DWRi upon approval of a water right application. Absent an approved water right, the DWRi may issue a start card for a non-production well (such as a test or exploration well).

### **DDW Permitting Issues**

DDW rules require a PWS to submit and obtain DDW concurrence with technical specifications and a Preliminary Evaluation Report (PER) prior to the construction of a new well or other drinking water source. After well construction and testing, the PWS must submit a drinking water source protection (DWSP) plan. Because Cache County does not have a DWSP ordinance, the PER and DWSP Plan must provide land use agreements where the landowner agrees to not allow uncontrolled PCSs and pollution sources from locating in the Zone One DWSP area and pollution sources from locating in the Zone Two DWSP area of an unprotected aquifer. A septic drain field is an example of a pollution source. DDW rules address additional aspects of drinking water source design, construction, operation and maintenance.

We expect that DWSP issues will not be significant because (1) Summit owns the property within the likely area of DWSP Zones One and Two and (2) there appears to be no significant PCSs in that would impact well siting.

## **Drilling and Well Construction Issues**

Drilling and well construction in the steep and narrow canyons of the northern Powder Mountain area will be challenging because of several factors including site access on steep, unpaved roads; well pad construction; and containment and disposal of drilling mud, cuttings and produced water. Drilling and well construction will require a large drilling rig and ancillary equipment; transport of drilling products, casing, screen and other material; daily crew travel; and hauling of wastes out of the area. Water for drilling will be needed and could be obtained by treating surface water (mainly by chlorination); however, a permanent or temporary water right will be needed to use the surface water. These factors are further discussed and compared in following site discussions.

## **Infrastructure Needs**

Development of the well sources will require additional construction for electrical power, pumping systems, well houses, and pipelines. Water will need to be pumped to storage or distribution points.

## **ALTERNATIVE WELL LOCATION A**

Alternative well location A is located along the east fork of Wellsville Creek (aka Cobabe Canyon). Alternative A is near the axis of the Powder Mountain syncline and the trace of a thrust fault. As listed on Table 2 and shown on Figure 6, a thick carbonate sequence of formations underlies the site. We recommend a well targeting the Garden City (Ogc) and St. Charles Formations (Csc) at this location, which would be about 1700 feet deep. The Nounan Formation (Cn) is an additional potential target but lies at greater depth; the base of the Nounan is at an estimated depth of 2600 feet. The Middle Limestone Member of the Bloomington Formation (Cbm) is deeper yet; the base of the Middle Member is at about 3400 feet in depth.

We expect the static water level to be less than 200 feet in depth; artesian conditions (static water level above ground level) are possible.

We anticipate that a 12-inch diameter, 1700-foot deep well targeting the Garden City/St. Charles Formations could produce 200 to 400 gpm. We anticipate that a 12-inch diameter, 2600-foot deep well targeting the Nounan Formation (perhaps plus the higher formations) could produce 400 to 600 gpm.

Access to Alternative Location A for well construction will be difficult. The canyon is narrow at this location and significant construction will be required construct a well pad and to improve the access road, in particular from the base of the Paradise Lift. The distance from the maintenance shop parking lot to Paradise Lift base via the west fork is approximately 1.9 miles; the elevation drop is approximately 1320 feet (an average grade of 13 percent). From the Paradise Lift base to Location A is about 1.1 miles; the elevation rise to the well site is about 600 feet (average grade about 11

percent); the road surface has a lot of clay. The total road distance from the parking lot to Location A is about 3.0 miles with an overall elevation change of 1920 feet.

### **ALTERNATIVE WELL LOCATION B**

Location B is fairly similar to Location A. A well at Location B would start in the hanging wall of the thrust fault. Thrust faults often increase the fracturing of rocks in hanging wall of the fault; faults may cause drilling difficulties penetrating the fault. The thrust fault is believed to have about died out at this location and so its effects on rock conditions are probably minor.

We recommend a well targeting the Garden City and St. Charles Formations at this location, which would be about 1600 feet deep. As listed on Table 2, the base of the Nounan Formation is at an estimated 2500 feet and the base of the Middle Limestone Member is at about 3300 feet in depth.

We expect the static water level to be less than 200 feet in depth; artesian conditions (static water level above ground level) are possible.

We anticipate that a 12-inch diameter, 1600-foot deep well targeting the Garden City/St. Charles Formations could produce 200 to 400 gpm. We anticipate that a 12-inch diameter, 2500-foot deep well targeting the Nounan Formation (perhaps plus the higher formations) could produce 400 to 600 gpm.

The canyon is a little wider at this location than at Location A, so pad construction would be a little easier. The access road distance to Location B is about 0.2 miles less than to Location A.

### **ALTERNATIVE WELL LOCATION C**

Alternative location C is in the somewhat wider valley near the base of the Paradise ski lift, as far to the west in the valley as feasible. The target aquifer at this location is the Geertsen Canyon Formation (Cgc), although this location is near the contact between the Geertsen Canyon Formation and the overlying Langston Dolomite (Cl) and the contact is covered with unconsolidated deposits (see Figure 6). In this area, the beds of the strata are believed to be near-vertical in orientation. The Langston Dolomite Formation, primarily dolomite and limestone, reportedly includes some shale and sandstone in the lower part of the formation; the Geertsen Canyon Formation, mostly quartzite, commonly contains argillite (weakly metamorphosed mudstone or shale) at the top of the formation. We tend to not favor locations where steeply dipping beds containing low permeability layers, such as shale and argillite, could limit groundwater flow to a well.

We expect the static water level to be near ground level and artesian conditions are possible.

We anticipate that a 12-inch diameter, 2000-foot deep well targeting the Geertsen Canyon Formation could produce 100 to 400 gpm.

The distance from the maintenance shop parking lot to Well C via the west fork is approximately 1.8 miles; the elevation drop is approximately 1120 feet (average grade of 13 percent).

#### **ALTERNATIVE WELL LOCATION D**

Alternative location D is along the access road in west fork of Wellsville Creek. The target aquifer at this location is the Geertsen Canyon Formation (Cgc). At this location, the Geertsen Canyon Formation appears to be primarily quartzite, very hard, fractured and steeply dipping, although not near-vertical.

We expect the static water level to be less than 100 feet in depth; artesian conditions (static water level above ground level) are possible.

We anticipate that a 12-inch diameter, 2000-foot deep well targeting the Geertsen Canyon Formation could produce 200 to 400 gpm.

The distance from the maintenance shop parking lot to Location D via the west fork is approximately 1.6 miles; the elevation drop is approximately 1120 feet (average grade is 13 percent). This is a difficult site for a well pad. The access road and shoulders could provide a drilling site 40 to 50 feet wide and 220 feet long, sloping at a 10 to 15 percent grade. The equipment layout would need to allow for vehicles to drive through and past the drilling operation. There are no good turn-around or material storage locations nearby.

#### **ALTERNATIVE WELL LOCATION E**

The target formations at this location are the overturned beds of carbonate formations (the Nounan, St. Charles and Garden City Formations). The water yielding properties of these formations after the extreme deformation experienced are uncertain.

We expect the static water level to be near the ground surface; artesian conditions (static water level above ground level) are possible.

We anticipate that a 12-inch diameter, 2000-foot deep well completed in the carbonates could produce 100 to 400 gpm.

The distance along the access road in the middle fork is approximately 2.0 miles from the paved county road; the elevation drop is approximately 1080 feet (average grade is about 10 percent). The access road would need to be improved, widened in some locations and some sharp curves realigned.

## CONCLUSIONS AND RECOMMENDATIONS

We believe that groundwater development potential is greater in the northern part of Powder Mountain (Bear River drainage) than in the southern part (Ogden River drainage). We believe that a well at the alternative locations discussed above could yield in the range of 100 to 600 gpm.

The feasibility of groundwater development with wells depends on a number of factors including well depth (depth and thickness of aquifer), well yield (aquifer permeability, water level, extent of aquifer, well efficiency), long-term sustainability of discharge (aquifer storage and recharge), estimated costs, DWSP issues (including protected versus unprotected aquifer classification), and water right considerations including potential impairment of other senior water rights. We used these considerations to rank the feasibility of the five alternative locations for wells.

Table 2 lists the potential target aquifers for wells at the alternative locations and other information. We ranked Alternative A highest because it appeared to have the best combination of potential yield, sustainable yield, and other factors.

Note there is considerable geologic and hydrologic uncertainty associated with the complex conditions in the Powder Mountain vicinity. Bedrock is highly deformed and is covered with soils, unconsolidated deposits, and/or the Wasatch Formation over much of the area. Well yield is dependent on stratigraphic and structural conditions, which can only be known after wells are drilled and tested.

We recommend that the Summit Group clarify the quantity of water that will be needed from groundwater resources in the northern Powder Mountain area.

We recommend consulting a water right attorney to help strategize on the best approach to filing for water rights. Should the Summit Group acquire water rights and file a change order prior to drilling, or conduct an exploration program first?

In order to provide data that can be used to help support a water right application and provide defense against claims of interference, we recommend installing surface water monitoring devices in 2016 and starting long-term stream flow monitoring. We recommend installing a permanent stream flow gage on Wellsville Creek near the north boundary of Powder Mountain. We also recommend considering monitoring of other downstream locations.

We recommend an exploration well program and additional investigation because of the geologic and hydrologic uncertainty associated with the complex conditions in the Powder Mountain vicinity. Well yield can only be known after wells are drilled and tested.

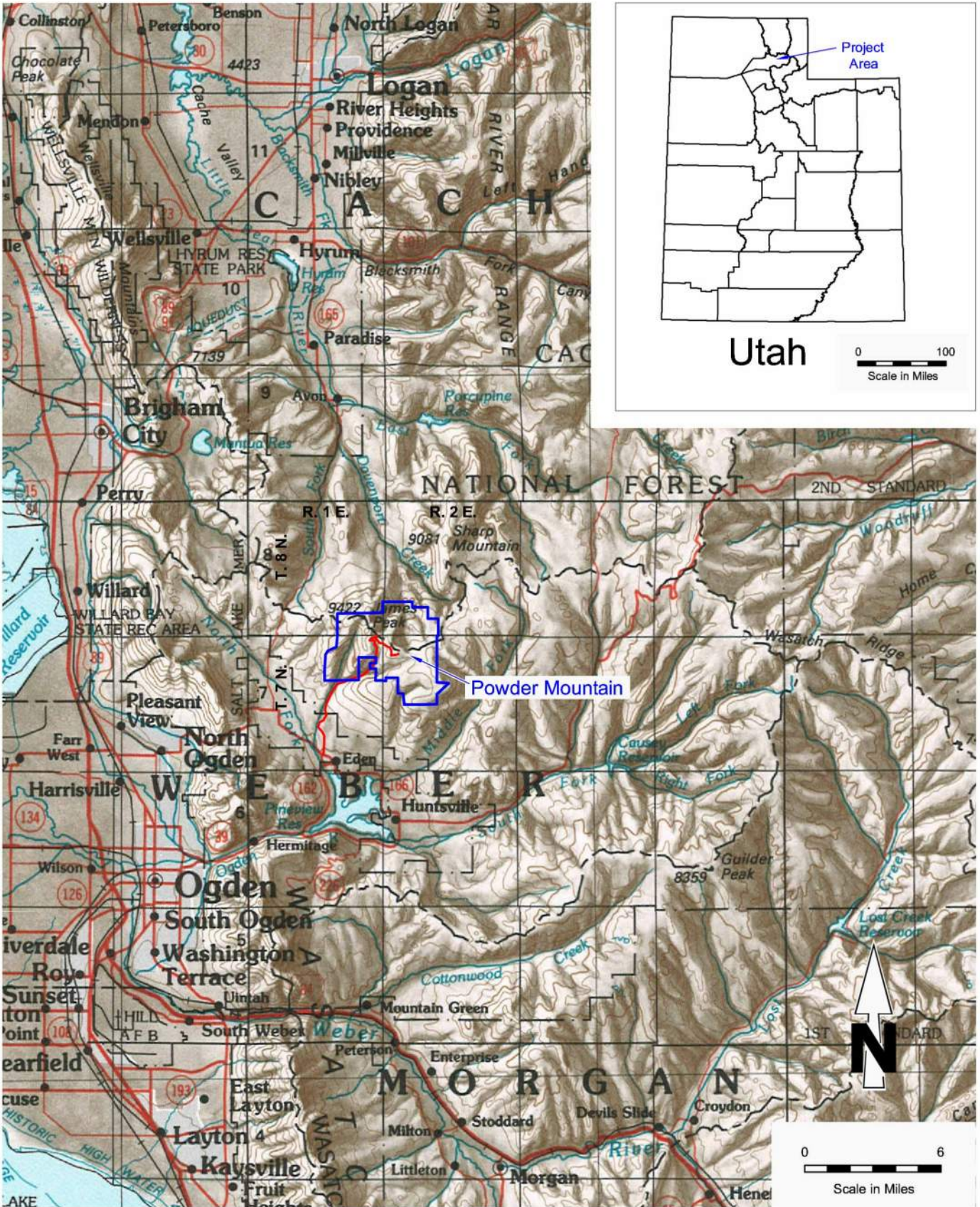
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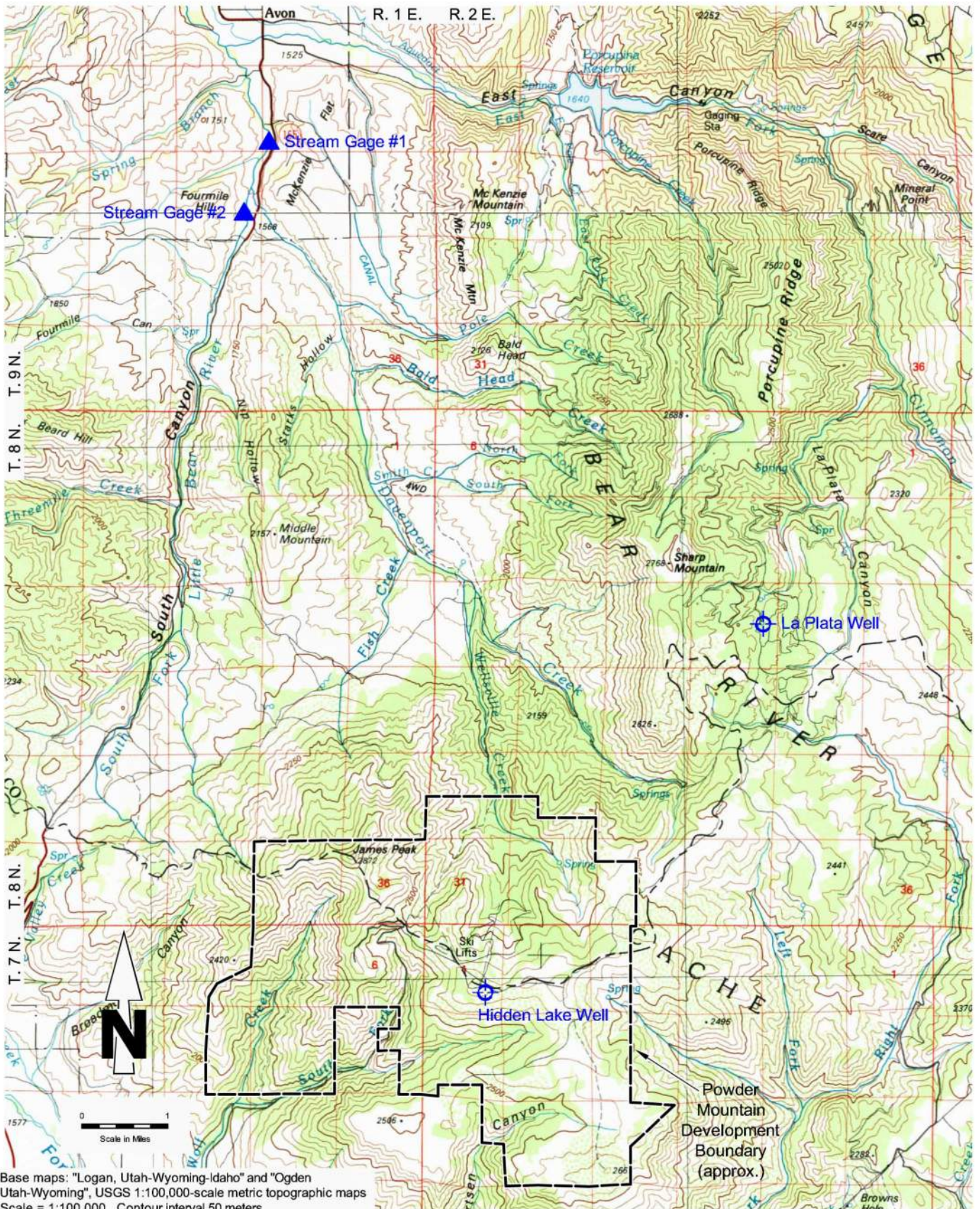
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- Snyder, N.P. and Lowe, M., 1998, *Map of recharge areas for the Principal Valley-Fill Aquifer, Ogden Valley, Weber County, Utah*: Utah Geological Survey Map 1976, 16.
- Stantec Consulting, Inc., 2000, *Well Completion Report, Summary of Well Performance Testing Operations and Groundwater Management Recommendations*: consultant report dated April 2000.
- Utah Geological Survey (UGS), 2015b, *Powder Mountain hydrology data release*: available at <http://geology.utah.gov/databases/index.htm>.



Base map: "State of Utah Shaded Relief Map".  
 U.S. Geological Survey (1988).  
 Contour interval 500 feet.



Summit Group  
 Powder Mountain  
 Location Map  
 Figure 1

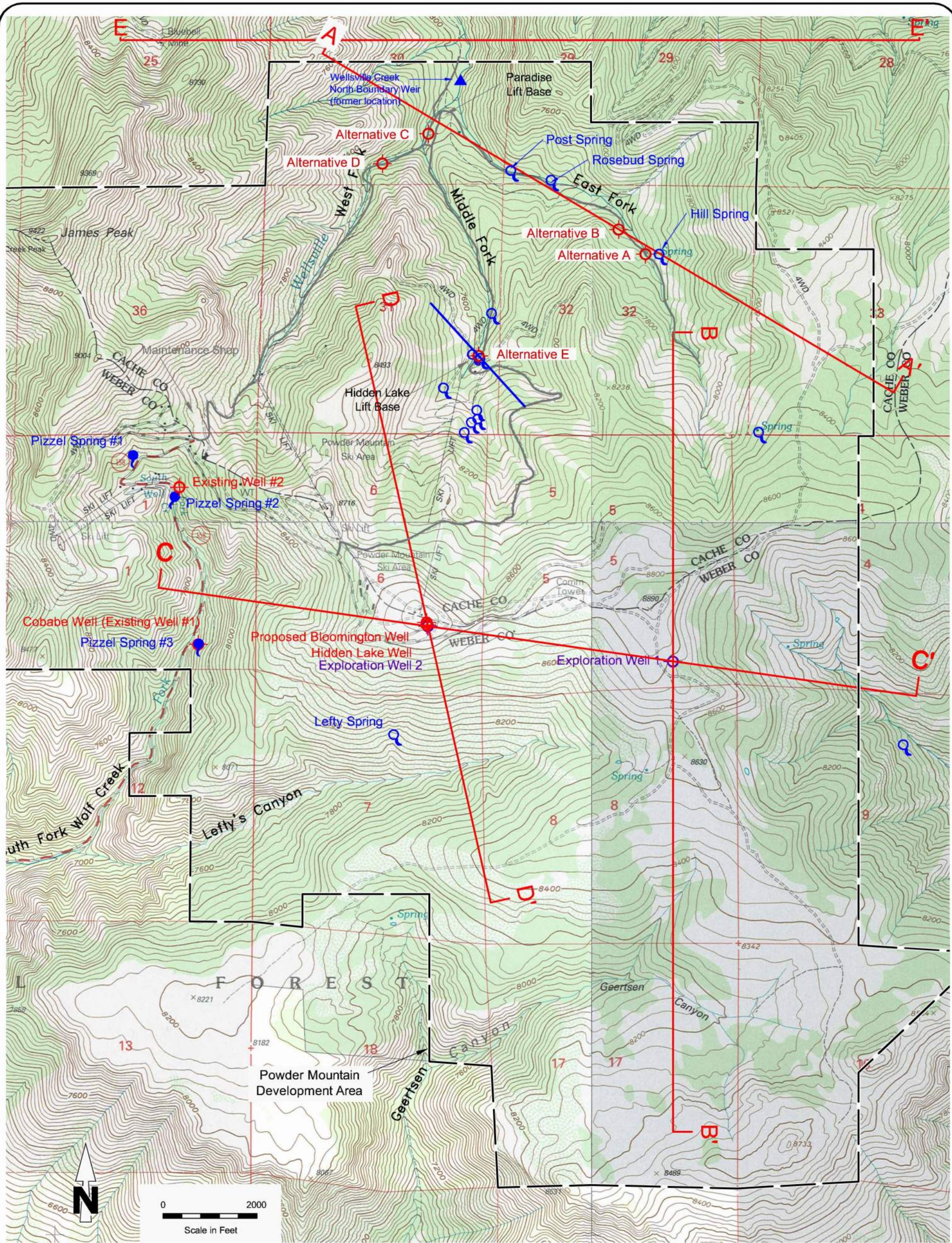


Base maps: "Logan, Utah-Wyoming-Idaho" and "Ogden Utah-Wyoming", USGS 1:100,000-scale metric topographic maps  
 Scale = 1:100,000 Contour interval 50 meters.

Summit Group - Powder Mountain  
 Regional Map  
 Figure 2



Z:\Library\Projects\Summit.Mn.Holding Group\Summit2-DWG4-BearRiver\Fig-02-Regional Map-Bear-POD.dwg, Fig-0x11P



Base maps: USGS Quadrangle maps (1998): James Peak, UT", "Sharp Mountain, UT", Huntsville, UT", and Browns Hole UT"

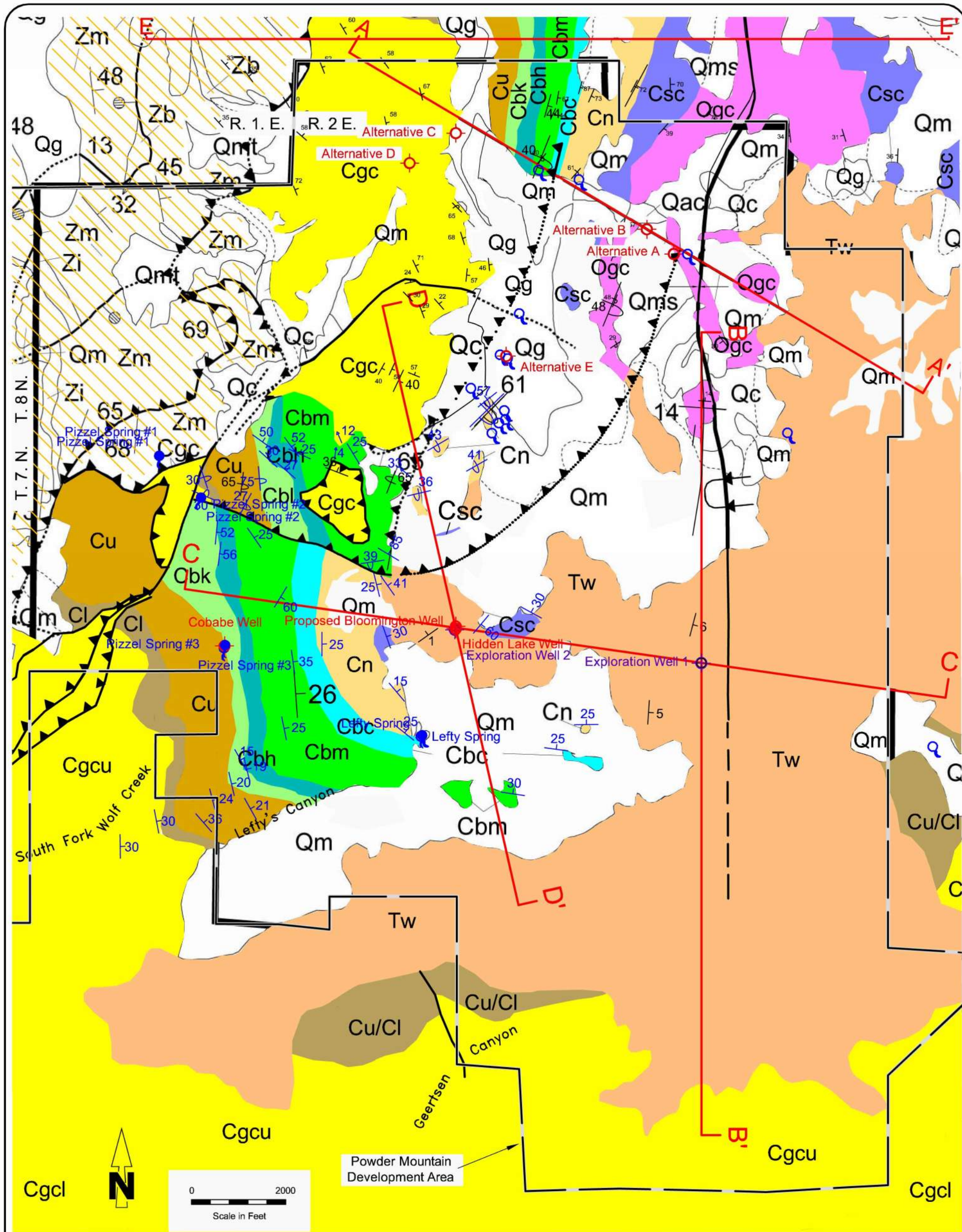
Note: Pizzel Spring #1 and #2 designations have been reversed in some documents. Number designations shown are those in current use by PMWSID.

- Key:
- Existing Well
  - Spring
  - Alternative Well Location



Summit Group Powder Mountain Topographic Map Figure 3

Z:\Library\Projects\Summit Min Holding Group\Summit2\DWG4-BearRiver\Fig-03-VanahyMap-Bear.dwg, Fig1:1x17



Modified from Coogen and King (2001), King (2004, Figure 2) and King (2014).

Alternative Well Location

**Geologic Symbols:**

- Contact, dashed where approximate, dotted where concealed
- Thrust fault, teeth on upper plate, dotted where concealed
- Normal fault, bar and ball on downthrown side, dotted where concealed
- Fault, dashed where approximate, dotted where concealed
- Geologic cross-section
- Syncline axis, dashed where approximate, dotted where concealed
- Anticline axis, dashed where approximate, dotted where concealed
- Overturned anticline axis, dashed where approximate, dotted where concealed
- Overturned syncline axis, dashed where approximate, dotted where concealed
- Strike and dip of bedding

See Figure 3 for formation symbols.



Summit Group  
Powder Mountain  
Geologic Map  
Figure 4

Z:\Library\Projects\Summit Min Holding Group\Summit2-DWG4-BearRiver\Fig04\_GeologyMap-Bear.dwg, Fig 1x17

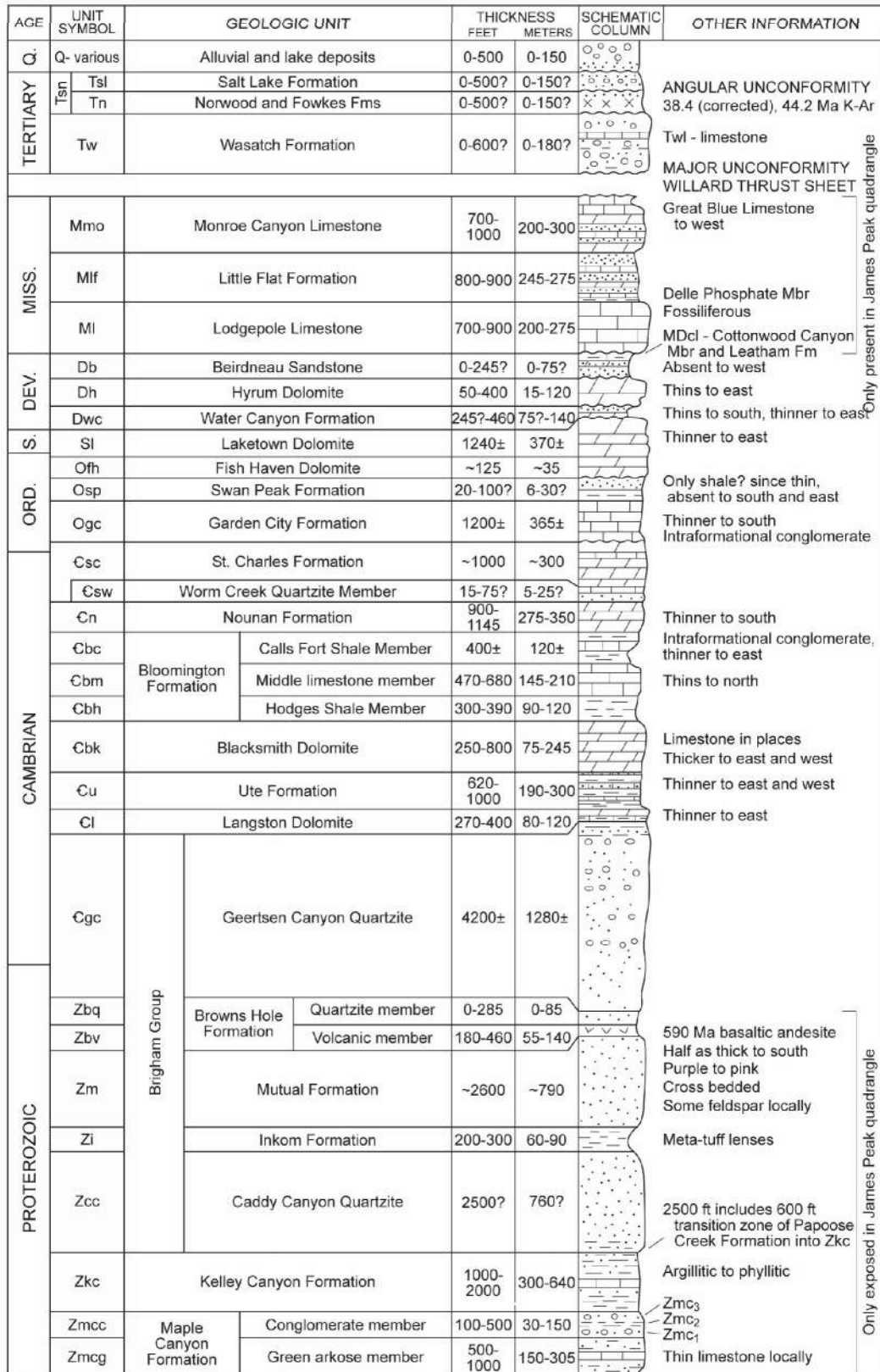


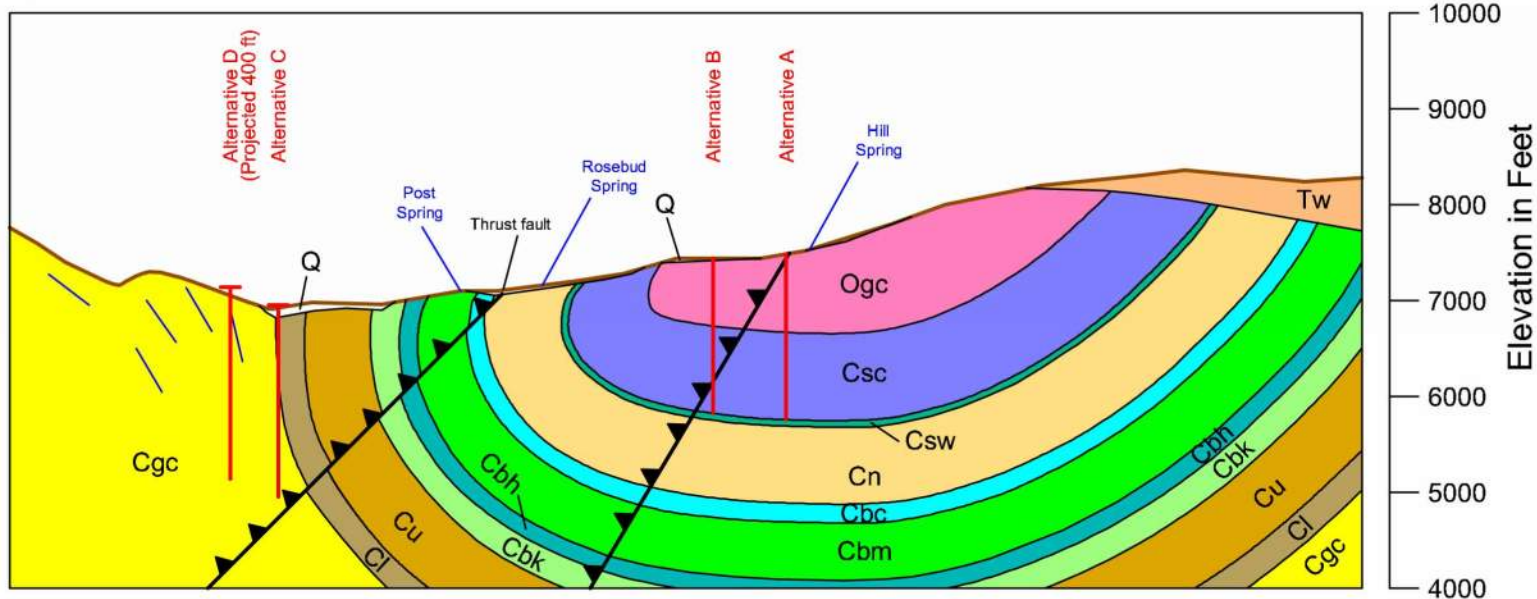
Diagram is schematic - no fixed thickness scale

Modified from King (2015)

Summit Group  
Powder Mountain  
Stratigraphic Column  
Figure 5

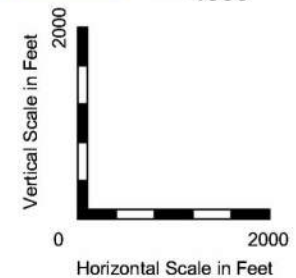
A  
Northwest

A'  
Southeast



**GEOLOGIC FORMATION SYMBOLS:**

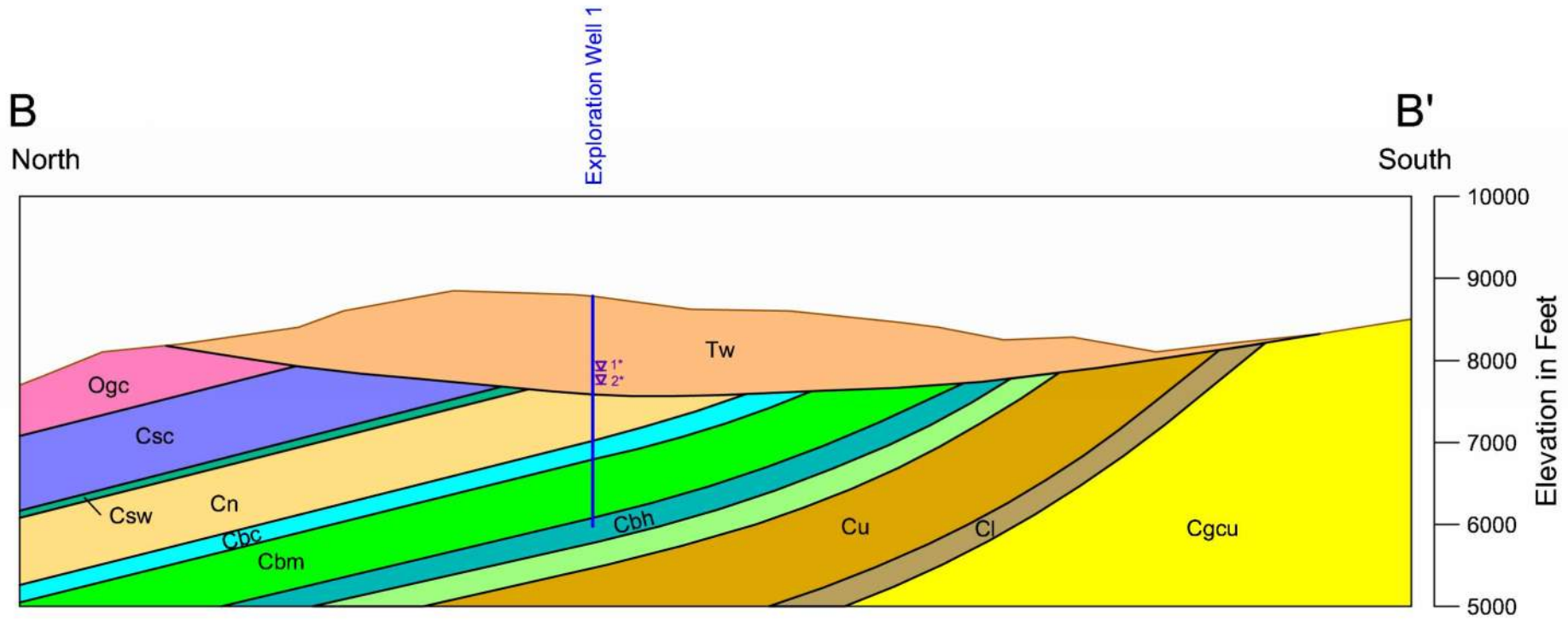
- Q Unconsolidated alluvial, glacial or mass movement deposits
- Tw Wasatch Formation
- Ogc Garden City Formation
- Csc St. Charles Formation
- Csw Worm Creek Member
- Cn Nounan Formation
- Cbc Calls Fort Shale Member
- Cbm Middle Limestone Member
- Cbh Hodges Shale Member
- Cbk Blacksmith Dolomite
- Cu Ute Formation
- Cl Langston Dolomite
- Cgc Geertsen Canyon Quartzite
- Zbq Browns Hole Fm Quartzite Member
- Zbv Browns Hole Fm Volcanic Member
- Zm Mutual Formation



Note: Cross section was drawn based on interpretation of surface geologic mapping in rugged topography and highly deformed rock strata often hidden by younger deposits. Actual subsurface conditions are uncertain.

Summit Group  
Powder Mountain  
**Geologic Cross Section A-A'**  
Figure 6

Z:\Library\Projects\Summit.Mn - Holding Group\Summit2-DW\CA-BearRiver\Fig-07-Geol-Cross-Sec-BB-Bear.dwg, Fig 7



**NOTE:**

For key to geologic unit symbols, see Figure 5, Figure 6 or Table 1. Cross section was drawn based on interpretation of surface geologic mapping in rugged topography and highly deformed rock strata often hidden by younger deposits. Actual subsurface conditions are uncertain.

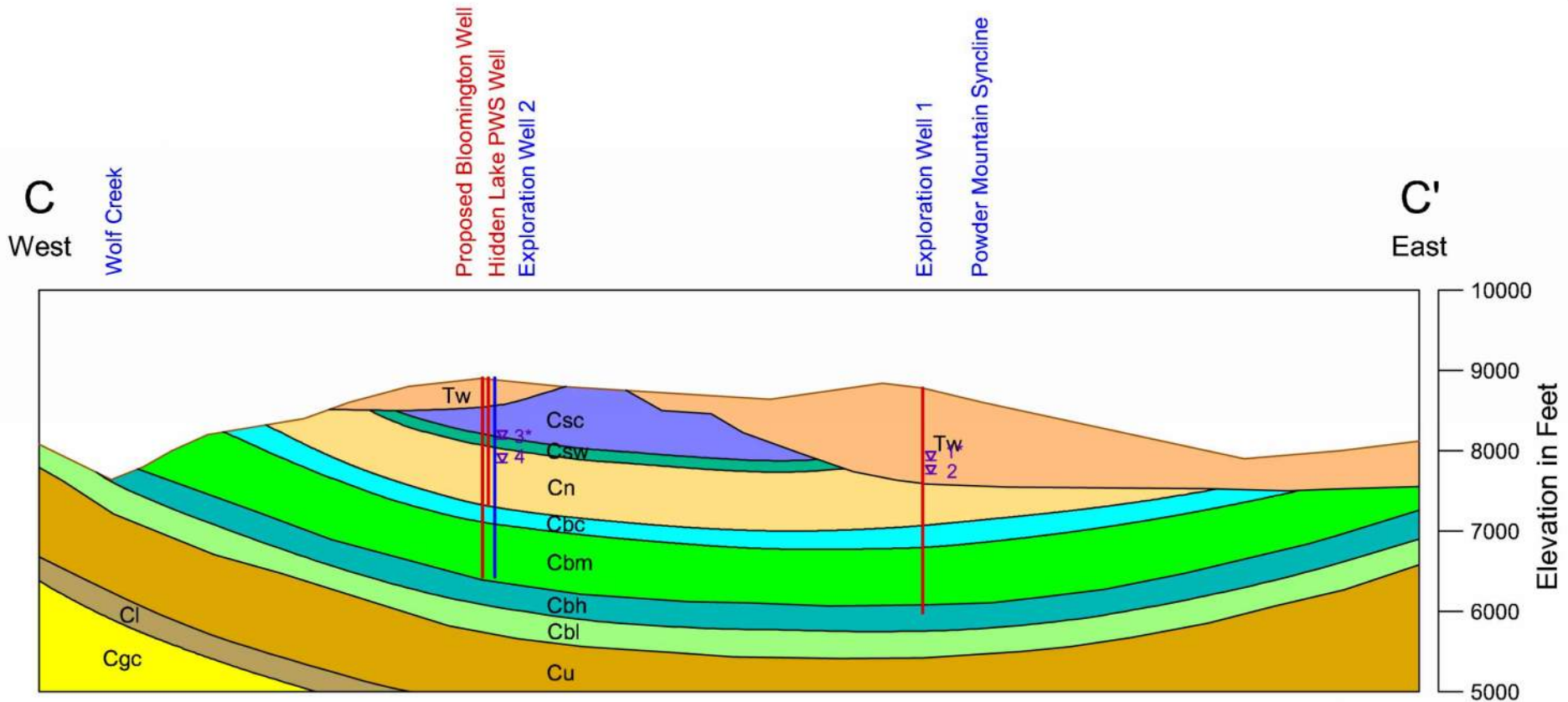
**\*Footnotes:**

- 1 - Approximate non-pumping water level depth in Cn was 900 feet in Exploration Well 1 in May 2013.
- 2 - Approximate non-pumping water level depth in Cbm was 1050 feet in Exploration Well 1 in May 2013.



Summit Group  
Powder Mountain  
**Geological Cross Section B-B'**  
Figure 7

Z:\Library\Projects\Summit\_Min Holding Group\Summit2\_DWG\C4-BearRiver\Fig-08-Geol-Cross-Sec-CC-Bear.dwg, Fig 8

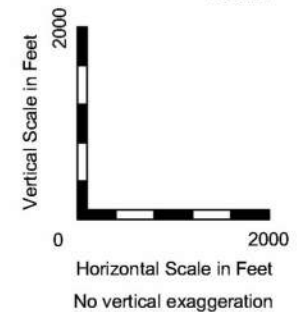


**\*Footnotes:**

- 1 - Approximate non-pumping water level depth in Cn was 900 feet in Exploration Well 1 in May 2013.
- 2 - Approximate non-pumping water level depth in Cbm was 1050 feet in Exploration Well 1 in May 2013.
- 3 - Approximate non-pumping water level depth in Cn was 760 feet in Exploration Well 2 in June 2013.
- 4 - Approximate non-pumping water level depth in Cbm was 1020 feet in Exploration Well 2 in June 2013.

**NOTE:**

For key to geologic unit symbols, see Figure 5, Figure 6 or Table 1.  
 Cross section was drawn based on interpretation of surface geologic mapping in rugged topography and highly deformed rock strata often hidden by younger deposits.  
 Actual subsurface conditions are uncertain.

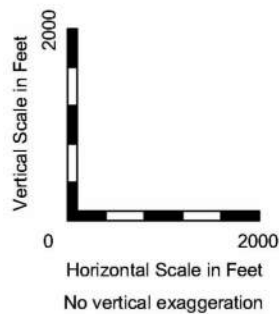
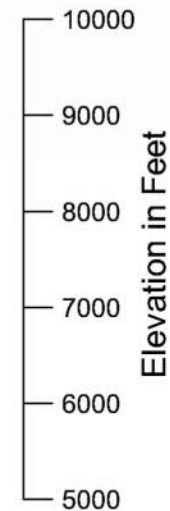
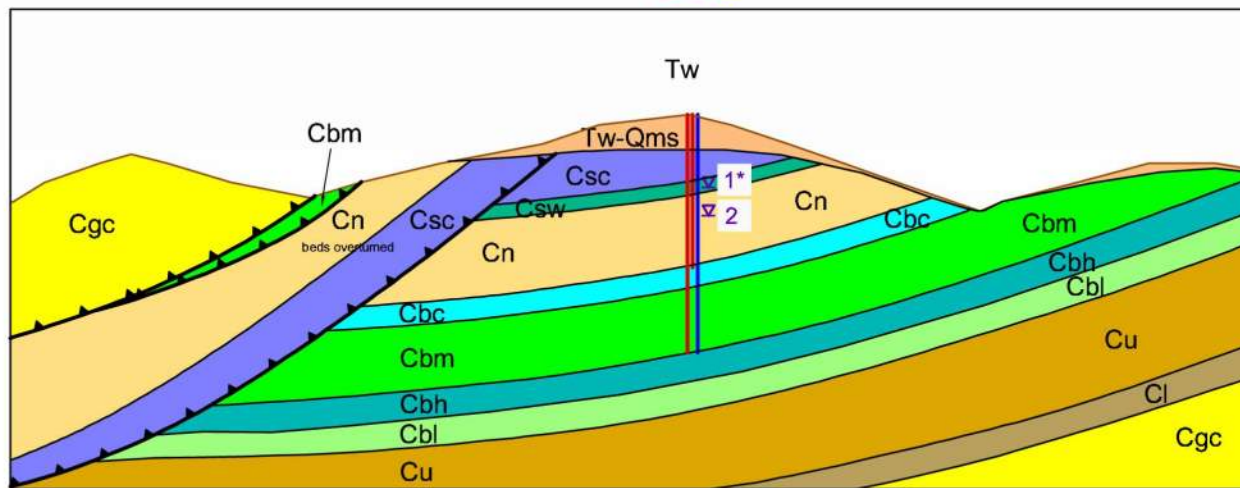


Summit Group  
 Powder Mountain  
**Geologic Cross Section C-C'**  
 Figure 8

D  
North

D'  
South

Proposed Bloomington Well  
Hidden Lake PWS Well  
Exploration Well 2



**NOTE:**  
For key to geologic unit symbols, see Figure 5, Figure 6 or Table 1.  
Cross section was drawn based on interpretation of surface geologic mapping in rugged topography and highly deformed rock strata often hidden by younger deposits. Actual subsurface conditions are uncertain.

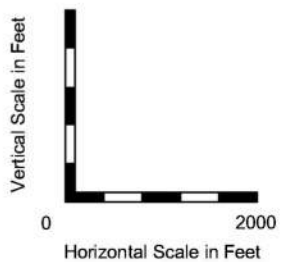
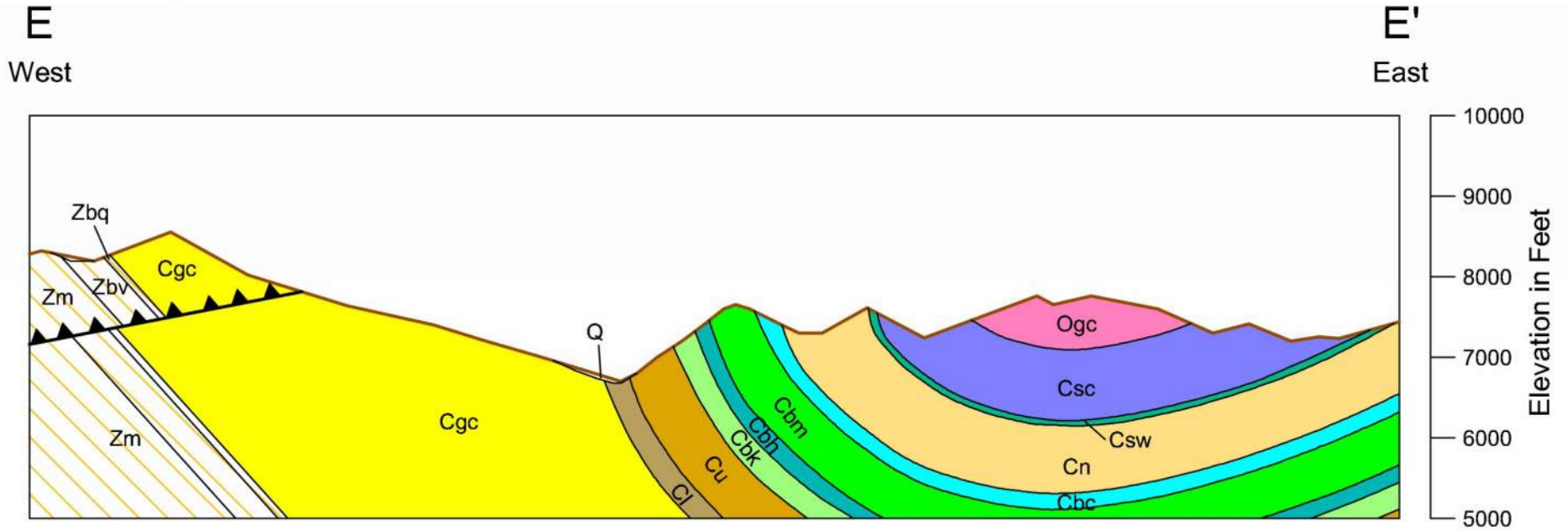
**\*Footnotes:**  
1 - Approximate non-pumping water level depth in Cn was 760 feet in Exploration Well 2 in June 2013.  
2 - Approximate non-pumping water level depth in Cbm was 1020 feet in Exploration Well 2 in June 2013.

Summit Group  
Powder Mountain

Geologic Cross Section D-D'  
Figure 9



Z:\Library\Projects\Summit.Min Holding Group\Summit2.DWG\CA-BearRiver\Fig-09-Geol-Cross-Sec-DD-Bear.dwg, Fig\_D



NOTE:  
 For key to geologic unit symbols, see Figure 5, Figure 6 or Table 1.  
 Cross section was drawn based on interpretation of surface geologic mapping in rugged topography and highly deformed rock strata often hidden by younger deposits. Actual subsurface conditions are uncertain.

Summit Group  
 Powder Mountain

Geological Cross Section E-E'  
 Figure 10

**APPENDIX A**  
**STREAM DISCHARGE DATA**  
**LITTLE BEAR RIVER NORTH OF POWDER MOUNTAIN**

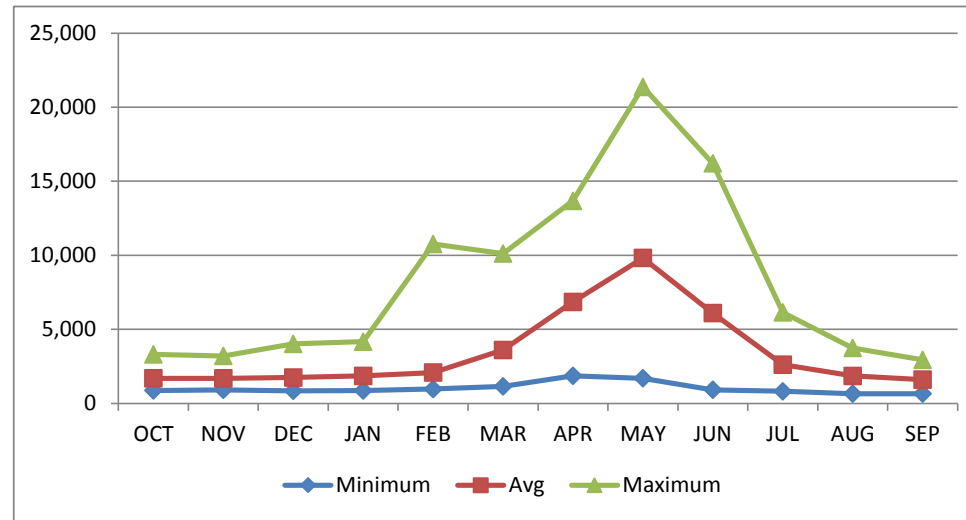
This appendix provides data summaries and graphs of stream flow at two USGS gaging stations on the Little Bear River north of Powder Mountain. The locations of the gaging stations are shown on Figure 2 in the main section of this report.

Table A-1a  
 Monthly Summary of Mean Daily Discharge in Acre-Feet  
 Little Bear River Below Davenport Creek Near Avon, Utah (Gage #1 on Figure 2)

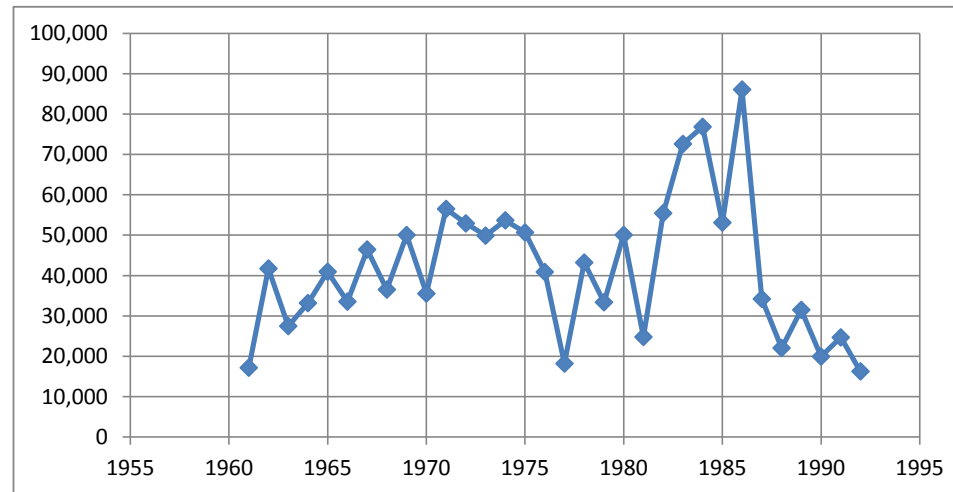
Water Year	Monthly Discharge in Acre-Feet												Annual
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1960-1961	1,027	1,123	988	912	968	1,874	2,580	3,721	1,523	899	764	778	17,157
1961-1962	877	954	1,055	950	4,526	2,432	10,070	9,806	5,762	2,261	1,662	1,377	41,732
1962-1963	1,351	1,319	1,228	1,337	1,851	1,904	4,259	7,371	3,227	1,494	1,057	1,073	27,471
1963-1964	1,085	1,265	1,067	1,073	998	1,150	6,073	9,412	6,004	2,340	1,515	1,184	33,166
1964-1965	1,234	1,265	3,420	2,053	1,811	2,029	6,847	9,275	6,799	2,676	1,884	1,650	40,943
1965-1966	1,601	2,132	1,777	1,505	1,236	4,510	6,718	7,327	2,537	1,569	1,359	1,265	33,536
1966-1967	1,357	1,357	1,519	1,543	1,373	3,540	5,827	12,417	10,080	3,509	2,160	1,767	46,449
1967-1968	1,783	1,609	1,569	1,519	1,952	3,110	4,727	7,500	6,575	2,501	2,043	1,634	36,522
1968-1969	1,759	1,658	1,619	4,167	1,904	3,308	11,252	12,827	5,088	2,670	2,045	1,736	50,033
1969-1970	1,811	1,609	1,605	2,085	1,757	2,346	3,612	9,140	6,254	2,253	1,620	1,432	35,524
1970-1971	1,541	2,235	2,204	3,562	2,634	4,663	9,840	12,270	9,007	3,810	2,559	2,178	56,503
1971-1972	2,081	2,077	2,690	2,551	1,981	7,285	8,521	11,802	6,924	2,842	2,206	1,956	52,916
1972-1973	2,021	2,031	1,833	1,829	1,690	2,493	7,785	16,354	6,797	2,882	2,132	2,037	49,884
1973-1974	1,914	1,980	1,872	2,019	1,585	6,186	9,126	14,569	7,408	3,037	2,186	1,793	53,675
1974-1975	1,833	1,769	1,638	1,599	1,406	2,922	4,352	13,361	12,938	4,294	2,390	2,176	50,678
1975-1976	2,124	1,763	1,874	1,700	1,884	2,961	7,892	10,514	4,374	2,333	1,884	1,581	40,884
1976-1977	1,537	1,375	1,367	1,325	1,204	1,371	1,864	3,302	1,755	1,101	1,006	974	18,181
1977-1978	904	918	1,202	1,273	1,682	5,629	8,872	9,784	6,746	2,717	1,859	1,630	43,216
1978-1979	1,525	1,488	1,261	1,388	1,357	2,940	6,083	9,062	3,656	1,857	1,501	1,260	33,378
1979-1980	1,436	1,265	1,250	3,437	2,674	2,495	9,265	12,026	8,654	3,469	2,227	1,868	50,066
1980-1981	1,781	1,690	1,809	1,573	1,539	2,299	3,414	4,988	2,458	1,244	1,014	968	24,777
1981-1982	1,265	1,206	1,644	1,571	2,793	5,556	10,443	13,720	8,356	4,088	2,442	2,366	55,450
1982-1983	2,775	2,406	2,277	2,162	1,803	6,113	8,533	17,792	16,211	6,147	3,747	2,642	72,608
1983-1984	3,310	2,936	4,019	3,106	2,781	4,074	11,250	21,368	11,923	5,552	3,606	2,920	76,845
1984-1985	3,304	3,209	2,656	2,448	2,114	3,529	12,184	10,885	4,742	3,148	2,515	2,378	53,112
1985-1986	2,354	2,477	2,543	2,660	10,764	10,122	13,672	15,981	13,809	5,185	3,578	2,938	86,083
1986-1987	2,908	2,789	2,287	2,231	2,142	3,400	5,655	5,510	2,700	1,797	1,478	1,311	34,208
1987-1988	1,460	1,390	1,325	1,369	1,408	2,156	3,366	4,655	1,793	1,111	1,020	980	22,033
1988-1989	1,051	1,135	1,127	1,170	1,228	6,063	6,508	6,597	2,811	1,498	1,212	1,087	31,487
1989-1990	1,226	1,230	1,119	1,313	1,051	2,898	3,219	3,207	1,926	1,077	873	781	19,920
1990-1991	910	978	853	869	976	1,918	2,945	6,111	5,453	1,470	1,125	1,057	24,665
1991-1992	1,222	1,607	1,224	1,144	1,692	2,126	2,469	1,700	922	815	660	662	16,243
Average	1,699	1,695	1,748	1,858	2,086	3,606	6,851	9,824	6,100	2,614	1,854	1,607	41,542
Median	1,539	1,608	1,612	1,572	1,725	2,951	6,613	9,598	5,883	2,421	1,872	1,606	40,914
Maximum	3,310	3,209	4,019	4,167	10,764	10,122	13,672	21,368	16,211	6,147	3,747	2,938	86,083
Minimum	877	918	853	869	968	1,150	1,864	1,700	922	815	660	662	16,243

Notes: USGS Gage #10104700; gage elevation = 5020 feet; UTM location= 432313 E, 4,595,757 N (NAD27); drainage area = 61.6 sq miles;

Little Bear River Below Davenport Creek Near Avon, Utah (Gage #1 on Figure 2)



Monthly Discharge in Acre-Feet



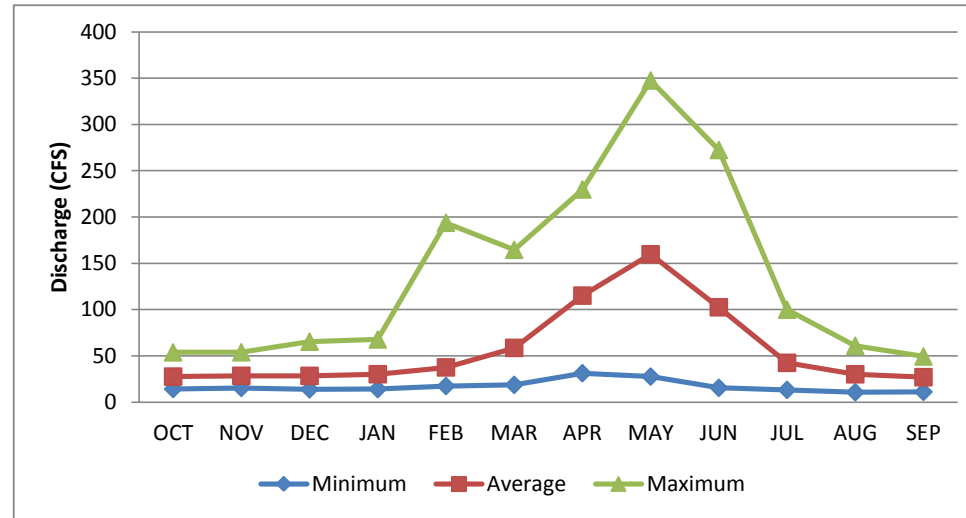
Annual Discharge in Acre-Feet

Table A-1b  
 Monthly Summary of Mean Daily Discharge in CFS  
 Little Bear River Below Davenport Creek Near Avon, Utah (Gage #1 on Figure 2)

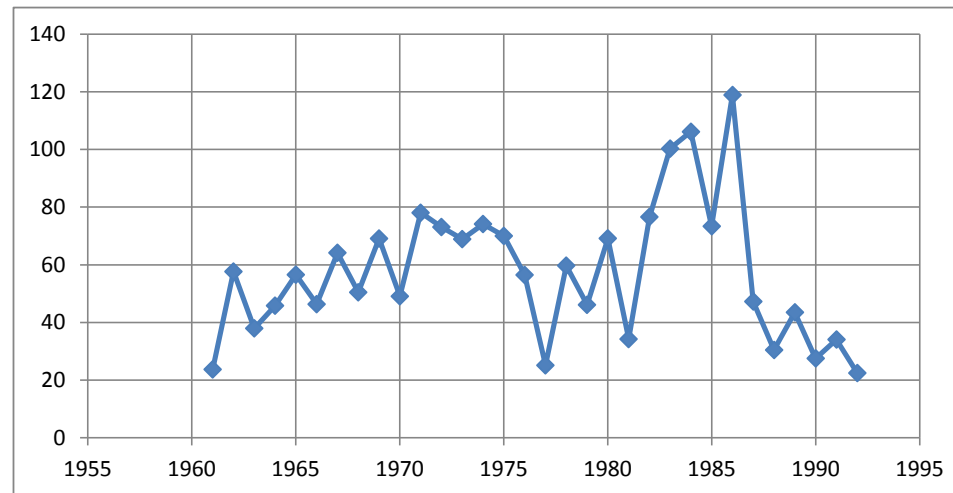
Water Year	Average Monthly Daily Discharge in CFS												Average Annual
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1960-1961	16.7	18.9	16.1	14.8	17.4	30.5	43.4	60.5	25.6	14.6	12.4	13.1	23.7
1961-1962	14.3	16.0	17.2	15.5	81.5	39.6	169.2	159.5	96.8	36.8	27.0	23.1	57.6
1962-1963	22.0	22.2	20.0	21.7	33.3	31.0	71.6	119.9	54.2	24.3	17.2	18.0	37.9
1963-1964	17.6	21.3	17.4	17.5	18.0	18.7	102.1	153.1	100.9	38.1	24.6	19.9	45.8
1964-1965	20.1	21.3	55.6	33.4	32.6	33.0	115.1	150.8	114.3	43.5	30.6	27.7	56.6
1965-1966	26.0	35.8	28.9	24.5	22.3	73.3	112.9	119.2	42.6	25.5	22.1	21.3	46.3
1966-1967	22.1	22.8	24.7	25.1	24.7	57.6	97.9	201.9	169.4	57.1	35.1	29.7	64.2
1967-1968	29.0	27.0	25.5	24.7	35.1	50.6	79.4	122.0	110.5	40.7	33.2	27.5	50.4
1968-1969	28.6	27.9	26.3	67.8	34.3	53.8	189.1	208.6	85.5	43.4	33.3	29.2	69.1
1969-1970	29.5	27.0	26.1	33.9	31.6	38.2	60.7	148.6	105.1	36.6	26.3	24.1	49.1
1970-1971	25.1	37.6	35.8	57.9	47.4	75.8	165.4	199.6	151.4	62.0	41.6	36.6	78.0
1971-1972	33.8	34.9	43.7	41.5	35.7	118.5	143.2	191.9	116.4	46.2	35.9	32.9	73.1
1972-1973	32.9	34.1	29.8	29.7	30.4	40.5	130.8	266.0	114.2	46.9	34.7	34.2	68.9
1973-1974	31.1	33.3	30.4	32.8	28.5	100.6	153.4	236.9	124.5	49.4	35.6	30.1	74.1
1974-1975	29.8	29.7	26.6	26.0	25.3	47.5	73.1	217.3	217.4	69.8	38.9	36.6	70.0
1975-1976	34.5	29.6	30.5	27.6	33.9	48.2	132.6	171.0	73.5	37.9	30.6	26.6	56.5
1976-1977	25.0	23.1	22.2	21.5	21.7	22.3	31.3	53.7	29.5	17.9	16.4	16.4	25.1
1977-1978	14.7	15.4	19.5	20.7	30.3	91.5	149.1	159.1	113.4	44.2	30.2	27.4	59.7
1978-1979	24.8	25.0	20.5	22.6	24.4	47.8	102.2	147.4	61.4	30.2	24.4	21.2	46.1
1979-1980	23.4	21.3	20.3	55.9	48.1	40.6	155.7	195.6	145.4	56.4	36.2	31.4	69.2
1980-1981	29.0	28.4	29.4	25.6	27.7	37.4	57.4	81.1	41.3	20.2	16.5	16.3	34.2
1981-1982	20.6	20.3	26.7	25.5	50.3	90.4	175.5	223.1	140.4	66.5	39.7	39.8	76.6
1982-1983	45.1	40.4	37.0	35.2	32.5	99.4	143.4	289.4	272.4	100.0	60.9	44.4	100.3
1983-1984	53.8	49.3	65.4	50.5	50.1	66.3	189.1	347.5	200.4	90.3	58.6	49.1	106.1
1984-1985	53.7	53.9	43.2	39.8	38.1	57.4	204.8	177.0	79.7	51.2	40.9	40.0	73.4
1985-1986	38.3	41.6	41.4	43.3	193.8	164.6	229.8	259.9	232.1	84.3	58.2	49.4	118.9
1986-1987	47.3	46.9	37.2	36.3	38.6	55.3	95.0	89.6	45.4	29.2	24.0	22.0	47.3
1987-1988	23.7	23.4	21.5	22.3	25.4	35.1	56.6	75.7	30.1	18.1	16.6	16.5	30.4
1988-1989	17.1	19.1	18.3	19.0	22.1	98.6	109.4	107.3	47.2	24.4	19.7	18.3	43.5
1989-1990	19.9	20.7	18.2	21.4	18.9	47.1	54.1	52.2	32.4	17.5	14.2	13.1	27.5
1990-1991	14.8	16.4	13.9	14.1	17.6	31.2	49.5	99.4	91.6	23.9	18.3	17.8	34.1
1991-1992	19.9	27.0	19.9	18.6	30.5	34.6	41.5	27.6	15.5	13.3	10.7	11.1	22.4
Average	27.6	28.5	28.4	30.2	37.6	58.7	115.1	159.8	102.5	42.5	30.2	27.0	57.4
Median	25.0	27.0	26.2	25.6	31.1	48.0	111.1	156.1	98.9	39.4	30.4	27.0	56.5
Maximum	53.8	53.9	65.4	67.8	193.8	164.6	229.8	347.5	272.4	100.0	60.9	49.4	118.9
Minimum	14.3	15.4	13.9	14.1	17.4	18.7	31.3	27.6	15.5	13.3	10.7	11.1	22.4

Notes: USGS Gage #10104700; gage elevation = 5020 feet; UTM location= 432,313 E; 4,595,757 N (NAD27); drainage area = 61.6 sq miles;

Little Bear River Below Davenport Creek Near Avon, Utah (Gage #1 on Figure 2)



Average Monthly Discharge in CFS



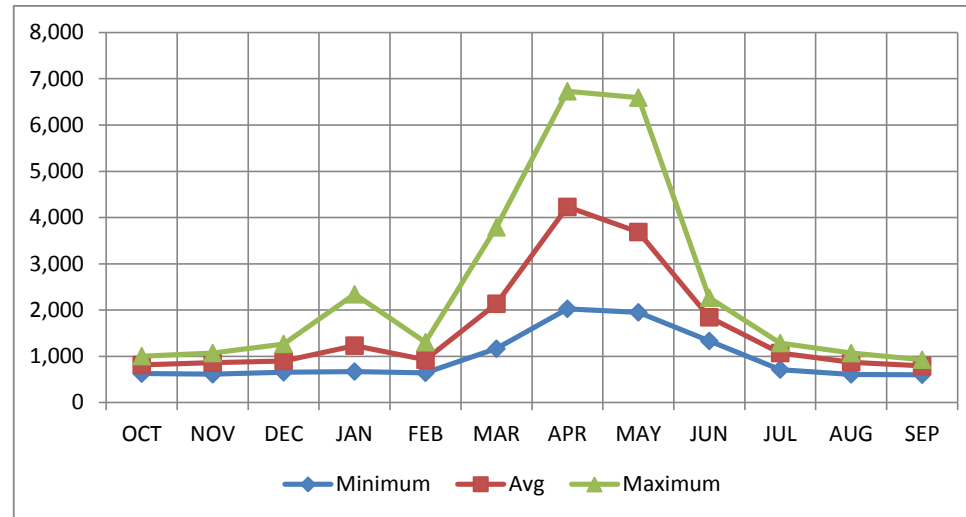
Average Annual Discharge in CFS

Table A-2a  
 Monthly Summary of Mean Daily Discharge in Acre-Feet  
 South Fork Little Bear River Near Avon, Utah (Gage #2 on Figure 2)

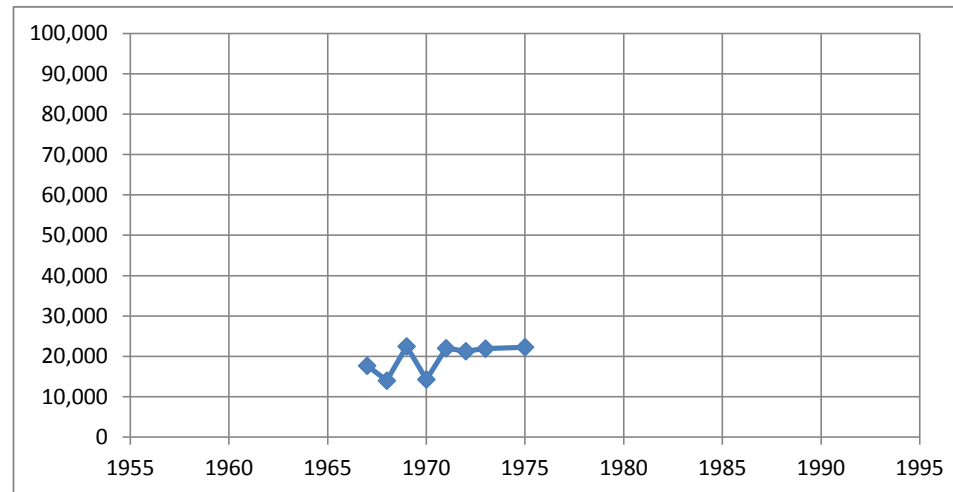
<u>Water Year</u>	<u>Mean Monthly Discharge in Acre-Feet</u>												
	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>Annual</u>
-1966										712	609	602	
1966-1967	625	611	654	671	643	1845	3285	4302	2267	1166	847	736	17,652
1967-1968	625	768	764	740	1012	1523	2582	1950	1664	869	768	690	13,955
1968-1969	708	708	704	2340	1018	1747	6730	3606	1888	1190	958	847	22,444
1969-1970	924	871	879	1047	875	1164	2027	2918	1331	879	710	617	14,242
1970-1971	704	1071	1139	1886	1303	2580	4746	3249	2031	1287	1069	926	21,991
1971-1972	966	960	1267	1228	960	3788	4588	2729	1789	1105	948	924	21,252
1972-1973	1004	952	924	899	807	1198	4588	6593	1880	1182	952	910	21,889
1973-1974	940	938	865	1035	789	3241	5290	4147	1898	1250	990	867	22,250
Average	812	860	900	1,231	926	2,136	4,230	3,687	1,844	1,071	872	791	19,358
Median	816	905	872	1,041	918	1,796	4,588	3,428	1,884	1,166	948	847	21,571
Maximum	1,004	1,071	1,267	2,340	1,303	3,788	6,730	6,593	2,267	1,287	1,069	926	22,444
Minimum	625	611	654	671	643	1,164	2,027	1,950	1,331	712	609	602	13,955
count	8	8	8	8	8	8	8	8	8	9	9	9	8

Notes: USGS Gage #10104600; gage elevation = 5090 feet; UTM location= 431,906 E; 4,594,403 N (NAD27); drainage area = 26.0 sq miles.

South Fork Little Bear River Near Avon, Utah (Gage #2 on Figure 2)



Monthly Discharge in Acre-Feet



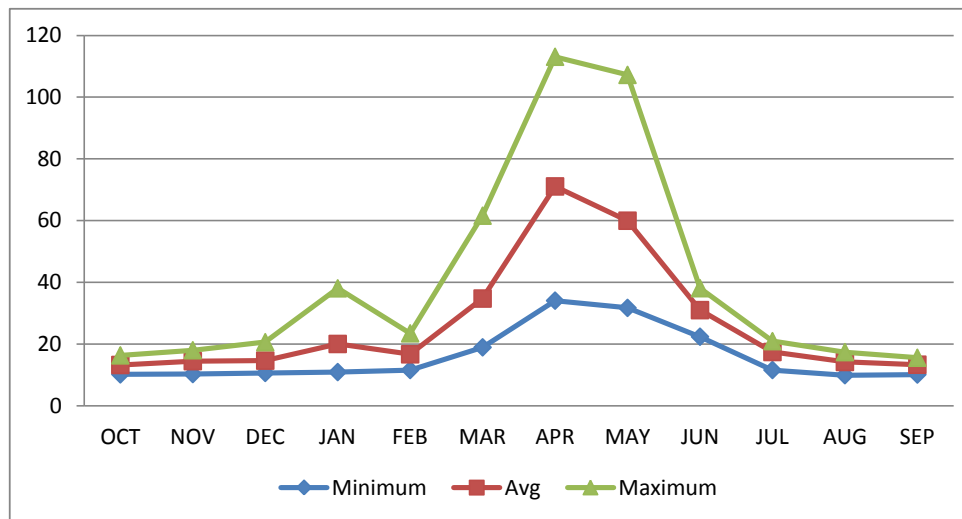
Annual Discharge in Acre-Feet

Table A-2b  
 Monthly Summary of Mean Daily Discharge in CFS  
 South Fork Little Bear River Near Avon, Utah (Gage #2 on Figure 2)

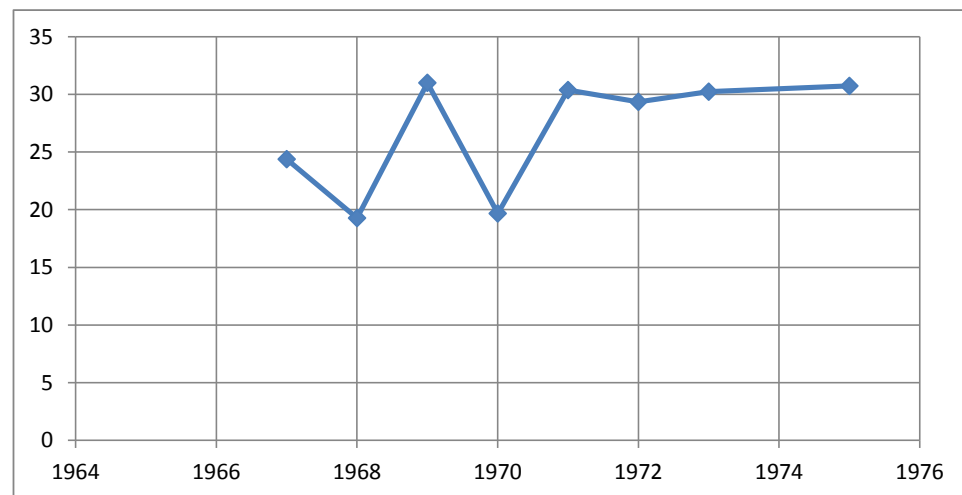
Water Year	Average Monthly Daily Discharge in CFS												Average Annual
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
-1966										11.6	9.9	10.1	
1966-1967	10.2	10.3	10.6	10.9	11.6	30.0	55.2	70.0	38.1	19.0	13.8	12.4	24.4
1967-1968	10.2	12.9	12.4	12.0	18.2	24.8	43.4	31.7	28.0	14.1	12.5	11.6	19.3
1968-1969	11.5	11.9	11.4	38.1	18.3	28.4	113.1	58.6	31.7	19.4	15.6	14.2	31.0
1969-1970	15.0	14.6	14.3	17.0	15.8	18.9	34.1	47.5	22.4	14.3	11.5	10.4	19.7
1970-1971	11.4	18.0	18.5	30.7	23.5	42.0	79.8	52.8	34.1	20.9	17.4	15.6	30.4
1971-1972	15.7	16.1	20.6	20.0	17.3	61.6	77.1	44.4	30.1	18.0	15.4	15.5	29.4
1972-1973	16.3	16.0	15.0	14.6	14.5	19.5	77.1	107.2	31.6	19.2	15.5	15.3	30.2
1973-1974	15.3	15.8	14.1	16.8	14.2	52.7	88.9	67.4	31.9	20.3	16.1	14.6	30.7
Average	13.2	14.5	14.6	20.0	16.7	34.7	71.1	60.0	31.0	17.4	14.2	13.3	26.9
Median	13.3	15.2	14.2	16.9	16.5	29.2	77.1	55.7	31.7	19.0	15.4	14.2	29.8
Maximum	16.3	18.0	20.6	38.1	23.5	61.6	113.1	107.2	38.1	20.9	17.4	15.6	31.0
Minimum	10.2	10.3	10.6	10.9	11.6	18.9	34.1	31.7	22.4	11.6	9.9	10.1	19.3
Count	8	8	8	8	8	8	8	8	8	9	9	9	8

Notes: USGS Gage #10104600; gage elevation = 5090 feet; UTM location= 431,906 E; 4,594,403 N (NAD27); drainage area = 26.0 sq miles.

South Fork Little Bear River Near Avon, Utah (Gage #2 on Figure 2)



Average Monthly Discharge in CFS



Average Annual Discharge in CFS

**APPENDIX B**  
**WATER RIGHT DATA**  
**BEAR RIVER DRAINAGE NORTH OF POWDER MOUNTAIN**

This appendix summarizes water rights in the Bear River drainage of the Powder Mountain area and about three miles to the north of Powder Mountain. Table B-1 lists water right numbers, points of diversion (PODs), type of diversion, priority date, water right status, water use, amount, and owner name. Figure B-1 shows the locations of PODs listed in Table B-1. We downloaded the data from the DWRi website. Note that some water rights have multiple points of diversion.

As listed in Table B-1 and plotted on Figure B-1, there is one underground (well) POD (one of Summit Group's PODs under E4715). There is one surface water POD (an unapproved PMWSID POD). There are numerous point-to-point PODs for stockwatering on surface water. Point-to-point rights usually list a starting point and an ending point along a stream or drainage upon which stock consume water, but sometimes the two points are at a single location and occasionally there is only one point listed. The point-to-point PODs appear to be crudely located. On Figure B-1 we have drawn straight lines that connect the starting and ending point of a point-to-point water right.

Most of the point-to-point water rights are diligence claims and are parts of supplemental groups with unevaluated group total equivalent livestock units (ELUs). Most of the point-to-point water amounts are not quantified (see Table B-1).

We also downloaded, tabulated and plotted PODs further north of those in Figure B-1 and have these in our files.

**Table B-1**  
**Water Right Points of Diversion**  
**PODs in area of Figure B-1 (T8N-R1W and T8N-R2W)**

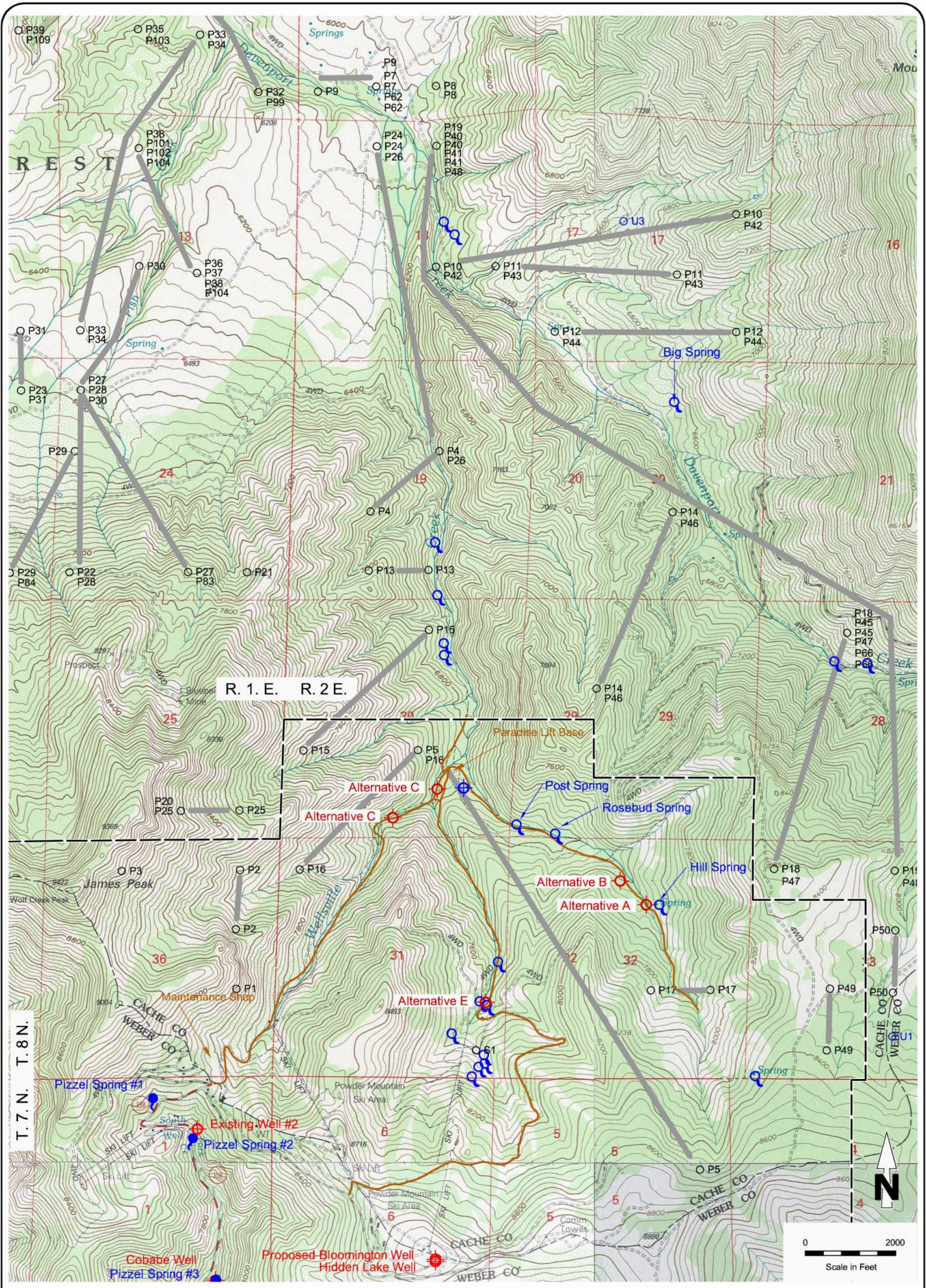
<u>Map ID#</u>	<u>WR Number</u>	<u>Diversion</u>	<u>Location</u>	<u>Status</u>	<u>Priority</u>	<u>Uses</u>	<u>CFS</u>	<u>ACFT</u>	<u>Owner Name</u>
U1	E4715	Underground	N1000 W1900 SE 33 8N 2E SL	A	20060424	M	0	400	SUMMIT MOUNTAIN HOLDING GROUP, LLC
S1	25-8039	Surface	N625 W375 SE 31 8N 2E SL	U	19790806	M	0	200	POWDER MOUNTAIN WATER & SEWER DISTRICT
P1	25-161	Point to Point	S660 W660 E4 36 8N 1E SL	P	1860	DS	0.022	0	ALVIN F. AND JUNE H. COBABE
P2	25-162	Point to Point	N660 W660 E4 36 8N 1E SL	P	1860	S	0	0	ALVIN F. AND JUNE H. COBABE
P2	25-162	Point to Point	S660 W660 NE 36 8N 1E SL	P	1860	S	0	0	ALVIN F. AND JUNE H. COBABE
P3	25-163	Point to Point	S660 W660 N4 36 8N 1E SL	P	1860	DS	0.022	0	ALVIN F. AND JUNE H. COBABE
P4	25-1641	Point to Point	S660 E1980 W4 19 8N 2E SL	P	1880	S	0	0	JACK L. AND TRUDY BROWN
P4	25-1641	Point to Point	S1980 E660 N4 19 8N 2E SL	P	1880	S	0	0	JACK L. AND TRUDY BROWN
P5	25-1662	Point to Point	S660 W1980 E4 30 8N 2E SL	P	1880	S	0	0	HOLMGREN LAND AND LIVESTOCK COMPANY
P6	25-1663	Point to Point	N660 E660 S4 18 8N 2E SL	P	1880	S	0	0	HOLMGREN LAND AND LIVESTOCK COMPANY
P7	25-1666	Point to Point	N660 W660 S4 07 8N 2E SL	P	1880	S	0	0	FOUR MILE RANCH, INC.
P7	25-1666	Point to Point	N660 W660 S4 07 8N 2E SL	P	1880	S	0	0	FOUR MILE RANCH, INC.
P8	25-1668	Point to Point	N660 E660 S4 07 8N 2E SL	P	1880	S	0	0	FOUR MILE RANCH, INC.
P8	25-1668	Point to Point	N660 E660 S4 07 8N 2E SL	P	1880	S	0	0	FOUR MILE RANCH, INC.
P9	25-1669	Point to Point	N660 W660 S4 07 8N 2E SL	P	1880	S	0	0	FOUR MILE RANCH, INC.
P9	25-1669	Point to Point	N660 E660 SW 07 8N 2E SL	P	1880	S	0	0	FOUR MILE RANCH, INC.
P10	25-1672	Point to Point	S660 W1980 E4 18 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P10	25-1672	Point to Point	N660 W660 E4 17 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P11	25-1673	Point to Point	S660 W660 E4 18 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P11	25-1673	Point to Point	S660 W1980 E4 17 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P12	25-1674	Point to Point	N660 W660 SE 17 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P12	25-1674	Point to Point	N660 E660 SW 17 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P13	25-1676	Point to Point	N660 W660 S4 19 8N 2E SL	P	1880	S	0	0	JACK L. AND TRUDY BROWN
P13	25-1676	Point to Point	N660 E660 S4 19 8N 2E SL	P	1880	S	0	0	JACK L. AND TRUDY BROWN
P14	25-1679	Point to Point	N660 E1980 W4 29 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P14	25-1679	Point to Point	S660 W1980 E4 20 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P15	25-1680	Point to Point	S660 E660 W4 30 8N 2E SL	P	1880	S	0	0	HOLMGREN LAND AND LIVESTOCK COMPANY
P15	25-1680	Point to Point	S660 E660 N4 30 8N 2E SL	P	1880	S	0	0	HOLMGREN LAND AND LIVESTOCK COMPANY
P16	25-1681	Point to Point	S660 E660 NW 31 8N 2E SL	P	1880	S	0	0	HOLMGREN LAND AND LIVESTOCK COMPANY
P16	25-1681	Point to Point	S660 W1980 E4 30 8N 2E SL	P	1880	S	0	0	HOLMGREN LAND AND LIVESTOCK COMPANY
P17	25-1682	Point to Point	S660 W660 E4 32 8N 2E SL	P	1880	S	0	0	HOLMGREN LAND AND LIVESTOCK COMPANY
P17	25-1682	Point to Point	S660 W1980 E4 32 8N 2E SL	P	1880	S	0	0	HOLMGREN LAND AND LIVESTOCK COMPANY

**Table B-1**  
**Water Right Points of Diversion**  
**PODs in area of Figure B-1 (T8N-R1W and T8N-R2W)**

<u>Map ID#</u>	<u>WR Number</u>	<u>Diversion</u>	<u>Location</u>	<u>Status</u>	<u>Priority</u>	<u>Uses</u>	<u>CFS</u>	<u>ACFT</u>	<u>Owner Name</u>
P18	25-1683	Point to Point	S660 E660 NW 33 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P18	25-1683	Point to Point	S660 W660 N4 28 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P19	25-1684	Point to Point	S660 E660 N4 33 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P19	25-1684	Point to Point	S660 E660 N4 18 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P20	25-221	Point to Point	N660 E660 S4 25 8N 1E SL	P	18600401	DS	0.5	0	EPHRAIM C. OR VESTA A. JENSEN
P21	25-223	Point to Point	N660 W660 SE 24 8N 1E SL	P	18600401	DS	0.5	0	EPHRAIM C. OR VESTA A. JENSEN
P22	25-225	Point to Point	N660 E660 SW 24 8N 1E SL	P	18600401	DS	0.5	0	EPHRAIM C. OR VESTA A. JENSEN
P23	25-228	Point to Point	S660 W660 NE 23 8N 1E SL	P	18600401	DS	0.5	0	EPHRAIM C. AND VESTA A. JENSEN
P24	25-235	Point to Point	S660 W660 N4 18 8N 2E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P24	25-235	Point to Point	S660 W660 N4 18 8N 2E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P25	25-236	Point to Point	N660 E660 S4 25 8N 1E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P25	25-236	Point to Point	N660 W660 SE 25 8N 1E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P26	25-237	Point to Point	S1980 E660 N4 19 8N 2E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P26	25-237	Point to Point	S660 W660 N4 18 8N 2E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P27	25-238	Point to Point	N660 E660 S4 24 8N 1E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P27	25-238	Point to Point	S660 E660 NW 24 8N 1E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P28	25-239	Point to Point	N660 E660 SW 24 8N 1E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P28	25-239	Point to Point	S660 E660 NW 24 8N 1E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P29	25-240	Point to Point	N660 E660 W4 24 8N 1E SL	P	18600401	S	0	0	KARL JENSEN
P29	25-240	Point to Point	N660 W660 SE 23 8N 1E SL	P	18600401	S	0	0	KARL JENSEN
P30	25-241	Point to Point	S660 E660 NW 24 8N 1E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P30	25-241	Point to Point	S660 E1980 W4 13 8N 1E SL	P	18600401	S	0	0	EPHRAIM C. AND VESTA A. JENSEN
P31	25-242	Point to Point	S660 W660 NE 23 8N 1E SL	P	18600401	S	0	0	KARL JENSEN
P31	25-242	Point to Point	N660 W660 SE 14 8N 1E SL	P	18600401	S	0	0	KARL JENSEN
P32	25-602	Point to Point	N660 W660 SE 12 8N 1E SL	P	18600401	S	0	0	MIDDLE MOUNTAIN RESORT, LLC
P33	25-603	Point to Point	N660 E660 SW 13 8N 1E SL	P	18600401	S	0	0	JACK L. BROWN
P33	25-603	Point to Point	S660 W1980 E4 12 8N 1E SL	P	18600401	S	0	0	JACK L. BROWN
P34	25-604	Point to Point	N660 E660 SW 13 8N 1E SL	P	18600401	S	0	0	KARL A. JENSEN
P34	25-604	Point to Point	S660 W1980 E4 12 8N 1E SL	P	18600401	S	0	0	KARL A. JENSEN
P35	25-608	Point to Point	S660 E1980 W4 12 8N 1E SL	P	18600401	S	0.045	0	MIDDLE MOUNTAIN RESORT, LLC
P36	25-609	Point to Point	S660 W1980 E4 13 8N 1E SL	P	18600401	S	0.5	0	KARL A. JENSEN
P37	25-610	Point to Point	S660 W1980 E4 13 8N 1E SL	P	18600401	S	0.5	0	KARL A. JENSEN

**Table B-1**  
**Water Right Points of Diversion**  
**PODs in area of Figure B-1 (T8N-R1W and T8N-R2W)**

<u>Map ID#</u>	<u>WR Number</u>	<u>Diversion</u>	<u>Location</u>	<u>Status</u>	<u>Priority</u>	<u>Uses</u>	<u>CFS</u>	<u>ACFT</u>	<u>Owner Name</u>
P38	25-611	Point to Point	S660 W1980 E4 13 8N 1E SL	P	18600401	S	0	0	KARL A. JENSEN
P38	25-611	Point to Point	S660 W660 N4 13 8N 1E SL	P	18600401	S	0	0	KARL A. JENSEN
P39	25-618	Point to Point	S660 W660 E4 11 8N 1E SL	P	18600401	S	0.022	0	MIDDLE MOUNTAIN RESORT, LLC
P40	25-7050	Point to Point	S660 E660 N4 18 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P40	25-7050	Point to Point	S660 E660 N4 18 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P41	25-7560	Point to Point	S660 E660 N4 18 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P41	25-7560	Point to Point	S660 E660 N4 18 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P42	25-8119	Point to Point	S660 W1980 E4 18 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P42	25-8119	Point to Point	N660 W660 E4 17 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P43	25-8120	Point to Point	S660 W660 E4 18 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P43	25-8120	Point to Point	S660 W1980 E4 17 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P44	25-8121	Point to Point	N660 W660 SE 17 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P44	25-8121	Point to Point	N660 E660 SW 17 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P45	25-8123	Point to Point	S660 W660 N4 28 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P45	25-8123	Point to Point	S660 W660 N4 28 8N 2E SL	P	1880	S	0	0	BRUCE PETERSEN
P46	25-8124	Point to Point	N660 E1980 W4 29 8N 2E SL	P	1880	S	0	0	W. F. PETERSEN
P46	25-8124	Point to Point	S660 W1980 E4 20 8N 2E SL	P	1880	S	0	0	W. F. PETERSEN
P47	25-8125	Point to Point	S660 E660 NW 33 8N 2E SL	P	1880	S	0	0	W. F. PETERSEN
P47	25-8125	Point to Point	S660 W660 N4 28 8N 2E SL	P	1880	S	0	0	W. F. PETERSEN
P48	25-8600	Point to Point	S660 E660 N4 33 8N 2E SL	P	1880	S	0	0	W. F. PETERSEN
P48	25-8600	Point to Point	S660 E660 N4 18 8N 2E SL	P	1880	S	0	0	W. F. PETERSEN
P49	25-8601	Point to Point	N660 W660 S4 33 8N 2E SL	P	1880	S	0	0	HOLMGREN LAND AND LIVESTOCK COMPANY
P49	25-8601	Point to Point	S660 E1980 W4 33 8N 2E SL	P	1880	S	0	0	HOLMGREN LAND AND LIVESTOCK COMPANY
P50	25-8602	Point to Point	S660 W1980 E4 33 8N 2E SL	P	1880	S	0	0	C/O THORNLEY K. SWAN SWAN LAND AND LIVESTOC
P50	25-8602	Point to Point	S1980 E660 N4 33 8N 2E SL	P	1880	S	0	0	C/O THORNLEY K. SWAN SWAN LAND AND LIVESTOC



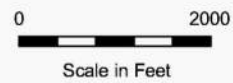
Z:\Library\Projects\Summit Min Holding Group\Summit2-DWG4-BearRiver\Fig-B-01-VicinityMap-Bear-POD PLOT.dwg, Fig11x17 (4)

Base maps: USGS Quadrangle maps (1998): James Peak, UT, "Sharp Mountain, UT", Huntsville, UT", and Browns Hole UT"

- Key:
- POD and ID# on Table B-1
  - ⊕ Well
  - ⊕ Spring



Summit Group  
Powder Mountain  
Point of Diversion (POD) Map  
Figure B-1



**Section 9 -**

**Appendix F – PMWSID  
Settlement Agreement**

## SETTLEMENT AGREEMENT

### SUMMIT MOUNTAIN HOLDING GROUP EXCHANGE E5382

This Settlement Agreement (this "**Agreement**") is made and entered into this <sup>27<sup>th</sup></sup> day of January, 2016 (the "**Execution Date**"), by and among Summit Mountain Holding Group, LLC, a Utah limited liability company ("**Summit**"), Bar B Ranch, Inc., a Utah corporation ("**Bar B**"), Eden Water Works Company, a Utah nonprofit corporation ("**Eden Water**"), Middle Fork Irrigation Company, a Utah nonprofit corporation ("**Middle Fork**"), Wolf Creek Irrigation Company, a Utah nonprofit corporation ("**WCIC**") and Wolf Creek Water and Sewer Improvement District, a Utah improvement district ("**Wolf Creek District**"). Bar B, Eden Water, Middle Fork, WCIC and Wolf Creek District are sometimes collectively referred to herein as the "**Protestants**." Each of the Protestants and Summit may sometimes be referred to individually as a "**Party**" and the Protestants and Summit may sometimes be referred to collectively as the "**Parties**."

#### RECITALS

A. On April 8, 2014, Summit filed Exchange Application No. E5382 (35-12848) (the "**Exchange**") with the Utah Division of Water Rights (the "**Division**") seeking approval from the Utah State Engineer to develop 400 acre-feet of water for municipal use from seven underground well points of diversion and four springs to be replaced by the release of up to 400 acre-feet of water from Pineview Reservoir under the Exchange. The Pineview Reservoir water that is the source of the replacement water under the Exchange is based upon a contract (the "**Weber Basin Contract**") between Summit and Weber Basin Water Conservancy District ("**Weber Basin**"). Summit requested that previously approved Exchange Application No. E4715 (35-11995), also based upon the Weber Basin Contract, be withdrawn and replaced by the Exchange upon its approval.

B. Water developed under the Exchange is intended to supply Summit's resort development (the "**Development**") at Powder Mountain. As Summit develops sources under the Exchange needed to serve the Development, it will transfer the developed sources and portions of the Exchange to the Powder Mountain Water and Sewer Improvement District, a Utah improvement district (the "**Powder Mountain District**"). The Powder Mountain District will deliver the water made available under the Exchange to the Development through infrastructure constructed by Weber County or Summit and transferred to the Powder Mountain District and pursuant to the terms and conditions of a development agreement being negotiated between Summit and the Powder Mountain District.

C. Of the seven underground points of diversion listed in the Exchange, two are existing wells. Underground point of diversion #6, the "**Hidden Lake Well**," was drilled by Summit in 2013, and has a production yield of 120 gallons per minute (the "**Production Yield**") that has been approved by the Utah Division of Drinking Water (the "**DDW**"). Underground point of diversion #1, the "**Cobabe Well**," is owned by the Powder Mountain District.

D. The Protestants timely protested the Exchange claiming that water diverted under the Exchange would impermissibly interfere with their senior vested water rights in the Weber River drainage located downgradient from the Exchange points of diversion and upgradient from Pineview Reservoir. Other parties protested the Exchange, including parties located in the Bear River drainage (the "**Cache Protestants**"). Both the Protestants and the Cache Protestants claimed that some of the water pumped from the Hidden Lake Well would be withdrawn from the Bear River drainage and could not be replaced from Pineview Reservoir under the Exchange. The Powder Mountain District did not protest the Exchange and was not a party in the administrative proceedings for the Exchange.

E. The Division held a hearing on the Exchange on July 8, 2014 at which Summit, the Protestants, the Cache Protestants, and others presented arguments and hydrogeological testimony. Subsequent to the hearing, the Parties filed numerous supplements to the administrative record for the Exchange.

F. Summit conducted a pump test at the Hidden Lake Well in December of 2014 to determine if impacts to the Protestants' and the Cache Protestants' water rights would occur from pumping the Hidden Lake Well. Subsequent to the pump test, the Parties and others evaluated the data and filed additional supplemental reports in the administrative record for the Exchange.

G. Beginning in the fall of 2014, the Utah Geological Survey (the "**UGS**") conducted an investigation into the hydrogeology of the Powder Mountain area in the vicinity of the Hidden Lake Well. The UGS examined baseflow of springs and streams discharging into Cache Valley and Ogden Valley, sampled water chemistry and stable isotopes, examined geology and later analyzed data from Summit's pump test. The UGS presented its interim findings to the Utah State Engineer in early 2015 but has not yet finalized its report.

H. In July of 2014 and July of 2015, WCIC and the Powder Mountain District entered into Out of Priority Water Diversion Agreements authorizing the Powder Mountain District to divert water out of priority under its junior water rights during the irrigation season without interfering with WCIC's early priority Water Right No. 35-7188 for the diversion and use of water from Wolf Creek for irrigation purposes (the "**WCIC Water Right**") in return for payment to WCIC to forebear the diversion of water under certain WCIC shares.

I. On July 31, 2015, the Utah State Engineer approved the Exchange with conditions. With respect to conditions relating to the Protestants, the State Engineer determined that if interference to the Protestants' water rights occurred from Summit's diversion of water under the Exchange, it would be manifest first in the flows of Wolf Creek, and no diversion of water should be made under the Exchange when WCIC's water rights are not being fully satisfied. The State Engineer also determined that there are times during the year when water can be diverted without interfering with water rights of the Protestants and other senior water rights, and that those times primarily occur during the non-irrigation season and spring runoff period.

J. The Utah State Engineer also conditioned approval of the Exchange on mitigation by Summit for interference to water rights in the Bear River drainage. The Hidden Lake Well

was evaluated to have a 30% interference impact to the Bear River drainage. The remaining six underground points of diversion described in the Exchange (including the Cobabe Well) have not been evaluated and are required to be evaluated to determine necessary mitigation to be provided to the Bear River drainage when each well is drilled. Water under the Exchange cannot be diverted from any of the underground well points of diversion in the Exchange until they have been evaluated and a mitigation plan for each individual well approved by the State Engineer. This Agreement does not cover any of the required mitigation to the Bear River side of the drainage divide.

K. On August 19, 2015, at the request of Summit and the Protestants, the State Engineer reissued his Order (the "**Order**") conditionally approving the Exchange but making no changes to his determination that mitigation to the Bear River drainage and Wolf Creek in the Weber River drainage was required for Summit's diversions of water under the Exchange. Various Requests for Reconsideration of the Order were timely filed but considered denied as a result of inaction on them by the State Engineer 20 days after the Requests were filed.

L. In August of 2015, Summit, WCIC and the Powder Mountain District negotiated an Out of Priority Water Diversion Agreement (3 Acre-Feet) (the "**3 Acre-Feet Agreement**") for the Powder Mountain District to serve up to 6 residences to be constructed by Summit in return for granting an easement to Lefty's Springs to WCIC and payment of Eighty-Five Thousand and No/100 Dollars (\$85,000.00) to WCIC; however, the conditions precedent to the 3 Acre-Feet Agreement were not fulfilled and it did not become effective.

M. Subsequent to the issuance of the Order, the Protestants and Summit negotiated a settlement to the issues raised by the Exchange and the Order specific to the Weber River side of the drainage divide. WCIC took the lead for the Protestants in the negotiations, and all of the Protestants approved the settlement.

N. For purposes of negotiating the Parties' settlement, Summit and WCIC agreed that the critical period during which Summit must provide mitigation to WCIC is four months during the irrigation season, approximately between June 15th and October 15th (the "**Critical Mitigation Period**"), although climatic and hydrologic conditions vary each year.

O. On October 9, 2015, the Parties executed a Memorandum of Understanding Re: Exchange E5382 (the "**MOU**") to outline their agreement in principle and to document the critical points agreed to by them in settling their disputes over the Exchange.

P. Paragraph 2 of the MOU states the agreement of the Parties to not file an action for judicial review of the Order upon the execution of the MOU.

## AGREEMENT

NOW THEREFORE, in full and complete settlement of all disputes, protests and claims among the Parties arising out of the Exchange, the Protestants' protests to the Exchange, and the Order, and in consideration of the foregoing recitals, the mutual covenants, promises and

agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. No Judicial Review of the Order. The Parties represent that in good faith reliance on the MOU, they have not commenced an action to seek judicial review of the Order, and that the time within which to seek judicial review has now run and the Order is final.

2. Incorporation of Recitals, Definitions and Exhibits. The Parties agree that the Recitals to this Agreement set forth above, including without limitation, the definitions of capitalized terms set forth therein, and the Exhibits to this Agreement are true and correct, and incorporated herein by this reference.

3. Condition Precedent to Effectiveness of Agreement. The Parties acknowledge that except for Section 1 above, which contains a provision that is intended to be binding and fully enforceable upon the Execution Date, a condition precedent to this Agreement (the "Condition Precedent") is the acquisition by Summit of a minimum of 15 shares of stock in WCIC (the "Initial Mitigation Shares"). The Condition Precedent may be waived by Summit in its sole and absolute discretion, in the event that Summit is unable to acquire any or all of the Initial Mitigation Shares, by Summit providing written notice to the other Parties. In the event of such a written waiver, the Parties will pursue the alternate mitigation as provided in Section 15 below. This Agreement will become effective (the "Effective Date") on either (i) the date that Summit acquires the last of the Initial Mitigation Shares; or (ii) the date that Summit provides written notice to the other Parties of its decision to waive the Condition Precedent.

4. Acquisition of WCIC Stock by Summit. Acquisition by Summit of the Initial Mitigation Shares is the cornerstone of Summit's mitigation for the first 200 acre-feet of annual underground water diverted under the Exchange. Nothing in this Agreement will limit Summit's acquisition of WCIC shares to only the Initial Mitigation Shares. Following Summit's acquisition of any shares of stock in WCIC, Summit or its designee shall remain a WCIC shareholder and pay all assessments as levied by WCIC against the shares the same as any other irrigating (farming) shareholder. Consistent with WCIC's Amended Bylaws, Summit will not attempt to divert and use any water under any WCIC shares it acquires, including the Initial Mitigation Shares, from an underground well or outside the existing certificated place of use of the WCIC Water Right. WCIC and Summit agree that Summit's use of WCIC shares for mitigation as set forth herein is not inconsistent with WCIC's Amended Bylaws.

a. WCIC's Actions. WCIC will use its best efforts to help facilitate Summit's acquisition of the Initial Mitigation Shares through the following actions: dissemination of information regarding the executed MOU and this Agreement and the Parties' intention to settle their disputes arising out of the Exchange; discussions at the annual WCIC shareholders' meeting held in November of 2015; and providing Summit with WCIC's most recent shareholder list, including names and contact information of shareholders. WCIC shall not be required to contact individual WCIC shareholders or attend public meetings on Summit's behalf. Upon Summit's acquisition of the Initial Mitigation Shares and any additional WCIC shares and Summit's surrender of such endorsed shares to WCIC, WCIC, in its ordinary course of business and in conformance with its Bylaws, shall issue a new certificate or certificates in the name of Summit or Summit's designee. WCIC will transfer title to such shares upon the same

terms as WCIC would transfer title to any other shareholder acquiring WCIC shares and will not impose additional transfer requirements on Summit.

b. Summit's Actions. Summit will use its best efforts to timely acquire the Initial Mitigation Shares and surrender such shares to WCIC for transfer to Summit. Such efforts may include, without limitation and in Summit's sole discretion, communications with WCIC shareholders via telephone or in person, or other solicitation, either directly or through its agents. Negotiations to acquire WCIC shares shall be at prices and on terms acceptable to Summit and the individual WCIC shareholders from which Summit acquires WCIC shares.

c. Voting Rights Eliminated for Shares Used for Mitigation. Summit will not object to a change in WCIC's Articles of Incorporation and Amended Bylaws eliminating voting rights for WCIC shares used for mitigation.

5. Payment to WCIC by Summit. Summit shall pay Eighty-Five Thousand and No/100 Dollars (\$85,000.00) to WCIC within seven (7) days of the Effective Date of this Agreement.

6. Grant of Lefty's Springs Monitoring Easement to WCIC by Summit. Within seven (7) days of the Effective Date of this Agreement, Summit shall grant to WCIC permanent easements to provide perpetual access to and from the existing monitoring device (the "**Protestants' Existing Monitoring Device**") located on Lower Lefty's Springs and to and from a new monitoring device (the "**New WCIC Monitoring Device**") to monitor the flows of Lefty's Springs at a point yet to be determined by WCIC. The Protestants' Existing Monitoring Device and the New WCIC Monitoring Device are collectively referred to herein as the "**Monitoring Facilities**." The granted easements shall also include rights for the installation, operation, maintenance, repair, and replacement of the Monitoring Facilities. The easements to be granted by Summit shall be substantially in the form of the Easement Agreement attached as **Exhibit A** to this Agreement (the "**Lefty's Springs Monitoring Easement Agreement**"). The Lefty's Springs Monitoring Easement Agreement shall be recorded in the office of the Weber County Recorder and indexed against land owned by Summit and/or a Summit affiliate, as appropriate. WCIC will timely provide to Summit all data obtained from the Monitoring Facilities, and the Monitoring Facilities will be added to the sources monitored under the Monitoring Plan that is defined and described in Section 13 of this Agreement.

7. Installation of Monitoring Device by Summit. Prior to the end of 2016, Summit will at its cost install a new monitoring device to monitor the flows of Lefty's Springs (the "**Summit Monitoring Device**"). The Summit Monitoring Device will be owned by Summit. The location, design, and installation of the Summit Monitoring Device shall be acceptable to WCIC. Summit will timely provide to WCIC all data obtained from the Summit Monitoring Device, and the Summit Monitoring Device will be added to the sources monitored under the Monitoring Plan that is defined and described in Section 13 of this Agreement.

8. Termination of 3 Acre-Foot Agreement. Summit and WCIC agree to execute the "**Termination Agreement**" attached as **Exhibit B** to this Agreement on or before the Effective Date and agree to cooperate to obtain the signature of the Powder Mountain District to such Termination Agreement.

9. Withdrawal of Underground Point of Diversion #7 from the Exchange. Within seven (7) days after the Effective Date of this Agreement, and as mitigation to all of the Protestants, and specifically to Bar B, Eden Water, Middle Fork and the Wolf Creek District as well as to WCIC, Summit will file written notice at the Division withdrawing underground Point of Diversion #7 from the Exchange. Point of Diversion #7 is described more particularly in the Exchange as having a Public Land Survey (PLS) description of South 1195 feet and East 2035 feet from the Northwest corner of Section 8, Township 7 North, Range 2 East, Salt Lake Base & Meridian (SLB&M).

10. Additional Development Under the Exchange. Summit may fully utilize the Hidden Lake Well to the extent of the approved Production Yield and will drill and develop underground Point of Diversion #5 as described in the Exchange. Underground Point of Diversion #5 (the "**Hidden Lake Well #2**") is described more particularly in the Exchange as having a Public Land Survey (PLS) description of North 1487 feet and East 1548 feet from the South quarter corner of Section 6, Township 7 North, Range 2 East, Salt Lake Base & Meridian (SLB&M) with a depth of from 1800 to 2500 feet.

a. Production Yield of Hidden Lake Well #2 Equal To or Greater Than Production Yield of Hidden Lake Well. Provided that (i) the Hidden Lake Well #2 has a Production Yield that is equal to or greater than the Production Yield of the Hidden Lake Well; and (ii) the State Engineer has approved the mitigation plan for the Bear River drainage required by the Order, Summit will suspend any further well drilling or spring development under the Exchange on the Weber River side of the drainage divide and will conduct exploration and development efforts on the Bear River side of the drainage divide as described in Section 11 of this Agreement.

b. Production Yield of Hidden Lake Well #2 Less Than Production Yield of Hidden Lake Well. In the event that the Production Yield of the Hidden Lake Well #2 is not equal to or greater than the Production Yield of the Hidden Lake Well, Summit may in its discretion conduct further exploration and development efforts under the Exchange on the Weber River side of the drainage divide until the Production Yield of the Hidden Lake Well #2 and the Production Yield of any additional wells developed under the Exchange when combined is equal to or greater than the Production Yield of the Hidden Lake Well. Following approval of the mitigation plan for the Bear River drainage for the developed sources as required by the Order, Summit will suspend any further well drilling or spring development under the Exchange on the Weber River side of the drainage divide and will conduct exploration and development efforts on the Bear River side of the drainage divide as set forth in Section 11 of this Agreement. Provided, however, even if the Production Yield of the Hidden Lake Well #2 is not equal to or greater than the Production Yield of the Hidden Lake Well, Summit may in its discretion suspend any further source development under the Exchange on the Weber River side of the drainage divide and conduct exploration and development efforts on the Bear River side of the drainage divide.

c. Point of Diversion #3. As additional mitigation to Bar B, Eden Water, Middle Fork and the Wolf Creek District, Summit agrees that underground Point of Diversion #3 as described in the Exchange shall be the last point of diversion it will explore or develop under the Exchange. Underground Point of Diversion #3 is described more particularly in the Exchange as having a Public Land Survey (PLS) description of North 400 feet and West 1350

feet from the Southeast corner of Section 5, Township 7 North, Range 2 East, Salt Lake Base & Meridian (SLB&M) with a depth of from 2000 to 2500 feet.

11. Water Rights Development in the Bear River Drainage. Prior to March 1, 2016, Summit will identify points of diversion on the Bear River side of the drainage divide it may pursue for a water supply to its Development (the "**Bear River PODs**"). After identifying the Bear River PODs, Summit will promptly notify the Protestants of its intent to file applications with the Division to develop the Bear River PODs and provide the Protestants with the locations of the Bear River PODs. Protestants will timely review the Bear River PODs and advise Summit as to which, if any, it may protest, providing reasons therefor. If Summit decides to file an application or applications with the Division including Bear River PODs that the Protestants indicated they would protest, Summit may in its discretion file such application(s) and prosecute the applications to a decision of the State Engineer, and the Protestants may protest the application(s). The Protestants will not protest applications containing only Bear River PODs to which they did not object. If it is reasonably and economically practicable after Summit has developed the Hidden Lake Well and the Hidden Lake Well #2, Summit will acquire sufficient water rights and develop sufficient sources in the Bear River drainage to supply the remaining water for the Development.

12. Establishment of a Mutually Agreeable Buffer Zone. The Parties will make a good faith attempt to establish a mutually agreeable buffer zone for drilling wells on the Bear River side of the drainage divide based on established hydrogeologic boundaries (the "**Buffer Zone**"). However, success in establishing the Buffer Zone is not a prerequisite to Summit filing an application or applications or developing sources under such application(s) that are located on the Bear River PODs.

13. Long Term Monitoring of Sources and Uses. Within six (6) months of the Effective Date, the Parties will develop a long-term monitoring plan (the "**Monitoring Plan**") to monitor sources developed by Summit and certain other undeveloped sources in both the Weber River and Bear River drainages. The monitoring plan will be mutually acceptable to the Parties, the State Engineer, and the Powder Mountain District. In addition to sources yet to be developed in the Weber River drainage and the Bear River drainage, the Monitoring Plan will include without limitation, Lefty's Springs (the Monitoring Facilities and the Summit Monitoring Device and any other device installed to monitor or divert water from Lefty's Springs), the Hidden Lake Well, the Hidden Lake Well #2, the Exploration Well #2, Pizzel Springs, the Cobabe Well, the existing flume located at WCIC's point of diversion for the WCIC Water Right, the flume located at the Warm Spring and other sources used to supply the water rights of the Protestants and the Powder Mountain District. In addition to monitoring the sources of the Parties and the Powder Mountain District, the Parties' uses of water from the monitored sources will be monitored and included in the Monitoring Plan. The data and water use information obtained under the Monitoring Plan will be provided to each of the Parties as set forth in the Monitoring Plan, but on no less than a quarterly basis. Where practical and economically feasible, the Parties will provide their data and water use information to each other on a real-time basis.

14. Summit's Mitigation for the First 200 Acre-Feet of Water under the Exchange. Summit shall at its option mitigate for the first 200 acre-feet of its annual underground water diversion under the Exchange either (i) by acquiring, owning and forbearing use of the Initial

Mitigation Shares together with constructing a 20 acre-feet reservoir (the “**First Storage Reservoir**”) in which a portion of the water available for diversion under the Initial Mitigation Shares will be stored and released to WCIC annually as set forth in this Section 14, or (ii) through alternate mitigation as set forth in Section 15 of this Agreement. Mitigation for Summit’s development of surface sources under the Exchange, identified as Surface Points of Diversion #1 through #4, may not be accomplished pursuant to this Section and must be accomplished pursuant to Section 22 hereof.

a. **Mitigation for Development of First 150 Acre-Feet.** To compensate other WCIC shareholders for Summit’s diversion and year-round use of the first 150 acre-feet of underground water diverted under the Exchange, Summit will not call for delivery of its pro-rata allotment of water under the Initial Mitigation Shares when water is being diverted and delivered to Summit’s Development pursuant to the Exchange, subject to Section 18 of this Agreement. During the period of Summit’s forbearance of use of water under the Initial Mitigation Shares, WCIC will allocate and deliver Summit’s pro-rata allotment of water to WCIC’s other shareholders taking delivery of water through WCIC’s pressurized system. The Parties agree that Summit’s forbearance of use of the Initial Mitigation Shares is complete and full mitigation for the first 150 acre-feet of underground water developed under the Exchange.

b. **Mitigation for Development of Next 50 Acre-Feet (151 Acre-Feet to 200 Acre-Feet) for a Total of the First 200 Acre-Feet Under the Exchange.** Prior to Summit’s commencement of construction of any part of Summit’s Development that will require a water supply in excess of the first 150 acre-feet of water under the Exchange, Summit shall complete construction of the First Storage Reservoir and make it available for WCIC’s use during the year that Summit first uses more than 150 Acre-Feet of water under the Exchange. However, in any event, Summit shall complete construction of the First Storage Reservoir no later than September 30, 2021 such that it is available for WCIC’s use during the 2022 irrigation season. Summit shall design and construct the First Storage Reservoir at its own cost, including the cost to connect it to WCIC’s pressurized irrigation system, and acquire all permits and approvals therefor. The location of the First Storage Reservoir shall be mutually acceptable to WCIC and Summit. Within twelve (12) months after the Effective Date of this Agreement, Summit and WCIC will agree on potential sites for construction of the First Storage Reservoir. It is the intent of the Parties that WCIC will fill the First Storage Reservoir during the early part of the irrigation season pursuant to the filing and approval of an Application for Permanent Change of Water (“**Change Application**”) based upon a share segregation of the Initial Mitigation Shares as set forth in more detail in Section 19 of this Agreement. Thereafter, the stored water will be released to WCIC’s other shareholders during the Critical Mitigation Period. The Parties agree that Summit’s construction of the First Storage Reservoir as described in this Subsection is complete and full mitigation for the next 50 acre-feet of water developed under the Exchange for the total of the first 200 acre-feet under the Exchange.

i. **Operation, Maintenance and Repair.** WCIC shall operate and control the First Storage Reservoir, including the storing and releasing of water, and pay the operational costs thereof. Summit shall pay and be responsible for all maintenance and repair costs associated with the First Storage Reservoir for so long as it is used to provide mitigation for underground water diverted under the Exchange. Such maintenance and repair costs typically would include replacement of parts, equipment and materials and payments to contractors to

perform the maintenance and repairs and typically would not include payments to WCIC personnel to perform inspections and operate the First Storage Reservoir.

ii. Gravity-Fed System Preferred. Water delivered for storage in and released from the First Storage Reservoir must be able to be gravity-fed into WCIC's pressurized irrigation system, or Summit shall, at its sole cost, design and construct pumping facilities required for the storage and release of such water. Construction of a gravity-fed system is preferred by the Parties over a system that is dependent upon pumping facilities, and a gravity-fed system should be constructed if it is reasonably and economically practicable to do so. If a gravity-fed system is not reasonably and economically practicable, the account with the power company for the pumping facilities shall be in Summit's name and Summit shall thereafter pay all pumping and water delivery costs for so long as water from the First Storage Reservoir is used to mitigate for water diverted under the Exchange.

iii. Continuing Mitigation Obligation. Summit's responsibility for maintenance and repair of the First Storage Reservoir, the payment of all costs associated with the maintenance and repair of the First Storage Reservoir, and the payment of pumping costs associated with the First Storage Reservoir, if any, are continuing mitigation obligations under this Agreement. Summit's failure to make such payments when due constitutes a default under this Agreement. The continued diversions of water under the Exchange are expressly conditioned upon Summit making such payments when due.

c. Easements and Indemnities. If Summit owns the property on which the First Storage Reservoir will be located, Summit shall grant easements to WCIC for access to and from the First Storage Reservoir and for the construction, operation and maintenance of the First Storage Reservoir and associated pipelines and facilities. WCIC shall indemnify, defend and hold harmless Summit for all liability, damage, and costs arising out of its access and for its operation and control of the First Storage Reservoir. If Summit does not own the property on which the First Storage Reservoir will be located, Summit and WCIC will cooperate in Summit's acquisition of easements from the owner of such property for access to and from the First Storage Reservoir and for the construction, operation and maintenance of the First Storage Reservoir and associated pipelines and facilities. Such easements will be acceptable and assignable to WCIC. In such an event, WCIC will not be required to indemnify, defend and hold harmless Summit for access or for WCIC's operation and control of the First Storage Reservoir. Summit shall indemnify, defend and hold harmless WCIC for all liability, damage, and costs arising out of the permitting, and construction, maintenance and repair of the First Storage Reservoir and for its use of the First Storage Reservoir for recreation as set forth in more detail in Section 20 of this Agreement.

15. Alternate Mitigation for the First 200 Acre-Feet of Water Under the Exchange. In the event that Summit cannot acquire any or all of the Initial Mitigation Shares and provides written notice to the other Parties of Summit's waiver of the Condition Precedent as set forth in Section 3 of this Agreement, Summit may, in its sole discretion, undertake alternate mitigation for the first 200 acre feet of underground water diverted under the Exchange as set forth in this Section. Such alternate mitigation may consist of construction of reservoirs to store 40 acre-feet of water (the "Alternate Storage Reservoirs") in the event that none of the Initial Mitigation Shares are acquired by Summit. If some, but less than 15, of the Initial Mitigation Shares are

acquired by Summit, Summit may use the table in Subsection c of this Section to calculate the amount of storage required to mitigate for the first 200 acre-feet of underground water diverted under the Exchange based upon the number of WCIC shares acquired.

a. Location and Construction of the Alternate Storage Reservoirs. The location of the Alternate Storage Reservoirs shall be mutually acceptable to WCIC and Summit. Within twelve (12) months after Summit provides written notice to the other Parties of Summit's waiver of the Condition Precedent as set forth in Section 3 of this Agreement, Summit and WCIC will agree on potential sites for construction of the Alternate Storage Reservoirs. Summit shall design and construct the Alternate Storage Reservoirs at its own cost, including the cost to connect them to WCIC's pressurized irrigation system, and acquire all permits and approvals therefor. It is the intent of the Parties that WCIC will fill the Alternate Storage Reservoirs during the early part of the irrigation season pursuant to the filing and approval of a Change Application based upon the WCIC Water Right as set forth in more detail in Section 19 of this Agreement. Thereafter, the stored water will be released to WCIC's other shareholders during the Critical Mitigation Period. The Parties agree that Summit's construction of the Alternate Storage Reservoirs to store 40 acre-feet of water as described in this Section would be complete and full mitigation for the First 200 acre-feet of underground water diverted under the Exchange.

i. Operation, Maintenance and Repair. WCIC shall operate and control the Alternate Storage Reservoirs, including the storing and releasing of water, and pay the operational costs thereof. Summit shall pay and be responsible for all maintenance and repair costs associated with the Alternate Storage Reservoirs for so long as they are used to provide mitigation for underground water diverted under the Exchange. Such maintenance and repair costs typically would include replacement of parts, equipment and materials and payments to contractors to perform the maintenance and repairs and typically would not include payments to WCIC personnel to perform inspections and operate the Alternate Storage Reservoirs.

ii. Gravity-Fed System Preferred. Water delivered for storage in and released from the Alternate Storage Reservoirs must be able to be gravity-fed into WCIC's pressurized irrigation system, or Summit shall, at its sole cost, design and construct pumping facilities required for the storage and release of such water. Construction of a gravity-fed system is preferred by the Parties over a system that is dependent upon pumping facilities, and a gravity-fed system should be constructed if it is reasonably and economically practicable to do so. If a gravity-fed system is not reasonably and economically practicable, the account with the power company for the pumping facilities shall be in Summit's name and Summit shall thereafter pay all pumping and water delivery costs for so long as water from the Alternate Storage Reservoirs is used to mitigate for water diverted under the Exchange.

iii. Continuing Mitigation Obligation. Summit's responsibility for the maintenance and repair of the Alternate Storage Reservoirs, the payment of all costs associated with the maintenance and repair of the Alternate Storage Reservoirs, and the payment of pumping costs associated with the Alternate Storage Reservoirs, if any, are continuing mitigation obligations under this Agreement. Summit's failure to make such payments when due constitutes a default under this Agreement. The continued diversions of water under the Exchange are expressly conditioned upon Summit making such payments when due.

b. Easements and Indemnities. If Summit owns the property on which the Alternate Storage Reservoirs will be located, Summit shall grant easements to WCIC for access to and from the Alternate Storage Reservoirs and for the construction, operation and maintenance of the Alternate Storage Reservoirs and associated pipelines and facilities. WCIC shall indemnify, defend and hold harmless Summit for all liability, damage, and costs arising out of its access and for its operation and control of the Alternate Storage Reservoirs. If Summit does not own the property on which the Alternate Storage Reservoirs will be located, Summit and WCIC will cooperate in Summit's acquisition of easements from the owner of such property for access to and from the Alternate Storage Reservoirs and for the construction, operation and maintenance of the Alternate Storage Reservoirs and associated pipelines and facilities. Such easements will be acceptable and assignable to WCIC. In such an event, WCIC will not be required to indemnify, defend and hold harmless Summit for access or for WCIC's operation and control of the Alternate Storage Reservoirs. Summit shall indemnify, defend and hold harmless WCIC for all liability, damage, and costs arising out of the permitting, and construction, maintenance and repair of the Alternate Storage Reservoirs and for its use of the Alternate Storage Reservoirs for recreation as set forth in more detail in Section 20 of this Agreement.

c. Combination of Less Than Initial Mitigation Shares and Storage. In the event that Summit acquires less than the Initial Mitigation Shares, Summit may select any combination of acquisition of a number of WCIC shares in an amount less than the Initial Mitigation Shares and construction of storage to mitigate for the first 200 acre-feet of underground water diverted under the Exchange. By way of clarification, in no event may Summit acquire more WCIC shares than the Initial Mitigation Shares and construct less than 20 acre-feet of storage in the First Storage Reservoir to mitigate for the first 200 acre-feet of underground water diverted under the Exchange. The following table will be used to calculate the amount of Storage to be constructed taking into account the number of WCIC Shares actually acquired by Summit:

<b>NUMBER OF WCIC SHARES</b>	<b>ACRE-FEET OF STORAGE (Rounded)</b>
<b>1</b>	<b>39.00</b>
<b>2</b>	<b>37.00</b>
<b>3</b>	<b>36.00</b>
<b>4</b>	<b>35.00</b>
<b>5</b>	<b>33.00</b>
<b>6</b>	<b>32.00</b>
<b>7</b>	<b>31.00</b>
<b>8</b>	<b>29.00</b>
<b>9</b>	<b>28.00</b>
<b>10</b>	<b>27.00</b>
<b>11</b>	<b>25.00</b>
<b>12</b>	<b>24.00</b>
<b>13</b>	<b>23.00</b>
<b>14</b>	<b>21.00</b>
<b>INITIAL MITIGATION SHARES</b>	<b>20.00</b>

16. Summit's Mitigation for the Second 200 Acre-feet of Water under the Exchange. Summit will provide written notice to the other Parties of Summit's intent to develop some or all of the second 200 acre-feet of water under the Exchange. Summit shall mitigate for the second 200 acre-feet of its annual water usage diverted under the Exchange pursuant to Subsections a, b, c or d of this Section 16, if Summit's development is from underground sources in the Exchange. Mitigation for Summit's development of surface sources under the Exchange, identified as Surface Points of Diversion #1 through #4, may not be accomplished pursuant to this Section and must be accomplished pursuant to Section 22 hereof.

a. Duplication of Mitigation for First 200 Acre-Feet. If Summit intends to divert the second 200 acre-feet of water from underground points of diversion under the Exchange, Summit may acquire an additional 15 shares of WCIC stock (the "**Second Mitigation Shares**") and duplicate its mitigation for diverting the first 200 acre-feet of water under the Exchange either (i) by acquiring, owning and forbearing use of the Second Mitigation Shares together with constructing a 20 acre-feet reservoir (the "**Second Storage Reservoir**") in which a portion of the water available for diversion under the Second Mitigation Shares will be stored and released to WCIC's shareholders other than Summit annually as set forth in Subsection a of this Section 16, or (ii) by constructing reservoirs to store 40 acre-feet of water as set forth in Subsection b of this Section 16 of this Agreement.

(i) Mitigation for Development of 150 Acre-Feet (201 Acre-Feet to 350 Acre-Feet) of the Exchange ("**201 to 350 acre-feet**"). To compensate other WCIC shareholders for Summit's diversion and year-round use of 201 to 350 acre-feet of underground water diverted under the Exchange, Summit will not call for delivery of its pro-rata allotment of water under the Second Mitigation Shares when underground water is being diverted and delivered to Summit's Development pursuant to the Exchange, subject to Section 18 of this Agreement. During the period of Summit's forbearance of use of water under the Second Mitigation Shares, WCIC will allocate and deliver Summit's pro-rata allotment of water to WCIC's other shareholders taking delivery of water through WCIC's pressurized system. The Parties agree that Summit's forbearance of use of the Second Mitigation Shares is complete and full mitigation for 201 to 350 acre-feet of underground water developed under the Exchange.

(ii) Mitigation for Development of Last 50 Acre-Feet Under the Exchange. Prior to Summit's commencement of construction of any part of Summit's Development that will require a water supply in excess of the 350 acre-feet of water under the Exchange, Summit shall complete construction of the Second Storage Reservoir and make it available for WCIC's use during the year that Summit first uses more than 350 acre-feet of water under the Exchange. Summit shall design and construct the Second Storage Reservoir at its own cost, including the cost to connect it to WCIC's pressurized irrigation system, and acquire all permits and approvals therefor. The location of the Second Storage Reservoir shall be mutually acceptable to WCIC and Summit. Within twelve (12) months after Summit provides written notice to the other Parties of Summit's intent to develop some or all of the second 200 acre-feet of water under the Exchange, Summit and WCIC will agree on potential sites for construction of the Second Storage Reservoir. It is the intent of the Parties that WCIC will fill the Second Storage Reservoir during the early part of the irrigation season pursuant to the filing and approval of a Change Application based upon a share segregation of the Second Mitigation Shares as set forth in more detail in Section 19 of this Agreement. Thereafter, the stored water

will be released to WCIC's other shareholders during the Critical Mitigation Period. The Parties agree that Summit's construction of the Second Storage Reservoir as described in this Subsection is complete and full mitigation for the last 50 acre-feet of water developed under the Exchange.

A. Operation, Maintenance and Repair. WCIC shall operate and control the Second Storage Reservoir, including the storing and releasing of water. Summit shall pay and be responsible for all maintenance and repair costs associated with the Second Storage Reservoir for so long as it is used to provide mitigation for underground water diverted under the Exchange. Such maintenance and repair costs typically would include replacement of parts, equipment and materials and payments to contractors to perform the maintenance and repairs and typically would not include payments to WCIC personnel to perform inspections and operate the Second Storage Reservoir.

B. Gravity-Fed System Preferred. Water delivered for storage in and released from the Second Storage Reservoir must be able to be gravity-fed into WCIC's pressurized irrigation system, or Summit shall, at its sole cost, design and construct pumping facilities required for the storage and release of such water. Construction of a gravity-fed system is preferred by the Parties over a system that is dependent upon pumping facilities, and a gravity-fed system should be constructed if it is reasonably and economically practicable to do so. If a gravity-fed system is not reasonably and economically practicable, the account for the pumping facilities shall be in Summit's name and Summit shall thereafter pay all pumping and water delivery costs for so long as water from the Second Storage Reservoir is used to mitigate for water diverted under the Exchange.

C. Continuing Mitigation Obligation. Summit's responsibility for the maintenance and repair of the Second Storage Reservoir, the payment of all costs associated with the maintenance and repair of the Second Storage Reservoir, and the payment of pumping costs associated with the Second Storage Reservoir, if any, are continuing mitigation obligations under this Agreement. Summit's failure to make such payments when due constitutes a default under this Agreement. The continued diversions of water under the Exchange are expressly conditioned upon Summit making such payments when due.

(iii) Easements and Indemnities. If Summit owns the property on which the Second Storage Reservoir will be located, Summit shall grant easements to WCIC for access to and from the Second Storage Reservoir and for the construction, operation and maintenance of the Second Storage Reservoir and associated pipelines and facilities. WCIC shall indemnify, defend and hold harmless Summit for all liability, damage, and costs arising out of its access and for its operation and control of the Second Storage Reservoir. If Summit does not own the property on which the Second Storage Reservoir will be located, Summit and WCIC will cooperate in Summit's acquisition of easements from the owner of such property for access to and from the Second Storage Reservoir and for the construction, operation and maintenance of the Second Storage Reservoir and associated pipelines and facilities. Such easements will be acceptable and assignable to WCIC. In such an event, WCIC will not be required to indemnify, defend and hold harmless Summit for access or for WCIC's operation and control of the Second Storage Reservoir. Summit shall indemnify, defend and hold harmless WCIC for all liability, damage, and costs arising out of the permitting, and construction, maintenance and repair of the

Second Storage Reservoir and for its use of the Second Storage Reservoir for recreation as set forth in more detail in Section 20 of this Agreement.

b. Option to Construct Additional Storage. Alternatively, Summit may, in its sole discretion, construct additional reservoirs to store 40-acre-feet of water (the “**Second Alternate Storage Reservoirs**”). Summit shall design and construct the Second Alternate Storage Reservoirs at its own cost, including the cost to connect them to WCIC’s pressurized irrigation system, and acquire all permits and approvals therefor.

(i) Location and Operation of the Second Alternate Storage Reservoirs. The location of the Second Alternate Storage Reservoirs shall be mutually acceptable to WCIC and Summit. Within twelve (12) months after Summit provides written notice to the other Parties of Summit’s intent to develop some or all of the second 200 acre-feet of water under the Exchange, if Summit decides to construct additional reservoirs to store 40 acre-feet of water in place of the mitigation described in Subsection a of this Section 16, Summit and WCIC will decide on the site(s) for construction of the Second Alternate Storage Reservoirs. It is the intent of the Parties that WCIC will fill the Second Alternate Storage Reservoirs during the early part of the irrigation season pursuant to the filing and approval of a Change Application based upon the WCIC Water Right as set forth in more detail in Section 19 of this Agreement. Thereafter, the stored water will be released to WCIC’s other shareholders during the Critical Mitigation Period. The Parties agree that Summit’s construction of the Second Alternate Storage Reservoirs as described in this Subsection would be complete and full mitigation for the Second 200 acre-feet of underground water diverted under the Exchange.

A. Operation, Maintenance and Repair. WCIC shall operate and control the Second Alternate Storage Reservoirs, including the storing and releasing of water. Summit shall pay and be responsible for all maintenance and repair costs associated with the Second Alternate Storage Reservoirs for so long as they are used to provide mitigation for underground water diverted under the Exchange. Such maintenance and repair costs typically would include replacement of parts, equipment and materials and payments to contractors to perform the maintenance and repairs and typically would not include payments to WCIC personnel to perform inspections and operate the Second Alternate Storage Reservoirs.

B. Gravity-Fed System Preferred. Water delivered for storage in and released from the Second Alternate Storage Reservoirs must be able to be gravity-fed into WCIC’s pressurized irrigation system, or Summit shall, at its sole cost, design and construct such pumping facilities required for the storage and release of such water. Construction of a gravity-fed system is preferred by the Parties over a system that is dependent upon pumping facilities, and a gravity-fed system should be constructed if it is reasonably and economically practicable. If a gravity-fed system is not reasonably and economically practicable, the account with the power company for the pumping facilities shall be in Summit’s name and Summit shall thereafter pay all pumping and water delivery costs for so long as water from the Second Alternate Storage Reservoirs is used to mitigate for water diverted under the Exchange.

C. Continuing Mitigation Obligation. Summit’s responsibility for the maintenance and repair of the Second Alternate Storage Reservoirs, the payment of all costs associated with the maintenance and repair of the Second Alternate Storage Reservoirs, and

the payment of pumping costs associated with the Second Alternate Storage Reservoirs, if any, are continuing mitigation obligations under this Agreement. Summit's failure to make such payments when due constitutes a default under this Agreement. The continued diversions of water under the Exchange are expressly conditioned upon Summit making such payments when due.

(ii) Easements and Indemnities. If Summit owns the property on which the Second Alternate Storage Reservoirs will be located, Summit shall grant easements to WCIC for access to and from the Second Alternate Storage Reservoirs and for the construction, operation and maintenance of the Second Alternate Storage Reservoirs and associated pipelines and facilities. WCIC shall indemnify, defend and hold harmless Summit for all liability, damage, and costs arising out of its access and for its operation and control of the Second Alternate Storage Reservoirs. If Summit does not own the property on which the Second Alternate Storage Reservoirs will be located, Summit and WCIC will cooperate in Summit's acquisition of easements from the owner of such property for access to and from the Second Alternate Storage Reservoirs and for the construction, operation and maintenance of the Second Alternate Storage Reservoirs and associated pipelines and facilities. Such easements will be acceptable and assignable to WCIC. In such an event, WCIC will not be required to indemnify, defend and hold harmless Summit for access or for WCIC's operation and control of the Second Alternate Storage Reservoirs. Summit shall indemnify, defend and hold harmless WCIC for all liability, damage, and costs arising out of the permitting, and construction, maintenance and repair of the Second Alternate Storage Reservoirs and for its use of the Second Alternate Storage Reservoirs for recreation as set forth in more detail in Section 20 of this Agreement.

c. Combination of WCIC Shares and Storage. Summit may select any combination of WCIC shares plus additional storage pursuant to the above Subsections a and b of this Section 16 (1 share of WCIC stock shall offset 10 acre-feet of annual usage on the mountain).

d. Mitigation Pursuant to Section 21. Summit also may mitigate for the second 200 acre-feet of water diverted under the Exchange using one or more of the alternatives described in Section 21 of this Agreement.

17. Grant of Reservoir Easement to WCIC and WCIC's Construction of Non-Mitigation Reservoir. In addition to the reservoirs Summit constructs for the mitigation of water diverted under the Exchange that are described in Sections 14-16 of this Agreement, Summit shall grant easements to WCIC for the use of up to 5 acres of land owned by Summit and/or its affiliates for WCIC's construction of a storage reservoir (the "**Balloon Fest Reservoir**"), in the southeast corner of what is commonly referred to as the "Wolf Barn" property as such location is generally depicted on Exhibit C to this Agreement. Within thirty (30) days after the Effective Date of this Agreement, Summit shall grant to WCIC permanent easements for access to and from the Balloon Fest Reservoir site, and for the construction, operation, maintenance, and use of the Balloon Fest Reservoir and pipelines and ancillary facilities necessary and appropriate for storage and release of water. The easements to be granted by Summit shall be substantially in the form of the Reservoir Easement Agreement attached as Exhibit D to this Agreement (the "**Reservoir Easement Agreement**"). WCIC shall plan, permit, construct and operate the Balloon Fest Reservoir at its own cost and expense. The Reservoir Easement Agreement shall be

recorded in the office of the Weber County Recorder and indexed against the land referenced above. WCIC shall indemnify, defend and hold harmless Summit for all liability, damage, and costs arising out of its access and for its operation and control of the Balloon Fest Reservoir. WCIC and Summit acknowledge that the easements granted to WCIC pursuant to this Section 17 and the Reservoir Easement Agreement will need to be more particularly described after the Balloon Fest Reservoir, pipelines, and ancillary facilities have been engineered and a final design for the construction of the same has been approved by WCIC and any relevant permitting authorities. Following such design and approval, WCIC and Summit will cooperate in executing and recording an Amended Reservoir Easement Agreement to replace the recorded Reservoir Easement Agreement and that amends and more particularly describes the locations of each of the easements granted thereunder.

18. Summit's Interim Use of Initial Mitigation Shares and Second Mitigation Shares. The Parties anticipate that Summit's use of the first 150 acre-feet of water under the Exchange and mitigation therefor will be phased in as Summit acquires approvals and constructs the Development. During the interim period prior to Summit's full use of the first 150 acre-feet of water under the Exchange, Summit may use those Initial Mitigation Shares that are not then required to mitigate water diverted under the Exchange in the same manner as any other WCIC irrigation shareholder uses its WCIC shares. To properly account for Summit's annual use of water made available under the Initial Mitigation Shares during such interim period, prior to the commencement of the irrigation season each year Summit shall inform WCIC of its allocation of water to mitigation under this Agreement and to the other purposes that are authorized under WCIC's Articles of Incorporation and Amended Bylaws. If Summit elects to acquire Second Mitigation Shares, Summit may provide for interim use of such Second Mitigation Shares in the manner set forth in this Section.

19. Change Applications for the Storage Reservoirs. One or more Change Applications must be filed and approved in order to permit, construct and use the storage reservoirs anticipated under this Agreement. The first Change Application shall be prepared by WCIC and Summit for joint filing and based on a share segregation on the Initial Mitigation Shares, unless Summit does not acquire all or enough shares, in which case the Change Application will be filed on a share segregation on the number of Initial Mitigation Shares acquired by Summit and supplemented, if necessary, based on the WCIC Water Right. Subsequent Change Applications for any storage reservoir used to mitigate diversion of water under the Exchange shall be based on the WCIC Water Right except for any reservoir constructed on the Second Mitigation Shares, which shall be based on a share segregation on such Second Mitigation Shares. Summit and WCIC shall cooperate in acquiring approval of all Change Applications used by Summit to mitigate diversion of water under the Exchange and in maintaining such Change Applications in good standing at the Division, including perfecting such Change Applications. Summit shall pay all costs in acquiring approval of, maintaining and perfecting the first Change Application filed pursuant to Sections 14 and 15 hereof to construct storage used to mitigate diversion of water under the Exchange. WCIC shall be solely responsible to prepare, file, maintain and perfect subsequent Change Applications to construct storage anticipated by this Agreement, including the Balloon Fest Reservoir, without contribution by Summit.

20. Summit's Use of Reservoirs for Recreation. Summit may use all of the storage reservoirs described in Sections 14-16 of this Agreement and the Balloon Fest Reservoir for recreation; provided, however, that such recreational use does not interfere with WCIC's primary and unfettered operation and use of the reservoirs for irrigation; and further provided that Summit indemnifies, defends and holds WCIC harmless from and against all liability, damage, costs (including, without limitation, attorneys' fees and court costs), expenses, losses, claims, demands, judgments, actions and causes of action, and/or proceedings suffered or arising out of Summit's recreational use of such reservoirs and that Summit shall obtain and keep in full force and effect broad form general comprehensive liability insurance covering public liability with respect to its recreational use of such reservoirs, with limits in an amount and coverage of the types a prudent landowner would maintain for recreational use of such reservoirs, and each such insurance policy shall name WCIC an additional insured and shall provide for thirty (30) days written notice to WCIC prior to the effective date of any cancellation, and certified copies of such insurance policies and any renewals thereof shall be delivered to WCIC. Indemnification agreements and proof of insurance shall be negotiated and executed between WCIC and Summit prior to any recreational use of such reservoirs.

a. Use of 10 Acre Lake for Recreation. WCIC agrees not to object to the Wolf Creek District allowing Summit to use the existing 10 acre lake below the Wolf Creek District's water treatment plant for recreation; provided, however, that Summit and the Wolf Creek District first negotiate and execute an agreement allowing such recreational use on the existing 10 acre lake; and further provided that Summit's recreational use does not interfere with WCIC's primary and unfettered operation and use of the existing 10 acre reservoir for irrigation.

21. Other Mitigation Approaches Agreed to by the Parties. The Parties have discussed and considered other potential mitigation approaches that could be used by Summit to provide mitigation for underground water diverted under the Exchange. After Summit completes mitigation for the first 200 acre-feet of underground water diverted under the Exchange as provided in this Agreement, it may use one or a combination of the following options to substitute for the mitigation for the second 200 acre-feet of underground water diverted under the Exchange described in Section 16 of this Agreement. If Summit chooses to mitigate for underground water diverted under the Exchange with any of the following surface water delivery options, the Parties agree that 40 acre-feet of surface water delivered to WCIC's pressurized irrigation system will mitigate 200 acre-feet of annual diversion of underground water pumped under the Exchange. Mitigation for diversion of water from surface sources approved under the Exchange shall be on an acre-foot to acre-foot basis, such that diversion of one-acre foot of water from a surface source during the irrigation season shall require one-acre foot of mitigation water replacement to WCIC.

a. Pumping Water from Pineview Reservoir. Summit may pump water under the Weber Basin Contract from Pineview Reservoir to WCIC's 10 acre lake to replace reservoir storage as mitigation for underground water pumped under the Exchange. In the event that Summit utilizes this mitigation option, Summit will construct the required infrastructure to pump and deliver the water to the 10 acre lake and pay all Weber Basin Contract, pumping, operation and maintenance, and other third-party charges, for so long as the water pumped from Pineview Reservoir is used to mitigate for underground water diverted under the Exchange.

Summit and WCIC will in good faith negotiate and execute an additional agreement to implement this alternative mitigation.

b. Other Surface Water Delivery to WCIC. Summit may acquire and deliver other surface water, including but not limited to Causey Reservoir storage water, to WCIC's pressurized irrigation system at a location or locations acceptable to WCIC to replace reservoir storage as mitigation for underground water pumped under the Exchange. In the event that Summit utilizes this mitigation option, Summit will construct the required infrastructure to pump and deliver the water, acquire the right to deliver water through the Causey Canal or other infrastructure owned by others, and pay all delivery, pumping, operation, maintenance and contract costs, and other third-party charges, for so long as the water diverted from such surface sources is used to mitigate for underground water diverted under the Exchange. Summit and WCIC will in good faith negotiate and execute an additional agreement to implement this alternative mitigation.

c. Future Mitigation Options. The Parties acknowledge that other opportunities and options for mitigation and developing an adequate water supply for the Powder Mountain District and Summit's Development may become available and the Parties will cooperate and negotiate in good faith to achieve mutually agreeable solutions for mitigation and development of an adequate water supply. Any such potential opportunity or option under this Subsection 21 c, must be acceptable to both WCIC and Summit. WCIC or Summit may exercise its discretion in rejecting any such potential opportunity or option that it does not find acceptable.

22. Mitigation for Diversion of Water from Surface Water Points of Diversion Approved in the Exchange. Summit may not divert water from surface points of diversion under the Exchange during times when the WCIC Water Right is not fully satisfied unless it provides, as mitigation, replacement of such surface water diverted on an acre-foot for acre-foot basis. By way of example, if Summit diverts one acre-foot of water from Lefty's Springs during the irrigation season and at a time when the WCIC Water Right is not fully satisfied, Summit must replace one acre-foot of surface water to WCIC's pressurized irrigation system from sources other than the WCIC Water Right. Replacement water must be of the same quality as water supplied under the WCIC Water Right. Surface water replacement under this Section shall be simultaneous unless Summit and WCIC agree in writing to a different timing for replacement.

23. Maintenance of Weber Basin Contract and Exchange Points of Diversion. Summit will maintain in good standing the amount of the Weber Basin Contract required by the State Engineer to authorize Summit's diversions from the Weber River drainage under the Exchange. Depending on which mitigation options are implemented and the success of source development on the Bear River side of the drainage divide, Summit will re-evaluate its need for the entire Weber Basin Contract and the entire Exchange as well as its need to retain all of the points of diversion approved under the Exchange. If Summit determines, in its sole discretion, that not all of the Weber Basin Contract or all of the Exchange or all of the points of diversion under the Exchange are needed for its Development, Summit will relinquish such undeveloped portions of the Weber Basin Contract and Exchange and withdraw all undeveloped points of diversion under the Exchange by amending the Weber Basin Contract, withdrawing the undeveloped portion of the Exchange at the Division, and filing a written withdrawal of the undeveloped points of diversion with the Division.

24. Transfer of Developed Portions of the Exchange to the Powder Mountain District. The Powder Mountain District ultimately will be the water supplier for the Development. Any transfer or conveyance of the Exchange or any portion of the Exchange by Summit to the Powder Mountain District shall not include any undeveloped points of diversion described in the Exchange. Such undeveloped points of diversion shall be withdrawn by Summit prior to Summit's final transfer of the Exchange to the Powder Mountain District. However, the Parties will cooperate with the Powder Mountain District such that the Powder Mountain District may acquire approval of DDW to supply phases of Summit's Development that have been approved by Powder Mountain District and Weber County.

25. Regional Water Planning. The Parties agree to support regional water planning and treatment in order to provide a secure and adequate water supply to all of them.

26. Approval of the State Engineer. The Order required Summit to enter into a mitigation agreement with WCIC prior to diverting water under the Exchange. This Agreement, when fully executed and after the Effective Date, is intended to satisfy the mitigation requirement and to be the Agreement anticipated and required by the Order. The Parties will forward a fully executed copy of this Agreement to the State Engineer and ask that (i) the State Engineer acknowledge that the Agreement satisfies the mitigation requirements as directed in the Reissued Order approving Exchange Application; (ii) the Agreement be entered into the official files of the Division for the Exchange; and (iii) Exchange E4715 (35-11995) be withdrawn.

27. Termination. After the Effective Date, this Agreement may not be terminated except by the mutual agreement of all of the Parties and the consent of the State Engineer.

28. Default and Remedies. An event of default ("**Event of Default**") exists under this Agreement upon the occurrence of any of the following events:

a. A Party does not perform any material term, provision, covenant, agreement, or obligation of this Agreement, and then does not cure the default within thirty (30) days after receiving written notice of the default from the other Party. If any non-monetary default cannot be cured within the thirty (30) day period, an Event of Default does not occur if the defaulting Party commences to cure the default within the thirty (30) day period and diligently pursue the completion of the cure, but in any event within forty-five (45) days after receiving the default notice (unless a longer extension is otherwise agreed to in writing by the non-defaulting Party, and consent to such extension shall not to be unreasonably withheld).

b. If an Event of Default by any Party occurs, the non-defaulting Parties may do any or all of the following:

i. Bring an action against the defaulting Party for damages;

ii. Seek any other available legal or equitable remedy; or

iii. The Parties hereto agree that irreparable damage would occur in the event any provision of this Agreement was not performed in accordance with the terms of this Agreement and that the Parties shall be entitled to seek specific performance of the terms of

this Agreement, in addition to any other remedy at law or equity without the necessity of demonstrating the inadequacy of monetary damages.

29. Miscellaneous Provisions.

a. Notices. Any notice, approval, consent or other communication under this Agreement must be in writing; marked to the attention of the company representative (as applicable); and sent to the relevant address specified below; and hand delivered or sent by nationally recognized courier or by mail, fax or email.

Unless the notice specifies a later time, and subject to applicable laws, a notice will be effective as follows: for a hand delivery or delivery by courier, upon receipt; for a letter sent by registered/certified mail, 5 days after postmark (7 days if postmarked from a foreign country); for a fax upon confirmation from the dispatching machine that indicates that the fax was sent in its entirety to the fax number of the recipient; and for an e-mail, the notice must be included as an attachment to the e-mail (not simply contained in the e-mail text), and will be effective upon receipt of a delivery-receipt or other reliable electronic means to verify receipt; provided that if a notice is received on a day other than a business day, or is received after 5:00 p.m. in the jurisdiction of receipt, the notice will be effective the next day.

A Party may change its address for notices by providing written notice to that effect to the other Party.

If to Summit:

Summit Mountain Holding Group LLC  
Jeff Werbelow, COO  
3923 N. Wolf Creek Drive, Eden, Utah 84310  
Email: [jw@summit.co](mailto:jw@summit.co)

If to WCIC:

Wolf Creek Irrigation Company  
Dee Staples, President  
1879 No. 2750 East, Layton, Utah 84040  
Email: [sadestaples@hotmail.com](mailto:sadestaples@hotmail.com)

If to Bar B:

Bar B Ranch, Inc.  
Scott Browning  
2318 Field Rose Dr., Salt Lake City, Utah 84121  
Email: [sbrowning@firstutahbank.com](mailto:sbrowning@firstutahbank.com)

If to Eden Water:

Eden Water Works Company  
Calvin Welling  
2225 Washington Blvd., Suite 230, Ogden, Utah 84401  
Email: [cwelling@sfp.us](mailto:cwelling@sfp.us)

If to Middle Fork:

Middle Fork Irrigation Company  
Dan Harris  
PO Box 535, Eden, Utah 84310  
Email: [harris.dan77@gmail.com](mailto:harris.dan77@gmail.com)

If to Wolf Creek District:

Wolf Creek Water and Sewer Improvement District  
Lowell Peterson  
3632 No. Wolf Creek Dr., Eden, Utah 84310  
Email: [lspksp@aol.com](mailto:lspksp@aol.com)

b. **Entire Agreement.** This Agreement constitutes the sole and entire agreement of the Parties with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter. Each Party acknowledges that it has not relied upon any statements, representations, agreements or warranties of any person, except those expressly stated in this Agreement.

c. **Modification.** This Agreement may not be modified except by a writing signed by all of the Parties.

d. **Waiver.** No Party shall be deemed to have waived any right or remedy under or with respect to this Agreement unless such waiver is expressed in a writing signed by such Party. No waiver of any right or remedy under or with respect to this Agreement by a Party on any occasion or in any circumstance shall be deemed to be a waiver of any other right or remedy on that occasion or in that circumstance nor a waiver of the same or of any other right or remedy on any other occasion or in any other circumstance.

e. **Assignment of this Agreement.** This Agreement and any of the rights, interests or obligations hereunder may not be assigned by any Party hereto, in whole or in part (whether by operation of law or otherwise), without the prior written consent of all of the other Parties, which consent shall not be unreasonably withheld. Any attempted assignment by a Party without the prior written consent of the other Parties shall be void and shall be deemed to be a default under this Agreement. A Party shall not withhold its consent to an assignment of this Agreement so long as: (i) the assigning Party gives written notice to the other Parties of such assignment prior to the effective date of the assignment; and (ii) the assignee agrees in a written instrument delivered to and enforceable by the other Parties, to assume all of the obligations of the assigning Party under this Agreement.

f. **Successors and Assigns.** This Agreement is binding upon, extend to, and inure to the benefit of the heirs, successors, and assigns of the Parties hereto, and to the officers, directors, employees, partners, agents and representatives of the Parties hereto, and to all persons or entities claiming by, through or under any of the Parties hereto.

e. **Force Majeure.** No Party will be liable or responsible to the other Party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in

fulfilling or performing any term of this Agreement, except for any obligations to make payments to the other Party hereunder, when and to the extent such failure or delay is caused by or results from acts beyond the affected Party's reasonable control, including without limitation: (i) acts of God; (ii) flood, fire, earthquake or explosion; (iii) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot or other civil unrest; (iv) government order or law; (v) actions, embargoes or blockades in effect on or after the date of this Agreement; (vi) action by any governmental authority; (vii) national or regional emergency; (viii) strikes, labor stoppages or slowdowns or other industrial disturbances; (ix) unavoidable accident; (x) mechanical breakdown; and (xi) shortage of adequate power or transportation facilities (a "**Force Majeure Event**"). The Party suffering a Force Majeure Event will promptly give notice of the Force Majeure Event to the other Party, stating the period of time the occurrence is expected to continue and will use diligent efforts to end the failure or delay and ensure the effects of such Force Majeure Event are minimized.

f. **Remedies Cumulative.** The rights and remedies under this Agreement are cumulative and are in addition to and not in substitution for any other rights and remedies available at law or in equity or otherwise.

g. **Severability.** Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law. However, if any provision of this Agreement is deemed or held to be illegal, invalid or unenforceable, this Agreement shall be considered divisible and inoperative as to such provision to the extent it is deemed to be illegal, invalid or unenforceable, and in all other respects this Agreement shall remain in full force and effect; provided, however, that if any provision of this Agreement is deemed or held to be illegal, invalid or unenforceable the Parties agree to replace such illegal, invalid or unenforceable provision with a provision that is legal, valid and enforceable that achieves the original intent of the Parties as closely as possible. Further, should any provision contained in this Agreement ever be reformed or rewritten by any judicial body of competent jurisdiction, such provision as so reformed or rewritten shall be binding upon all Parties hereto.

h. **Cooperation and Further Assurances.** Each of the Parties shall cooperate fully with one another and shall execute, deliver, file, and record such further and additional documents and instruments that the other Party may reasonably request to effect further and more completely the transactions herein contemplated.

i. **Governing Law.** This Agreement shall be governed by and construed in accordance with the domestic laws of the State of Utah without giving effect to any choice or conflict of law provision or rule (whether of the State of Utah or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Utah.

j. **Jurisdiction and Venue.** Any legal suit, action or proceeding arising out of, based upon or relating to this Agreement, will be instituted in the courts of the State of Utah, and each Party irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action or proceeding. The Parties irrevocably and unconditionally waive any objection to the establishing of venue of any suit, action or proceeding in such courts and irrevocably waive and agree not to plead or claim in any such court that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum.

k. Attorneys' Fees. In the event that any action or proceeding is commenced by any Party hereto for the purpose of enforcing any provision of this Agreement, the Parties to such action or proceeding shall receive as part of any award, judgment, decision or other resolution of such action or proceeding their costs and reasonable attorneys' fees as determined by the court making such award, judgment, decision or resolution.

l. Time is of the Essence. Time is of the essence in the performance of and compliance with each of the terms and conditions of this Agreement.

m. Relationship of Parties. Nothing contained in this Agreement shall be interpreted or construed to create an agency relationship, association, joint venture, trust or partnership, or impose any trust or partnership covenant, obligation or liability on or with regard to any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, any other Party.

n. No Third Party Beneficiaries. This Agreement is for the sole benefit of the Parties hereto and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or confers upon any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

o. Counterparts Signatures. This Agreement may be executed by facsimile or other electronic means and in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Signatures delivered hereon by facsimile or electronic mail shall be deemed originals for all purposes.

p. Authorized Execution. The individuals signing below each represent and warrant (a) that they are authorized to execute this Agreement for and on behalf of the Party for whom they are signing; (b) that the execution of this Agreement has been duly authorized by such Party; and (c) that such Party shall be bound in all respects by this Agreement.

[SIGNATURES ON FOLLOWING PAGE]

SUMMIT MOUNTAIN HOLDING GROUP, LLC  
a Delaware limited liability company

By: [Signature]  
Name: JEFF WERBELOW  
Title: COO

BAR B RANCH, INC.  
a Utah Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EDEN WATER WORKS COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MIDDLE FORK IRRIGATION COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WOLF CREEK IRRIGATION COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WOLF CREEK WATER AND SEWER IMPROVEMENT DISTRICT  
a Utah Improvement District

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

SUMMIT MOUNTAIN HOLDING GROUP, LLC  
a Delaware limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

BAR B RANCH, INC.  
a Utah Corporation

By: Scott M Browning  
Name: SCOTT M BROWNING  
Title: President

EDEN WATER WORKS COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MIDDLE FORK IRRIGATION COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WOLF CREEK IRRIGATION COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WOLF CREEK WATER AND SEWER IMPROVEMENT DISTRICT  
a Utah Improvement District

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

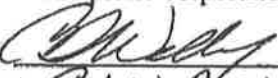
SUMMIT MOUNTAIN HOLDING GROUP, LLC  
a Delaware limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

BAR B RANCH, INC.,  
a Utah Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EDEN WATER WORKS COMPANY  
a Utah Nonprofit Corporation

By:   
Name: Calvin D. Wellins  
Title: President

MIDDLE FORK IRRIGATION COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WOLF CREEK IRRIGATION COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WOLF CREEK WATER AND SEWER IMPROVEMENT DISTRICT  
a Utah Improvement District

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

SUMMIT MOUNTAIN HOLDING GROUP, LLC  
a Delaware limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

BAR B RANCH, INC.  
a Utah Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EDEN WATER WORKS COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MIDDLE FORK IRRIGATION COMPANY  
a Utah Nonprofit Corporation

By: *Dan Harris*  
Name: Dan Harris  
Title: President

WOLF CREEK IRRIGATION COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WOLF CREEK WATER AND SEWER IMPROVEMENT DISTRICT  
a Utah Improvement District

By: *Louise S. Patterson*  
Name: Louise S. Patterson  
Title: PRESIDENT

SUMMIT MOUNTAIN HOLDING GROUP, LLC  
a Delaware limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

BAR B RANCH, INC.  
a Utah Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EDEN WATER WORKS COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MIDDLE FORK IRRIGATION COMPANY  
a Utah Nonprofit Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WOLF CREEK IRRIGATION COMPANY  
a Utah Nonprofit Corporation


By: Dee R Staples  
Name: DEE R. STAPLES  
Title: President

WOLF CREEK WATER AND SEWER IMPROVEMENT DISTRICT  
a Utah Improvement District

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

STATE ENGINEER'S STATEMENT IN CONCURRENCE OF MITIGATION SETTLEMENT

I, Kent L. Jones, the State Engineer for the State of Utah, hereby acknowledge that implementation of the mitigation steps described in the foregoing Agreement satisfies the mitigation requirements as directed in the Reissued Order approving Exchange Application E5382 (35-12848), as to the Weber River Drainage, provided that the parties are able to obtain all permits and approvals necessary to implement the steps described. By signing this document neither the State Engineer nor his office provide any assurance that such permits or approvals, either those issued by his office or any other office, are pre-approved or that such approvals will necessarily be granted.



---

Kent L. Jones, P.E., State Engineer

February 10, 2016

**EXHIBIT A**  
**SETTLEMENT AGREEMENT**  
**SUMMIT MOUNTAIN HOLDING GROUP EXCHANGE E5382**

[Lefty's Springs Monitoring Easement Agreement]

WHEN RECORDED, RETURN TO:

Wolf Creek Irrigation Company  
P.O. Box 761  
Eden, Utah 84310  
Attention: Mr. Dee Staples

### **LEFTY'S SPRINGS MONITORING EASEMENT AGREEMENT**

This LEFTY'S SPRINGS MONITORING EASEMENT AGREEMENT (this "Agreement") is made this \_\_\_\_ day of \_\_\_\_\_ 2016, by and among SMHG Phase I, LLC, a Delaware limited liability company, SMHG Landco LLC, a Delaware limited liability company, their ultimate parent company Summit Mountain Holding Group, L.L.C. and their successors and assigns (collectively the "Grantor"), and Wolf Creek Irrigation Company, a Utah non-profit corporation, and its successors and assigns ("Grantee").

#### **RECITALS**

A. Grantor is the owner of certain real property located in Weber County, Utah, as more particularly described on Exhibit "A" attached hereto and incorporated herein by this reference ("Grantor's Property").

B. Grantee is a mutual irrigation company supplying water to its shareholders in the Ogden Valley and owns, among other things, the earliest priority water right in Wolf Creek.

C. Lefty's Springs is a tributary to Wolf Creek and is located on Grantor's Property. Grantee desires easements from Grantor to access, install, operate, maintain, repair, and replace one or more water flow measuring and monitoring devices to measure the flow of Lefty's Springs (the "Facilities").

D. Grantor agrees to grant the easements set forth below to Grantee pursuant to the terms and conditions set forth in this Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee hereby agree as follows:

#### **AGREEMENT**

1. Grant of Easement. Grantor hereby grants to Grantee and the Benefited Parties (defined below) the following perpetual easements in gross:

a. A perpetual non-exclusive permanent easement over, across, and through Grantor's Property for pedestrian, bicycle and equestrian ingress, egress and access by means of the access trail (the "Access Trail") identified on Exhibit "B" and depicted on Exhibit "C" both

of which are attached hereto and incorporated herein. Grantee shall not have the right to construct, install, maintain, repair, or rebuild any improvements for use of the Access Trail.

b. A perpetual non-exclusive permanent easement on, over, across, under and through that portion of the Access Trail marked "A" on Exhibit "B," for the installation, operation, maintenance, repair and replacement of a water flow measurement and monitoring device and related improvements by Grantee. Grantee shall provide Grantor with the proposed location for installation of this water flow measurement and monitoring device within that portion of the Access Trail marked "A" prior to its installation and Grantor may not object to Grantee's proposed location if it does not unreasonably interfere with the operation, maintenance, repair and replacement of any existing water flow and monitoring device of Grantor.

c. A perpetual non-exclusive permanent easement on, over, across, under and through that portion of the Access Trail marked "A" on Exhibit "B," for the operation, maintenance, repair and replacement of the existing water flow measurement and monitoring device and related improvements at the location commonly referred to by Grantee as "Lower Lefty's Spring."

The two water flow measurement and monitoring devices described in this Paragraph 1 are collectively referred to herein as the "Monitoring Facilities" and the three easements described in this Paragraph 1 are collectively referred to herein as the "Easements."

2. Location of Access Trail. The exact location of the Access Trail may be modified, changed, and/or relocated by Grantor from time to time, with Grantee's prior written consent, which may not be unreasonably denied by Grantee. Any such modification or relocation must provide access to Grantee from substantially the same point of beginning (i.e., in the Village) and provide substantially equivalent access to the Monitoring Facilities located in that portion of the Access Trail marked "A" on Exhibit "B." Any such modification or relocation will also require that this Agreement be amended and that the amendment to this Agreement be recorded in the office of the Weber County Recorder and properly indexed against Grantor's Property.

3. Notice Requirement, Maintenance, Replacement; Liens. Grantee shall provide Grantor prior notice before using the Access Trail. During the winter months and the big game hunting seasons, Grantee shall provide Grantor with forty-eight (48) hours prior notification. Such notification is not required to be in writing. Grantee shall be responsible, at its sole cost and expense, for the construction, operation, maintenance, repair, and replacement of the Monitoring Facilities. Grantee shall also be responsible for restoring and re-vegetating any areas of Grantor's Property that are damaged resulting from Grantee's use of the Access Trail and/or Monitoring Facilities. In addition, Grantee shall not permit, and shall indemnify Grantor against, any lien or claim of mechanics or laborers filed against Grantor's Property, or any part or parts thereof arising from non-payment of costs, fees or other expenses for any work, labor or materials furnished pursuant to any agreement by Grantee relating to the Monitoring Facilities. Within thirty (30) days after Grantee receives notice of such filing or recording of any such lien, Grantee shall cause the same to be discharged by obtaining a release thereof or bonding over such mechanics' lien or otherwise. If Grantee fails to cause such lien to be discharged within

such period, Grantor shall have the right (but not the duty), in addition to any other remedies provided herein, to pay all amounts necessary to cause such lien to be discharged and released of record, and any amounts so paid by Grantor shall be repaid by Grantee, plus interest from the date of Grantor's payment at the rate of eighteen percent (18%) per annum until paid.

4. Grantee's At-Risk Use and Winter Conditions. Grantee's use of the Access Trail shall be at its own risk and Grantee acknowledges and agrees that Grantor has no obligation or duty to improve, maintain or repair the Access Trail or the Monitoring Facilities. Grantor has no duty or obligation to provide avalanche control for the Access Trail and/or the locations of the Monitoring Facilities. In addition, Grantee acknowledges that during winter months the Access Trail and locations of the Monitoring Facilities are difficult to reach and are exposed to a high degree of avalanche danger and other winter conditions. Prior to using the Access Trail during winter months Grantee shall discuss conditions of access relating to the Access Trail and Monitoring Facilities with Grantor, including avalanche danger; however, Grantee hereby expressly waives any claim it, or its members, partners, directors, officers, agents, contractors, employees and guests may have against Grantor for any damage, injury, death or other liability, to any person or property, which may arise as a result of or otherwise be attributable in any way to the use of the information discussed. Grantor shall not guarantee the accuracy of the information provided. During the winter months, Grantor may, in its sole discretion (but without the obligation), provide Grantee transportation to the Monitoring Facilities through use of snowmobiles and/or Snowcats owned and operated by Grantor's affiliates in its skiing operations of the Powder Mountain Resort.

5. Benefitted Parties. The Easement shall be for the use and benefit of the following parties (the "Benefitted Parties"): (a) Grantee and its successors and assigns; and (b) all employees, contractors, subcontractors and invitees of Grantee, its successors and assigns.

6. Data from Grantor and Grantee Installed Monitoring Devices. Grantor intends to construct one or more waterflow measuring and monitoring devices to monitor the flows of Lefty's Springs, Wolf Creek, and/or other sources tributary to Wolf Creek. Providing such devices are constructed and operated by Grantor it shall timely provide to Grantee any data obtained from such devices. Grantee agrees that it shall timely provide to Grantor any data which it may obtain from the Monitoring Facilities and from any other measuring and monitoring device that monitors the flows of Lefty's Springs, Wolf Creek, and/or other sources tributary to Wolf Creek.

7. Taxes. Grantor shall pay when due all real property taxes and assessments assessed against the Easements. Grantee shall pay when due any taxes assessed against the Monitoring Facilities, if any (excluding any access roads or improvements owned by a third party) permitted hereunder and installed in the Easement by Grantee.

8. No Public Dedication. The Easements shall not be construed as creating any rights in or for the benefit of the general public, or be deemed to be a gift or dedication of any part of the Easements, in whole or in part, to the general public or for any public use whatsoever.

9. Notices. With the exception of the notice required to be given by Grantee to Grantor prior to using the Access Trail pursuant to Paragraph 3 hereof, all notices made pursuant

to this Agreement shall be in writing and shall be given by personal delivery to a responsible person, by electronic transmission, by deposit in the United States mail (certified mail, return receipt requested, postage prepaid), or by express delivery service, freight prepaid. Notices shall be delivered or addressed to Grantor and Grantee at the following addresses, or at such other address as a party may designate in writing:

Grantor: SMHG Landco LLC,  
SMHG Phase I, LLC and  
Summit Mountain Holding Group, LLC  
3923 N. Wolf Creek Drive  
Eden, Utah 84310  
Attention: Jeff Werbelow  
email: [jw@summit.com](mailto:jw@summit.com)  
Telephone: (801) 987-0570

Grantee: Wolf Creek Irrigation Company  
P.O. Box 761  
Eden, Utah 84310  
Attention: Mr. Dee Staples  
email: [sadeestaples@hotmail.com](mailto:sadeestaples@hotmail.com)  
Telephone: (801) 721-3730

The date notice is deemed to have been given, received and become effective shall be the date on which the notice is delivered, if notice is given by personal delivery or electronic transmission, or the date of actual receipt if the notice is sent through the United States mail or by express delivery service.

10. Covenants to Run with the Land. The Easements, rights and interests granted herein shall constitute covenants running with the land, and shall burden Grantor's Property as the servient estate, and shall be binding upon Grantor, its successors, assigns and any person acquiring, leasing or otherwise owning an interest in Grantor's Property, and shall inure to the benefit of Grantee and the Benefited Parties.

11. Enforcement. In the event either party fails to cure any violation of the terms of this Agreement within ten (10) days after written notice from the other, the non-defaulting party shall have the right to injunctive relief, to require specific performance of this Agreement, to collect damages from the defaulting party, and to take such actions as may be necessary in the non-defaulting party's discretion to cure such violation and charge the defaulting party with all reasonable costs and expenses incurred by the non-defaulting party as a result of such violation (including, without limitation, the non-defaulting party's reasonable attorneys' fees and related costs). All rights and remedies provided under this Agreement are cumulative and may be pursued singularly, in any combination, and in any order. The failure to enforce any of the terms and provisions contained herein shall in no event be deemed to be a waiver of the right to thereafter strictly enforce the terms and provisions hereof.

12. Indemnity. Grantee shall indemnify and hold harmless Grantor, its members, partners, directors, officers, agents, contractors and employees, free from or against any and all

liability, loss, damage, costs and expenses (including reasonable attorneys' fees) for injury to person or death or property damage to the extent arising from the use of the Access Trail and/or the Monitoring Facilities, except for any such liability, loss, damage, costs and expenses to the extent arising directly and solely from the acts of Grantor or its members, partners, directors, officers, agents, contractors and employees.

13. General Provisions.

13.1 Recitals Incorporated. The Recitals set forth above are true and correct and are incorporated herein by this reference.

13.2 Modification and Waiver. This Agreement may be modified or amended only by a writing signed by each of the parties hereto or their respective successors or assigns and recorded in the official records of the Weber County Recorder's Office. This Agreement is governed by the laws of the State of Utah. The failure to any party hereto to insist upon strict performance or any of the terms, covenants, conditions or agreements contained herein shall not be deemed a waiver of any rights or remedies that such party may have, and shall not be deemed a waiver or any subsequent breach or default in any of the terms, covenants, conditions or agreements contained herein.

13.3 Construction. This instrument shall be construed in accordance with the laws of the State of Utah without giving effect to its conflict of laws principles.

13.4 Amendment. The parties may amend this Agreement only by a written instrument executed by the parties and recorded in the Office of the Weber County Recorder.

13.5 Partial Invalidity. If any provision of this Agreement or the application thereof to any person or circumstance shall to any extent be invalid, the remainder of this Agreement or the application of such provision to persons or circumstances other than those as to which it is held invalid shall not be affected thereby and each provision of this Agreement shall be valid and enforced to the fullest extent permitted by law.

13.6 Counsel. Both Grantor and Grantee have been represented by their own counsel in connection with the negotiation and preparation of this Agreement and, consequently, both Grantor and Grantee waive the application of any rule of law that would otherwise be applicable in connection with the interpretation of this Agreement, including any rule of law to the effect that any provision of this Agreement will be interpreted or construed against the party whose counsel drafted that provision.

13.7 Counterparts. This instrument may be executed in any number of counterparts, each of which shall be an original, but all of which shall constitute one and the same instrument.

13.8 Authority. Each party hereto is duly organized, existing and in good standing under the laws of the state of the jurisdiction in which it is organized and has the full right and authority to enter into this Easement Agreement and consummate the transaction contemplated hereby. All requisite company action has been taken by each party in connection with the entering into of this Easement Agreement and the consummation of the transaction

contemplated hereby. Each of the persons signing this Easement Agreement on behalf of a party hereto is authorized to do so.

*[Signatures and Notaries on Following Pages]*

**IN WITNESS WHEREOF**, Grantor and Grantee have executed this Lefty's Springs Monitoring Easement Agreement as of the date first indicated above.

**GRANTOR:**

SMHG LANDCO LLC, a Delaware limited liability company, by Summit Mountain Holding Group, LLC, a Utah limited liability company, its Sole Member

By: SUMMIT REVOLUTION LLC, a Delaware limited liability company  
Its: Sole Member

By: \_\_\_\_\_  
Name: Jeff Werbelow  
Title: Authorized Signatory

SMHG Phase I, LLC, a Delaware limited liability company

By: SMHG Investments LLC, a Delaware limited liability company  
Its: Sole Member

By: \_\_\_\_\_  
Name: Jeff Werbelow  
Title: Authorized Signatory

Summit Mountain Holding Group, LLC, a Utah limited liability company, its Sole Member

By: SUMMIT REVOLUTION LLC, a Delaware limited liability company  
Its: Sole Member

By: \_\_\_\_\_  
Name: Jeff Werbelow  
Title: Authorized Signatory

STATE OF UTAH        )  
  :SS.  
COUNTY OF WEBER    )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2016, by Jeff Werbelow as Authorized Signatory of Summit Revolution LLC, a Delaware limited liability company, the sole member of Summit Mountain Holding Group, LLC, a Utah limited liability company, the sole member of SMHG Landco LLC, a Delaware limited liability company.

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_

My Commission Expires:  
\_\_\_\_\_

STATE OF UTAH        )  
  :SS.  
COUNTY OF WEBER    )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2016, by Jeff Werbelow as Authorized Signatory of SMHG Investments LLC, a Delaware limited liability company, the sole member of SMHG Phase I, LLC, a Delaware limited liability company.

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_

My Commission Expires:  
\_\_\_\_\_

STATE OF UTAH        )  
  :SS.  
COUNTY OF WEBER    )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2016, by Jeff Werbelow as Authorized Signatory of Summit Revolution LLC, a Delaware limited liability company, the sole member of Summit Mountain Holding Group, LLC, a Utah limited liability company.

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_

My Commission Expires:  
\_\_\_\_\_

**GRANTEE:**

WOLF CREEK IRRIGATION COMPANY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

STATE OF UTAH        )

; ss.

COUNTY OF WEBER    )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2016, by \_\_\_\_\_, the \_\_\_\_\_ of Wolf Creek Irrigation Company.

\_\_\_\_\_  
NOTARY PUBLIC

Residing at: \_\_\_\_\_

My Commission Expires:

\_\_\_\_\_

**EXHIBIT "A"**

**Description of Grantor's Property**

**PARCEL #230120139**

ALL OF SECTION 7, TOWNSHIP 7 NORTH, RANGE 2 EAST, SALT LAKE BASE & MERIDIAN. EXCEPT THE WEST 1/2 OF THE NORTHWEST 1/4. ALSO EXCEPT THE FOLLOWING DESCRIBED PARCEL: PART OF THE NORTH 1/2 OF SECTION 18 AND THE SOUTH 1/2 OF SECTION 7, TOWNSHIP 7 NORTH, RANGE 2 EAST, SALT LAKE BASE & MERIDIAN U S SURVEY; BEGINNING AT A POINT 1320 FEET WEST ALONG THE EAST WEST CENTER LINE FROM THE EAST CORNER OF SECTION 18 TO THE SOUTHEAST CORNER OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 18, RUNNING THENCE NORTH ALONG THE CENTER LINE OF SAID NORTHEAST 1/4 3520.00 FEET TO THE POINT 880 FEET NORTH OF THE SOUTH LINE OF SECTION 7; THENCE WEST 2640 FEET, THENCE SOUTH 3520 FEET TO THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 18, THENCE EAST ALONG THE EAST WEST CENTER LINE OF SECTION 18, 2640.00 FEET, MORE OR LESS, TO THE POINT OF BEGINNING. LESS AND EXCEPTING ALL OF SUMMIT EDEN PHASE 1A SUBDIVISION RECORDED AS ENTRY NO. 2672943. ALSO LESS AND EXCEPTING THE FOLLOWING: (FOR REFERENCE: PROPOSED SUMMIT EDEN PHASE 1E DEVELOPMENT AREA) BEGINNING AT A POINT THAT IS SOUTH 3,860.49 FEET, AND EAST 651.73 FEET, FROM THE NORTHEAST CORNER OF SECTION 1, TOWNSHIP 7 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN (BASIS OF BEARINGS BEING NORTH 89D55'51" WEST ALONG THE LINE BETWEEN THE NORTHEAST CORNER OF SECTION 1, TOWNSHIP 7 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN AND THE SET WEBER COUNTY MONUMENT ON THE INTERSECTION OF THE WEBER/CACHE COUNTY LINE AND THE SECTION LINE); RUNNING THENCE SOUTH 71D00'44" EAST 524.76 FEET; THENCE SOUTH 65D29'59" EAST 363.54 FEET; THENCE SOUTH 81D24'28" EAST 567.68 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF SUMMIT PASS; THENCE ALONG SAID LINE SOUTHERLY AND A 213.00 FOOT RADIUS NON TANGENT CURVE TO THE LEFT, (CHORD BEARS SOUTH 00D34'51" WEST A DISTANCE OF 45.82 FEET), THROUGH A CENTRAL ANGLE OF 12D20'56", A DISTANCE OF 45.91 FEET TO THE SOUTHERLY LINE OF HORIZON RUN; THENCE ALONG SAID SOUTHERLY LINE FOLLOWING TWO (2) COURSES, 1) SOUTHWESTERLY ALONG A 20.00 FOOT RADIUS REVERSE CURVE TO THE RIGHT, (CHORD BEARS SOUTH 25D09'12" WEST A DISTANCE OF 20.45 FEET), THROUGH A CENTRAL ANGLE OF 61D29'38" A DISTANCE OF 21.47 FEET, 2) SOUTHERLY ALONG A 125.00 FOOT RADIUS REVERSE CURVE TO THE LEFT, (CHORD BEARS SOUTH 01D14'03" EAST A DISTANCE OF 209.99 FEET), THROUGH A CENTRAL ANGLE OF 114D16'09" A DISTANCE OF 249.30 FEET; THENCE SOUTH 38D29'38" WEST 196.43 FEET; THENCE SOUTH 22D15'59" WEST 389.31 FEET; THENCE SOUTH 67D44'01" EAST 359.08 FEET; THENCE NORTH 22D29'51" EAST 295.08 FEET; THENCE SOUTH 67D30'09" EAST 257.38 FEET; THENCE NORTH 31D34'54" EAST 265.07 FEET TO THE SOUTHERLY

LINE OF HORIZON RUN; THENCE ALONG SAID SOUTHERLY LINE FOUR (4) COURSES, 1) THENCE SOUTH 58D25'06"EAST 9.28 FEET, 2) THENCE EASTERLY ALONG A 225.00 FOOT RADIUS CURVE TO THE LEFT, (CHORD BEARS SOUTH 77D02'22" EAST A DISTANCE OF 143.69 FEET), THROUGH A CENTRAL ANGLE OF 37D14'33", A DISTANCE OF 146.25 FEET, 3) THENCE NORTH 84D20'22" EAST 63.25 FEET, 4) THENCE EASTERLY ALONG A 475.00 FOOT RADIUS CURVE TO THE RIGHT, (CHORD BEARS SOUTH 86D37'24" EAST A DISTANCE OF 37.86 FEET), THROUGH A CENTRAL ANGLE OF 4D34'05", A DISTANCE OF 37.87 FEET; THENCE SOUTH 15D09'44" WEST 501.68 FEET; THENCE SOUTH 54D51'05" EAST 43.67 FEET; THENCE SOUTH 35D08'55" WEST 260.32 FEET; THENCE SOUTH 83D23'28" WEST 80.94 FEET; THENCE SOUTH 75D22'38" WEST 308.19 FEET; THENCE SOUTH 71D25'04" WEST 1,249.80 FEET; THENCE SOUTH 34D29'44" WEST 1,032.96 FEET; THENCE SOUTH 41D58'40" WEST 239.39 FEET; THENCE SOUTH 41D58'40" WEST 296.34 FEET; THENCE NORTH 88D30'24" WEST 233.06 FEET; THENCE SOUTH 55D49'44" WEST 849.17 FEET TO THE SOUTHERLY LINE OF SECTION 12, TOWNSHIP 7 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN; THENCE ALONG SAID SOUTHERLY LINE NORTH 89D40'51" WEST 616.65 FEET; THENCE NORTH 00D12'06" WEST 693.84 FEET; THENCE NORTH 42D32'52" EAST 649.90 FEET; THENCE NORTH 47D31'16" EAST 525.96 FEET; THENCE NORTH 36D36'36" EAST 300.42 FEET; THENCE NORTH 10D09'08" EAST 352.63 FEET; THENCE NORTH 23D11'03" EAST 614.71 FEET TO THE NORTHEAST CORNER OF SECTION 12, TOWNSHIP 7 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN; THENCE NORTH 26D21'06" EAST 669.33 FEET; THENCE NORTH 40D27'50" EAST 792.62 FEET; TO THE POINT OF BEGINNING.

**PARCEL #230120130**

ALL OF SECTION 8, TOWNSHIP 7 NORTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN, U.S. SURVEY. EXCEPTING THEREFROM SUMMIT EDEN PHASE 1A. EXCEPTING THEREFROM SUMMIT EDEN PHASE 1B. EXCEPTING THEREFROM SUMMIT EDEN PHASE 1C. EXCEPTING THEREFROM SUMMIT PASS & SPRING PARK. (75-13 TO 27)

**PARCEL #231280020**

THAT PORTION OF THE FOLLOWING DESCRIBED PROPERTY LYING SOUTHERLY OF THE EDEN CEMETERY DISTRICT LINE AND EASTERLY OF THE POWDER MOUNTAIN WATER AND SEWER DISTRICT LINE BEING, ALL OF LOT B2 (OPEN SPACE), SUMMIT EDEN PHASE 1A, WEBER COUNTY, UTAH.

## **EXHIBIT "B"**

### **Description of Access Trail**

#### **Access Easement**

A 50 foot wide access easement, 25' on each side of the following described centerline:

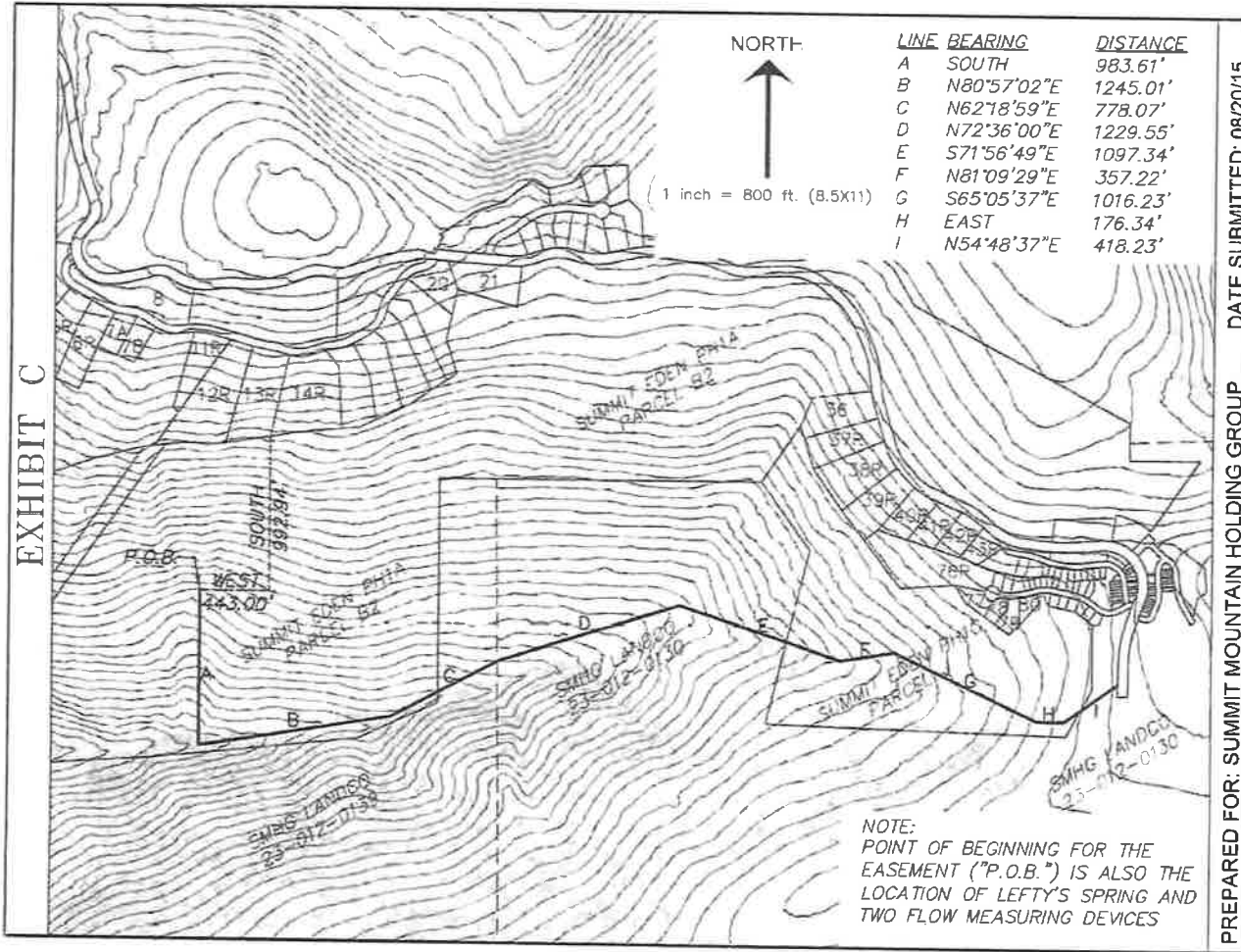
Beginning at a point known as Lefty's Spring, said point being South 992.94 feet and West 443.00 feet from the southeast lot corner of Lot 13R of Summit Eden Phase 1A Subdivision as recorded on January 27, 2014 as entry number 2672943 in the official records of Weber County, and running thence South 983.61 feet; thence North 80°57'02" East 1245.01 feet; thence North 62°18'59" East 778.07 feet; thence North 72°36'00" East 1229.55 feet; thence South 71°56'49" East 1097.34 feet; thence North 81°09'29" East 357.22 feet; thence South 65°05'37" East 1016.23 feet; thence East 176.34 feet; thence North 54°48'37" East 418.23 feet more or less to a point on the west right of way line of Summit Pass, a Weber County public road as recorded on January 27, 2014 as entry number 21072934 in the official records of Weber County, said point also being the point of termination.

Contains approximately 8.38 acres.

**EXHIBIT "C"**

**Depiction of Access Trail**

EXHIBIT C



PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP      DATE SUBMITTED: 08/20/15

**EXHIBIT B**  
**SETTLEMENT AGREEMENT**  
**SUMMIT MOUNTAIN HOLDING GROUP EXCHANGE E5382**

[Termination of 3 Acre-Feet Agreement]

**TERMINATION OF OUT OF PRIORITY DIVERSION AGREEMENT**  
**(3 ACRE FEET OF WATER)**

THIS TERMINATION OF OUT OF PRIORITY DIVERSION AGREEMENT (3 ACRE FEET OF WATER) (this "*Termination*") is entered into as of this \_\_\_\_\_ day of \_\_\_\_\_, 2016 by and among WOLF CREEK IRRIGATION COMPANY, a Utah nonprofit corporation (the "*Company*"), and POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT, a Utah Improvement District (the "*District*"), and SUMMIT MOUNTAIN HOLDING GROUP, L.L.C., a Utah limited liability company ("*Summit*") The Company, the District, and Summit may sometimes be referred to herein individually as a "*Party*" or collectively as the "*Parties*."

**RECITALS:**

A. The Parties executed that certain Out of Priority Diversion Agreement (3 Acre Feet of Water), dated as of August 21, 2015 (the "*Agreement*"). A copy of the Agreement is attached hereto as **Exhibit A**.

B. The Agreement and the terms and conditions contained in the Agreement were conditioned upon approval by the Utah Division of Drinking Water of a Conditional Operating Permit permitting the District to deliver water to six (6) new year round homes and the issuance of two (2) building permits to Summit authorizing construction in the 2015 building season (collectively the "*Conditions Precedent*").

C. The Conditions precedent did not occur and the Agreement has not become effective.

D. The Parties each desire to terminate the Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. **Incorporation**. The recitals set forth above are incorporated by reference as if fully set forth herein.

2. **Termination**. Effective as of the date of this Termination, the Parties hereby terminate the Agreement. From and after the date of this Termination, the Agreement will be of no further force or effect and the rights and obligations of the Parties thereunder shall terminate.

3. **Compliance and Waiver**. This Termination is intended to comply with any and all notice, grace, and other periods and requirements, if any, in the Agreement and with applicable law, and the Parties hereby waive any and all notice rights, any other conditions to their rights to terminate, and any other terms or conditions of the Agreement, if any, required to take place prior to expiration or termination of the Agreement and contained in the Agreement.

4. Governing Law. This Termination shall be governed by and construed in accordance with the internal laws of the State of Utah without giving effect to any choice or conflict of law provision or rule.

5. Entire Agreement. This Termination constitutes the entire agreement of the Parties with respect to the subject matter hereof.

6. Counterparts. This Termination may be executed in counterparts, and signatures delivered hereon by facsimile or electronic mail shall be deemed originals for all purposes.

IN WITNESS WHEREOF, the Parties have caused this Termination to be duly executed as of the date first above written.

WOLF CREEK IRRIGATION COMPANY,  
a Utah non-profit corporation

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

POWDER MOUNTAIN WATER & SEWER  
IMPROVEMENT DISTRICT

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

SUMMIT MOUNTAIN HOLDING GROUP, L.L.C.,  
a Utah limited liability company by SUMMIT  
REVOLUTION LLC, a Delaware limited liability  
company, its Sole Member

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

**EXHIBIT A**

**[Copy of Out of Priority Diversion Agreement (3 Acre Feet of Water)]**

**OUT OF PRIORITY DIVERSION AGREEMENT**  
**(3 ACRE FEET OF WATER)**

This OUT OF PRIORITY DIVERSION AGREEMENT (2015) (this "Agreement") is entered into as of August 21, 2015 by and among WOLF CREEK IRRIGATION COMPANY, a Utah non-profit corporation (the "Company"), and POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT, a Utah Improvement District (the "District"), and SUMMIT MOUNTAIN HOLDING GROUP, L.L.C., a Utah limited liability company ("Summit"). The Company, the District, and Summit are sometimes referred to herein collectively as the "Parties" and individually as a "Party."

**RECITALS**

A. The Company is a non-profit mutual irrigation company that supplies water available under Water Right No. 35-7188 (the "Company Water Right") to its shareholders.

B. The Company Water Right is decreed (Award 188 of the Ogden River Decree) with a priority date of January 1, 1861 for the diversion of up to 20 cfs (high flow) and 9.85 cfs (low flow) of water from Wolf Creek for the irrigation of 741.854 acres from March 1st to November 1st of each year (the "Irrigation Season") and for the year round storage of 129 acre-feet of water in two ponds. The Company Water Right is the earliest priority water right on Wolf Creek.

C. The District owns Change Application No. a33723 (35-4514, 35-4515 and 35-4516), and Exchange Application Nos. E467 (35-6124), E1273 (35-6712), and E4803 (35-12099) for the diversion of up to 147.55 acre-feet of water from Pizzel Springs Nos. 1, 2 and 3 (collectively the "Pizzel Springs"), and a shallow well or its possible future replacement commonly referred to as the "Cobabe Well" (collectively the "District Water Rights"). The District Water Rights do not include Exchange Application Nos. E4715 or E5382, which are owned by Summit and specifically not covered by this Agreement. The District Water Rights all have priority dates that are junior to the Company Water Right.

D. The District Water Rights are approved for municipal use and are used to supply water for indoor culinary use to existing domestic and commercial connections, for fire protection and other uses, according to their terms.

E. The District Water Rights divert water from sources that are tributary to Wolf Creek.

F. Unless the flows of Wolf Creek exceed 20 cfs during the high flow period or 9.85 cfs during the low flow period, a priority call on Wolf Creek may curtail all water diversions on Wolf Creek and its tributary sources during the Irrigation Season that are subsequent in priority to the Company Water Right, including the District Water Rights.

G. On July 28, 2015, the Company and the District entered into an Out of Priority Diversion Agreement (the "2015 Agreement") pursuant to which the District can divert flows tributary to Wolf Creek under the District Water Rights during the 2015 Irrigation Season at times when the flows of Wolf Creek are less than 9.85 cfs, with the permission of the Company. Paragraph 7 of the 2015 Agreement expressly prohibits water deliveries to Summit for any new connections. The 2015 Agreement will expire on November 1, 2015 by its terms.

H. Summit owns land and is the developer for a proposed new development at Powder Mountain (the "Development"). Summit has filed and obtained a conditioned approval of Exchange Application No. E5382 (the "Exchange"), which is intended to replace approved Exchange Application No. E4715 and be conveyed in the future to the District so that the District can provide water under the Exchange to the Development. The conditioned approval for the Exchange requires mitigation before it can be used and prohibits diversions during the Irrigation Season during times that water under the Company Water Right is being diverted and used, but is not fully satisfied, unless mitigation water is provided to the Company in sufficient quantities to off-set Summit and the District's diversions of water under the Exchange.

I. The Parties are in active negotiations to resolve issues relating to use of water under the Exchange.

J. Summit requires building permits for six (6) new year round homes and has requested the District to provide water from the District Water Rights for six (6) new year round connections (the "New Summit Connections").

K. The District needs approval of a Conditional Operating Permit by the Utah Division of Drinking Water ("DDW") to deliver water to the New Summit Connections, and this Agreement will become effective only upon such approval by DDW in a form that is acceptable to the Parties and issuance by Weber County to Summit of two (2) building permits in the Development for construction in the 2015 building season.

L. The District estimates that it will require a maximum of three (3) acre-feet of water for each of the 2015 through 2018 Irrigation Seasons to provide service to the New Summit Connections while a permanent supply is secured, and the District and Summit are requesting the Company to amend the 2015 Agreement as provided herein and for three (3) acre feet of water from the Company for the 2016 through the 2018 Irrigation Seasons (the "3 Acre-Feet Diversion Amount").

M. The Company estimates that the amount of water available under one (1) share of the capital stock of the Company (the "Share") is sufficient to supply the 3 Acre-Feet Diversion Amount required by the District for each of the Irrigation Seasons covered by this Agreement to supply water to the New Summit Connections and the District and Summit acknowledge for the purposes of this Agreement that the District's quantification of water for the Share is an acceptable amount.

N. The Company has identified a shareholder that has reached an agreement with the Company to not divert any additional water under the Share for each of the 2016 through the

2018 Irrigation Seasons, and the Company is willing to amend the 2015 Agreement to allow the District to serve the New Summit Connections for the remainder of the 2015 Irrigation Season.

O. The Company desires an easement from Summit for access to and from Lefty's Springs and for installation, operation, maintenance, repair and replacement of monitoring devices to monitor the flows of Lefty's Springs to be constructed by the Company.

P. The Company, the District, and Summit desire to enter into this Agreement (i) to provide compensation and an easement to Lefty's Springs to the Company, (ii) to provide for the Company's construction and operation of one or more monitoring devices to monitor the flows of Lefty's Springs; (iii) to provide for Summit's construction of a monitoring device to be owned and operated by Summit to also monitor the flows of Lefty's Springs; (iv) to provide for the Company not diverting water under the Share to allow the District to serve the New Summit Connections for each of the 2016 through the 2018 Irrigation Seasons; and (v) to allow the District to serve the New Summit Connections under the 2015 Agreement for the remainder of the 2015 Irrigation Season.

NOW, THEREFORE, in consideration of the following promises, rights, obligations, and other good and valuable consideration, the receipt, adequacy and sufficiency of which are hereby acknowledged, the Parties agree as follows:

#### AGREEMENT

1. Condition Precedent. This Agreement and the terms and conditions contained herein are conditioned upon approval by DDW of a Conditional Operating Permit permitting the District to deliver the water to the New Summit Connections hereunder that is acceptable to the Parties and issuance by Weber County to Summit of two (2) building permits in the Development for construction in the 2015 building season. This Agreement shall be effective as of the date of such approval by DDW and the issuance of the two building permits by Weber County (the "Effective Date").

2. Amendment of Paragraph 7 of the 2015 Agreement. Paragraph 7 of the 2015 Agreement between the Company and the District is amended to allow the District to serve the New Summit Connections for the remainder of the 2015 Irrigation Season as provided in this Agreement. The 2015 Agreement is not amended in any other way and will expire according to its terms on November 1, 2015. The term of this Agreement, however, shall run through the end of the irrigation season in 2018, as provided in Paragraph 8 below.

3. Payment by Summit to the Company. On the Effective Date, Summit shall make and deliver a payment to the Company in the amount of Eighty-Five Thousand and no/100 Dollars (\$85,000.00) in exchange for the Company allowing the District to serve the New Summit Connections under the 2015 Agreement for the remainder of the 2015 Irrigation Season, and such payment shall also provide adequate consideration for the Company not diverting any water under the Share as necessary to enable the District to divert this additional 3 Acre Feet of water during the 2016 through 2018 Irrigation Seasons to serve the New Summit Connections (the "Forbearance Payment").

4. Termination of Diversions Under the Share. Upon the Effective Date and delivery of the Forbearance Payment to the Company, the Company will terminate all diversions of water under the Share for each of the 2016, 2017 and 2018 Irrigation Seasons.

5. Right to Pump Out of Priority. On the Effective Date, the District will have the right to serve the New Summit Connections under the District Water Rights out of priority from the Pizzel Springs and the Cobabe Well (the "District's Approved Sources") for the remainder of the 2015 Irrigation Season under the 2015 Agreement as amended herein and the right to divert up to the 3 Acre-Feet Diversion Amount for the 2016 through 2018 Irrigation Seasons to supply water to the New Summit Connections under this Agreement.

6. Notification to State Engineer of this Agreement. The Company will promptly notify the State Engineer, the Weber and Ogden River Commissioners, Weber County and DDW of the existence of this Agreement upon its execution by all of the Parties.

7. Monitoring and Reporting Requirements. The District will maintain, repair and/or replace the existing measuring devices on the District's Approved Sources as is necessary and appropriate to accurately measure all diversions from the District's Approved Sources, and the District will make commercially reasonable best efforts to monitor and record all diversions from the District's Approved Sources and provide an accounting of its diversions to the Company and the Weber and Ogden River Commissioner on a weekly basis until the end of the 2018 Irrigation Season. In addition, measurements shall be taken either manually or electronically to assure that out of priority diversions under this Agreement do not exceed the annual 3 Acre-Feet Diversion Amount. The District agrees, in good faith, to operate its culinary water system in such a way as to reduce and minimize spillage and waste. Upon the request of the Company, with at least twenty-four (24) hours advance notice, the District will provide the Company access to the flow meter at the District's Pump House 3, which measures all of the water produced from the District's Approved Sources, for the purposes of verifying the accuracy of the measuring devices and verifying the accuracy of the amounts of water diverted from the District's Approved Sources during the term of this Agreement.

8. Term of Agreement. This Agreement commences on the Effective Date and payment of the Forbearance Payment and automatically terminates at midnight on November 1, 2018.

9. Limitation on Out of Priority Diversions. This Agreement authorizes out of priority diversions by the District to serve the New Summit Connections under Paragraph 7 of the 2015 Agreement, as amended herein, and authorizes out of priority diversions by the District up to the 3 Acre-Feet Diversion Amount in the 2016 through 2018 Irrigation Seasons only from the District Water Rights as they are defined herein. The water diverted under this Agreement may only be used by the District to supply indoor culinary water to the New Summit Connections and ancillary purposes associated with the New Summit Connections. For the term of this Agreement, the District shall not use out of priority diversions of water diverted under this Agreement to serve any connections other than the New Summit Connections.

10. **Permanent Easement.** Within thirty (30) days of the Effective Date of this Agreement, Summit shall grant to the Company a permanent easement to be recorded in the office of the Weber County Recorder and indexed against Summit's land to provide perpetual access to and from the existing monitoring device on Lower Lefty's Springs and to and from a new monitoring device to monitor the flows of Lefty's Springs at a point yet to be determined by the Company as set forth in more detail in Paragraph 11 below. The easement shall also grant rights for the installation, operation, maintenance, repair, and replacement of the existing monitoring device and the new monitoring device. The permanent easement shall be substantially in the form attached as **Exhibit "A"** to this Agreement. In the event that Summit does not execute and deliver the permanent easement substantially in the form of **Exhibit "A,"** as provided in this Paragraph, the Company may, in its sole discretion and without advance notice or the opportunity to cure, terminate this Agreement with respect to the District's right to divert water out of priority to serve the New Summit Connections during the 2016 through 2018 Irrigation Seasons, and no portion of the Forbearance Payment shall be returned to Summit or paid to the District.

11. **New Monitoring Device.** Prior to December 31, 2015, Summit will at its cost install a new monitoring device to monitor the flows of Lefty's Springs. Summit will share all data from the monitoring device with the Company. The location, design, and installation of the monitoring device shall be acceptable to the Company.

12. **Assignment.** This Agreement is binding upon and may be assigned to the Parties' successors.

13. **Reservation of Rights.** This Agreement shall not compromise any other rights, claims, demands, liabilities, assessments, or other matters not specifically set forth in this Agreement. The Parties reserve any and all rights they may possess with respect to matters not specifically compromised pursuant to this Agreement. This Agreement does not grant any rights to Summit or the District with respect to the Exchange or Exchange E4715 or any additional rights with respect to the District Water Rights that are not described herein. The Company specifically reserves all other rights to which it is entitled under the Company Water Right, including, without limitation, the rights to make a priority call on Wolf Creek and its tributaries, to protest, object to or challenge any filings made by the other Parties, to divert its full supply of water under the Company Water Right during the irrigation season unless in the future it makes agreements otherwise, to challenge future water use of the Parties that the Company believes impairs the Company Water Right and to negotiate resolution of outstanding and ongoing issues with respect to use of water interfering with the Company's Water Right.

14. **No Admission or Concession of Liability/No Precedent.** The Parties understand, acknowledge and agree that the rights granted to the District and Summit in this Agreement are solely applicable to the 2015 through 2018 Irrigation Seasons, that they provide no precedential value and shall not constitute any admission or concession respecting the Water Rights or operations of any Party. The Parties further understand, acknowledge and agree that the information and statements contained in this Agreement, including the recital paragraphs, are not to be construed as an admission or concession of any liability or responsibility by any Party or the factual accuracy of the same.

15. Good Faith Negotiations. The Company and Summit are actively negotiating and will continue to negotiate in good faith toward reaching workable solutions and a long-term agreement concerning issues with the Reissued Order of the State Engineer dated August 19, 2015, conditionally approving the Exchange. Water under the Exchange will be delivered by the District, and the Parties agree to negotiate in good faith to establish acceptable mitigation to permit the year round long-term use of water under the Exchange.

16. Entire Agreement. The Parties agree and acknowledge that no promise, representation, inducement, covenant or agreement not expressly set forth herein has been made by any party to another or any of their representatives, and that this Agreement constitutes the entire and complete agreement between the Parties respecting the subject matter hereof, and that any and all negotiations and discussions are merged into this Agreement. No addition, deletion, or amendment shall have any force or effect, except as mutually agreed to in writing signed by all of the Parties.

17. Warranty of Authority. Each Party hereby represents and warrants to the other that the execution, delivery, and performance of this Agreement by such Party have been duly authorized by all requisite corporate or other action on the part of such Party, and, when executed and delivered by such Party, this Agreement will constitute the valid and binding obligation of such Party, enforceable in accordance with its terms.

18. Cooperation. The Parties agree to exercise good faith cooperation and reasonable diligence to carry out the intent and purpose of this Agreement and to carry out the performance of their respective obligations hereunder.

19. Governing Law. This Agreement shall be governed by and construed in accordance with the internal laws of the State of Utah without regard to its conflict of law or choice of law rules.

20. Attorneys' Fees. If any action is brought because of any breach of, or to enforce, interpret, rescind, or terminate any of the provisions of this Agreement, the party prevailing in such action shall be entitled to recover from the other party or parties reasonable attorneys' fees and court costs incurred in connection with such action, the amount of which shall be fixed by the court and made a part of any judgment rendered.

21. Recitals and Headings. The recitals set forth above shall be deemed to be incorporated within this Agreement as if fully set forth herein, and this Agreement shall be interpreted in light of such recitals. The captions and headings contained herein are for convenient reference only and are not a part of the Agreement.

22. Notices. All notices, consents, requests, instructions, approvals and other communications provided for herein shall be deemed validly given, made or served if in writing and delivered personally or sent by certified mail, postage prepaid, or by overnight courier, charges prepaid.

If to the Company:

Wolf Creek Irrigation Company  
P.O. Box 761  
Eden, UT 84310

If to the District:

Powder Mountain Water and Sewer  
Improvement District  
P.O. Box 270  
Eden, UT 84310

If to Summit:

Summit Mountain Holding Group, L.L.C.  
Attn.: General Counsel  
3923 N. Wolf Creek Drive  
Eden, UT 84310

or such other address as shall be furnished in writing by any Party to the other Parties.

23. No Third Party Beneficiaries. This Agreement is entered into solely for the benefit of the Parties. This Agreement is not intended to, and does not, give or create any rights to or in any person, other than the Parties hereto.

24. Construction. The Parties intend that no Party shall be deemed to be the drafter of this Agreement, that the Parties collectively shall be deemed to have drafted it, and that it shall be construed without regard to rules of construction that might otherwise apply against a drafter.

25. Voluntary Agreement. The Parties have read this Agreement and have freely and voluntarily entered into the Agreement. The Parties acknowledge that they and their attorneys have made such investigation of facts pertaining to this Agreement, and all of the matters pertaining thereto, as they deem necessary.

26. Counterparts. This Agreement may be executed and delivered in any number of counterparts, each of which so executed and delivered shall be deemed to be an original and all of which shall constitute one and the same instrument. Photocopies or facsimile copies of executed copies of this Agreement may be treated as an original.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties have executed this Agreement to be effective as of  
the Execution Date.  
Effective Date

WOLF CREEK IRRIGATION COMPANY,  
a Utah non-profit corporation

POWDER MOUNTAIN WATER &  
SEWER IMPROVEMENT DISTRICT

By: Dee R. Seaple  
Its: President  
Date: August 21, 2015

By: Michael B. ...  
Its: Chairman  
Date: Aug 21 2015

SUMMIT MOUNTAIN HOLDING GROUP, L.L.C.  
a Utah limited liability company by SUMMIT REVOLUTION  
LLC, a Delaware limited liability company, its Sole Member

By: Paul Strange  
Its: Authorized Signatory  
Date: August 21, 2015

EXHIBIT A

[Easement Agreement]

WHEN RECORDED, RETURN TO:

Wolf Creek Irrigation Company  
P.O. Box 761  
Eden, Utah 84310  
Attention: Mr. Dee Staples

**EASEMENT AGREEMENT**  
(Lefty's Springs and Monitoring Facilities)

This EASEMENT AGREEMENT (Lefty's Springs and Monitoring Facilities) (this "Agreement") is made this \_\_\_\_ day of \_\_\_\_\_ 2015, by and among SMHG Phase I, LLC, a Delaware limited liability company, SMHG Landco LLC, a Delaware limited liability company, their ultimate parent company Summit Mountain Holding Group, L.L.C. and their successors and assigns (collectively the "Grantor"), and Wolf Creek Irrigation Company, a Utah non-profit corporation, and its successors and assigns ("Grantee").

**RECITALS**

- A. Grantor is the owner of certain real property located in Weber County, Utah, as more particularly described on Exhibit "A" attached hereto and incorporated herein by this reference ("Grantor's Property").
- B. Grantee is a mutual irrigation company supplying water to its shareholders in the Ogden Valley and owns, among other things, the earliest priority water right in Wolf Creek.
- C. Lefty's Springs is a tributary to Wolf Creek and is located on Grantor's Property. Grantee desires easements from Grantor to access, install, operate, maintain, repair, and replace one or more water flow measuring and monitoring devices to measure the flow of Lefty's Springs (the "Facilities").
- D. Grantor agrees to grant the easements set forth below to Grantee pursuant to the terms and conditions set forth in this Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee hereby agree as follows:

**AGREEMENT**

1. **Grant of Easement.** Grantor hereby grants to Grantee and the Benefited Parties (defined below) the following perpetual easements in gross:
  - a. A perpetual non-exclusive permanent easement over, across, and through Grantor's Property for pedestrian, bicycle and equestrian ingress, egress and access by means of the access trail (the "Access Trail") identified on Exhibit "B" and depicted on Exhibit "C" both

of which are attached hereto and incorporated herein. Grantee shall not have the right to construct, install, maintain, repair, or rebuild any improvements for use of the Access Trail.

b. A perpetual non-exclusive permanent easement on, over, across, under and through that portion of the Access Trail marked "A" on Exhibit "B," for the installation, operation, maintenance, repair and replacement of a water flow measurement and monitoring device and related improvements by Grantee. Grantee shall provide Grantor with the proposed location for installation of this water flow measurement and monitoring device within that portion of the Access Trail marked "A" prior to its installation and Grantor may not object to Grantee's proposed location if it does not unreasonably interfere with the operation, maintenance, repair and replacement of any existing water flow and monitoring device of Grantor.

c. A perpetual non-exclusive permanent easement on, over, across, under and through that portion of the Access Trail marked "A" on Exhibit "B," for the operation, maintenance, repair and replacement of the existing water flow measurement and monitoring device and related improvements at the location commonly referred to by Grantee as "Lower Lefty's Spring."

The two water flow measurement and monitoring devices described in this Paragraph 1 are collectively referred to herein as the "Monitoring Facilities" and the three easements described in this Paragraph 1 are collectively referred to herein as the "Easements."

2. Location of Access Trail. The exact location of the Access Trail may be modified, changed, and/or relocated by Grantor from time to time, with Grantee's prior written consent, which may not be unreasonably denied by Grantee. Any such modification or relocation must provide access to Grantee from substantially the same point of beginning (i.e., in the Village) and provide substantially equivalent access to the Monitoring Facilities located in that portion of the Access Trail marked "A" on Exhibit "B." Any such modification or relocation will also require that this Agreement be amended and that the amendment to this Agreement be recorded in the office of the Weber County Recorder and properly indexed against Grantor's Property.

3. Notice Requirement, Maintenance, Replacement; Liens. Grantee shall provide Grantor prior notice before using the Access Trail. During the winter months and the big game hunting seasons, Grantee shall provide Grantor with forty-eight (48) hours prior notification. Such notification is not required to be in writing. Grantee shall be responsible, at its sole cost and expense, for the construction, operation, maintenance, repair, and replacement of the Monitoring Facilities. Grantee shall also be responsible for restoring and re-vegetating any areas of Grantor's Property that are damaged resulting from Grantee's use of the Access Trail and/or Monitoring Facilities. In addition, Grantee shall not permit, and shall indemnify Grantor against, any lien or claim of mechanics or laborers filed against Grantor's Property, or any part or parts thereof arising from non-payment of costs, fees or other expenses for any work, labor or materials furnished pursuant to any agreement by Grantee relating to the Monitoring Facilities. Within thirty (30) days after Grantee receives notice of such filing or recording of any such lien, Grantee shall cause the same to be discharged by obtaining a release thereof or bonding over such mechanics' lien or otherwise. If Grantee fails to cause such lien to be discharged within

such period, Grantor shall have the right (but not the duty), in addition to any other remedies provided herein, to pay all amounts necessary to cause such lien to be discharged and released of record, and any amounts so paid by Grantor shall be repaid by Grantee, plus interest from the date of Grantor's payment at the rate of eighteen percent (18%) per annum until paid.

4. Grantee's At-Risk Use and Winter Conditions. Grantee's use of the Access Trail shall be at its own risk and Grantee acknowledges and agrees that Grantor has no obligation or duty to improve, maintain or repair the Access Trail or the Monitoring Facilities. Grantor has no duty or obligation to provide avalanche control for the Access Trail and/or the locations of the Monitoring Facilities. In addition, Grantee acknowledges that during winter months the Access Trail and locations of the Monitoring Facilities are difficult to reach and are exposed to a high degree of avalanche danger and other winter conditions. Prior to using the Access Trail during winter months Grantee shall discuss conditions of access relating to the Access Trail and Monitoring Facilities with Grantor, including avalanche danger; however, Grantee hereby expressly waives any claim it, or its members, partners, directors, officers, agents, contractors, employees and guests may have against Grantor for any damage, injury, death or other liability, to any person or property, which may arise as a result of or otherwise be attributable in any way to the use of the information discussed. Grantor shall not guarantee the accuracy of the information provided. During the winter months, Grantor may, in its sole discretion (but without the obligation), provide Grantee transportation to the Monitoring Facilities through use of snowmobiles and/or Snowcats owned and operated by Grantor's affiliates in its skiing operations of the Powder Mountain Resort.

5. Benefitted Parties. The Easement shall be for the use and benefit of the following parties (the "Benefitted Parties"): (a) Grantee and its successors and assigns; and (b) all employees, contractors, subcontractors and invitees of Grantee, its successors and assigns.

6. Data from Grantor and Grantee Installed Monitoring Devices. Grantor intends to construct one or more waterflow measuring and monitoring devices to monitor the flows of Lefty's Springs, Wolf Creek, and/or other sources tributary to Wolf Creek. Providing such devices are constructed and operated by Grantor it shall timely provide to Grantee any data obtained from such devices. Grantee agrees that it shall timely provide to Grantor any data which it may obtain from the Monitoring Facilities and from any other measuring and monitoring device that monitors the flows of Lefty's Springs, Wolf Creek, and/or other sources tributary to Wolf Creek.

7. Taxes. Grantor shall pay when due all real property taxes and assessments assessed against the Easements. Grantee shall pay when due any taxes assessed against the Monitoring Facilities, if any (excluding any access roads or improvements owned by a third party) permitted hereunder and installed in the Easement by Grantee.

8. No Public Dedication. The Easements shall not be construed as creating any rights in or for the benefit of the general public, or be deemed to be a gift or dedication of any part of the Easements, in whole or in part, to the general public or for any public use whatsoever.

9. Notices. With the exception of the notice required to be given by Grantee to Grantor prior to using the Access Trail pursuant to Paragraph 3 hereof, all notices made pursuant

to this Agreement shall be in writing and shall be given by personal delivery to a responsible person, by electronic transmission, by deposit in the United States mail (certified mail, return receipt requested, postage prepaid), or by express delivery service, freight prepaid. Notices shall be delivered or addressed to Grantor and Grantee at the following addresses, or at such other address as a party may designate in writing:

Grantor: SMHG Landco LLC,  
SMHG Phase I, LLC and  
Summit Mountain Holding Group, LLC  
3923 N. Wolf Creek Drive  
Eden, Utah 84310  
Attention: General Counsel  
email: paul@summit.co  
Telephone: (801) 987-0570

Grantee: Wolf Creek Irrigation Company  
P.O. Box 761  
Eden, Utah 84310  
Attention: Mr. Dee Staples  
email: [sadeestaples@hotmail.com](mailto:sadeestaples@hotmail.com)  
Telephone: (801) 721-3730

The date notice is deemed to have been given, received and become effective shall be the date on which the notice is delivered, if notice is given by personal delivery or electronic transmission, or the date of actual receipt if the notice is sent through the United States mail or by express delivery service.

10. Covenants to Run with the Land. The Easements, rights and interests granted herein shall constitute covenants running with the land, and shall burden Grantor's Property as the servient estate, and shall be binding upon Grantor, its successors, assigns and any person acquiring, leasing or otherwise owning an interest in Grantor's Property, and shall inure to the benefit of Grantee and the Benefited Parties.

11. Enforcement. In the event either party fails to cure any violation of the terms of this Agreement within ten (10) days after written notice from the other, the non-defaulting party shall have the right to injunctive relief, to require specific performance of this Agreement, to collect damages from the defaulting party, and to take such actions as may be necessary in the non-defaulting party's discretion to cure such violation and charge the defaulting party with all reasonable costs and expenses incurred by the non-defaulting party as a result of such violation (including, without limitation, the non-defaulting party's reasonable attorneys' fees and related costs). All rights and remedies provided under this Agreement are cumulative and may be pursued singularly, in any combination, and in any order. The failure to enforce any of the terms and provisions contained herein shall in no event be deemed to be a waiver of the right to thereafter strictly enforce the terms and provisions hereof.

12. Indemnity. Grantee shall indemnify and hold harmless Grantor, its members, partners, directors, officers, agents, contractors and employees, free from or against any and all

liability, loss, damage, costs and expenses (including reasonable attorneys' fees) for injury to person or death or property damage to the extent arising from the use of the Access Trail and/or the Monitoring Facilities, except for any such liability, loss, damage, costs and expenses to the extent arising directly and solely from the acts of Grantor or its members, partners, directors, officers, agents, contractors and employees.

13. General Provisions.

a. Recitals Incorporated. The Recitals set forth above are true and correct and are incorporated herein by this reference.

b. Modification and Waiver. This Agreement may be modified or amended only by a writing signed by each of the parties hereto or their respective successors or assigns and recorded in the official records of the Weber County Recorder's Office. This Agreement is governed by the laws of the State of Utah. The failure to any party hereto to insist upon strict performance or any of the terms, covenants, conditions or agreements contained herein shall not be deemed a waiver of any rights or remedies that such party may have, and shall not be deemed a waiver or any subsequent breach or default in any of the terms, covenants, conditions or agreements contained herein.

c. Construction. This instrument shall be construed in accordance with the laws of the State of Utah without giving effect to its conflict of laws principles.

d. Amendment. The parties may amend this Agreement only by a written instrument executed by the parties and recorded in the Office of the Weber County Recorder.

e. Partial Invalidity. If any provision of this Agreement or the application thereof to any person or circumstance shall to any extent be invalid, the remainder of this Agreement or the application of such provision to persons or circumstances other than those as to which it is held invalid shall not be affected thereby and each provision of this Agreement shall be valid and enforced to the fullest extent permitted by law.

f. Counsel. Both Grantor and Grantee have been represented by their own counsel in connection with the negotiation and preparation of this Agreement and, consequently, both Grantor and Grantee waive the application of any rule of law that would otherwise be applicable in connection with the interpretation of this Agreement, including any rule of law to the effect that any provision of this Agreement will be interpreted or construed against the party whose counsel drafted that provision.

g. Counterparts. This instrument may be executed in any number of counterparts, each of which shall be an original, but all of which shall constitute one and the same instrument.

h. Authority. Each party hereto is duly organized, existing and in good standing under the laws of the state of the jurisdiction in which it is organized and has the full right and authority to enter into this Easement Agreement and consummate the transaction contemplated hereby. All requisite company action has been taken by each party in connection with the entering into of this Easement Agreement and the consummation of the transaction

contemplated hereby. Each of the persons signing this Easement Agreement on behalf of a party hereto is authorized to do so.

*[Signatures and Notaries on Following Pages]*

**IN WITNESS WHEREOF**, Grantor and Grantee have executed this Easement Agreement as of the date first indicated above.

**GRANTOR:**

SMHG LANDCO LLC, a Delaware limited liability company, by Summit Mountain Holding Group, LLC, a Utah limited liability company, its Sole Member

By: SUMMIT REVOLUTION LLC, a Delaware limited liability company  
Its: Sole Member

By: \_\_\_\_\_  
Name: Paul Strange  
Title: Authorized Signatory

SMHG Phase I, LLC, a Delaware limited liability company

By: SMHG Investments LLC, a Delaware limited liability company  
Its: Sole Member

By: \_\_\_\_\_  
Name: Paul Strange  
Title: Authorized Signatory

Summit Mountain Holding Group, LLC, a Utah limited liability company, its Sole Member

By: SUMMIT REVOLUTION LLC, a Delaware limited liability company  
Its: Sole Member

By: \_\_\_\_\_  
Name: Paul Strange  
Title: Authorized Signatory

STATE OF \_\_\_\_\_ )

:ss.

COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2015, by Paul Strange as Authorized Signatory of Summit Revolution LLC, a Delaware limited liability company, the sole member of Summit Mountain Holding Group, LLC, a Utah limited liability company, the sole member of SMHG Landco LLC, a Delaware limited liability company.

\_\_\_\_\_  
NOTARY PUBLIC

Residing at: \_\_\_\_\_

My Commission Expires:

\_\_\_\_\_

STATE OF \_\_\_\_\_ )

:ss.

COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2015, by Paul Strange as Authorized Signatory of SMHG Investments LLC, a Delaware limited liability company, the sole member of SMHG Phase I, LLC, a Delaware limited liability company.

\_\_\_\_\_  
NOTARY PUBLIC

Residing at: \_\_\_\_\_

My Commission Expires:

\_\_\_\_\_

STATE OF \_\_\_\_\_ )

:ss.

COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2015, by Paul Strange as Authorized Signatory of Summit Revolution LLC, a Delaware limited liability company, the sole member of Summit Mountain Holding Group, LLC, a Utah limited liability company.

\_\_\_\_\_  
NOTARY PUBLIC

Residing at: \_\_\_\_\_

My Commission Expires:

\_\_\_\_\_

**GRANTEE:**

**WOLF CREEK IRRIGATION COMPANY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

STATE OF UTAH        )  
                              : ss.  
COUNTY OF WEBER    )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2015, by \_\_\_\_\_, the \_\_\_\_\_ of Wolf Creek Irrigation Company.

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

**EXHIBIT "A"**

**Description of Grantor's Property**

Parcel # 230120139

Parcel # 230120130

Parcel # 231280020

A-1

B-23

**EXHIBIT "B"**

**Description of Access Trail**

**Access Easement**

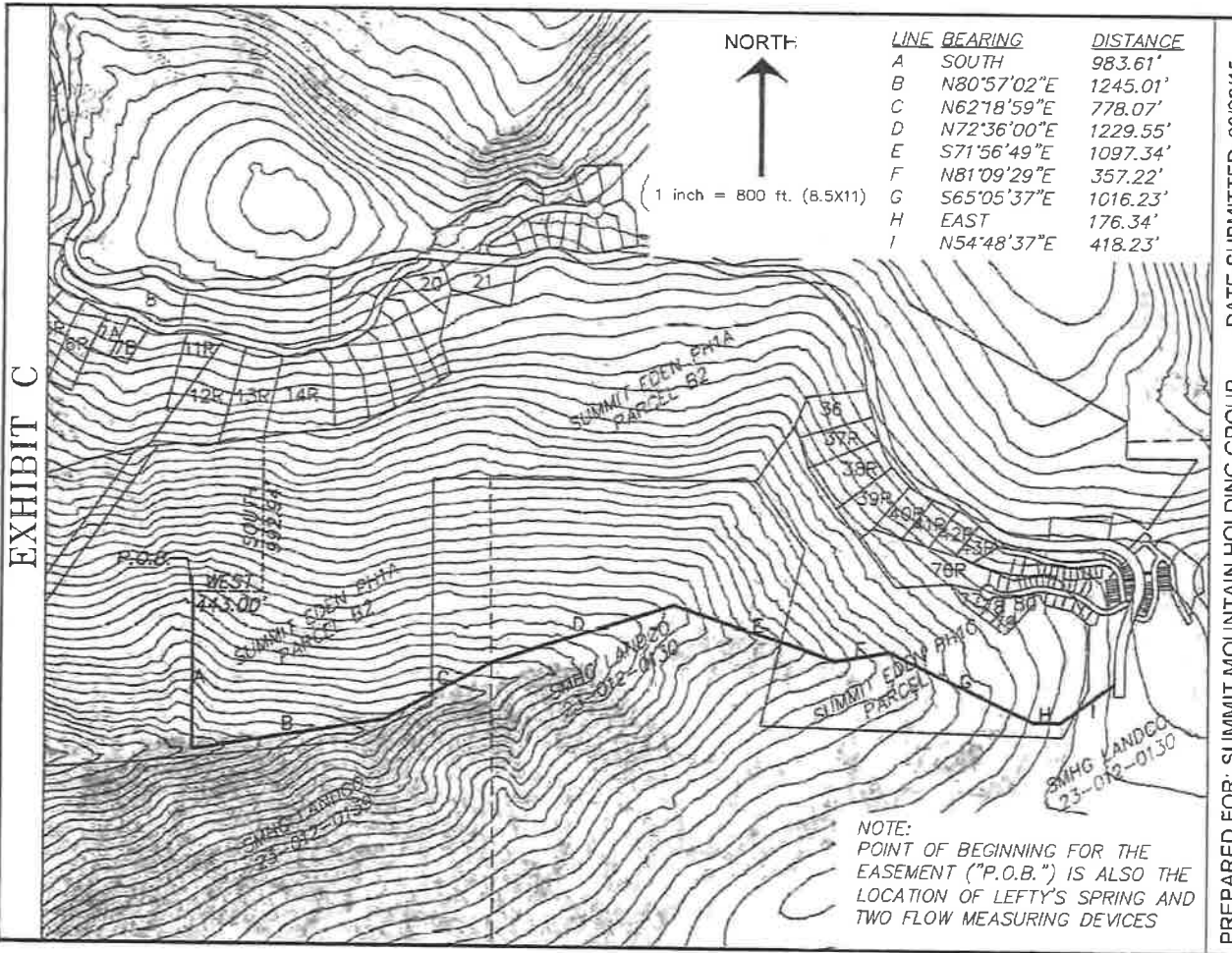
A 50 foot wide access easement, 25' on each side of the following described centerline:

Beginning at a point known as Lefty's Spring, said point being South 992.94 feet and West 443.00 feet from the southeast lot corner of Lot 13R of Summit Eden Phase 1A Subdivision as recorded on January 27, 2014 as entry number 2672943 in the official records of Weber County, and running thence South 983.61 feet; thence North 80°57'02" East 1245.01 feet; thence North 62°18'59" East 778.07 feet; thence North 72°36'00" East 1229.55 feet; thence South 71°56'49" East 1097.34 feet; thence North 81°09'29" East 357.22 feet; thence South 65°05'37" East 1016.23 feet; thence East 176.34 feet; thence North 54°48'37" East 418.23 feet more or less to a point on the west right of way line of Summit Pass, a Weber County public road as recorded on January 27, 2014 as entry number 21072934 in the official records of Weber County, said point also being the point of termination.  
Contains approximately 8.38 acres.

B-1

**EXHIBIT "C"**

**Depiction of Access Trail**



PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP      DATE SUBMITTED: 08/20/15

**EXHIBIT C**

**SETTLEMENT AGREEMENT**

**SUMMIT MOUNTAIN HOLDING GROUP EXCHANGE E5382**

[Depiction of Balloon Fest Reservoir Location on “Wolf Barn” Property]

Exhibit C to Settlement Agreement Summit Mountain Holding Group Exchange E5382



**EXHIBIT D**

**SETTLEMENT AGREEMENT**

**SUMMIT MOUNTAIN HOLDING GROUP EXCHANGE E5382**

[Reservoir Easement Agreement]

**When Recorded Mail To:**  
Wolf Creek Irrigation Company  
Attn: Mr. Dee Staples  
P.O. Box 761  
Eden, Utah 84310

### **RESERVOIR EASEMENT AGREEMENT**

**THIS RESERVOIR EASEMENT AGREEMENT** (this "Agreement") is entered into as of \_\_\_ this day of \_\_\_\_\_, 2016, by and among **SUMMIT MOUNTAIN HOLDING GROUP, L.L.C.**, a Utah limited liability company ("Grantor") and **WOLF CREEK IRRIGATION COMPANY**, a Utah nonprofit corporation ("Grantee").

#### **RECITALS**

A. Grantor is the owner in fee simple of certain real property located in Weber County, Utah, as more particularly described on Exhibit A attached to and made a part of this Agreement (the "Grantor Property").

B. Grantee is the owner of Water Right No. 35-7188, a decreed right (Award 188 of the Ogden River Decree) with a priority date of January 1, 1861 for the diversion of up to 20 cfs (high flow) and up to 9.85 cfs (low flow) of water from Wolf Creek for the irrigation of 741.854 acres of land from March 1st to November 1st of each year and for the year round storage of 129 acre-feet of water in two ponds (the "Water Right").

C. Grantor has agreed to allow Grantee to construct a reservoir on a portion of the Grantor Property at Grantee's cost and expense (the "Balloon Fest Reservoir"), to store water associated with the Water Right in the Balloon Fest Reservoir, and has agreed to grant Grantee certain easements in conjunction therewith.

#### **AGREEMENT**

NOW, THEREFORE, in consideration of Ten Dollars (\$10.00), the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee agree as follows:

1. **Incorporation of Recitals.** The Recitals set forth above are hereby incorporated into and made part of this Agreement.

2. **Grant of Easements.** Grantor grants to Grantee a Reservoir Easement, Pipeline Easement and Access Easement (collectively, the "**Easements**"):

a. **Reservoir Easement.** Subject to the terms and conditions of this Agreement, Grantor hereby grants to Grantee a perpetual, non-exclusive easement (the "**Reservoir Easement**") through, on, over, across and under the area described on **Exhibit B-1** and depicted on **Exhibit B-2** attached to and made a part of this Agreement (the "**Reservoir Easement Area**") for the purposes of providing the storage of water related to the Water Right in the Balloon Fest Reservoir and for the operation, construction, maintenance, repair and upgrading of the Balloon Fest Reservoir. The Reservoir Easement (i) shall be for the benefit of Grantee, (ii) may be used by Grantee and any person entering onto the Reservoir Easement Area with the express or implied permission of Grantee for the purposes allowed herein, and (iii) shall be appurtenant to, for the benefit of, and run with the title to the Water Right. In consideration of such grant, the Reservoir Easement shall be subject to all of the terms and conditions set forth herein.

b. **Pipeline Easement.** Subject to the terms and conditions of this Agreement, Grantor hereby grants to Grantee perpetual, non-exclusive easements fifteen (15) feet in width (collectively the "**Pipeline Easement**") through, on, over, across and under yet to be determined portions of the Reservoir Easement Area and through, on, over, across and under the area described on **Exhibit C** attached to and made a part of this Agreement (the "**Pipeline Easement Area**") for the purposes of (a) operating, constructing, maintaining, repairing, upgrading and replacing the pipelines (the "**Pipelines**") and water diversion, transmission and related facilities, including without limitation, flumes, meters, underpasses, culverts, pipelines, conduits, liners and other surface and below ground appurtenances that protect, serve or otherwise benefit the Pipelines (the "**Pipeline Facilities**") hereafter constructed upon the Pipeline Easement Area, and (b) for delivering water attributable to the Water Right to and from the Balloon Fest Reservoir. The Pipeline Easement (i) shall be for the benefit of Grantee, (ii) may be used by Grantee and any person entering onto the Pipeline Easement Area with the express or implied permission of Grantee for the purposes allowed herein, and (iii) shall be appurtenant to, for the benefit of, and run with the title to the Water Right. In consideration of such grant, the Pipeline Easement shall be subject to all of the terms and conditions set forth herein.

c. **Access Easement.** Subject to the terms and conditions of this Agreement, Grantor hereby grants to Grantee a perpetual, non-exclusive easement (the "**Access Easement**") through, on, over, and across the area described on **Exhibit D** attached to and made a part of this Agreement (the "**Access Easement Area**") for the purpose of providing ingress, egress and access to and from the Balloon Fest Reservoir, the Pipelines, and the Pipeline Facilities. The Access Easement (i) shall be for the benefit of Grantee, (ii) may be used by Grantee and any person entering onto the Access Easement Area with the express or implied permission of Grantee for the purposes allowed herein, and (iii) shall be appurtenant to, for the benefit of, and run with the title to the Water Right. In consideration of such grant, the Access Easement shall be subject to all of the terms and conditions set forth herein.

3. **Relocation of Easements.** Grantor shall not have the right to relocate the Reservoir Easement or the Pipeline Easement without Grantee's prior written consent, which consent shall not be unreasonably withheld or delayed. Grantor shall have the right to relocate

the Access Easement, so long as the relocation does not materially prevent or hinder the use of the Access Easement by Grantee, and the relocated Access Easement is not materially less convenient. Any relocation of any of the Easements requested by Grantor shall be at Grantor's sole cost and expense. Grantor or Grantee shall have the right from time to time, with the prior written consent of the party not requesting the relocation, which consent shall not be unreasonably withheld or delayed, to relocate or extend the Pipelines and the Pipeline Facilities as reasonably necessary to deliver water to or from the Reservoir. In case of a relocation the Pipelines and the Pipeline Facilities, the party requesting the relocation, at its sole cost and expense, shall construct replacement improvements and facilities in a good and workmanlike manner and in accordance with all applicable laws and free and clear of liens and claims therefor of a quality equal to or better than the improvements existing in the applicable Reservoir Easement Area, Access Easement Area and Pipeline Easement Area (collectively, the "Easement Areas") immediately prior to the relocation. All such work related to the relocation shall be completed within one hundred twenty (120) days after commencement, subject to extension as the result of delays caused by a Force Majeure Event as such is defined in Section 16.h. of this Agreement. At the completion of the relocation of any Easement Area, Grantor and Grantee shall execute, and the party requesting the relocation shall file for recording, (a) an amendment to this Agreement or an easement in form and substance similar to this Agreement, granting an easement on the new Easement Area, and (b) appropriate instruments to release and terminate the burdens of this Agreement upon the portion of the original Easement Areas abandoned as a result of such relocation.

4. **Termination of Easements.** The Easements may be terminated or amended only by a written instrument executed by Grantor and Grantee.

5. **Compliance With Laws.** Any use by Grantee of the Easement Areas shall be in compliance with all applicable governmental codes, regulations, ordinances and requirements.

6. **Maintenance and Repair.** Grantee shall be responsible for promptly and diligently constructing, maintaining, repairing, and inspecting all improvements in the Easement Areas in good, safe and operable condition and repair at all times, and in compliance with all applicable governmental codes, regulations, ordinances and requirements (collectively, "Maintenance and Repair"). All Maintenance and Repair shall be performed in a good and workmanlike manner. The cost of the Maintenance and Repair shall be borne by Grantee at its sole cost and expense.

7. **Damage to Grantor Property.** Grantee shall not use the Easement Areas in any way that will cause injury or damage to the Grantor Property. In the event of any injury, loss, or damage to the Grantor Property resulting from the use by Grantee of the Easement Areas or otherwise, Grantee shall, within thirty (30) days after demand, repair, or reimburse or pay to Grantor any amounts necessary to repair, any damage to the Grantor Property or any part thereof and any improvements thereon and any other related losses or expenses. Notwithstanding the forgoing, Grantee shall only be responsible for acts or omissions of Grantee or anyone acting by, through, under or at the request of Grantee, and Grantee shall not be responsible for the acts of Grantor or for the acts or omissions of unrelated third parties utilizing the Easement Areas.

8. **No Mechanics' Liens.** Nothing contained herein shall authorize Grantee, or any person or entity acting by, through, with, or on behalf of Grantee, to subject all or any portion of the Grantor Property to any mechanics', materialmans' or other lien on account of supplies, machinery, tools, equipment, labor or materials furnished or used in connection with any activities performed by or at the request of Grantee (a "Lien"). If any such Lien shall be filed against the Grantor Property, Grantee shall, at its sole cost and expense, cause the Lien to be discharged. In the event that such Lien is not discharged by Grantee within thirty (30) days after receipt of written notice of the existence of the Lien, Grantor, at its option, and at the reasonable expense of Grantee, may enter into, defend, prosecute or pursue any effort or action (whether or not litigation is involved) which Grantor deems reasonably necessary to defend it and the Grantor Property from and against such Lien, and all costs incurred by Grantor in connection therewith, together with interest thereon at the rate of twelve percent (18%) per annum, shall be payable by Grantee to Grantor within ten (10) days of written demand for the same, which written demand shall include proof of payment by Grantor.

9. **Grantor's Indemnification.** Grantor shall indemnify, defend and hold harmless Grantee, its managers, members, officers, directors, shareholders employees, agents, successors and assigns from and against any and all obligations, claims, demands, damages, injuries, liens (including, without limitation, mechanics' and materialmen's liens), losses, suits, actions, judgments, liabilities, costs and expenses (including, without limitation, reasonable attorneys' fees) (collectively "Claims") which may be incurred by or asserted against Grantee, its managers, members, officers, directors, shareholders employees, agents, successors and assigns to the extent that they in any way arise out or are related to (a) the activities of Grantor on the Easement Areas or the Grantor Property, or (b) the failure to perform or breach of any of Grantor's obligations under this Agreement.

10. **Grantee's Indemnification.** Grantee shall indemnify, defend and hold harmless Grantor, its managers, members, employees, agents, successors and assigns from and against any and all Claims which may be incurred by or asserted against Grantor, its managers, members, employees, agents, successors and assigns, in any way arising out of or related to (a) the entry upon or activities of Grantee or anyone using the Easement Areas upon Grantee's authorization or request, on the Easement Areas or the Grantor Property, including without limitation, any failure by Grantee or anyone using the Easement Areas upon Grantee's authorization or request to comply with all applicable federal, state and local laws and regulations applicable to the Easement Areas or the Grantor Property or activities thereon conducted by Grantee or anyone using the Easement Areas upon Grantee's authorization or request, (b) the failure to perform or breach of any of Grantee's obligations under this Agreement, or (c) any injury or damage to the Grantor Property resulting from the use by Grantee of the Grantor Property or the Easement Areas or anyone using the Grantor Property or the Easement Areas upon Grantee's authorization or request.

11. **Insurance.** Grantee shall be required to obtain and keep in full force and effect at all times during the term of this Agreement, and to pay the costs and premiums of, broad form general commercial liability insurance with respect to the use and operation of the Easements, with limits of not less than \$1,000,000.00 combined single limit of liability and coverages reasonably satisfactory to Grantor. Such insurance shall contain a waiver of subrogation, shall name Grantor as an additional insured, and a certificate of insurance

evidencing such coverage shall be provided to Grantor prior to diverting any water into storage in the Balloon Fest Reservoir.

12. **Environmental.** All of Grantee's activities with respect to the Grantor Property and the Easement Areas will be conducted in compliance with all federal, state, and local statutes, ordinances, rules, regulations, and orders, as well as all requirements of common law, concerning: (a) those activities; (b) repairs or construction of any improvements; (c) manufacturing, processing, and/or handling of any materials; (d) discharges to the air, soil, surface water, or groundwater; and (e) the storage, treatment, and disposal of any waste at or connected with any activity on the Grantor Property or the Easement Areas (collectively, the "Laws"). Grantee shall not permit, cause, or allow the introduction of any petroleum products or hazardous or toxic substances, materials, or wastes as defined by any Law ("Hazardous Materials") onto the Grantor Property or the Easement Areas.

13. **Interference; Grantor's Retained Rights.** Grantee will exercise all of Grantee's rights and obligations under this Agreement in such a manner as to cause the least amount of unreasonable interference to Grantor and the Grantor Property. The Easements are non-exclusive to Grantee, and Grantor retains the right to the undisturbed use and occupancy of the Grantor Property (including the Easement Areas) for any lawful purpose that does not impair any rights granted to Grantee in this Agreement, including without limitation, the right to use the Balloon Fest Reservoir for recreation purposes as set forth in more detail in Section 14 of this Agreement, the right of Grantor to grant additional easements, licenses or other rights of occupancy to third parties on all or a portion of the Easement Areas.

14. **Grantor's Use of Balloon Fest Reservoir for Recreation.** Grantor may use the Balloon Fest Reservoir for recreation; provided, however, that such recreational use does not interfere with Grantee's primary and unfettered operation and use of the Balloon Fest Reservoir for the storage and release of irrigation water; and further provided that Grantor indemnifies and holds Grantee harmless from and against all liability, damage, costs (including, without limitation, attorneys' fees and court costs), expenses, losses, claims, demands, judgments, actions and causes of action, and/or proceedings suffered or arising out of Grantor's and its invitees' and licensees' recreational use of the Balloon Fest Reservoir and that Grantor shall obtain and keep in full force and effect a broad form general comprehensive liability insurance covering public liability with respect to its recreational use of the Balloon Fest Reservoir, with limits in an amount and coverage of the types a prudent landowner would maintain for recreational use of the Balloon Fest Reservoir, but in no event less than \$1,000,000.00 combined single limit of liability and coverages reasonably satisfactory to Grantor. Such insurance policy shall name Grantee an additional insured and shall provide for thirty (30) days written notice to Grantee prior to the effective date of any cancellation, and certified copies of such insurance policies and any renewals thereof shall be delivered to Grantee. An Indemnification agreement and proof of insurance shall be negotiated and executed between Grantee and Grantor prior to any recreational use of such reservoirs.

15. **Taxes.** Grantor shall pay when due all real property taxes and assessments assessed against the Grantor Property and the Easements. Grantee shall pay when due any taxes assessed against the Balloon Fest Reservoir, Pipelines, and Pipeline Facilities, if

any (excluding any access roads or improvements owned by a third party), permitted hereunder and installed in the Easements by Grantee.

16. **Miscellaneous Provisions.**

a. **Notices.** Any notice, approval, consent or other communication under this Agreement must be in writing; marked to the attention of the company representative (as applicable); and sent to the relevant address specified below; and hand delivered or sent by nationally recognized courier or by mail, fax or email.

Unless the notice specifies a later time, and subject to applicable laws, a notice will be effective as follows: for a hand delivery or delivery by courier, upon receipt; for a letter sent by registered/certified mail, 5 days after postmark (7 days if postmarked from a foreign country); for a fax upon confirmation from the dispatching machine that indicates that the fax was sent in its entirety to the fax number of the recipient; and for an e-mail, the notice must be included as an attachment to the e-mail (not simply contained in the e-mail text), and will be effective upon receipt of a delivery-receipt or other reliable electronic means to verify receipt; provided that if a notice is received on a day other than a business day, or is received after 5:00 p.m. in the jurisdiction of receipt, the notice will be effective the next day.

A party may change its address for notices by providing written notice to that effect to the other party.

If to Grantor: Summit Mountain Holding Group, L.L.C.  
3923 N. Wolf Creek Drive  
Eden, Utah 84310  
Attention: General Counsel  
Email: \_\_\_\_\_  
Telephone: \_\_\_\_\_

If to Grantee: Wolf Creek Irrigation Company  
P.O. Box 761  
Eden, Utah 84310  
Attention: Mr. Dee Staples  
Email: sadeestaples@hotmail.com  
Telephone: (801) 721-3730

b. **Benefits and Burdens.** This Agreement constitutes covenants which benefit and burden the Grantor Property and benefit the Water Rights.

c. **Recordation.** This Agreement will be recorded in the office of the Weber County Recorder.

d. **Entire Agreement.** This Agreement constitutes the sole and entire agreement of the parties with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter. Each party acknowledges that it has not

relied upon any statements, representations, agreements or warranties of any person, except those expressly stated in this Agreement.

q. Modification. This Agreement may not be modified except by a writing signed by both of the parties.

r. Waiver. No party shall be deemed to have waived any right or remedy under or with respect to this Agreement unless such waiver is expressed in a writing signed by such party. No waiver of any right or remedy under or with respect to this Agreement by a party on any occasion or in any circumstance shall be deemed to be a waiver of any other right or remedy on that occasion or in that circumstance nor a waiver of the same or of any other right or remedy on any other occasion or in any other circumstance.

s. Successors and Assigns. This Agreement is binding upon and inures to the benefit of the parties hereto and their respective permitted successors and permitted assigns.

t. Force Majeure. No party will be liable or responsible to the other party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement, except for any obligations to make payments to the other Party hereunder, when and to the extent such failure or delay is caused by or results from acts beyond the affected party's reasonable control, including without limitation: (i) acts of God; (ii) flood, fire, earthquake or explosion; (iii) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot or other civil unrest; (iv) government order or law; (v) actions, embargoes or blockades in effect on or after the date of this Agreement; (vi) action by any governmental authority; (vii) national or regional emergency; (viii) strikes, labor stoppages or slowdowns or other industrial disturbances; (ix) unavoidable accident; (x) mechanical breakdown; and (xi) shortage of adequate power or transportation facilities (a "**Force Majeure Event**"). The party suffering a Force Majeure Event will promptly give notice of the Force Majeure Event to the other party, stating the period of time the occurrence is expected to continue and will use diligent efforts to end the failure or delay and ensure the effects of such Force Majeure Event are minimized.

u. Remedies Cumulative. The rights and remedies under this Agreement are cumulative and are in addition to and not in substitution for any other rights and remedies available at law or in equity or otherwise.

v. Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law. However, if any provision of this Agreement is deemed or held to be illegal, invalid or unenforceable, this Agreement shall be considered divisible and inoperative as to such provision to the extent it is deemed to be illegal, invalid or unenforceable, and in all other respects this Agreement shall remain in full force and effect; provided, however, that if any provision of this Agreement is deemed or held to be illegal, invalid or unenforceable the parties agree to replace such illegal, invalid or unenforceable provision with a provision that is legal, valid and enforceable that achieves the original intent of the parties as closely as possible. Further, should any provision contained in this Agreement ever be reformed or rewritten by any judicial body of competent jurisdiction, such provision as so reformed or rewritten shall be binding upon all parties hereto.

w. **Cooperation and Further Assurances.** Each of the parties shall cooperate fully with one another and shall execute, deliver, file, and record such further and additional documents and instruments that the other party may reasonably request to effect further and more completely the transactions herein contemplated.

x. **Governing Law.** This Agreement shall be governed by and construed in accordance with the domestic laws of the State of Utah without giving effect to any choice or conflict of law provision or rule (whether of the State of Utah or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Utah.

y. **Jurisdiction and Venue.** Any legal suit, action or proceeding arising out of, based upon or relating to this Agreement, will be instituted in the courts of the State of Utah, and each party irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action or proceeding. The parties irrevocably and unconditionally waive any objection to the establishing of venue of any suit, action or proceeding in such courts and irrevocably waive and agree not to plead or claim in any such court that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum.

z. **Attorneys' Fees.** In the event that any action or proceeding is commenced by any Party hereto for the purpose of enforcing any provision of this Agreement, the parties to such action or proceeding shall receive as part of any award, judgment, decision or other resolution of such action or proceeding their costs and reasonable attorneys' fees as determined by the court making such award, judgment, decision or resolution.

aa. **Time is of the Essence.** Time is of the essence in the performance of and compliance with each of the terms and conditions of this Agreement.

bb. **Relationship of Parties.** Nothing contained in this Agreement shall be interpreted or construed to create an agency relationship, association, joint venture, trust or partnership, or impose any trust or partnership covenant, obligation or liability on or with regard to any party. No party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, any other Party.

cc. **No Third Party Beneficiaries.** This Agreement is for the sole benefit of the parties hereto and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or confers upon any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

dd. **Counterparts Signatures.** This Agreement may be executed by facsimile or other electronic means and in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Signatures delivered hereon by facsimile or electronic mail shall be deemed originals for all purposes.

ee. **Authorized Execution.** The individuals signing below each represent and warrant (a) that they are authorized to execute this Agreement for and on behalf of the party for

whom they are signing; (b) that the execution of this Agreement has been duly authorized by such party; and (c) that such party shall be bound in all respects by this Agreement.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

**GRANTOR:**

Summit Mountain Holding Group, L.L.C., a  
Utah limited liability company, its Sole  
Member

By: SUMMIT REVOLUTION LLC, a  
Delaware limited liability company  
Its: Sole Member

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: Authorized Signatory

STATE OF UTAH        )  
                                  :ss.  
COUNTY OF WEBER    )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2016, by \_\_\_\_\_ as Authorized Signatory of Summit Revolution LLC, a Delaware limited liability company, the sole member of Summit Mountain Holding Group, LLC, a Utah limited liability company.

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_

My Commission Expires:  
\_\_\_\_\_

**GRANTEE:**

WOLF CREEK IRRIGATION COMPANY

By: \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

STATE OF UTAH        )

: ss.

COUNTY OF WEBER    )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2016, by \_\_\_\_\_, the \_\_\_\_\_ of Wolf Creek Irrigation Company, a Utah nonprofit corporation.

\_\_\_\_\_  
NOTARY PUBLIC

Residing at: \_\_\_\_\_

My Commission Expires:

\_\_\_\_\_

**EXHIBIT A**

**[The Grantor Property]**

BEGINNING AT A POINT ON THE WEST LINE OF SECTION 27, TOWNSHIP 7 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN SAID POINT BEING SOUTH 00D21'35" WEST 303.60 FEET ALONG THE SECTION LINE FROM THE NORTHWEST CORNER OF SAID SECTION 27; THENCE AS FOLLOWS: SOUTH 00D21'35" WEST 1648.55 FEET ALONG THE SECTION LINE; THENCE SOUTH 89D38'25" EAST 514.00 FEET; THENCE NORTH 16D42'35" EAST 436.00 FEET; THENCE NORTH 66D40'35" EAST 251.83 FEET; THENCE SOUTH 21D51'00" EAST 21.84 FEET; THENCE NORTH 66D19'00" EAST 14.59 FEET; THENCE SOUTH 21D06'00" EAST 1577.00 FEET; THENCE NORTH 69D23'00" EAST 1233.44 FEET TO THE WEST RIGHT-OF-WAY LINE OF A COUNTY ROAD; THENCE THE FOLLOWING TEN COURSES ALONG SAID RIGHT-OF-WAY. NORTH 00D01'20" EAST 261.46 FEET TO A TANGENT CURVE THE LEFT; THENCE NORTHWESTERLY 252.59 FEET TO ALONG SAID CURVE TO A TANGENT LINE (R=444.46' DELTA=32D33'42" T=129.81' CH=249.20' CHB=N 16D15'31" WEST); THENCE NORTH 32D32'25" WEST 103.33 FEET TO A TANGENT CURVE TO THE LEFT; THENCE NORTHWESTERLY 192.05 FEET ALONG SAID CURVE TO A TANGENT LINE (R=1399.39', DELTA =7D51'48" T=96.18' CH=191.90' CHB=N 36D28'19" WEST); THENCE NORTH 40D24'10" WEST 169.44 NORTH 42D36'10" WEST 335.57 NORTH 43D46'40" WEST 115.17 TO A TANGENT CURVE THE RIGHT; THENCE NORTHWESTERLY 115.73 TO A TANGENT LINE (R=1468.39', DELTA=4D30'56", T=57.89' CH=115.70' CHB=N 41D31'12" WEST); THENCE NORTH 39D15'40" WEST 409.77 FEET THENCE NORTH 82D30'25" WEST 34.06 FEET LEAVING SAID RIGHT-OF-WAY TO A FENCE LINE; THENCE SOUTH 14D10'56" EAST 68.66 FEET ALONG SAID FENCE LINE; THENCE SOUTH 11D47'49" WEST 117.26 FEET ALONG A FENCE LINE; THENCE SOUTH 21D20'05" WEST 25.39 FEET ALONG A FENCE LINE; THENCE SOUTH 24D36'53" WEST 51.03 FEET ALONG A FENCE LINE; THENCE SOUTH 57D22'28" WEST 88.24 FEET ALONG A FENCE LINE; THENCE SOUTH 70D29'34" WEST 67.47 FEET ALONG A FENCE LINE; THENCE SOUTH 79D22'00" WEST 459.60 FEET; THENCE SOUTH 75D37'56" WEST 8.51 FEET; THENCE NORTH 10D47'38" WEST 548.62 FEET; THENCE NORTH 05D59'21" WEST 104.55 FEET; THENCE NORTH 07D09'27" EAST 139.25 FEET; THENCE NORTH 76D28'25" WEST 870.49 TO THE POINT OF BEGINNING. LESS ANY PORTION LYING WITHIN LOT 1, RV STORAGE AT WOLF CREEK SUBDIVISION, WEBER COUNTY, UTAH, AS SHOWN ON THE OFFICIAL PLAT THEREOF RECORDED DECEMBER 19, 2005 AS E# 2149372 IN BOOK 63 AT PAGE 4 OF OFFICIAL RECORDS AND CONVEYED BY SPECIAL WARRANTY DEED, RECORDED DECEMBER 27, 2005 AS E# 2150525 OF OFFICIAL RECORDS. EXCEPT BOWDEN STORAGE SUBDIVISION (BK 70 PG 56) ALSO LESS AND EXCEPTING ANY PORTION LYING WITHIN THE RECORDED SUBDIVISION PLATS OF MOUNTAIN VIEW ESTATES NO. 6 RECORDED IN BOOK 56 AT PAGE 004, MOUNTAIN VIEW ESTATES NO. 7, RECORDED IN BOOK 58 AT PAGE 005, MOUNTAIN VIEW ESTATES NO. 8, RECORDED IN BOOK 60 AT PAGE 005 AND MOUNTAIN VIEW ESTATES NO. 9 RECORDED IN BOOK 61 AT PAGE 067 OF PLATS IN WEBER COUNTY RECORDERS OFFICE. EXCEPTING THEREFROM: THAT PORTION OF THE NORTHWEST QUARTER OF SECTION 27, TOWNSHIP 7 NORTH, RANGE 1 EAST SALT LAKE BASE & MERIDIAN, LOCATED IN THE COUNTY OF

WEBER, STATE OF UTAH DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 27, THENCE SOUTH 89D07'33" EAST 202.25 FEET ALONG THE NORTHERLY LINE OF SAID SECTION 27, THENCE SOUTH00D00'00" EAST 323.14 FEET TO AN EXISTING FENCE AND THE POINT OF BEGINNING, THENCE SOUTH 76D39'20" EAST 466.04 FEET ALONG SAID EXISTING FENCE LINE, THENCE SOUTH 13D20'40" WEST 144.53 FEET, THENCE SOUTH 67D26'07" EAST 232.46 FEET, THENCE SOUTH 10D55'47" EAST 529.61 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 87.31 FEET, THENCE SOUTHWESTERLY 166.04 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 108D57'42", THENCE NORTH 81D58'05" WEST 762.31 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 50.00 FEET, THENCE NORTHWESTERLY 73.54 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 84D16'06", THENCE NORTH 02D18'01" EAST 506.77 FEET TO THE BEGINNING OF A CURVE CONCAVE EASTERLY HAVING A RADIUS OF 300.00 FEET, THENCE NORTHERLY 157.99 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 30D10'25" THENCE NORTH 32D28'26" EAST 174.22 FEET TO THE POINT OF BEGINNING. TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS PURPOSES OVER AND ACROSS EXISTING MAINTENANCE ROADS WITHIN THE GRANTORS LAND FOR ACCESS TO THE ABOVE DESCRIBED PARCEL OF LAND AND EASEMENTS 10.00 FEET IN WIDTH, LYING 5.00 FEET ON EACH SIDE OF ANY AND ALL EXISTING WATERLINES LOCATED WITHIN THE GRANTORS PROPERTY THAT ARE FEEDING OR RECEIVING WATER FROM THE POND LOCATED WITHIN THE ABOVE DESCRIBED PARCEL OF LAND, THE APPROXIMATE CENTER LINE OF THE EASEMENT IS DEPICTED ON THE ATTACHED PHOTO AS A DOTTED LINE.

[Tax Parcel No. 22-021-0132]

**EXHIBIT B-1**

**[Reservoir Easement Area]**

Beginning at the most southeastern property corner of parcel 22-021-0132 as of record in the office of the Weber County Recorder, said point also being on the west right of way line of State Road 158, and running thence South 69°23'00" West along the southern property line of said parcel 670.00 feet; thence North 20°37'00" West 300.00 feet; thence North 69°23'00" East 793.00 feet; thence South 00°01'20" West 320.57 feet to the point of beginning. Less and excepting any portion within lying within the right-of-way of the State Road 158. Contains approximately 5.0 acres more or less

[A portion of Tax Parcel No. 22-021-0132]

Because the size, precise location, amount of storage and other relevant factors associated with the Balloon Fest Reservoir are not yet known, for geographical and structural reasons, and because the Balloon Fest Reservoir has not yet been designed, engineered or approved by Grantee or any permitting authorities, some portion of the location of the Balloon Fest Reservoir may be required to extend to the north outside of the above description for the Reservoir Easement Area and through, on over, across and under a portion of the Grantor Property described in Exhibit A to this Reservoir Easement Agreement. Any relocation of the above described Reservoir Easement Area will be acceptable to both Grantor and Grantee. The above description for the Reservoir Easement Area will be amended after the Balloon Fest Reservoir has been finally designed, engineered, and approved by Grantee and any relevant permitting authorities to more particularly describe and reflect the designed and engineered location of the Balloon Fest Reservoir. The amended Reservoir Easement Area may not exceed 5.0 acres in size. An Amended Reservoir Easement Agreement, including the designed, engineered, and amended description for the Balloon Fest Reservoir will then be executed and recorded by Grantor and Grantee to terminate, supersede and replace this Reservoir Easement Agreement.

**EXHIBIT B-2**

**[Reservoir Easement Area Depiction]**



## EXHIBIT C

### [Pipeline Easement Area]

A 15 foot southwesterly (inward) offset from the easternmost property line of parcel 22-021-0132 as on record in the office of the Weber County Recorder, said property line also being the west right-of-way line of State Road 158. Contains approximately 0.7 acres more or less Together with a 15 foot easement being a 7.5 foot offset on each side of the following described centerline: Beginning at a point on the easternmost property line of parcel 22-021-0132 as on record in the office of the Weber County Recorder, said point also being on west right-of-way line of State Road 158, said point also being South 58°00'42" East 2137.19 feet from the Northwest corner of Section 27, Township 7 North, Range 1 East, Salt Lake Base and Meridian and running thence South 50°29'06" West 320.76 feet to a point near the approximate centerline of an existing dirt road; thence North 86°34'14" West along said approximate centerline; thence South 77°29'33" West along said approximate centerline; thence North 34°32'01" West towards an existing pond 146.07 feet more or less to a point on the southern boundary of parcel 22-021-0131 as on record in the office of the Weber County Recorder, said point also being the point of termination. Contains approximately 0.4 acres more or less.

[A portion of Tax Parcel No. 22-021-0132]

Because the precise location of the Balloon Fest Reservoir, the precise location of the Pipelines and the Pipeline Facilities, and other relevant factors associated with the Pipelines and the Pipeline Facilities are not yet known the above description for the Pipeline Easement Area may need to be amended after the Balloon Fest Reservoir, the Pipelines, and the Pipeline Facilities have been finally designed, engineered and approved by Grantee and any relevant permitting authorities to more particularly described and reflect the designed and engineered location of the Pipelines and the Pipeline Facilities. An Amended Reservoir Easement Agreement, including the designed, engineered, and amended description for the Pipelines and the Pipeline Facilities will be executed and recorded by Grantor and Grantee to terminate, supersede and replace this Reservoir Easement Agreement.

## EXHIBIT D

### [Access Easement Area]

Portions of the Reservoir Easement Area described in Exhibit B-1 of this Reservoir Easement Agreement fifteen (15) feet in width through, on, over and across the Reservoir Easement Area for the purposes of providing ingress, egress and access from State Route 158 to and from the Balloon Fest Reservoir, and the Pipelines, and the Pipeline Facilities located within the Reservoir Easement Area, together with an area fifteen (15) feet in width through, on, over and across the Grantor Property described on Exhibit A to correspond with and provide access to the Pipeline Easement Area described in Exhibit C to this Reservoir Easement Area.

[A portion of Tax Parcel No. 22-021-0132]

Because the precise location of the Balloon Fest Reservoir, the precise location of the Pipelines and Pipeline Facilities, and other relevant factors associated with the Balloon Fest Reservoir, the Pipelines and the Pipeline Facilities are not yet known the above description for the Access Easement Area will need to be amended after the Balloon Fest Reservoir, Pipelines, and Pipeline Facilities have been finally designed, engineered and approved by Grantee and any relevant permitting authorities to more particularly described and reflect the designed and engineered location of the Balloon Fest Reservoir, the Pipelines and the Pipeline Facilities. An Amended Reservoir Easement Agreement, including an amended description for the Access Easement Area will be executed and recorded by Grantor and Grantee to terminate, supersede and replace this Reservoir Easement Agreement.

## EXHIBIT B

NUMBER  
2115

SHARES  
10.0



# Wolf Creek Irrigation Company

A NON-PROFIT CORPORATION

Authorized 1000 shares of No Par Value

**Phil Perinosthal**  
Ten and No/100

Summit Mountain Holding Group, L.L.C.,  
a Utah Limited Liability Company, is the owner of  
Shares of the Capital Stock of  
Mitigation

Wolf Creek Irrigation Company, full paid and assessable.

transferred only on the books of the Corporation by the holder hereof in  
person or by attorney upon surrender of his certificate, properly indorsed.

IN WITNESS WHEREOF the said Corporation has caused this Certificate to be signed  
by its duly authorized officers and its corporate seal to be hereunto affixed

This 18<sup>th</sup>

day of April

1926

Secretary

*Elmer H. Axtari*

*Earl R. Taylor*

President

# EXHIBIT C

**From:** Jeff Werbelow jwerbelow@summit.co  
**Subject:** Re: Summit - Wolf River Closing  
**Date:** May 4, 2016 at 9:03 PM  
**To:** Jody Williams JLWilliams@hollandhart.com, Steven J. Vuyovich SJVuyovich@hollandhart.com  
**Cc:** Brad Griffiths brad@gtitle.net, Paul Strange paul@learncapital.com, Dee Staples sadeestaples@hotmail.com

JW

Jody and Steve,

As you are aware, the Settlement Agreement - Summit Mountain Holding Group Exchange E5382 (the "Settlement Agreement") dated January 21, 2016, between Summit, Bar B Ranch, Inc., Eden Water Works Company, Middle Fork Irrigation Company, Wolf Creek Irrigation Company ("WCIC"), and Wolf Creek Water and Sewer Improvement District is conditioned upon Summit acquiring 15 shares of WCIC or waiving that condition. With the acquisition of 10 shares of stock in Wolf Creek Irrigation Company, and the placement in escrow of an additional 5 shares of stock in Wolf Creek Irrigation Company to be closed in January of 2017, Summit Mountain Holding Group LLC hereby waives the condition precedent of Summit's acquisition of a minimum of 15 shares of stock in WCIC.

Thank you

Jeff

## EXHIBIT D

# ClydeSnow

ATTORNEYS AT LAW  
CLYDE SNOW & SESSIONS  
A PROFESSIONAL CORPORATION

ONE UTAH CENTER • THIRTEENTH FLOOR  
201 SOUTH MAIN STREET  
SALT LAKE CITY UTAH 84111-2216  
TEL 801.322.2516 • FAX 801.521.6280  
www.clydesnow.com

CLARK W SESSIONS  
RODNEY G. SNOW  
STEVEN E. CLYDE  
EDWIN C. BARNES  
NEIL A. KAPLAN\*  
D. BRENT ROSE  
CHARLES R. BROWN\*  
J. SCOTT HUNTER  
PERRIN R. LOVE\*  
DEAN C. ANDREASEN  
ANNELI R. SMITH  
WALTER A. ROMNEY, JR.  
MATTHEW A. STEWARD  
T. MICKELL JIMENEZ  
JENNIFER A. JAMES  
CHRISTOPHER B. SNOW\*  
BRENT R. BAKER\*  
AARON D. LEBENTIA  
WAYNE Z. BENNETT  
BRIAN C. WEBBER  
BRIAN A. LEBRECHT\*  
ROBERT D. ANDREASEN  
KATHERINE E. JUDD  
TIMOTHY R. PACK  
JAMES W. ANDERSON

DIANA L. TELFER  
JONATHAN S. CLYDE &  
SHANNON K. ZOLLINGER  
NICOLE SALAZAR-HALL  
VICTORIA B. FINLINSON  
EMILY E. LEWIS  
JONATHAN D. BLETZACKER  
JOHN S. PENNINGTON

OF COUNSEL:  
REAGAN L.B. DESMOND\* &  
LISA A. MARCY  
NATHAN B. WILCOX  
EDWARD W. CLYDE (1917-1991)

‡ SENIOR COUNSEL  
\* ALSO ADMITTED IN WASHINGTON, D.C.  
§ ALSO ADMITTED IN IDAHO  
† ALSO ADMITTED IN COLORADO  
¶ ALSO ADMITTED IN NEW YORK  
‡ ALSO ADMITTED IN CALIFORNIA  
& ALSO ADMITTED IN OREGON

March 3, 2016

Via Email & U.S. Mail  
kentljones@utah.gov

Mr. Kent L. Jones, P.E.  
State Engineer  
Division of Water Rights  
1594 West North Temple, Suite 220  
Salt Lake City, Utah 84114-6300

**Re: Exchange Application E5382 (35-12848) Withdrawal of Point Of Diversion #7**

Dear Mr. Jones:

In accordance with the terms of the Settlement Agreement among Summit Mountain Holding Group, LLC; Bar B. Ranch, Inc.; Eden Water Works Company; Middle Fork Irrigation Company; Wolf Creek Irrigation Company; and, Wolf Creek Water and Sewer Improvement District, dated 21 January 2016, and concurred in by the State Engineer 10 February 2016, Summit hereby formally withdraws from the above referenced exchange application for the well site identified as point of diversion #7 in Exchange Application E5382 (35-12848). Point of Diversion #7 is described more particularly in the Exchange as having a Public Land Survey (PLS) description of South 1195 feet and East 2035 feet from the Northwest corner of Section 8, Township 7 North, Range 2 East, Salt Lake Base & Meridian (SLB&M).

If you have any questions, please contact me.

Very truly yours,

CLYDE SNOW & SESSIONS



Steven E. Clyde


CC: Mark H. Anderson, Esq.  
Jody L. Williams, Esq.  
Summit Mountain Holding Company, LLC

RECEIVED

MAR 04 2016

WATER RIGHTS  
SALT LAKE

# EXHIBIT E

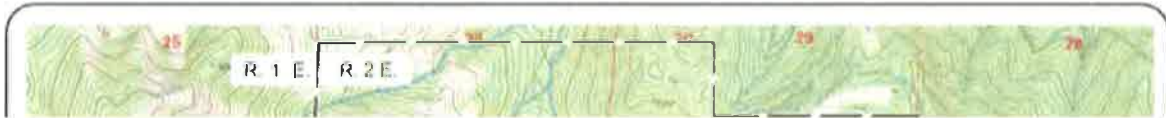
From: **Paul Strange** paul@learncapital.com   
Subject: PODs Cache County  
Date: February 29, 2016 at 3:18 PM  
To: Jody Williams JLWilliams@hollandhart.com  
Cc: Steve Vuyovich SJVuyovich@hollandhart.com  
Bcc: Paul Strange paul@learncapital.com



Jody and Steve,

I have attached the PODs for Cache County,

Paul



**Section 10 -**

**PMWSID BOUNDARY  
EXHIBITS**

# POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT BOUNDARY

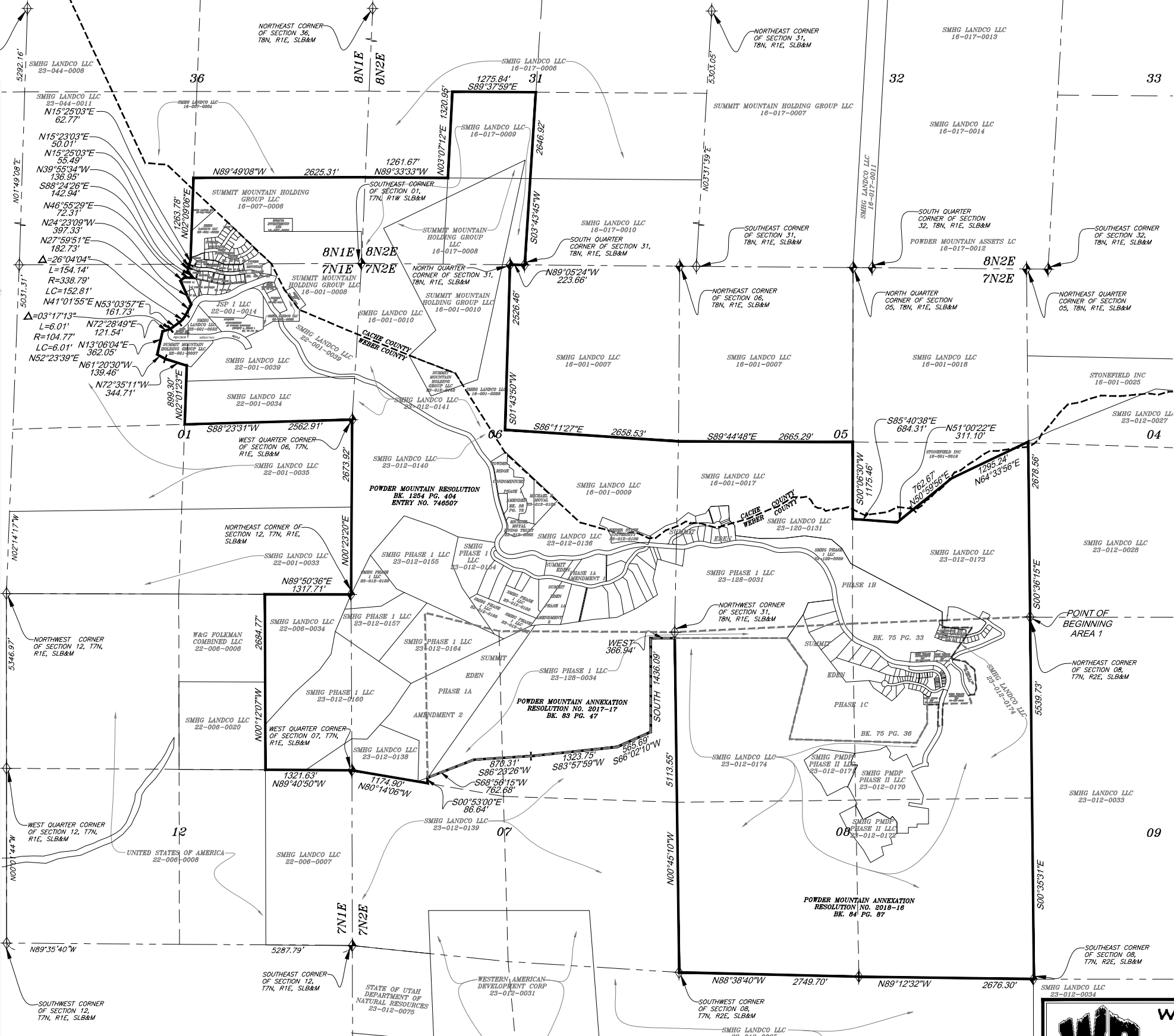
A PART OF THE SOUTH HALF OF SECTION 5, SOUTH HALF AND NORTHWEST QUARTER AND THE SOUTH HALF OF SECTION 6, NORTH HALF OF SECTION 7, ALL OF SECTION 8, TOWNSHIP 7 NORTH, RANGE 2 EAST, A PART OF THE NORTH AND THE EAST HALF OF SECTION 1, SOUTHEAST QUARTER OF SECTION 10, SOUTHWEST QUARTER OF SECTION 11, NORTHEAST QUARTER OF SECTION 12, NORTHWEST QUARTER OF SECTION 14, THE EAST HALF AND THE SOUTHWEST QUARTER OF SECTION 15, EAST HALF OF SECTION 17, THE WEST HALF OF SECTION 18, TOWNSHIP 7 NORTH, RANGE 1 EAST, A PART OF THE SOUTHEAST QUARTER OF SECTION 36, TOWNSHIP 8 NORTH, RANGE 1 EAST, A PART OF THE SOUTHWEST QUARTER OF SECTION 31, TOWNSHIP 8 NORTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN. U.S. SURVEY: WEBER AND CACHE COUNTIES, UTAH  
DECEMBER 2019

SCALE: 1" = 800'

## POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT BOUNDARY DESCRIPTION AREA 1

A PART OF THE SOUTH HALF OF SECTION 5, THE SOUTH HALF AND THE NORTHWEST QUARTER OF SECTION 6, THE NORTH HALF OF SECTION 7, ALL OF SECTION 8, TOWNSHIP 7 NORTH, RANGE 2 EAST; A PART OF THE NORTH HALF OF SECTION 1, NORTHEAST QUARTER OF SECTION 12, TOWNSHIP 7 NORTH, RANGE 1 EAST; A PART OF THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 8 NORTH, RANGE 1 EAST; A PART OF THE SOUTHWEST QUARTER OF SECTION 31, TOWNSHIP 8 NORTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN U.S. SURVEY:

BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 8, RUNNING THENCE THE FOLLOWING FOUR (4) COURSES AND DISTANCES ALONG SAID SECTION 8 AND THE EXISTING POWDER MOUNTAIN WATER AND SEWER IMPROVED DISTRICT BOUNDARY (EXISTING PMSWIS) AS SHOWN IN ANNEXATION RESOLUTION NO. 2018-16 AND AS RECORDED IN BOOK 84 AT PAGE 87 AT THE WEBER COUNTY RECORDER'S OFFICE: (1) SOUTH 00°35'31" EAST 5539.73 FEET; (2) NORTH 88°12'32" WEST 2676.30 FEET; (3) NORTH 88°38'40" WEST 2749.70 FEET; (4) NORTH 00°45'10" WEST 5113.55 FEET TO THE EXISTING PMSWIS AND ANNEXATION NO. 2017-17 AS RECORDED IN BOOK 83 AT PAGE 47 IN THE WEBER COUNTY RECORDER'S OFFICE; THENCE THE FOLLOWING SIX (6) COURSES AND DISTANCES ALONG SAID ANNEXATION: (1) WEST 389.94 FEET; (2) SOUTH 1438.09 FEET; (3) SOUTH 68°02'10" WEST 365.89 FEET; (4) SOUTH 83°57'59" WEST 1323.75 FEET; (5) SOUTH 86°23'26" WEST 870.31 FEET; (6) SOUTH 68°56'15" WEST 762.68 FEET TO THE EXISTING PMSWIS AS SHOWN IN POWDER MOUNTAIN RESOLUTION ENTRY NO. 748507 AS RECORDED IN BOOK 1254 IN PAGE 404; THENCE THE REMAINING COURSES AND DISTANCES ALONG SAID RESOLUTION; THENCE SOUTH 00°53'00" EAST 86.64 FEET TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SECTION 7; THENCE NORTH 80°14'08" WEST 1174.90 FEET ALONG SAID SOUTH LINE TO THE WEST LINE OF SAID SECTION WHICH IS ALSO THE WEST LINE OF TOWNSHIP 7 NORTH, RANGE 1 EAST; THENCE NORTH 89°40'50" WEST 1321.63 FEET ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SECTION 12 TO THE EAST LINE OF THE WEST HALF OF SAID NORTHEAST QUARTER; THENCE NORTH 00°12'07" WEST 2684.77 FEET ALONG SAID EAST LINE TO THE NORTH LINE OF SAID SECTION 12; THENCE NORTH 89°50'36" EAST 1317.71 FEET ALONG SAID NORTH LINE TO THE SOUTHEAST CORNER OF SECTION 1; THENCE NORTH 00°23'20" EAST 2673.92 FEET ALONG THE EAST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION TO THE SOUTHWEST CORNER OF SAID QUARTER SECTION; THENCE SOUTH 88°23'31" WEST 2562.91 FEET ALONG THE NORTH LINE OF SAID QUARTER SECTION TO THE CENTER OF SAID SECTION 1; THENCE NORTH 02°01'23" EAST 899.30 FEET ALONG THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 1 TO THE SOUTH LINE OF THAT PROPERTY WITH TAX ID NO. 22-001-0037; THENCE THE FOLLOWING FIVE (5) COURSES AND DISTANCES ALONG SAID PROPERTY: (1) NORTH 72°35'11" WEST 344.71 FEET; (2) NORTH 61°20'30" WEST 139.46 FEET; (3) NORTH 15°00'04" EAST 362.05 FEET; (4) NORTH 72°24'49" EAST 121.54 FEET TO A POINT OF CURVATURE WITH A 104.77 FOOT RADIUS CURVE TO THE LEFT; (5) 6.01 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 03°17'13" (CHORD BEARS NORTH 52°23'39" EAST 6.01 FEET) TO THE NORTH RIGHT-OF-WAY LINE OF POWDER MOUNTAIN ROAD; THENCE THE FOLLOWING THREE (3) COURSES AND DISTANCES ALONG SAID RIGHT-OF-WAY LINE: (1) NORTH 53°03'57" EAST 161.73 FEET TO A POINT OF CURVATURE WITH A 338.79 FOOT RADIUS CURVE TO THE LEFT; (2) 154.14 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 26°04'04" (CHORD BEARS NORTH 14°10'55" EAST 152.54 FEET); (3) NORTH 27°59'51" EAST 182.73 FEET TO THE SOUTHWEST CORNER OF LOT 1R OF POWDER 11 AT POWDER MOUNTAIN SUBDIVISION AS RECORDED IN BOOK 60 IN PAGE 97 AT THE WEBER COUNTY RECORDER'S OFFICE; THENCE THE FOLLOWING THREE (3) COURSES AND DISTANCES ALONG SAID SUBDIVISION: (1) NORTH 24°23'09" WEST 397.33 FEET; (2) SOUTH 46°55'29" EAST 72.31 FEET; (3) SOUTH 88°24'26" EAST 142.94 FEET TO A SOUTHWEST CORNER ON POWDER MOUNTAIN WEST SUBDIVISION PHASE 3 AS RECORDED IN BOOK 39 AT PAGE 59 IN THE WEBER COUNTY RECORDER'S OFFICE; THENCE THE FOLLOWING TWO (2) COURSES AND DISTANCES ALONG SAID SUBDIVISION: (1) NORTH 39°55'34" WEST 136.95 FEET; (2) NORTH 15°25'03" EAST 55.49 FEET TO THE SOUTH RIGHT-OF-WAY LINE OF ASPEN DRIVE; THENCE NORTH 15°23'03" EAST 50.01 FEET TO THE NORTH RIGHT-OF-WAY LINE OF SAID ASPEN DRIVE AND THE SOUTHWEST CORNER OF POWDER MOUNTAIN WEST SUBDIVISION PHASE 2 AS RECORDED IN BOOK 36 AT PAGE 81 IN THE WEBER COUNTY RECORDER'S OFFICE; THENCE NORTH 15°23'03" EAST 62.77 FEET ALONG THE WEST LINE OF SAID SUBDIVISION TO THE EAST LINE OF THE SOUTHWEST QUARTER OF SECTION 36 IN TOWNSHIP 8 NORTH, RANGE 1 EAST; THENCE NORTH 02°08'06" EAST 1263.78 FEET ALONG SAID EAST LINE TO THE NORTH LINE OF THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SAID SECTION; THENCE NORTH 89°49'08" WEST 2625.31 FEET ALONG SAID NORTH LINE TO THE EAST LINE OF SAID SECTION 36; SAID LINE ALSO BEING THE WEST LINE OF TOWNSHIP 8 NORTH, RANGE 2 EAST; THENCE NORTH 89°33'33" WEST 1261.67 FEET TO THE CENTER OF THE SOUTHWEST QUARTER OF SECTION 31; THENCE NORTH 03°07'12" EAST 1320.95 FEET ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF SECTION 31 TO THE NORTHWEST QUARTER CORNER OF SAID SECTION 31; THENCE SOUTH 89°37'59" EAST 1275.84 FEET ALONG SAID NORTH LINE TO THE CENTER OF SAID SECTION 31; THENCE SOUTH 03°43'45" WEST 2646.92 FEET ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER TO THE SOUTH LINE OF SAID SECTION 31 AND THE NORTH LINE OF TOWNSHIP 7 NORTH, RANGE 2 EAST; THENCE NORTH 89°06'24" WEST 223.66 FEET ALONG SAID NORTH LINE TO THE NORTH QUARTER CORNER OF SECTION 6; THENCE SOUTH 14°43'08" WEST 2526.46 FEET ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 6; TO THE CENTER OF SAID SECTION 6; THENCE SOUTH 86°11'27" EAST 2658.53 ALONG THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 6; TO THE EAST LINE OF SAID SECTION 6; THENCE SOUTH 89°44'48" EAST 2665.29 FEET ALONG THE NORTH LINE OF THE SOUTHWEST QUARTER OF SECTION 5 TO THE CENTER OF SAID SECTION 5, WHICH IS ALSO ON THE EAST LINE OF RECORD OF SURVEY NO. 4425 AS RECORDED IN THE WEBER COUNTY SURVEYOR'S OFFICE; THENCE THE FOLLOWING FIVE (5) COURSES AND DISTANCES ALONG SAID RECORD OF SURVEY: (1) SOUTH 00°08'30" WEST 1175.46 FEET; (2) SOUTH 85°40'38" EAST 684.31 FEET; (3) NORTH 51°00'22" EAST 311.10 FEET; (4) NORTH 50°59'56" EAST 762.67 FEET; (5) NORTH 64°33'56" EAST 1295.24 FEET TO THE EAST LINE OF SAID SECTION 5; THENCE SOUTH 00°36'15" EAST 2678.56 FEET ALONG SAID EAST LINE TO THE POINT OF BEGINNING.



**SURVEYORS CERTIFICATE**

I, MATTHEW ABRAM MURDOCK, A LICENSED PROFESSIONAL LAND SURVEYOR, AS PRESCRIBED BY THE LAWS OF THE STATE OF UTAH IN ACCORDANCE WITH TITLE 58, CHAPTER 22, AND HOLDING LICENSE NO. 6541909, DO HEREBY CERTIFY THAT THIS ANNEXATION TO THE ROY WATER CONSERVANCY DISTRICT BOUNDARY HAS BEEN MADE UNDER MY DIRECTION AND IN ACCORDANCE WITH SECTION 11-23-20 AND HAS BEEN CORRECTLY DRAWN TO THE DESIGNATED SCALE AND IS A TRUE AND CORRECT REPRESENTATION OF THE FOLLOWING DESCRIPTION OF LANDS INCLUDED IN SAID ANNEXATION BOUNDARY BASED ON DATA COMPILED FROM THE RECORDS IN THE WEBER COUNTY RECORDERS OFFICE.

SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2019.



**LEGEND**

- ANNEXATION PARCEL
- COUNTY LINE
- RESOLUTION LINES
- SECTION LINE
- QUARTER SECTION LINE
- PARCEL LINES
- FOUND SECTION CORNER
- SECTION CORNER

**WEBER COUNTY SURVEYOR**

I HEREBY CERTIFY THAT THE WEBER COUNTY SURVEYOR'S OFFICE HAS REVIEWED THIS PLAT AND ALL CONDITIONS FOR APPROVAL BY THIS OFFICE HAVE BEEN SATISFIED. THE APPROVAL OF THIS PLAT BY THE WEBER COUNTY SURVEYOR DOES NOT RELIEVE THE LICENSED LAND SURVEYOR WHO EXECUTED THIS PLAT FROM THE RESPONSIBILITIES AND/OR LIABILITIES ASSOCIATED THEREWITH.

SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2019.

WEBER COUNTY SURVEYOR

**REFERENCES**

WEBER COUNTY AND CACHE COUNTY RECORDER'S OFFICE TAX MAPS, DESCRIPTIONS, RECORD DOCUMENTS, & RECORDED SUBDIVISIONS.

WEBER COUNTY AND CACHE COUNTY SURVEYOR SECTION CORNER TIE SHEETS & RECORD OF SURVEYS.

**SURVEYOR'S NOTES**

- BEARINGS AND DISTANCES GIVEN ARE DERIVED FROM RECORD INFORMATION WHERE AVAILABLE.
- AT NO TIME WAS A SURVEY ON THE GROUND PERFORMED TO VERIFY THE ACCURACY OF THE BEARINGS AND DISTANCES NOR WERE ANY TIES TO EXISTING RECORD OF SURVEYS, PLATS, SECTION CORNERS, AND THE SHEETS CONDUCTED. THIS ANNEXATION PLAT IS TO SERVE AS A BOUNDARY LINE TO ESTABLISH THE DISTRICT LIMITS OF ROY WATER CONSERVANCY FOR TAXATION PURPOSES ONLY.
- BEARINGS AND DISTANCES WITHIN THIS DOCUMENT ARE PROVIDED FOR MAPPING PURPOSES ONLY. AT NO TIME NOW AND FOREVER DOES THIS PROPOSED DISTRICT BOUNDARY LINE DETERMINE THE LOCATION OF ANY PROPERTY LINE REPRESENTED ON THIS MAP.

**SHEET 1 OF 3**

**WEBER COUNTY RECORDER**

ENTRY NO. \_\_\_\_\_ FEE PAID \_\_\_\_\_  
 FILED FOR RECORD AND  
 RECORDED \_\_\_\_\_ AT \_\_\_\_\_  
 IN BOOK \_\_\_\_\_  
 OF OFFICIAL RECORDS, PAGE \_\_\_\_\_  
 FOR \_\_\_\_\_

WEBER COUNTY RECORDER

BY: \_\_\_\_\_ DEPUTY

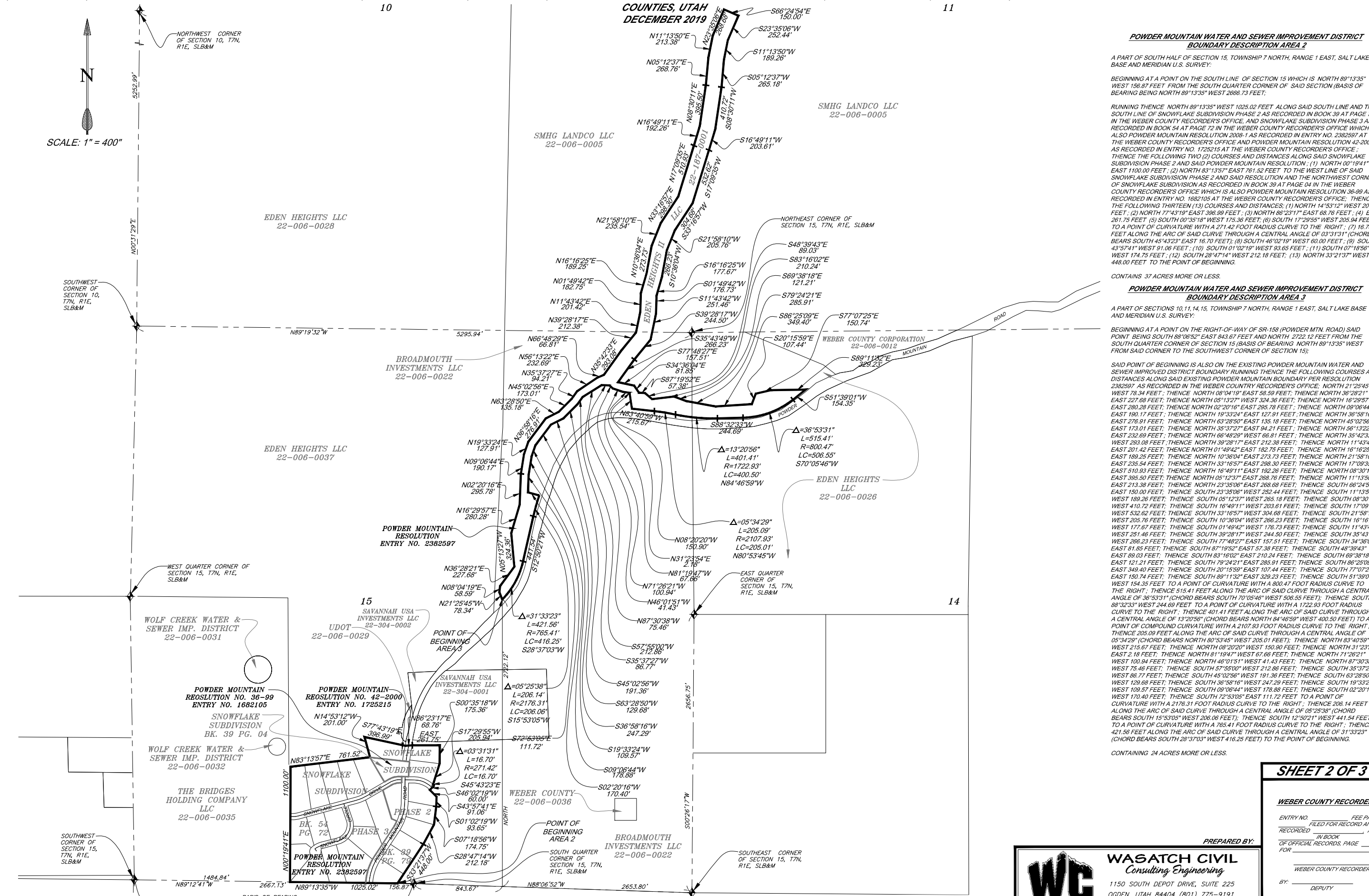
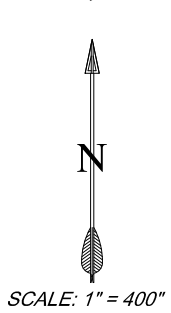
**WASATCH CIVIL**  
 Consulting Engineering

1150 SOUTH DEPOT DRIVE, SUITE 225  
 OGDEN, UTAH 84404 (801) 775-9191

CONTAINS 2,087 ACRES MORE OR LESS.

# POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT BOUNDARY

A PART OF THE SOUTH HALF OF SECTION 5, SOUTH HALF AND NORTHWEST QUARTER AND THE SOUTH HALF OF SECTION 6, NORTH HALF OF SECTION 7, ALL OF SECTION 8, TOWNSHIP 7 NORTH, RANGE 2 EAST, A PART OF THE NORTH AND THE EAST HALF OF SECTION 1, SOUTHEAST QUARTER OF SECTION 10, SOUTHWEST QUARTER OF SECTION 11, NORTHEAST QUARTER OF SECTION 12, NORTHWEST QUARTER OF SECTION 14, THE EAST HALF AND THE SOUTHWEST QUARTER OF SECTION 15, EAST HALF OF SECTION 17, THE WEST HALF OF SECTION 18, TOWNSHIP 7 NORTH, RANGE 1 EAST, A PART OF THE SOUTHEAST QUARTER OF SECTION 36, TOWNSHIP 8 NORTH, RANGE 1 EAST, A PART OF THE SOUTHWEST QUARTER OF SECTION 31, TOWNSHIP 8 NORTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN. U.S. SURVEY: WEBER AND CACHE



### POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT BOUNDARY DESCRIPTION AREA 2

A PART OF SOUTH HALF OF SECTION 15, TOWNSHIP 7 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN U.S. SURVEY:

BEGINNING AT A POINT ON THE SOUTH LINE OF SECTION 15 WHICH IS NORTH 89°13'35" WEST 156.67 FEET FROM THE SOUTH QUARTER CORNER OF SAID SECTION (BASIS OF BEARING BEING NORTH 89°13'35" WEST 266.73 FEET);

RUNNING THENCE NORTH 89°13'35" WEST 1025.02 FEET ALONG SAID SOUTH LINE AND THE SOUTH LINE OF SNOWFLAKE SUBDIVISION PHASE 2 AS RECORDED IN BOOK 39 AT PAGE 79 IN THE WEBER COUNTY RECORDER'S OFFICE, AND SNOWFLAKE SUBDIVISION PHASE 3 AS RECORDED IN BOOK 54 AT PAGE 72 IN THE WEBER COUNTY RECORDER'S OFFICE WHICH IS ALSO POWDER MOUNTAIN RESOLUTION 2008-1 AS RECORDED IN ENTRY NO. 2382597 AT THE WEBER COUNTY RECORDER'S OFFICE AND POWDER MOUNTAIN RESOLUTION 42-2000 AS RECORDED IN ENTRY NO. 1725215 AT THE WEBER COUNTY RECORDER'S OFFICE; THENCE THE FOLLOWING TWO (2) COURSES AND DISTANCES ALONG SAID SNOWFLAKE SUBDIVISION PHASE 2 AND SAID POWDER MOUNTAIN RESOLUTION: (1) NORTH 00°19'41" EAST 1100.00 FEET; (2) NORTH 83°13'57" EAST 761.52 FEET TO THE WEST LINE OF SAID SNOWFLAKE SUBDIVISION PHASE 2 AND SAID RESOLUTION AND THE NORTHWEST CORNER OF SNOWFLAKE SUBDIVISION AS RECORDED IN BOOK 39 AT PAGE 04 IN THE WEBER COUNTY RECORDER'S OFFICE WHICH IS ALSO POWDER MOUNTAIN RESOLUTION 36-89 AS RECORDED IN ENTRY NO. 1682105 AT THE WEBER COUNTY RECORDER'S OFFICE; THENCE THE FOLLOWING THIRTEEN (13) COURSES AND DISTANCES: (1) NORTH 14°53'12" WEST 201.00 FEET; (2) NORTH 77°43'19" EAST 396.98 FEET; (3) NORTH 86°23'17" EAST 68.76 FEET; (4) EAST 261.75 FEET; (5) SOUTH 00°35'18" WEST 175.36 FEET; (6) SOUTH 17°29'55" WEST 205.94 FEET TO A POINT OF CURVATURE WITH A 271.42 FOOT RADIUS CURVE TO THE RIGHT; (7) 16.70 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 03°31'31" (CHORD BEARS SOUTH 45°43'23" EAST 16.70 FEET); (8) SOUTH 46°02'19" WEST 80.00 FEET; (9) SOUTH 43°57'41" WEST 91.08 FEET; (10) SOUTH 01°02'19" WEST 93.65 FEET; (11) SOUTH 07°18'50" WEST 174.75 FEET; (12) SOUTH 28°47'14" WEST 212.18 FEET; (13) NORTH 33°21'37" WEST 448.00 FEET TO THE POINT OF BEGINNING.

CONTAINS .37 ACRES MORE OR LESS.

### POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT BOUNDARY DESCRIPTION AREA 3

A PART OF SECTIONS 10, 11, 14, 15, TOWNSHIP 7 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN U.S. SURVEY:

BEGINNING AT A POINT ON THE RIGHT-OF-WAY OF SR-158 (POWDER MTN. ROAD) SAID POINT BEING SOUTH 88°06'52" EAST 843.67 FEET AND NORTH 2722.12 FEET FROM THE SOUTH QUARTER CORNER OF SECTION 15 (BASIS OF BEARING NORTH 89°13'35" WEST FROM SAID CORNER TO THE SOUTHWEST CORNER OF SECTION 15);

SAID POINT OF BEGINNING IS ALSO ON THE EXISTING POWDER MOUNTAIN WATER AND SEWER IMPROVED DISTRICT BOUNDARY RUNNING THENCE THE FOLLOWING COURSES AND DISTANCES ALONG SAID EXISTING POWDER MOUNTAIN BOUNDARY PER RESOLUTION 2382597 AS RECORDED IN THE WEBER COUNTY RECORDER'S OFFICE: NORTH 21°25'45" WEST 78.34 FEET; THENCE NORTH 08°04'19" EAST 58.59 FEET; THENCE NORTH 36°28'21" EAST 227.68 FEET; THENCE NORTH 05°13'27" WEST 324.36 FEET; THENCE NORTH 16°29'57" EAST 280.28 FEET; THENCE NORTH 02°20'19" EAST 285.18 FEET; THENCE NORTH 08°06'44" EAST 190.17 FEET; THENCE NORTH 19°33'24" EAST 127.91 FEET; THENCE NORTH 36°58'16" EAST 276.91 FEET; THENCE NORTH 63°28'50" EAST 135.18 FEET; THENCE NORTH 45°02'56" EAST 173.01 FEET; THENCE NORTH 35°37'27" EAST 94.21 FEET; THENCE NORTH 56°13'22" EAST 232.69 FEET; THENCE NORTH 66°48'29" WEST 66.81 FEET; THENCE NORTH 35°42'33" WEST 283.08 FEET; THENCE NORTH 39°28'17" EAST 212.38 FEET; THENCE NORTH 11°43'42" EAST 201.42 FEET; THENCE NORTH 01°49'42" EAST 182.75 FEET; THENCE NORTH 16°16'25" EAST 189.25 FEET; THENCE NORTH 10°36'04" EAST 273.73 FEET; THENCE NORTH 21°58'10" EAST 235.54 FEET; THENCE NORTH 33°16'57" EAST 288.30 FEET; THENCE NORTH 11°09'35" EAST 510.83 FEET; THENCE NORTH 16°49'11" EAST 192.26 FEET; THENCE NORTH 08°30'11" EAST 395.50 FEET; THENCE NORTH 05°12'37" EAST 288.76 FEET; THENCE NORTH 11°13'50" EAST 213.38 FEET; THENCE NORTH 23°35'06" EAST 288.68 FEET; THENCE SOUTH 66°24'54" EAST 150.00 FEET; THENCE SOUTH 23°35'06" WEST 252.44 FEET; THENCE SOUTH 11°13'50" WEST 189.26 FEET; THENCE SOUTH 05°12'37" WEST 265.18 FEET; THENCE SOUTH 08°30'11" WEST 410.72 FEET; THENCE SOUTH 16°49'11" WEST 203.61 FEET; THENCE SOUTH 17°09'35" WEST 532.62 FEET; THENCE SOUTH 33°16'57" WEST 304.68 FEET; THENCE SOUTH 21°58'10" WEST 205.76 FEET; THENCE SOUTH 10°36'04" WEST 266.23 FEET; THENCE SOUTH 16°16'25" WEST 177.67 FEET; THENCE SOUTH 01°49'42" WEST 170.73 FEET; THENCE SOUTH 11°43'42" WEST 251.46 FEET; THENCE SOUTH 39°28'17" WEST 244.80 FEET; THENCE SOUTH 35°43'49" WEST 266.23 FEET; THENCE SOUTH 77°48'27" EAST 157.51 FEET; THENCE SOUTH 34°36'04" EAST 81.85 FEET; THENCE SOUTH 87°19'52" EAST 57.38 FEET; THENCE SOUTH 48°39'43" EAST 89.03 FEET; THENCE SOUTH 83°16'02" EAST 210.24 FEET; THENCE SOUTH 69°38'18" EAST 121.21 FEET; THENCE SOUTH 79°24'21" EAST 285.91 FEET; THENCE SOUTH 86°25'09" EAST 349.40 FEET; THENCE SOUTH 20°15'59" EAST 107.44 FEET; THENCE SOUTH 77°07'25" EAST 150.74 FEET; THENCE SOUTH 89°11'32" EAST 329.23 FEET; THENCE SOUTH 51°39'01" WEST 154.35 FEET TO A POINT OF CURVATURE WITH A 800.47 FOOT RADIUS CURVE TO THE RIGHT; THENCE 516.41 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 36°53'31" (CHORD BEARS SOUTH 70°05'46" WEST 506.55 FEET); THENCE SOUTH 88°32'33" WEST 244.89 FEET TO A POINT OF CURVATURE WITH A 1722.93 FOOT RADIUS CURVE TO THE RIGHT; THENCE 401.41 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 13°20'56" (CHORD BEARS NORTH 84°46'59" WEST 400.50 FEET); THENCE 205.09 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 05°34'29" (CHORD BEARS NORTH 80°53'45" WEST 205.01 FEET); THENCE NORTH 83°40'59" WEST 215.67 FEET; THENCE NORTH 08°20'20" WEST 150.90 FEET; THENCE NORTH 31°23'54" EAST 212.18 FEET; THENCE NORTH 81°10'47" WEST 67.66 FEET; THENCE NORTH 11°29'21" WEST 100.94 FEET; THENCE NORTH 46°01'51" WEST 41.43 FEET; THENCE NORTH 87°30'38" WEST 75.46 FEET; THENCE SOUTH 36°58'16" WEST 247.29 FEET; THENCE SOUTH 19°33'24" WEST 109.57 FEET; THENCE SOUTH 09°06'44" WEST 178.88 FEET; THENCE SOUTH 02°20'16" WEST 170.40 FEET; THENCE SOUTH 72°53'05" EAST 111.72 FEET TO A POINT OF CURVATURE WITH A 2176.31 FOOT RADIUS CURVE TO THE RIGHT; THENCE 206.14 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 05°28'38" (CHORD BEARS SOUTH 15°53'05" WEST 206.06 FEET); THENCE SOUTH 12°50'21" WEST 441.54 FEET TO A POINT OF CURVATURE WITH A 765.41 FOOT RADIUS CURVE TO THE RIGHT; THENCE 421.56 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 31°33'23" (CHORD BEARS SOUTH 28°37'03" WEST 416.25 FEET) TO THE POINT OF BEGINNING.

CONTAINING 24 ACRES MORE OR LESS.

## SHEET 2 OF 3

WEBER COUNTY RECORDER	
ENTRY NO. _____	FEE PAID _____
RECORDED _____ AT _____	IN BOOK _____
OF OFFICIAL RECORDS, PAGE _____	FOR _____
WEBER COUNTY RECORDER	
BY: _____ DEPUTY	

**WASATCH CIVIL**  
Consulting Engineering

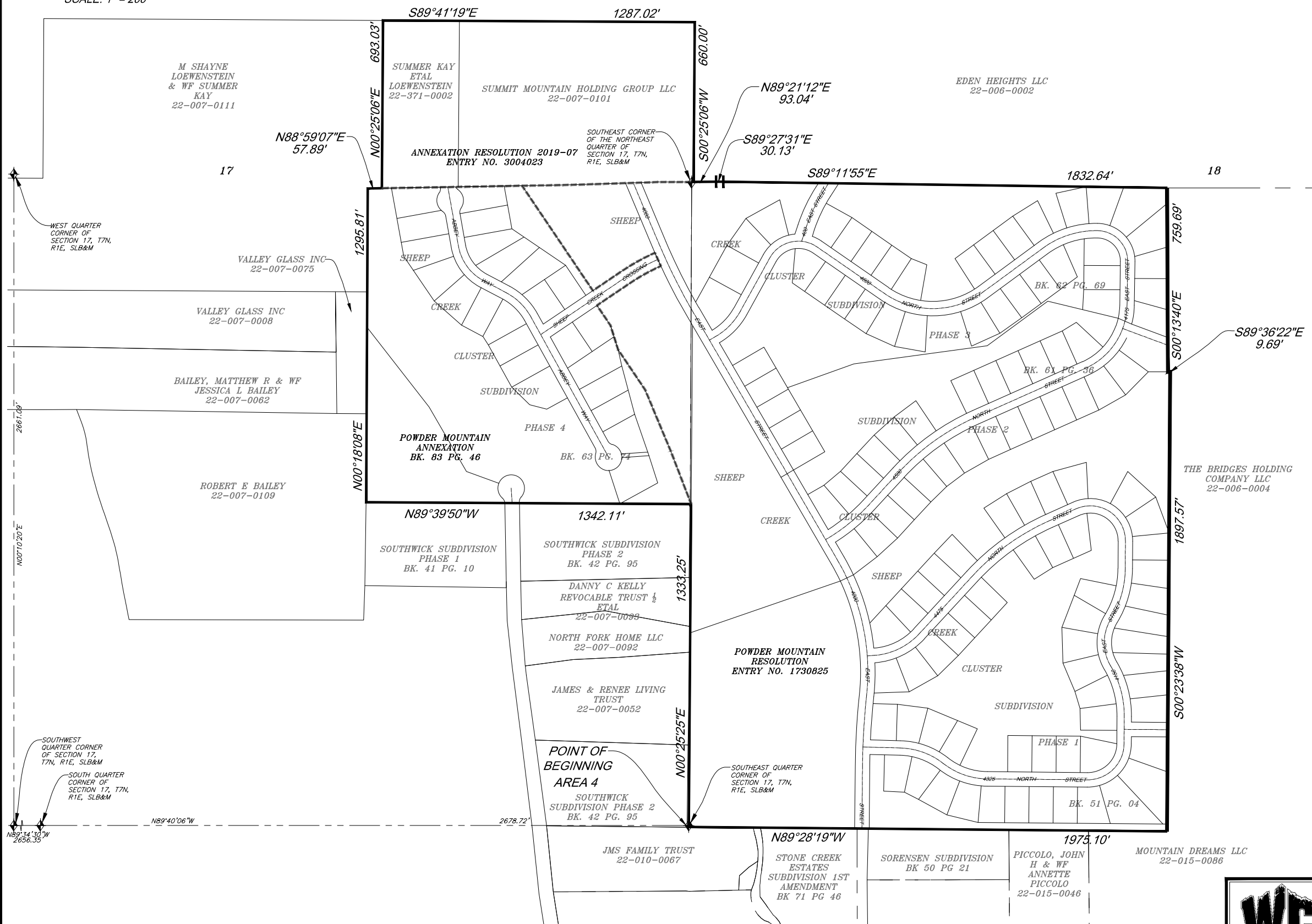
1150 SOUTH DEPOT DRIVE, SUITE 225  
OGDEN, UTAH 84404 (801) 775-9191

# POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT BOUNDARY

A PART OF THE SOUTH HALF OF SECTION 5, SOUTH HALF AND NORTHWEST QUARTER AND THE SOUTH HALF OF SECTION 6, NORTH HALF OF SECTION 7, ALL OF SECTION 8, TOWNSHIP 7 NORTH, RANGE 2 EAST, A PART OF THE NORTH AND THE EAST HALF OF SECTION 1, SOUTHEAST QUARTER OF SECTION 10, SOUTHWEST QUARTER OF SECTION 11, NORTHEAST QUARTER OF SECTION 12, NORTHWEST QUARTER OF SECTION 14, THE EAST HALF AND THE SOUTHWEST QUARTER OF SECTION 15, EAST HALF OF SECTION 17, THE WEST HALF OF SECTION 18, TOWNSHIP 7 NORTH, RANGE 1 EAST, A PART OF THE SOUTHEAST QUARTER OF SECTION 36, TOWNSHIP 8 NORTH, RANGE 1 EAST, A PART OF THE SOUTHWEST QUARTER OF SECTION 31, TOWNSHIP 8 NORTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN. U.S. SURVEY: WEBER AND CACHE COUNTIES, UTAH  
DECEMBER 2019



SCALE: 1" = 200'



**POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT  
BOUNDARY DESCRIPTION AREA 4**

A PART OF EAST HALF OF SECTION 17 AND THE WEST HALF OF SECTION 18, TOWNSHIP 7 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN U.S. SURVEY:  
BEGINNING AT THE SOUTHEAST CORNER OF SAID SECTION 17; RUNNING THENCE NORTH 00°25'00" EAST 1333.25 FEET ALONG THE WEST LINE OF SHEEP CREEK CLUSTER SUBDIVISION PHASE 1 AS RECORDED IN BOOK 51 AT PAGE 04 IN THE WEBER COUNTY RECORDER'S OFFICE AND SHEEP CREEK CLUSTER SUBDIVISION PHASE 2 AS RECORDED IN BOOK 61 AT PAGE 36 IN THE WEBER COUNTY RECORDER'S OFFICE WHICH IS ALSO A POWDER MOUNTAIN RESOLUTION AS RECORDED IN ENTRY NO. 1730825; THENCE THE FOLLOWING THREE (3) COURSES AND DISTANCES ALONG SHEEP CREEK CLUSTER SUBDIVISION PHASE 4 AS RECORDED IN BOOK 63 AT PAGE 74 IN THE WEBER COUNTY RECORDER'S OFFICE: (1) NORTH 89°39'50" WEST 1342.11 FEET; (2) NORTH 00°18'08" EAST 1295.81 FEET; (3) NORTH 88°59'07" EAST 57.89 FEET TO THE WEST LINE OF ANNEXATION RESOLUTION NO. 2019-07 AS RECORDED IN ENTRY NO. 3004023 IN THE WEBER COUNTY RECORDER'S OFFICE; THENCE THE FOLLOWING THREE (3) COURSES AND DISTANCES ALONG SAID RESOLUTION: (1) NORTH 00°25'06" EAST 693.03 FEET; (2) SOUTH 89°41'19" EAST 1287.02 FEET; (3) SOUTH 00°25'06" WEST 660.00 FEET TO THE NORTH LINE OF SHEEP CREEK CLUSTER SUBDIVISION PHASE 3 AS RECORDED IN BOOK 62 PAGE 69; THENCE THE FOLLOWING THREE (3) COURSES AND DISTANCES ALONG SAID SUBDIVISION: (1) NORTH 89°21'12" EAST 93.04 FEET; (2) SOUTH 89°27'31" EAST 30.13 FEET; (3) SOUTH 89°11'55" EAST 1832.64 FEET; THENCE SOUTH 00°13'40" WEST 759.69 FEET ALONG THE EAST LINE OF SAID SHEEP CREEK CLUSTER SUBDIVISION PHASE 3 AND SAID SHEEP CREEK CLUSTER SUBDIVISION PHASE 2 TO THE NORTH LINE OF SAID SHEEP CREEK CLUSTER SUBDIVISION PHASE 1; THENCE THE FOLLOWING THREE (3) COURSES AND DISTANCES ALONG SAID SHEEP CREEK CLUSTER SUBDIVISION PHASE 1: (1) SOUTH 89°36'22" EAST 9.69 FEET; (2) SOUTH 00°23'38" WEST 1897.57 FEET; (3) NORTH 89°28'19" WEST 1975.10 FEET TO THE POINT OF BEGINNING.  
CONTAINING 181 ACRES MORE OR LESS.

**SHEET 3 OF 3**

**WEBER COUNTY RECORDER**  
ENTRY NO. \_\_\_\_\_ FEE PAID \_\_\_\_\_  
FILED FOR RECORD AND \_\_\_\_\_ AT \_\_\_\_\_  
RECORDED \_\_\_\_\_ IN BOOK \_\_\_\_\_  
OF OFFICIAL RECORDS, PAGE \_\_\_\_\_  
FOR \_\_\_\_\_

PREPARED BY:  
\_\_\_\_\_  
WEBER COUNTY RECORDER  
BY: \_\_\_\_\_  
DEPUTY

**WC** **WASATCH CIVIL**  
Consulting Engineering  
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OGDEN, UTAH 84404 (801) 775-9191